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OIA-2024-5133

16 September 2024

[REDACTED]
[REDACTED]@devonportflagstaff.co.nz

Dear [REDACTED]

I refer to your email of 25 July 2024 seeking copies of finalised reports referenced in a Devonport Flagstaff item that stated:

A New Zealand Defence Force team from Wellington is spearheading a multi-disciplinary group working on the master plan, which will consider current buildings, security requirements and climate-change impacts at the base. Its first reports are expected in June 2024.

I apologise for the length of time it has taken to provide this response. Enclosed is a copy of the *Interim Asbestos Refurbishment and Demolition Survey Report Officers Training School*. The names and contact details of New Zealand Defence force staff are withheld in accordance with section 9(2)(a) of the Official Information Act 1982 (OIA) to protect privacy.

You have the right, under section 28(3) of the OIA, to ask an Ombudsman to review this response to your request. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Please note that responses to official information requests are proactively released where possible. This response to your request will be published shortly on the NZDF website, with your personal information removed.

Yours sincerely

AJ WOODS
Air Commodore
Chief of Staff HQNZDF

Enclosure:

1. Officers Training School report

Job Ref: NZDF2460

2 August 2019

New Zealand Defence Force
Defence Estate and Infrastructure

Attention: s. 9(2)(a)

Sent by email only to: s. 9(2)(a) [@nzdf.mil.nz](mailto:s.9(2)(a)@nzdf.mil.nz)

Dear Andrew

FLOC NK278 - Asbesots Option Study

1.0 Introduction

As requested, this letter assesses various Options from which Scopes of Works to remove asbestos within the building can be developed.

Although we have documented a number of Options, we would also recommend further discussions regarding the pros and cons as they are not exhaustive lists. We also acknowledge NZDF is likely to have several other considerations that we would not be privy to that will require factoring into any decision-making process. An example may be any future capital projects or developments at the site.

The following sections also provide high level and indicative timeframes for removal and re-occupation, as well as high level costs. The purpose of providing these indicative estimates is for NZDF to gain an interim understanding of the variances between each option, which we understand will assist NZDF with their initial decision making and planning.¹

Maynard Marks advises that a detailed scope of work(s) be developed for one or a selection of the various Option(s) and this is either provided to a Registered Quantity Surveyor for costing or provided to selected Removalist for tendering. Depending on the Option(s) chosen by NZDF, further investigation by Maynard Marks may also be required.

A Scope of Works provides a clear indication of a practical and compliant method of implementing controls and/or removing all or part of the identified asbestos containing materials (ACM) and asbestos containing dust (ACD) located within a building(s).

Three "Options" have been set out in this document. The commencement of any of these options will include asbestos removal works as a minimum prior to full reoccupation of the building. These areas specifically are classified as **Class A** asbestos removal works due to the friable nature of the contamination identified within these areas. Other areas of removal works may be considered as Class B, potentially subject to interpretation, however undertaking all removal works as Class A is the preferred recommendation if practicable.

Upon completion of any **Class A** removal work a reoccupation certificate must be issued for each individual asbestos removal area, by the independent Licensed Asbestos Assessor enabling the reoccupation of these areas.

¹ Maynard Marks cannot accept liability for any delays, undiscovered/concealed asbestos containing material (ACM), cost overruns, claims relating to exposure to asbestos, or any additional costs. Maynard Marks cannot accept liability because final costs and programme can only be assessed once a scope of works has been developed.

We have also attached our Interim Draft Asbestos Refurbishment and Demolition Survey Report, which sets out the known and presumed areas of ACM. This document at the time of issuing this letter has not been finalised, so we include it for your reference so you can gain an understanding of the location of the various ACM's at the property identified to date.

A Fourth Option is also available to NZDF. This Option allows for the building to remain in its current unoccupied state and defers any of the other Options discussed in this letter. We have not provided any further comments regarding this option.

2.0 Option Study

2.1 Option 1

Option 1 allows for the removal of selected high-risk ACM from areas such as the boiler/plant room, electrical transformer room which are regularly frequented by personnel for ongoing maintenance purposes. Option 1 also includes sealing and isolation of areas that access the roof and floor voids including sealing of all penetrations. Isolated areas internally will require decontamination.

2.1.1 Pros

This option allows NZDF to re-occupy the building with the least disruption and within the shortest period of time (approximately 2-3 month period subject to defining the final scope and contractor availability/resourcing).

The costs associated with this type of scope have been estimated at **\$60,000 exclusive of GST** in consultation with a removalist, which is made up of approximately \$12,000 in Professional fees/Licensed Asbestos Assessor and \$48,000 in Removal costs.

This option incurs the lowest costs of all options.

2.1.2 Cons

Isolation into the roof and floor voids is required, however controls will need to be developed to allow infrequent access to services by tradespersons.

The controls would include training and/or escorting (assisting with wearing PPE and RPE as well as decontamination) by a Class A Removalist or a Licensed Asbestos Assessor. There may also be some initial reluctance by such persons unfamiliar with working with this type of PPE and RPE.

A detailed evaluation of the services within these areas should also be undertaken, to access frequencies and how the risk will be managed through access restrictions and safe work procedures.

High-risk ACM's (Asbestos Containing Materials) as identified will remain in-situ. Any future refurbishment could result in a legislative requirement to remove, however this process can be planned as opposed to being reactive.

There will need to be a strict policy developed around management of all maintenance works including those not in the high-risk areas.

Emergency procedures for emergency/unforeseen ceiling and subfloor envelope disturbance events would be required to enable safe ongoing use of the building.

A programme for on-going back-ground air monitoring may also be required.

It has been discussed whether there is a possibility that it would be a more preferable to re-route services to the main building interior. We have not assessed this possibility at the time of issuing this letter.

2.2 Option 2

Option 2 currently only allows for the removal of the high-risk asbestos identified to date within the **a)** floor and **b)** roof voids.

Undertaking **Option 2 a) and b)** we have estimated could result in disruption for a period of 12 months, however a lesser removal scope of, **Option 1a)** boiler and transformer rooms **and Option 2 b)** being the roof voids only could also be considered. This lesser scope, leaving pipe lagging within the restricted floor voids could result in a reduced removal period of approximately 3 months (again all subject to defining final scope and contractor availability/resourcing).

The costs associated with this type of scope **Option 2 a) and b)** has been estimated at **\$1,100,000 exclusive of GST** in consultation with a removalist, which is made up of approximately \$150,000 in Professional fees/Licensed Asbestos Assessor and \$950,000 in Removal costs.

2.2.1 Pros

High risk ACM's will be removed and ongoing occupation and maintenance can be undertaken in these areas without controls (specific to ACM).

The costs to remove these high risk areas only (primarily roof and floor voids) will still result in a building containing asbestos in locations, but controls will be significantly reduced.

Although the costs are significantly higher than Option 1, the current cost of removal based on today's rates would be lesser than in the future if rates continue to increase as per recent years.

NZDF will have no disruption but only if there is comparable accommodation that can be utilised during works.

If there is historical and cultural value in the building it will be retained.

2.2.2 Cons

Option 2 will result in **c)** other ACM's remaining within the building that are considered low risk or un-identified ACM, such as debris within the wall voids. Further investigation would be required to identify the full extent of all ACM's within the building which has not been completed to date.

If **c)** other ACM's remain in the building, the building will still be noted on the NZDF Asbestos Register. Any future refurbishment could result in a legislative requirement to remove, however this process can be planned as opposed to being reactive. There will need to be a strict policy developed around management of all maintenance works including those not in the high-risk areas.

Allowances during removal works are made for future reinstatement of materials, extra care by removal contractors must be taken. This will result in additional costs, such as services, re-instatement of floors, new insulation and installation of roofing.

There is also a potential items such as fibrous-plasterboard ceilings may require removal, which would add additional costs not allowed for in the above figure. It is also possible the entire area of the sub-floor will not be asbestos free and will still require a polythene layer to be installed.

Ongoing disruption if alternative accommodation is not available.

If NZDF requires a full detailed investigation of the building to identify all ACM's (Refurbishment and Demolition Survey to all areas) and subsequently requires the building to be asbestos free (all ACM removed), such work may be impractical and effectively result in a majority of the building being demolished and then reconstructed.

For example, removal of ACM and debris from within the external wall voids would result in either the external or internal linings being removed. This may result in an option that is not considered cost-effective.

This option, including comments above, currently provides the highest risk for uncertainties such as cost escalation and extension of the work programme, but will be reduced once a defined scope of works has been established.

2.3 Option 3

This option allows for the full demolition of the building to either a brown-field site (bare land) and/or for re-construction of a new purpose made building. If the intention is to return a brown-field site, then the removal approach would vary as there is no consideration for re-instatement. The removal period could potentially be approximately 9 months.

If there is a requirement to re-construct a new purpose-built building, the design could be completed during the asbestos removal phase 9 months, (subject to NZDF design concept approval) and the new building constructed within a period of 12 months thereafter, subject to design complexity. It would however be reasonable to allow a 24 month programme from start to finish.

2.3.1 Pros

All asbestos would be removed inclusive of asbestos in soil.

Although the costs are significantly higher than Option 1 and Option 2, the current cost of full demolition based on today's rates would be lesser than in the future if rates continue to increase as per recent years.

Full demolition will result in no reinstatement costs and the contractors will be able to modify their approach in relation to the asbestos removal to reduce complexity and time required. However, there is still the full cost of the removal of the remaining parts of the building(s) which will require separate costing.

There would be greater cost certainty than Option 2. At this stage we have not undertaken any assessment of costs but the cost is likely to be less than those set out under Option 2 if re-instatement costs are significant.

NZDF can have a purpose designed building that considers their current and future needs.

NZDF will have no disruption but only if there is comparable accommodation that can be utilised during works.

If Option 3 is to be selected, NZDF may wish to also consider an alternative approach which also incorporates Option 1. This would only be viable if NZDF has an alternative site onto which they could construct a comparable building and were prepared to complete the works set out under Option 1 as an interim measure during the design, procurement and construction phases.

2.3.2 Cons

All historical and cultural value will be lost. Consultation with the wider community may also be required and/or need consideration.

Ongoing disruption if alternative accommodation is not available.

Significant capital cost will be required. There will be the cost to remove the building as well as re-construct the replacement/new building.

Design delays such as approval of a concept design will extend the overall programme.

3.0 Additional Comments

As previously noted this document is to assist NZDF with their initial decision and planning process. We would also recommend once Options(s) have been considered that Scopes of Work(s) and cost estimate(s) be produced for a Registered quantity Surveyor to cost, or as an alternative a tendering option.

Maynard Marks can also provide NZDF with a cost estimates for a new purpose-built building, but this would also require a high level briefing meeting if significant changes were required (not a like-for-like building).

We hope the attached assists NZDF with their processes. Please feel free to call and discuss the contents of this letter. We are also available to attend any meetings with NZDF to discuss the content and work through the various options.

Yours sincerely



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NZDF-A-2460



Interim Asbestos Refurbishment and Demolition Survey Report

**Officers Training School
NZDF FLOC: NNK278
Narrow Neck, Auckland 0624**

New Zealand Defence Force (NZDF)

August 2019

DOCUMENT CONTROL

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APPENDICES

Appendix A – Sample Results Table, Photographs and Floor Plans

Appendix B – Asbestos Register

Appendix C – Site Plans

Appendix D – R J Hill Laboratories – Sample Analysis Report

Appendix E – Material Assessment Algorithm

1.0 EXECUTIVE SUMMARY

1.1 Purpose of Report

Maynard Marks Limited (Maynard Marks) has been commissioned to carry out an Asbestos Refurbishment and Demolition Survey Report (ARDS) to identify asbestos containing material (ACM) within accessible roof and subfloor voids only at Officers Training School, NZDF FLOC: NNK278, Narrow Neck, Auckland 0624. Approximate location identified on the aerial photograph and floor plans contained in Appendix A.

The purpose of Asbestos Refurbishment and Demolition Survey is to help PCBUs locate all the asbestos as far as reasonably practicable in a workplace or the relevant part, prior to work commencement.

The asbestos identification is primarily for the purpose of ascertaining the materials that may pose health and safety risks at the workplace or the relevant part during refurbishment or demolition works, preventing inhalation of asbestos containing fibres. Further investigation will be required to determine the final scope of works for any removal projects.

1.2 Locations of Identified (or Assumed) Asbestos or ACMs

The following positive samples extracted for laboratory analysis contained asbestos:

- All Buildings (West Wing, Central Block, East Wing) Interior and Exterior – Throughout Subfloor Voids - Pipe Lagging and Fibre Cement Debris
- All Buildings (West Wing, Central Block, East Wing) Interior – Throughout Wall Voids - Pipe Lagging and Fibre Cement Debris
- Central Block Interior – Throughout Roof Void – Pipe Lagging and Fibre Cement Debris
- Central Block Interior – Boiler Room - Throughout Floor and Cable Tray Surfaces – Dust/Debris
- Central Block Interior – Boiler Room - Throughout Subfloor Penetration – Pipe Lagging, Gaskets and Debris
- Central Block Interior – Gunroom/Anterooms - Passive Wall Vent Surfaces – Asbestos Containing Dust (ACD)
- Central Block Interior – Dining Room - Passive Ceiling Vent and Floor Surfaces - Asbestos Containing Dust (ACD)
- Central Block interior – Laundry Room – Wall Infill Panel Behind Sinks – Fibre Cement
- West Wing Interior – Throughout Roof Void – Fibre Cement Debris
- West Wing Interior – Electrical Transformer Room – Throughout Ceiling and High-Level Wall Linings – Asbestos Insulating Board (AIB)
- East Wing Interior – Throughout Roof Void – Fibre Cement Debris
- East Wing Interior - Level One Bedrooms - Throughout Accessible Sink Pipework – Gaskets

For further detail, please refer to **Appendix A**.

