

23 April 2020

Amarah Babar
Macquarie University
Building Y6A
Macquarie University NSW 2109

Dear Amarah,

Re: Proposed Site Remediation
Interim Audit Advice No. 1 – 8-12 University Avenue, Macquarie Park NSW

1. Introduction and Background

As a NSW EPA Accredited Auditor, I have been engaged by Macquarie University to undertake an Audit in relation to the 8 – 12 University Avenue, Macquarie Park NSW (Part Lot 191 Deposited Plan 1157041). The site is shown on Attachment 1. The Audit has been commissioned as Macquarie University proposes to redevelop the site into multi-storey university building containing retail, office space, laboratories, three levels of basement car parking and minor infrastructure associated with the building. A State Significant Development Application (SSD 9313) was submitted at the end of 2018. Following submission, a letter issued by the NSW Environment Protection Authority (EPA) dated 22 February 2019 states:

'Accordingly, the EPA considers that the proponent should engage a site auditor accredited under the Contaminated Land Management Act to provide a Section A site audit statement (SAS) and accompanying site audit report (SAR) certifying suitability of the land for the proposed land use.'

This Interim Audit Advice has been prepared to determine the appropriateness of the remediation action plan.

The Auditor has reviewed the following reports provided by Macquarie University:

- 'Report to Cadence Australia on Stage 2 Environmental Site Assessment for Proposed New Development at 8 – 12 University Avenue, Macquarie University, NSW' dated 10 April 2017 by Environmental Investigation Services (EIS) (now JK Environments).
- 'Report to Macquarie University Property on Remediation Action Plan (RAP) for Proposed New Development at 8 – 12 University Avenue, Macquarie University, Macquarie Park, NSW' dated 28 January 2020 by JK Environments (JK).

Historically, the site was occupied by agricultural land (likely market gardens/orchards and poultry farms) prior to the development of car parking and an electrical substation as part of the broader Macquarie University.



2. Review Comments

JK have identified the areas of concern that require remediation including asbestos impacted fill and an electrical substation. Remedial works proposed include the excavation and disposal of the asbestos impacted fill. JK have not discussed remedial works for the electrical substation. A data gap assessment has also been proposed under the site structures following removal and to confirm the extent of asbestos impacted fill.

It is considered that the site assessment and remediation approach recommended by JK is appropriate subject to detailed comments below.

Stage 2 Environmental Site Assessment

- Section 2.4. Detail the site condition in the western portion of the site.
- Discuss the potential offsite impacts (if any) from surface water runoff to the nearest surface water receptor.
- Section 5.1. Table 5-1. Former buildings on the site listed here not mentioned in site history section, please update in Section 4.
- Section 6.2. Table 6-2. Site area is noted here as 11,000m² however in Section 2.1 Table 2-2 it is 20,000m², please clarify.
- Section 6.3. Table 6-3. Please confirm if new gloves were used for groundwater sampling.
- Attach calibration records if available.
- Section 8.1. Table 8-1. Discuss groundwater flow direction.
- VOCs were listed as a contaminant of concern however were not analysed, please close out.
- Well construction details have not been included on the logs, please update.
- Please confirm within the Stage 2 ESA that the activities listed in Appendix B of the NEMP 2018 have not been undertaken at the site.

Remediation Action Plan

- Section 2.2 Table 2-2. Please state area of the site as is shown by the site boundary in the figures.
- Section 7.2. Table 7-2. Excavation at AEC1 should continue to natural soil.
- Section 8.1.
 - Validation documentation for AEC1 should also include survey plans of the area prior to excavation, following excavation and then at final levels.
 - If possible, VENM should be inspected at the source site by the environmental consultant as well as the receiving site.
 - Please update all asbestos analysis to state 500ml NEPM 2013.
- Section 9.1. Provide an unexpected finds flow chart.
- The RAP will be required to be updated following the data gap assessments. In particular, there is currently no discussion around the remediation requirements for the electrical substation. This is will need to be included in an updated RAP.

A survey plan of the site boundaries will be required if the audit is to become statutory.

Please provide addendum letters for the Stage 2 Environmental Site Assessment to the Auditor for review. The updated RAP following data gap assessment must also be provided to the Auditor for review and further comment.



Prior to the commencement of excavation works, a VENM assessment of the natural soil and bedrock, and a waste tracking register to be used during development, must be provided for the Auditors review.

3. Close

We look forward to receiving a response to the comments above and trust this meets your current requirements. Should you have any queries or require further information, please do not hesitate to contact the undersigned.

Yours sincerely,
On behalf of **Senversa Pty Ltd**

Melissa Porter
Principal
EPA Accredited Auditor

ES/MP

Enclosures: Attachment A: Remediation Plan

Technical Limitations and Uncertainty – This Interim Advice is not a Site Audit Report or a Site Audit Statement, as defined in the Contaminated Land Management Act 1997, but forms part of the Site Audit process. It is intended that a Site Audit Statement and report will be issued at the completion of the site audit.

