

Hazardous Building Materials Assessment

Tempe Golf Driving Range - Shed

17 Swamp Road,
Tempe NSW 2044

Inner West Council
April 2018

Client No.: S0149

Client: Inner West Council

Job No.: 57722-119

Count ID: CID: 364



Executive Summary

Introduction

Prensa Pty Ltd (Prensa) was engaged by Inner West Council (IWC) to conduct a Hazardous Building Materials Assessment (Assessment) of Tempe Golf Driving Range - Shed located at 17 Swamp Road, Tempe NSW 2044 (the site). Andrew Pittaway and Jessica Wood of Prensa conducted the Assessment on 20th February 2018 at the request of Rick Jarvis of IWC.

The objective of this Assessment was to identify and assess the health risk posed by hazardous building materials which are considered accessible during normal occupation of the building.

Scope of Works

The scope of the Assessment included the interior and exterior of Tempe Golf Driving Range - Shed located at 17 Swamp Road, Tempe NSW 2044.

Specifically, Prensa included the following hazardous building materials in the scope of this Assessment:

- Asbestos-containing materials (ACM); and

Other Hazardous Materials (OHMs) inclusive of:

- Synthetic mineral fibre (SMF) materials;
- Polychlorinated biphenyls (PCB) containing capacitors in electrical fittings;
- Lead-containing paint (LCP); and
- Ozone depleting substances (ODS).

Methodology

The Assessment comprised a review of available information, interviews with available site personnel and a visual inspection of reasonably accessible areas. The Assessment was conducted in accordance with the current NSW Work Health and Safety Act 2011 and Regulation 2017.

Site Description

The site consists of a single building. Details of the building contained within this site are provided in **Table 1** below.

Table 1: Site Information			
Site:	CID: 364 – Tempe Golf Driving Range - Shed, 17 Swamp Road, Tempe NSW 2044		
Age (Circa):	2000's	External walls:	Corrugated metal
Approximate area:	40 m ²	Internal walls:	Corrugated metal
Levels:	1	Ceiling:	Corrugated metal
Roof type:	Corrugated metal	Floor and coverings:	Cement

Asbestos Risk Profile

The following table gives a summary of the Hazardous Building Materials identified or suspected during the Assessment:

Site Name	Number of items			OHM Requires Remediation
	ACM			
	High	Medium	Low	
Tempe Golf Driving – Shed	0	0	0	0

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1. Hazardous Building Materials Register

Key to hazardous building materials priority risk rating:	
ACM Priority 1 (P1):	High Priority – Requiring immediate action
ACM Priority 2 (P2):	Medium Priority – May require action in the short term (12 months)
ACM Priority 3 (P3):	Low Priority – May require action in the medium term (3 years)
ACM Priority 4 (P4):	Very Low Priority – Requires ongoing management or longer term remedial action (5 years)
OHM Action Required	All Other Hazardous Materials that require remediation in the short term.

Important Note:

Priority Ratings listed above are only applicable to hazardous materials that require remediation. Where there is no remediation necessary, hazardous materials should be re-inspected in accordance with the dates listed in the register (typically 5 yearly for ACM in good condition).

