

ATTACHMENT A

**INTERIM ADVICE FROM SITE AUDITOR
DATED 5 MARCH 2013**

5 March 2013

Our Ref: AS121588

City of Sydney
Attention: Kaye Fletcher
Town Hall House
456 Kent Street
Sydney NSW 201

Dear Kaye

Re: Green Square Essential Infrastructure and Public Domain – Development Application D/2012/1175

1 Introduction

As a NSW-EPA accredited Contaminated Sites Auditor, I have previously prepared a number of audit reports in relation to proposed development of the Green Square Town Centre. This current letter is in relation to the subject development application, and has been prepared to assist City of Sydney Council as the consent authority in its consideration of contamination as required under State Environmental Planning Policy No 55 – Remediation of Land.

Contamination is known to exist on the site from previous investigations. Contaminants include polycyclic aromatic hydrocarbons, lead and asbestos, partly related to a backfilled former quarry that occupies much of the site. The consent authority needs to be satisfied that the site can be made suitable for the proposed use, and impose conditions at appropriate milestones to ensure that it is made suitable.

The site is the 'Essential Infrastructure DA Boundary' area shown on Attachment 1. The 'Essential Infrastructure' includes roads, footpaths, service corridors (stormwater, sewer, power and telecommunications), plaza and park areas of the Green Square Town Centre. The site is comprised of a number of properties under different ownership, as shown on Attachment 2. Proposed infrastructure within that area was previously considered and the following Audit Interim Advice (AIA) prepared:

- 'Interim Letter – Site Contamination Audit, Green Square Essential Infrastructure and Public Domain' dated 27 June 2008.

Subsequently, some changes were made to the proposed infrastructure layout. Significantly, from a contamination management perspective, this included additional roads across the Waverley Council, Hatbands and Senayear properties at the south of the site. These properties have been subject to a much lower degree of contamination assessment than most of the other properties. A further AIA was issued as follows:

- "Interim Contamination Audit Report – Green Square Essential Infrastructure and Public Domain" dated 16 May 2012.

These letters concluded that the site could be made suitable for the proposed Infrastructure uses by following a process that included further investigations where applicable and preparation and implementation of remediation action plans.

The May 2012 AIA noted that the Green Square Essential Infrastructure project is proposed to be delivered in accordance with a number of stages covering Council, Landcom/Mirvac/Leighton's Consortium (Green Square Consortium GSC) lands which include the former Incinerator, NSW Police and City of Sydney depot properties, the John Newell site, the former South Sydney Hospital site and the Hatbands site (Attachment 2). A

Draft Remediation Action Plan (RAP) was prepared in relation to the GSC area which is most of the northern part of the Essential Infrastructure DA area. The Draft RAP was reviewed in a further AIA:

- “Green Square Essential Infrastructure and Public Domain – Draft Remedial Action Plan” dated 19 December 2012.

Remediation works have been proposed in a number of different remediation proposals. Elements of the various remediation strategies include:

- Remediation of point sources of contamination such as Underground Fuel Storage Tanks.
- Placement of non-contaminated material beneath future road areas.
- Placement of underground services in corridors within non-contaminated materials.
- Validation of any materials, including topsoil, to be used in the root zones and surfaces of parks and landscaped areas.
- Imported materials should be demonstrated to be Virgin Excavated Natural Materials (VENM), Excavated Natural Materials (ENM) or adequately validated topsoil by a suitably qualified environmental consultant.
- Investigation of areas which have had limited or no intrusive assessment.
- Verification that there is no currently unknown gross contamination issues following removal of the buildings and slabs.
- Long term management of capped contamination under an Environmental Management Plan.

This letter addresses information not previously reviewed for the southern properties to assess whether there are any major issues which would impact the suitability of the site for its proposed uses.

2 New Information

Some of the properties in the north of the area have been subject to extensive investigations and preparation of remedial action plans. With respect to three properties in the south (Waverley Council, Hatbands, Senayear - Attachment 2), the previous AIA letters were based mainly on Phase 1 (desktop) information provided in Environmental Monitoring Services reports prepared in 2003. City of Sydney has now provided the following reports for review:

- “Report on Pavement Investigation and Design” dated February 2011 by Douglas Partners.

Boreholes and test pits were placed mainly on the GSC area. Some on the southern end appear to be in the Waverley Council land. They were logged as containing various thicknesses of sand and sandstone fill, including some building rubble. This is consistent with previously known conditions in the backfilled quarried areas. No contamination testing was conducted.

- “Report on Preliminary Geotechnical Investigation” dated March 2011 by Douglas Partners.

