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Technical Memorandum

Project name	**Bluestone Retaining Wall Protection**	Date	11 October 2024
Document ID	S#233622-PRJ1301475-GEO-MEM-01	Revision	1
Client	Maribyrnong City Council	Pages	9
Site Address	47a Moreland Street, Footscray VIC 3011	Prepared by	Nigel Wan
Purpose	Develop a methodology to protect heritage wall	Reviewed by	Scott Emmett

1 Introduction

Maribyrnong City Council has engaged Intrax Consulting Engineers Pty Ltd (Intrax) to prepare a methodology for the protection of a heritage listed bluestone retaining wall at 47a Moreland Street, Footscray. The scope of work and terms and conditions of our engagement are set out in the sales order #SO2114180.

2 Project Background

2.1 Proposed Project

The proposed project is a retrofitted shipping container (see Figure 1) into a public toilet which will be placed on a raised deck perpendicular to the street front of Maribyrnong Street. There is an existing heritage listed bluestone retaining wall at the rear of the site, currently covered by building rubble. Heritage Victoria has requested a methodology for the protection of the bluestone retaining wall during the site clearing works for a planning permit to be issued.

Figure 1: Concept design of the proposed project

2.2 Documents Reviewed

The following Heritage Impact Assessment report was made available to Intrax at the time this report was completed:

- Biosis Pty Ltd (2022), Heritage Impact Assessment Report – Footscray Wharves Toilet Block reference 36252 revised version 01, dated 22 April 2022

The report summarises the site inspection undertaken by Biosis and subsequent historical research to form the impact assessment. Site records have indicated the site is a former Ship Inn and potential archaeological remains relating to the Maribyrnong Naval Battery may be present on the site.

Figure 2: Excerpt from Biosis Report : Demolished Ship Inn, Maribyrnong Street 1980 (Footscray Historical Society) note the surviving rear bluestone retaining wall

3 Site Inspection

A site inspection was carried out on 9 October 2024 by representatives from Intrax and Maribyrnong City Council to provide better understanding on the features and constraint of the proposed area to be developed.

Figure 3: Nearmap Extract August 4, 2024 showing current site features with notation

Figure 4: Nearmap Extract August 4, 2024 showing location of the fill rubble

The heritage listed bluestone retaining wall appeared to be in good condition and is approximately 1.7 to 1.8m high. The bluestone blocks are each approximately 200 to 280mm thick.

Figure 5: Photograph of the exposed bluestone retaining wall within the Waterside Metal Art site

The fill rubble is approximately 3.0m high at its peak. It appears to be comprised of a mixture of bluestone blocks, soil and rock fill, and potential contaminated including asbestos containing material (ACM). The bluestone retaining wall is completely covered by the fill rubble at the proposed site.

A large peppercorn tree was also observed at the south-western corner of the site abutting the bluestone wall causing (possible) localised damage to the wall.

Figure 6: Photograph of the fill and rubble, and large peppercorn tree (view from Waterside Metal Art site)

