

2.3 Carpark location

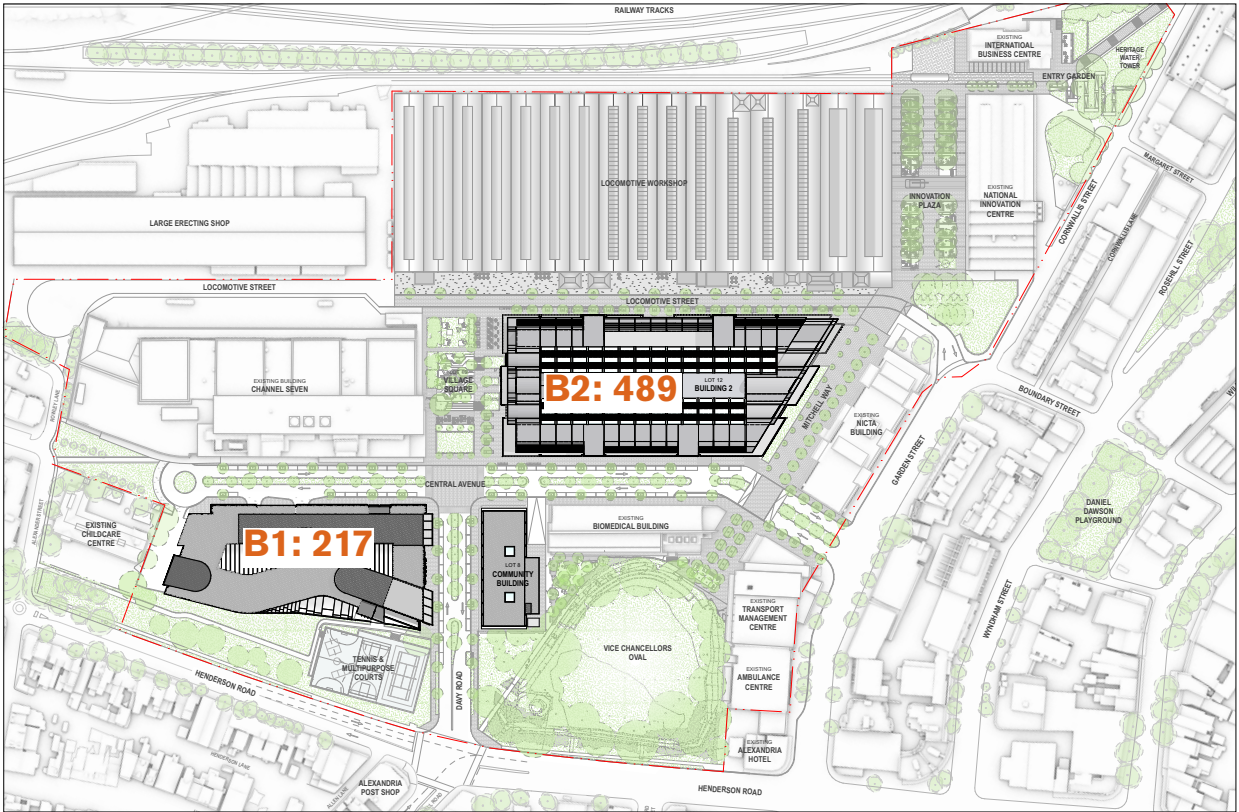
The SSDA submitted scheme located the B1 car parking above ground. The Department of Planning and Environment requested that:

“...specific consideration should be given to options that reduce the form and height of Building 1 so as to minimise overshadowing impacts on surrounding properties, including windows and sky lights to habitable rooms within residential properties on the southern side of Henderson Road and the child care centre to the west of the site. This may include:
— relocating all or some of the parking into a basement car park;”

Underground car parking options were examined but not adopted following review of geotechnical, construction and contamination considerations. Key considerations include:
— 6m proximity to underground rail tunnel (crown at approx 5m and invert at 10m) and risks with associated excavation.
— disturbance of contaminated fill
— dewatering requirements associated with excavation in saturated sands and associated risk of induced settlement and associated impacts on the railway tunnel
— negative environmental impacts of a fully tanked basement, which results in a damming effect on the upstream side.
— risks associated with lowering the water levels on the downstream side of the basement including induced settlement
— increased construction time frame for excavation and construction of building 1 and associated impact of increased truck movements on local roads