Client: Inner West Council

Site Name: CID: 364 - Tempe Golf Driving Range - Shed

Site Address: 17 Swamp Road, Tempe NSW 2044

Client No.: S0149

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Area / Level	Room & Location	Feature	Item Description	Hazard Type	Sample No.	Sample Status	Friability	Disturb. Potential	Condition	Risk Status	Approx. Quantity	Recommendations & Comments	Control Priority	Reinspect Date	Photo No.
Interior	West elevation	Electrical backing board	Bituminous backing board	Asbestos	Not Sampled:	Suspected Negative	-	-	-	-	-	Suspected negative due to age and appearance.	-	-	1
Throughout	-	-	-	SMF	-	-	-	-	-	-	-	No suspect SMF material identified at the time of the assessment.	-	-	-
Interior	Throughout	Fluorescent light fitting - double tube	Capacitor	PCBs	Not sampled:	Suspected Negative	-	-	-	-	-	PCB-containing capacitors are unlikely to be present due to age and appearance of light fittings. Confirm PCB status prior to refurbishment or demolition works.	-	-	2
Throughout	-	-	-	Lead Paint - Swab	-	Suspected Negative	-	-	-	-	-	Data supplied by IWC shows building to have been constructed post 1997. Paint coatings suspected to be non lead containing (<0.1%W/W) as per Section 1.5 of AS 4361.2:2017 Guide to hazardous paint management.	-	-	-
Throughout	-	-	-	Ozone Depleting Substances	-	-	-	-	-	-	-	No suspect ODS's identified at the time of the assessment.	-	-	-

2. Photographs




KEY	
	Confirmed or suspected ACM
	Confirmed or suspected other hazardous material type (SMF, PCB, LCP or ODS)
	Confirmed or suspected non-ACM or other non-hazardous material



Photo 1. Interior, west elevation, electrical backing board – suspected non asbestos-containing bituminous backing board.



Photo 2. Interior, throughout, double tubed fluorescent light fitting – suspected non PCB-containing capacitor.

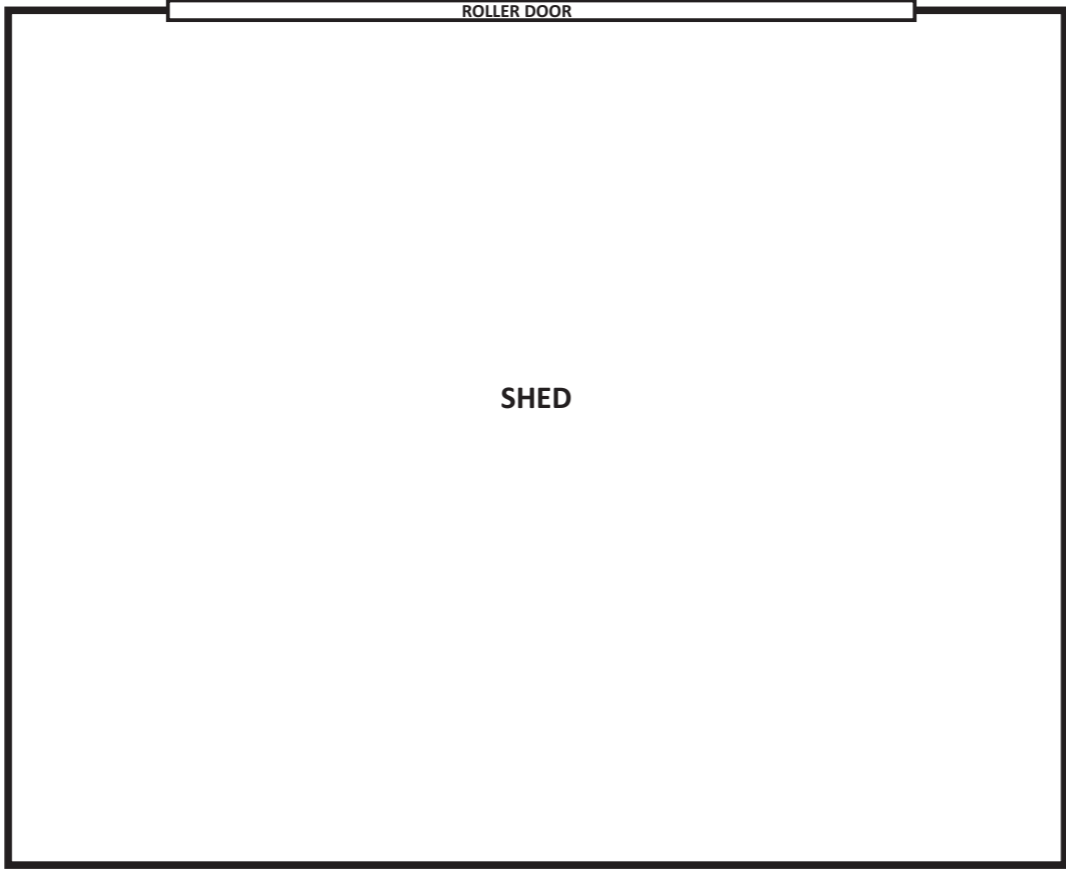
3. Site Plan

Important Note:

*Only asbestos-containing materials (ACM) have been labelled on the attached site plan to prevent confusion and ensure that these materials are given priority for action. Therefore, other hazardous materials may be present within the building and the register attached in **Section 1** should be consulted prior to work commencing.*

Tempe Golf Driving Range Shed

Tempe - Ground Level



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Client:	Inner West Council
Project:	Hazardous Building Materials Assessment
Address:	17 Swamp Road, Tempe NSW 2044
Drawing Title:	Tempe Golf Driving Range Shed
Job No.: 57722-119	Client No.: S0149
IWC Code: CID 364	

Legend:



Note:
All locations are approximate

Drawn by: TME	Date: 13/04/2018
Checked by: MM	Date: 13/04/2018
Figure number: 1	Revision: 2
File name: 57722 - 119 - Rev 2	

4. Findings

Document Review and Interviews

As part of this Assessment, Prensa requested copies of previous documentation pertaining to hazardous building materials at the site.

No documentation was made available for this Assessment.

Asbestos Bulk Sample Analysis

No samples suspected to contain asbestos were collected during the assessment.

Assessment Findings

The findings of this Assessment are presented in tabulated format in **Section 1. Hazardous Building Materials Register** of this Assessment report. Hazardous building materials that have been photographed are depicted in **Sections 2. Photographs** of this Assessment report.

The following hazardous building materials were identified or suspected during the Assessment:

Property	Asbestos-containing Materials		Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Lead-containing Paint	Ozone Depleting Substances
	Non-friable	Friable				
Tempe Golf Driving Range – Shed	-	-	-	-	-	-

The following significant key findings are noted:

Asbestos-containing Materials

- No ACMs were identified or suspected during the Assessment.

Synthetic Mineral Fibre Materials

- No SMF materials were identified or suspected during the Assessment.

Polychlorinated Biphenyls

- No PCBs were identified or suspected during the Assessment.

Lead-containing Paint

- No LCP was identified or suspected during the Assessment.

Ozone depleting substances

- No ODS-containing air conditioning units were identified or suspected during the Assessment.

Areas Not Accessed

Areas that are generally not accessed as part of Prensa’s Assessments are listed in **Appendix B: Areas Not Accessed**. Site-specific areas that were inaccessible during Prensa’s Assessments and were deemed likely to contain asbestos are also listed in **Appendix B: Areas Not Accessed** and **Sections 1. Hazardous Building Materials Register**.

5. Methodology

The Assessment comprised a review of relevant site information made available to Prensa, interviews with available site personnel and a visual inspection of accessible areas and destructive sampling techniques where necessary.

The methodology for assessing the hazardous building materials at the site is presented in the following sections.

Asbestos-containing Materials - This component of the Assessment was carried out in accordance with the guidelines documented in the relevant Codes of Practice. When safe to do so, building materials that were suspected of containing asbestos were sampled at the discretion of the Prensa consultant. Samples of suspected ACMs were analysed in Prensa's laboratory, which is NATA accredited to conduct asbestos bulk sample analysis. The analysis was conducted using polarised light microscopy including dispersion staining techniques.

Synthetic Mineral Fibres - This component of the Assessment was carried out in accordance with the guidelines documented in the *Code of Practice for the Safe Use of Synthetic Mineral Fibres* [NOHSC: 2006 (1990)]. This report broadly identifies SMF materials found or suspected of being present during the Assessment and is based on a visual Assessment.

