



1-15 Fontenoy Road

Macquarie Park, NSW 2113



Condition Report

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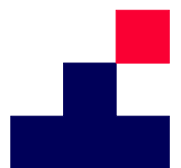
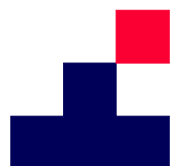




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Date	Purpose of Issue	Copies to	Prepared by	Issue Authorised by
21.09.12	Final	Peter Bourne	Alan Stewart	Gavin Peach





Executive Summary

This report has been commissioned by Raine and Horne Strata Sydney to assist in the analysis of the condition of the common structure, fabric, building services and vertical transportation at 1-15 Fontenoy Road, Macquarie Park.

This executive summary is intended to highlight only those key items or those which may warrant further investigation, testing, assessment or monitoring.

General Description

The site known as 1-15 Fontenoy Road has a total of 219 apartments across four towers, each seven storeys high with a secure, interconnecting basement car parking level and served by four lifts. 26 attached two storey townhouses are located to the north west of the site. In addition, common facilities including an indoor swimming pool, gymnasium, sauna and changing facilities are provided.

The buildings were originally completed in circa 1995.

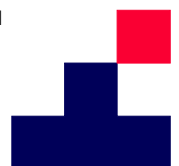
General Property Condition

The buildings were noted to be in a good condition at the time of inspection, typical for their age, construction type and location. The buildings have been subject to a fair level of preventative maintenance which has contributed to their current condition. The condition of the building can be summarised as follows:

Building Structure and Fabric

Key observations include:

- The flat concrete deck roof areas to Blocks A, B, C and D contain large areas of standing water. A number of previous patch repairs have been carried out. The surfaces require preparing and recovering with a liquid applied waterproof membrane within the short to medium term (1-5 years). Block C was observed to be in good overall condition with Block D suffering the most standing water. The falls to the drainage are insufficient and improving the existing falls should also be considered. The internal units were not inspected for any water penetration via the roof slab.
- Where visible, the tower façades were generally in fair to good condition commensurate with their age and construction type. Minor patch repairs have been undertaken in the past where rendered finishes have become loose over time. Other isolated areas will require minor repairs over the medium and long term to preserve the appearance of the facades.
- The construction joints to the basement car park soffits allow differential movement of the structure. This is subsequently affecting the brick paving to the common circulation areas above as well as the dwarf walls to the planter boxes causing isolated areas of cracking. Affected areas of paving have risen in line with the construction joints below potentially causing trip hazards. Affected areas should be repaired through ongoing routine maintenance to prevent any future trip risks. The dwarf walls can be cosmetically repaired with sufficient movement jointing incorporated.





- Timber and metalwork to common areas such as painted balustrades, handrails and fire exit doors are largely in good condition however decoration is deteriorating in areas. Redecoration of affected surfaces should be undertaken as per routine repairs and maintenance.

Building Services

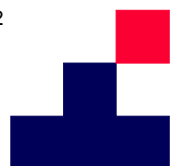
The building services are in fair condition, typical for their age, construction type and location.

Capital expenditure items of note include:

- The main domestic water supply does not have a backflow prevention device installed as required by AS 3500:1 and Occupational Health and Safety Regulation 2001, Division 1 Clauses 34 & 35. It is recommended that a backflow prevention device be installed.
- The eight gas fired boilers (two per tower building) and associated pumps and water storage tanks, will likely require lifecycle replacement in the long term dependant on the level and quality of routine repairs and maintenance.
- No plans or maintenance documentation was made available for review. The roof top fans were not labeled it was no possible at the time of inspection to identify the different types of ventilation systems. It is recommended that all ventilation fans be clearly labeled.
- The tower buildings common area interior lighting is currently undergoing an upgrade.
- The CCTV security system will require lifecycle replacement in the long term.
- The gas fired swimming pool heaters appear to be in fair current condition, however, are likely to require replacement toward the end of the long term.
- A number of services are in good current condition and are not likely to require replacement within the 10 year reporting period, these include:
 - The complex exterior and garden lighting.
 - The car park lighting.
 - The swimming pool, spa filters and pumps.
 - The diesel hydrant pump.
 - The access system.
 - The MATV system
 - The garden irrigation system.
 - The domestic type smoke detectors.

Repairs and maintenance issues:

- Regular testing and maintenance of the mechanical ventilation systems is recommended to manufactures specifications and cleaned if required.
- Annual inspections and infrared scans of the electrical switchboards is recommended.
- The maintenance tags for the hydrants, hose reels and extinguishers were conflicting which indicates that the different fires services may be under different maintenance





contracts. Maintenance contracts were not made available for review. It is recommended that all fire safety measures be surveyed as required by AS 1851.2005.

- The test documentation has not been supplied for the following:
 - Annual Fire Safety Statement
 - Hydrant system 5 yearly hydrostatic test
 - Annual sprinkler flow test
 - Annual hydrant flow test
 - Fire damper inspection
 - Smoke detector tests
 - Emergency lighting
 - Exit lights
 - Lift emergency lighting
 - Fire rating of the lift landing doors
 - Warning and operational signs
 - Means of egress
 - Paths of travel
 - Annual survey of fire safety measures as required by AS 1851.2005

Vertical Transportation

There is one passenger lift in each of the four residential towers making a total of four passenger lifts in these premises.

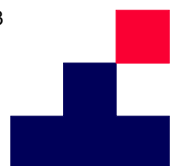
Each lift has a load of 1156kg or 17 persons at a speed of 1.5 metres per second. Each of these passenger lifts were installed to meet the requirements of the Lift Code and the Building Code of Australia applicable at the time the buildings were constructed.

The lifts were manufactured and installed by Liftronic Pty Ltd and are currently being serviced by ThyssenKrupp Elevator. The lift system is variable speed AC design and of 'Daldoss' manufacture.

Due to issues with diminishing spare parts over time, the major operating equipment such as the power and control system, power door operators and landing door lock assemblies should be upgraded in over the medium to long term (approx 5 years).

The lift installation satisfied the regulations under which the lifts were originally installed, however it does not satisfy current requirements due to changes in those regulations, but the work to make the installation comply with current codes could be spread over the long term (6 10 years).

