

Mark Burns  
Environment/Remediation Manager, Services  
Level 14, Tower Three, International Towers Sydney  
Exchange Place, 300 Barangaroo Avenue  
Barangaroo NSW 2000  
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Dear Mark

**Barangaroo, Stage 1B Perimeter Retention Wall, Hickson Road, Millers Point - modification of Stage 1B / 1C Crown section**

## 1.0 Introduction

This letter has been prepared by AECOM Australia Pty Limited (AECOM) for Lend Lease (Millers Point) Pty Ltd (Lend Lease) in relation to the proposal not to construct a section of the Stage 1B Perimeter Retention Wall (PRW) at Barangaroo South and potential implications for compliance with the requirements of the: *Remedial Action Plan (RAP), NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW* (AECOM, 2013) - hereafter referred to as the 'VMP / Block 4 RAP'. The VMP / Block 4 RAP was approved as part of the Block 4 Remediation and Landforming Development Application State Significant Development (SSD) 5897-2013.

It is proposed that a section of the western Stage 1B PRW (hereafter referred to as the 'Redundant Section' will not be constructed (specifically, between the Crown Stage 1B and 1C basement areas) as shown on **Figure 1, Attachment 1**. This is because the basement proposed as part of the Crown Hotel Development will extend from the Stage 1C basement footprint into the northwest corner of the Stage 1B (Block 4) basement footprint (refer to the area shaded in green on **Figure 1, Attachment 1**)<sup>1</sup>. As a consequence, it will not be necessary to construct a PRW along that part of the Block 4 western boundary that will otherwise be within the Crown Basement (i.e. the 'Redundant Section').

This letter supersedes the original *Barangaroo, Stage 1B Perimeter Retention Wall, Hickson Road, Millers Point - potential deletion of Stage 1B/1C Crown section* (AECOM, 2015b, referred to herein as the 'Crown Interface Letter') (refer to **Section 3.0**).

## 1.1 Objectives

The objectives of this letter are to confirm whether not constructing the Redundant Section of the Stage 1B PRW:

- is consistent with the VMP / Block 4 RAP (AECOM, 2013);
- would require preparation of an Addendum to the VMP / Block 4 RAP (AECOM, 2013); and
- will have implications on validation of the Block 4 Development Remediation Works.

In addition, this letter describes the current design and status of the Stage 1B and Stage 1C PRW construction works.

## 2.0 Current Status of the Stage 1B and 1C PRW Construction Works

Lendlease has advised that the Stage 1B PRW has been completed around the perimeter of Block 4 with the exception of the Redundant Section, where a temporary sheet pile wall has been constructed to provide Stage 1B excavation support and to enable dewatering of the Stage 1B excavation. Construction of the Crown Stage 1C PRW has also been completed and the basement excavation works commenced.

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<sup>1</sup> It is noted that depth of the Crown basement within Stage 1B will be the same as that in Stage 1C (i.e. approximately 12 m below ground level [bgl] - refer to **Figure 1, Attachment 1**).

### 3.0 Crown Interface Letter (AECOM, 2015b)

The Crown Interface Letter (AECOM, 2015b) assessed the following potential PRW construction scenarios:

- Scenario 1 – Stage 1B PRW constructed prior to Stage 1C (full permanent Stage 1B PRW); and
- Scenario 2 – Stage 1B PRW constructed concurrently with Stage 1C including
  - Option A – full permanent Stage 1B and 1C PRWs; and
  - Option B - no wall within the Redundant Section.

This letter considers only Scenario 2, Option B from the *Crown Interface Letter* (AECOM, 2015b) because the Stage 1B and 1C PRW construction works have subsequently been completed concurrently (refer to **Section 2.0**).

The Site Auditor's review of the *Crown Interface Letter* (AECOM, 2015b) presented in the letter titled *Barangaroo, Stage 1B PRW, Hickson Road, Millers Point – Potential Amendments re Crown Interface Wall* (Ramboll Environ, 2015) concluded that:

- *Completion of the Crown Stage 1C PRW is considered adequate to achieve validation of the Stage 1B PRW in the event that the Redundant Section is not constructed or is removed following construction; and*
- *That preparation of an Addendum to the VMP / Block 4 RAP (AECOM, 2013) would not be required on the basis that confirmed validation requirements will be documented in the VSAQP<sup>2</sup> and there is an ongoing Site Audit which will review the validation performed and conclude as to the suitability of the site for its intended use.*

### 4.0 Consistency with the VMP / Block 4 RAP (AECOM, 2013)

Section 4.3 of the *VMP / Block 4 RAP* (AECOM, 2013) assumes that a PRW will be “constructed around the perimeter of the Block 4 basement” as part of the Block 4 Development Remediation Works and therefore “the development of ecological risk based criteria for Block 4 (i.e. within the retention wall system) was not considered to be required for ecological protection”.