1.3 Areas Not Accessed

Any areas not accessible and which are likely to contain asbestos or ACM must be assumed to contain asbestos in accordance with WorkSafe New Zealand Good Practice Guidelines 'Conducting Asbestos Surveys' (October 2016).

All areas defined within the verbally discussed scope of service have been accessed at NNK278, across the areas as identified within the site floor plans (Appendix C). The inspection was limited to the non-intrusive investigation of accessible roof and subfloor void areas only, including the investigation of asbestos insulated

pipe runs from their source location at the Central Block Boiler Room. All other areas outside of our agreement were excluded and have not been accessed.

In particular, we note the following specific areas were not accessed during this survey:

- Wall Cavities - Due to the non-intrusive nature of the survey wall cavities were not accessed as part of this inspection.

1.4 ACMs with High Risk Material Assessment

All materials tested or presumed to contain ACM within the Roof and Subfloor Void areas have high asbestos material assessment scores and therefore the risk of contamination is considered high if these areas were to be accessed or disturbed.

Surface Sampling was undertaken to target High Risk areas at locations immediately adjacent to ceiling and subfloor access hatches, grilles, and other exposure pathways.

Three surface samples collected from communal areas within the Central Building Block returned positive results for asbestos.

The locations were as follows:

- The passive ventilation grille between the Gunroom and Anteroom.
- The surface of ceiling vents within the plaster ceiling of the main dining room area directly adjacent to the kitchen/mess.
- The floor surface below the ceiling vents of the main dining room area

1.5 Recommended Actions and Priorities

No one is to access the roof void or subfloor void areas unless suitably trained, equipped with appropriate PPE and RPE, and suitable decontamination procedures. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken within the roof and subfloor voids, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.

Prior to any reoccupation of the Dining Room, Gunroom and Anteroom areas the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.

If further intrusive renovation or maintenance works are required outside of the specified areas tested, it is suggested that further testing be undertaken to identify any further potential ACMs present.

If during the renovation or demolition works any suspect material is to be found, works should stop immediately, until further sampling is undertaken.

1.6 Health and Safety

Asbestos is relatively safe when encapsulated but is dangerous to health when fibres become air borne. This can occur when the building materials are damaged and degrading or when disrupted during remedial/maintenance works.

As per the Health and Safety at Work (Asbestos) Regulations 2016, a 'Person Conducting a Business or Undertaking' (PCBU) must ensure that all asbestos that is likely to be disturbed by refurbishment is removed before the refurbishment commences. Additionally, a PCBU who commissions the removal of asbestos must ensure the asbestos removal work is carried out by a licensed asbestos removalist who is suitably qualified to carry out the work.

All practical and common sense steps must be taken for the safety of employees, occupants and the public. This also applies to any contractors or sub-trades that may work on the building during the interim period, such as fixing services or penetrating claddings. Employees, occupants, and the public should also be advised of the locations and risks of ACMs.

2.0 GENERAL INFORMATION

2.1 Introduction

An ARDS is required before any refurbishment or demolition work is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACMs in the area where the refurbishment work will take place, or in the whole building if demolition is planned.

The survey will be intrusive and involve limited destructive sampling, as necessary, to gain access to all areas, including those that may be difficult to reach. An ARDS may also be required in other circumstances, e.g. when more intrusive maintenance and repair work will be carried out or for plant removal or dismantling.

There is a specific requirement in the Health and Safety at Work (Asbestos) Regulations 2016 for all ACMs to be removed as far as reasonably practicable before major refurbishment or final demolition. Removing ACM is also appropriate in other smaller refurbishment situations, which involve structural or layout changes to buildings (e.g. removal of partitions, walls, units, etc.).

This ARDS has been prepared by Jack Adlam, BSc, Asbestos Assessor of Maynard Marks, on behalf of New Zealand Defence Force (NZDF).

General particulars of this report are as follows:

Commissioned by	New Zealand Defence Force (NZDF)
Site Address	Officers Training School, NZDF FLOC: NNK278, Narrow Neck, Auckland 0624
Inspection Dates	4 July 2019 11 July 2019 12 July 2019 22 July 2019
Weather Condition	Fine,
Inspected By	Jack Adlam, BSc, Asbestos Assessor, Maynard Marks
Other Persons Present	Simon Paykel, MNZIBS P402 IP404 P405, Licensed Asbestos Assessor, Maynard Marks Robert McAllister, Building Surveyor and Licensed Asbestos Assessor Samisoni Manu, Asbestos Assessor, Maynard Marks Rita Lehn, Asbestos Assessor, Maynard Marks

The survey information should be used to assist in the tendering process for removal of ACMs from the building before work starts, by way of incorporation into a Removal specification or Risk Assessment Method Statement (RAMS).

The Removal Specification or RAMS should be supplied to the contractors who may be tendering for the work, so that the asbestos risks can be addressed.

In this type of survey, where the asbestos is identified so that it can be removed (rather than to 'manage' it), the survey does not normally assess the condition of the asbestos other than to indicate areas of damage or where additional asbestos debris may be present. However, where the asbestos removal may not take place for some time, the ACMs condition will need to be assessed and the materials managed.

2.2 Extent of Instruction

Reference should be made to the verbally discussed scope of service with instruction to carry out an ARDS and report. The extent of instruction for this report was as follows:

- Obtain and review any other relevant documentation in the possession of the client that may assist us in completing our service, such as previous reports and information relating to any building or maintenance works completed.
- Arrange for access to the building for the completion of survey work and ARDS report.
- Complete survey of the buildings (within the predefined areas) and take samples deemed necessary, reviewing and recording the general construction and condition of elements considered to have the potential to contain ACM.
- Compile samples collected during site survey and send to specialist laboratory for analysis.
- Compile ARDS report identifying any ACM discovered within the predefined areas with subconsultant laboratory information, a photographic appendix, floor plans, etc. as well as highlighting any issues noted and recommendations for treatment.
- Post completion of the report attend a meeting with you and your client to discuss the issues surrounding the buildings and the way forward, if required.

2.3 Formal Dialogue

Formal dialogue has been undertaken between Maynard Marks and the following parties in connection with this report:

- s. 9(2)(a) New Zealand Defence Force (NZDF).
- s. 9(2)(a) New Zealand Defence Force (NZDF)
- s. 9(2)(a) New Zealand Defence Force (NZDF)
- Keith Benson, R J Hill Laboratories.

2.4 Documents Reviewed

Documents referenced and/or reviewed for the benefit of this report include the following:

- R J Hill Laboratories, Laboratory report reference no. 2203723
- R J Hill Laboratories, Laboratory report reference no. 2208575
- R J Hill Laboratories, Laboratory report reference no. 2207853
- Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019)

2.5 Methodology

ARDS are only to be conducted in unoccupied areas to minimise risks to the public or employees on the premises. Ideally, the building should not be in service and all furnishings should be removed. For minor refurbishment, this would only apply to the room involved, or even part of the room where the work is small and the room large. In these situations, there should be effective isolation of the survey area (e.g. full floor to ceiling partition), and furnishings should be removed as far as reasonably practicable or protected using sheeting.

A site survey visit was undertaken to carry out a systematic and diligent inspection to ensure asbestos and ACMs were identified and all relevant areas of the premises were inspected to locate all the asbestos (or the relevant part), as far as reasonably practicable. The inspection was limited to the non-intrusive investigation of accessible roof and subfloor void areas only, including the investigation of asbestos insulated pipe runs from their source location at the Central Block Boiler Room. All other areas outside of our agreement were excluded and have not been accessed.

In order to minimise disturbance and fibre release when collecting samples, these were taken from broken or damaged positions. Where this was not possible, samples were taken by spraying (where possible) with water, or an alternative liquid suppressant, and carefully cutting or snapping a small piece for sampling purposes.

Plans were reviewed to ensure all building features and services (e.g. voids, cavities, risers, ducting) have been included and surveyed.

An ARDS is intended to be a disruptive and intrusive survey, which may result in the need to penetrate parts of the building structure.

The survey was conducted in unoccupied areas to minimise risk to the public or employees on the premises (e.g. where there has been significant destruction).

Further investigation will be required to determine the final scope of works for any removal projects.

2.6 Reporting Conditions

This report has been prepared under the following conditions of engagement:

- This report is based on a combination of visual survey and targeted investigation sample collection.
- This report is provided for the use of New Zealand Defence Force (NZDF) only and may not be used by others without written permission. Maynard Marks Limited accepts no liability to third parties who may act on the contents of this report.
- The content of this Asbestos Refurbishment/Demolition Survey is intended to provide New Zealand Defence Force (NZDF) with the specific information necessary to manage the risks arising from ACM's present within the proposed work areas listed below.

2.7 Exclusions and Limitations

- ACMs existing within areas not specifically covered by this report are therefore outside the scope of the survey.

- Materials may be hidden or obscured by other items or cover finishes, e.g. paint, over boarding, disguising etc. Where this is the case, the detection of ACMs will be impaired.
- Asbestos may well be hidden as part of the structure to a building and not visible until the structure is dismantled at a later date.
- Debris from previous asbestos removal projects may well be present in some areas; general asbestos debris does not form part of this survey, however, all good intentions and efforts will be made for its discovery.
- Where an area has been previously stripped of asbestos, e.g. plant rooms, ducts, etc., and new coverings added, it should be noted that asbestos removal techniques have improved steadily over the years. Most notably would be the Health and Safety at Work (Asbestos) Regulations 2016 or other similar subsequent enforceable guidelines. Asbestos removal prior to this would not have been of today's standard and therefore debris may be present below new coverings.
- Access for the survey may be restricted for many reasons beyond our control such as height, inconvenience to others, immovable obstacles or confined space. Where electrical equipment is present and presumed in the way of the survey, no access will be attempted until proof of its safe state is given.
- In the building where asbestos has been located and it is clear that not all areas have been investigated, any material that is found to be suspicious and not detailed as part of the survey, should be treated with caution and sampled accordingly.
- Certain materials contain asbestos to varying degrees and some may be less densely contaminated at certain locations. Where this is the case, the sample taken may not be representative of the whole product throughout.
- Maynard Marks accepts no responsibility or liability for any damage caused as part of this survey carried out on behalf of the client. Due to the nature and necessity of sampling for asbestos, some damage is unavoidable and will be limited to just that necessary for the taking of the sample.
- Areas not investigated (i.e. areas of no access, plant and equipment) and any suspicious materials found in those areas should be treated with caution and as if containing asbestos in accordance with WorkSafe New Zealand Good Practice Guidelines 'Conducting Asbestos Surveys' (October 2016). Sampling may be necessary to confirm the presence of asbestos, in particular plant and equipment in manufacturing areas at the premises.
- Should ACMs be identified during or after our involvement has completed, Maynard Marks should be consulted immediately to advise as necessary for which further advice will be required to be provided. We accept no responsibility or liability for any loss or expense incurred where Maynard Marks is not consulted or for responsibility for the cost of removal of asbestos ACMs, or for any delays resulting from discovery of asbestos during the course of any works.
- The purpose of this report is to record and document asbestos materials. It should not be used for pricing removal works. A Removals Specification or RAMS report should be created for this purpose. We accept no responsibility for additional costs arising from a removal contract, where full reliance is placed upon this report.

- In relation to any ACM removal works, Maynard Marks accepts no responsibility for any delays, cost overruns, claims relating to exposure to asbestos, additional costs or similar, where this report has been utilised for a purpose other than for which originally intended and in consideration of the limitations.
- The default recommendation for ACM identified in an ARDS is for removal unless otherwise specified. However, if the ACM is to remain in place longer for than three months after the date of this survey, it must be included in the buildings asbestos management plan and be actively managed by the PCBU.
- This survey and report are limited to the buildings or areas of the buildings only. All other remaining buildings, plant or ground not specifically referred to within this report is excluded.
- Every effort has been made to identify all asbestos materials so far as was reasonably practical to do so within the scope of the survey and report. It is recognised within Conducting Asbestos Surveys, Good Practice Guidelines, October 2016 that even with 'complete' access within the survey scope, it is possible that not all ACMs will be identified and other ACMs may only become apparent during the demolition process; for example, asbestos may well be hidden as part of the structure to a building and not visible until the structure is fully or partially dismantled at a later date.
- The survey techniques used for the completion of the service involved trained and experienced surveyors using a combined approach with regard to visual examination and necessary intrusive sampling. It is always possible after a survey that ACMs of one sort or another may remain in the property or area covered by the survey.
- Samples have not been taken where the act of sampling would endanger the surveyor or affect or hinder the functional integrity of the item concerned, e.g. fuses within electrical boxes, gaskets, fire doors, and ropes associated with heating, glazing, power plant, or areas of manufacturing at the premises.