Polychlorinated Biphenyls - Where safely accessible, specifications of capacitors incorporated in light fittings and ceiling fans were recorded and cross-referenced with the Australian and New Zealand Environment Conservation Council (ANZECC) *Identification of PCB-containing Capacitors information booklet* – 1997. Due to the danger of accessing electrical components, or for other reasons, such as height restrictions, some electrical fittings may not have been accessed. In these instances, comment is provided in the Assessment report on the likelihood of PCB-containing materials being present. This determination is based upon the age and appearance of the electrical fittings.

Lead-containing Paint - Representative painted surfaces were tested in locations for the presence of lead using the qualitative *LeadCheck* paint swab method. This method can detect lead in paint at concentrations of 0.5% and above, and may indicate lead in some paint films as low as 0.2%. It is noted that the former Australian Standard (AS) 4361.2 – 1998 *Guide to lead paint management – Part 2: Residential and commercial buildings* defined lead paint as paint with a lead content greater than 1% by dry weight. This standard was updated in December 2017 (*AS4361.2-2017 Guide to Hazardous Paint Management – Part 2 – Lead Paint in Residential, Public and Commercial Buildings*) and now defines lead paint as paint with a lead content greater than 0.1% by dry weight (i.e. 90% reduction in content from 1998 standard). It should be noted that paint manufactured since 1997 contains <0.1% lead by weight (i.e. considered non lead based paint).

In circumstances where a “positive” (lead present) test result is obtained from the *LeadCheck* swab, these paint situations have been recorded in the register as LCP. For surface coatings installed prior to 1997, where “negative” test results are obtained from the *LeadCheck* swab, these situations have been recorded as “suspected positive” for lead content in the hazardous materials register. Prensa recommend that quantitative testing is conducted prior to disturbance of these situations using a NATA accredited laboratory.

The sampling program attempts to be representative of the various types of paints found at the Site. However, particular attention is paid to areas where LCPs were more likely to have been used (e.g. exterior gloss paints, window and door architraves and skirting boards). The objective of LCP identification in this Assessment is to highlight the presence of LCP within the site building(s), not to specifically identify every location of LCP.

Ozone Depleting Substances – This component of the Assessment comprised a visual inspection of air conditioning units and any chillers (if applicable) at the site and included a review of the air conditioners' refrigerant types.

6. Management Options

As per NSW legislation, all materials suspected of containing asbestos must be identified and recorded in a register. Furthermore, a risk Assessment must be conducted of each hazardous building material and appropriate control measures implemented. The control measures have been determined based on reducing the risk of exposure, so far as is reasonably practicable. The control measures, which were determined by a competent person and/or hygienist, need to reflect the hierarchy of control outlined in specific state legislation and is as follows:

1. **Elimination**/removal (most preferred);
2. **Substitution**;
3. **Isolation**, such as erection of permanent enclosures encasing the material;
4. **Engineering** controls, such as negative air pressure enclosures for removal works, HEPA filtration systems;
5. **Administrative** controls – including the incorporation of registers and management plans, the use of signage, personnel training, safe work procedures, regular re-inspections and registers; and
6. The use of **Personal Protective Equipment** (PPE) (least preferred).

To manage the hazardous building materials, a combination of the above techniques may be required.

7. Accidental Disturbance of Known or Suspected Hazardous Building Materials

In the unlikely event that there is an accidental disturbance of known or suspected hazardous building materials the following procedures should be implemented:

1. Cease work immediately during maintenance or refurbishment works.
2. Isolate and evacuate the affected area.
3. Close and lock doors to affected area and post signs "No Entry".
4. Notify the Inner West Council immediately at maintain@innerwest.nsw.gov.au or via phone on (02) 9392 5389.

8. Site Specific Recommendations

Based on the findings of this Assessment, it is recommended that the following control measures be adopted as part of the management of the hazardous building materials at the Site. Recommendations for specific items of hazardous building materials are also presented in **Section 1. Hazardous Building Materials Register** of this Assessment report.

