

9 June 2010

Australand  
Level 3, 1C Homebush Bay Drive  
RHODES NSW 2138

**Attention: Christopher Pope**

Dear Christopher,

**RE: DISCOVERY POINT**

## **1 INTRODUCTION**

Coffey Environments Australia Pty Ltd (Coffey Environments) has been engaged by Discovery Point to provide an assessment of the suitability of land at Discovery Point, 1 Princess Highway, Wolli Creek for a proposed mixed commercial/residential development.

The objective of the letter is to address requirements relating to “*Contamination*” stipulated by the Director General of NSW Department of Planning in a letter 23 March 2010 (Ref: MP10\_0003, MP10\_0030, MP100031) as follows:

*“11. The Environmental Assessment is to demonstrate compliance that the site is suitable for the proposed land use in accordance with SEPP55<sup>1</sup>.”*

The following information was provided to Coffey Environments by Australand for review:

- Christopher Jewell of C.M. Jewell and Associates, Site Audit Statement RSA158, 26 June 2002 (Jewell 2002);
- Brad Eisman of HLA (now AECOM) Site Audit Statement BE071, 30 January 2006 (Eisman 2006);
- MPL Group Pty Ltd (2006a), Site Management Plan – Tempe House Restoration and Foreshore Development Area, Arncliffe, 11 January 2006 (SMP MPL 2006a);
- Survey of proposed development (Lockley Land Title Solutions, 20/4/10 32769DT Sheet 1 to 8 of 8);
- Ground floor and basement level plans for the new Part 3A Concept Plan (DA1-001, DA2-100, DA2-B00, DA2-B01, DA2-B02) (attached);

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<sup>1</sup> SEPP 55 requires the proponent to demonstrate that land is suitable for the proposed use or can be made suitable, either by remediation or by the way the land is used.

- Interciti @ Arncliffe Masterplan Development Application (DA 500/01) Drawings DA-A01 to DA-A28 (dated November 2000: Issue B 31.7.02 (Issued for Information of Tenderers) (previously approved master plan). The Site Plan; Drawing DA-A01 and Basement B1 plan from the previously approved master plan are attached to this letter;
- Interciti Development Landscape Plans: Drawings DA-LA01 to DA-LA08 (previously approved master plan) (dated 1.12.00: Issue B (Issued for master plan DA)); and
- Discovery Point Preliminary Master Plan 1002 L-MP-02 dated 11 May 2010 Revision H by Turf Design (attached to this letter).

Additionally, a meeting was held between Coffey Environments, Australand and Smart Civil Pty Ltd on the 5 May 2010 to clarify the objective of this assessment. Coffey Environments also completed a site walk-over to observe site features on 11 May 2010.

## **2 CONTEXT**

Approval for a residential and mixed use development of Discovery Point has previously been granted by Rockdale City Council. This approval related to the Interciti @ Arncliffe Master Plan (DA 500/01 dated November 2000) (referred to herein as the “previously approved master plan”).

Part of the development has been completed including construction of Greenbank and Verge buildings (see drawing DA1-001). Development works related to Tempe House and Foreshore Development (including open space/park) in the south eastern portion of the site have also been completed<sup>2</sup> or are partially complete.

The previously approved master plan has been revised and a new application is to be made to seek approval through the Department of Planning for the new Concept Plan under Part 3A of the Environmental Planning and Assessment Act (1979).

The letter from the Director General of Department of Planning setting out the Director General's Requirements (DGRs) indicates the new application consists of:

- Part 3A Concept Plan;
- Stage 1 Project Application (involving Building 1c, part of building 1b (including a supermarket), a new neighbourhood park and associated landscaping, car parking and infrastructure works; and
- Stage 2 Project Application (involving construction of Building 2 and the adjoining pedestrian street).

The Part 3A Concept Plan will be lodged with the Department first, with the Stage 1 and Stage 2 Project Applications to follow.

## **3 REVIEW OF BACKGROUND INFORMATION**

### **3.1 Overview**

The Discovery Point development site has been the subject of environmental investigations, remediations and validations due to previously contaminating land uses associated with former ownership/occupations including tram depot and maintenance; production of asphalt products; other small industrial uses; and historical reclamation of low lying land. Identified impacts included (but were not limited to):

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<sup>2</sup> Tempe House and Foreshore Development were part of a separate development application (DA 463/01).

