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8th June 2012

Ms Amy Romero
Property Development Manager
Suite 3, 2 Wentworth Park Road
Glebe NSW 2037
amy.romero@pview.com.au

**Subject:** **Contamination Assessment**

**Site:** **Parkview Development, 164 Station Street, Penrith, NSW**

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Dear Amy,

Geo-Logix was engaged by Parkview to undertake an independent review of a Contamination Report prepared for the subject site in 2005 and provide comment on the appropriateness of the site for the proposed development in respect of State Environmental Planning Policy 55 Remediation of Land.

The subject site is 7.85 hectares of commercial land located in Penrith, NSW. Parkview propose to develop the site for mixed residential / commercial use. The concept plan provided to Geo-Logix (Attachment 1) indicates the site will be essentially divided in two. The southern half of the site will be developed as a Masters Home Improvement Store consisting of slab on grade prefabricated warehouse and ground level parking. The northern half of the site will be developed as multi-storey apartments and retail. It is understood the northern half of the site will require excavation 0.5 – 1.5m below current R.L to facilitate the development.

In light of the proposed land use and development Geo-Logix undertook a review of the following report to form an opinion as to site suitability for the purpose of SEPP 55. The subject report is detailed below:

- ◊ Geotechnique Pty Ltd, Contamination Assessment Report, David Group Pty Ltd, Lot 12 in DP 234581 164 Station Street, Penrith. Ref#11761/1-AA 2 June 2008.

The subject report is a review of Geotechnique 2005 Environmental Investigation of the site. The objective of the Geotechnique review was similar in context in that Geotechnique were providing commentary on the relevance of the 2005 investigations for a commercial client in the year 2008. The 2008 report contains all the raw data from the 2005 investigations and is considered suitable for Geo-Logix independent review and comment.

In 2005 Geotechnique obtained all the standard desktop information to establish the site history. The history suggests that prior to 1957 the site was vacant land. There was some evidence in historical aerial photos to suggest that market gardening may have occurred on the land. Post 1957 a large warehouse, the same structure that exists on the site today, was constructed. Title deeds indicate the site was owned by Penrith Manufacturing Company Pty Ltd until 1962 followed by Singer Industries up until 1968. The activities of both companies, if any, were not established in the report. Post 1968 up until 2006 the site was owned by Matsushita Electric Company who utilised the northern portion of the site and warehouse for assembling Panasonic televisions. In 1978 and 2002 aerial photos there was addition of further warehouses north and south of the main warehouse. Those structures are present today and are subleased to small businesses. The southern half of the site was never used and has remained as a fenced paddock.

Geo-Logix spoke with Mr Brian Senior, the former Engineering Manager of the Panasonic facility who indicated the site was an assembly plant and no components were manufactured onsite. Mr Senior also indicated there we no underground fuel tanks onsite, and all dangerous goods and wastes were stored and managed in accordance with the legal codes of practice. Based on the site history and discussion with Panasonic in 2005 Geotechnique identified the potential for land contamination to originate from the following land uses:

- ◊ Market gardening;
- ◊ Panasonic operations – minor storage and use of chemicals;
- ◊ Importation and use of uncontrolled contaminated fill.

Geotechnique defined a list of contaminants of potential concern comprising the following:

- ◊ Heavy metals (arsenic, cadmium, chromium, hexavalent chromium, lead, mercury, nickel, zinc, selenium);
- ◊ Cyanide compounds;

- ◊ Petroleum hydrocarbons;
- ◊ Polyaromatic Hydrocarbons (PAHs);
- ◊ Polychlorinated Biphenyls (PCBs);
- ◊ Volatile Organic Compounds (VOCs), 1 tonne of Trichloroethylene was stored onsite by Panasonic in 200 litre drums within a designated dangerous good store during period 1969 – 1998; and
- ◊ Asbestos.

