

# FENDER KATSALIDIS ARCHITECTS

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## DATE

30 July 2015

Dear Lord Mayor,

## COMPANY

The Right Honourable  
The Lord Mayor Cr Robert  
Doyle  
City of Melbourne  
GPO Box 1603  
Melbourne VIC 3001

I am writing to you as a resident within the Riverside Quay precinct in Southbank, and as the architect of 2 Riverside Quay, a timely renovation of the somewhat 'tired' existing carpark into a distinctive, currently Permitted 21 level office building.

I feel it is important at this time to draw your attention to an issue now threatening to diminish the quality of the related evolving design for the Melbourne City Council public open space which connects Riverside Quay and the surrounding built forms.

## SUBJECT

2 Riverside Quay, Southbank

As you are no doubt aware, 2 Riverside Quay is being developed by Mirvac, a key stakeholder and guardian of the precinct, with my firm, Fender Katsalidis as architect and MacGregor Coxall as landscape architects. The building which is now under construction, through the commitment of Mirvac is the prime catalyst for the much needed upgrade of the Council owned public realm, which, if designed appropriately, can set the benchmark in Melbourne for quality outdoor environment.

To date, the design imperatives and process for delivering the best possible public realm outcome has been thoughtfully curated by Mirvac in close collaboration with Melbourne City Council, in particular Rob Moore, and DELWP through Kate Kraft. The agreed common goal has always been to create a public space of inherent delight, a place enriched by a variety of engaging experiences with the shade, shelter and appropriate activation to its perimeter. A quality destination as much as a beautiful link between the City Road population and the river edge precinct. It can build upon the precedent set by the Eureka Tower's courtyard with its magnificent specimen palm trees and its scene setting heroically scaled architectural canopy.

No. 2 Riverside Quay is the catalyst for a quality public realm. It incorporates, through a controlled competition, a magnificent eight storey high public art work, which transforms the moribund existing carpark into an object of delight. It is a major element in the engagement and integration of the building faces into the public realm. Furthermore, the building entrance and canopy have been located to activate the plaza, and a small restaurant facility with a secondary canopy are also oriented to the plaza for further activation, amenity and enrichment. These design initiatives are an integral part of a wholistic strategy to improve existing, pedestrian unfriendly laneways around the neighbouring buildings.

KARL FENDER	DIRECTOR
NONDA KATSALIDIS	DIRECTOR
DAVID SUTHERLAND	DIRECTOR OF PLANNING AND DESIGN
NICKY DROBIS	DIRECTOR OF DESIGN
KATHIE HALL	DIRECTOR OF INTERIORS
JAMES PEARCE	DIRECTOR OF ARCHITECTURE
CRAIG BAUDIN	DIRECTOR OF ARCHITECTURE
JAMES MILLS	ASSOCIATE DIRECTOR
CHRIS JOHNSON	ASSOCIATE DIRECTOR
FENDER KATSALIDIS (AUST) PTY LTD	ACN 092 943 032

These canopies will also create a pedestrian scaled, sheltered walkway connecting Riverside Quay to the river edge in counterpoint to the major North-South Garden Plaza link. Their previously endorsed incorporation now seems to be in jeopardy.

And herein lies the problem...

The original principles, including Council's commitment to improve the major North-South plaza link seem to have been forgotten since mid last year when the broad desired outcomes were endorsed between Council, Mirvac and PWC, the major tenant of 2 Riverside Quay.

The recent change of relevant Council personnel has served further to undermine the agreed goals, and the delivery strategy. Process and internal factioning seems to have taken precedence over excellence of outcome.

As the details of the process to date are quite complex, and in the pursuit of the best possible outcome, I would kindly request a forum with you, in the company of your appropriate colleagues and a senior representative of the Mirvac team, to discuss this issue prior to the scheduled Tuesday 4 August 2015 meeting at 5.30pm with the Future of Melbourne Committee.

Respectfully,

A handwritten signature in black ink, appearing to read 'Karl Fender', followed by a long, wavy horizontal line that extends across the width of the signature area.

Karl Fender  
Director  
LFRAIA; Hon. AIA; Hon. RAIC; Hon. FKIA  
Chapter President RAIA Victoria 2008-2010  
National President RAIA 2010-2011

CC David Rolls, CEO Commercial Development Division, Mirvac

Name: \* Tony Penna

Email address: \* [president@southbankresidents.com.au](mailto:president@southbankresidents.com.au)

Contact phone number (optional): 90282774

Please indicate which meeting you would like to make a submission to by selecting the appropriate button: \*

Date of meeting: \* Tuesday 4 August 2015

Agenda item title: 6.1 Ministerial Planning Referral TPM-2014-12A 2 Riverside Quay Southbank

\*

**Please write your submission in the space provided below and submit by no later than noon on the day of the scheduled meeting. We encourage you to make your submission as early as possible.**

Southbank Residents Group has consulted with surrounding stake holders regarding this amendment. While we were initially incessant on the positioning of the entry to be located on the Riverside Quay side to assist with activating that section of the street, we are satisfied with the developers desire to work with the community to find a mutually beneficial solution through glass windows on that side and the use of bluestone on the pavement walls. The entry as it was may have also created security concerns at night as it may have created an alcove. Relocating the entry will also aid with accessibility for disabled patrons and staff.

We understand the design benefits to the developer and the Square and satisfied with the trade-offs to benefit all.

Southbank Residents Group therefore supports the officers recommendation.

Tony Penna

President

Southbank Residents Group

**Please indicate**      Yes

**whether you  
would like to  
address the Future  
Melbourne  
Committee in  
support of your  
submission:**

*(No opportunity is  
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submitters to be  
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meetings.) \**

**Privacy**

I have read and acknowledge how Council will use and disclose my personal information.

**acknowledgement:**

\*

Name: \* Graham Shepherd

Email address: \* [graham.m.shepherd@gmail.com](mailto:graham.m.shepherd@gmail.com)

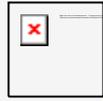
Contact phone number (optional): 0408 616 390

Please indicate which meeting you would like to make a submission to by selecting the appropriate button: \* Future Melbourne Committee meeting

Date of meeting: \* Tuesday 4 August 2015

Agenda item title: \* Planning Permit Application TP-2015-133

Alternatively you may attach your written submission by uploading your file here:



[tp2015133\\_shepherd.pdf](#) 274.48 KB · PDF

Please indicate whether you would like to address the Future Melbourne Committee in support of your submission: Yes

*(No opportunity is provided for submitters to be heard at Council meetings.) \**

Privacy acknowledgement: \* I have read and acknowledge how Council will use and disclose my personal information.

*GM & MK Shepherd  
61 Simpson Street  
East Melbourne Victoria 3002*

2 August 2015

Mr Oh Young Lee  
Planning Officer  
City of Melbourne  
[planning@melbourne.vic.gov.au](mailto:planning@melbourne.vic.gov.au)

Dear Mr Lee

## **Re: 99 Hotham Street, East Melbourne. TP-2015-133**

We write to object to the proposed development at the above address.

We have four issues.

### **The first relates to the rear wing of the building**

It is clear that this wing is a part of the historic fabric of the house.

The proposal to demolish and rebuild is not satisfactory. This is not conservation. A reproduction, no matter how careful, is not the same thing as an original. While it may look similar the construction methods will almost certainly be different, and the history of the building from an archaeological point of view will have been lost.

### **Our second issue relates to the laneway**

This is of significant heritage value. Its proposed use as access for heavy machinery and tonnes of waste and building material will undoubtedly result in significant damage to the laneway and also, potentially the neighbouring houses. It will also cause major inconvenience for neighbours for what will be a very long construction period.

We believe that there are alternative ways to transfer waste and building materials between Hotham Street and the rear of the site without using the laneway. Waste, bricks and smaller items can be transferred by conveyor belt through the front of the house. Concrete and large items can be pumped or craned overhead.

This will eliminate the need for removal of the front fence and the rear service wing wall and will ensure that the laneway is only used to a minimal extent reducing the potential for damage and minimising inconvenience.

### **Our third issue concerns destruction of habitat**

East Melbourne is a garden suburb and has been from its very beginnings. Massive out-of-scale developments such as this, which consume virtually the whole property with concrete, destroy the very core nature of East Melbourne which is so important to the heritage of Victoria. We currently enjoy a wide variety of bird and wildlife which depend upon the habitat provided in local gardens, even cottage gardens such as our own. Every development which consumes more garden space is another step towards the destruction of East Melbourne.

### **Our fourth issue relates to the preservation of nearby buildings**

Many buildings in East Melbourne dating from the nineteenth century have foundations of bluestone which float in clay and rely on a relatively stable moisture content. Drying out or excessive moisture destabilises the foundations which can result in serious structural failure. Ours is just one of several East Melbourne heritage buildings which have experienced severe wall cracking problems because nearby building works have undermined the stability of foundations. We have consequently been forced to incur great expense to underpin these walls.

This is a heritage preservation issue.

Because this application proposes major excavations and potential diversion of natural ground water flows, we strongly recommend that any approval requires the applicant to fund independent engineering advice for neighbouring property owners and to fund whatever protective and corrective measures are required.

For a summary and photos of the damage and necessary repairs to 61 Simpson Street between 1998 and 2008 see the following files:

Powerpoint:

[https://www.dropbox.com/s/47fp7d4onw5tx91/Damage\\_61\\_Simpson\\_St.pptx?dl=0](https://www.dropbox.com/s/47fp7d4onw5tx91/Damage_61_Simpson_St.pptx?dl=0)

or PDF:

[https://www.dropbox.com/s/tns2btjawnz3lx2/Damage\\_61\\_Simpson\\_St.pdf?dl=0](https://www.dropbox.com/s/tns2btjawnz3lx2/Damage_61_Simpson_St.pdf?dl=0)

## Summary

We believe that the previous planning rules which required 25% of a property to remain permeable to moisture, if applied meaningfully to this development, would go a long way to forcing the scale of the development back into line with the heritage of the suburb and make the development manageable without threatening heritage, neighbouring properties or habitat.

Yours sincerely,

Graham and Marion Shepherd

## **Re: Halloween, 99 Hotham St., East Melbourne. TP-2015-133**

### **1. Long Term Conservation of the Service Wing**

For the last 160 years and probably longer, successive owners and later Councils recognised the heritage value of the service wing of 99 Hotham Street and have extended protection to ensure that it remains intact.

Protection was last exercised in 2011, when the then owner asked to demolish the service wing. The 2011 Planning Permit (TP-2011\_845) denied the owner and clearly stated that

*The permit required retention of the northern, southern and western walls of the service wing and the windows.*

Nothing has changed the service wing's historical significance in the period 2011-2015 that should upset the conservation of the previous 160 years. Although the early history of this house is not clear because no serious archeological or architectural survey of the site has ever been undertaken, in 1854 a 4 roomed cottage and kitchen was listed on the rate books and by 1855 it had become an 8 roomed house.

The 1866 De Gruchy lithograph clearly shows the service wing in place, with the rear of 99 Hotham St. extending to the same depth on the block as neighbouring 101 Hotham Street, as it does today. Whatever its history from 1854-1866, this section of the house is significant in the building history of East Melbourne and contributes to the heritage character of Hotham Street.

### **2. Reproduction can never be a replacement for the original.**

Demolition involves the pulling down of the original building and the removal of its component parts, only some of which can be used in the reconstruction. While bricks can be used again, it is unlikely that the bluestone foundations visible from the lane will be preserved, while the mortar, timberwork and roof will be of replacement fabric. Clause 22.05 of the Heritage Places Outside the Capital City Zone directs that planners should

*... conserve all parts of historic, social or architectural interest which contributes to the significance, character and appearance of the building, streetscape or area*

The Heritage Overlay Point 1 states that decisions should be based on

*The significance of the heritage place and whether the proposal will adversely affect the natural or cultural significance of the heritage place.*

Furthermore, Point 5 demands that:

*decision-makers must evaluate whether the demolition, removal or external alteration will affect the significance of the heritage place.*

In this case, the Council while acknowledging that the rear service wing is largely intact and original fabric is ignoring the plain fact that a reproduction cannot have any cultural significance and the demolition of the service wing eradicates its entire historical value.

### 3. Demolition of original fabric for the purpose of site access.

There is no suggestion that the service wing is in any way in a state of neglect or disrepair and the Council acknowledges that it is *largely intact and original fabric*.

The demolition would appear to be justified solely to improve access by vehicles to the site in order to construct new basements under the house.

The building in question is graded 'D' which normally allows for the demolition of a rear wing, however this house is constructed atypically and should be considered as an exception under the usual guidelines.

Normally, if the rear wing is hidden behind the main body of a house and is demolished it makes little difference to the appearance of the house from the street,

In this particular case the service wing is clearly visible from Hotham Street and the adjoining lane as it protrudes beyond the line of the main body of the house on its western side. It certainly contributes to the Hotham Street Level 1 streetscape.

The service wing is a significant element of the ROW Level 2 streetscape. It contributes to an understanding of the 1866 house. The permit approval TP-2011-845 considered that demolition could not be supported due to the visibility of the original heritage fabric.

Temporary building works should not be used as an argument for pulling down historic fabric.

The further argument that the builder might not prop adequately prop and protect the walls or that damage might occur during construction is a question of the competence of the builder and the level of supervision he/she initiates. This cannot be a justification for demolition.

**Conclusion:** It is submitted that the reasons cited in the Report do not justify overturning the Council's previous decision in the Planning Approval of TP-2011-845, which required the retention of the Service Wing's northern, western and southern walls and the retention of windows.