- Fill materials (including fill associated with and reclamation) impacted with polycyclic aromatic hydrocarbons (PAHs), heavy metals and/or asbestos, PAH impacted soils were located in the central portion of the Discovery Point site on either side of the rail tunnel. The contamination was reported to be at approximately 1.8m below ground level with shallower and deeper impacts identified in areas;
- Soil impacted with deteriorating lead paint around building(s);
- Soil impacted with total petroleum hydrocarbons and PAHs associated with former asphalt plant;
- Historical fuel spills (diesel) and storage of fuels in underground storage tanks and above ground storage tanks; and
- Groundwater impacted with PAHs and metals.

The various environmental investigations, remediations and validations were reviewed by site auditors accredited by the NSW Environment Protection Authority under the Contaminated Land Management Act 1997. Three site audits have been completed in respect of the Discovery Point Site as follows:

- Jewell 2002 which covered former SRA land in the western portion of the site;
- Eisman 2005 which covered the parcel of land occupied by the Greenbank and Verge Buildings (this audit has not been viewed by Coffey Environments and is not discussed further in this document, as this portion of the site is not part of the Part 3A Concept Plan); and
- Eisman 2006 which covered the remainder of the Discovery Point site including the open space areas in the north eastern portion.

Lockley Land Title Solutions has confirmed that the boundaries of the lands signed off by the Jewell 2002 and Eisman 2006 audits coincide with the boundaries of the land addressed by the Part 3A Concept Plan.

### 3.2 Jewell 2002

Based on review of Jewell 2002 Coffey Environments note the following:

- Jewell 2002 certifies Lots 1 and 2 in DP223186 (Jewell Audit Site) *“as suitable for an integrated mixed commercial and upper floor residential development with minimal opportunity for soil access, incorporating tanked (fully sealed) subsurface parking or commercial areas... subject to: Groundwater shall not be extracted from the below the site for any purpose other than dewatering to permit excavation or construction. If dewatering is carried out to permit excavation or construction then a license under Section 43(d) of the Protection of the Environment Operations Act 1997 shall be obtained from the EPA in respect of discharge of the dewatering flows.”*

The Jewell Audit Area is shown on the attached Figure 1.

JBA have advised that the previously approved master plan formed the basis of the land uses signed off by Jewell 2002 given it proposed mixed commercial and upper floor residential land uses.

- Jewell (2002) states *“It has been recognised that bulk excavation works that proceed below the water table are likely to encounter significant groundwater inflows, and that dewatering or pumped draining will be required to manage these inflows. It is possible that such groundwater will be contaminated to the extent that special arrangements for treatment and/or disposal will be required.”*
- Jewell (2002) indicates *“some potentially contaminated soil was knowingly left in place due to access and geotechnical constraints, and the validation sampling program was not able to demonstrate that all contaminated soils had been removed from the site”.*

Review of Jewell 2002 suggests that this refers to:

- A small wedge of material along the western boundary [adjacent the railway line] that could not be visually inspected due to access restrictions (worst case scenario estimated by Jewell 2002 was approximately 150m<sup>3</sup>).
- A small strip of material along the Lusty Street [now Magdalene Terrace] boundary of approximate volume of 250m<sup>3</sup> that could not be examined due to access restrictions.

While noting the potential presence of residual contamination, Jewell did not require a management plan for future management of this residual contamination.

- Jewell 2002 notes that trichloroethene contamination remained in groundwater beneath the site in excess of the relevant criteria and restrictions on groundwater use are required to avoid risk of harm to human health (see Section 4 for further discussion of this issue).

### 3.3 Eisman 2006

Based on review of Eisman 2006, Coffey Environments notes the following:

- Eisman 2006 certifies Part Lot PT11, Lot PT12 and Part Lot 13 DP 1062413 and Lot 2 DP 1048491 (Eisman Audit Site) for *“high density residential (with minimal access to soil), commercial office/retail, associated pavements and roadways and open space use in the context of the master plan...subject to compliance with SMP [Site Management Plan] (MPL 2006a) in light of residual contamination remaining on the site.”* The Eisman Audit Area is shown on the attached Figure 2.