2.8 Areas Accessed

The following areas have been accessed for the completion of the survey and this report:

- All Accessible Roof Void Areas
- All Accessible Subfloor Void Areas
- Central Block Boiler Room
- West Wing Electrical Transformer Room

All other areas are excluded and have not been accessed.

2.9 Orientations

For the purposes of this report, the orientations of the elevations are identified on the photographs contained within Appendix A of this report and all descriptions of elevations follow from that.

3.0 PROPERTY DESCRIPTION

3.1 Officers Training School (FLOC NNK278)

The building was estimated to be constructed circa 1940's. The building currently functions as the Officers Training School and provides accommodation, cooking and dining facilities, and classroom areas.

The building is divided into three blocks/wings, consisting of two accommodation/office wings (referred to within this report as the East and West wings), joined by a central communal area (referred to within this report as the Central Block). Each accommodation wing is two-storey, containing a number of bedrooms of similar internal construction, with additional office areas and bathroom facilities. The Central building is largely single storey and contains the communal amenities for the accommodation blocks including Kitchen, Dining, Bar, Laundry and Lounge areas. Within the central block there is an externally accessible boiler room located below ground level. The West wing has been refurbished with the addition of a small single level extension since establishment. Additionally, there is a small electrical transformer room beneath the West Wing which adjoins the subfloor cavity.

The building is constructed on concrete foundations with timber framing.

The external wall cladding material is timber weatherboards throughout. The roof of the building is timber truss framed with pitched troughed metal sheeting roof cladding. Roof coverings do not appear original and have been replaced. Rainwater goods are constructed of metal or PVC. Window and door joinery is constructed of timber or aluminium. External stairs to upper level have been constructed primarily from galvanized steel

Internal ceiling linings are fibrous plaster or plasterboard. Internal roof voids are insulated with Fibreglass / Synthetic Mineral Fibre (SMF) insulation batts. Internal wall linings are constructed of plasterboard, and softboard products. Bathroom wall linings are fibre-cement and/or hardboard.

The floors throughout the building are constructed upon timber floorboards with timber framing underneath, except for the Galley/Kitchen area which is constructed upon solid concrete. Floor coverings are carpet tiles within accommodation, office areas, and the East and West wing hallways. Welded vinyl floor coverings are present to all laundry, bathroom, toilets and other wet areas and also throughout the Central block hallways.

A combination of Asbestos-Containing Pipe lagging, Aeroflex Foam Insulation, and Fibreglass/ Synthetic Mineral Fibre (SMF) insulation was present to pipework throughout the building and boiler room areas.

4.0 ASBESTOS ASSESSMENT

4.1 Reference Documentation

- Health and Safety at Work Act 2015.
- Health and Safety at Work (Asbestos) Regulations 2016.
- Management and Removal of Asbestos ACOP, November 2016.
- Conduction Asbestos Surveys Good Practice Guidelines, October 2016

4.2 Definitions

The term 'asbestos' refers to six unique mineral substances. A brief description of the three main asbestos types is defined below.

Chrysotile	Also called white asbestos. This is the most commonly used form of asbestos. Chrysotile asbestos is the type usually present in asbestos containing materials in New Zealand buildings.
Amosite	Also called brown asbestos. Amosite asbestos offered good tensile strength and heat resistance.
Crocidolite	Also called blue asbestos. Crocidolite is considered to be the most dangerous type of asbestos due to the fact that fibres are sharp and needle-like.

4.3 Terms

ACD	Asbestos containing dust.
ACM	Asbestos containing material.
ACOP	Approved Code of Practice.
ARDS	Asbestos Refurbishment and Demolition Survey.
Encapsulation	Provision of paint type coating to create a continuous seal to the surface of the material and thereby prevent fibre release.
Enclosure	Provision of a physical barrier to provide mechanical protection of the material to prevent it being disturbed or damaged.
Labelling	Fixing of labels to the surface of the material to warn of the hazard.
Manage In Situ	A policy of regular inspections to ensure that the ACM is maintained in good condition.
Periodic	Inspection of the material at defined intervals to check that its condition hasn't deteriorated to require enclosure, encapsulation or removal.
Registering	Entering the details, including type, location and extent in a register which is brought to the attention of all persons who might plan or undertake works in the building.
Removal	Complete removal of material in compliance with Health and Safety at Work (Asbestos) Regulations 2016.
Repair	Addition of a seal to the material to prevent the further deterioration of the material. Carried out in conjunction with labelling.

4.4 Samples

The table attached as Appendix A sets out the locations where testing has been completed and where asbestos was identified. A sufficient number of samples have been taken across the building stock to confirm if asbestos is present in each material.

The Material Assessment Score within the table assesses the likelihood of the material to release asbestos fibres into the air should it be disturbed. The scores range from 0 (Very Low Risk) to 12 (Very High Risk).

General guidelines for Material Assessment Algorithm have been set out in Appendix E.

SS# refers to the 'Sample Number' which was removed from site and sent to Laboratory for specialist analysis.

PS# refers to the 'Presumed Sample Number' which relates to a material considered to be identical to one which was physically sampled in a nearby building.

APPENDIX A

**SAMPLE RESULTS TABLE,
PHOTOGRAPHS AND FLOOR PLANS**

Unique No.	Description	Location	Result	Observations and Recommendations
190628SPAY001SS	Fibre Cement (Compressed Sheet)	Central Block, NZDF FLOC: NNK278 Kitchen Area - Wall and Ceiling Linings - Throughout Accessible	Asbestos NOT detected	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB001
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	N/A		

Photographic Reference

Key:

- ASB001 - Sample Position (no asbestos detected)
- ASB002 - Sample Position (asbestos detected)
- P001 - Asbestos Presumed (no sample)
- SPO01 - Asbestos Strongly Presumed (no sample)

Building plan provided by NZDF and spatial accuracy not verified

FIXTURE: SAMPLE LOCATIONS - TO BE USED IN CONJUNCTION WITH ASBESTOS REGISTER (AND ID REFERENCES)

APPENDIX A

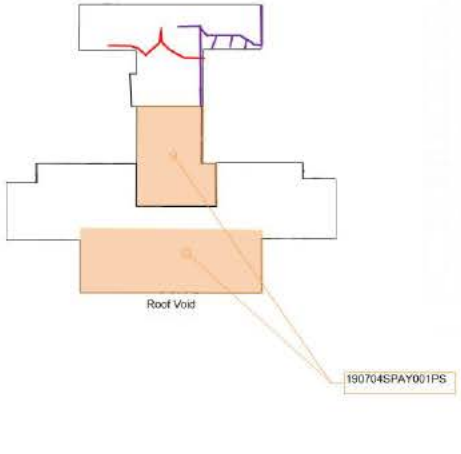

Unique No.	Description	Location	Result	Observations and Recommendations
190628SPAY004SS	Fibre Cement (Compressed Sheet)	West Wing, NZDF FLOC: NNK278 Level One Bathroom - Cubicle Wall North	Asbestos NOT detected	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB002
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	N/A		
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190628SPAY008SS	Fibre Cement Sheet	West Wing, NZDF FLOC: NNK278 Exterior Northern End - Soffits and Gable End	Asbestos NOT detected	Pattler Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB003
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	N/A	
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190628SPAY010SS	Gasket Material - F brous	West Wing, East Wing, NZDF FLOC: NNK278 Interior - Ground Floor and Level One - Bedrooms - Throughout Accessible - Sink Pipework	Chrysotile (White Asbestos) detected	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB004 *NOTE:PDP AMS Material Assessment Score and Risk Rating Matrix Scoring Used - Refer to PDP Survey Report (28/06/2019) for details. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
4*	Medium Risk*	1m2		

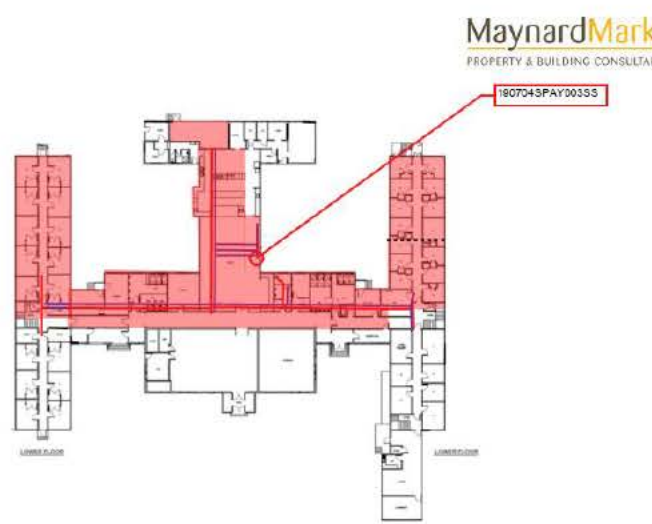

Photographic Reference

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY001SS	Pipe Lagging / Debris 1	Central Block, NZDF FLOC: NNK278 Roof Void above Kitchen Area - Pipework Insulation Upon Batts	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	10m2		
Photographic Reference				
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> </div> <div style="width: 50%;"> </div> </div>				

Unique No.	Description	Location	Result	Observations and Recommendations	
190704SPAY001PS	Pipe Lagging / Fibre Cement Debris + ACD	Central Block, NZDF FLOC: NNK278 All Roof Voids - Throughout	Presumed to contain asbestos	Debris and dust deposits are presumed to originate from the original ACM Super-Six roof that appears to have been very poorly removed. The contamination also includes damaged friable lagging insulation to pipework systems, unsuccessfully removed and still installed to pipes that run throughout the Roof Void. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	
Assessment Scores					
Material Assessment Score	Risk Rating	Approximate Extent/Area			
12	High Risk	Unable to Determine			
Photographic Reference					
 <p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190704SPAY001PS</p> <p style="text-align: center;">Root Void</p> <p> ■ Presumed to Contain Asbestos — Galco Wrapped Pipework (Presumed Potable Water) — SMF Wrapped Pipework (Presumed Non-Potable Water) </p> <p> <small>Targeted Asbestos Inspection NNK 278</small> <small>NZDF-A-2460 July 2018</small> <small>Location Plans</small> </p>					

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY002SS	Pipe Lagging / Fibre Cement Debris 2	Central Block, NZDF FLOC: NNK278 Roof Void above Kitchen Area - Loose Material Upon Batts	Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
12	High Risk	10m2		
Photographic Reference				

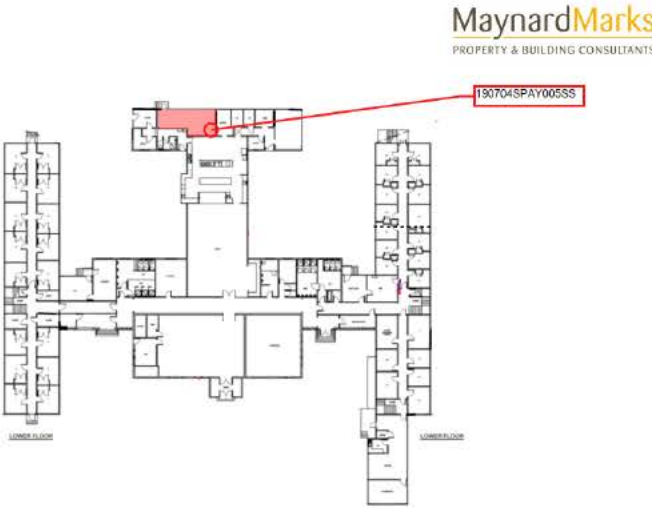

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY002PS	Fibre Cement Debris + ACD	West Wing, East Wing, NZDF FLOC: NNK278 All Roof Voids - Throughout	Presumed to contain asbestos	Reference Sample 190704SPAY002SS - Debris and dust deposits are presumed to originate from the original ACM Super-Six roof that appears to have been very poorly removed. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
9		High Risk	Unable to Determine	
Photographic Reference				
<p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>Legend: ■ Presumed to Contain Asbestos</p> <p>Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2010</p> <p style="text-align: right;">Location Plans</p>				