Given the site use history Geotechnique undertook the following investigations (Attachment 2):

- ◊ A systematic investigation of surface soils on an approximate 30m grid across the entire site (excluding buildings). This sampling frequency is sufficient to detect a contamination hotspot of 35.4m diameter at 95% statistical degree of confidence and is in general agreement with NSW EPA minimum sampling requirements for a site of this size;
- ◊ Minor adjustment of some sample locations to target areas of potential point source contamination such as the dangerous goods store; and
- ◊ Installation and sampling of three groundwater monitoring wells, one well was located in proximity to the dangerous goods store.

The Geotechnique sampling strategy is considered acceptable as the potential for land contamination (excluding the buildings and dangerous goods store) would have resulted from widespread application of pesticides or importation of fill materials.

Soil samples collected away from the building were collected as eighteen three point composite samples. All eighteen composites were analysed for heavy metals, eleven composites were analysed for organochlorine pesticides. Geo-Logix concurs with this approach as the application of pesticides, which invariable contain heavy metals, would have been widely sprayed across the land surface. In addition, Geotechnique reduced their assessment criteria by the number of samples in the composite (3) thereby eliminating the risk of composite sample dilution. If pesticides were routinely applied to the land prior to the warehouse development the Geotechnique sampling strategy would have identified such contamination. The results of that assessment did not identify heavy metals or pesticides in surface soils at concentrations in excess of residential Health Based Investigation Levels (HILs A) as defined by the National Environmental Protection Council (NEPC 1999). Given those results and that the southern half of the site contains no fill materials, and as of

today still remains as a vacant paddock, it is safe to conclude the southern area of the proposed Masters Home Improvement Store is suitable for the proposed commercial land use.

Soil samples collected around the buildings were analysed for the greater suite of contaminants to reflect the potential for localised contamination associated with Panasonic site operations. Twenty one surface – shallow soil samples (<0.5m) were collected and all were analysed for heavy metals, petroleum hydrocarbons, PAHs, organochlorine pesticides, and PCBs. Fifteen of the soil samples were additionally analysed for cyanide, hexavalent chromium, alkyl mercury, VOCs and asbestos. The results of that assessment did not identify the contaminants of potential concern in soil at concentrations in excess of residential Health Based Investigation Levels (HILs A). Therefore given those sample results it can be concluded that at the time of the investigation and subject to exclusion of the building footprints there was no evidence to suggest the land was unsuitable for residential land use.

Three groundwater samples were collected and analysed for a wide variety of chemical contaminants including heavy metals, petroleum hydrocarbons, VOCs, PAHs, organochlorine pesticides, and PCBs. The results of groundwater analysis did not indicate groundwater had been impacted by past land uses.

The Geotechnique assessment was considered robust and sufficient to conclude the subject site has not been contaminated by past land uses. The exclusion of the assessment was that soils underneath the warehouse buildings had not been investigated. Given all buildings are situated on concrete pads, and that there was no significant chemical use and or storage occurring onsite the risk of significant underlying consequential soil contamination, in respect of the proposed development investment, is considered to be negligible.

**CONCLUSIONS**

The Geotechnique report is considered as valid today as it was back in 2005, as the limiting factor for completeness is the same as it is today; there has been no assessment under the buildings. Outside the building areas the land has been adequately assessed and as there has been no use of that land since 2005 one can conclude that land is suitable for the proposed development.

The risk of consequential contamination under the building footprint is considered to be low for the following reasons:

- ◊ The areas of operation, excluding the builders yard, are concrete sealed;
- ◊ Small business tenants since 2005 have not been industries that result in widespread contamination (Attachment 3 and 4);

- ◊ There has been no voluminous chemical storage or use onsite.

To facilitate the development the following environmental works will be necessary;

- ◊ Demolition of buildings and removal of concrete pads;
- ◊ Soil contamination testing for waste classification purposes as the proposed residential area (northern half) will require excavation 0.5 – 1m below current grade; and
- ◊ Offsite disposal of excavated soils.

Once those works are complete Geo-Logix would recommend a systematic soil sampling program on a reduced grid to define small size localised hotspots of contamination in the areas of the former building structure and builder's storage yard. That programme will define the acceptability of site soils under the existing structures for the proposed residential area.