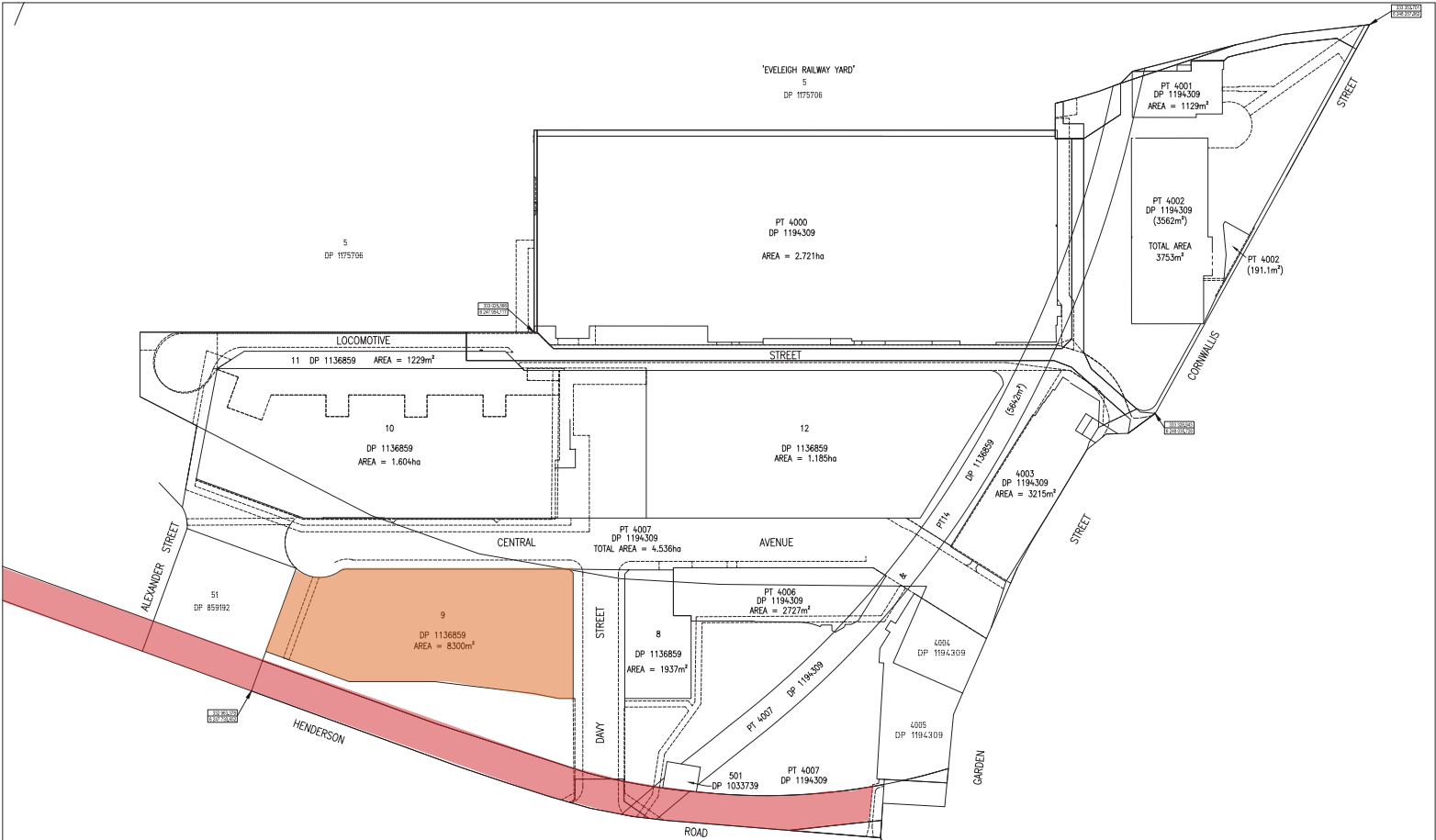


Aerial image of site - rail tunnel located under grass zone



Distribution of carparking across site

Eastern Suburbs underground railway corridor and proximity to site



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Project 84955.01
8 April 2016
R.006.Rev1
JAM