Asbestos-containing Materials (ACM)

- A destructive hazardous building material survey should be carried out prior to any demolition or refurbishment works. Any hazardous building materials identified within this survey should be removed prior to the commencement of any works that may cause disturbance.
- During demolition/refurbishment works, if any materials that are not referenced in this report and are suspected of containing asbestos are encountered, then works must cease and an asbestos hygienist should be notified to determine whether the material contains asbestos.

Synthetic Mineral Fibre (SMF) Materials

- No recommendations.

Polychlorinated Biphenyls (PCB)

- No recommendations.

Lead-containing Paint (LCP)

- No recommendations.

Ozone Depleting Substances

- No recommendations.

Appendix A: Risk Assessment Factors and Priority Ratings

Risk Assessment Factors

To assess the health risk posed by the presence of hazardous building materials, all relevant factors must be considered. These factors include:

- Product type;
- Condition;
- Disturbance potential;
- Friability of the material;
- Proximity to direct air stream; and
- Surface treatment (if any).

The purpose of the material risk assessment is to establish the relative risk posed by specific hazardous building materials identified in this Assessment. The following risk factors are defined to assist in determining the relative health risk posed by each item.

Condition

The condition of the hazardous building materials identified during the Assessment is reported as being **good**, **fair** or **poor**.

- **Good** refers to a material that is in sound condition with no or very minor damage or deterioration.
- **Fair** refers to a material that is generally in a sound condition, with some areas of damage or deterioration.
- **Poor** refers to a material that is extensively damaged or deteriorated.

Friability

The friability of a material describes the ease by which the material can be crumbled, which in turn, can increase the release of fibres into the air. Therefore, friability is only applicable to asbestos and SMF.

- **Friable asbestos** can be crumbled, pulverised, or reduced to powder by hand pressure, which makes it more dangerous than non-friable asbestos.
- **Non-friable asbestos**, more commonly known as bonded asbestos, is typically comprised of asbestos fibres tightly bound in a non-asbestos matrix. If accidentally damaged or broken these ACMs may release fibres initially but will not continue to do so.
- **Bonded SMF** describes a synthetic fibrous material which has a specific designed shape and exists within a stable manufactured product.
- **Un-bonded SMF** is a loosely packed synthetic fibrous material which has no adhesive or cementitious binding properties.

Disturbance Potential

Hazardous building materials can be classified as having low, medium or high disturbance potential.

- **Low disturbance potential** describes materials that have very little or no activity in the immediate area with the potential to disturb the material. Low accessibility is considered as monthly occupancy or less, or inaccessible due to its height or its enclosure.
- **Medium disturbance potential** describes materials that have moderate activity in the immediate area with the potential to disturb the material. Medium accessibility is considered weekly access or occupancy.
- **High disturbance potential** describes materials that have regular activity in the immediate area with the potential to disturb the material.

Health Risk Status

The risk factors described above are used to grade the potential health risk ranking posed by the presence of the materials. These risk rankings are described below:

- A **low health risk** describes a material that poses a negligible or low health risk to occupants of the area due to the materials not readily releasing fibres (or other toxic/hazardous constituents) unless seriously disturbed.
- A **medium health risk** describes a material that pose a moderate health risk due to the material status and activity in the area.
- A **high health risk** describes a material that pose a high health risk to personnel or the public in the area of the material.

ACM Priority Rating System for Control Recommendations

While an assessment of health risk has been made, our recommendations have been prioritised based on the practicability of a required remedial action. In determining a suitable priority ranking, consideration has been given to the following:

- Level of health risk posed by the hazardous building material;
- Potential commercial implications of the finding; and
- Ease of remediation.