The information provided in the Geotechnique report in association with what is known of the tenancies post 2005 is considered sufficient to address contamination risk under SEPP 55. It is Geo-Logix opinion that the risk presented by unidentified contamination to be negligible and there is sufficient information to conclude the subject site will be suitable for the proposed mixed use development.

Should you require further information I can be contacted on (02) 9979 1722.

Yours Sincerely,

David Gregory
BSc (Hons), R.G., EIANZ CEnvP#139
Principal Geologist, Director

**Attachments:**

Attachment 1 – Concept Plan
Attachment 2 – Geotechnique Sample Location Map
Attachment 3 – Tenancy Map
Attachment 4 – Tenancy List Post 2005

**LIMITATIONS**

This report should be read in full, and no executive summary, conclusion or other section of the report may be used or relied on in isolation, or taken as representative of the report as a whole. No responsibility is accepted by Geo-Logix, and any duty of care that may arise but for this statement is precluded, in relation to any use of any part of this report other than on this basis.

This report has been prepared for the sole benefit of and use by the Client. No other person may rely on the report for any purpose whatsoever except with Geo-Logix' express written consent. Any duty of care to third parties that would or may arise in respect of persons other than the Client, but for this statement, is excluded.

Geo-Logix owns the copyright in this report. No copies of this report are to be made or distributed by any person without express written consent to do so from Geo-Logix. If the Client provides a copy of this report to a third party, without Geo-Logix' consent, the Client indemnifies Geo-Logix against all loss, including without limitation consequential loss, damage and/or liability, howsoever arising, in connection with any use or reliance by a Third Party.

Unless otherwise expressly stated, the scope of this report is limited to a peer review of the information and data contained in the following reports:

- ◊ Geotechnique Pty Ltd, Contamination Assessment Report, David Group Pty Ltd, Lot 12 in DP 234581 164 Station Street, Penrith. Ref#11761/1-AA 2 June 2008.

No physical investigations have been undertaken of the Site and no information, whether written or oral, has been considered or reviewed by Geo-Logix other than as expressly contained in the Subject Reports.

Unless otherwise expressly stated, the conclusions stated in this report are based solely on the information, scope of works, analysis and data contained in the Subject Reports, and Geo-Logix makes no independent warranties or representations in respect of the Site.

Unless otherwise expressly stated, Geo-Logix has assumed that the information and data contained in the Subject Reports are completely accurate and has not sought independently to verify the accuracy of the information or data. Geo-Logix assumes no responsibility or duty of care in respect of any errors or omissions in the information or data provided to it.

Geo-Logix assumes no responsibility in respect of any changes in the condition of the Site which have occurred since the time that the Subject Reports were prepared.

Geo-Logix has prepared this report with the diligence, care and skill which a reasonable person would expect from a reputable environmental consultancy.

HOWELL OVAL

PENRITH PARK

SHOWGROUND

EXTENT OF PROJECT APPLICATION

EXTENT OF CONCEPT PLAN

STATION STREET

JAMISON ROAD

NEW RETAIL DEVELOPMENT - THE SUBJECT OF THE PROJECT APPLICATION

89 APARTMENTS APPROX 9,300sqm GFA

78 APARTMENTS + RETAIL APPROX 9,000sqm GFA

PLAZA

TAVERN

78 + retail

109 APARTMENTS APPROX 11,400sqm GFA

99 APARTMENTS APPROX 10,400sqm GFA

FIRST CHOICE LIQUOR

CENTRO

WOODRIFF STREET

JAMISON PARK

BASIX Cert #

Nominated Architect: Nicholas Turner 6186
ABN 86 064 084 911

DLCS Quality Endorsed Company ISO 9001:2008
Licence Number 4168

NOTES

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CLIENT
PARKVIEW

| Rev | Date | Approved by | Revision Notes |
|---|---|---|---|
| A | 25-05-12 | kjd | Issued for information |

PROJECT TITLE
STATION STREET / WOODRIFF STREET
PENRITH NSW 2750

DRAWING TITLE
Future Site Context Plan

| | | | |
|---|---|---|---|
| SCALE 1:00 @A1, 50%@A3 | JOB No. 12014 | DRAWN *** | NORTH |
| STATUS FOR INFORMATION | DWG No. DA003 | REV A | |