JILL FENWICK  
EAST MELBOURNE HISTORICAL SOCIETY

**Name: \*** Richard de Lautour

**Email address: \*** [richard@towerassoc.com.au](mailto:richard@towerassoc.com.au)

**Please indicate which meeting you would like to make a submission to by selecting the appropriate button: \*** Future Melbourne Committee meeting

**Date of meeting: \*** Tuesday 4 August 2015

**Agenda item title: \*** 6.2 Planning Permit Application: TP-2015-133 99 Hotham St East Melbourne

**Please write your submission in the space provided below and submit by no later than noon on the day of the scheduled meeting. We encourage you to make your submission as early as possible.**

City of Melbourne and its Duty of Care

In essence the issue is this:

The MCC has been advised that there are underground water issues relating to foundations because objectors have conveyed that information.

From the various regulations in relation to heritage the Planning Approval process requires an assessment as to the potential for damage to buildings and their heritage values of the property subject of the Application and the vicinity (e.g. streetscapes).

In this case the assessment required is in respect of 99 Hotham St itself and other properties in the vicinity.

From the Report there has been no such assessment and it is recommended that such assessment be the responsibility of and to be undertaken by a Building Surveyor

There is clear provision in the various governing regulations for the assessment to be undertaken by the Council.

By not undertaking such an assessment Council may have not fulfilled its duty of care to either the applicant or other

parties who may be affected by the non-compliance with the governing regulations.

#### Detail

From the Report it states:

“Objectors concerns relating to the construction impacts and structural issues relating to the construction of basement levels are outside the scope of the planning controls and are managed by the relevant building controls stop a construction management plan condition is recommended to help mitigate construction impacts on the area.”

It is believed that this is an avoidance of Heritage Overlay Guidelines Clause 43.01-4

“Before deciding on an application, in addition to the decision guidelines in clause 65, the responsible authority must consider, as appropriate: Inter alia

Whether the location, bulk, form or appearance of the proposed building will adversely affect the significance of the heritage place.

It is believed that this is also an avoidance of Melbourne Planning Scheme clause 22.05 -Objectives, inter alia

- To conserve all parts of buildings of historic, social or architectural interest which contribute to the significance, character and appearance of the building streetscape or area

It has been stated by a council officer that underground structures are not referred to in the Melbourne Planning Scheme and therefore no consideration is to be, or can be, taken into account.

While it is correct that there is no reference to basement or underground structures under the heading “Designing New Buildings and Works or Additions to Existing Buildings” Policy Basis and the Objective (as quoted above) it is submitted that these require consideration and assessment of the effect of any underground structure on the fabric of a D listed building.

Conversely, there is no prohibition to the consideration and assessment of the effect of any underground structure on the fabric of a listed building.

What is clear is that in both clause 43.01 and clause 22.05 assessment to determine whether there is need for protection of heritage is required

#### Duty of Care

In exercising its responsibility in respect of its Planning Permit role the Council has a duty of care to the owner of 99 Hotham St and other owners in the vicinity.

We believe that should the Council fail in exercising that duty, the Council would become liable for any loss of heritage

value.

This issue re shallow ground water is analogous where there is a planning application to build on an area known, or believed, to be a flood plain.

I have been told by a Council Officer, that in such circumstances, the Council would seek advice from an appropriate authority.

#### Why it is a Planning Issue

Let me illustrate why this is a Planning issue not a Building issue.

Assume there is a tree that is listed.

Assume there are regulations that require the Responsible Authority to consider when assessing whether the Authority can or should give permission to remove such a tree.

An applicant asks for planning permission to remove the tree.

The authority is required to consider whether there is a case within the relevant regulations.

The authority cannot pass the determination of the matter to, say, a tree removalist.

The tree removalist may decide whether to use a chainsaw or an axe.

He does not determine whether the permissible conditions have been met so as to allow him to fell the listed tree

In the current case the officers have advised in the Report that the Building Surveyor can assess the potential for damage to heritage values which may affect the conservation of a heritage places.

That is not a Building Surveyor's prescribed responsibility.

He decided the issues of "how" to build, not whether it is permissible to build in respect of the Heritage Overlay.

We repeat, it is the City of Melbourne who must determine permissibility in respect of the Heritage Overlay. It is it is the Council, as the Responsible Authority at the Planning phase, which must assess and decide whether a proposal may have the potential to destroy heritage value

This responsibility cannot be avoided or delegated.

A Construction Management Plan is not a substitute for the statutory responsibility to make the necessary Planning assessment.

#### Possible Solution

Require the applicant to supply the information so an assessment can be made.

As with heritage evaluation, if the council officers are not qualified to make such assessment then the Council could follow a normal practice of the engagement of a professionally qualified person or firm.

G.I de Lautour Richard de Lautour

**Please indicate** Yes  
**whether you**  
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**address the Future**  
**Melbourne**  
**Committee in**  
**support of your**  
**submission:**

*(No opportunity is  
provided for  
submitters to be  
heard at Council  
meetings.) \**

**Privacy** I have read and acknowledge how Council will use and disclose my personal information.  
**acknowledgement:**

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**From:** Wufoo  
**Sent:** Tuesday, 4 August 2015 11:27:42 AM (UTC+10:00) Canberra, Melbourne, Sydney  
**To:** CoM Meetings  
**Subject:** Council and Committee meeting submission form [#406]

**Name: \*** Bretan Clifford

**Email address: \*** [bretan@bigpond.net.au](mailto:bretan@bigpond.net.au)

**Contact phone** 0447221249  
**number (optional):**

**Please indicate** Future Melbourne Committee meeting  
**which meeting**  
**you would like to**  
**make a**  
**submission to by**  
**selecting the**  
**appropriate**  
**button: \***

**Date of meeting: \*** Tuesday 4 August 2015

**Agenda item title:** 6.2: Planning Permit Application: TP-2015-133 99 Hotham Street East Melbourne  
\*

**Please write your submission in the space provided below and submit by no later than noon on the day of the scheduled meeting. We encourage you to make your submission as early as possible.**

Submission requesting rejection of Planning Permit Application – Dr Bretan Clifford

The earliest residential development in East Melbourne during the mid- to late-1850s includes a cluster of residential dwellings at the (current) addresses 97-123 Hotham St. The development reflects a favourable geographic setting: a northeast hillside aspect; protection from south westerly winds by the hill peak at the corner of George and Powlett Streets; and being above flood prone areas to the northeast.

However, a more important consideration for the residents in the period before East Melbourne had a piped water supply was the presence of shallow recoverable groundwater. Early prestige developments such as Bishop's Court justified the construction of a cistern and therefore were not constrained in their location. More modest residential developments relied on shallow wells as is evident from the historic well collar that is preserved at 2/101 Hotham Street. That is, early residents identified this specific area as having an attribute that is not common within the precinct, recoverable shallow groundwater outside of a flood plain.

The presence of shallow groundwater indicates a level of porosity and permeability in the weathered rock underlying this specific area that is not widespread within the precinct. Preliminary geotechnical testing that has been conducted at 99 Hotham St supports the observation that the shallow weathered rock is not consolidated. Core drilling to a depth of 12 metres, using a technique specifically aimed at maximising core recovery, achieved <15% recovery in the upper 5 metres of both test holes. Assessment of the degree of water saturation within this unconsolidated zone, if conducted, has not been made public.

Elsewhere in East Melbourne large scale excavations in grossly similarly geological settings have been successfully completed with 'standard' engineering procedures being established. The majority of these excavations have been in different topographic settings, with a higher degree of weathered rock consolidation and a lower level of water saturation.

In the context of proposed 'standard' engineering procedures, shown on submitted plans, I do not believe the claim that "...retaining the main front portion of the house facing Hotham Street." can be substantiated. The southern foundations of this building are at risk of destabilisation during preliminary excavation for support pylons, if water saturated unconsolidated ground is encountered. In the medium term, proposed engineering pylons will result in groundwater re-routing around the building. Local dehydration of the ground under the south eastern foundations and increased water saturation under the north western foundations is readily predicted, with differential subsidence of the building's foundations a likely outcome.

#### Conclusion

Excavation and re-routing of shallow ground water places at risk foundation stability of heritage protected buildings on and adjacent to 99 Hotham St. Until these concerns are addressed by additional geotechnical and engineering documentation I do not believe that endorsement of the Planning Permit TP-2015-133 is justified.

**Please indicate**      Yes  
**whether you**  
**would like to**  
**address the Future**  
**Melbourne**

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Committee in  
support of your  
submission:

*(No opportunity is  
provided for  
submitters to be  
heard at Council  
meetings.) \**

Privacy  
acknowledgement:

I have read and acknowledge how Council will use and disclose my personal information.

\*



Oh Young Lee  
Planning Officer  
City of Melbourne

6 July, 2015

Dear Mr Lee

**Re: 99 Hotham St, East Melbourne – TP-2015-133**

We wish to lodge an objection to the above planning application.

We have two major concerns -

1. The demolition of the rear service wing of the house will involve removal of significant historic fabric which will adversely affect the heritage value of the property. We concur with the opinion of Roger Beeston on this aspect in his report (14/8/2013) regarding the earlier permit application (TP-2011-845). We also note his view that this property is more properly classified as C graded. We are persuaded by evidence from EMHS that the rear service wing is likely to have been an original dwelling in its own right.

We note that a permit eventually issued for the earlier application but with quite stringent conditions designed to protect the rear service wing in its original state.

We are not persuaded by Bryce Raworth's report (May, 2015) on this aspect and we reject the implication that demolition and reconstruction is as good as the original building. The contribution or otherwise of the rear service wing to the streetscape is irrelevant when we are talking about original historic fabric. A number of findings at VCAT have determined that original fabric of rear wings entirely hidden from the public domain should nevertheless be retained and protected.

2. The deep basement excavation will have hydrological consequences for the subject site and neighbouring properties. The significant and extensive disturbance of ground water will affect the footings of 99 and 97 Hotham St and novel, underground water flows will adversely affect other heritage properties on the downhill slope from 99 Hotham St. Structural damage to foundation stability of buildings, including 101 Hotham St, and the laneway is predictable.

Yours sincerely

Barbara Paterson  
Convenor, Heritage and Planning Committee

**FAO: To Whom It May Concern**

City of Melbourne  
GPO Box 1603  
Melbourne VIC 3001  
Australia

04 August 2015

Dear Sir / Madam,

**RE: 99 Hotham Street – Heritage Application**

We write to address issues raised by objections lodged in response to the planning permit application TP-2015-133.

**Heritage**

The following points are common throughout submitted objections, in particular that addressed by the East Melbourne Historical Society.

1. Deconstruction and reconstruction of the rear service wing – Retaining Heritage value.

The deconstruction of the wing will follow a strict programme, with method to be approved by council prior to commencement. The existing bricks to the rear laneway addition are “Wafer Handmade” (most likely Hawthorn) laid in a solid English cross bond, with a lime mortar. The bricks are a consistent orange colour and would have been produced at the Hawthorn brick works plant (where the current tram depot is in Camberwell junction). The bricks are made by hand and as such vary in size but are generally 225 x 105 x 67. A thumb print can be identified on one of the removed bricks. The bricks are not a pressed brick; clay is simply placed into a timber box mould and allowed to harden over a number of days, before they are removed, stacked, and lightly baked in a wood fired kiln. The bricks will be removed by hand and light machine with the cleaning process occurring off site so as to ensure quality control. We have a priority hold with Paddy on all reclaimed bricks of this type should the need occur to source bricks in excess to what can be recycled on site. Mortar will be of lime base to match that of the existing.

I note with reference to the Heritage Report submitted with the planning application:

*“Having regard for the above, demolition and reconstruction of the service wing as currently proposed would not diminish the significance of the subject building and the broader heritage overlay precinct.”*

2. Rear service wing as the original cottage.

Please refer to Heritage Report submitted with the planning application. An excerpt from the report is noted as below:

*“Documentary evidence is ambiguous within respect to the construction date of the brick walled service wing at the rear of the house. **It could not have formed part of the original c1854 dwelling** – this being a modest four room structure. The 1866 image of the site is indistinct but appears to a double-storey wing at the rear of the house, where the service wing presently stands. The service wing may have been in place by*

# K. P. D. O.

KERRY PHELAN DESIGN OFFICE  
LEVEL 3, 7 ALFRED PLACE  
MELBOURNE VICTORIA AUSTRALIA 3000

T: +61 3 9936 9899

WWW.KPDO.COM.AU

*1884 when an auction notice published in the Argus describes the house as having servant's bedrooms—these typically being confined to secondary, rear parts of the house away from the principal rooms.”*

## **Drainage**

The below is an overview as a result of investigative works documented in the Soil Report appended to this letter and previous works carried out by consultants.

1. No ground water encounters across 8 boreholes (some to 12.0m)
2. Sewer main runs down the lane way and is founded b/w 2.9 and 2.2m below natural ground level. This acts as a manmade aquaduct for any crossflow ground water within the 2.8m section through the rock
3. Extract from geological survey map 1:63,360. We are in a Silurian plane characterised by weathered stone. Ground water could only possibly lie within natural fissures, but this has been discounted on account of point 1 above.

We have completed two large basement excavations between George Street and Hotham Street over the past 2 years. One of the excavations was to a depth of 4.5m. We did not encounter ground water of any kind on either project.

Steers trees to not suffer from “wet feet” on account of ground water. The medium strip in Hotham Street is riddled with irrigation leaks, and is bounded on all sides by manmade barriers to cross flow drainage.

A second floor bathroom does not suffer from damp and odour issues on account of ground water; try defective plumbing and defective waterproofing instead.