Consistent with NSW EPA requirements for staged “sign-off” of sites that are the subject of progressive assessment, remediation and validation, the Auditor is required to advise that:

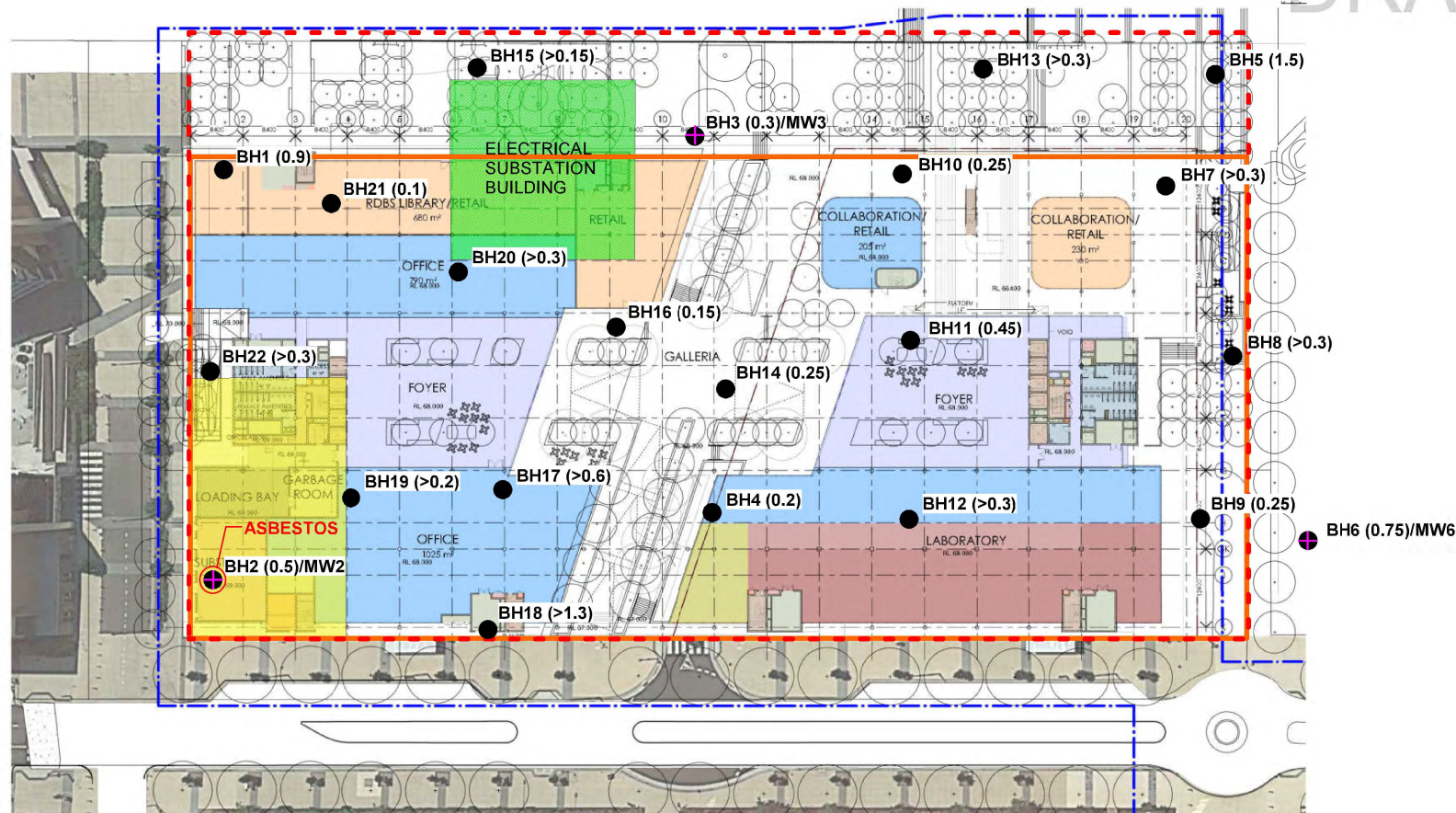
- This site audit advice does not constitute a site audit report or statement.
- This letter is considered by the Auditor to be consistent with NSW EPA guidelines and policies.
- This letter will be documented in the final Site Audit Statement and associated documentation.
- At the completion of the site audit, a Site Audit Statement will be prepared, for the consent agency to include the Site's property information, held by the local council.

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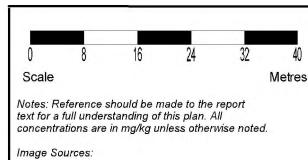


Attachment A: Remediation Plan



LEGEND:

- - - APPROXIMATE SITE BOUNDARY
- APPROXIMATE BASEMENT FOOTPRINT
- BH1 (0.3) BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)
- ✚ MW2 GROUNDWATER MONITORING WELL LOCATION AND NUMBER
- APPROXIMATE AEC1 (FRIABLE ASBESTOS) REMEDIATION AREA
- APPROXIMATE AEC2 (ELECTRICAL SUBSTATION) REMEDIATION AREA



Title: REMEDIATION PLAN	
Location: 8-12 UNIVERSITY AVENUE, MACQUARIE PARK, NSW	
Project No: E29775PL	Figure No: 3
JK ENVIRONMENTS	