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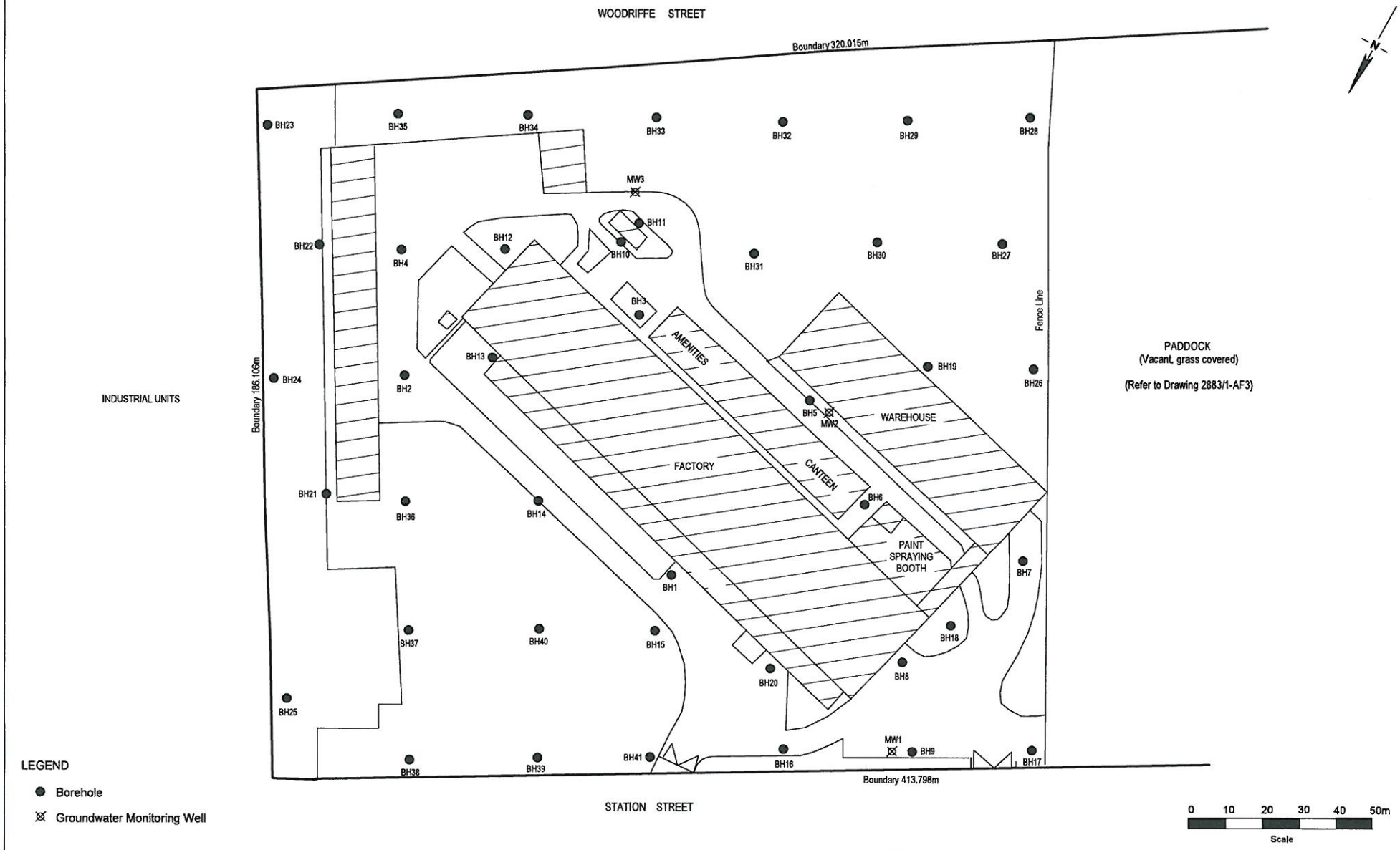