As a guide the recommendation priorities have been given a timeframe as follows:

Priority 1 (P1):	Asbestos Containing Material with High Risk Potential – Requiring immediate action
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Status: ACM that are either damaged or are being exposed to continual disturbance. Due to these conditions there is an increased potential for exposure and/or transfer of the material to other parts of the property if unrestricted use of the area containing the material is allowed.

Recommendation: If the ACM is in a poor/unstable condition and accessible with risk to health from exposure, access restrictions to the immediate area should be applied, air monitoring should be considered and removal recommended as soon as practicable using an appropriately licensed removalist.

Priority 2 (P2):	Asbestos Containing Material with Medium Risk Potential – May require action in the short term
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Status: ACM with a potential for disturbance due to the following conditions:

- Material has been disturbed or damaged and its current condition, while not posing an immediate risk, is unstable.
- The material is accessible and can, when disturbed, present a short-term exposure risk.
- The material could pose an exposure risk if workers are in close proximity.

Recommendation: If the ACM is easily accessible but in a stable condition, removal is preferred. However, if removal is not immediately practicable, short-term control measures (i.e. restrict access, sealing, enclosure etc) may be employed until removal can be facilitated as soon as is practical (3-6 months). Negligible health risk if material remains undisturbed under the control of a management plan.

Priority 3 (P3):	Asbestos Containing Material with Low Risk Potential – May require action
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Status: ACM with a low potential for disturbance due to the following conditions:

- The material is in good condition but the surface of the material has been disturbed slightly or has deteriorated as a result of minor environmental factors. This may include influences such as weathering or if the material has sustained minor cracks or broken due to minimal damage.
- The material appears to be in good condition, however further disturbance or damage may occur which would increase the likelihood of asbestos fibres or other hazardous materials being released if disturbed.

Recommendation: Minor health risks if the ACM is left undisturbed under the control of a management plan. Consider removal or encapsulation of the materials.

Priority 4 (P4):	Asbestos Containing Material with Negligible (very low) Risk Potential
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Status: The ACM is in a friable or non-friable form and in good condition. It is most unlikely that the material can be disturbed under normal circumstances. Even if it were subjected to minor disturbance the material poses a minor health risk.

Recommendation: These ACM’s should be left in a good and stable condition, with ongoing maintenance and periodic inspection. It is advisable that any remaining identified building materials or presumptions should be appropriately labelled, where possible, and regularly inspected to ensure they are not deteriorating resulting in a potential risk to health.

OHM Action:	Other Hazardous Building Materials with a Requirement for Short Term Remediation
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Status: The hazardous material is damaged or in a degraded condition. The material may be disturbed under normal circumstances. If it were subjected to disturbance the material potentially poses a health risk to personnel.

Recommendation: The building material should be removed or remediated in the short-term to control potential occupant exposure. This should be undertaken in accordance with guidelines defined under **Section 8** of this report.

Appendix B: Areas Not Accessed

Given the constraints of practicable access encountered during this Assessment, the following areas were not inspected. Assessments are restricted to those areas that are reasonably accessible at the time of the Assessment with respect to the following:

- Without contravention of relevant statutory requirements or codes of practice.
- Without placing the Prensa consultant and/or others at undue risk.
- Without demolition or damage to finishes and structure.
- Excluding plant and equipment that was 'in service' and operational.

Documented below are the areas where the Prensa consultant encountered access restrictions during the Assessment:

Areas Not Accessed

Underneath the concrete slab of all building structures at the site.

Exposed soils surrounding the building structures of the site.

Energised services, gas, electrical, pressurised vessel and chemical lines.

Height restricted areas above 2.7m or any area deemed inaccessible without the use of specialised access equipment.

Within cavities that cannot be accessed by the means of a manhole or inspection hatch.

Within voids or internal areas of plant, equipment, air-conditioning ducts etc.

Within service shafts, ducts etc., concealed within the building structure.

Within those areas accessible only by dismantling equipment.

Within totally inaccessible areas such as voids and cavities present but intimately concealed within the building structure.