Coffey Environments assume that the master plan referred to by Eisman 2006 is the “previously approved master plan” and it is this that formed the basis of the land uses signed off by Eisman 2006.

- The auditor was also of the opinion that *“groundwater should not be used for any purpose unless it is demonstrated that the groundwater is suitable for the intended purpose, to the satisfaction of a NSW site auditor.”*
- Eisman 2006 states the SMP (MPL 2006a) *“manages risks associated with capped fill materials. The SMP also specifies the implementation of a monitoring program to evaluate the performance of the capping layer and controls on site excavation and maintenance of the cap.”*

### 3.4 Site Visit

Coffey Environments conducted a site walk over on 11 May 2010 to view the site. Direct access to all areas of the site was not available during the walk over due to construction activities. However, the areas where there was no direct access were observed from the site boundaries.

Coffey Environments observed typical construction activities were being undertaken including construction of basements for Vine and associated works to the west of Brodie Spark Drive.

A temporary public road had been constructed in the north western portion to provide access to Wolli Creek Interchange station. Australand’s consultant Smart Civil has confirmed that this road and the material used to construct it will be removed as part of future construction works in this area.

### 3.5 New Part 3A Concept Plan

Coffey Environments has compared the new Part 3A Concept Plan with the previously approved master plan.

The footprint of the fully sealed (tanked) basement level proposed in the new Part 3A Concept Plan is generally similar in extent to that proposed in the previously approved master plan. Australand and Bates Smart confirmed that the main change is be the new neighbourhood park proposed in the western portion of the site adjacent Building 1b (see DA2-B00). This is consistent with review of the

ground floor and basement level plans for the new Part 3A Concept Plan and the drawing from the previously approved master plan.

The area of the proposed new neighbourhood park is assessed to straddle both the Jewell 2002 and Eisman 2006 audit areas. The footprint of the first basement level does not extend beneath the new neighbourhood park and a “deep soil zone” is shown on this area (see DA2-B00). Australand and Bates Smart confirm residual site soils are to remain in this area. However, the surface of the residual soils is approximately 2.0-2.5m below the required grade and fill will be used to raise the level. This is discussed further in Section 4.

Similarly, a review of the new Part 3A Concept Plan indicates relatively minor changes in the extent of the first basement level around the rail line (tunnel) through the centre of the development. Australand and Bates Smart confirmed that other hard stand areas would be proposed in these areas such as pedestrian access, plazas, transport interchange and set down areas and residual site soils would not be accessible (consistent with the requirements of both Jewell 2002 and Eisman 2006 audits).

## 4 CONCLUSIONS AND RECOMMENDATIONS

Coffey Environments notes that SEPP 55 requires that the proponent demonstrate that the land is suitable, **or can and will be made suitable**, for the proposed development, although the DGRs are worded slightly differently<sup>3</sup>; we understand the requirements of SEPP 55 prevail.

Based on the information available at the Concept Planning level Coffey Environments is of the opinion that the land uses signed off by Jewell 2002 and Eisman 2006 are generally consistent with the land use proposed in new Part 3A Concept Plan with the exception of the new neighbourhood park. This is subject to the respective recommendations of the auditors relating to groundwater and compliance with the SMP (MPL 2006a) (see recommendations below).

From a contamination perspective a park is considered to be a more sensitive land use than those “signed off” by Jewell 2002 and Eisman 2006 (i.e. *high density residential (with minimal access to soil) and commercial*) and potentially permits accessibility to site soils which is excluded in their respective sign-offs.

However, Coffey Environments notes that it is proposed to place 2.0 to 2.5m of fill material above existing ground levels to construct the neighbourhood park. The placing of a suitable fill material would form a cap over residual contamination (if any) in the area of the proposed neighbourhood park. In this case suitable fill material would be clean fill capping of appropriate quality from a contamination perspective<sup>4</sup>. If it were proposed to use soils sourced from the Discovery Point site these would need to be validated to confirm they are of suitable quality.

**Coffey Environments are of the opinion the site can be made suitable for the land uses proposed in the new Part 3A Concept Plan, thus meeting the requirements of SEPP 55 and thus the requirements of the DGRs, subject to the following recommendations:**

1. Implementation of the recommendations of the site auditors, which include:
  - Jewell 2002: *Groundwater shall not be extracted for any purpose other than dewatering to permit excavation construction. If dewatering is carried out to permit excavation or construction, then a license under Section 43(d) of the Protection of the environment*

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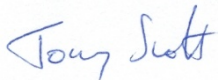
<sup>3</sup> The EA is to demonstrate compliance that the site is suitable for the proposed use in accordance with SEPP 55.