It is considered that construction of the Stage 1C PRW (which is connected to the Stage 1B PRW), will effectively perform the same function as construction of the Redundant Section (refer to **Figure 1**). That is, it will minimise groundwater migration from Stage 1B to the nearest sensitive receptor Darling Harbour and, therefore, will comply with the requirements of the *VMP / Block 4 RAP* (AECOM, 2013) including the validation requirements of the Block 4 Development Remediation Works.

It is noted that the potential for the Redundant Section to not be constructed was assessed in Section 16.3.3 of the *RAP, Crown Hotel Development (Part of ORWN Area), Barangaroo South* (AECOM, 2015a). It was concluded that not constructing the Redundant Section would not affect validation of the Stage 1C remediation works as the “Stage 1C groundwater retention wall would effectively replace that section of the Stage 1B groundwater retention wall that will intersect with the proposed Stage 1C Basement”.

Finally, an Addendum to the *VMP / Block 4 RAP* (AECOM, 2013) is not required because, as described above, construction of the Stage 1C PRW is considered equivalent to construction of the Redundant Section. Further, as noted by the Site Auditor (refer to **Section 3.0**), validation of the Block 4 (Stage 1B) Development Remediation Works will be managed via implementation of the *Block 4 (Stage 1B) VSMP* (ERM, 2017) which has been, or will be, subject to review by the Site Auditor.

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<sup>2</sup> Now replaced by the *Validation and Sampling Management Plan (VSMP), Block 4 [Stage 1B]* ERM, March 2017).

## 5.0 Conclusions

Based on the information presented herein (including consideration of the conclusions made previously by the Site Auditor - refer to **Section 3.0**), it is concluded that:

- the completed Stage 1B and 1C PRW construction works (excluding the Redundant Section, as described in **Section 2.0**) will:
  - minimise groundwater migration from Stage 1B to the nearest sensitive receptor Darling Harbour and, therefore, comply with the requirements of the *VMP / Block 4 RAP* (AECOM, 2013);
  - not require preparation of an Addendum to the *VMP / Block 4 RAP* (AECOM, 2013); and
  - not impact on the validation of the Block 4 (Stage 1B) Development Remediation Works which will be managed by implementation of the *Block 4 (Stage 1B) VSMP* (ERM, 2017).

Consequently, it is considered that the Redundant Section of the PRW does not need to be installed to meet the requirements of the *VMP / Block 4 RAP* (AECOM, 2013).

## 6.0 References

- AECOM, 2011. *HHERA- Declaration Site (Development Works) Remediation Works Area – Barangaroo*.
- AECOM, 2013. *RAP, NSW EPA Declared Remediation Site 21122 and Block 4 (Stage 1b) Development Works, Barangaroo, Millers Point, NSW*. 24 July.
- AECOM, 2014. *HHERA - Stage 1C Development (ORWN) Area, Barangaroo South*.
- AECOM, 2015a. *RAP, Crown Hotel Development (Part of ORWN Area), Barangaroo South*. 11 April.
- AECOM, 2015b. *Barangaroo, Stage 1B Perimeter Retention Wall, Hickson Road, Millers Point - potential deletion of Stage 1B/1C Crown section*. 28 July.
- AECOM, 2017. *VMP/Block 4 RAP Addendum - Part Stage 1B Public Domain (Watermans Quay), Hickson Road, Millers Point, Barangaroo South*. 16 February.
- AECOM, 2018a. *HHERA, Modified Stage 1B and Stage 1C Basement Design*. 19 January.
- AECOM, 2018b. *Addendum to the Crown Hotel Development Remedial Action Plan, Stage 1C, Barangaroo South*. 23 May.
- ERM, 2017. *Validation Sampling and Management Plan, Block 4 (Stage 1B) Development Works, Barangaroo, Millers Point, NSW*. March.
- Ramboll Environ, 2015. *Barangaroo, Stage 1B PRW, Hickson Road, Millers Point – Potential Amendments re Crown Interface Wall*.