This reported the results of boreholes and test pits on the GSC area. Locations on the southern side were logged as containing sandstone fill including some brick, metal and slag. This is consistent with previously known conditions in the infilled quarried areas. No contamination testing was conducted.

- “Contamination Assessment Green Square Town Centre Development – Services and Infrastructure Corridors Green Square NSW” dated 28 February 2011 by Coffey Environments.

Investigations were conducted on the GSC land and included 6 locations on the Waverley Depot site with contamination testing of samples. Some samples contained elevated concentrations of lead and/or polycyclic aromatic hydrocarbons. Coffey recommended removal of a lead “hotspot” but did not provide a source or conceptual model for its occurrence. They also recorded the presence asbestos fibres in many laboratory analytical tests over the wider GSC area. While this is not consistent with previous investigations, asbestos is a contaminant of concern that requires management on the site.

No further information has been provided for the Senayear site, which was previously a service station, and Hatbands, which has a commercial/industrial history. No contamination is known that would be inconsistent with standard contamination management processes.

3 Remediation Process

The May 2012 AIA did not specifically address the Senayear, Hatbands or Waverley Depot sites, on which limited assessment has been conducted. However the process outlined in that letter is unchanged as modified to include those properties below.

Further Investigation

Investigations are required:

- Beneath buildings and pavements after they are demolished. Observations must be recorded with follow up investigations where indicated by field conditions.
- To assess contamination at currently unassessed areas or areas with limited assessment. This includes Senayear, Hatbands and Waverley Council land.

Development of Specific Remediation Processes

This includes preparation of remediation action plan/s that include:

- Detailed design of capping required to provide a separation layer between landfill material and site users.
- Detailed design of capping/separation for below ground features such as services including beneath buildings.
- Preliminary development of long term management plan detailing management measures related to each capping.
- Where required, revision of remediation action plan to address any contamination found in the further investigations. As the site will be developed in stages, an overarching remediation action plan that addresses the principles to be applied could be prepared.

Site Audit Report/s and Section B Site Audit Statement/s should be prepared to verify the suitability of remediation action plans.

Implementation of Remediation

- Preparation of remedial action works plans or detailed remediation action plans for individual stages of development, in consideration of the specific development plan.
- An Audit Interim Advice or further Section B Site Audit Statement could be prepared to verify that the relevant stage/site can be made suitable for the proposed use by implementation of the remediation plan.
- Implementation of capping or alternative measures in accordance with the remediation plan.
- Removal of underground fuel storage tanks and any related contamination.
- Remediation of any point sources of contamination.
- Completion of remediation in accordance with remediation plan and any approved revisions, for example because of unexpected finds during development.

Validation

- Adequate validation of remedial works including the thickness and location of the cap, nature and extent of asbestos outside of capped areas and the base of the UST excavations.
- Demonstration that imported material particularly topsoil is suitable for use.

Management Plan

- Preparation of long term management plan, documenting the as-constructed conditions, management required and responsibilities
- Acceptance of the management plan by relevant stakeholders.
- Preparation of Site Audit Report/s and Section A Site Audit Statement/s to certify the suitability of the relevant site for the proposed use. Separate Site Audit Statements would be required consistent with the staging of the development.

4 Conclusions

The additional information provided does not change the conclusions of the previous AIA letters, and the Auditor considers that the Green Square Town Centre Area can be made suitable for commercial/industrial and recreation open space uses including associated Infrastructure if the site is remediated in accordance with the process outlined in this letter.

Preparation of an Overarching RAP is not an essential step in the remediation process provided suitable RAPs are produced for each area. However, as the Green Square area has been subject to numerous separate investigations and remediation concepts, and will be developed in stages, it is recommended that an Overarching Remedial Action Plan is prepared for the greater Green Square area. It should outline the principles and general

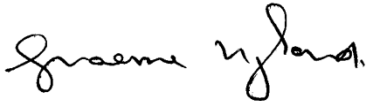
procedures to be followed for management and remediation of contamination in the Green Square Town Centre. It is further recommended that a Site Audit Report and Section B Site Audit Statement are prepared verifying the suitability of the Overarching Remedial Action Plan.