<sup>4</sup> Such as certified virgin excavated material (VENM), certified excavated natural material (ENM) or material validated suitable for open space land uses in accordance with relevant guidelines by a qualified environmental consultant.

*operations Act 1997 shall be obtained from the EPA in respect of discharge of the dewatering flows.*

- *Eisman 2006: Compliance with SMP [Site Management Plan] (MPL 2006a) in light of residual contamination remaining on the site.*
  - *Eisman 2006: groundwater should not be used for any purpose unless it is demonstrated that the groundwater is suitable for the intended purpose, to the satisfaction of a NSW site auditor.”*
2. Placement and validation of an appropriate capping system in the proposed neighbourhood park would make the site suitable for the proposed open space land use. We are of the opinion that this could be achieved as part of the proposed development in the new Part 3A Concept Plan.
  3. Updating the SMP (MPL 2006a) approved by Eisman 2006, or preparation of a new SMP to include maintenance of the clean fill capping in the new neighbourhood park.
  4. Implementation of the SMP(s) whilst residual contamination remains on the site. The responsibility for implementation should lie with the owner(s) of the areas requiring management. The responsibility for implementation of the SMP(s) should pass to future owners of the areas to be managed, should these be divested.
  5. Undertaking a review of the detailed planning at the Project Application Stage to assess whether any further areas of accessible soils are proposed. Any areas of assessable soils may require further assessment/mitigation measures at the relevant stage of the application or development.
  6. Review of construction activities and implementation of environmental/contamination management measures implemented during development to assess whether potential contamination of the site has occurred during development (such as inappropriate disturbance of residual contaminated soils; importation of inappropriate soils; spills or leaks of fuels; inappropriate management of extracted groundwater etc).
  7. Validation of materials imported to site (such as for construction of temporary roads, site filling, etc) for the proposed land use or as VENM/ENM or removal of these materials from site prior to completion of the development.
  8. Validation of any site won materials to be used in the neighbourhood park for open space land use or certification of these materials as VENM/ENM<sup>5</sup>.