Yours faithfully,

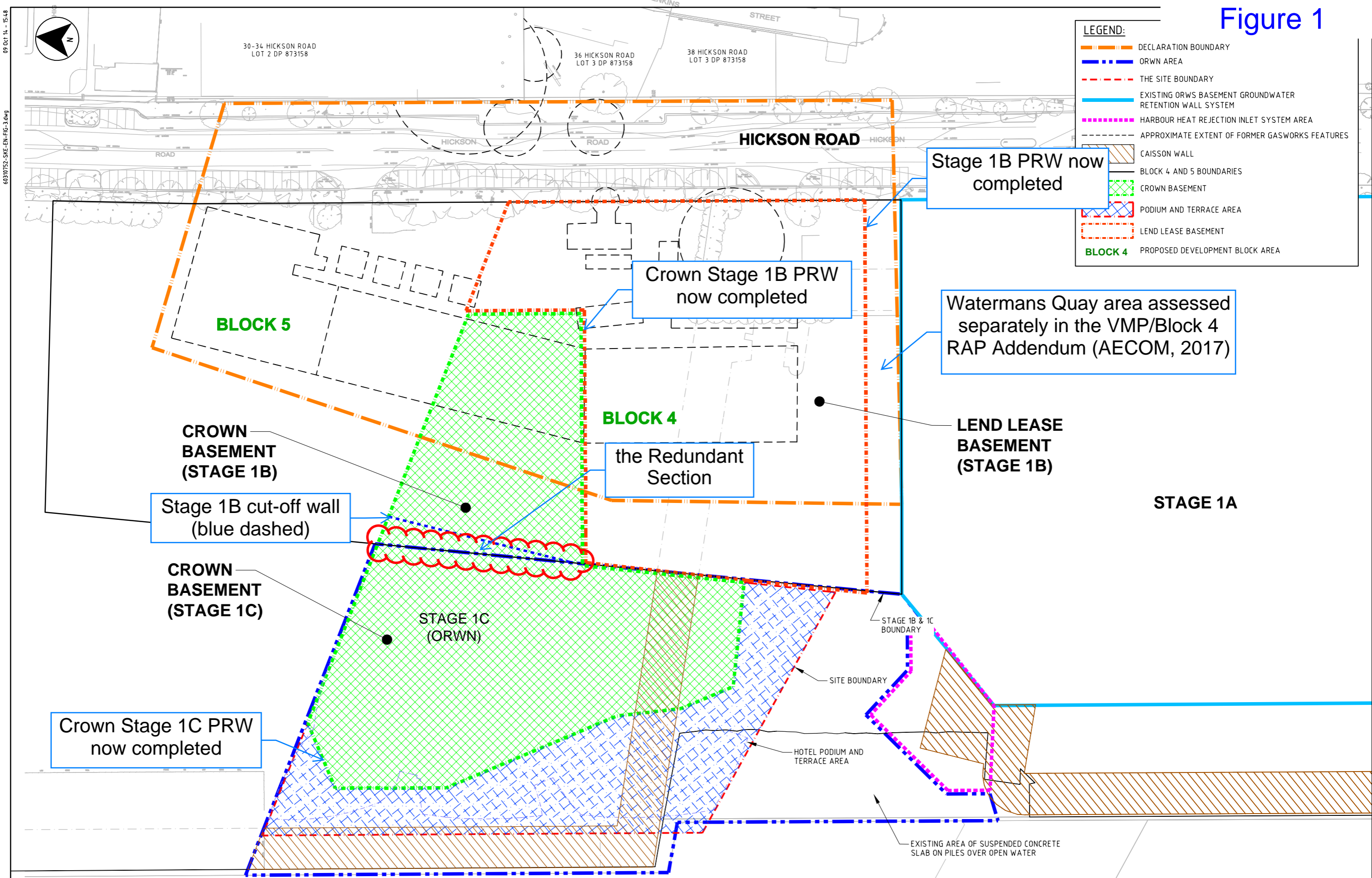
Andrew Rolfe  
Principal Scientist  
[andrew.rolfe@aecom.com](mailto:andrew.rolfe@aecom.com)  
Mobile: +61 418 601 363  
Direct Dial: +61 2 8934 0367

Michael Jones  
Group Director - Environment NSW & ACT  
[michael.a.jones@aecom.com](mailto:michael.a.jones@aecom.com)  
Mobile: +61 428 532 255  
Direct Dial: +61 2 8934 0397

**Attachment 1** – Figure F3 taken from the *Crown RAP* (AECOM, 2015a)

**Attachment 1 - Figure F3 taken from the *Crown RAP*  
(AECOM, 2015a)**

Figure 1



**FOR INFORMATION ONLY**

This drawing is confidential and shall only be used for the purposes of this project.

REVISIONS	No.	BY	DATE	DESCRIPTION	APPD
	03	PAS	09.10.14	DRAFT ISSUE	AR
	02	PAS	30.05.14	DRAFT ISSUE	
	01	PAS	20.11.13	DRAFT ISSUE	

SCALES:

1:1000 A3

THE SIGNING OF THIS TITLE BLOCK CONFIRMS THE DESIGN AND DRAFTING OF THIS PROJECT HAVE BEEN PREPARED AND CHECKED IN ACCORDANCE WITH THE AECOM QUALITY ASSURANCE SYSTEM TO ISO 9001-2000

DESIGNED	AR	CHECKED	
DRAWN	PAS	CHECKED	
APPROVED		DATE	

CONTRACTOR:

DESIGNER:

**AECOM**

AECOM Australia Pty Ltd A.B.N. 20 093 846 925

STATUS: DRAFT

DRAWING NO: 60310752-SKE-EN-FIG-3

REV: 03

**CROWN HOTEL DEVELOPMENT RAP, BARANGAROO**

FIGURE F3:  
PROPOSED FUTURE LAND USE -  
CROWN DEVELOPMENT AREA