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NOTES

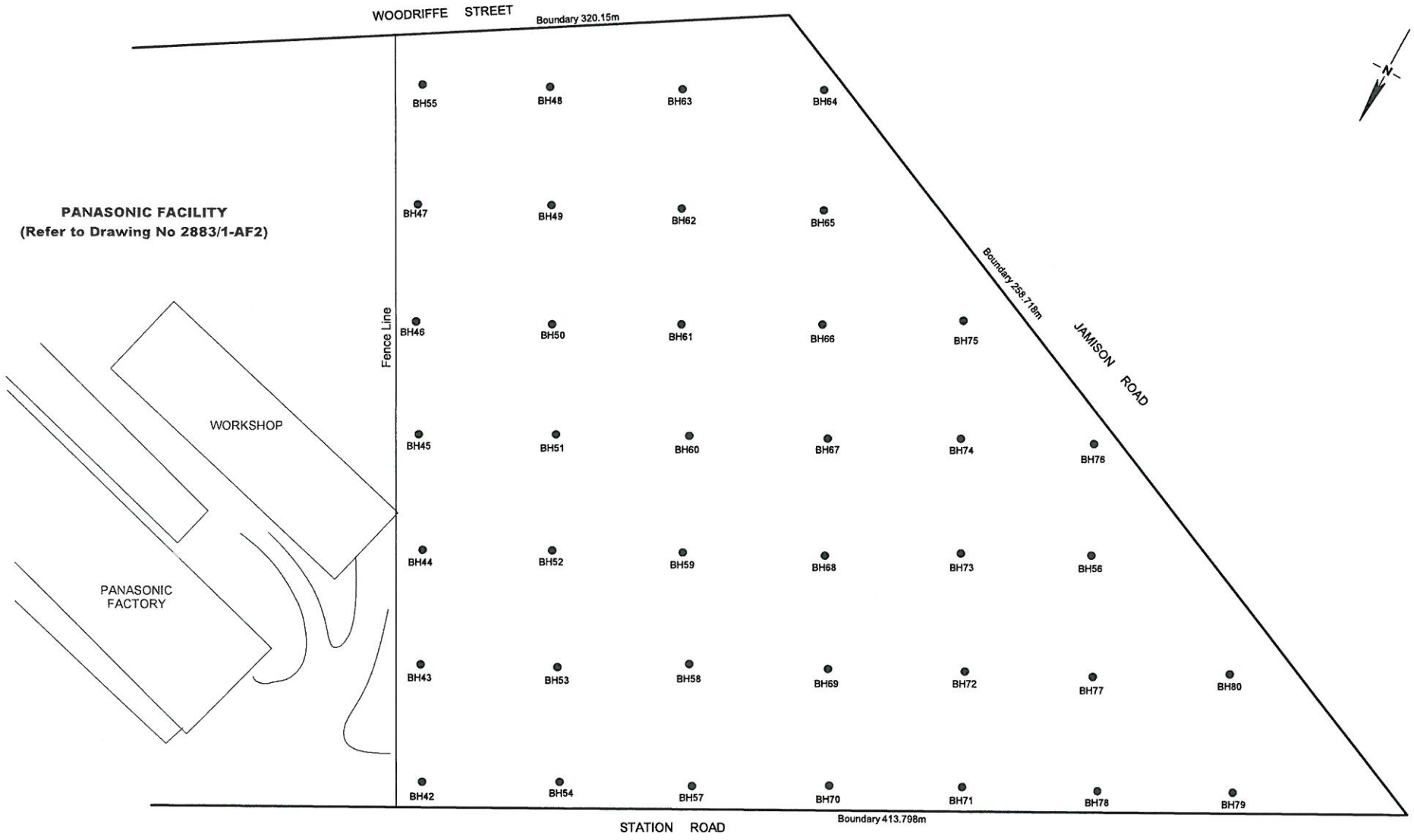
1. This drawing has been produced using a base plan provided by others, to which additional information e.g., test pits, borehole locations or notes have been added. Some or all of the information on this plan may not be relevant at the time of producing this drawing.
2. Site features are shown at approximate locations and are not to scale.