For and on behalf of Coffey Environments Australia Pty Ltd



**Tony Scott**  
**Senior Principal**



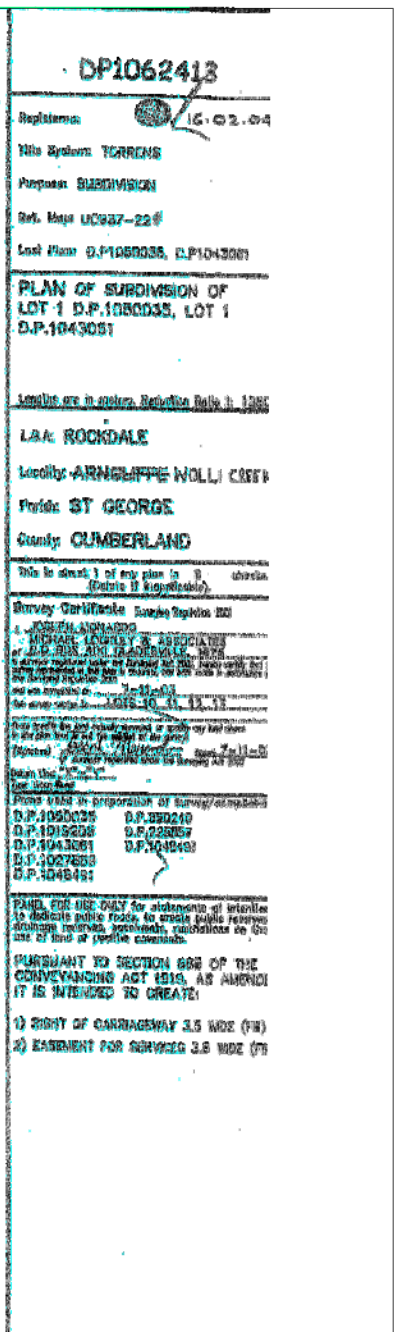
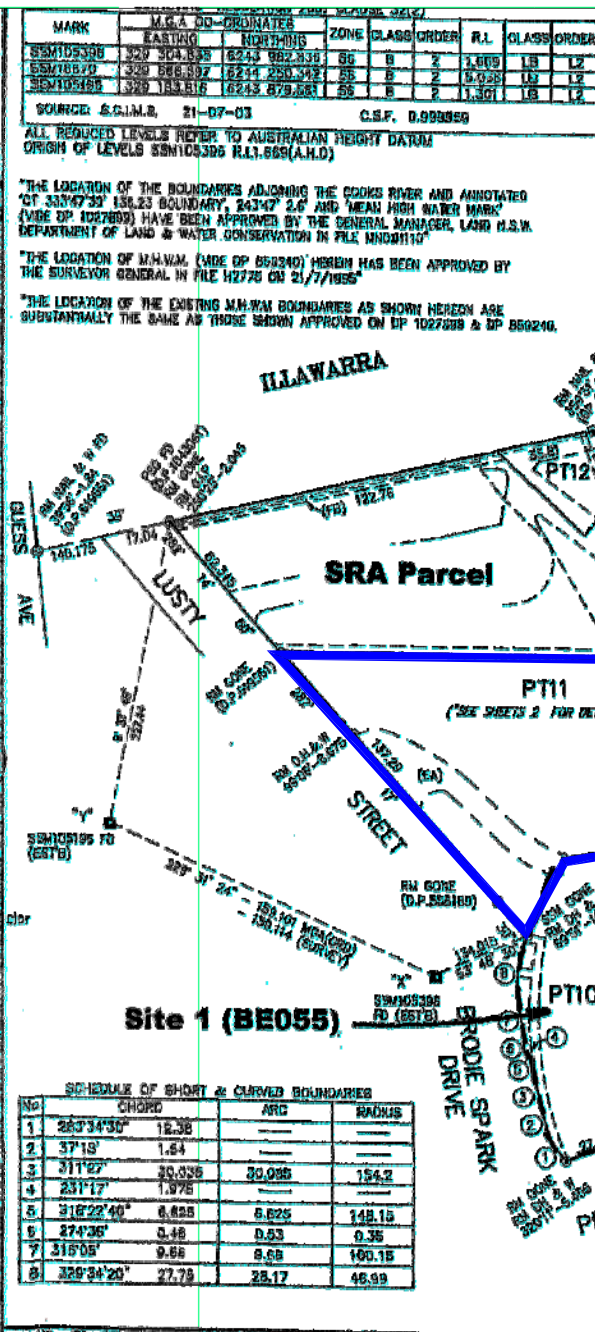
**Xanthe Holford**  
**Associate Environmental Engineer**


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<sup>5</sup> Due to previous history of contamination at the site and presence of groundwater impacts, site won materials may not classify as VENM/ENM.







revision	description	drawn	approved	date	NOT TO SCALE	drawn	CGT	 <b>coffey</b> environments <small>SPECIALISTS IN ENVIRONMENTAL, SOCIAL AND SAFETY PERFORMANCE</small>	client: AUSTRALAND	
						approved			project: REVIEW OF DISCOVERY POINT SITE AUDIT STATEMENTS	
						date	14,05,10		title: SITE AUDIT BOUNDARY (EISMAN 2006)	
						scale	N.T.S.		project no: GEOTLCOV24013AA figure no: FIGURE 2	
						original size	A3			



2	21.4.10	Interim Issue	MA	AW
1	14.4.10	Draft Issue	MA	MA
Revision	Date	Description	Initial	Checked



DA1-001 2

Bates Smart Pty Ltd ABN 70 004 999 400

BATESSMART.™



# Discovery Point Masterplan Wolli Creek Indicative Plan Ground Floor



Scale	1:500	© A1
Drawn	AW	Checked MA
Project no.	S11191	
Status	INTERIM	
Plot Date	21/04/2010 19:29:32	
Plot File	C:\TEMP\masterplan\discovery\101120_Central_Army_Walshs\3112105	
Drawing no.	DA2-100	Revision 5





- Residential
- Residential Lobby
- Balcony
- Retail
- Supermarket
- Cafe/Restaurant
- Commercial
- Carpark / Plant
- Substation
- Existing Building