Attention: Barry Steedman
Email: barry.steedman@mirvac.com

Dear Sirs

Geotechnical Response to Submissions
ATP Development, Buildings 1, 2 and 3
ATP Park Eveleigh

1. Introduction

This document is a brief reply to the "Response to Submissions" that were received in relation to the proposed development of Buildings 1, 2 and 3 at the Australian Technology Park, Eveleigh, NSW. The submissions with a geotechnical component were related to Building 1, on Lot 9 and were concerned with:

- massing of the building and potential to relocate car parking areas underground
- request by Sydney Trains to provide additional information related to construction methods and potential rail tunnel interface issues.

This geotechnical response was prepared using data collated previously.

2. Scope of Works

Douglas Partners Pty Ltd (DP) carried out an initial desktop assessment of the likely subsurface conditions at the proposed development site (Building 1), which was followed by a geotechnical site investigation comprising drilling of four boreholes into rock.

3. Comments

3.1 Building 1 Underground Car Park Option

To reduce the mass of Building 1, the relocation of the proposed car parking space into basement levels was suggested for consideration. Basement level car parking was considered in the concept stage design but was rejected due to the inherent geotechnical risks associated with the proximity of the railway tunnel and increased potential to disturbance to the surrounding area, together with the related cost implications. Details of the geotechnical risks are described below.

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JBS&G 51142/103479
L002 (Response to Submissions - ATP Development) Rev 1

7 April 2016

Barry Steedman
Mirvac Projects Pty Ltd
Via email: barry.steedman@mirvac.com

Response to Submissions – ATP Development

Dear Barry,

1. Introduction

JBS&G Australia Pty Ltd (JBS&G) have been engaged by Mirvac Projects Pty Ltd (Mircav) for the provision of environmental consultancy services associated with the remediation and redevelopment of a portion of the Australian Technology Park (ATP), herein referred to as the site. As part of this engagement, Mirvac have requested JBS&G to provide supporting evidence to close out the following enquires/comments:

Comments from the Department and Council – Consideration to be given to the form and mass of Building 1 including relocation of parking to basements.

As discussed in the draft remedial action plan (RAP), available site characterisation data has identified fill material containing, in some instances, concentrations of carcinogenic PAH compounds (including benzo(a)pyrene TEQ), TRH / TPH, heavy metal (principally copper, nickel and lead) and asbestos (friable) in exceedance of ecological-based assessment criteria, and at relatively few locations, the adopted health-based criteria as relevant to the proposed future permissible land uses.

Based on the reported contaminant threshold concentrations, fill materials require remediation / management with respect to proposed permissible land uses which has been incorporated into the current development approach.

Should the proposed parking arrangements be modified to accommodate basement parking rather than at grade, fill materials would require off-site disposal to a landfill lawfully able to accept them. In doing so, consideration should be given to the following:

- Disposal of fill materials to landfill may have significant implication to the Green Star and Ecologically Sustainable Development objectives, and will not meet waste minimisation objectives of the *Waste/Avoidance and Resource Recovery Act 2001*;
- The NSW waste hierarchy prefers on-site retention of fill by means of cap / cover as opposed to off-site disposal to landfill. As such, excavation of fill materials and disposal to landfill is not acquiescent with current EPA guidance;
- Changes to the design would need to consider the increase in truck movements. Based on review of the current design plans, all fill materials are proposed to be retained on site, thus reducing truck movements and disruption to ATP tenants and the surrounding community;
- Consideration needs to be given ATP neighbours including the childcare centre. The additional bulk excavation activities to facilitate basement parking has the potential to result in increased dust emissions,

cJBS&G Australia Pty Ltd | www.jbsg.com.au | ABN 62 100 220 479

Consultant advice relative to technical considerations as associated with underground carparking:

Note: Page 1 of each letter only illustrated to left .

Refer to separate attachments for full letters and additional Mirvac documentation that outlines technical implication of below ground carparking