Rising damp is not triggered by ground water table issues; try pour stormwater reticulation, inadequate subfloor ventilation, and failing dampcourses

Logically, the introduction of a basement into a water table would act to locally lower the water table, not raise it. A basement structure intersecting ground water or a geological fault line would take said water and pump it to the storm water asset thereby lowering or abating the ground water or fissure source.

Should you have any queries, please do not hesitate to call me on (03) 9936 9899. Thank you.

Yours Sincerely,

James Campbell  
**Architect**

## **Kerry Phelan Design Office**

Cc: Stephen Javens  
Nicola Lodge  
Gary Straw  
Tim Storey  
Enc: 150123\_1415-Hotham-Soil Report



# K. P. D. O.

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150804\_Massing Comparison  
150804\_Design Comparison  
150407\_1415-Hotham-Heritage Report

# K. P. D. O.

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## Tender Scheme Comparison

<b>Project:</b>	Hotham Street
<b>Project Number:</b>	1415
<b>Date:</b>	4 August 2015
<b>Revision:</b>	A

	APPROVED DESIGN	PROPOSED DESIGN
<b>MAIN HOUSE</b>		
<b>Roof Finish</b>	Unoriginal metal sheet roofing in poor condition to be retained.	New slate roof tiles to be laid to restore likely original finish.
<b>Roof Structure</b>	Original to be retained.	Original to be retained.
<b>External Finish</b>	Not identified.	New sand cement render over existing with brick dust oxide colour in accordance with traditional methods of application.
<b>Portico columns</b>	Not identified.	Unoriginal square steel columns to be replaced with traditional circular cast iron columns.
<b>Decorative Balustrade</b>	Not identified.	Repair and repaint existing cast iron decorative front balustrade.
<b>Decorative Cornice</b>	Not identified.	Repair and repaint existing cast iron decorative portico cornice.
<b>Front Door</b>	Not identified.	Retain existing hardwood timber door and insert new low E high performance highlight glazing into existing opening and seal to improve thermal performance and retain heritage value.
<b>French Doors</b>	Not identified.	Retain existing door joinery and insert new low E high performance glazing into existing openings and seal to improve thermal performance and retain heritage value.
<b>Windows</b>	Not identified.	Retain existing window joinery and insert new low E high performance glazing into existing openings and seal to improve thermal performance and retain heritage value.
<b>Front Fence</b>	Not identified.	Retain existing decorative cast iron fence and blue stone plinth. Repair and repaint.
<b>Chimneys</b>	Not identified.	New sand cement render over existing with brick dust oxide colour in accordance with traditional methods of application. Re-use and reline existing flue where applicable.
<b>REAR WING</b>		
<b>Façade Expression</b>	Roof and chimney to be demolished and courtyard located behind brick façade.	Brickwork, roof and chimney to be reconstructed and expressed in external current building form.
<b>Chimney</b>	To be demolished.	To be reconstructed and expressed above roof level.
<b>Roof</b>	To be demolished.	To be reconstructed with existing timber structure to identical levels and pitch. New metal roof sheeting to be installed.
<b>Brick Walls</b>	Eastern wall to be demolished. Remaining existing brickwork to be retained. Finish not identified.	Eastern wall to be demolished. Remaining existing brickwork to be reconstructed using catalogued existing brickwork in original location in accordance with construction method statement. Finish not identified. Existing unoriginal paint finish to be removed - face brick finish to be reinstated.

## Geotechnical Site Investigation Report

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**RE:** Proposed Alterations and Additions at:



**No. 99 Hotham Street, East Melbourne.**

**File number:** 150123  
**Date:** 16/02/2015  
**Client:** Tim Storey  
c/- Kerry Phelan Design Office  
Level 3/7 Alfred Place  
Melbourne  
Vic 3000  
**Distribution:** - Kerry Phelan Design Office  
Attn: Tim Storey  
- Hive Engineering Pty Ltd  
Attn: Jon Anderson



## **Introduction:**

A site investigation was conducted by an experienced geotechnical engineer at this site on the 10<sup>th</sup> and 11<sup>th</sup> of February, 2015. The purpose of the investigation was to provide foundation recommendations, geotechnical parameters and construction recommendations for the proposed new alterations and additions to the existing residence including an extension to the rear. Construction is to be double storey and is to include a basement. The basement is assumed to be cut to a maximum depth of 3m and is to abut the property boundaries.

## **Site Description:**

The site is currently occupied by a double storey solid brick residence with an existing extension and swimming pool to the rear. There are adjacent footings on the east boundary. The site has a ground cover of pavements, grassed areas and garden beds. There are some small to large size trees close to the site boundaries. The rear of the existing structure is to be demolished and cleared to make way for the proposed development. The site has a small fall towards the east and has poor natural surface drainage.

## **Scope of the Investigation:**

The site investigation included:

- The drilling of eight boreholes including:
  - The drilling (and coring) of two boreholes including rock coring to a depth of 12.00m,
  - The drilling of six boreholes to refusal depths of between 1.10m and 4.90m,
  - Standard Penetration Testing (SPT) in one location,
- Exposure of the existing adjacent footing in one location,
- Logging and bulk sampling of the subsurface profile.

The boreholes were conducted utilising Commachio GEO105 drilling rig, a Toyota mounted drill rig and hand augers. The subsurface profile was logged and bulk sampled for visual identification and appropriate testing. Borehole logs and locations are shown on pages 15 to 21 of this report.

## **Subsurface Conditions:**

### ***Regional geology:***

The site is identified on the 'Geological Survey of Victoria' Melbourne Sheet (1:63,360) as being in the province of the Silurian 'Dargile' formation and associated residual soils.

### ***Subsurface profile:***

See borehole logs pages 15 to 20. The boreholes intersected:

- PAVING and FILL material to depths of between 0.30m and 1.40m, underlain by;
- Natural clayey SILT topsoils (excluding borehole 8) to depths of between 0.50m and 1.00m, underlain by;
- Stiff silty CLAY of moderate plasticity, grading to;
- Distinctly weathered siltstone ROCK intersected at depths of between 2.50m and 7.60m within boreholes 1, 7 & 8.

The depth of filling encountered in borehole 8 may be isolated, associated with a service trench and not representative of the site in general.

The rock intersected was variably and deeply weathered and of relatively low strength at the rock contact (reflected in the RQD results).



The existing fill material can be considered the equivalent of rolled non sand fill in accordance with AS2870-2011.

***Soil moisture and groundwater:***

No groundwater was intersected. Filling and natural soils intersected were in a dry to moist condition, becoming moist with depth.

## **Rock Quality Designation**

Rock mass characteristics can only be reliably documented from direct observation or further comprehensive investigation. Important features such as critical discontinuities and/or fractures low strength zones may only be apparent once bulk excavation works are underway. Construction activity itself may affect rock mass properties.

The following Rock Quality Designation (RQD) ratios were conducted on site for all core runs within boreholes 1 & 7. These values are indicative only and should be used with caution.

<b>Location</b>	<b>Interval (depth in m)</b>	<b>RQD (%)</b>
Borehole 1	2.00m – 3.40m	0
Borehole 1	3.40m – 4.90m	0
Borehole 1	4.90m – 5.20m	0
Borehole 1	5.20m – 5.90m	43
Borehole 1	5.90m – 7.40m	78
Borehole 1	7.40m – 8.50m	36
Borehole 1	8.50m – 8.90m	0
Borehole 1	8.90m – 9.90m	55
Borehole 1	9.90m – 10.30m	0
Borehole 1	10.30m – 11.00m	0
Borehole 1	11.00m – 12.00m	20

<b>Location</b>	<b>Interval (depth in m)</b>	<b>RQD (%)</b>
Borehole 7	2.50m – 3.40m	0
Borehole 7	3.40m – 4.90m	0
Borehole 7	4.90m – 6.40m	0
Borehole 7	6.40m – 7.90m	0
Borehole 7	7.90m – 9.40m	36
Borehole 7	9.40m – 10.90m	33
Borehole 7	10.90m – 12.00m	12



## Rock Core Photos



Borehole 1.



Borehole 7.

## Standard Penetration Test (SPT) Results:

In-situ SPTs were conducted within borehole 7. SPT Results are summarised below.

### SPT Results

Location	Depth (m)	Blows per Interval			Uncorrected N-Value
		1 <sup>st</sup> 150mm	2 <sup>nd</sup> 150mm	3 <sup>rd</sup> 150mm	
BH7	4.90	10	25	33	58
BH7	6.40	15	18/75mm HB	-	>33

HB – Hammer bouncing

## Earthquake - Site Sub-Soil Class

With reference to AS1170.4-2007, Section 2.4, a site sub-soil class of **CLASS C<sub>e</sub> – Shallow Soil Site** is appropriate.

## Site Classification:

The site is classified as **CLASS P** in accordance with AS2870-2011, due to the depth of fill material intersected in the boreholes. With respect to reactivity, the natural clay soils are moderately reactive (CLASS M).

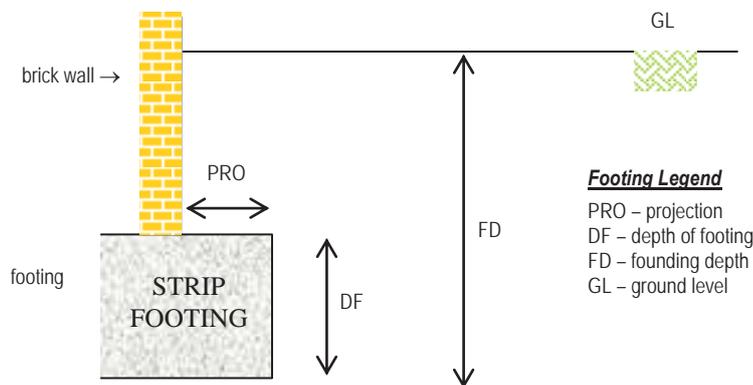


Where the proposed development falls outside the scope of AS2870-2011 (clause 1.1) the design should be based on engineering principles.

### Details of existing adjacent footings:

The existing adjacent footing were exposed at borehole 3 (see figure 1), dimensions and founding material are shown below, depths are relative to the existing surface levels at the time of the investigation.

<b>Location:</b>	Borehole 3
	East boundary
<b>Type:</b>	Concrete strip
<b>Founding Depth:</b>	1000mm
<b>Depth of footing:</b>	400mm
<b>Projection:</b>	100mm
<b>Founding material:</b>	silty CLAY



The integrity of all adjacent footings must be ensured during earthworks and construction.

### Foundation Recommendations:

#### ***Basement Construction Discussion:***

From the plans provided, the basement is to abut the south, west and east boundaries and the existing residence on the south wall. The existing footings are expected to found at relatively shallow depths within moderately reactive clay soils.

We recommend that the existing building, where abutting the proposed basement, be underpinned to below the proposed basement footing depth to an engineer design.

Engineered walls will be required along the south, west and east boundaries. Temporary support could be conducted by either installing a tied back/propped/cantilevered bored pier retaining wall with shotcrete infill.

Battering back of the basement excavation will not be possible.

The risk of differential movement between shallow and deep, soil and rock foundations is high. Potential differential movements of between 20mm and 40mm may occur, or greater if good foundation maintenance is not practiced.



### **Differential Movement Discussion:**

The risk of differential movement between shallow and deep, soil and rock foundations is high. Potential differential movements of between 20mm and 40mm may occur, or greater if good foundation maintenance is not practiced.

However, as the basement footprint is to encompass the entire building envelope differential movements of the proposed structure are not anticipated.

It is recommended that articulation joints be installed between underpinned and non underpinned areas.

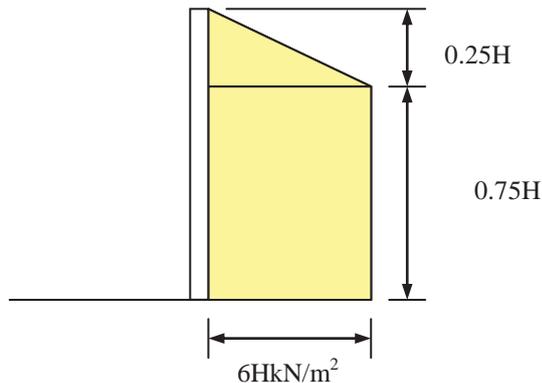
### **Underpinning Recommendations:**

Underpins should penetrate a minimum of 400mm below the proposed excavation depth and be founded in the stiff silty clay or weathered siltstone rock. An allowable bearing pressure of 220kPa can be adopted for the underpins.

Partial underpinning of the strip footings may induce a risk of differential movement, between the underpinned portion and the non underpinned portion of the foundations. This differential movement may possibly be in excess of the flexural tolerances of the masonry wall. *It is recommended that underpinning be started and finished at carefully chosen locations. Full height articulation is recommended between the underpinned portions and the non underpin portions of the building.*

Underpinning will be required to be designed to be retaining as per the lateral earth pressure distribution below. The underpins should be designed for a trapezoidal lateral earth pressure distribution using  $P_0 = 6H$  kN/m<sup>2</sup> where H equals the height of the wall in metres. The underpins should therefore be propped or tied back to ensure temporary support, or designed as gravity retaining walls. An adequate factor of safety should be applied. The lateral earth pressure distribution is summarized below:

**Diagram 1 : Trapezoidal lateral earth pressure distribution**



Drainage must be provided behind the underpins or hydrostatic pressure added to the lateral earth pressure, ie strip drains nailed to the excavated face and allowed to drain to weep holes.

Any surcharges to the pins should be added to the lateral pressure adopting a  $K_s = 0.4$ .