Revision	Date	Description	Initial	Checked
4	21/04/10	Final Issue	AW	MA
3	14/04/10	Draft Issue	AW	MA
2	01/04/10	Draft Issue	AW	MA
1	24/03/10	Draft Issue	AW	MA

### Discovery Point Masterplan Wollie Creek

Indicative Plan  
Basement 0



Scale	1 : 500	@ A1
Drawn	AW	Checked MA
Project no	S11191	
Status	INTERIM	
Plot Date	21/04/2010 19:42:35	
Plot File	C:\DDP\masterplan\discovery\101120_Centrel_Amy_Wallace\11191.dwg	
Drawn by	DA2-B00	Revision 4

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Bates Smart Pty Ltd ABN 70 004 999 400

**BATESSMART™**







- Residential
- Residential Lobby
- Balcony
- Retail
- Supermarket
- Cafe/Restaurant
- Commercial
- Carpark / Plant
- Substation
- Existing Building

Version	Date	Description	Drawn	Checked
4	21/04/10	Initial Issue	AW	MA
3	14/04/10	Draft Issue	AW	MA
2	01/04/10	Draft Issue	AW	MA
1	24/03/10	Draft Issue	AW	MA

## Discovery Point Masterplan Wolli Creek

### Indicative Plan Basement 2



This is a preliminary plan and is not intended to be used for construction purposes. It is for information only and is not a contract. It is subject to change without notice. It is not to be used for any other purpose without the written consent of Bates Smart.

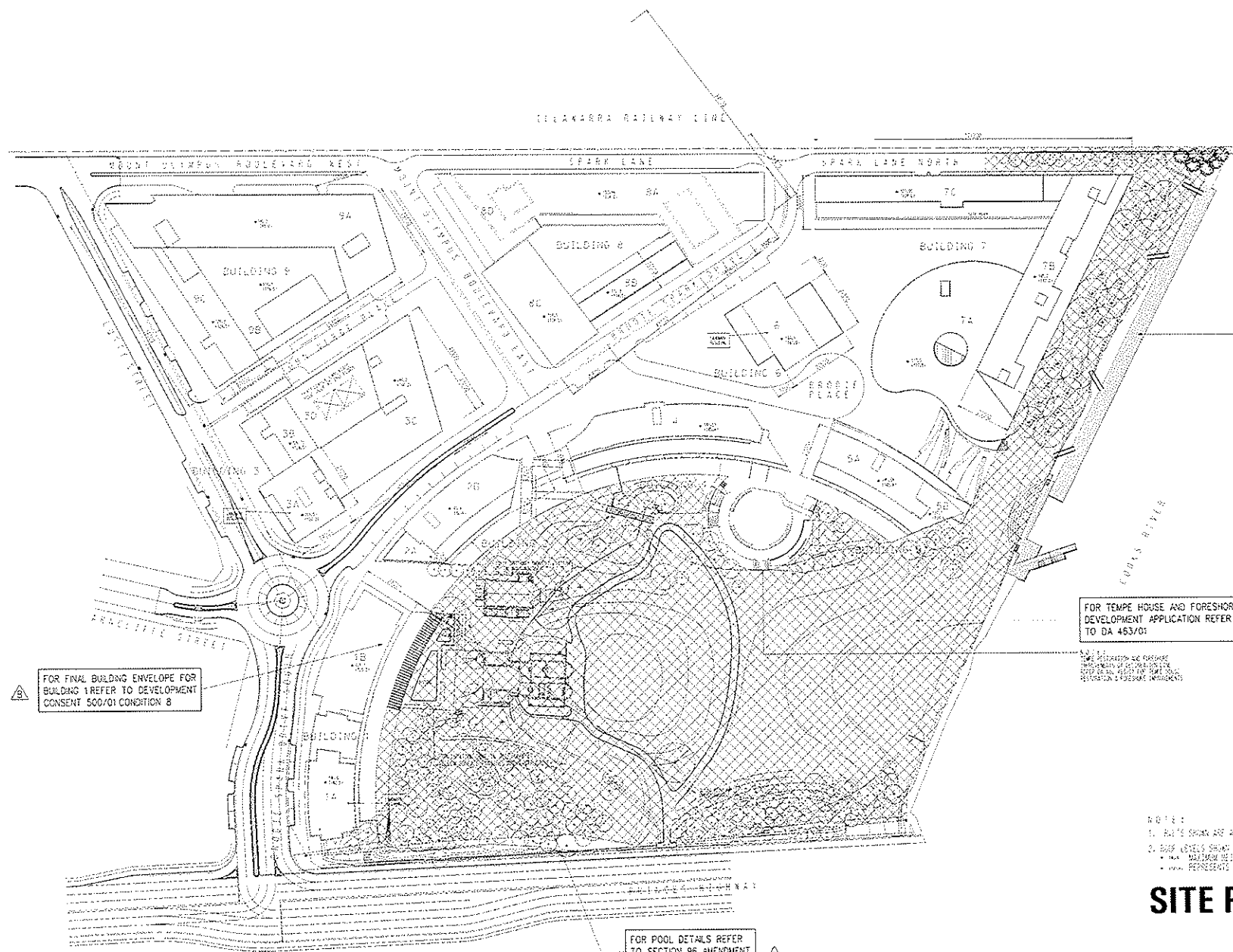
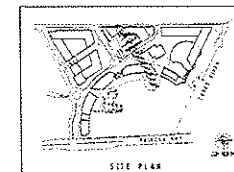
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Drawn	Author	Checked
Project no	S11191	
Status	INTERIM	
Plot Date	21/04/2010 10:42:39	
Plot File	C:\TEMP\mep\discovery\101125_Central_Army_Wallace	
Revision	4	
DA2-B02		