All areas outside the Scope of Work.

Note:

If proposed works entail possible disturbance of any suspect materials in the above locations, or any other location not mentioned in **Section 1. Hazardous Building Materials Register**, further investigation may be required prior to the commencement of such works.

The presence of residual asbestos insulation on steel members, concrete surfaces, pipe work, equipment and adjacent areas remaining from prior removal works cannot normally be determined without extensive removal and damage to existing insulation, fixtures and fittings at the Site. If, during any demolition/refurbishment works any materials that are not referenced in this report and are suspected of containing asbestos are encountered, works must cease and a hygienist should be notified to determine whether the material is hazardous.

Appendix C: Statement of Limitations

Statement of Limitations

This document has been prepared in response to specific instructions from IWC to whom the report has been addressed. The work has been undertaken with the usual care and thoroughness of the consulting profession. The work is based on generally accepted standards and practices of the time the work was undertaken. No other warranty, expressed or implied, is made as to the professional advice included in this report.

The report has been prepared for the use by IWC and the use of this report by other parties may lead to misinterpretation of the issues contained in this report. To avoid misuse of this report, Prensa advises that the report should only be relied upon by IWC and those parties expressly referred to in the introduction of the report. The report should not be separated or reproduced in part and Prensa should be retained to assist other professionals who may be affected by the issues addressed in this report to ensure the report is not misused in any way.

Unless otherwise stated in this report, the scope is limited to fixed and installed materials and excludes buried waste materials, contaminated dusts and soils.

Unless expressly stated it is not intended that this report be used for the purposes of tendering works. Where this is the intention of IWC, this intention needs to be communicated with Prensa and included in the scope of the Proposal.

Prensa is not a professional quantity surveyor (QS) organisation. Any areas, volumes, tonnages or any other quantities noted in this report are indicative estimates only. The services of a professional QS organisation should be engaged if quantities are to be relied upon.

Sampling Risks

It is noted that while the Assessment has attempted to locate the asbestos-containing materials within the building(s), the investigation was limited to only a visual Assessment and limited sampling program and/or the review and analysis of previous reports made available. Prensa notes that sampling is representative only and that due to the lack of homogeneity of building materials it is possible that sampling has not detected all asbestos within the nominated locations.

Given that a representative sampling program has been adopted, not all materials suspected of containing asbestos at the time of the investigation were sampled and assessed. It is noted that some asbestos materials may have been assumed to contain asbestos based on their similar appearance to previously sampled materials.

Therefore, it is possible that asbestos materials, which may be concealed within inaccessible areas/voids, may not have been located during the investigation. Such areas include, but are not limited to:

- Materials concealed behind structural members and within inaccessible building voids;
- Areas inaccessible without the aid of scaffolding or lifting devices;
- Areas below ground;
- Inaccessible ceiling or wall cavities;
- Areas which require substantial demolition to access;
- Areas beneath floor covering where asbestos-containing materials were not expected to exist;
- Materials contained within plant and not accessible without dismantling the plant; and
- Areas where access is restricted due to locked doors, safety risks, or being occupied at the time of the investigation.

Reliance on Information Provided by Others

Prensa notes that where information has been provided by other parties in order for the works to be undertaken, Prensa cannot guarantee the accuracy or completeness of this information. IWC therefore waives any claim against the company and agrees to indemnify Prensa for any loss, claim or liability arising from inaccuracies or omissions in information provided to Prensa by third parties. No indications were found during our investigations that information contained in this report, as provided to Prensa, is false.

Future Works

During future works at the site, care should be taken when entering or working in any previously inaccessible areas or areas mentioned above and it is imperative that works cease immediately pending further investigation and sampling (if necessary) if any unknown materials are encountered. Therefore, during any refurbishment or demolition works, further investigation, sampling and/or Assessment may be required should any suspect or unknown material be observed in previously inaccessible areas or areas not fully inspected, i.e. carpeted floors.