Checks for sliding can adopt a  $K_a$  active earth pressure ( $K_a = 0.33$ ) and resisted by a triangular passive earth pressure  $P_p$ , and frictional resistance along the base where  $\tau = \sigma_n \tan \phi' + c'$  ( $\sigma_n$  = the normal stress under the footing). The passive pressure and sliding should be based on the estimated drained silty clay parameters adopting  $\gamma = 19$  kN/m<sup>3</sup>,  $\phi' = 25^\circ$  and  $c' = 3$  kPa.



## Basement footings:

### ***Strip and pad footings:***

We advise that conventional strip and pad footings,

- must penetrate any filling material and natural topsoils,
- should be founded at a minimum depth of 600mm below the bulk excavations,
- must be founded in the natural stiff silty clay or weathered siltstone rock.

Minimum founding depths can be estimated from the borehole logs which are relative to the surface levels at the time of the site investigation.

Maximum allowable bearing pressure beneath footings founded on stiff CLAY or weathered siltstone ROCK must not exceed 220kPa for both continuous strips and isolated pad/stumps. This pressure can be reviewed once the design loads have been calculated. Isolated pad footings must not be used for masonry support without approval from this office.

## Piles/Piers.

### ***Low capacity (CLAY) piles***

Where required, we recommend the use of bored piers, screw piles or equivalent.

All piles should penetrate through any filling and upper topsoils and be founded a minimum of 1000mm into the natural silty clay or extremely weathered siltstone rock at a minimum founding depth of 3m (embedment depth) below finished ground level.

Piles should be proportioned for an allowable end bearing pressure of 330kPa.

A skin friction of 15kPa can be adopted for the portion of the pier within the clay soils. No skin friction can be adopted in the top 1.50m from the surface and no skin friction can be adopted for the existing filling material and natural topsoils. Should skin friction be adopted in the design no water should be allowed to enter the pier excavation.

Bored piers must be clean of any fallen debris and saturated material. The piling contractor must provide means to ensure that a clean base to the pile is maintained.

### ***High capacity (ROCK) piles***

Where required, we recommend the use of bored piers or equivalent.

All piles should penetrate through any filling and upper soils and be founded a minimum of 500mm into the underlying distinctly weathered rock. No minimum founding depths apply. Depth to rock can be estimated from the borehole logs noting distinctly weathered siltstone rock was intersected below depths of 5.40m, 7.60m, and 2.50m in boreholes 1, 7 and 8 respectively.

Piles should be proportioned for an allowable end bearing pressure of 700kPa.

Alternatively, rock socketed bored piers founding a minimum of **three pile diameters within the distinctly weathered siltstone rock** can adopt a maximum allowable end bearing pressure of 1000kPa.

A skin friction of 50kPa can be adopted where within the distinctly weathered siltstone rock. No skin friction can be within the fill material or natural soils.



Bored piers must be clean of any fallen debris and saturated material. The piling contractor must provide means to ensure that a clean base to the pile is maintained.

Significant collapse of open bored piers may occur should the fill material and natural topsoils be saturated at the time of installation.

## **Excavation & Retaining Walls:**

**Without engineered support the crest of any excavation should not be within 2m of any existing footings without written approval from this office.**

Recommended safe batter slope angle for the soils on site are,

<i>Soil/Rock Type</i>	<i>Safe batter slope angles degrees (°)</i>	
	<i>short term</i>	<i>long term</i>
FILLING	30°	25-30°
clayey SILT	30°	25-30°
silty CLAY	55°	45°
SILTSTONE ROCK *	70°	45°

\* Safe batter angles will depend on discontinuities (eg joints) in the rock mass. Safe batter angles should be confirmed prior to bulk excavation proceeding (where required).

As the basement is to abut three boundaries and the existing residence, battered excavation will not be possible and engineered walls will be required.

## **Excavation Potential:**

It is expected that a medium to large sized conventional hydraulic excavator could excavate through the filling, natural soils and extremely weathered siltstone rock. Some difficulty may be encountered within the distinctly weathered siltstone rock due to the interbedded nature of the rock with softer and harder layers encountered.

The siltstone rock will increase in strength with depth. It is expected that rock breaking equipment and pre-loosening will be required within the distinctly weathered siltstone rock. The excavation potential of the rock will be dependent on the size of the excavator, the degree of weathering and jointing (orientation and condition). The excavation contractor will be more familiar with the capacity of their machine and local areas, and their advice should be sought as to the excavation potential of the site, and/or a trial pit conducted before large-scale cutting is proposed.

## **Engineered Walls:**

Where engineered walls are required contiguous piles or soldier piles with ‘top down’ structural shotcrete infill are recommended for this site. Solider piles can be designed to be cantilevered, propped or tied back. Propping may be suitable where access permits. Cantilevering may be possible for the down ramps and shallower basement areas. Where the retained height exceeds ≈3m the lateral loads maybe too high for cantilevering and ties or props may be required (as assessed by the structural engineer).

### ***Pile spacing***

Pile spacing is generally dictated by the allowable pile deflections and the ability of the soils to naturally arch between piles. Where the capping beam does not exceed the depth of upper topsoil (clayey SILT) and fill material, pile spacing may need to be reduced and/or contiguous/secant (touching) should the upper topsoils become saturated.



It is important to note that ground conditions can change, and that during drier periods the groundwater may not be so much of an issue for construction, noting no ground water was encountered during the investigation.

Where the topsoils are not saturated (wet) it may stand unsupported for short periods and it may be possible to undertake the construction using conventional methods without CFA techniques and space piles at greater centres.

An experienced piling contractor should be contacted for further advice regarding pile installation in the conditions encountered on site.

### ***General guidelines for pile spacing***

The highest risk of instability for piled retaining systems is within the upper filling and loose clayey SILT top soils. The natural silty CLAY and weathered ROCK soils will arch between piles up to 2.4m centres, noting pile spacing should be reduced where close to or adjacent to existing structures or where deflections are critical.

Good construction practices include:

- (1) Leaving soils in place at the front of the piles until reinforcing and construction materials are on site and construction is immediately ready to proceed;
- (2) Undertaking shotcrete infill wall construction as quickly as safely practicable with no delays once the infill soil is removed and reinforcing placed;
- (3) Ensuring contingency plans are in place to immediately respond to any localised instability in consultation with the Structural Engineer (this could include shotcrete, or placement of bulk soil or crushed rock on the boundary);
- (4) Continually monitor the bulk excavation and following any significant rainfall; and
- (5) Undertake excavation with caution.

Please note where localized collapse occurs, adjacent ground may settle. The stability of adjacent land and buildings must be ensured.

### ***Tied back/propped pile walls:***

A tied back pile wall may be installed utilising bored concrete piers and temporary tieback anchors. Tieback retaining walls should be designed incorporating full hydrostatic pressure, unless the wall can incorporate permanent drainage. Drainage could be strip drains nailed to the excavation face prior to shot creating.

The recommendations below are for a single top anchor/prop adopting a tied back wall 'free earth support method'.

Should multiple pile anchors be used, which is unlikely for a single level basement a 'brace cut' earth pressure distribution should be adopted.

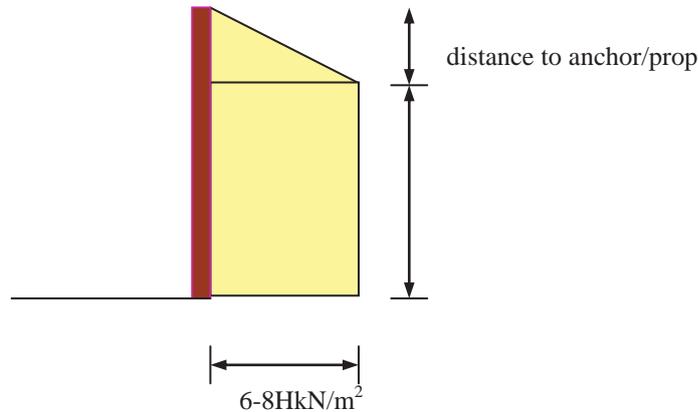
The embedment depth piles will be dependent on the passive pressure required to prevent kicking out of the base of the pile which should be calculated by the structural engineers. Bearing pressures are given above. Higher pressure may be available upon consultation with this office.

It is essential that the base of the bored piers is clean of any loose and fallen debris prior to pouring concrete.

The (non yielding) walls/piles should be designed for a triangular distribution down to the top anchor/prop and then adopt a uniform rectangular lateral earth pressure distribution using  $P_0 = 6H \text{ kN/m}^2$  where H equals the height of the wall in meters. An adequate factor of safety should be applied. Passive resistance at the toe can be calculated by static geomechanics principles adopting the soil parameters in table 1 below.



**Lateral earth pressure distribution for tie back walls\*:**



**\* Where tie-back, cantilevered or contiguous piles are used to support adjacent footings, lateral earth pressures should be increased to 8H kPa.**

Any additional surcharges should be added to the lateral earth pressure, i.e. hydrostatic, the line load from the existing building and surcharge loads. Note that AS4678-2002 recommends a minimum 5kPa surcharge loading to all walls.

A  $K_{(s)}$  of 0.4 should be adopted for superimposed surcharge loading.

**Anchors:**

Temporary anchor/piles should be installed to a depth such that the bonded length is beyond the active wedge of soil. Adopt an angle of  $60^\circ$  above horizontal from the base of the cut for the active wedge. The bonded length should be founded within the natural soil profile. Pile pull out tests must be conducted to ensure that the piles have adequate capacity as per the current piling code AS2159-1995. The piles/anchors may need to be tensioned to limit deflections. This will be dependent on the construction and excavation sequence, and should be reviewed by the Structural Engineer. Cable anchors should be installed by air rotary methods to ensure an adequate grout soil bond.

The allowable capacity for anchors must be determined by load tests. Advice from the structural engineer should be obtained for the maximum deflection acceptable.

The anchors are expected to be temporary until the retaining wall achieves a 'fixed head' by the ground and level floor.

***Cantilevered soldier design:***

Adopt a uniform lateral earth pressure  $6H$  kPa. The embedment depth of bored piles for the support of a soldier pile retaining wall will be dependant on the ultimate lateral resistance of the pile. The lateral load capacity of the pile may be limited in three ways the shear capacity of the soil and structural capacity of the pile section and excessive deformation of the pile. Methods of calculating the ultimate lateral soil resistance include Brinch Hansen (1961) and Broms (1964) (simplification of the Broms method in AS 2159 – 1978).

The appropriate estimated parameters for the underlying soils are:



**Table 1: Design soil parameters:**

Material	Undrained		Bulk Density (kN/m <sup>3</sup> )
	C <sub>u</sub> (kPa)	φ	
natural stiff CLAY including extremely weathered siltstone rock	100	0	19
distinctly weathered siltstone ROCK	180	0	24

Using one of the above mentioned methods the ultimate lateral capacity of the piles can be determined for differing embedment depths.

***Contiguous piles:***

If contiguous piles are adopted the wall will act as a conventional retaining wall not as individual piles. The wall will need to retain the lateral earth pressure above as for the tie back walls. Drainage must be provided behind the wall or hydrostatic pressure added to the lateral earth pressure, i.e. strip drains nailed to the excavated face and allowed to drain to weep holes. The allowable bearing pressure beneath this wall can adopt the same pressure as for the basement strip footings.

Passive resistance at the toe can be calculated by static geomechanics principles as per basement retaining walls.

***Retaining wall design notes:***

Earth pressure can be reduced to triangular  $K_a = 0.35$  where the heads are not fixed eg down ramps provided that the minor movement at the head can occur to develop the active state. Movement required is generally 0.5% of the height which will develop the full active state.

**Pavements:**

***Sub-grade preparation:***

Any loose, saturated and disturbed soils should be stripped to expose the natural silty CLAY or weathered ROCK sub-grade.

The exposed surface should be proof rolled with the aim of achieving a dry density ratio of 98% as measured by standard compaction (AS1289 5.1.1). Any soft, wet or loose material which does not respond to compaction should be additionally excavated to expose a firm working base.

Depending on the moisture content of the sub grade at the time of construction, it may be necessary to add water or allow the sub grade to dry back to achieve satisfactory compaction.

***Sub grade drainage.***

The sub grade should be provided with subsurface drainage to maintain any groundwater table to at least 300mm beneath the underside of the pavements, or a lower CBR value should be used in the design.

***Pavements:***

Based on experience within the immediate area and the site investigation to date, it is recommended that pavements be designed using an estimated C.B.R value of:

- 4.5% for stiff silty CLAY and a long term Young's modulus  $E_{sl}$  of 20MPa and a correlation factor of 0.6 can be adopted as per the Cement and Concrete Association of Australia 'Industrial Floors and pavements' section 3 Design for strength.



- 15% for competent siltstone ROCK and a long term Young's modulus  $E_{sl}$  of 32MPa and a correlation factor of 0.9 can be adopted as per the Cement and Concrete Association of Australia 'Industrial Floors and pavements' section 3 Design for strength.

## **Earthworks:**

The use of on site filling and top soil material should be avoided and removed to spoil. The excavated silty clay and weathered rock should be suitable for structural filling.

Any imported filling used should comprise of clean, essentially of a granular nature, non-organic and have a plasticity index of less than 12%. Suitable material may include crushed scoria, nondescript crushed rock, mudstone or siltstone or equivalent. Fill material should have a nominal particle size of 75mm or less and as a guide to selecting the appropriate material would be,

P.I x %pass 0.425 (As sieve) < 600

Any filling should be placed in lifts not exceeding 250mm loose thickness. Each layer should be compacted to a dry density ratio of 98% measured by standard compaction (AS1289 5.1.1) using an appropriate medium weight vibratory roller. The recommended moisture content is within 2% of optimum moisture content under standard compaction.