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FOR FINAL BUILDING ENVELOPE FOR BUILDING 1 REFER TO DEVELOPMENT CONSENT 500/01 CONDITION 8

BOARDWALK AND SEAWALL NOT CONSIDERED PART OF THIS DEVELOPMENT APPLICATION (REFER DA 20/02)

FOR TEMPE HOUSE AND FORESHORE DEVELOPMENT APPLICATION REFER TO DA 453/01

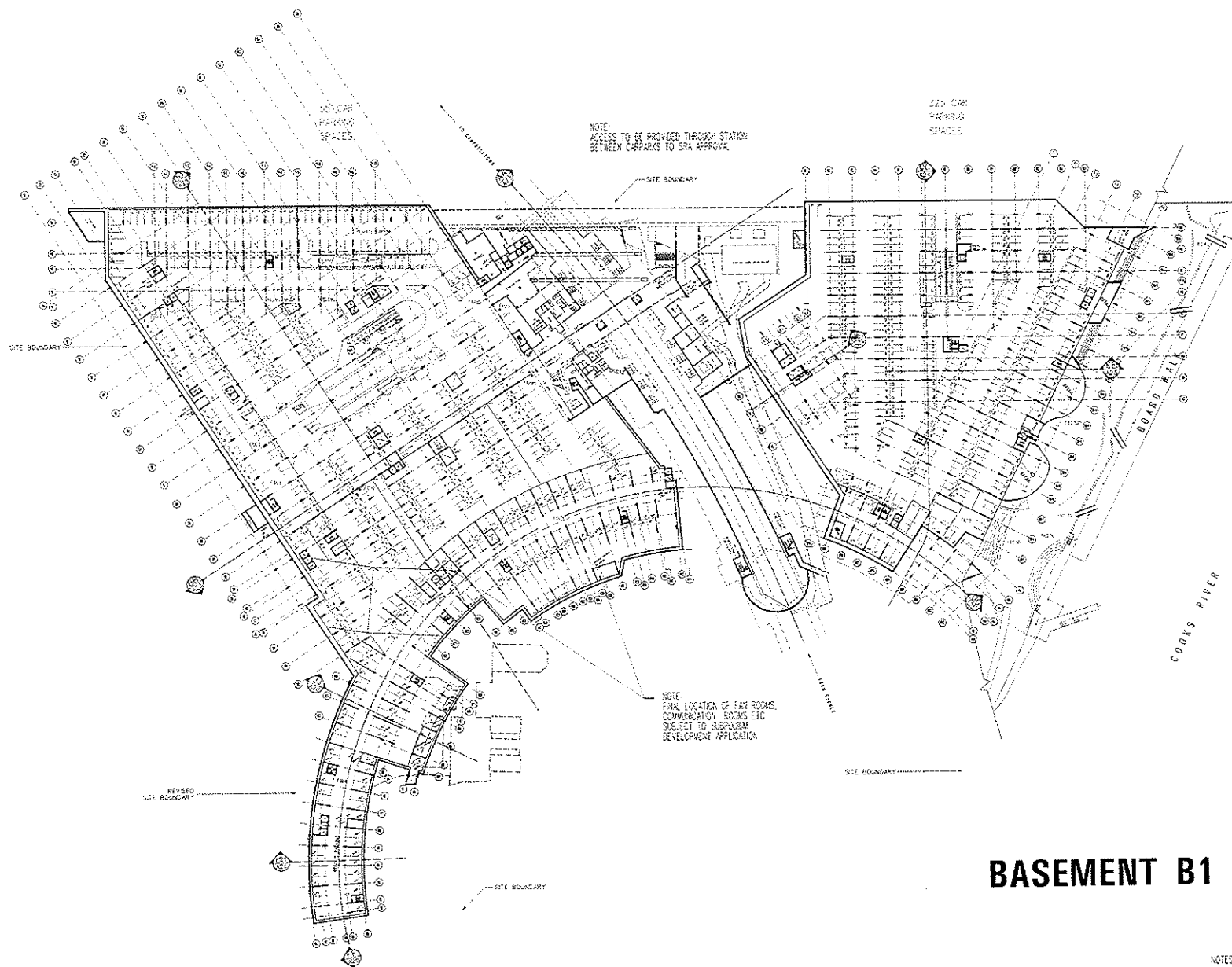
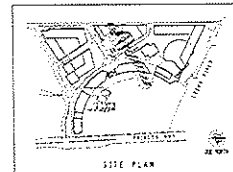
FOR POOL DETAILS REFER TO SECTION 96 AMENDMENT TO D.A. 500/01