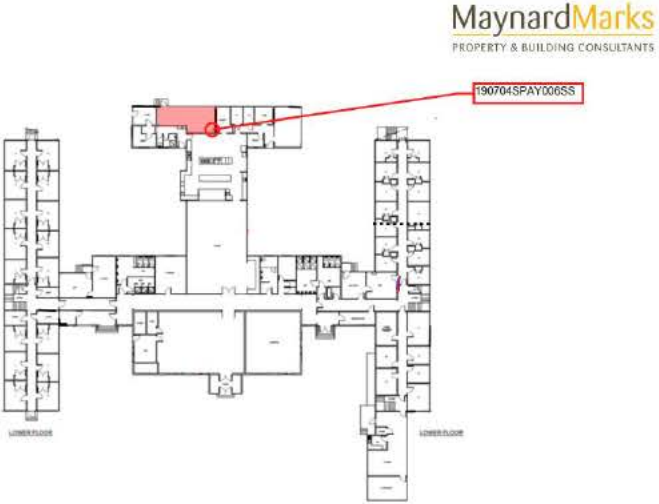

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY003SS	Pipe Lagging / Fibre Cement Debris + ACD	Central Block, NZDF FLOC: NNK278 Subfloor Area below Dining Room - On Ground Throughout	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	50m2		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190704SPAY003SS</p> <p>Legend: ■ Asbestos Detected — Cable Wrapped Pipework (Presumed Potable Water) - 190704SPAY003SS — SMF Wrapped Pipework (Presumed Non-Potable Water)</p> <p>Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2019</p> <p style="text-align: right;">Location Plans</p>				

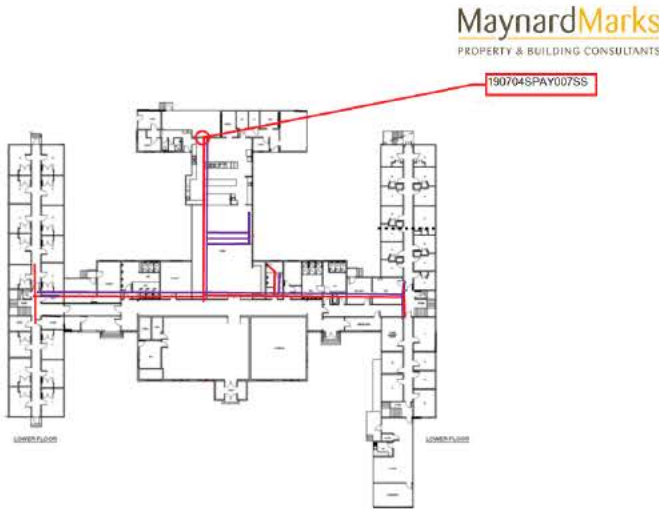

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY003PS	Pipe Lagging / Fibre Cement Debris + ACD	All Buildings (West Wing, Central Block, East Wing), NZDF FLOC: NNK278 All Subfloor Areas - Throughout	Presumed to contain asbestos	Reference Sample 190704SPAY003SS - Various locations of friable ACM pipe lagging material and associated debris due to damage have been identified within the subfloor area. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
12	High Risk	Unable to Determine		
Photographic Reference				

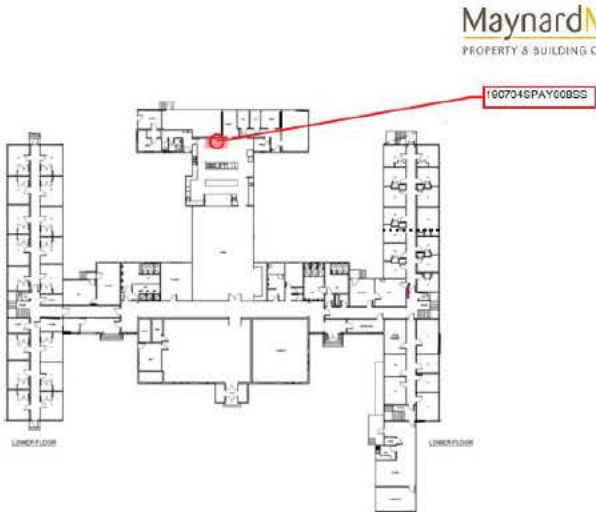

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Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY004SS	Insulating Board / Millboard	West Wing, NZDF FLOC: NNK278 Electrical Transformer Room - Interior Ceiling and High Level Wall Lining	Chrysotile (White Asbestos) and Amosite (Brown Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
11		High Risk	20m3	
Photographic Reference				
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190704SPAY004SS</p> <p style="font-size: small;">Asbestos Detected</p> <p style="font-size: x-small;">Targeted Asbestos Inspection NNK 278</p> <p style="font-size: x-small;">NZDF-A-2460 July 2019</p> <p style="font-size: x-small;">Location Plans</p> </div> <div style="width: 50%;"> </div> </div>				

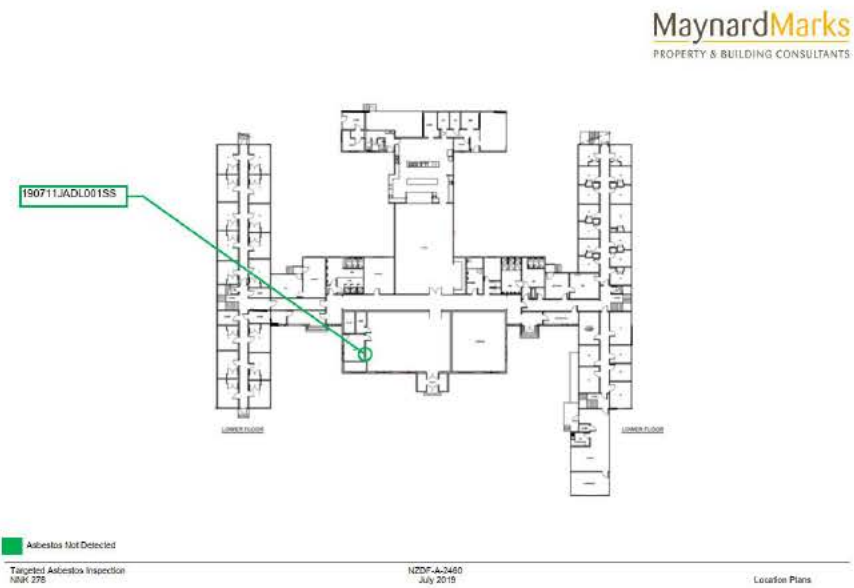

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY005SS	Surface Sample - Tape Swab - Dust / Debris	Central Block, NZDF FLOC: NNK278 Boiler Room - Floor Surfaces below Pipework	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	Unable to Determine		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190704SPAY005SS</p> <p style="text-align: center;">LOWER FLOOR LOWER FLOOR</p> <p style="font-size: small;">Asbestos Detected Targeted Asbestos Inspection NNK 278</p> <p style="font-size: x-small; text-align: center;">NZDF-A-2460 July 2019</p> <p style="font-size: x-small; text-align: right;">Location Plans</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY006SS	Surface Sample - Tape Swab - Dust / Debris	Central Block, NZDF FLOC: NNK278 Boiler Room - Cable tray to Control Panel	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	Unable to Determine		
Photographic Reference				
				

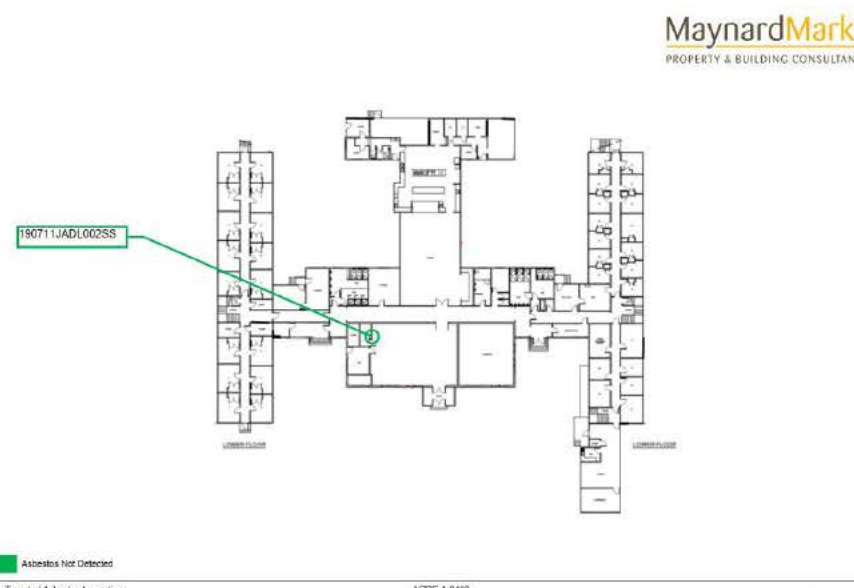

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY007	Pipe Lagging / Insulation	Central Block, NZDF FLOC: NNK278 Boiler Room - Penetration to Subfloor Area - Pipework	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	50m		
Photographic Reference				
 <p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190704SPAY007SS</p> <p>LOWER FLOOR UPPER FLOOR</p> <p> ■ Asbestos Detected — Calico Wrapped Pipework (Presumed Potable Water) -190704SPAY007SS — SMF Wrapped Pipework (Presumed Non-Potable Water) </p> <p>Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2019</p> <p style="text-align: right;">Location Plans</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190704SPAY008	Debris - Gasket Sheet	Central Block, NZDF FLOC: NNK278 Boiler Room - Penetration to Subfloor Area - Upon ground	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	1m2		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190704SPAY008SS</p> <p>LOWER FLOOR LOWER FLOOR</p> <p>Asbestos Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p>NZDF-A-2460 July 2019</p> <p style="text-align: right;">Location Plans</p>				

APPENDIX A

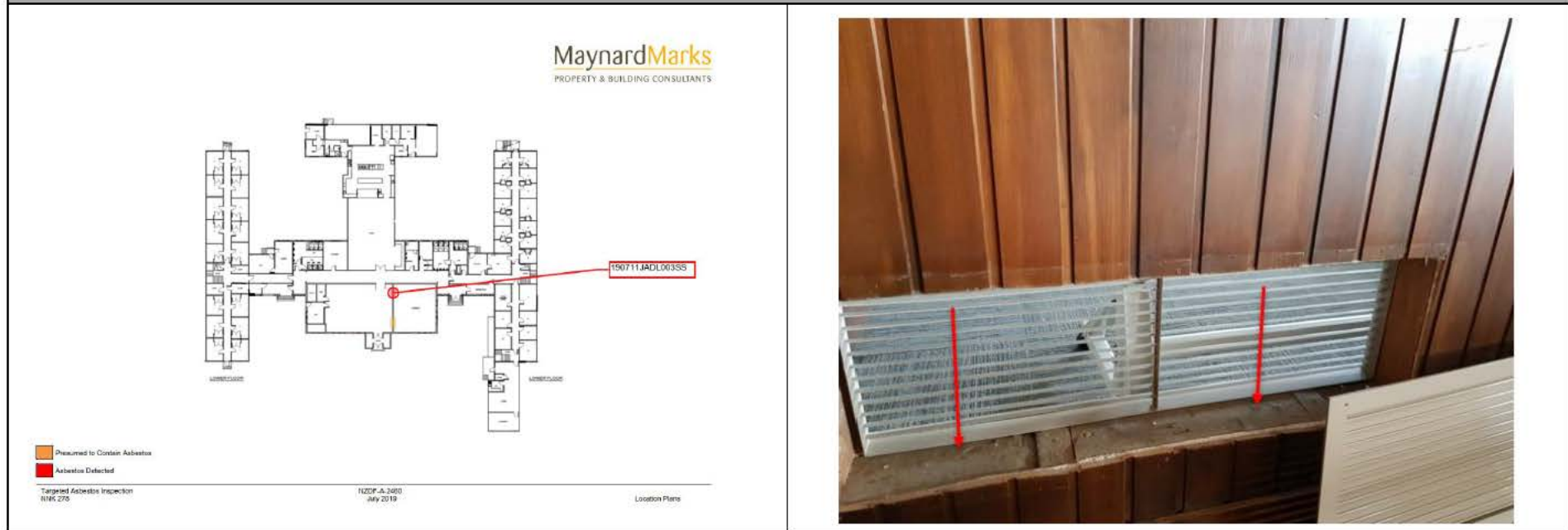
Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL001SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Gunroom - High Level Wall Vent Surfaces 1	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p>MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>190711JADL001SS</p> <p>Asbestos Not Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p>NZDF-A-2460 July 2019</p> <p>Location Plans</p>		 <p>MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>NNK278 VENT OVER BAK SWAB</p> <p>190711JADL001SS</p>		



APPENDIX A

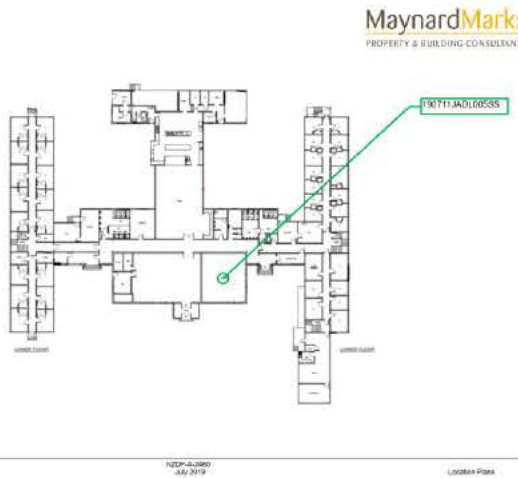

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL002SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Gunroom - High Level Wall Vent Surfaces 2	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>Asbestos Not Detected Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2015</p> <p style="text-align: right;">Location Plans</p>				

