



## FACADE RETENTION STRATEGY REPORT

# 197 Church Street, Parramatta

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**PREPARED FOR**  
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# Facade Retention Strategy Report

## Revision Schedule

Date	Revision	Issue	Prepared By	Approved By
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## Executive Summary

This report presents the proposed methodology for retaining the façade and awning of the building at 197 Church Street, Parramatta.

The proposed methodology for retaining the façade and awning of the existing building is based on constructing a B Class hoarding adapted to fully restrain the existing façade while demolition and reconstruction takes place.

The proposed new building is to be constructed using generally conventional methods.

## 1. Introduction

Northrop Consulting Engineers have been engaged by HOLDMARK to provide structural engineering services for the proposed development at 197 Church Street, Parramatta. Part of our engagement includes DA advice regarding the heritage façade retention strategy.

### 1.1 Project Description

The project consists of a 31 storey hotel and a 24 storey commercial building sitting on a podium at Level 2 and overlying four levels of basement.

The existing building will be demolished except for the masonry façade and awning of heritage significance, which is the subject of this report.

### 1.2 Structural Scope

This report describes the methodology and sequence of work to be carried out to demolish the existing building and reconstruct the new one, while safely retaining the elements discussed above.



*Figure 1: Subject site and facade*

## 2. Proposed Methodology

The purpose of this report is to illustrate the process by which the façade and awning is to be retained throughout demolition and construction process.

### 2.1 Overview

The existing façade and awning are proposed to be temporarily supported using a bespoke Class B hoarding installed on the footpath. The new building structure will be designed to support the façade and awning in the permanent condition.

### 2.2 Demolition Strategy

No demolition works are proposed to take place until the heritage façade and awning have been supported in accordance with the methodology below.

At no stage should any excavations or tunneling occur under the façade.

We recommend that some bricks are salvaged from the building demolition in case make-good works are required to the façade during the course of construction.

### 2.3 Retention Methodology

A staged methodology as detailed below will ensure that the façade is protected throughout construction and effectively retained as part of the new development. Refer to Figure 3 for a sketch showing each of the following stages.

1. Firstly, foundation strengthening under the existing footings of the heritage façade and proposed Class B hoarding columns needs to be finalized in conjunction with geotechnical advice. A services search needs to occur to fully flush out this strategy. In the event that in-ground services prevent ground improvements from occurring underneath the hoarding, spreader foundations may be required at ground level.
2. A specifically designed Class B hoarding with extended braced columns is then to be constructed adjacent the heritage façade. The proposed extent of this hoarding is shown in Figure 2. The design of these frames is to be such that the heritage wall can be positively restrained at all window and door opening points, and parapets. The frames must also avoid any decorative elements as nominated by the heritage consultant. Refer Figure 3 for section.
3. Once installed, the heritage masonry façade and awning are to be closely inspected and remediated. Likely defects could include cavity tie corrosion, mortar bed and perpend loss, and masonry damage.

4. Once the façade and awning are deemed remediated and stable by a qualified and suitably experienced structural engineer, then the existing building can be carefully disconnected to the façade and removed.
5. Shoring works can commence once the site is cleaned up, and the nature of the existing footings under the heritage façade investigated and remediated if necessary. Refer Figure 3

New shoring wall for the proposed works is to be confirmed and will need to be designed to help mitigate movement of the heritage façade. The builder must carefully monitor the pile installation process to limit movement of the existing façade foundation

6. As excavation is carried out, temporary steel struts must be installed between shoring walls to limit their movement. Refer Figure 3 (6) for indicative locations of struts. Monitoring of the façade must occur during the shoring and excavation process, with defined hold points for vibration and movement developed with the geotechnical and structural engineers.
7. The new building can now be constructed using conventional building techniques, designed to support the existing façade in the permanent condition with a new concrete-framed structure. New steel framing will be used to support the parapets, bolted to the concrete slabs. This framing will need to be pinned through the existing façade in locations to be approved by the heritage consultant. When this structure reaches strength, the hoarding can be safely removed.

Working with existing structures presents risks during construction, particularly when adjacent to a new excavation. If the above methodology is carried out, with a qualified and experienced engineering and construction team, we believe these risks can be appropriately managed.