Panasonic AVC Networks Australia Pty Ltd
Lot 12 in DP234581
164 Station Street, Penrith

Borehole Location Plan

Drawing No: 2883/1-AF2
Job No: 2883/1
Drawn By: DP/AC
Date: 5 April 2005
Checked By: PG

File No: 2883-1 Drawings
Layers: 0, PLAN AF1/AF2, Hatch, AF2

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2. Site features are shown at approximate locations and are not to scale.

Panasonic AVC Networks Australia Pty Ltd
Lot 12 in DP234581
164 Station Street, Penrith

Borehole Location Plan

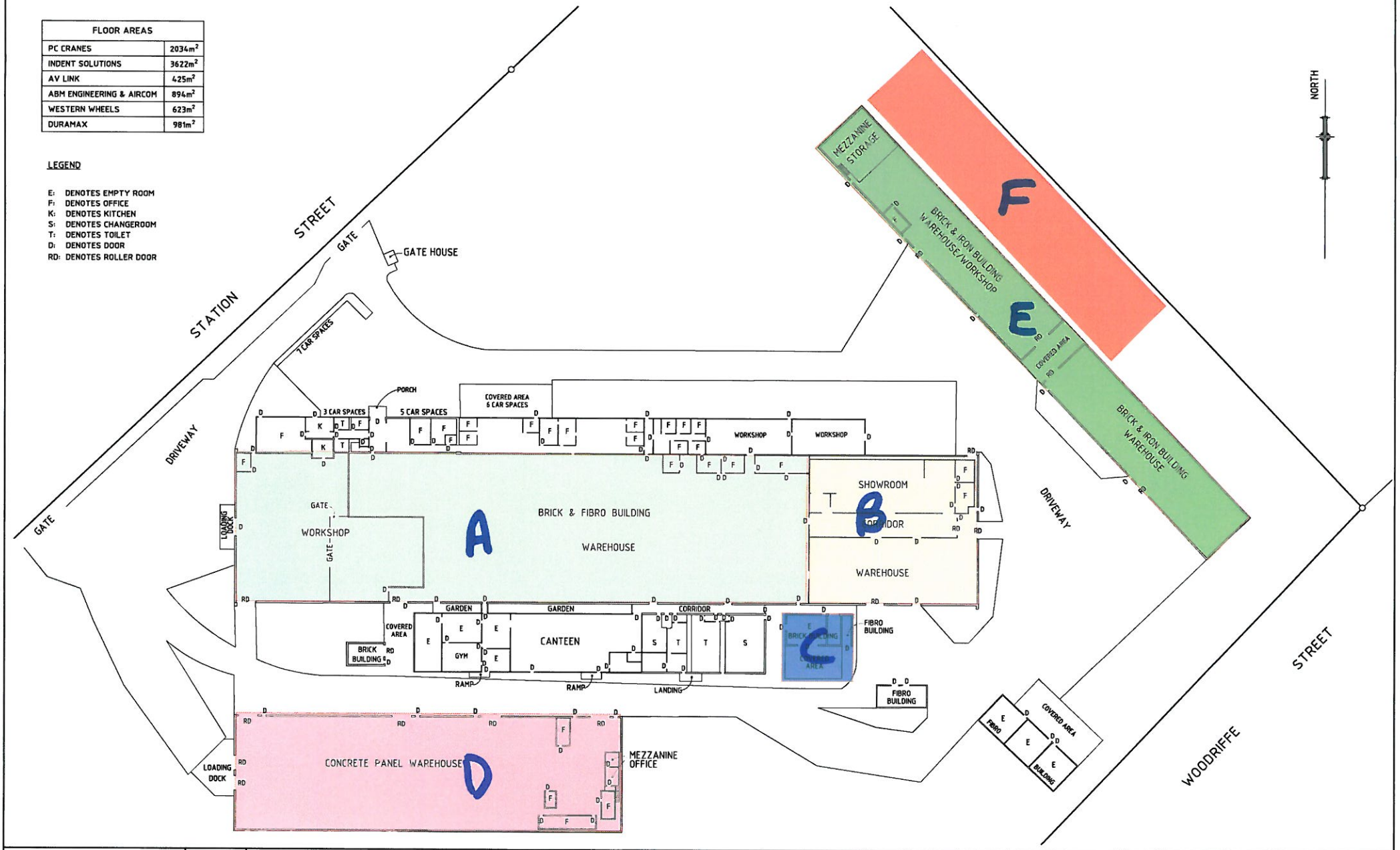
Drawing No: 2883/1-AF3
Job No: 2883/1
Drawn By: DP/AC
Date: 5 April 2005
Checked By: PG