There was no evidence on site that a Hazard & Risk assessment on the lift installation has been carried out. We also note the item registrations which are required annually by the OH&S Act for the equipment is recently out of date and should be in the process of renewal if not already done so.





The lift system here appears in reasonable condition for its age. However capital expenditure is required over the medium and long term to ensure equipment longevity, ongoing reliability and to address the changes in the applicable codes and regulation since the equipment was installed.

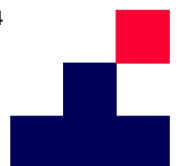
General maintenance and housekeeping on the lifts appear to be satisfactory.

Asbestos Risk Assessment Survey

Prensa Pty Ltd (Prensa) was engaged by Napier & Blakeley (N&B) to conduct an Asbestos Building Materials Assessment of Macquarie Gardens, 1-15 Fontenoy Road.

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

Representative sampling was undertaken of suspected asbestos containing building materials. All samples returned a negative result for asbestos.





1. Introduction

On the instructions of Raine and Horne Strata Sydney, Napier & Blakeley Pty Ltd has carried out an inspection of the subject premises and presents the following Condition Report.

In general accordance with the instructions, Napier & Blakeley Pty Ltd has completed this report with the principal objective of furnishing sufficient information as to the current condition of the building in terms of its internal and external fabric, the adequacy of the structure, the operation of the building services and the impact these have on certain periodic costs and capital expenditure.

The report covers the following:

- Building structure and fabric.
- Mechanical services.
- Electrical services.
- Fire protection services.
- Hydraulic services.
- Vertical transportation services.
- Asbestos risk assessment survey.

We confirm that this report has been prepared for Raine and Horne Strata Sydney, only and is not for reference by any third party without prior consent of Napier & Blakeley Pty Ltd.

1.1 Site Location

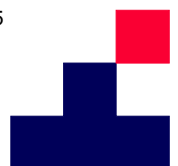
The building has a street address of 1-15 Fontenoy Road, Macquarie Park NSW and is located on the northwest corner of Lane Cove Road and the M2 Motorway. Fontenoy Road runs east to west on the northern perimeter of the site. For the ease of reporting we have assumed that the subject property is oriented to the north facing Fontenoy Road.

The site has an approximate area of 29,500m².

1.2 Building Description

The site known as 1-15 Fontenoy Road has a total of 219 apartments across four towers, each seven storeys high with a secure, interconnecting basement car parking level and served by four lifts. 26 attached two storey townhouses are located to the north west of the site. In addition, common facilities including an indoor swimming pool, gymnasium, sauna and changing facilities are provided.

The towers can be summarised into the following main uses:





Level	Use
Plant Room Roof	n/a
Main Roof	Main roof, plant
L1 – L7	Residential accommodation
GL	Entrance foyer, residential accommodation
B	Car parking, garbage, plant

The tower buildings have a reinforced concrete frame with central core that contain service risers, fire stairs and lifts. The external façade of the building comprises rendered masonry with a textured paint finish with balconies to the majority of apartment units.

The townhouse properties comprise timber frame construction with facing brick external walls and concrete tiled pitched roofs draining to perimeter rainwater goods.

External areas comprise of soft landscaping, concrete and paved footpaths and aggregate finished reinforced concrete hardstands.

Common facilities include tennis courts, an indoor swimming pool, gymnasium, sauna and changing facilities.

1.3 Nature of Inspection

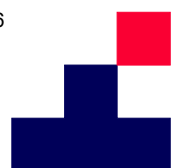
The inspection was carried out on 23rd July 2012 when the weather at the time was wet and overcast.

The following is the basis of information used in the report:

- Walk through visual and audible appraisal of accessible structure and services.
- External visual inspection of façades and roof where access was readily available and safe.
- Discussions with the Assistant Building Manager.
- Internal areas of units and townhouses were not inspected and do not form part of this report.
- Access was not permitted to the following areas:
 - Female amenities.

Where access was not permitted or possible we cannot confirm that these areas are free from defects.

Please refer to the Report Exclusions and Qualifications Section herein for further advice in regard to the inspection procedures and report content.



2. Building Structure, Fabric and Finishes

2.1 Foundations, Substructure

Description

At the time of our inspection the foundations to the building structure were fully concealed below ground level and no structural foundation documentation was available to determine their nature.

Condition, Observations and Comments

While foundations could not specifically be observed or determined we did not see any significant signs of movement in the structural frame or external walls that would suggest possible foundation problems.

2.2 Structure

Description

The building structure comprises a reinforced concrete frame, columns, beams and floor slabs. Some areas of structural steelwork are present within upper level plant rooms. A single reinforced concrete fire stairwell serves each tower block.

The townhouse properties comprise timber frame construction with facing brick external walls.



Steel structure to plant room



Townhouse construction

Condition, Observations and Comments

Whilst we are unable to comment on the condition of the concealed elements of the structural frame, from our visual inspection of exposed areas, we have seen no evidence to suggest any failure or significant structural defects within the structure.

We noted an isolated area of minor water penetration through the concrete soffit of the basement car park adjacent to the raised roof light area between Block A and the tennis courts. This is likely due to the planted areas above which, in heavy rain, will seep water through the planter boxes to the car park below. This will not affect ongoing operations however routine monitoring of the soffit and perimeter walls for any major water seepage is recommended.

Minor hairline cracking was noted to isolated areas. However, this is due to initial settlement of the buildings and ground bearing basement floor slab and is not of structural concern or consequence.



Minor water penetration through soffit



Raised planter boxes

2.3 Roof Areas and Rainwater Installations

2.3.1 Principal Roof

Description

The principal roofs are accessed via the fire stairs and through the rooftop plant room. The roof comprises a flat concrete slab with a liquid applied waterproof membrane. Grated outlets collect rainwater connecting to down pipes and an underground stormwater system.

The roofs are bounded by an unlined, low rise perimeter masonry parapet wall. A steel balustrade is provided perimeters as edge protection.