## **Construction & Maintenance:**

### ***Site Conditions***

Excavation within fill material and natural top soils may experience short term instability (particularly if undertaken during the wetter months) and shoring and/or over excavation should be anticipated.

Disturbance of the filling and natural soils will result from demolition and existing footing removal. Disturbed natural soils will constitute fill material and deeper isolated areas of filling should therefore be anticipated.

Where footings/edge beams are to be additionally deepened, we recommend blinding concrete should first be poured in the base of the excavation upon which the footing/edge beam can be constructed.

### ***Articulation***

Articulation of pavements and floor slabs where they abut walls should be provide to allow for the differential movement between the foundations and the pavements.

Articulation of masonry walls should be provided as per details contained in reference (3) below. Spacing between articulation joints should:

- not exceed a maximum of 6.0m, and
- be provided at/or between points of high stress i.e. above door and window openings, changes in storey height, or above large spanning lintels.

### ***Service trenches/easements***

The presence of service trenches and easements is a common cause of unsatisfactory performance of foundations through either direct undermining or through the introduction of undesirable levels of soil moisture. For this reason, we recommend:

- Where footings are located in close proximity or adjacent to a backfilled service trench or easements, the footing must be deepened and founded at a depth of a minimum of 500mm below the level of plane of inclination of 45° above horizontal extending outwards from the base of the trench or filling (as illustrated by figure C6.1 AS 2870 2011). This includes service trenches which may be present on adjacent sites or on site prior to the current development.



In addition, and as a guide only we recommend:

- All service trenches should be sloped away from the building as per AS2870-2011 section 5.2.1 and be backfilled with non-permeable material as per AS2870-2011 section 6.6 (d).
- Backfill material should ideally comprise concrete, mortar or (preferably) cement stabilised soil, or clean adequately tamped/compacted clay placed marginally wet of optimum. Permeable or granular material such as sand, gravel, ¼ minus, or building rubble, should not be used to backfill service trenches in proximity to building foundations.

This will be less imperative for the foundations recommended above, but may assist in optimising the performance of pavements and/or hard landscaping features.

### ***Construction***

All contractors should be well briefed as to the requirements and specifications in this report. The sub grade preparation, compaction testing, and inspection of foundation excavations should be conducted to insure that they are in accordance with this report. It is recommended that fill material type is verified and that the compaction be tested during placement. Testing should be conducted in accordance with reference (6).

Any plumbing that is not accessible for repair should be flexible enough to tolerate differential movement between the foundation and surrounding ground.

This report is based on the assumptions that conditions revealed through selective sampling are indicative of the actual conditions throughout the site, i.e. correlation between boreholes. Variations between boreholes may exist due to previous land use or natural geologic processes. Additional deepening of the foundations, deeper than the minimum specified founding depths in this report, may be required. The actual subsurface conditions can be discerned only during earthworks when the subsurface profile can be directly observed.

For further information regarding geotechnical site investigation reports, refer to reference (7) below.

Inspection of all foundation excavations, site works and compaction must be conducted by a suitably qualified, experienced engineer, engineering geologist, building surveyor or similar to ensure that the founding material and site works are in accordance with this report. Should there be any doubt, this office should be immediately contacted.

### ***Maintenance***

Normal foundation maintenance requirements for reactive sites are not required for a foundation founded entirely on weathered rock.

The clay soils at this site are moderately reactive, and may experience appreciable volumetric changes with changes in moisture content (i.e. shrink upon drying and swell upon wetting).

Conventional foundations (existing structures) are designed to accommodate normal reactivity induced seasonal surface movements, but require that a good foundation maintenance program be implemented. A good foundation maintenance program should be aimed at keeping foundation zone soils at a low and constant moisture content. To this end we recommend that the notes contained in AS2870-2011 Appendix B and the CSIRO Information Sheet BTF 18 (referenced below) be implemented, and that particular attention be given to the points discussed below.

### ***Site drainage:***

The site should be graded or drained to prevent water from ponding against or near the building. Monitoring of surface drainage paths should be ongoing. In any areas where ponding or pooling of water does occur, the surface should be regraded to direct water away from the building or to stormwater discharge points.



***Garden restrictions:***

Garden beds should not compromise site drainage or be located directly adjacent to the building and should not be over-watered where they are near the building foundations.

***Maintenance of plumbing, services and stormwater system:***

All services and plumbing must be well maintained and periodically checked for leaks. Guttering must be kept clean at all times and it must be ensured that downpipes discharge all roof water into the stormwater system (or rainwater tank).

***Foundation performance***

It must be noted that the conventional foundations specified in AS2870-2011 may still experience some minor (non-structural) foundation movement and cracking, even where good foundation maintenance practices are undertaken, depending on environmental factors and local conditions (refer to AS2870-2011 Section 1.3.1 and Table C1 and C2 Appendix C). This reflects the necessity of achieving a balance between cost, safety and serviceability.

Please do not hesitate to contact this office, should there be any further queries.

Yours Faithfully,  
**HardRock Geotechnical Pty Ltd**

Harold McIntosh. B.E. (Civil)  
(Geotechnical Engineer)

**References:**

- (1) AS2870-2011. "Residential slabs and footings- Construction."
- (2) "The Cement and Concrete Association of Australia", Technical note TN61.
- (3) "Guide to home owners on foundation maintenance and footing performance", CSIRO sheet No. 10-91, August 1996.
- (4) "Guidelines for the Provision of Geotechnical Information in Construction Contracts", published by the Institution of Engineers, Australia, 1987.
- (5) AS 3798-1996 "Guidelines on Earthworks for commercial and residential developments".
- (6) AS1726-1993 "Geotechnical Site Investigations".
- (7) AS2159-1995. "Piling – Design and Installation".
- (8) AS2159 Suppl - 1996. "Piling – Design and Installation Guidelines".
- (9) Brinch Hansen, J (1961) "The ultimate resistance of rigid piles against transverse forces". -Danish Geotechnical Institute Bulletin no.12 pp5-9.
- (10) Broms (1964a) 'The lateral resistance of piles in cohesive soils' Journal of the soil Mechanics and Foundations Division, American Society of Civil Engineer, vol. 90, no. SM3 pp 27-63.
- (11) Broms (1964b) 'The lateral resistance of piles in cohesionless soils' Journal of the soil Mechanics and Foundations Division, American Society of Civil Engineer, vol. 90, no. SM3 pp 79-99.
- (12) BS 8002-1994 "Earth Retaining Structures".
- (13) AS 4678-2002 "Earth Retaining Structures".

<b>HARDROCK GEOTECHNICAL PTY. LTD.</b> <b>Geotechnical Engineers</b> <b>Engineering Log: Augered Borehole 1</b>						<b>File Number:</b> 150123 <b>Date Drilled:</b> 10/02/2015		
<b>CLIENT:</b> Tim Storey <b>PROJECT:</b> No. 99 Hotham Street, East Melbourne						<b>Supervisor:</b> JH / TD		
Drill (Make/model):		Commachio GEO 105		Mounting:		Bore Diameter: mm		
Depth	R.L [m]	Material Type	Material Description	Consistency/ Density	Groundwater/ moisture	Sample:		Remarks (test data)
						Depth	Type	
0.30		Fill	brick pavers, clayey SILT, some sand	L	M			4½" augers
0.50		SP	clayey SILT (ML), low plasticity, grey	L	M			
1.70			silty CLAY (CL), medium plasticity, brown / light brown	ST	M			
5.40		Weathered Rock	extremely weathered siltstone ROCK	MD	M		2.0m	↓ washbore and Diamond Core Barrel
12.00			distinctly weathered siltstone ROCK some silty CLAY seams some extremely weathered siltstone ROCK seams	D	M			
					D	M		
			Borehole terminated at 12.00m in distinctly weathered siltstone ROCK					
Sample Type		Moisture Condition		Consistency		Relative Density		Testing
U	Undisturbed Sample	D	Dry	VS	very soft	VL	very loose	PP: pocket penetrometer
D	Disturbed Sample	M	Moist	S	soft	L	loose	VSH: vane shear
SPT	*SPT Sample	W	Wet	F	firm	MD	moderately dense	DCP: dynamic cone penetrometer
U50	Tube Sample	SWL	Standing Water Level	ST	stiff	D	dense	SPT: standard penetrometer test
U63	Tube Sample	↻	Seepage entering	VST	very stiff	VD	very dense	
				H	hard			
				FB	friable			

<b>HardRock Geotechnical P/L</b> Consulting geotechnical engineers.	<b>File:</b> 150123
	<b>Date:</b> 10/02/2015 <b>Supervisor:</b> JH / TD

## Borehole Logs

**Client:** Tim Storey

**Project:** No. 99 Hotham Street, East Melbourne

**Borehole No.** 2      **Drilling method:** HA      **Location:** see figure 1.

Depth (m)	Structure	Description	Cohesion/ density	Soil moisture/ groundwater	Testing:
0.30	Fill	clayey SILT, silty SAND, tree roots	L/MD	M/D	
0.50	SP	clayey SILT(ML), low plasticity, some gravel, light grey	L/MD	M/D	
		silty CLAY (CL), medium plasticity, trace gravel orange / light brown	VST	M	
1.50		Virtual refusal to hand auger at 1.50m in hard CLAY	VST/ HARD	M	

**Borehole No.** 3      **Drilling method:** HA      **Location:** see figure 1.

0.50	Fill	clayey SILT, silty SAND, tree roots	L	D	
1.00	SP	clayey SILT(ML), low plasticity, some gravel, light grey. ferruginous gravel at clay contact	L/MD	M/D	
		silty CLAY (CL), medium plasticity, trace gravel orange / light brown	VST	M	
1.10		Borehole terminated at 1.10m in silty CLAY			

**Legend:**

<b>Density</b>	<b>Cohesion</b>	<b>Moisture</b>	<b>HA</b> -hand auger	<b>A</b> - Flight auger drill rig.
VL-very Loose	Soft- Soft	W - wet	Unified soil Classification symbols: CL, SM, SW	
L-Loose	F- Firm	M- moist	SP- Soil profile	
MD- Medium Density	ST- stiff	D- dry	Some < 15%	
D - dense	VST- Very Stiff		Trace < 5%	

<b>HardRock Geotechnical P/L</b> Consulting geotechnical engineers.	<b>File:</b> 150123
	<b>Date:</b> 10/02/2015 <b>Supervisor:</b> JH / TD

## Borehole Logs

**Client:** Tim Storey

**Project:** No. 99 Hotham Street, East Melbourne

**Borehole No.** 4      **Drilling method:** HA      **Location:** see figure 1.

Depth (m)	Structure	Description	Cohesion/ density	Soil moisture/ groundwater	Testing:
0.10	Fill	clayey SILT, silty SAND, tree roots	L/MD	M/D	
0.60	SP	clayey SILT(ML), low plasticity, some gravel, light grey. ferruginous gravel at clay contact, graduated contact with clay	L/MD	M/D	
		silty CLAY (CL), medium plasticity, trace gravel orange / light brown	VST	M	
1.70		grading to extremely weathered siltstone ROCK below 1.60m	VST	M	
		refusal to hand auger at 1.70m in extremely weathered siltstone ROCK			

**Borehole No.** 5      **Drilling method:** HA      **Location:** see figure 1.

0.50	Fill	clayey SILT, silty SAND, tree roots	L	D	
0.70	SP	clayey SILT(ML), low plasticity, some gravel, light grey. ferruginous gravel at clay contact	L/MD	M/D	
		silty CLAY (CL), medium plasticity, trace gravel orange / light brown	VST	M	
1.50		refusal to hand auger at 1.50m in hard CLAY			

**Legend:**

<b>Density</b>	<b>Cohesion</b>	<b>Moisture</b>	<b>HA</b> -hand auger <b>A</b> - Flight auger drill rig.
VL-very Loose	Soft- Soft	W - wet	Unified soil Classification symbols: CL, SM, SW
L-Loose	F- Firm	M- moist	SP- Soil profile
MD- Medium Density	ST- stiff	D- dry	Some< 15%
D - dense	VST- Very Stiff		Trace< 5%

<b>HardRock Geotechnical P/L</b> Consulting geotechnical engineers.					<b>File:</b> 150123
<b>Borehole Logs</b>					<b>Date:</b> 10/02/2015
					<b>Supervisor:</b> JH / TD
<b>Client:</b> Tim Storey					
<b>Project:</b> No. 99 Hotham Street, East Melbourne					
<b>Borehole No.</b> 6		<b>Drilling method:</b> HA		<b>Location:</b> see figure 1.	
Depth (m)	Structure	Description	Cohesion/ density	Soil moisture/ groundwater	Testing:
0.40	Fill	clayey SILT, silty SAND, tree roots	L/MD	D	
0.60	SP	clayey SILT(ML), low plasticity, some gravel, light grey.	MD	D	
		silty CLAY (CL), medium plasticity, trace gravel orange / light brown	VST	M/D	
1.10		refusal to hand auger at 1.10m in hard CLAY	VST	M	

**Legend:**

<b>Density</b>	<b>Cohesion</b>	<b>Moisture</b>	<b>HA</b> -hand auger	<b>A</b> - Flight auger drill rig.
VL-very Loose	Soft- Soft	W - wet	Unified soil Classification symbols: CL, SM, SW	
L-Loose	F- Firm	M- moist	SP- Soil profile	
MD- Medium Density	ST- stiff	D- dry	Some < 15%	
D - dense	VST- Very Stiff		Trace < 5%	