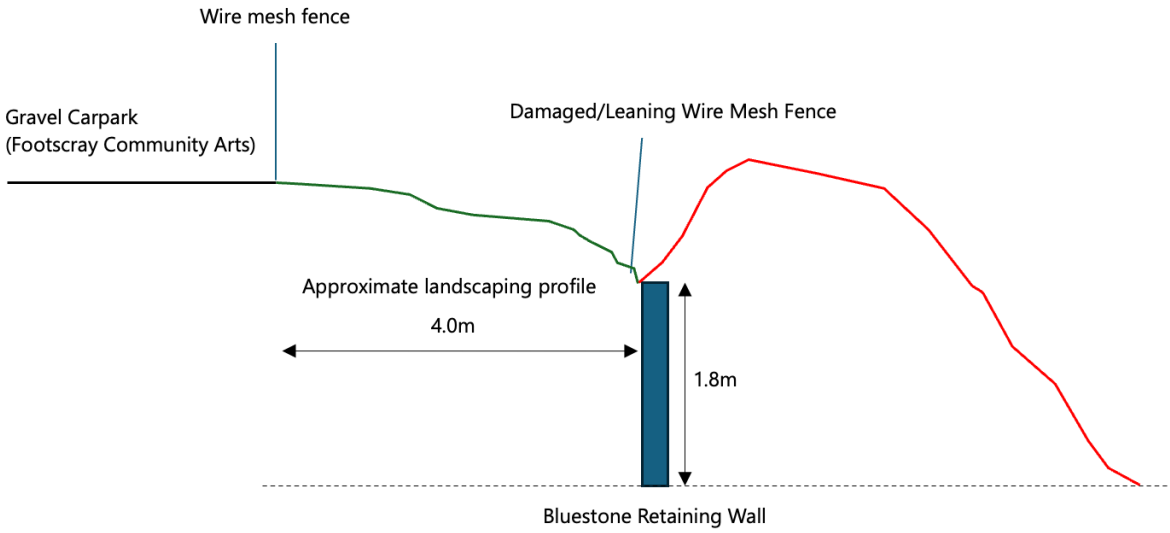
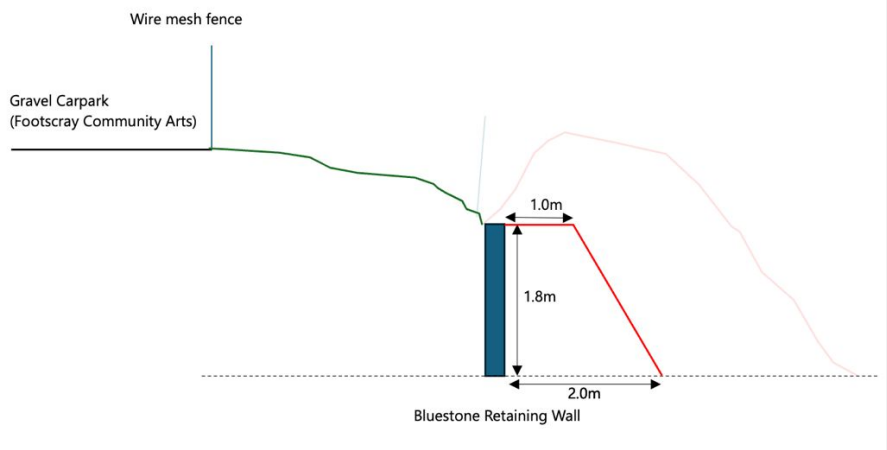
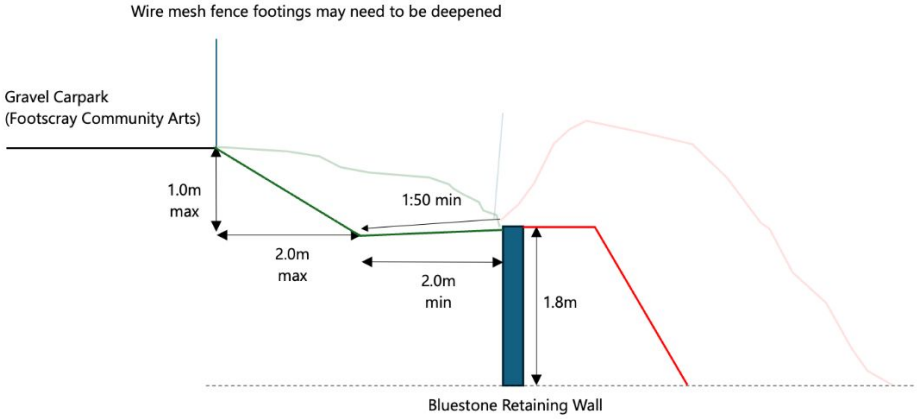