File No: 2883-1 Drawings
Layers: 0, PLAN AF3, AF3

| FLOOR AREAS | |
|---|---|
| PC CRANES | 2034m² |
| INDENT SOLUTIONS | 3622m² |
| AV LINK | 425m² |
| ABM ENGINEERING & AIRCOM | 894m² |
| WESTERN WHEELS | 623m² |
| DURAMAX | 981m² |

LEGEND

E: DENOTES EMPTY ROOM
F: DENOTES OFFICE
K: DENOTES KITCHEN
S: DENOTES CHANGEROOM
T: DENOTES TOILET
D: DENOTES DOOR
RD: DENOTES ROLLER DOOR




AMENDMENTS:

DRAWN DH

SURVEYED DGW

DESIGNED

CLIENT: PARKVIEW PENRITH PTY LTD



TITLE:

PLAN
SHOWING INTERNAL BUILDING LAYOUTS
WITHIN LOT 12 IN DP 234581
AT PENRITH
IN THE LGA OF PENRITH

DUNLOP THORPE & CO. PTY. LTD.
SURVEYORS
447 KENT STREET
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DX 988 SYDNEY
ABN 74 003 512 150
PHONE 9283 6677
FAX 9283 6633
Email: dunthor@ozemail.com.au

| | |
|---|---|
| REDUCTION RATIO | 1:500 |
| SIZE | A2 |
| LEVEL DATUM | N/A |
| DATE | 02.08.07 |
| SHEET | 1 OF 1 SHEETS |
| REFERENCE No. | 15666-2 |

**Parkview Tenancy Post 2005**

| Tenancy Post 2005 | Map ID | Operation Description | Possible Contamination | Risk Profile |
|---|---|---|---|---|
| Design Suit / Summit Furniture<br><br>Duramax | A | Wholesale Furniture Storage and Distribution<br><br>Unknown, Geotechnique describe storage shelves, welding equipment and metals bins. | None<br><br>? | None<br><br>? |
| Fair Dinkum Pallets | B | Small business wood pallet manufacturing. | Copper Chrome Arsenate from timber cuttings, dust, storage | Very low - only minor operation, all areas of operation concrete sealed. |
| Danmac Transport | C | Small truck transport business. One man operation | Petroleum, truck maintenance | Very low - possible minor waste oil spills during oil changes. Area concrete sealed |
| PC Cranes Storage<br><br>One Stop Body Shop | D | Storage of cranes and possible maintenance<br><br>Current tenant sandblasts and repainting metals. Refurbishing heavy civil equipment, boats, cars, any metal parts. Involves sandblasting and using thinners to degrease and paints. | Heavy metal contaminated sands, minor storage of 20L drums of thinner which contains toluene and methyl ether ketone<br>Thinners toluene and MEK, minor 20L drum storage<br>Petroleum, PAHs, heavy metals from degreasing and maintenance | Low- areas concrete sealed. Small operations only minor chemical use and storage. Oil water interceptor. |
| Western Wheels and Castors<br><br>Aircomp | E | Geotechnique describe storage shelves with parts boxes<br><br>Small business fits trucks with blowers to transport and disperse dry cement powder. Machine tooling parts | ?<br><br>Petroleum, heavy metals | ?<br><br>Very low - contained degreasing station, area of works concrete sealed. |
| Builder | F | Storage of building equipment and materials, scaffolding, woods, cement, pumps, generator | Petroleum, heavy metals, asbestos | Low - minor petroleum surface spills possible, land is not sealed, possible for asbestos waste |