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### Site Contamination Review:

**100-120 King Street and 30-60 Dangar Street, Randwick**

### Montefiore Aged Care Facility – Project Application

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## **1 OBJECTIVE AND SCOPE**

CETEC were engaged by Sir Moses Montefiore Jewish Home to conduct a review of soil contamination reports relating to the Montefiore Aged Care Facility located at 100-120 King Street and 30-60 Dangar Street, Randwick referred to from here on in as the site.

The objective of this report is to provide comment on the suitability of the site for the proposed development works in respects to the known soil contamination present. It is understood that this report will be included in the proposed Section 75W modification application to project approval MP 10\_0044 (as modified). The scope of works conducted included reviewing the project application and available site contamination reports.

## **2 LIMITATIONS**

This report provides an opinion as to the likely suitability of the site for the proposed development works in relation to the presently documented soil contamination only.

CETEC have not conducted any site inspections or soil testing at the site as part of this scope of works and hence the findings, recommendations and any opinions expressed in this report rely heavily on observations and testing conducted by other parties.

## **3 REGULATORY REQUIREMENTS**

The following legislation, codes of practise and guidelines relating to the management and remediation of contaminated sites must be adhered to during the development works:

➤ *Protection of the Environment Operations Act 1997*

The Protection of the Environment Operations Act 1997 (POEO Act) enables Government to set explicit protection of the environment policies (PEPs) and adopt more innovative approaches to reducing pollution. PEPs are instruments for setting environmental standards, goals, protocols and guidelines. They provide both the framework for Government decisions that affect the environment, and are the means of adopting Australia-wide environment protection measures set by the National Environment Protection Council.

➤ *Contaminated Land Management Act 1997*

The Contaminated Land Management Act 1997 Act (CLM Act) forms the legislative framework used for

the management of contamination in NSW. The CLM Act provides for the NSW OEH to become involved in the management of contamination where the contamination presents a significant risk of harm to human health or some aspect of the environment. Section 4 of this report details the registers, lists and licences which may relate to land under the CLM Act that were searched for this Stage 1 Preliminary Site Investigation. The Act sets out the responsibilities for the management and remediation of contaminated land and groundwater.

➤ *State Environmental Planning Policy No. 55 – Remediation of Land*

The State Environmental Planning Policy - Remediation of Land (SEPP 55) aims to provide for a state-wide planning approach to the remediation of contaminated land and to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health and the environment. The SEPP requires all remediation work to comply with specified standards and that local councils are notified prior to remediation works being carried out, and upon their completion. Under the SEPP, contaminated land must not be developed if it is deemed unsuitable for a proposed use, unless remediation is undertaken prior to land development.

➤ *NSW OEH, Guidelines for Consultants Reporting of Contaminated Sites (2011)*

This guideline ensures reports prepared by consultants on the investigation and remediation of contaminated land contains sufficient and appropriate information to enable efficient review by regulators, the Site Auditor and other interested parties. It outlines the key inclusions of a Stage 1 Preliminary Site Investigation, all of which have been included in the scope of this investigation.

➤ *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as Amended 2013)*

This measure consists of a policy framework for the assessment of site contamination, Schedule A (Recommended General Process for the Assessment of Site Contamination) and Schedule B (Guidelines). This guideline was developed to protect human health and is based on risk assessment for long-term use. The National Environment Protection Measure (NEPM) Health-Based Soil Investigation Levels (HILs) in Schedule B are not directly applicable to assessing acute health risks but may be used for preliminary screening assessment of soil contamination.

➤ *Guideline for the Assessment and Management of Groundwater Contamination, NSW Department of Environment and Conservation (now OEH) 2007*

This guideline, although it does not articulate legislative requirements, is to be taken into account by

OEH whenever relevant. It includes best practices for assessment, management and remediation of groundwater contamination.

- *Australian and New Zealand Guideline for the Assessment and Management of Contaminated Sites, Australian and New Zealand Environmental Conservation Council (ANZECC) and the National Health and Medical Research Council (NHMRC)*

This guideline aims to provide a fundamental framework for preventing, assessing, cleaning and managing existing contaminated sites.

## 4 SUMMARY OF PROPOSED DEVELOPMENT

Currently the Montefiore Aged Care Facility aged care facility consists of 3 blocks (Block A, B and C). The proposed development consists of the construction of a 90 bed residential aged care facility referred to as Block D. Block D will be an extension to the east side of Block C constructed over an existing below grade carpark and grassed areas on the corner of King and Dangar Streets.