Townhouse roof construction comprises concrete tiled pitched roofs draining to perimeter rainwater goods



Block A roof coverings



Block C roof coverings

Condition, Observations and Comments

The flat concrete deck roof areas to Blocks A, B, C and D contain large areas of standing water. A number of previous patch repairs have been carried out. The surfaces require preparing and recovering with a liquid applied waterproof membrane within the short to medium term (1-5

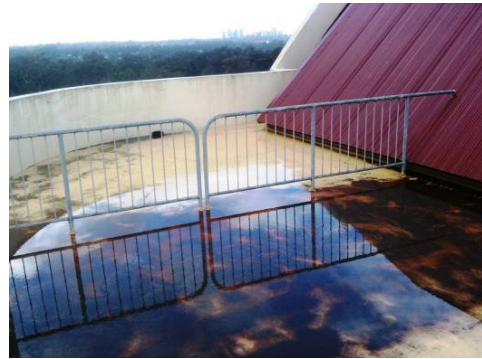
years). Block C was observed to be in good overall condition with Block D suffering the most standing water.

The falls to the drainage are insufficient and improving the existing falls should also be considered. The internal units were not inspected for any water penetration via the roof slab.

The townhouses roofs appear to be in good condition with no defects of note.



Standing water to flat roof deck, Block A



Standing water to flat roof deck, Block B



Previous patch works evident



Roof areas to townhouses

2.3.2 Ancillary Roof

Description

The plant room roof area was observed from the main roof coverings.

Pitched metal clad roofs are located above the rooftop plantrooms to each block which drain to perimeter metal gutters connecting to down pipes and flow freely onto the main roof coverings.

Condition, Observations and Comments

The roof sheeting and cladding was observed to be in good condition with no defects of note.



Block A ancillary roof



Block A ancillary roof gutter

2.4 Façades, Walls and Cladding

Description

The façades were visually inspected from ground level and from the vantage points gained from the roof level.

The external façade of the building comprises rendered masonry with a textured painted finish with balconies to the majority of apartment units.

Single glazed aluminium framed window units and sliding glazed patio doors are provided to openings.

Townhouse facades comprise stretcher bonded facing brickwork with single glazed aluminium framed window units.



Block C west elevation



Block B north elevation

Condition, Observations and Comments

Where visible, the tower façades were generally in fair to good condition commensurate with their age and construction type. Minor patch repairs have been undertaken in the past where rendered finishes have become loose over time. Other isolated areas will require minor repairs over the medium and long term to preserve the appearance of the façades.



Isolated patch repair awaiting redecoration



Isolated patch repair awaiting redecoration

Townhouse facades were observed to be in good condition with no defects of note.

2.5 Internal Elements

2.5.1 Entrance Foyers

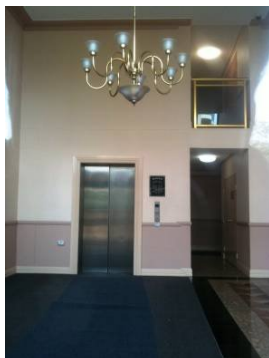
Description

The entrance foyers to the towers are located at ground floor level and accessed via the common external areas.

The floor is provided with small format polished floor tiles and areas of inset carpet. The walls are lined with painted plasterboard and architectural detailing. The ceiling is also of lined and painted plasterboard. There are minor variances to each block however are largely consistent throughout.

Condition, Observations and Comments

The entry foyers are in good condition throughout with no defects or notable deterioration observed. Refurbishment of the foyers could be considered in the long term (6-10 years) if desired.



Block B entrance foyer and lift lobby



Block C entrance foyer and lift lobby

2.5.2 Common Areas

Description

Lift core and stairwell walls are of concrete construction with a paint finish. Partitions and ceilings are of stud construction, lined with paint finished plasterboard.

Fire stair and service riser cupboards comprise of flush timber doors with a paint finish.

Floor finishes vary to each tower however are largely consistent comprising ceramic tiles and inset carpet to select locations.

Condition, Observations and Comments

Generally the internal walls, partitions and doors are in a good and well maintained condition with no defects of note.



Block A common area and lift lobby



Block B common area and lift lobby

Future, cyclical decorations / refurbishment to the lift lobbies and common areas should be considered in the long term or in line with the lease expiry schedule.

2.6 Common Amenities

Description

The swimming pool area comprises reinforced concrete frame construction with a paint finish. Floor to ceiling opaque glazing with glazed louvres are provided at high levels to the perimeter for natural ventilation. The roof areas are assumed to be of reinforced concrete construction with a hidden waterproof membrane. Internally there are tiled floor surfaces with plasterboard wall and ceiling linings with a waterproof paint finish.

The gymnasium is housed within the swimming pool building and comprises carpet floor finish with plasterboard wall and ceiling linings with a waterproof paint finish. Full height glazed partitions are provided for viewing thorough to the pool areas.

The sauna comprises timber construction.

Changing facilities comprise tiled floor and wall surfaces with plasterboard ceiling linings and a waterproof paint finish. A shower, WC and wash hand basin is provided to each male and female area.

The tennis courts comprise an all weather astro-turf finish with post and chain wire fencing and a paint finish to the perimeter.

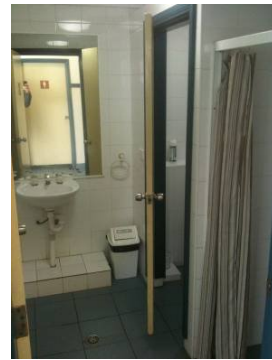
Condition, Observations and Comments

Generally the common amenities present well with no defects of note.

Refurbishment of changing facilities should be considered in the long term to maintain their aesthetic appearance.



Swimming pool



Male changing facilities



Entry to sauna



Tennis courts

2.7 Staircases and Stairwells

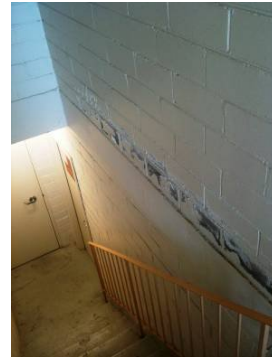
The central core staircases are of concrete construction spanning each floor level and surrounding the lift well. Each flight is equipped with a steel handrail and balustrade.

Condition, Observations and Comments

Generally the escape stairwells appeared in a good and well maintained condition.