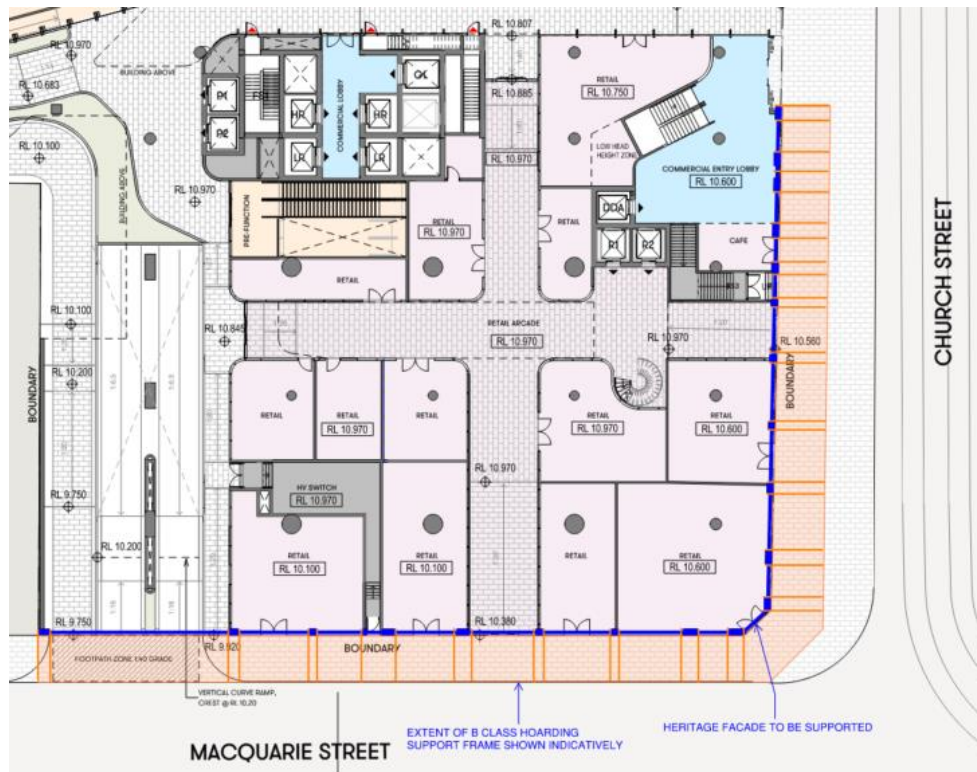


Figure 2: Plan showing facade and indicative Class B hoarding

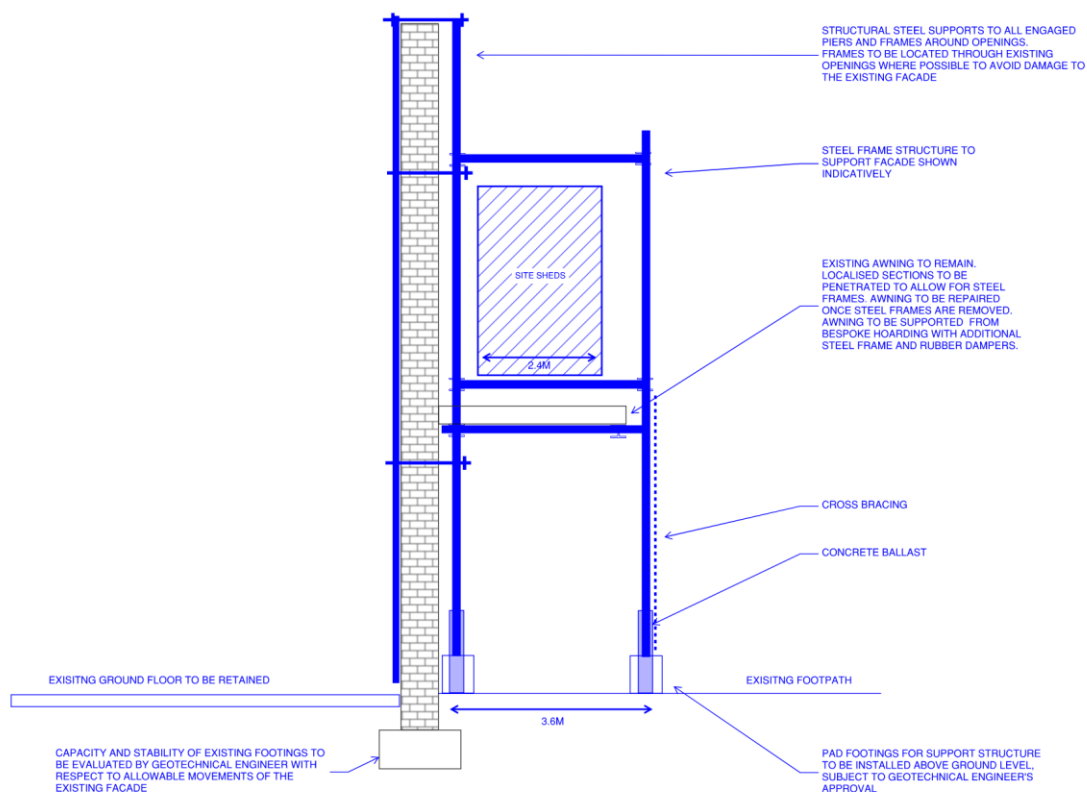


Figure 3: Section through heritage facade