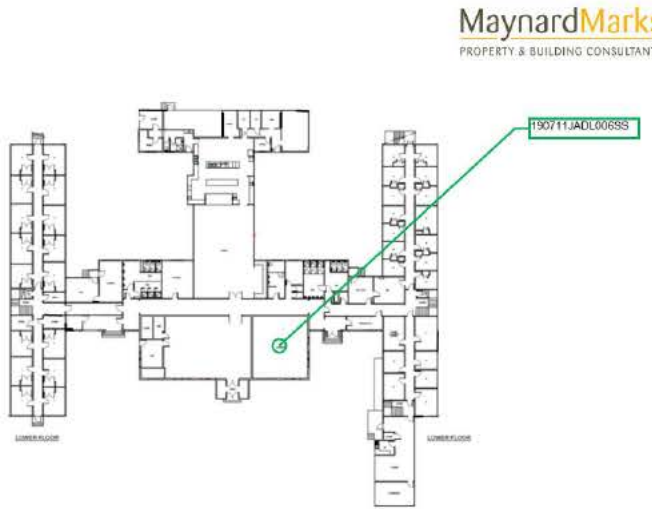

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL003SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Gunroom/Anteroom - Passive Wall Vent Internal Surfaces between Gunroom and Anterooms	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
10		High Risk	Unable to Determine	

Photographic Reference



Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL004SS	String/Rope (Composite)	Central Block, NZDF FLOC: NNK278 Gunroom Windows to Exterior - Sash Cords	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p><small>Asbestos Not Detected Targeted Asbestos Inspection NNK 278</small></p> <p style="text-align: center;"><small>NZDF-A-2460 July 2010</small></p> <p style="text-align: right;"><small>Location Plans</small></p>				

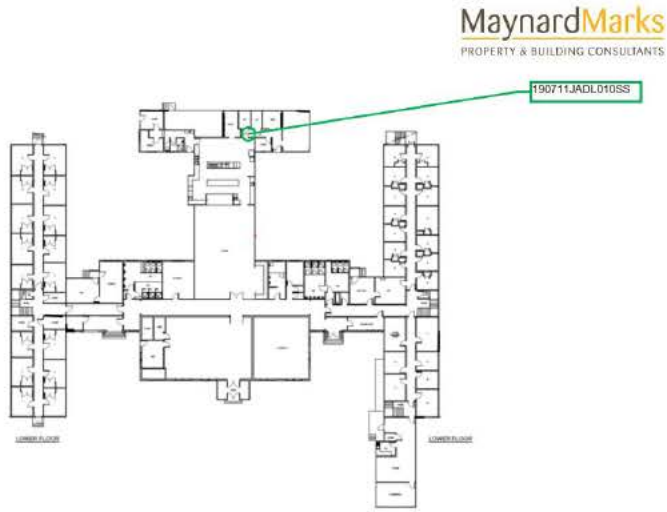

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL005SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Anteroom - High Level Ceiling Vent Surfaces	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p>MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>190711JADL005SS</p> <p>Asbestos Not Detected Targeted Asbestos Inspection Risk 278</p> <p>NZDF-A-2460 May 2019</p> <p>Location Plans</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL006SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Anteroom - Floor Surfaces below High Level Ceiling Vents	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190711JADL006SS</p> <p style="text-align: center;">LOWER FLOOR</p> <p style="text-align: center;">LOWER FLOOR</p> <p style="font-size: small;"> ■ Asbestos Not Detected Targeted Asbestos Inspection NNNK 278 </p> <p style="font-size: x-small; text-align: center;"> NZDF-A-2460 July 2019 Location Plans </p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL007SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Dining Room Area - High Level Ceiling Vent Surfaces	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
10	High Risk	Unable to Determine		
Photographic Reference				
<p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: right;">190711JADL007SS</p> <p>Legend: ■ Presumed to Contain Asbestos ■ Asbestos Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2019</p> <p style="text-align: right;">Location Plan</p>			<p>MaynardMarks PROPERTY & BUILDING CONSULTANTS REF: NNK278 LOCATION: SURF TO CEILING VENTS SAMPLE TYPE: 190711JADL007SS</p>	

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL008SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Dining Room Area - Floor Surfaces below High Level Ceiling Vents	Chrysotile (White Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
10		High Risk	Unable to Determine	
Photographic Reference				
<p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: right;">190711JADL008SS</p> <p>Legend: ■ Presumed to Contain Asbestos ■ Asbestos Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2019</p> <p style="text-align: right;">Location Plans</p>			<p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>JOB NO: NNK 278 CLIENT: NZDF TO FLOOR Swab CEILING VENTS SAMPLE NO: 190711JADL 008SS SAMPLED: ADDRESS: DATE/TIME:</p>	

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL009SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Kitchen Area East - Floor Surfaces below Ceiling Access Hatch	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	Unable to Determine	
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL010SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Kitchen Area West - Floor Surfaces below Ceiling Access Hatch	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	Unable to Determine	
Photographic Reference				
 <p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190711JADL010SS</p> <p style="font-size: small;">LOWER FLOOR LOWER FLOOR</p> <p style="font-size: x-small;"> ■ Asbestos Not Detected Targeted Asbestos Inspection NNK 278 NZDF-A-2460 July 2019 Location Plans </p>			 <p style="text-align: center;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="font-size: x-small;"> JOB REF: NNK278 LOCATION: SWAB TO FLOOR BELOW CEILING HATCH SAMPLE TYPE: 190711JADL010SS SAMPLE ID: ADDRESS: DATE/TIME: </p>	

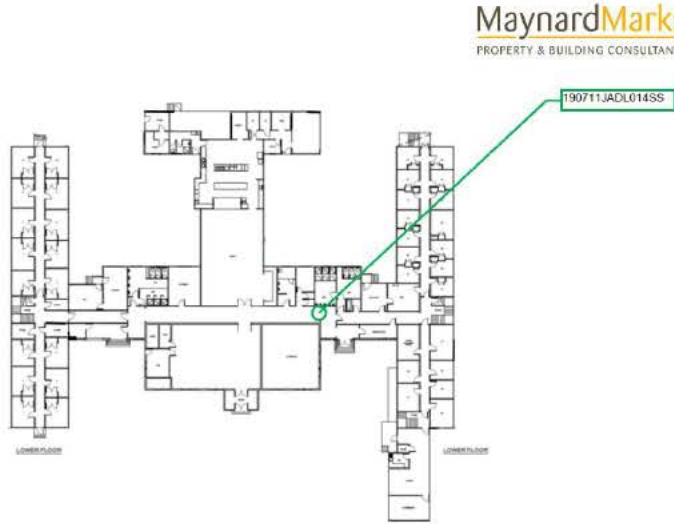
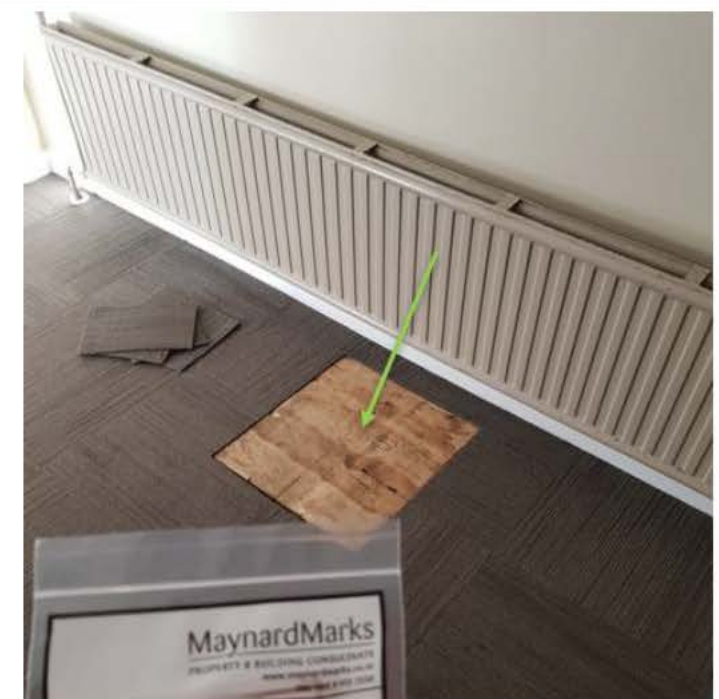
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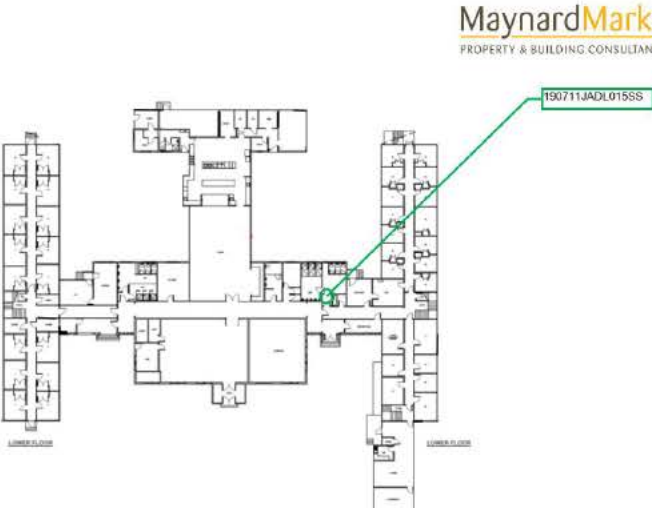
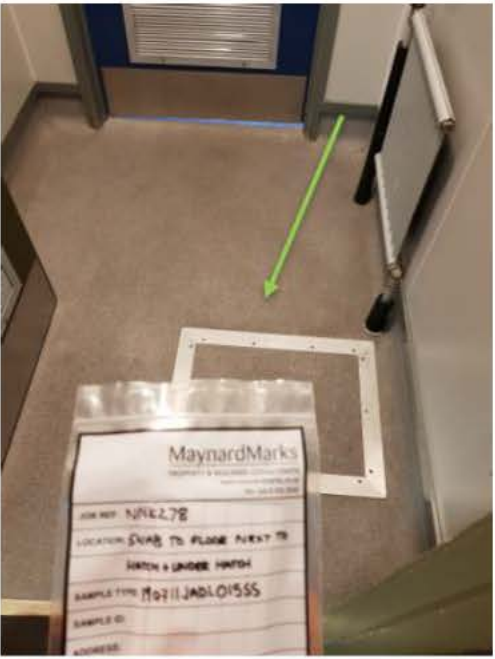
Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL011SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Central Hallway East - Swab to Floor Below Ceiling Access Hatch	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				

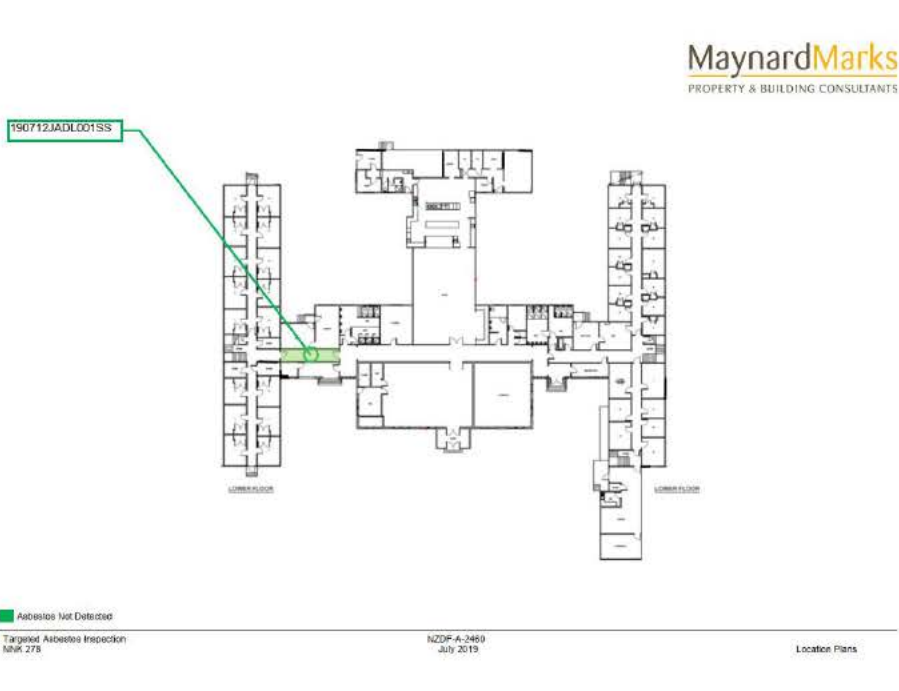

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL012SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Laundry Room - Floor Below Ceiling Access Hatch and adj Subfloor Access	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	Unable to Determine	
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL013SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Laundry Room - Ceiling Vent Surfaces	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				