Typical view of fire stairs



Typical view of fire stairs

2.8 Car Park

Description

The car park is accessed via a security controlled, roller shutter door and ramp which leads down from the main entry area of the site. A card reader device is provided to the car park entrance.

Finishes are sparse throughout and comprise painted and fairfaced concrete surfaces to lift core, storage and fire stair areas. The floor slabs are formed in reinforced concrete as are the external and retaining walls with areas of blockwork also provided. The vast majority of space is utilised for car parking.

A number of plant rooms are also provided throughout the basement parking areas.



General view of car parking



Internal car park ramp

Condition, Observations and Comments

The car parking space is in generally in good condition and commensurate with age and use. No defects were noted to the operation of the roller shutter door.

The decorative condition of surfaces is fair and cyclical expenditure will be required to maintain the standard of presentation.

Spoon drains have been constructed in select areas to collect any water penetration through the external walls.



Car park entry



Spoon drain to select areas

2.8.1 Plant Rooms

Description

A variety of plant rooms are provided in various locations throughout the building. These typically have sparse finishes as would be expected of this type of space, typically comprising fairfaced concrete floors, concrete and blockwork walls and exposed soffits.

Condition, Observations and Comments

These areas are generally in adequate condition throughout and are commensurate with the nature of accommodation being offered.

2.9 External Elements

Description

Planter boxes set within dwarf masonry walls with a textured render paint finish are provided throughout the external areas. Other forms of soft landscaping are provided throughout the site.

Common circulation space is finished with brick paving and concrete footpaths. Stepped areas have steel handrails and balustrades with a paint finish.

Circulation areas to the car entry comprise aggregate finished reinforced concrete surfaces and lead to the basement car parking and to the townhouse parking areas to the north and west. A car wash bay facility is provided to the western area of the townhouse circulation space.



Common areas viewed from roof level



Tennis courts and townhouses viewed from roof level



Brick paving and concrete footpaths



Common areas and parking to townhouses

Condition, Observations and Comments

The majority of external areas are in good condition with no significant defects of note. Paved areas and concrete surfaces appear to have adequate drainage falls with no areas of standing water noted.

The construction joints formed within the basement car park soffits allow differential movement of the structure. This is subsequently affecting the brick paving to the common circulation areas above as well as the dwarf walls to the planter boxes causing isolated areas of cracking and minor movement. Affected areas of paving have risen in line with the construction joints below potentially causing trip hazards. Affected areas should be repaired through ongoing routine maintenance to prevent any future trip risks. The dwarf walls can be cosmetically repaired with sufficient movement jointing incorporated.

Timber and metalwork to common areas such as painted balustrades, handrails and fire exit doors are largely in good condition however decoration is deteriorating in areas. Redecoration of affected surfaces should be undertaken as per routine repairs and maintenance.



Isolated raised paving



Redecoration required to metal surfaces

3. Mechanical Services

The tower buildings, car park and indoor swimming pool have mechanical ventilation installed that includes the following:

- Common area lift lobby ventilation systems
- Lift motor room ventilation systems
- Garbage rooms ventilation systems
- Kitchen and toilet exhaust systems
- Swimming pool area window mounted exhaust fans

Description

The ventilation systems consist of either roof mounted or inline axial fans and associated duct work.

Condition, Observations and Comments

No plans or maintenance documentation was made available for review. The roof top fans were not labeled it was not possible at the time of inspection to identify the different types of ventilation systems. It is recommended that all ventilation fans be clearly labeled.

It is recommended that the mechanical ventilation duct work be internally inspected and cleaned if required.

Regular testing and maintenance of the mechanical ventilation systems is recommended to manufactures specifications.



Typical unlabelled Inline axial fan located in roof top plantroom



Typical unlabelled roof mounted fan

4. Electrical Services

The electrical services generally comprise the following systems:

- Electricity supply, metering and distribution.
- Main switchboards.
- Distribution boards.
- Lighting.
- Exit and emergency lighting.
- Telecommunications and MATV.
- Security access control and CCTV

4.1 Electricity Supply, Metering and Distribution

Description

The authority substation number 4471 is located adjacent the complex on Fontenoy Road. The main switchroom is located in the basement car park. The building has a common area authority meter located in the main switchroom, each tower residential unit has a separate authority meter located in the electrical riser cupboards on alternate levels, and each residential townhouse has a separate authority meter located in the corresponding electrical cupboards.



Common area authority meter



Typical tower residential units authority meters

4.2 Main Switchboard

Description

The main switchboards (MSB) are located in the main switchroom. The functional elements of the main switchboard comprise main switch isolators and protection for sub-mains distribution throughout the building.

Condition, Observations and Comments

The main switchboard appeared to be in good condition with no reported defects. Life cycle replacement is not expected in the next 10 years.

Annual inspections and infrared scans of the electrical switchboards is recommended.



Main switchboard



Main switchboard

4.3 Distribution Boards

Description

The common area tower building distribution boards are located on alternate levels in the electrical riser cupboards and other common area distribution boards are in various locations within the complex. The residential distribution boards are located in each of the residential units or townhouses and these boards were not inspected at the time of inspection.

Condition, Observations and Comments

The distribution switchboards inspected appeared to be in good condition with no reported defects. Life cycle replacement is not expected in the next 10 years.

Annual inspections and infrared scans of the electrical switchboards is recommended.

The complex does not have power factor correction equipment installed. It is recommended that a feasibility investigation be considered for the benefits of installing power factor correction equipment

4.4 Lighting

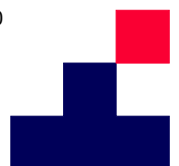
Description

The complex lighting includes:

- Interior common area lighting
- Exterior and garden common area lighting
- Car park lighting
- Tower building roof top plantroom lighting
- Swimming pool complex lighting

Condition, Observations and Comments

The lighting in general was found to be in good condition with no visual or reported defects.



Inspection of the tower buildings' roof top boiler plantrooms found them to be poorly illuminated. The boiler plantrooms require additional lighting to meet the Occupation Health and Safety requirements.

The tower buildings common area interior lighting is currently undergoing an upgrade. The complex exterior and garden lighting will require lifecycle replacement in the long term. The car park lighting will require lifecycle replacement in the long term.