<b>HARDROCK GEOTECHNICAL PTY. LTD.</b> <b>Geotechnical Engineers</b> <b>Engineering Log: Augered Borehole 7</b>						<b>File Number:</b> 150123 <b>Date Drilled:</b> 11/02/2015		
<b>CLIENT:</b> Tim Storey <b>PROJECT:</b> No. 99 Hotham Street, East Melbourne						<b>Supervisor:</b> JH / TD <b>Drill Method:</b>		
Drill (Make/model):		Commachio GEO 105		Mounting:		Bore Diameter: mm		
Depth	R.L [m]	Material Type	Material Description	Consistency/ Density	Groundwater/ moisture	Sample:		Remarks (test data)
						Depth	Type	
0.30		Fill	clayey SILT, silty SAND, tree roots	L	M/D			4½" solid augers
0.70		SP	clayey SILT(ML), low plasticity, some gravel, light grey.	L	M/D			
1.70			silty CLAY (CL), medium plasticity, brown / light brown	VST	M			
7.60		weathered rock	extremely weathered siltstone ROCK / silty CLAY (CL), medium plasticity. orange / brown / light grey	MD/ST	M		2.50m	↓ SPT @ 4.90m 10,25,33  SPT @ 6.40m 15,18/75mm HB ↓ washbore and diamond core barrel
			grading to distinctly weathered siltstone ROCK below 7.40m	D/VST	M			
12.00			distinctly weathered siltstone ROCK some silty CLAY seams some extremely weathered siltstone ROCK seams	D	M			
				D	M			
			Borehole terminated at 12.00m in distinctly weathered siltstone ROCK					

Sample Type	Moisture Condition	Consistency	Relative Density	Testing
U Undisturbed Sample	D Dry	VS very	VL very	PP: pocket penetrometer
D Disturbed Sample	M Moist	VS soft	VL loose	VSH: vane shear
W Wet	W Wet	S soft	L loose	DCP: dynamic cone penetrometer
SWL Standing Water Level	SWL Standing Water Level	F firm	MD moderately dense	SPT: standard penetrometer test
SPT *SPT Sample	↻ Seepage entering	ST stiff	D dense	
U50 Tube Sample		VST very stiff	VD very dense	
U63 Tube Sample		H hard		
		FB friable		

<b>HardRock Geotechnical P/L</b> Consulting geotechnical engineers.	<b>File:</b> 150123
	<b>Date:</b> 11/02/2015 <b>Supervisor:</b> JH / HM

## Borehole Logs

**Client:** Tim Storey

**Project:** No. 99 Hotham Street, East Melbourne

**Borehole No.** 8      **Drilling method:** HA      **Location:** see figure 1.

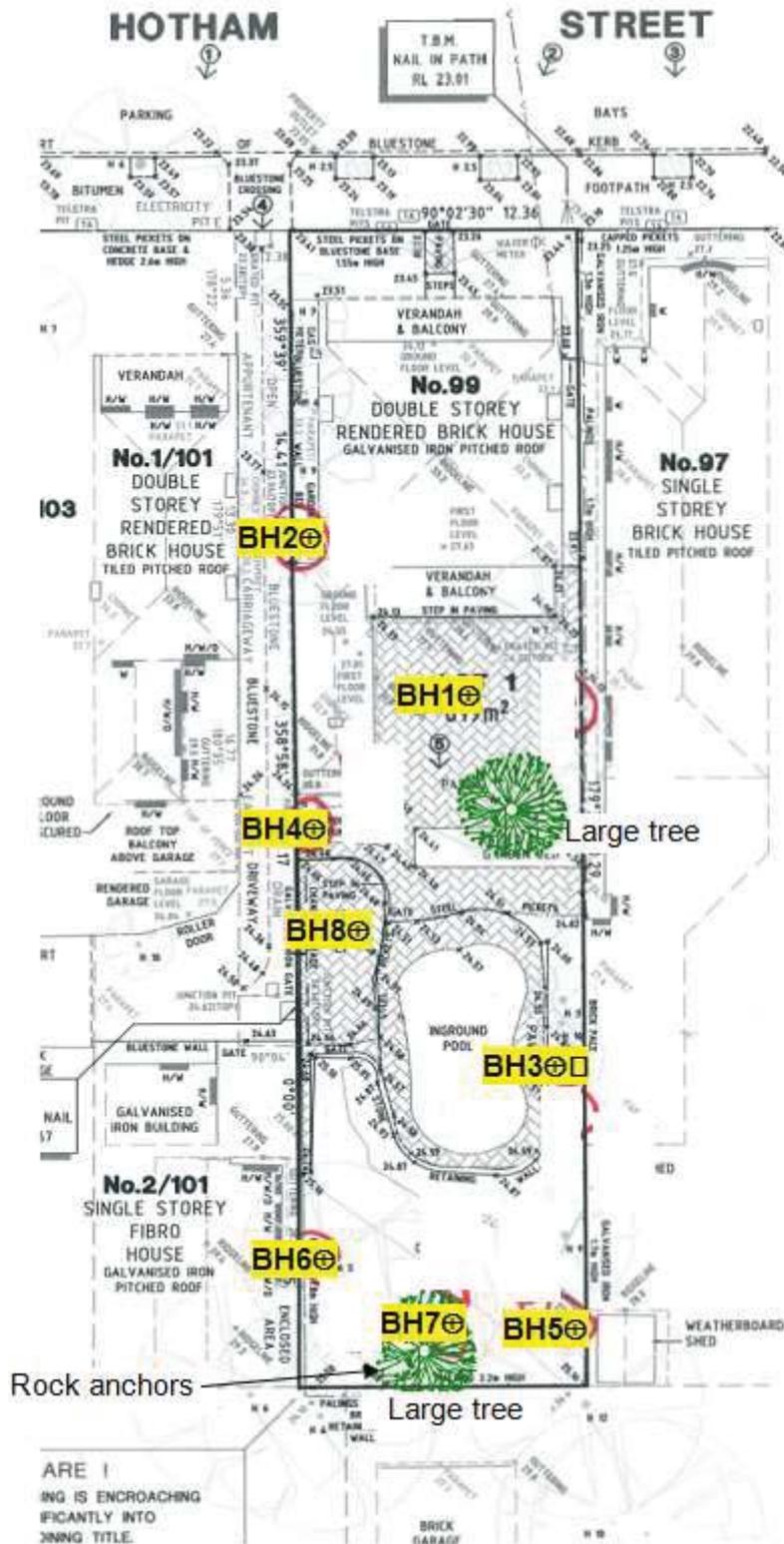
Depth (m)	Structure	Description	Cohesion/ density	Soil moisture/ groundwater	Testing:
0.08	Pavement	brick paving			
	Fill	clayey SILT, gravel, rubble	L/MD	M	
			L/MD	M	
1.40	SP	silty CLAY (CL), medium plasticity, trace gravel orange / light brown	ST	M	
		grading to extremely weathered siltstone ROCK	ST	M	
2.40	weathered ROCK	distinctly weathered siltstone ROCK	D	M	
			D	M	
4.90		very slow penetration (virtual refusal) at 4.90m in distinctly weathered siltstone ROCK			

**Legend:**

<b>Density</b>	<b>Cohesion</b>	<b>Moisture</b>	<b>HA</b> -hand auger <b>A</b> - Flight auger drill rig.
VL-very Loose	Soft- Soft	W - wet	Unified soil Classification symbols: CL, SM, SW
L-Loose	F- Firm	M- moist	SP- Soil profile
MD- Medium Density	ST- stiff	D- dry	Some < 15%
D - dense	VST- Very Stiff		Trace < 5%

