

11 October 2019

Our ref: SYDEN233503-IA02

Blue Visions Management Pty Ltd
Level 14, 99 Mount Street
North Sydney NSW 2060

Attention: Alan O'Brien

Dear Alan,

Interim Audit Advice 02: Opinion on Capping Depth for Management of Asbestos in Soil for Development at Parramatta West Public School

The advice presented in this document represents interim audit advice only and does not constitute a Site Audit Report or Site Audit Statement. The advice provides the opinion of the auditor based on the knowledge that is available at the time of this advice. A Site Audit Report and Site Audit Statement will be issued at the end of the audit process, when the auditor is satisfied all relevant matters have been adequately addressed. Interim audit advice does not pre-empt or constrain the final outcome(s) of the audit or any conditions that may be placed by the auditor in a final Site Audit Report and Site Audit Statement.

Blue Visions Management Pty Ltd (Blue Visions) is acting as agent for School Infrastructure NSW for planned construction of an additional 2 storey building at Parramatta West Public School, which is part of State Significant Development (SSD) 8790. The new building would occupy the eastern half of a property on the northern side of Railway Street adjacent to the school. This property, identified as Lot 406 in Deposited Plan 729083, has an area of 9,740m² and has been used as a sports field by the school for many years.

Coffey Services Australia Pty Ltd has been engaged by Blue Visions for the provision of site audit services by a NSW EPA accredited site auditor (Dr Michael Dunbavan, accreditation number 0804).

The Principal Design Consultant, Conrad Gargett, has retained Environmental Investigation Services (EIS – a division of Jeffery and Katauskas Pty Ltd) as environmental consultant.

About this Interim Audit Advice

Information supporting the proposed development included the following site contamination report prepared by EIS:

- Detailed Site Investigation (Contamination) for Proposed development at Parramatta West Public School, Crimea Street, Parramatta, NSW (dated 21 May 2018, EIS reference: E31425KPrpt – referred to as the DSI Report)

As part of review of information provided in support of SSD 8790, I am informed that NSW Environment Protection Authority (EPA) made the following comments regarding asbestos impact in

soil on the development site. The Proponent, School Infrastructure NSW responses to EPA's comments are also provided.

Item	EPA Comments	School Infrastructure Response
2q	EIS Appendix CC 'Remediation Action Plan' proposes capping and containment of asbestos contaminated soils with a 300 millimetres cap of clean fill over the marker layer. However, the Western Australian DoH ' <i>Guidelines for the Assessment and Management of Asbestos – Contaminated Sites in Western Australia – May 2009</i> ' recommends the depth of the clean fill should be at least 1m for public open spaces and at least 0.5m for all other uses, such as residential or commercial activities.	Western Australian (WA) DoH 2009 Guidelines indicates that the implementation of additional measures at such as marker layers, on-going management plans, and appropriate notification and enforcement mechanisms can be used to support a proposal for reduced capping thickness. The potential for generating respirable, airborne asbestos fibres from soils containing bonded Asbestos Containing Material (ACM) is low, even during soil disturbance (this was supported during the DSI - see Section 8.3 of the report). Notwithstanding this and based on the EPA's comments, the Department of Education will engage an EPA Accredited Site Auditor who shall undertake an assessment of the proposed depth of capping over contaminated fill on the north site. The Department of Education commits to adopting the recommendations of the Auditor in that regard. A copy of the Auditor's Report is to be provided to the Department of Planning, Industry and Environment when available (refer to Section 1.2 above for more detail).
2r	The EPA considers the emplacement of only 300 millimetres of clean fill material over the marker layer and no cap under hardstand areas poses a potential risk to future users.	

Site Auditor's assessment of the proposed depth of capping over ACM contaminated fill

My review of the DSI Report confirmed that the density of sampling locations was consistent with the recommended density for a site with known asbestos impact based on the WA DoH guidelines (2009). I note that recommendations for sampling and analysis of asbestos impacted soils are consistent between WA DoH (2009) and Schedule B2, *Guideline on Site Characterisation*, to the ASC NEPM (NEPC 2013). The forms of asbestos are defined in Section 4.4 of Schedule B1, *Guideline on Investigation Levels in Soil and Groundwater*, to the ASC NEPM.

My review of the DSI Report confirmed that:

- No asbestos fines (AF) or fibrous asbestos (FA) was identified across the site;
- No free asbestos fibres were identified across the site; and
- In the 796 kg of soil samples collected from 42 locations across the site, an equivalent of 29 grams of asbestos in the form of Bonded Asbestos was identified, which equates to a concentration of 0.004%w/w, compared to the Health Screening Level of 0.01%w/w.

Schedule B1 of the ASC NEPM, Table 7 lists Health Screening Levels for asbestos contamination in soil. I confirm that, with results from appropriate sampling and analysis of asbestos impacted soil, the ACM impact across the site presents a low human health risk, provided that an environmental management plan is implemented to ensure that ACM fragments which become visible at the soil surface from time to time are removed.

With reference to the latter condition regarding fragments of ACM becoming visible at the soil surface from time to time, I note that the EIS assessment identified seven (7) ACM fragments on the site. These ACM fragments are likely to have emerged during the past 7 years, presuming that inspection of the site for ACM fragments was conducted in association with implementation of the School's *Asbestos in Grounds, Asbestos Management Plan* (Parsons Brinckerhoff 2012). Given that visible ACM fragments were removed from the site by EIS as samples for laboratory assessment of asbestos content, I consider that the potential health risk is low for the current condition of the site based on the DSI Report results.

Given that the discussion above indicates low level of human health risk for a site with sensitive receptors, I consider that additional capping of the site is not warranted.

Referring to WA DoH Guidelines, Section 5.2.2 Treatment On-site, I consider that the site satisfies the listed Predisposing Conditions for treatment on-site, which are:

- Asbestos is not buried deeply, for example <1m; the DSI Report concluded that ACM impact was predominantly in the top 0.1m of the soil profile and the depth of fill material is generally less than 1m.
- The area of asbestos impact exceeds 0.2 hectares. The site area is approximately 1 hectare.
- The extent of contamination is well delineated.
- Contamination is not by asbestos free-fibres. None identified in 42 soil samples and form of asbestos is Bonded ACM.
- Adjacent properties to the east are currently separated by a 2m high sheet steel fence, and other boundaries are adjacent to public open space (Crimea and Railway Streets and Burra Reserve).

Given the above, I conclude that the site is amenable to environmental management for maintenance of low level of human health risk posed by ACM impact in soil.

Response to EPA comments

I consider that the information I have presented above demonstrates that Treatment On-site, in accordance with the WA DoH Guidelines, Section 5.2.2, is appropriate for this site.

For clarity, I recommend:

- No placement of additional fill material or marker layer, and
- Review of the School's current Asbestos Management Plan to ensure regular (at least annual) site inspections by a person competent to identify Bonded ACM in surface soil with removal of any visible Bonded ACM fragments is included as a risk management measure.

Please contact me directly for clarification of any detail of this Interim Advice.

For and on behalf of Coffey,



Michael Dunbavan
NSW EPA accredited Site Auditor (0804)