Typical tower building new common area lift lobby lighting



Typical tower main lobby lighting



Typical common area garden lighting



Typical exterior lighting

4.5 Exit and Emergency Lighting

Description

Exit signs are continuously illuminated (maintained), and are generally either wall or ceiling mounted.

Emergency luminaries are oyster type installed in the common area lift lobbies in the office tower public areas, with fluorescent batten emergency fittings in stairwells and car park.

Condition, Observations and Comments

The lighting in general was found to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.



Exit sign



Exit sign

4.6 Telecommunications and MATV

Description

The telephone and data system within the building comprises the Main Distribution Frame (MDF) located in the MDF room adjacent the main switchroom and Floor Distributors.

The MATV system antenna's and dishes for the tower buildings are located on the roof.

Condition, Observations and Comments

The telecommunication, data and MATV were found to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.



Main complex distributor



MATV distributor

4.7 Security access control and CCTV

Description

The security systems installed for the complex consist of a proprietary proximity card access control system. Access control system is provided for the car park entrance and tower buildings' lobby entrance doors with the head end in the supervisor's office.

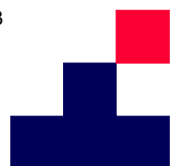
The complex has a closed circuit television (CCTV) system with 15 cameras covering the complex with the head end in the supervisor's office.



Condition, Observations and Comments

The access control system and CCTV were found to be in good condition with no visual or reported defects. Other than regular software upgrades life cycle replacement is not expected in the next 10 years.

The access system and CCTV will require lifecycle replacement in the long term.





5. Fire Protection Services

The fire services comprise the following:

- Water supply system.
- Automatic fire sprinkler system.
- Domestic type smoke detectors
- Fire hydrants
- Hose reels.
- Portable fire extinguishers.

5.1 Water Supply System

Description

Mains pressure water supply to the sprinkler system is fed from a tapping, off the town mains, to supply the sprinkler and hydrant systems. The hydrant booster connection is located adjacent the hydrant pump on Fontenoy Road. The sprinkler booster connection is located adjacent the main car park entrance.

Condition, Observations and Comments

The water supply system was found to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.

5.2 Automatic Fire Sprinkler System

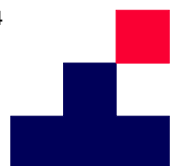
Description

The building incorporates an automatic sprinkler system that covers the below ground car park areas. The sprinkler system is feed by mains pressure via a single valve set.

Condition, Observations and Comments

The automatic fire system was found to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.

The 24 year sprinkler test is due in 2020.





Sprinkler booster connection



Sprinkler valve set

5.3 Smoke Detection

Description

The tower buildings common area lift lobbies have domestic type smoke detectors installed on each level.

Condition, Observations and Comments

Maintenance and testing documentation was not supplied for review.

Life cycle replacement is not expected in the next 10 years.



Typical domestic type smoke detector

5.4 Fire Hydrant Hose Reel System

Description

A combined hydrant hose reel system is installed throughout the building. The mains pressure is boosted by diesel hydrant pump located on Fontenoy Road.

The tower buildings' hydrants are located in the fire stairs and the hose reels located in the dedicated hose reel cupboards on each level.

The car park has a combine hydrant hose reels throughout. The garden areas are serviced by hydrants valve sets.

Condition, Observations and Comments

The fire hydrant hose reel systems were found to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.



Typical tower building hose reel



Typical tower building hydrant land valve



Hydrant booster connection



Typical car park extinguisher, hydrant and hose reel

5.5 Portable Extinguishers

Description

The complex is provided with portable fire extinguishers in the car park areas and lift motor rooms.

Condition, Observations and Comments

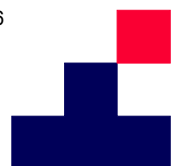
The fire extinguishers were found to be in good condition with no visual defects found.

5.6 Maintenance

The maintenance tags for the hydrants, hose reels and extinguishers were conflicting which indicates that the different fire services may be under different maintenance contracts. Maintenance contracts were not made available for review. It is recommended that all fire safety measures be surveyed as required by AS 1851.2005.

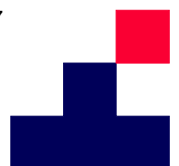
The test documentation has not been supplied for the following:

- Annual Fire Safety Statement
- Hydrant system 5 yearly hydrostatic test





- Annual sprinkler flow test
- Annual hydrant flow test
- Fire damper inspection
- Smoke detector tests
- Emergency lighting
- Exit lights
- Lift emergency lighting
- Fire rating of the lift landing doors
- Warning and operational signs
- Means of egress
- Paths of travel
- Annual survey of fire safety measures as required by AS 1851.2005



6. Hydraulic Services

Hydraulic services installed include the following:

- Potable cold water system.
- Centralised domestic hot water system.
- Fixtures and fittings.
- Sanitary plumbing and sewer drainage.
- Swimming pool and spa filtration and heating systems
- Garden irrigation system
- Gas reticulation

6.1 Potable Cold Water System

Description

The building is provided with mains domestic cold water (DCW) supply tapping from the authority's water mains, with authority water meter. Water sub-metering has been installed in the tower building boiler plantrooms (A-D) to meter the domestic hot water consumption.

Water is supplied to the complex by three cold water booster pumps located in the car park pump room.

Condition, Observations and Comments

The main domestic water supply does not have a backflow prevention device installed as required by AS 3500:1 and Occupational Health and Safety Regulation 2001, Division 1 Clauses 34 & 35. It is recommended that a backflow prevention device be installed.

The cold water system was found to be in good condition with no visual or report defects. Life cycle replacement is not expected in the next 10 years.



Authority water meter without back flow prevention device installed

6.2 Centralised Domestic Hot Water System

Description

The tower buildings have centralised domestic hot water systems. Each tower has two gas fired hot water heaters and associated circulation pumps and water storage tanks. The hot water is reticulated to the residential units in each tower. The garbage rooms and swimming pools are serviced by domestic electric hot water heaters.

Condition, Observations and Comments

The domestic hot water system appeared to be in good condition with no reported defects. However, life cycle replacement of the hot water heaters may be required within the long term, depending on the level of repairs and maintenance.