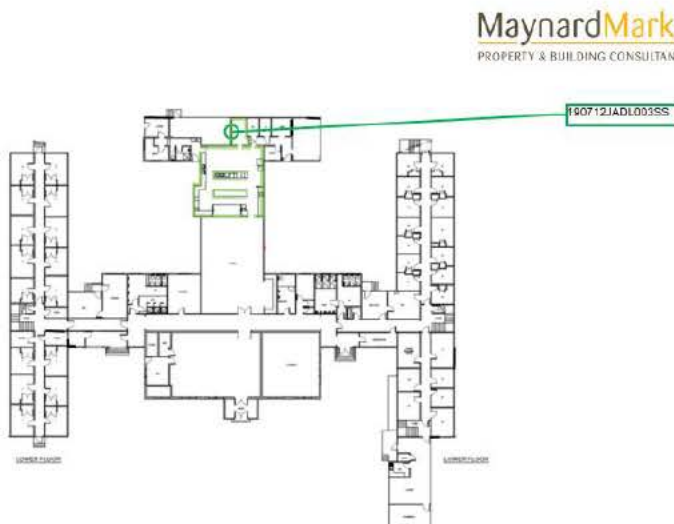

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Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL014SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Central Hallway West - Floor Below Ceiling Access Hatch	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190711JADL014SS</p> <p style="font-size: small;">LOWER FLOOR LOWER FLOOR</p> <p style="font-size: x-small;">Asbestos Not Detected Targeted Asbestos Inspection NNK 278</p> <p style="font-size: x-small;">NZDF-A-2460 July 2019</p> <p style="font-size: x-small;">Location Plans</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190711JADL015SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Ground Level Female Bathrooms - Floor Below Ceiling Access Hatch and adj Subfloor Access	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	Unable to Determine		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: center;">190711JADL015SS</p> <p style="font-size: small;">■ Asbestos Not Detected Targeted Asbestos Inspection NNK 278</p> <p style="font-size: x-small; text-align: center;">NZDF-A-2460 July 2018</p> <p style="font-size: x-small; text-align: right;">Location Plans</p>		 <p style="font-size: small;">MaynardMarks PROPERTY & BUILDING CONSULTANTS JOB NO: NNK278 LOCATION: SWAB TO FLOOR NEXT TO HATCH & UNDER HATCH SAMPLE TYPE: 190711JADL015SS SAMPLE ID: ADDRESS:</p>		

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL001SS	Vinyl Sheetting (Composite)	Central Block, NZDF FLOC: NNK278 Hallway to East Wing - Floor Covering	Asbestos NOT detected	Material previously presumed positive - Pattle Delamore Partners Asbestos Management Survey Report (28/06/2019) Reference: - NK278_P003. - Material sampled for analysis as 190712JADL001SS with a Negative result for asbestos.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	20m2		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>190712JADL001SS</p> <p>LOWER FLOOR</p> <p>LOWER FLOOR</p> <p>Asbestos Not Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p>NZDF-A-2460 July 2019</p> <p>Location Plans</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL002SS	Fibre Cement (Compressed Sheet)	Central Block, NZDF FLOC: NNK278 Kitchen Area - Pantry Wall and Ceiling Linings - Throughout	Asbestos NOT detected	Material previously presumed positive - Pattle Delamore Partners Asbestos Management Survey Report (28/06/2019) Reference: - NK278_P001 - Material sampled for analysis as 190712JADL002SS with a Negative result for asbestos.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	N/A	
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL003SS	Fibre Cement (Compressed Sheet)	Central Block, NZDF FLOC: NNK278 Kitchen Area - Prep Room - Wall and Ceiling Linings - Throughout	Asbestos NOT detected	Material previously presumed positive - Pattle Delamore Partners Asbestos Management Survey Report (28/06/2019) Reference: - NK278_P002 - Material sampled for analysis as 190712JADL003SS with a Negative result for asbestos.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	N/A		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p style="text-align: right;">190712JADL003SS</p> <p>Asbestos Not Detected Targeted Asbestos Inspection NNK 278</p> <p style="text-align: center;">NZDF-A-2460 July 2019</p> <p style="text-align: right;">Location Plans</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL004SS	Fibre Cement Debris	West Wing, NZDF FLOC: NNK278 Subfloor Area - Throughout (Sampled adjacent to Transfomer Room)	Chrysotile (White Asbestos) and Amosite (Brown Asbestos) and Crocidolite (Blue Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
9		High Risk		

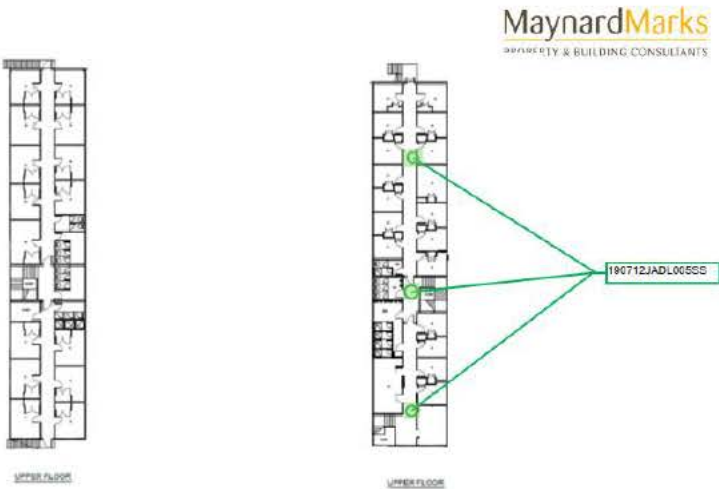

Photographic Reference

MaynardMarks
PROPERTY & BUILDING CONSULTANTS

Targeted Asbestos Inspection
NNK 278

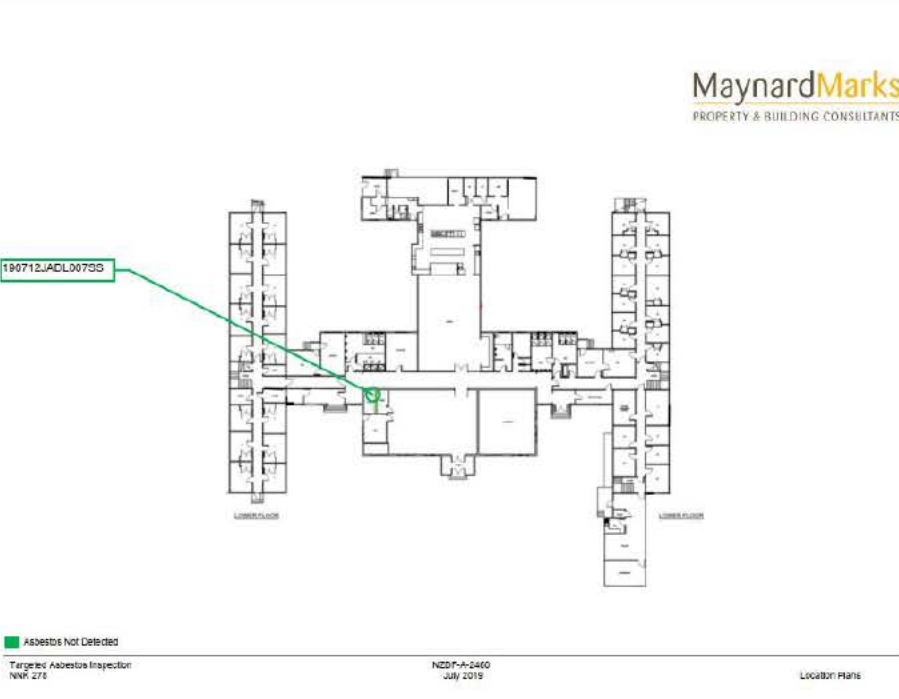
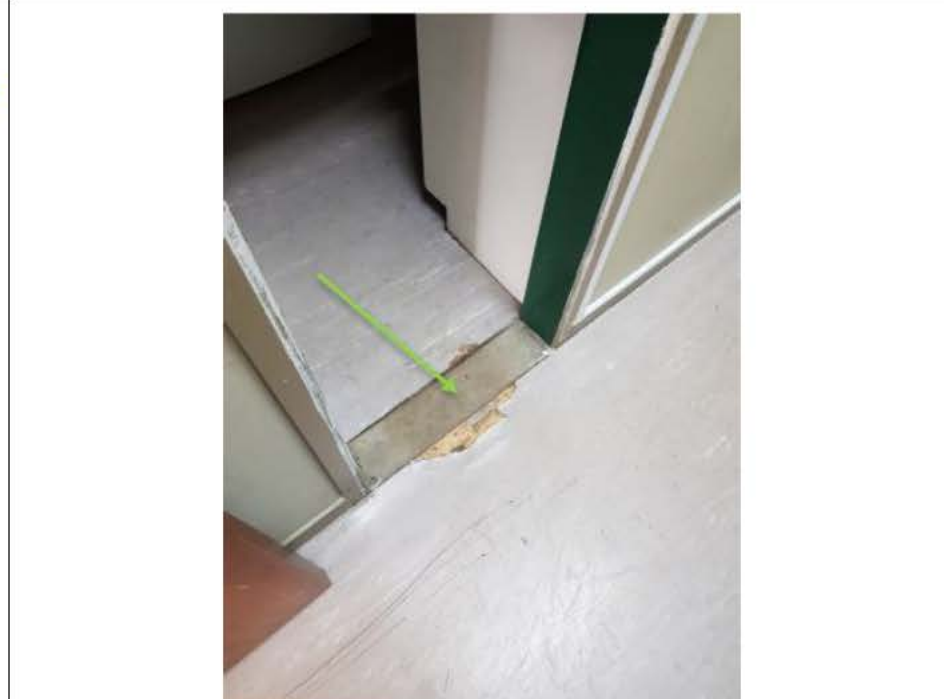
NZDF-A-2460
July 2019

Location Plans

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL005SS	Surface Sample - Tape Swab (Composite)	West Wing, NZDF FLOC: NNK278 First Floor - Interior Hallway adjacent Bedrooms - Floor Surfaces below Ceiling Access Hatches	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	N/A		
Photographic Reference				
				

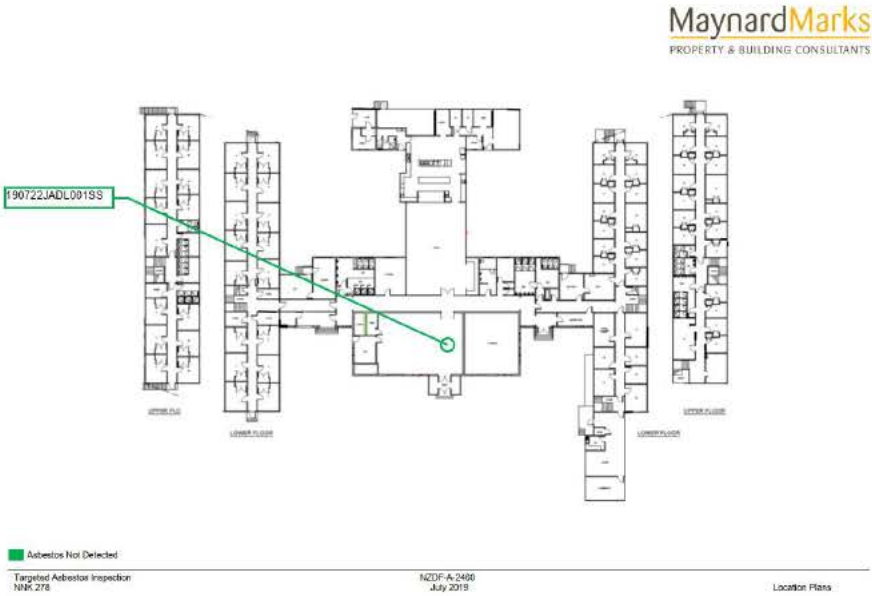

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL006SS	Surface Sample - Tape Swab (Composite)	East Wing, NZDF FLOC: NNK278 First Floor - Interior Hallway adjacent Bedrooms - Floor Surfaces below Ceiling Access Hatches	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	N/A	
Photographic Reference				

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Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL007SS	Fibre Cement (Compressed Sheet)	Central Block, NZDF FLOC: NNK278 Gunroom Bar Kitchenette - Fibre Cement Panel Floor to Doorway	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
N/A		N/A	N/A	
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>190712JADL007SS</p> <p>LOWER FLOOR</p> <p>LOWER FLOOR</p> <p>Asbestos Not Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p>NZDF-A-2460 JULY 2019</p> <p>LOCATION PLANS</p>				

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL008SS	Fibre Cement Sheet	Central Block, NZDF FLOC: NNK278 Laundry Room (East) - Behind Sinks - Wall Infill Panel	Chrysotile (White Asbestos) and Amosite (Brown Asbestos) detected	Prior to any refurbishment/demolition works that may disturb the material, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
6	Low Risk	5m ²		
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190712JADL009PS	Pipe Lagging / Fibre Cement Debris + ACD	All Buildings (West Wing, Central Block, East Wing), NZDF FLOC: NNK278 All Wall Voids - Throughout	Presumed to contain asbestos	Reference Samples 190704SPAY001SS and 190704SPAY002SS - Multiple fibre cement debris and dust deposits were visible within open-topped wall cavities from various locations throughout the Roof Void. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken within the wall cavities, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.
Assessment Scores				
Material Assessment Score		Risk Rating	Approximate Extent/Area	
10		High Risk	Unable to Determine	
Photographic Reference				