## 5 SUMMARY OF SITE CONTAMINATION

The following reports related to soil contamination have been reviewed:

Report Title	Prepared By	Date
Final RAP Remedial Action Plan Lot 202 King Street, Randwick	URS Australia Pty Ltd	November 26, 2002
Final Report Revision 0 Remediation Validation Part 1 Area Lot 202 King Street Randwick (Volume 1 and 2)	URS Australia Pty Ltd	September 18, 2003
Report Remediation Validation Part 2 Area Lot 202 King Street Randwick	URS Australia Pty Ltd	June 5, 2006

Report Title	Prepared By	Date
Final Report Environmental Management Plan Part 2 Lot 202 King Street Randwick	URS Australia Pty Ltd	September 21, 2006
Site Audit Part 2, 100-120 King Street, Randwick NSW	C.M. Jewell and Associates Pty Ltd	October 2006
Site Contamination Review: Sir Moses Montefiore Jewish Home	CETEC Pty Ltd	July 19, 2010

Based on the reviewed reports the remediation works conducted to date and the current site conditions can be summarised as follows:

Numerous environmental site assessments conducted previously have shown the site to be contaminated with hydrocarbons, lead and PAH, likely as a result of past land uses.

The site has undergone numerous environmental site assessments and remediation prior to its development as an aged care facility and child care centre, which are the sites current uses.

For the purpose of the environmental site assessments and remediation conducted by URS the site has been divided into two parts.

Part 1 of the site was remediated in 2003 to comply with NEPM Health Investigation Limits (HILs) for a combination of residential buildings with minimal opportunities for soil access and recreational open space areas. The impacted soils that did not meet these HILs were placed in containment cells under the current building footprint to minimise soil access. These containment cells contain Hydrocarbons, Lead and PAH impacted soils. Part 1 of the site will not be affected by the current development proposal and hence will not be referenced from here on in.

Part 2 of the site was remediated in 2006 to comply with NEPM Health Investigation Limits (HILs) for a combination of residential buildings with minimal opportunities for soil access and recreational open space areas. Lead impacted soils that did not meet these HILs were placed in two containment cells and capped with 100mm non-reinforced concrete. The lead impacted soil containment cell on the eastern boundary of the site (Dangar St) is covered by grass and the cell on the southern boundary of

the site (King St) is partially covered by grass and partially covered by paving. The concrete caps may exist under the grass and landscaping but this has not been confirmed by CETEC. The current development proposal falls within Part 2 of the site and will therefore be considered further in this report.

## **6 FURTHER INVESTIGATION AND REPORTING REQUIREMENTS**

### **➤ Preliminary Investigation**

Historical contaminating activities at the Site have been previously identified, documented and audited.

Further preliminary investigation is not required prior to the proposed Section 75W modification application to project approval MP 10\_0044 (as modified). Available Environmental Site Assessment reports for the site indicate that the site is likely to be suitable for its intended purposes.

### **➤ Detailed Investigation**

A detailed investigation has been conducted and has indicated that the land is contaminated with Hydrocarbons, Lead and PAH. Remediation of the contamination was conducted to comply with the former NEPM Health Investigation Limits (HILs) for a combination of residential buildings with minimal opportunities for soil access and recreational open space, soils that do not meet these HILs are contained in numerous concrete capped contaminant containment cells.

Since previous investigations the NEPM for site contamination has been revised and the HILs for PAH in particular have been changed. Further analysis of PAH concentrations and determination of BaP TEQ should be conducted prior to commencing development works as further remediation of soil may be required. It should be possible to conduct this investigation by conducting a detailed review of soil analysis in previous reports. No further sampling is likely to be required.

### **➤ Remedial Action Plan**

Development of a detailed RAP is required for the current proposed works at the site once construction certificate plans have been issued.

The RAP should, as a minimum, contain details of the remediation required for lead impacted soils in containment cells that are likely to be disturbed by the proposed works and for remediation of Hydrocarbon, Lead and PAH impacted soils that meet the old NEPM HILs for a combination of residential buildings with minimal opportunities for soil access and recreational open space areas.

➤ *Validation and Monitoring*

Further validation, monitoring and a notice of completion is required following the completion of any remediation works on site.

## **7 CONCLUSION AND RECOMMENDATIONS**

Based on the review of site contamination reports it is likely that the he Montefiore Aged Care Facility located at 100-120 King Street and 30-60 Dangar Street, Randwick is suitable for the proposed development subject to further investigations and remediation of soil contamination being undertaken throughout the project.



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