Inspection of the tower buildings' roof top plantrooms found them to be used for storage and the redundant water storage tanks still in the plantrooms making the plantrooms unsafe for repairs and maintenance. The plantrooms need to be made safe and Occupation Health and Safety compliant.



Typical tower building domestic hot water system

6.3 Fixtures and Fittings

Description

The swimming pool complex is serviced by dual flush water closets (WCs), showers, and hand basins in both male and female toilet areas.

Condition, Observations and Comments

The fittings and fixtures were found to be in good condition with no visual defects found. Life cycle replacement is not expected in the next 10 years.



Typical vanity basins



Typical WC



Typical shower

6.4 Sanitary Plumbing and Sewer Drainage

Description

Plumbing fixtures within toilet and amenity areas discharge via graded sanitary plumbing systems into soil/waste stacks, which are connected to graded drains that discharge by gravity into the authority main sewer system.

Condition, Observations and Comments

The sewer systems were found to be in good condition with no visual defects found. Life cycle replacement is not expected in the next 10 years.

6.5 Stormwater Drainage

Description

The stormwater system collects stormwater from the roof areas graded to sump collection points that are connected to down pipes that discharge into the authority drainage system.

Condition, Observations and Comments

The storm water system appeared to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.

6.6 Swimming Pool Filtration and Heating Systems

Description

The indoor swimming pool building is located in the centre of the complex and has two gas fired heating system to heat the swimming pool and spa.

Condition, Observations and Comments

The swimming pool and spa filtration systems were operating at the time of inspection and appeared to be in good condition.

The gas fired heaters appear to be in fair current condition, however, are likely to require replacement toward the end of the long term.

The swimming pool and spa filtration and heating systems are not expected to require life cycle replacement in the next ten years.



Swimming pool and spa filtration systems



Gas fired swimming pool and spa heaters

6.7 Garden Irrigation System

Description

The complex has an automated garden irrigation system installed.

Condition, Observations and Comments

The garden irrigation system appeared to be in good condition with no visual or reported defects. Life cycle replacement is not expected in the next 10 years.

It is recommended that a rain water harvesting system be considered to supplement the towns' mains for garden irrigation.



Automated controls for the garden irrigation system



Typical gas meter in the tower building boiler rooms

6.8 Gas Reticulation

Description

Natural gas is supplied to complex via a gas main located on Fontenoy Road. The natural gas is reticulated throughout the complex.

Authority gas meters are installed at each point of consumption. Gas meters are installed in the following locations.

- Each residential unit (1 – 193)
- Each residential townhouse (194 – 219)
- Each tower building boiler plantroom (A – D)
- Swimming pool and spa heaters

Condition, Observations and Comments

The system was found to be of a good quality installation with no defects noted.



7. Vertical Transportation Services

7.1 Description of System

Vertical transportation services covered in this report consist of:

- Four individual passenger Lifts (Nos. 1 to 4)

(Refer to Table 1 for more detail).

All passenger lifts were manufactured and installed by Liftronic Pty Ltd and ThyssenKrupp Elevator is currently performing maintenance.

All lifts are capable of carrying stretcher beds in accordance with the regulations.

All of the lifts have lift car interior finishes which include laminate and mirror walls with concealed fluorescent lighting and carpet flooring.

All lifts are operated by a combination of relay and microprocessor technology (Daldoss Controllers) and variable speed AC geared machines.

Details of Lifts

TABLE 1

Lift No.	Lift Bank	Type of Equipment	Load Kg	Speed mps	Floors Served
1	Passenger Lift	Geared VVAC	1156	1.5	B, G, 1 to 7
2	Passenger Lift	Geared VVAC	1156	1.5	B, G, 1 to 7
3	Passenger Lift	Geared VVAC	1156	1.5	B, G, 1 to 7
4	Passenger Lift	Geared VVAC	1156	1.5	B, G, 1 to 7

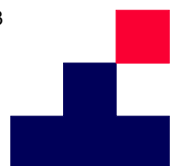
7.2 Condition Appraisal

The vertical transportation installation is generally in reasonable condition and is now approximately 18 years old.

The control system and drive system on the lifts installed by Liftronic Pty Ltd is 'Daldoss' and this equipment went out of manufacture in the late 1990's. The main problem with this system is that the diminishing spare parts delete will ultimately result in this system becoming redundant in about the next 5 years.

The existing AC geared machines are in reasonable condition and should not require replacement for another 10 to 15 years. However, the Owners may wish to upgrade to a more efficient variable frequency AC drive system when the Power/Control system is upgraded.

The car door operators and landing door locks for all lifts are original and were manufactured by 'MAC' and 'Dupar'. This particular equipment has been out of manufacture since approximately 2000, this equipment suffers also from diminishing parts availability.





The car and landing button panels do not comply with AS1735 Part 12 'Facilities for Persons with Disabilities' which is now a requirement in the current regulations.

Our inspection revealed that in general the lifts appear to be maintained to an acceptable standard. However it was noted there are what appears to be disused cables hanging down from the ceiling in the machine room of Lift No. 4 and should be removed.

7.3 Compliance with Regulations and Standards

The lifts were installed around 1995. If the lifts were required to comply with modern day standards, a number of non-compliances with the Lift Code (AS1735.2 - 2001) would be noted. Specifically, the areas of non-compliance are as noted below.

BCA - Building Regulations 2011

Areas of Non Compliance:

- The lifts do not have voice announcer.
- The lift cars do not have handrails in accordance with AS 1735 Part 12.
- The car button panels do not comply with AS 1735 Part 12.
- The landing button panels do not comply with AS 1735 Part 12.

AS 1735.2 – 2001 (Lift Code)

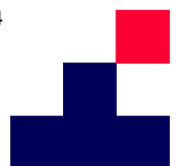
- Dual acting brakes are not provided on the hoist machines.
- Upward runaway protection is not provided.
- Pit buffer switches are not provided.
- Governor idler switches are not provided.
- Well access devices are not provided to each landing door.
- Alarm/Communication system is not provided on top of lift car and in the pits.
- Man clearance signage in the pits is not provided.