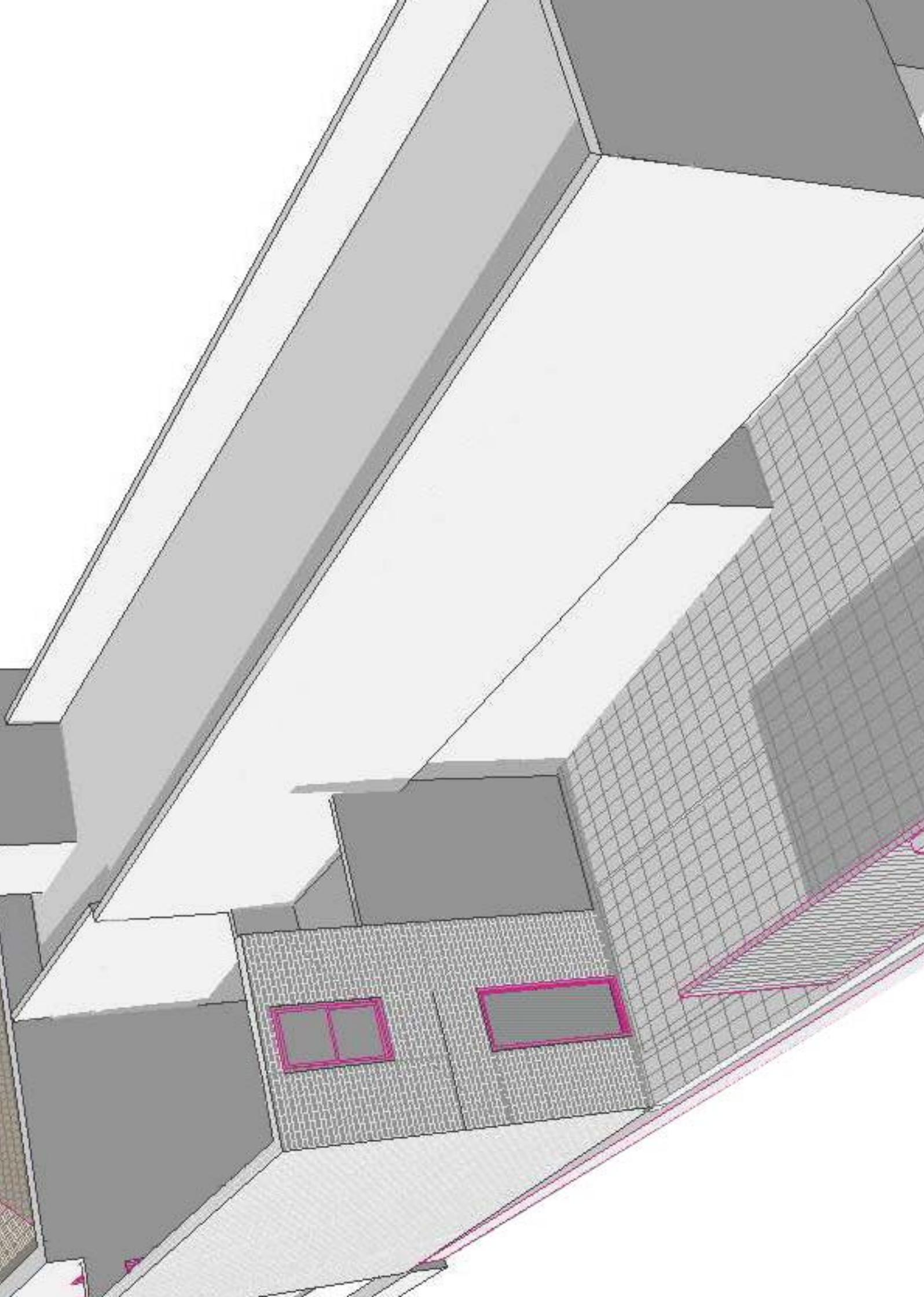
**LOCATION PLAN**

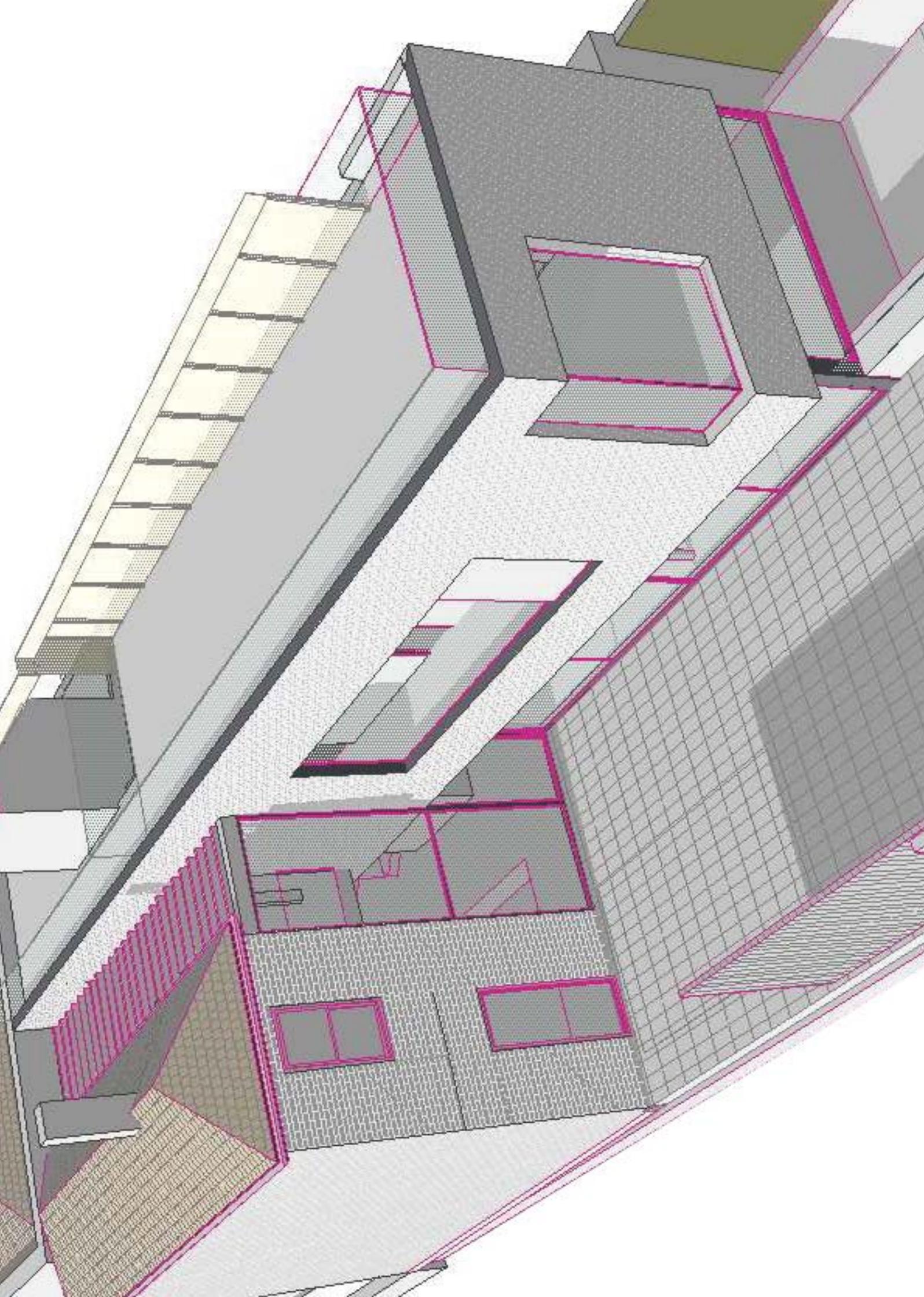
**Figure No. 1**



**Project:**  
 No. 99 Hotham Street, East Melbourne  
**Scale:**  
 Not to Scale (sketch for borehole locations).

**Legend:**  
 ⊕ Borehole  
 □ Footing inspection





# Proposed Partial Demolition & Rear Additions

99 Hotham Street, East Melbourne



Heritage Issues

Report to Council

April 2015

Proposed Partial Demolition &  
Rear Additions

99 Hotham Street, East Melbourne

Heritage Issues - Report to Council

April 2015

1.0 Introduction

This report was commissioned by Planning & Property Partners Pty Ltd. It concerns a proposal to demolish part of the rear of the Victorian dwelling at 99 Hotham Street and construct a double storey addition with a basement level.

The report comments on whether the proposal is appropriate in character and detail, and whether it is acceptable in terms of the potential impacts on the significance subject building and the broader heritage overlay precinct within which the site is located.

2.0 Sources of Information

The analysis below draws upon inspections of the exterior of the subject building and its environs, along with a review of the heritage overlay provisions in the *Melbourne Planning Scheme* (Clause 43.01) and Council's local heritage policy (Clause 22.05 Heritage Places Outside the Capital City Zone). The relevant heritage studies and documents have been reviewed including the *East Melbourne & Jolimont Conservation Study* (Meredith Gould, 1985) and the *Heritage Places Inventory* (July 2008). Research has also been undertaken to investigate the history of the subject site, which included reference to MMBW plans, early newspapers and the East Melbourne Historical Society website.

Reference has also been made to a previous planning permit for the subject site that allowed for part demolition at the rear and construction of a double storey extension with basement (TP-2011-845).

This report is to be read in conjunction with the drawings and other documents submitted with respect to the current application including the architectural documents prepared by KPDO Architects.

### 3.0 History & Description

The subject site occupied by a substantial double-storey Victorian Italianate style villa with rendered masonry walls and a hipped corrugated iron roof. Its primary frontage is onto Hotham Street to the north, with a rear double-storey service wing abutting a bluestone laneway on the west side. The street frontage is screened by a double-storey cast iron verandah, and surmounted by a pediment bearing the name of the house - 'Halloween' - in raised rendered lettering.

According to the building history prepared by the East Melbourne Historical Society, a modest single-storey brick cottage was erected on this site c1854 for merchant George L Robinson.<sup>1</sup> The 1854 rate books list a four-room brick cottage under Robinson's name. In October 1854, tender notices were published in the *Argus* for the erection of a 'six-room Gothic Cottage' for George L Robinson of Eastern Hill.<sup>2</sup>

By 1855, Robinson's house had eight rooms. The East Melbourne Historical Society's building history dismisses the notion that the original c1854 cottage was demolished at this time and replaced by a larger new house on the basis that it would have been no more than two years (the first land sales in East Melbourne having occurred in 1852). The Society's building history draws the conclusion that the increase in room numbers was more likely the result of a second storey addition. An alternate hypothesis is that Robinson's merchant businesses prospered from the gold rushes to extent that he could well afford to replace a modest but relatively new cottage with grander premises.

An 1866 isometric map of Melbourne possibly shows the subject building with a single-storey arcaded verandah (refer figure 1 below). The rate book for 1866 describes an eight-room brick house on the site (then numbered 82 Hotham Street) with outbuildings and stabling. The occupant at this time was Robert Wigmore and the owner J Woolley (agent for the estate of George Robinson). The net annual value of the house remains constant at £90 through the 1860s, despite the number of rooms increasing to ten in 1869. The number of rooms remains at ten through to 1888 when the rate books describe a 13 room house with a net annual value of £150 (increasing £20 from the previous year). The change in value could result from a small addition or remodelling of the façade to create a double-storey verandah.

Documentary evidence is ambiguous within respect to the construction date of the brick walled service wing at the rear of the house. It could not have formed part of the original c1854 dwelling – this being a modest four room structure. The 1866 image of the site is indistinct but appears to a double-storey wing at the rear of the house, where the service wing presently stands. The service wing may have been in place by 1884 when an auction notice published in the *Argus* describes the house as having servant's bedrooms – these typically being confined to secondary, rear parts of the house away from the principal rooms.<sup>3</sup>

<sup>1</sup> [http://cmhs.org.au/history/buildings/east\\_melbourne\\_hotham\\_street\\_099\\_halloween](http://cmhs.org.au/history/buildings/east_melbourne_hotham_street_099_halloween)

<sup>2</sup> [http://cmhs.org.au/history/buildings/east\\_melbourne\\_hotham\\_street\\_099\\_halloween](http://cmhs.org.au/history/buildings/east_melbourne_hotham_street_099_halloween)

<sup>3</sup> *Argus*, 24 April 1884, p.2.

An 1898 MMBW plan shows the service wing in its present location but separated from the main house by a rear verandah (refer figure 2 below). Also visible on the MMBW plan is a small structure abutting the east side of the service wing – this might be an iron outbuilding described in the 1884 auction notice.



Figure 1 (left) Part of an 1866 isometric plan of Melbourne, possibly showing the building with a single storey verandah. Source: National Library of Australia.

Figure 2 (right) Part of an 1898 MMBW Detail Plan of East Melbourne showing the subject building. Source: State Library of Victoria.

By the early twentieth century, the subject building had been converted into flats and the front verandah enclosed. It was restored in 1977 when the present double-storey cast iron was introduced (refer figure below 4 below). Other changes to the exterior include the overpainting of face brick side and rear walls and recladding of the roof in corrugated steel. A 1945 aerial photograph (figure 3 below) indicates that the roof was originally clad in slate. The cast iron palisade fence is a recently built replica. The French doors on both levels of the front façade appear to be non-original (presumably replacing double-hung sash window frames – this must certainly be the case for the first floor at least, given there was originally no balcony at this level).

The four window openings on the laneway elevation of the main house are most likely non-original (the lintel and brick sill details are not characteristic of the nineteenth century and do not match original openings found elsewhere on the side and rear of the house). The ground floor window joinery on this side of the building is modern. As noted above, the 1898 MMBW plan shows an opening between the service wing and the main house. This opening appears to have been infilled at a point where the ground floor brickwork changes to a stretcher bond.



Figure 3 (right) A 1945 oblique aerial photograph showing the subject building with an enclosed double-storey front verandah and a verandah on the east side of the rear wing (since removed). Source: State Library of Victoria.



Figure 4 A 1977 photograph of 99 Hotham Street showing the present verandah under construction and the French windows already in place. Source: East Melbourne Historical Society.



Figure 5 The house after completion of the restoration work, 1978. Source: East Melbourne Historical Society.

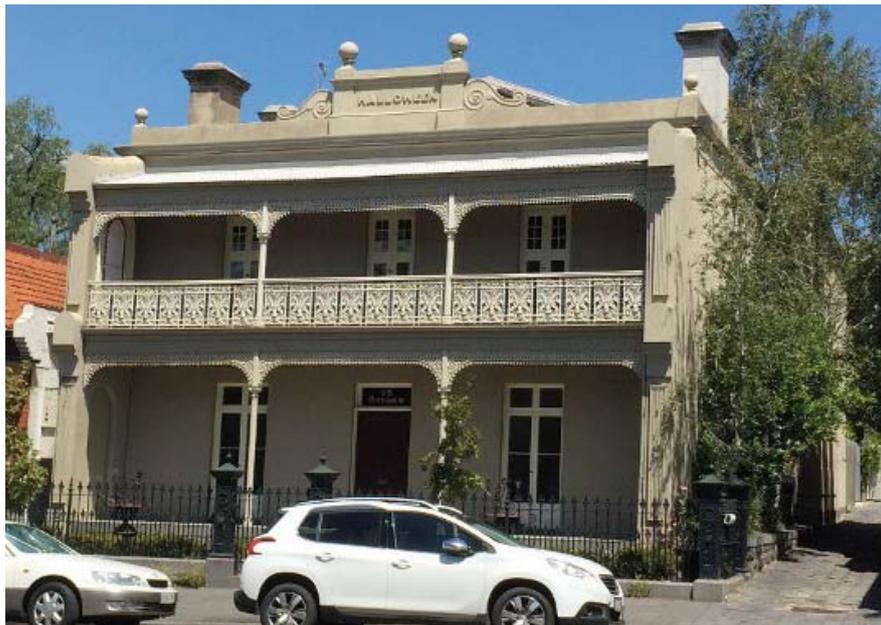


Figure 6 Current photograph of 99 Hotham Street. Note that the parapet scrolls and orb finials have been reinstated since the 1977 restoration.



Figure 7 (left) The service wing viewed from the laneway entrance.

Figure 8 (right) The rear and side elevation of the service wing.

In terms of its urban context, the subject site is located in a relatively intact heritage streetscape of single and double storey Victorian villas and terraces. There are a small number of Edwardian houses and two fairly low-key modern infill developments on the south side of Hotham Street, and interwar and post war flats on the north side. The former Cairns Memorial Church on the corner of Hotham and Powlett Streets creates a dramatic change in scale and built form character. The church is substantial Gothic revival sandstone edifice with modern glass clad apartment additions rising up from within the gutted interior.

#### 4.0 Current Listings and Controls

##### *National Trust*

All of East Melbourne bound by Victorian Parade, Hoddle Street, Wellington Parade and Lansdowne Street is included on the register of the National Trust as a place of State Significance ('East Melbourne - Historic Area', File No. B7238). The National Trust is an advisory body with no statutory powers although it might play an advisory role with regard to any proposed works to registered sites.

##### *City of Melbourne*

The subject land is located within the East Melbourne & Jolimont Precinct (HO2). External paint controls apply, but there are no internal controls under the terms of the overlay.

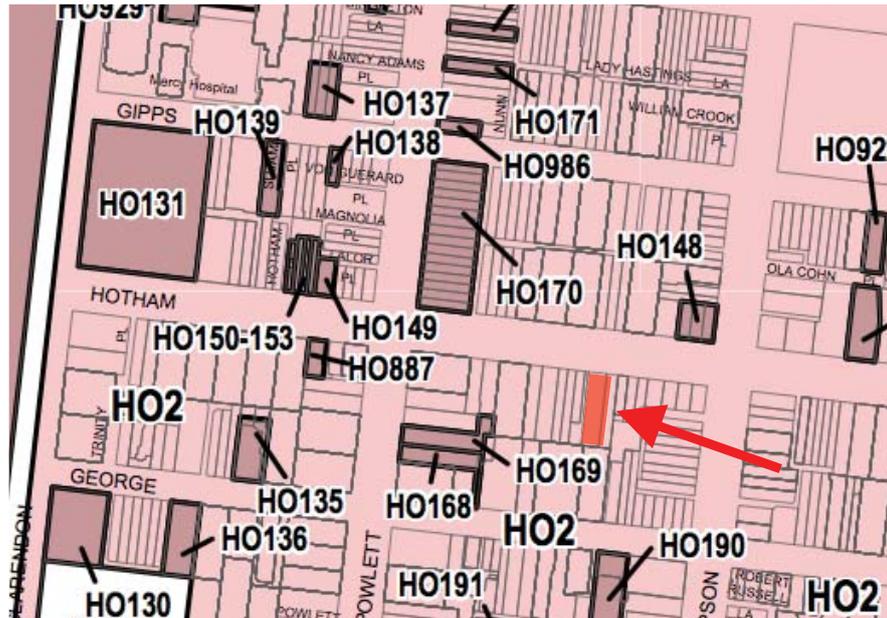


Figure 9 Map showing HO2 and the location of the subject site.

