17th March 2015

Ref: IA 0301-1504_01

Timothy Farrell
Iglu Pty Limited
Level 21, Deutsche Bank Place
126 Phillip Street
SYDNEY NSW 2000

Via email: tfarrell@iglu.com.au

Dear Mr Farrell,

RE: Site Audit Interim Advice - 60-78 Regent St Redfern - Mixed Use Student Accommodation Development.

James Davis of Enviroview Pty Ltd has been engaged to provide the services of a NSW EPA Contaminated Land Accredited Site Auditor, to conduct a Site Audit in relation to the site identified as 60-78 Regent St, Redfern NSW (the 'Site'), in accordance with the *Contaminated Land Management Act 1997* and relevant guidelines made or approved under s.105 of that Act.

The objective of the Site Audit is to provide a Site Audit Report and Site Audit Statement to certify, in the Auditor's opinion that, in relation to contaminated land, the site is suitable for the proposed mixed-use student accommodation redevelopment of the site.

A Site Audit Interim Advice is provided by a Site Auditor to assist in the management of contamination issues in regard to the requirements of the Site Audit at a particular stage of the Site Audit. An interim advice does not constitute a Site Audit Statement or a Site Audit Report, and does not pre-empt the final Site Audit conclusions. A Site Audit Report and Site Audit Statement will be prepared at the conclusion of the Site Audit.

The purpose of this interim advice is to provide the Site Auditor's opinion on whether the site can be made suitable for the proposed land use. Within the context of the Site Audit the proposed land use is considered to be residential with minimal opportunity for access to soil, including high-rise apartments and flats.

I have been provided with the following report upon which I have based my opinion:

> DLA Environmental (August 2014) *Stage 1 Preliminary Environmental Site Investigation 60-78 Regent Street, Redfern*. Document Reference DL3372_S001954 21 August 2014 Revision R01

According to the National Environmental Protection (Assessment of Contamination) Measure (NEPC, 1999 amended 2013) (the 'NEPM') a Preliminary Site Investigation is a desktop study to collect basic site information and identify the site characteristics (site location, land use, site layout, building construction, geological and hydrogeological setting, historical land uses and activities at the site), and should include a site inspection and if possible interviews with current and past owners, operators and occupiers of the site and the preparation of a report.

The preliminary investigation should be sufficient to:

- identify potential sources of contamination and determine potential contaminants of concern;
- identify areas of potential contamination;

- identify potential human and ecological receptors;
- identify potentially affected media (soil, sediment, groundwater, surface water, indoor and ambient air).

In summary the key findings of the Preliminary Site investigation that has been conducted are as follows:

- The current improvements on the site were present prior to 1930 (It is understood that the buildings in this part of Redfern were built in the late 1800's);
- The only specific potentially contaminating activity identified was that a possible drycleaners was located at 74-76 Regent Street, based on a 10 year lease from 1961-1971 that was identified in the title search;
- No off-site sources of contamination were identified;
- Fill materials, often containing elevated levels of contaminants, are common across the inner city and may be present under the building on the site;
- A detailed site investigation was recommended to include soil sampling and specific analysis for volatile organic compound (VOCs) related to the dry cleaning activities.

In general the Preliminary Site Investigation report meets the requirements of the guidelines. Some limitations however have been noted:

1. A more comprehensive search of information sources could have been accessed, though it is acknowledged that considering the past non-industrial use of the site (retail and residential) it is unlikely that additional sources of information would have produced any more useful information;
2. The inspection of the premises was limited and access into the properties would have been beneficial, as this appears to have not been possible. It is expected that further inspections will be undertaken prior to the planning of the recommended detailed site investigation to ensure any observed areas of environmental concern are appropriately assessed.

With regards to contamination that may be related to contaminated fill on the site, it is expected from experience on many other sites within Redfern and adjacent suburbs that contamination will be shallow and confined to the fill itself. The expected contaminants include those ubiquitous in fill in Sydney such as heavy metals and polycyclic aromatic hydrocarbons and depending on the age of the fill materials containing asbestos. Usually on development sites this type of fill material is sampled to provide a waste classification, excavated and disposed off-site. Once the impacted fill has been removed further sampling would be undertaken to demonstrate that contaminant levels meet an acceptable criteria. If removal of the impacted fill was not possible due to some physical constraint, it is not uncommon for it to remain onsite, contained below permanent paving without presenting an unacceptable risk to users of the site, however the decision to leave residual contaminated material on site can have negative commercial implications due to ongoing management, requirements and usually some form of notation on title.

With regards to the dry cleaning activities, the associated contamination, if present, can be more complicated to assess and manage. The solvent used in dry cleaning is tetrachloroethylene (or perchloroethylene – PCE), which when released into the environment will over time also be present as degradation products of PCE, namely trichloroethylene (TCE), cis-1,2-dichloroethene (cis-1-2 DCE) and vinyl chloride. All of these contaminants are recalcitrant in the environment and all are toxic to varying degrees. In addition they are all relatively mobile and will migrate to groundwater and can be a vapour intrusion risk to occupiers of buildings located above the affected soil and groundwater. Often neighbouring sites as well as the original source site will be affected due to the migration of the contamination in groundwater, attracting regulatory notification with the NSW EPA under the *Contaminated Land Management Act 1997*.

The management of these contaminants to enable a site to be suitable for the proposed landuse may involve the employment of a number of strategies. These will usually be based on the removal of the source of contamination through excavation and off-site disposal, resulting in a reduction of the concentration in soil and or groundwater, and the implementation of engineered vapour mitigation measures if vapour risks are found through either direct soil vapour sampling and/or an estimation of likely future vapour levels utilising various predictive models. However, as previously mentioned, residual contamination that remains on site above risk based criteria will require ongoing management, and commercial implications will need to be taken into account in relation to the choice of management options.

The redevelopment of the site does however enable excavation of site soils if required and in the worse case, if widespread impacts were found to be present from the dry cleaning activities, it would be feasible to incorporate appropriate vapour intrusion mitigation measures if required.

With regard to the likely nature and extent of potential contamination at the site and whether the site is capable of being made suitable for the proposed use, it is my opinion that the site can be made suitable with the implementation of a carefully considered Remediation Actin Plan (RAP) developed on the basis of a detailed site investigation to be undertaken as soon as practicable in accordance with the relevant guidelines made or approved by the NSW EPA.

It is recommended that the requirement for a Site Audit be undertaken by a NSW EPA Accredited Site Auditor in relation to the suitability of the site for the proposed land use is made a condition of consent for the development to ensure the investigation and remedial works conducted are in accordance with the relevant NSW EPA guidelines.

Thank you for your time in regard to this matter. If you require additional information or clarification, please do not hesitate to contact me.

Yours sincerely

James Davis
NSW EPA Contaminated Land Site Auditor
Enviroview Pty Ltd