- NOTES:
1. BUILDINGS ARE 400 x 100M
  2. BUILDINGS SHOWN THUS:
    - MAX. MAXIMUM HEIGHT OF BUILDINGS
    - MIN. MINIMUM HEIGHT OF BUILDINGS

# **SITE PLAN**

<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>	<p>DATE: 10/10/2001</p> <p>BY: [Signature]</p> <p>FOR: [Signature]</p>
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# **BASEMENT B1 PLAN**

NOTES:  
1. R/L'S SHOWN ARE 100 M ABOVE AND DATUM

<p>PROJECT NAME <b>FACE URBAN PARTNERSHIP</b></p>	<p>CLIENT <b>INVO &amp; FORESTER PTY LTD</b></p>	<p>DESIGNER <b>CLOSTON</b></p>	<p>100% OWNER <b>ADRIANT HOUGHTON VILSON PTY LTD</b></p>	<p>100% OWNER <b>TANNER &amp; ASSOCIATES PTY LTD</b></p>	<p>100% OWNER <b>NOT NOTICED</b></p>	<p>100% OWNER <b>TAYLOR THOMSON WATKINS PTY LTD</b></p>	<p>100% OWNER <b>INTERIM LANDSCAPE DEVELOPMENTS PTY LTD</b></p>	<p>100% OWNER <b>INTERIM LANDSCAPE DEVELOPMENTS PTY LTD</b></p>	<p>100% OWNER <b>INTERIM LANDSCAPE DEVELOPMENTS PTY LTD</b></p>
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KEY

- |                      |                                 |                       |                                    |                       |
|----------------------|---------------------------------|-----------------------|------------------------------------|-----------------------|
| 1 Neighbourhood Park | 4 Community Gardens             | 7 Water Terrace Steps | 10 Under Croft Gravel Seating Area | 13 Discovery Park     |
| 2 Landscape Zone     | 5 Barbeque / Pergola            | 8 Water Front Park    | 11 Station Park                    | 14 Park Arc Promenade |
| 3 Pools              | 6 Station Plaza Landscape Strip | 9 Raised Seating Lawn | 12 Vine Planting                   | 15 Shared Zone        |

	Client	Architect	Landscape Architect	Project	Drawing Title	Project No.	Dwg No.	Revision
				Discovery Point	Master Plan	1002	L-MP-02	H
						Scale 1:1000@A3	Date 11/05/10	
						Dwg Status Preliminary		