It should be noted that providing dual acting brakes would only be addressed by replacement of the hoist machines. Dependant on budgets, this may be addressed when upgrading the Power/Control system.

Work Health & Safety Act 2011

Under the latest changes to the regulations governing lifts and in particular the Work Health and Safety (WH&S) Regulation 2011, which occurred as from September 1, 2001, the building owner has become more responsible for all plant in a building.

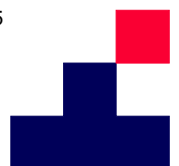
Whilst the Lift Code is not retrospective the risk analysis required by the new regulations will involve the 2001 edition of the Lift Code. The building owner is required to conduct a risk analysis and subsequently have a plan in place for the elimination or control of all identified





hazards associated with the lifts. There was no evidence on site that there has been a hazard & risk assessment on the lifts completed. If not already done, an analysis should be done and a plan put into place to eliminate or minimise any known risks.

In addition, this same regulation requires owners of plant effecting public safety such as lifts to obtain Item Registration annually for that Plant. We note the item registrations on site for the equipment is recently out of date and should be in the process of renewal if not already done so.





8. Report Exclusions and Qualifications

The report is limited to the defined scope of work and, unless noted otherwise or included in the report, specifically excludes the following:

- Review of design capacity.
- Review of Tenant's fit out or Lease obligations.
- Routine maintenance expenditure forecast.
- Operational cost forecast.
- Lease surveys.
- Flood search.
- Fixtures, fittings and equipment.

Parts of the building built-in, covered up or otherwise made inaccessible during construction, alteration or fitting out, have not been inspected. Therefore we are unable to comment as to whether such elements are free from defect or infestation.

The property has not been inspected specifically to ascertain the following in respect of flooring finishes or structural substrates:

- Design structural capacity for defined or assumed loads.
- Suitability for intended purposes or applications (if change of use is proposed).
- Undulations or sloping areas within or exceeding acceptable limits specified by relevant Australian Standards.

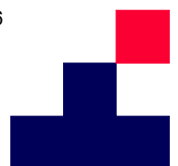
Building services have been visually inspected on a random basis where exposed to view only. No internal inspections have been undertaken to plant, equipment and machinery or where services are covered up or hidden by the building structural elements or finishes. Building services have not been tested and no design calculations have been undertaken.

Measurement of lighting levels does not form part of this report and comment on same would only be made if there was significant and obvious cause for concern as to suitability for purpose.

The property has not been inspected specifically for termite infestation and we would only report on such if termite evidence was apparent during our inspection.

As footings to buildings were fully concealed below ground floor level, we are unable to comment on their nature and condition. However we would comment, or make recommendations on the above if concerns were apparent during our inspection.

In relation to building structure and fabric, our work involves the inspection of the building and does not include for the sampling or testing of materials. As the building contains concrete and glass elements we are unable to state that deleterious materials were or were not used during construction, as this would involve sampling and analysis which would be beyond our brief.

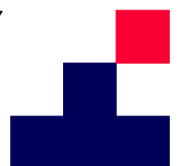




Furthermore, our inspection and report would not necessarily address any shortcomings associated with the slope or grading of building elements in the form of roofs, floors, gutters, shower bases, etc. unless such items were brought to our attention prior to inspection or the shortcomings were so grossly obvious during inspection.

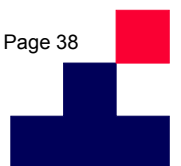
We have assessed the life expectancy of the building services in relation to the systems as a whole and not the individual parts or components which may be, or have been, subject to repairs, maintenance or replacement.

This report is not a certification, a warranty, guarantee, defects list or wants of repair schedule. It does not identify minor or immaterial defects that would normally be addressed by routine or cyclical repairs and maintenance. It has been scoped in accordance with the instructions given and the time allowed.





9. Appendix A – Asbestos Risk Assessment Survey



Asbestos Building Materials Assessment Macquarie Gardens 1-15 Fontenoy Road North Ryde NSW2113

Napier & Blakeley

July 2012



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Executive Summary

Introduction

Prensa Pty Ltd (Prensa) was engaged by Napier & Blakeley (N&B) to conduct an Asbestos Building Materials Assessment (Assessment) of Macquarie Gardens, 1-15 Fontenoy Road, North Ryde NSW (the site). Clint Wright of Prensa conducted the Assessment on 23rd July 2012 at the request of Alan Stewart of N&B.

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

Scope of Works

The scope of the Assessment only included the common and plant areas of four (4), eight (8) level apartment buildings this was also to include underground carpark and central spa facilities building which consist of a gymnasium, pool and sauna. The assessment also included the exterior façade of twenty-six (26) terrace type properties situated at the western side of the site. No internal areas to the apartments within the apartment buildings and terrace houses were made accessible at the time of the inspection and were outside the scope of the Assessment.

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 relevant state *Health & Safety Regulations and Safe Work Australia Code of Practice How to Manage and Control Asbestos in the Workplace, 2011*.

Findings

No asbestos containing materials were suspected or positively identified at the site.

Recommendations

The following key recommendations are provided for the management of asbestos building materials:

- A destructive hazardous material survey should be carried out prior to any demolition or refurbishment works. Any hazardous materials identified within this survey should be removed prior to the commencement of any works that may cause disturbance - as per Australian Standard (AS) 2601:2001 *The demolition of structures*.

A number of other recommendations were made in the body of this report which address the ongoing management of asbestos containing materials at the Site. This executive summary must be read in conjunction with this entire report.

Statement of Limitations

This document has been prepared in response to specific instructions from N&B 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 N&B 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 advise that the report should only be relied upon by N&B 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 N&B, 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 and that 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. N&B 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.

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Appendix A: Risk Assessment Factors and Priority Ratings

Appendix B: NATA Endorsed Laboratory Sample Analysis Report

Appendix C: Asbestos Building Materials Register

Appendix D: Photographs

Appendix E: Areas Not Accessed

1 Introduction

Prensa Pty Ltd (Prensa) was engaged by Napier & Blakeley (N&B) to conduct an Asbestos Building Materials Assessment (Assessment) of Macquarie Gardens, 1-15 Fontenoy Road, North Ryde NSW (the site). Clint Wright of Prensa conducted the Assessment on the 23rd July 2012 at the request of Alan Stewart of N&B.

