

WPP Planning and Property
60 Denison Street
Hamilton East, NSW 2303

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PH:slh

Attention: Anthony Williams

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Confirmation of Remediation Methodology
Proposed Residential and Aged Care Development
309 King Street, Newcastle West

1. Introduction

Following recent discussions, we are pleased to provide this letter regarding the confirmation and clarification of the proposed remediation methodology for the above site.

Douglas Partners have prepared a Remediation Action Plan (RAP) for the proposed residential and aged care development (DP, 2019). The remediation strategy as presented in the RAP is for off-site disposal of identified soil contamination.

The City of Newcastle provided comments on the contamination assessment and the RAP, as summarised below.

- 1. RAP prepared by Douglas Partners dated June 2019 and makes the following observations: Section 2.2.2 states "...off-site disposal of heavy metal and asbestos impacts was considered to be the most likely remediation option for the site. The remediation procedures for those RAP have assumed off-site disposal of impacted soils"*
- 2. Section 3 states "The client may wish to consider implementing different strategies for different parts of the site"*
- 3. Section 4 states "The following general remediation procedures provides for off-site disposal of contaminated material"*
- 4. Conditions of consent need to be clear and unambiguous to enable certifiers to interpret and enforce conditions, as such the City of Newcastle will require a nominated method of remediation that will be implemented across the site within the RAP.*

Response to the above comments are provided below.

2. Response and Clarification of Remediation Methodology

Response to the above points are summarised below:

1. The remediation procedures in the RAP are for off-site disposal of contamination, which was considered to be the most appropriate remediation methodology in conjunction with the proposed development, which included excavation of a basement and removal of soils from the site.
2. Section 3 titled “Soil Remediation Strategy” presents various options for the remediation of contamination and is general in nature. Part of the recommendations for RAP preparation (NSW EPA, 2011) is to include a section discussing the various remediation options that are available to the developer and providing a qualitative assessment of the applicability and practicality of the options. It is not unusual for different remediation strategies to be implemented within a single site. This statement is presented in the RAP to highlight that one or more of the proposed methodologies may be suitable. In this case, it is understood that only one option will be utilised, however, the consultant is guided by NSW EPA (2011) to provide the various options.
3. Section 4 does in fact state that *The following general remediation procedure provides for off-site disposal of contaminated material*. This statement clearly reiterates the proposed remediation strategy, following the consideration of options provided in Section 3 of the RAP.
4. The nominated method for remediation at the site is **off-site disposal of contaminated soils**, as presented in Section 4 of the RAP (i.e. after consideration of the various options in Section 3). All remediation procedures as presented in the RAP are consistent with an off-site disposal option. The conditions of consent should therefore refer to the off-site disposal remediation strategy as presented in the RAP by DP of June 2019.

3. Limitations

Douglas Partners (DP) has prepared this report for this project at 309 King Street Newcastle in accordance with DP’s proposal NCL180510 dated 20 August 2018. The work was carried out under DP’s Conditions of Engagement. This report is provided for the exclusive use of WPP Planning and Property for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

DP’s advice is based upon the conditions encountered during previous investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the environmental components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

Please contact the undersigned if you have any questions on this matter.

Yours faithfully

Douglas Partners Pty Ltd



Patrick Heads

Associate

Reviewed by



Chris Bozinovski

Principal

Attachments: [About this Report](#)

About this Report

Douglas Partners



Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

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This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.