Unique No.	Description	Location	Result	Observations and Recommendations
190722JADL001SS	Surface Sample - Tape Swab (Composite)	Central Block, NZDF FLOC: NNK278 Gunroom - Pool Table	Asbestos NOT detected	N/A
Assessment Scores				
Material Assessment Score	Risk Rating	Approximate Extent/Area		
N/A	N/A	N/A		
Photographic Reference				
 <p style="text-align: right;">MaynardMarks PROPERTY & BUILDING CONSULTANTS</p> <p>190722JADL001SS</p> <p>Asbestos Not Detected</p> <p>Targeted Asbestos Inspection NNK 278</p> <p>NZDF-A-2460 July 2019</p> <p>Location Plans</p>				

APPENDIX B

ASBESTOS REGISTER

ASBESTOS REGISTER

Unique Identifier	Address	Unit No/Building	Location of Sample	Asbestos Type	Sample Category	Est. Extent	Asbestos Presence / Absence	Condition	Friability	Material Assessment Score	Risk Rating	Observations and Recommendations	Inspect Date	Labelled Y/N
190628SPAY001 SS	NZDF FLOC: NNK278	Central Block	Kitchen Area - Wall and Ceiling Linings - Throughout Accessible	N/A	Fibre Cement (Compressed Sheet)	N/A	Asbestos NOT detected	Qualitative Assessment Not Given	N/A	N/A	N/A	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB001	06/03/19	N/A
190628SPAY004 SS	NZDF FLOC: NNK278	West Wing	Level One Bathroom - Cubicle Wall North	N/A	Fibre Cement (Compressed Sheet)	N/A	Asbestos NOT detected	Qualitative Assessment Not Given	N/A	N/A	N/A	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB002	06/03/19	N/A
190628SPAY008 SS	NZDF FLOC: NNK278	West Wing	Exterior Northern End - Soffits and Gable End	N/A	Fibre Cement Sheet	N/A	Asbestos NOT detected	Qualitative Assessment Not Given	N/A	N/A	N/A	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB003	06/03/19	N/A
190628SPAY010 SS	NZDF FLOC: NNK278	West Wing, East Wing	Interior - Ground Floor and Level One - Bedrooms - Throughout Accessible - Sink Pipework	ACM	Gasket Material - Fibrous	1m2	Chrysotile (White Asbestos) detected	Qualitative Assessment Not Given	Friable	4*	Medium Risk	Pattle Delamore Partners (PDP) Asbestos Management Survey Report (28/06/2019) Reference: - NK278_ASB004 *NOTE:PDP AMS Material Assessment Score and Risk Rating Matrix Scoring Used - Refer to PDP Survey Report (28/06/2019) for details. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	06/03/19	N
190704SPAY001 SS	NZDF FLOC: NNK278	Central Block	Roof Void above Kitchen Area - Pipework Insulation Upon Batts	ACM	Pipe Lagging / Debris 1	10m2	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY001 PS	NZDF FLOC: NNK278	Central Block	All Roof Voids - Throughout	ACM	Pipe Lagging / Fibre Cement Debris + ACD	Unable to Determine	Presumed to contain asbestos	Poor	Friable	12	High Risk	Debris and dust deposits are presumed to originate from the original ACM Super-Six roof that appears to have been very poorly removed. The contamination also includes damaged friable lagging insulation to pipework systems, unsuccessfully removed and still installed to pipes that run throughout the Roof Void. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	Y
190704SPAY002 SS	NZDF FLOC: NNK278	Central Block	Roof Void above Kitchen Area - Loose Material Upon Batts	ACM	Pipe Lagging / Fibre Cement Debris 2	10m2	Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected	Poor	Friable	12	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY002 PS	NZDF FLOC: NNK278	West Wing, East Wing	All Roof Voids - Throughout	ACM	Fibre Cement Debris + ACD	Unable to Determine	Presumed to contain asbestos	Poor	Friable	9	High Risk	Reference Sample 190704SPAY002SS - Debris and dust deposits are presumed to originate from the original ACM Super-Six roof that appears to have been very poorly removed. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.		Y
190704SPAY003 SS	NZDF FLOC: NNK278	Central Block	Subfloor Area below Dining Room - On Ground Throughout	ACM	Pipe Lagging / Fibre Cement Debris + ACD	50m2	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY003 PS	NZDF FLOC: NNK278	All Buildings (West Wing, Central Block, East Wing)	All Subfloor Areas - Throughout	ACM	Pipe Lagging / Fibre Cement Debris + ACD	Unable to Determine	Presumed to contain asbestos	Poor	Friable	12	High Risk	Reference Sample 190704SPAY003SS - Various locations of friable ACM pipe lagging material and associated debris due to damage have been identified within the subfloor area. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	Y

ASBESTOS REGISTER

Unique Identifier	Address	Unit No/Building	Location of Sample	Asbestos Type	Sample Category	Est. Extent	Asbestos Presence / Absence	Condition	Friability	Material Assessment Score	Risk Rating	Observations and Recommendations	Inspect Date	Labelled Y/N
190704SPAY004 SS	NZDF FLOC: NNK278	West Wing	Electrical Transformer Room - Interior Ceiling and High Level Wall Lining	ACM	Insulating Board / Millboard	20m3	Chrysotile (White Asbestos) and Amosite (Brown Asbestos) detected	Poor	Friable	11	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY005 SS	NZDF FLOC: NNK278	Central Block	Boiler Room - Floor Surfaces below Pipework	ACM	Surface Sample - Tape Swab - Dust / Debris	Unable to Determine	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY006 SS	NZDF FLOC: NNK278	Central Block	Boiler Room - Cable tray to Control Panel	ACM	Surface Sample - Tape Swab - Dust / Debris	Unable to Determine	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY007	NZDF FLOC: NNK278	Central Block	Boiler Room - Penetration to Subfloor Area - Pipework	ACM	Pipe Lagging / Insulation	50m	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190704SPAY008	NZDF FLOC: NNK278	Central Block	Boiler Room - Penetration to Subfloor Area - Upon ground	ACM	Debris - Gasket Sheet	1m2	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	04/07/19	N
190711JADL001 SS	NZDF FLOC: NNK278	Central Block	Gunroom - High Level Wall Vent Surfaces 1	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL002 SS	NZDF FLOC: NNK278	Central Block	Gunroom - High Level Wall Vent Surfaces 2	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL003 SS	NZDF FLOC: NNK278	Central Block	Gunroom/Anteroom - Passive Wall Vent Internal Surfaces between Gunroom and Anterooms	ACD	Surface Sample - Tape Swab (Composite)	Unable to Determine	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	11/07/19	N
190711JADL004 SS	NZDF FLOC: NNK278	Central Block	Gunroom Windows to Exterior - Sash Cords	N/A	String/Rope (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL005 SS	NZDF FLOC: NNK278	Central Block	Anteroom - High Level Ceiling Vent Surfaces	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL006 SS	NZDF FLOC: NNK278	Central Block	Anteroom - Floor Surfaces below High Level Ceiling Vents	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL007 SS	NZDF FLOC: NNK278	Central Block	Dining Room Area - High Level Ceiling Vent Surfaces	ACD	Surface Sample - Tape Swab (Composite)	Unable to Determine	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	11/07/19	N
190711JADL008 SS	NZDF FLOC: NNK278	Central Block	Dining Room Area - Floor Surfaces below High Level Ceiling Vents	ACD	Surface Sample - Tape Swab (Composite)	Unable to Determine	Chrysotile (White Asbestos) detected	Poor	Friable	10	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	11/07/19	N
190711JADL009 SS	NZDF FLOC: NNK278	Central Block	Kitchen Area East - Floor Surfaces below Ceiling Access Hatch	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL010 SS	NZDF FLOC: NNK278	Central Block	Kitchen Area West - Floor Surfaces below Ceiling Access Hatch	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL011 SS	NZDF FLOC: NNK278	Central Block	Central Hallway East - Swab to Floor Below Ceiling Access Hatch	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL012 SS	NZDF FLOC: NNK278	Central Block	Laundry Room - Floor Below Ceiling Access Hatch and adj Subfloor Access	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A
190711JADL013 SS	NZDF FLOC: NNK278	Central Block	Laundry Room - Ceiling Vent Surfaces	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A		11/07/19	N/A





ASBESTOS REGISTER

Unique Identifier	Address	Unit No/Building	Location of Sample	Asbestos Type	Sample Category	Est. Extent	Asbestos Presence / Absence	Condition	Friability	Material Assessment Score	Risk Rating	Observations and Recommendations	Inspect Date	Labelled Y/N	
190711JADL014	SS	NZDF FLOC: NNK278	Central Block	Central Hallway West - Floor Below Ceiling Access Hatch	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A	11/07/19	N/A	
190711JADL015	SS	NZDF FLOC: NNK278	Central Block	Ground Level Female Bathrooms - Floor Below Ceiling Access Hatch and adj Subfloor Access	N/A	Surface Sample - Tape Swab (Composite)	Unable to Determine	Asbestos NOT detected	N/A	N/A	N/A	N/A	11/07/19	N/A	
190712JADL001	SS	NZDF FLOC: NNK278	Central Block	Hallway to East Wing - Floor Covering	N/A	Vinyl Sheeting (Composite)	20m2	Asbestos NOT detected	N/A	N/A	N/A	Material previously presumed positive - Pattle Delamore Partners Asbestos Management Survey Report (28/06/2019) Reference: - NK278_P003. - Material sampled for analysis as 190712JADL001SS with a Negative result for asbestos.	12/07/19	N/A	
190712JADL002	SS	NZDF FLOC: NNK278	Central Block	Kitchen Area - Pantry Wall and Ceiling Linings - Throughout	N/A	Fibre Cement (Compressed Sheet)	N/A	Asbestos NOT detected	N/A	N/A	N/A	Material previously presumed positive - Pattle Delamore Partners Asbestos Management Survey Report (28/06/2019) Reference: - NK278_P001 - Material sampled for analysis as 190712JADL002SS with a Negative result for asbestos.	12/07/19	N/A	
190712JADL003	SS	NZDF FLOC: NNK278	Central Block	Kitchen Area - Prep Room - Wall and Ceiling Linings - Throughout	N/A	Fibre Cement (Compressed Sheet)	N/A	Asbestos NOT detected	N/A	N/A	N/A	Material previously presumed positive - Pattle Delamore Partners Asbestos Management Survey Report (28/06/2019) Reference: - NK278_P002 - Material sampled for analysis as 190712JADL003SS with a Negative result for asbestos.	12/07/19	N/A	
190712JADL004	SS	NZDF FLOC: NNK278	West Wing	Subfloor Area - Throughout (Sampled adjacent to Transfer Room)	ACM	Fibre Cement Debris		Chrysotile (White Asbestos) and Amosite (Brown Asbestos) and Crocidolite (Blue)	Poor	Friable	9	High Risk	Prior to any refurbishment/demolition works that may disturb the items identified being undertaken, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	12/07/19	N
190712JADL005	SS	NZDF FLOC: NNK278	West Wing	First Floor - Interior Hallway adjacent Bedrooms - Floor Surfaces below Ceiling Access Hatches	N/A	Surface Sample - Tape Swab (Composite)	N/A	Asbestos NOT detected	N/A	N/A	N/A	N/A	12/07/19	N/A	
190712JADL006	SS	NZDF FLOC: NNK278	East Wing	First Floor - Interior Hallway adjacent Bedrooms - Floor Surfaces below Ceiling Access Hatches	N/A	Surface Sample - Tape Swab (Composite)	N/A	Asbestos NOT detected	N/A	N/A	N/A	N/A	12/07/19	N/A	
190712JADL007	SS	NZDF FLOC: NNK278	Central Block	Gunroom Bar Kitchenette - Fibre Cement Panel Floor to Doorway	N/A	Fibre Cement (Compressed Sheet)	N/A	Asbestos NOT detected	N/A	N/A	N/A	N/A	12/07/19	N/A	
190712JADL008	SS	NZDF FLOC: NNK278	Central Block	Laundry Room (East) - Behind Sinks - Wall Infill Panel	ACM	Fibre Cement Sheet	5m2	Chrysotile (White Asbestos) and Amosite (Brown Asbestos) detected	Good	Bound in matrix	6	Low Risk	Prior to any refurbishment/demolition works that may disturb the material, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	12/07/19	Y
190712JADL009	PS	NZDF FLOC: NNK278	All Buildings (West Wing, Central Block, East Wing)	All Wall Voids - Throughout	ACM	Pipe Lagging / Fibre Cement Debris + ACD	Unable to Determine	Presumed to contain asbestos	Poor	Friable	10	High Risk	Reference Samples 190704SPAY001SS and 190704SPAY002SS - Multiple fibre cement debris and dust deposits were visible within open-topped wall cavities from various locations throughout the Roof Void. Prior to any refurbishment/demolition works that may disturb the items identified being undertaken within the wall cavities, the asbestos identified must be removed. Removal of the asbestos must be undertaken by a licensed asbestos removalist in accordance with Health and Safety at Work (Asbestos) Regulations 2016.	12/07/19	N
190722JADL001	SS	NZDF FLOC: NNK278	Central Block	Gunroom - Pool Table	N/A	Surface Sample - Tape Swab (Composite)	N/A	Asbestos NOT detected	N/A	N/A	N/A	N/A	22/07/19	N/A	