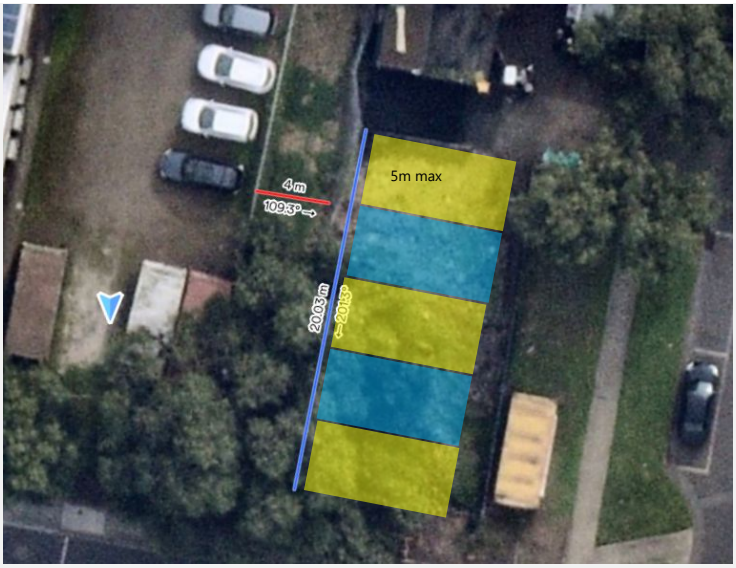
Figure 7: Inferred cross-section at the peak of the fill rubble height

4 Proposed Site Clearance Methodology

A methodology is developed to ensure the stability of the bluestone retaining wall can be maintained. It must be appreciated that the actual condition of the buried retaining wall is currently unknown and several hold points are recommended in Step 5 to provide continual assessment as the site clearance progresses.

Table 1: Proposed Methodology

Step	Works Description
1	Removal of damaged and leaning wire mesh fence
2	Removal of fill and rubble to the top of retaining wall to create a level working platform
3	Balance of the fill and rubble 2m away from the retaining wall can be removed if preferred 
4	Use a long reach excavator to re-profile the landscaping above the retaining wall to remove surcharge material with minimum dimensions as shown below 
5	Remove sections of the remainder of the fill rubble in 5 metre sections to the base of the stockpile. Excavation should not extend below the datum similar to that of adjacent site at Waterside Metal art following the same base block. Care must be undertaken that the excavation does not undermine the base of the retaining wall. An inspection of the stability of the wall should then be undertaken by a suitably qualified engineer from Intrax before the removal of the next (5m) section sequence. Contractor should provision large concrete blocks for immediate placement against the newly exposed face of the retaining wall for any imminent instability observed.



Installation of subsoil soil drainage

Installation of erosion protection to the newly landscaped area with grassed surfacing and/or geotextile matting

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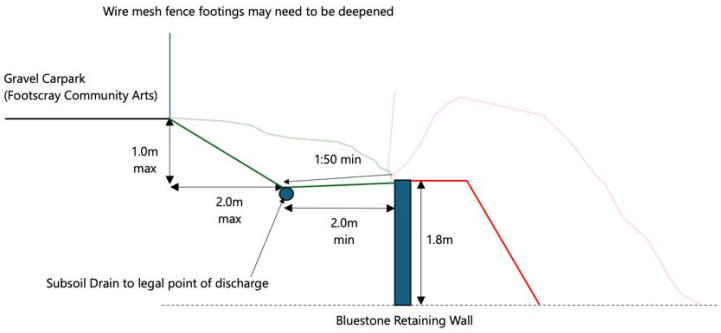

Considerations to the requirements of asbestos or soil contamination management plan, and heritage impact assessment from an archaeological perspective should be incorporated into the methodology above once developed. Intrax should review any commentary as it becomes available.

The localised area around the peppercorn tree should be assessed by a suitably qualified arborist and the extent of damage should be reviewed upon removal of the fill rubble stockpile surrounding the area for further advice at this stage.

We trust that this memorandum meets your requirements. Any questions or queries regarding this report should be directed to the report author on 0499 599 255 or nigel.wan@intrax.com.au.

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