* * *

Consistent with Environmental Protection Authority (EPA) requirements for staged "sign off" of sites that are the subject of progressive assessment, remediation and validation, I advise that:

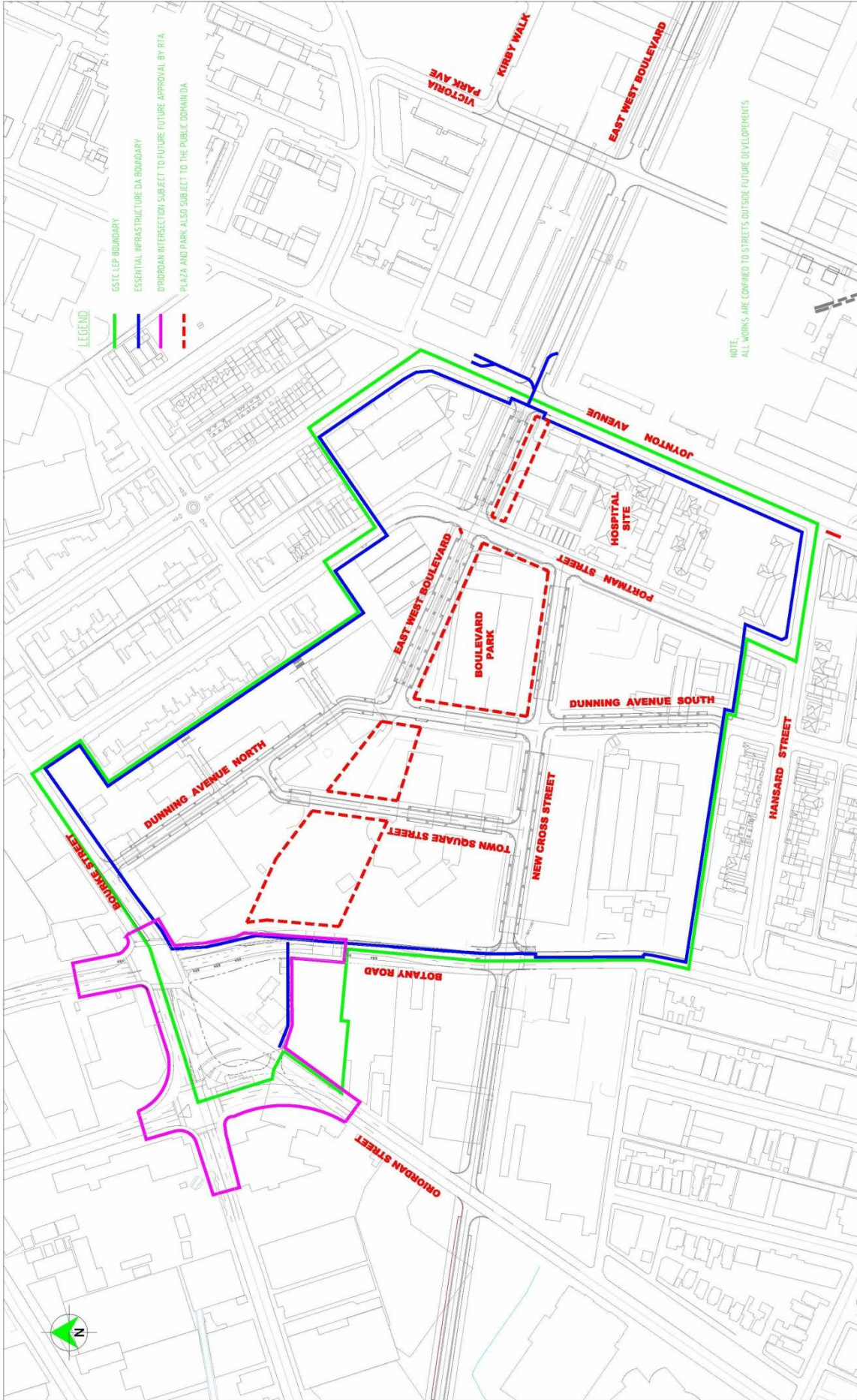
- This advice letter does not constitute a Site Audit Report or Site Audit Statement.
- It is intended that at the completion of the remediation and validation, Site Audit Statements and supporting documentation will be prepared that will conclude as to the suitability of the site for its intended purposes.
- Interim advice will be documented in the Site Audit Report.

Yours faithfully
ENVIRON Australia Pty Ltd



Graeme Nyland
EPA Accredited Site Auditor 9808

// Attachment 1: Site Location
// Attachment 2: Site Ownership



PRELIMINARY

CV Project No. 27485
Scale
Drawing No. SK-133
Rev. 02

Drawn: R/W, D/R, V, A
Checked: R/W, D/R, V, A
Signed: R/W, D/R, V, A
Date: / /

Project: **green square townCentre**

Client: **CITY OF SYDNEY** and **LANDCOM**

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1. This drawing is a preliminary drawing and is not to be used for construction purposes without the written approval of Connell Wagner.
2. This drawing is a preliminary drawing and is not to be used for construction purposes without the written approval of Connell Wagner.
3. Any other drawings or documents are subject to the approval of Connell Wagner.

Rev.	Date	By	App.	Ver.	App.
02	14.05.18				
01					

Revision Details