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

2 Scope of Works

The scope of the Assessment only included the common and plant areas of four (4), eight (8) level apartment buildings this was also to include underground carpark and central spa facilities building which consist of a gymnasium, pool and sauna. The assessment also included the exterior façade of twenty-six (26) terrace type properties situated at the western side of the site. No internal areas to the apartments within the apartment buildings and terrace houses were made accessible at the time of the inspection and were outside the scope of the Assessment.

The Assessment was conducted during normal business hours and the Site was occupied at the time of our inspection.

3 Site Description

The Site consists of four (4) apartment buildings and twenty-six (26) terrace buildings. Details of the buildings contained within this site are provided in Table 1 and Table 2 below.

Table 1: Site Information (Apartment Buildings A, B, C & D)			
Site:	Macquarie Gardens, 1-15 Fontenoy Road, North Ryde NSW		
Age (Circa):	1990's	Levels:	8
Approximate area/Building:	8,000m ²	Roof type:	Metal and concrete
External walls:	Brick and concrete	Internal walls:	Plaster and concrete
Ceiling	Plaster and fibre cement sheeting	Floor and coverings:	Concrete with carpet and ceramic tiles

Table 2: Site Information(Terrace houses)			
Site:	Macquarie Gardens, 1-15 Fontenoy Road, North Ryde NSW		
Age (Circa):	1990's	Levels:	2
Approximate area/Building:	250m ²	Roof type:	tiles
External walls:	Brick	Internal walls:	Plaster and fibre cement sheeting
Ceiling	Plaster and fibre cement sheeting	Floor and coverings:	Concrete with carpet and ceramic tiles

4 Methodology

The Assessment comprised a review of relevant site information made available to Prensa, interviews with available site personnel and a visual inspection of reasonably accessible areas of the Site.

This Assessment was carried out in accordance with the guidelines documented in the Safe Work Australia Code of Practice *How to Manage and Control Asbestos in the Workplace, 2011*. 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 asbestos containing materials (ACM) 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.

Representative sampling was undertaken only where items were deemed by Prensa to be physically and reasonably accessible.

Where asbestos was found to exist, a risk assessment was conducted on each item and a priority rating applied. This was conducted in accordance with the protocols described in **Appendix A: Risk Assessment Factors and Priority Ratings**.

5 Findings

5.1 Document Review and Interviews

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

- No documentation was made available for this Assessment or none were known to exist by N&B and/or the Site contact.

5.2 Analytical Results

A total of six (6) samples suspected to contain asbestos were collected and submitted to Prensa's NATA accredited laboratory for analysis. The asbestos bulk sample analysis report is provided in **Appendix B: NATA Endorsed Laboratory Sample Analysis Report** of this Assessment report. In summary, none of the samples were reported to contain asbestos.

5.3 Assessment Findings

The findings of this Assessment are presented in tabulated format in **Appendix C: Asbestos Building Materials Register** of this Assessment report. Building materials that have been photographed are depicted in **Appendix D: Photographs** of this Assessment report.

The following significant key findings are noted:

- No suspected ACMs were identified at the time of the Assessment.

Refer to **Appendix C: Asbestos Building Materials Register** for the details of these findings.

5.4 Areas Not Accessed

Areas that are generally not accessed as part of Prensa's Assessments are listed in **Appendix E: 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 E: Areas Not Accessed** and **Appendix C: Asbestos Building Materials Register**.

6 Management Options

As per state legislation, all materials suspected of containing asbestos must be identified and recorded in a register. Furthermore, a risk assessment must be conducted of asbestos building materials and appropriate control measures implemented. The control measures recommended in this Assessment have been determined based on reducing the risk of exposure, so far as is reasonably practicable. The control measures, which are determined by the competent person and/or hygienist, 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 asbestos materials, a combination of the above techniques may be required.

7 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 asbestos building materials at the Site.

Recommendations for specific items of asbestos building materials are also presented in **Appendix C: Asbestos Building Materials Register** of this Assessment report.

- A destructive hazardous material survey should be carried out prior to any demolition or refurbishment works. Any hazardous materials identified within this survey should be removed prior to the commencement of any works that may cause disturbance - as per Australian Standard (AS) 2601:2001 *The demolition of structures*.
- 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.

Appendix A: Risk Assessment Factors and Priority Ratings

Risk Assessment Factors

To assess the health risk posed by the presence of asbestos 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 risk assessment was to establish the relative risk posed by specific items identified to contain asbestos 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 asbestos 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 an asbestos building material describes the ease by which the material can be crumbled, which in turn, can increase the release of fibres into the air.

- **Friable asbestos** can be crumbled, pulverised, or reduced to powder by hand pressure, which makes it potentially 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 ACM may release fibres initially but will not continue to do so.

Disturbance Potential

Asbestos 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 material not readily releasing fibres 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.

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 asbestos containing 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): Requiring immediate action

Priority 2 (P2): Requiring action in the short term (3-6 months)

Priority 3 (P3): Requiring action in the medium term (6-12 months)

Priority 4 (P4): Requiring on going management or longer term remedial action (greater than 12 months)

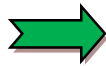
Appendix B: NATA Endorsed Laboratory Sample Analysis Report

Appendix C: Asbestos Building Materials Register

Appendix D: Photographs



Asbestos containing



Non-asbestos containing



Photo 1. Block A, roof, box covers – non-asbestos containing compressed fibre cement panels



Photo 2. Block A, roof, floor – non-asbestos textured coating



Photo 3. Block A, roof, plant room, packer – non-asbestos compressed fibre cement panel



Photo 4. Electrical boards, throughout Block A, B, C & D – non-asbestos bakelite panels



Photo 5. Spa facilities, change rooms, ceiling – non-asbestos fibre cement sheeting



Photo 6. Terrace houses, carport awning – non-asbestos fibre cement sheeting

Appendix E: 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 our 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

Internal areas to all apartments.

Internal areas to all terrace houses.

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 **Appendix C: Asbestos Building Materials Register**, further investigation may be required as part of a asbestos building materials management and abatement program 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