## 5.0 Significance

There is no official statement of significance for the East Melbourne and Jolimont Precinct. However, a statement of significance for the precinct was prepared for the precinct as part of Amendment C132 to the Melbourne Planning Scheme (apparently abandoned). This reads as follows:

*East Melbourne has outstanding heritage value as the best example of La Trobe's planning intentions for Melbourne: residential precincts of high urban amenity with planned parks, encircling parks around the central city and impressive boulevards through them. East Melbourne was planned in the 1840s. It includes the most intact residential area in the City of Melbourne area from the 1850s and contains many nineteenth century buildings that are individually significant. The framework of parks and boulevards laid down in the 1830s, 1840s and 1850s played a vital role in the developing form of the metropolis and is a primary contributor to its distinctive sense of place. The Fitzroy Gardens have outstanding significance to the city, State and nation. Jolimont is also significant as the home of Lt. Gov. Charles La Trobe.*

*East Melbourne has important cultural connections to the development of cricket and Australian Rules football in Australia and was the primary location for the 1956 Melbourne Olympic Games. The MCG in Yarra Park is amongst the major sports stadiums in the world. Yarra Park contains remnant vegetation from pre-European settlement and some significant Aboriginal sites.*

*A high proportion of the pre 1914 building stock in East Melbourne and Jolimont survives, and in many instances forms streetscapes with very high cultural heritage significance for their representation of nineteenth century inner urban development.*

*The Parliamentary area is the centre of State government and was for over two decades the centre of government for the Commonwealth of Australia. It has outstanding cultural heritage significance at the National level for its impressive and elegant architecture set within the socially inclusive planning of extensive gardens and parks. Nowhere else in Melbourne are the ambitious intentions for a gracious,*

*planned city, clearer than at the Parliamentary area and Eastern Hill. In the growing nineteenth century movement towards universal franchise, it is a symbol of equity and of the power of community. The Parliamentary area reflects the social, cultural, and religious life of the city, State and nation.*

*Over time, the Parliamentary area has developed from a meeting place for local groups, to a State assembly, and was for twenty six years, the national meeting and decision making forum. Its natural features defined the position for Hoddle's 1837 survey boundaries and contributed to La Trobe's selection of the Eastern Hill for the continuation of the community meeting-place role. Despite being clearly on its edge, the Parliamentary area is the focus of the 1837 grid, providing public open space for the city, a large space for public celebration, commemoration and protest, impressive views, and a commanding image of an ordered community through its impressive built forms. It has outstanding, uninterrupted social significance. It provides a physical expression of the influence of La Trobe and Hoddle in the formation of the city.*

*Individually and collectively, the several landmarks and contributory buildings in the Parliamentary area have outstanding architectural significance for their high quality and integrity. Individually and collectively, the several Gardens both public and private have outstanding aesthetic and scientific significance for their design, collections of plants and as the context for the principal buildings. The Parliamentary area has outstanding historical significance for its association with governance of the State and after federation, the nation. Visually, the precinct is largely as planned in the nineteenth century and as built and/or planted by the commencement of the First World War.*

*The structures and landscapes which contribute to the precinct date from the late 1840s to 1914. The principal period of development contributing to the cultural significance of East Melbourne is pre 1835 to 1914. Social and historical significance extends beyond 1914 to the present.*

The subject site is graded D in a Level 1 Streetscape in the *Heritage Places Inventory July 2008*. Relevant definition of these gradings in the *Heritage Places Inventory* are as follows.

*'D' buildings are representative of the historical, scientific, architectural or social development of the local area. They are often reasonably intact representatives of particular periods, styles or building types. In many instances alterations will be reversible. They may also be altered examples which stand within a group of similar period, style or type or a street which retains much of its original character. Where they stand in a row or street, the collective group will provide a setting which reinforces the value of the individual buildings.*

#### *Level 1 Streetscapes*

*Level 1 streetscapes are collections of buildings outstanding either because they are a particularly well preserved group from a similar period or style, or because they are highly significant buildings in their own right.*

The 'laneway level' is ungraded on the City of Melbourne's i-heritage database although a c1986 gradings map appears to show the laneway on the west side of the site as a level 2 streetscape (*Urban Conservation Areas – Guidelines for Owners - East Melbourne and Jolimont*).

## 6.0 Heritage Overlay

As noted above, the site is located within the East Melbourne and Jolimont Heritage Overlay Precinct, identified as HO2 in the schedule to the Heritage Overlay. It is therefore subject to the provisions of Clause 43-01, the Heritage Overlay. The purpose of this overlay is as follows:

- *To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *To conserve and enhance heritage places of natural or cultural significance.*
- *To conserve and enhance those elements which contribute to the significance of heritage places.*
- *To ensure development does not adversely affect the significance of heritage places.*
- *To conserve specifically identified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with conservation of the significance of heritage places.*

Before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority will need to consider, as appropriate:

- *The State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.*
- *The significance of the heritage place and whether the proposal will adversely affect the natural or cultural significance of the place.*
- *Any applicable heritage study and any applicable conservation policy.*
- *Whether the location, bulk, form or appearance of the proposed building will adversely affect the significance of the heritage place.*
- *Whether the location, bulk, form or appearance of the proposed building is in keeping with the character and appearance of adjacent buildings and the heritage place.*
- *Whether the demolition, removal or external alteration will adversely affect the significance of the heritage place.*
- *Whether the proposed works will adversely affect the significance, character or appearance of the heritage place.*
- *Whether the proposed subdivision will adversely affect the significance of the heritage place.*
- *Whether the proposed subdivision may result in development which will adversely affect the significance, character or appearance of the heritage place*
- *Whether the proposed sign will adversely affect the significance, character or appearance of the heritage place.*
- *Whether the pruning, lopping or development will adversely affect the health, appearance or significance of the tree.*

The proposal must also be assessed against the City of Melbourne's local heritage policy for heritage places outside the Capital City Zone (Clause 22.05), which provides further guidance as to the forms of development that might be appropriate in Heritage Overlay areas.

The relevant sections of Clause 22.05 read as follows:

*Demolition*

*Demolishing or removing original parts of buildings, as well as complete buildings, will not normally be permitted in the case of 'A' and 'B', the front part of 'C' and many 'D'*

*graded buildings. The front part of a building is generally considered to be the front two rooms in depth.*

*Before deciding on an application for demolition of a graded building the responsible authority will consider as appropriate:*

- *The degree of its significance.*
- *The character and appearance of the building or works and its contribution to the architectural, social or historic character and appearance of the streetscape and the area.*
- *Whether the demolition or removal of any part of the building contributes to the long-term conservation of the significant fabric of that building.*
- *Whether the demolition or removal is justified for the development of land or the alteration of, or addition to, a building.*

*A demolition permit should not be granted until the proposed replacement building or works have been approved.*

#### *Renovating Graded Buildings*

*Intact significant external fabric on any part of an outstanding building, and on any visible part of a contributory building, should be preserved. Guidelines on what should be preserved are included in Urban Conservation in the City of Melbourne. In considering a planning application to remove or alter any fabric, consideration will be given to:*

- *The degree of its significance.*
- *Its contribution to the significance, character and appearance of a building or a streetscape.*
- *Its structural condition.*
- *The character and appearance of proposed replacement materials.*
- *The contribution of the features of the building to its historic or social significance.*

*Where there is evidence of what a building originally looked like, renovation of any part of an outstanding building, or any visible part of a contributory building, should form part of an authentic restoration or reconstruction process, or should not preclude it at a future date. Evidence of what a building used to look like might include other parts of the building or early photographs and plans.*

*Where there is no evidence of what a building originally looked like, renovations should preferably be respectful of an interpretive modern design, rather than "guesswork" reconstruction or any other form of reproduction design.*

#### *Sandblasting and Painting of Previously Unpainted Surfaces*

*Sandblasting of render, masonry or timber surfaces and painting of previously unpainted surfaces will not normally be permitted.*

#### *Designing New Buildings and Works or Additions to Existing Buildings*

##### *Form*

*The external shape of a new building, and of an addition to an existing building, should be respectful in a Level 1 or 2 streetscape, or interpretive in a Level 3 streetscape.*

##### *Facade Pattern and Colours*

*The facade pattern and colours of a new building, and of an addition or alteration to an existing building, should be respectful where visible in a Level 1 streetscape, and interpretive elsewhere.*

*Materials*

*The surface materials of a new building, and of an addition or alteration to an existing building, should always be respectful.*

*Details*

*The details (including verandahs, ornaments, windows and doors, fences, shopfronts and advertisements) of a new building, and of an addition or alteration to an existing building, should preferably be interpretive, that is, a simplified modern interpretation of the historic form rather than a direct reproduction.*

*Concealment Of Higher Rear Parts (Including Additions)*

*Higher rear parts of a new building, and of an addition to an existing graded building, should be concealed in a Level 1 streetscape, and partly concealed in a Level 2 and 3 streetscape. Also, additions to outstanding buildings ('A' and 'B' graded buildings anywhere in the municipality) should always be concealed. In most instances, setting back a second-storey addition to a single-storey building, at least 8 metres behind the front facade will achieve concealment.*

*Facade Height and Setback (New Buildings)*

*The facade height and position should not dominate an adjoining outstanding building in any streetscape, or an adjoining contributory building in a Level 1 or 2 streetscape. Generally, this means that the building should neither exceed in height, nor be positioned forward of, the specified adjoining building. Conversely, the height of the facade should not be significantly lower than typical heights in the streetscape. The facade should also not be set back significantly behind typical building lines in the streetscape.*

*Building Height*

*The height of a building should respect the character and scale of adjoining buildings and the streetscape. New buildings or additions within residential areas consisting of predominantly single and two-storey terrace houses should be respectful and interpretive.*

*Archaeological Sites*

*Proposed development must not impact adversely on the aboriginal cultural heritage values, as indicated in an archaeologist's report, for any site known to contain aboriginal archaeological relics.*

*Sites of Historic or Social Significance*

*An assessment of a planning application should take into account all aspects of the significance of the place. Consideration should be given to the degree to which the existing fabric demonstrates the historic and social significance of the place, and how the proposal will affect this significance. Particular care should be taken in the assessment of cases where the diminished architectural condition of the place is outweighed by its historic or social value.*

[...]

## 7.0 The Proposal

It is currently proposed to demolish the rear verandah of the subject building, retaining the main front portion of the house facing Hotham Street. A three level contemporary styled addition (comprising a basement and two levels above) will be constructed behind the retained portion of the house. The rear service wing is to be demolished (and rebuilt) to facilitate the construction of the basement level garage.

The heritage impacts arising from the proposal can therefore be divided into two separate categories, namely those relating to the extent of demolition, and those relating to the design of the new works.

#### *Demolition*

The proposal does not involve demolition of key heritage fabric contributing to the heritage character of Hotham Street. The rear service wing would be demolished in its entirety but with the original brickwork stored for use in its reconstruction, taking place after the new basement is completed. The service wing would be reconstructed to the extent of its north, west and south wall and roof. This would ultimately result in no perceptible change in the presentation of this part of the subject building in views from the street and laneway

That said, it is understood that Council have encouraged the retention of the perimeter walls of the service wing under the previous permit. A number of conditions apply to the permit, including a requirement to retain the southern, northern and western walls of the service wing, and retention of the windows on the northern and southern walls of the service wing.

A key point to be made in relation to the service wing is that the retention of the rear wings of D graded buildings is not a requirement of the City of Melbourne's heritage policy. Clause 22.05 generally requires only the front portion of D graded buildings to be retained.

The criteria for demolition under clause 22.05 also require Council to consider, *inter alia*, the significance of the fabric and its contribution to the streetscape and the area. The rear service wing does not make an important contribution to the streetscape and the broader heritage area. It adopts a plain utilitarian character and it is not prominent in views from the principal streetscape, being set well back from the street frontage. To the limited extent that it is visible, this part of the building essentially presents as a blank brick wall with only two small window openings – both with non-original joinery. There is also physical evidence to suggest that service wing has been altered in the twentieth century where it abuts the main house.

Having regard for the above, demolition and reconstruction of the service wing as currently proposed would not diminish the significance of the subject building and the broader heritage overlay precinct. Accepting this, it would be appropriate for Council to require a schedule of works by way of permit condition, which sets out the intent and methodology of the reconstruction works, lists the various works required, and provides any aspects of specification that are required, e.g. in relation to mortar mix and colour, windows, etc.

It should be noted that it might not be practicable to reconstruct the service wing using all of the salvaged original building materials. Several bricks on the service wing's laneway elevation were found to friable and may be too soft and decayed to reuse – this problem could be more widespread than was apparent on initial inspection. In that event, it would be reasonable to source matching second hand bricks or to use bricks salvaged from elsewhere within the subject site.

*New Works*

Council's heritage policy at clause 22.04 requires the higher parts of an addition to a graded building to be concealed in a level 1 streetscape. The proposal achieves this objective. It would be entirely concealed in views from the in front of the house and from Hotham Street looking south down the laneway. A small part of the upper storey might be visible in oblique views above the single-storey dwelling to the east. To the very limited extent that it would be visible, this portion of the addition would appear from the street as a low-key, visually recessive element. Total concealment would not be necessary also having regard for the fact that this is not an entirely pristine heritage environment.

Importantly, the proposed rear additions are generally equivalent to previously approval scheme in key aspects relating to setbacks, height and architectural character. On that basis, the current proposal should be seen to be acceptable with regards to heritage concerns.

## 8.0 Conclusion

In summary, the proposal has been prepared with appropriate regard for the objectives and design guidelines of the heritage overlay of the planning scheme as set out in Clause 43.01, and the associated design guidelines provided within Clause 22.05 of the *Melbourne Planning Scheme*. The proposal will not have a detrimental impact on the subject building, the surrounding streetscape, or the broader heritage overlay area, and on this basis is acceptable.