APPEND X C

S te PI





First Floor / Central Block Roof Void - Contamination and Sample Location Plan




-  Asbestos Detected
-  Remediated to Contain Asbestos
-  Calico Wrapped Pipework (Resumed Potable Water)
-  SMF Wrapped Pipework (Resumed Non Potable Water)


First Floor / Central Block Roof Void - Contamination and Sample Location Plan


-  Asbestos Detected
-  Remediated to Contain Asbestos
- Calico Wrapped Pipework (Resumed Potable Water)
- SMF Wrapped Pipework (Resumed Non Potable Water)


First Floor / Central Block Roof Void - Contamination and Sample Location Plan





-  Asbestos Detected
-  Remediated to Contain Asbestos
-  Calico Wrapped Pipework (Resumed Potable Water)
-  SMF Wrapped Pipework (Resumed Non Potable Water)

-  Asbestos Detected
-  Calico Wrapped Pipework (resumed Potable Water)
-  SMF Wrapped Pipework (resumed Non Potable Water)

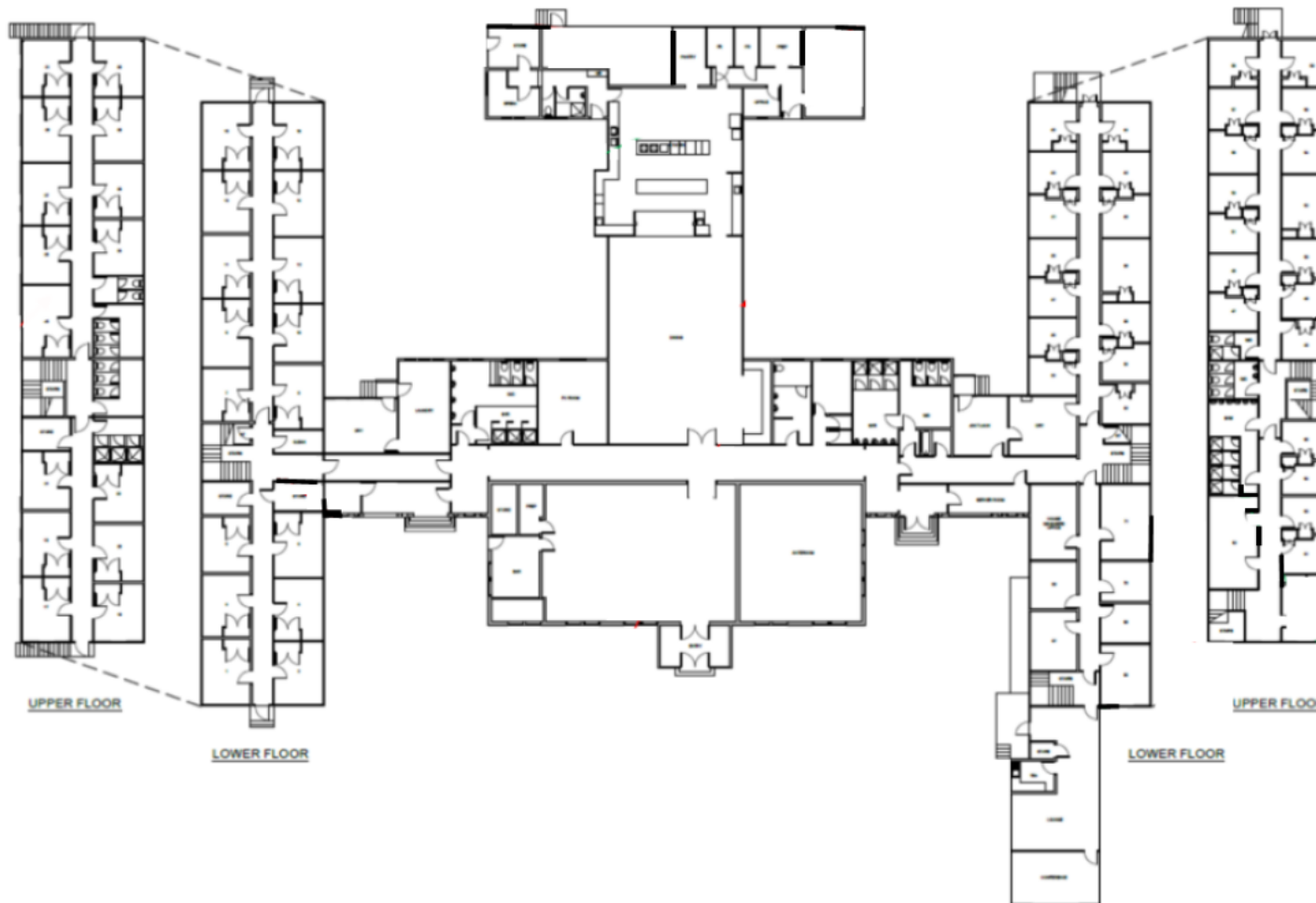
 re-umed to Contain Asbestos

 Calico Wrapped pipework (resumed Potable Water)

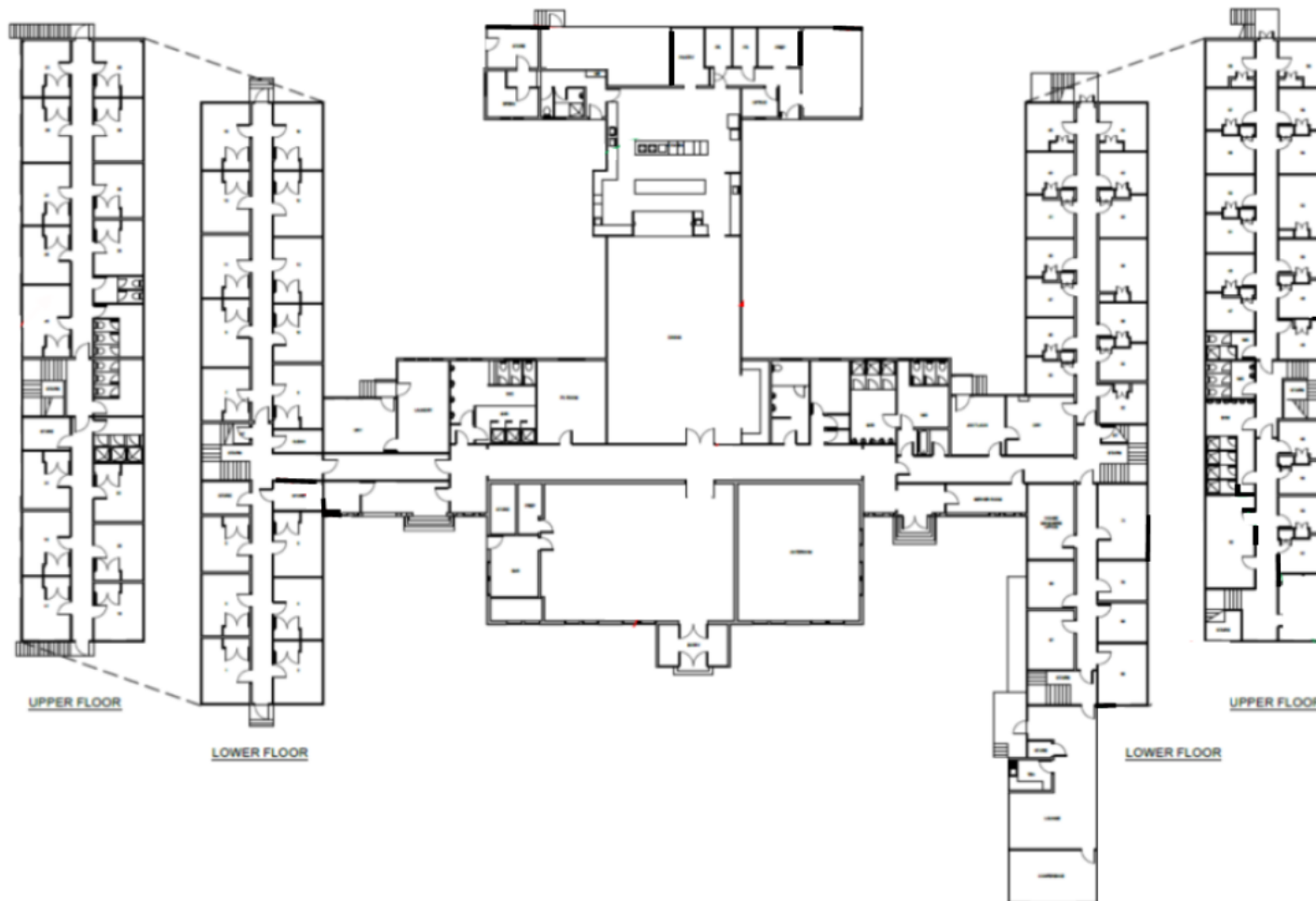
 SMF Wrapped pipework (resumed Non Potable Water)




-  Asbestos Detected
-  Remediated to Contain Asbestos
-  Calico Wrapped Pipework (Resumed Potable Water)
-  SMF Wrapped Pipework (Resumed Non Potable Water)

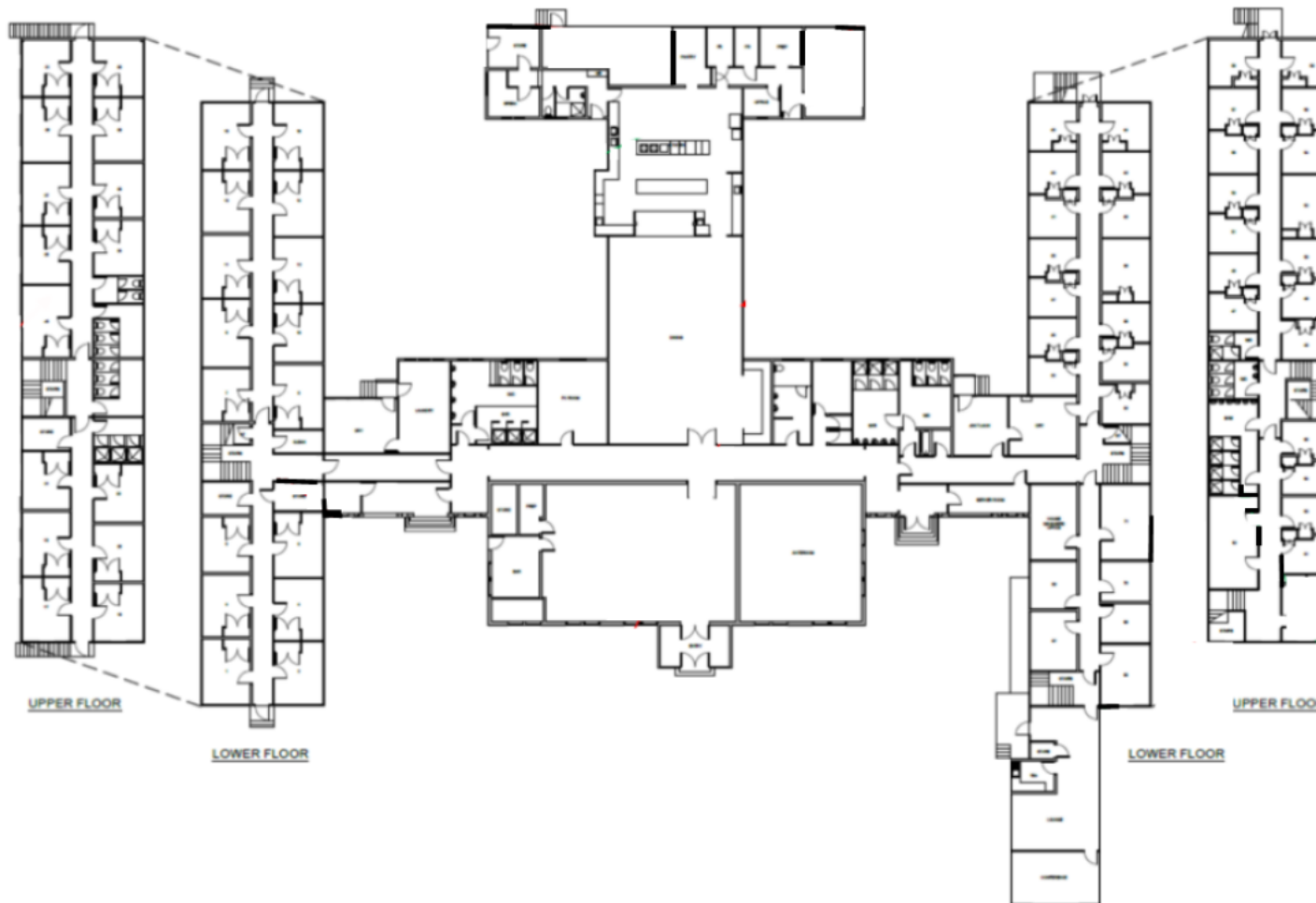
Boiler Room, Electrical Room and Subfloor Voids Contamination - Approximate Extent and Orientation



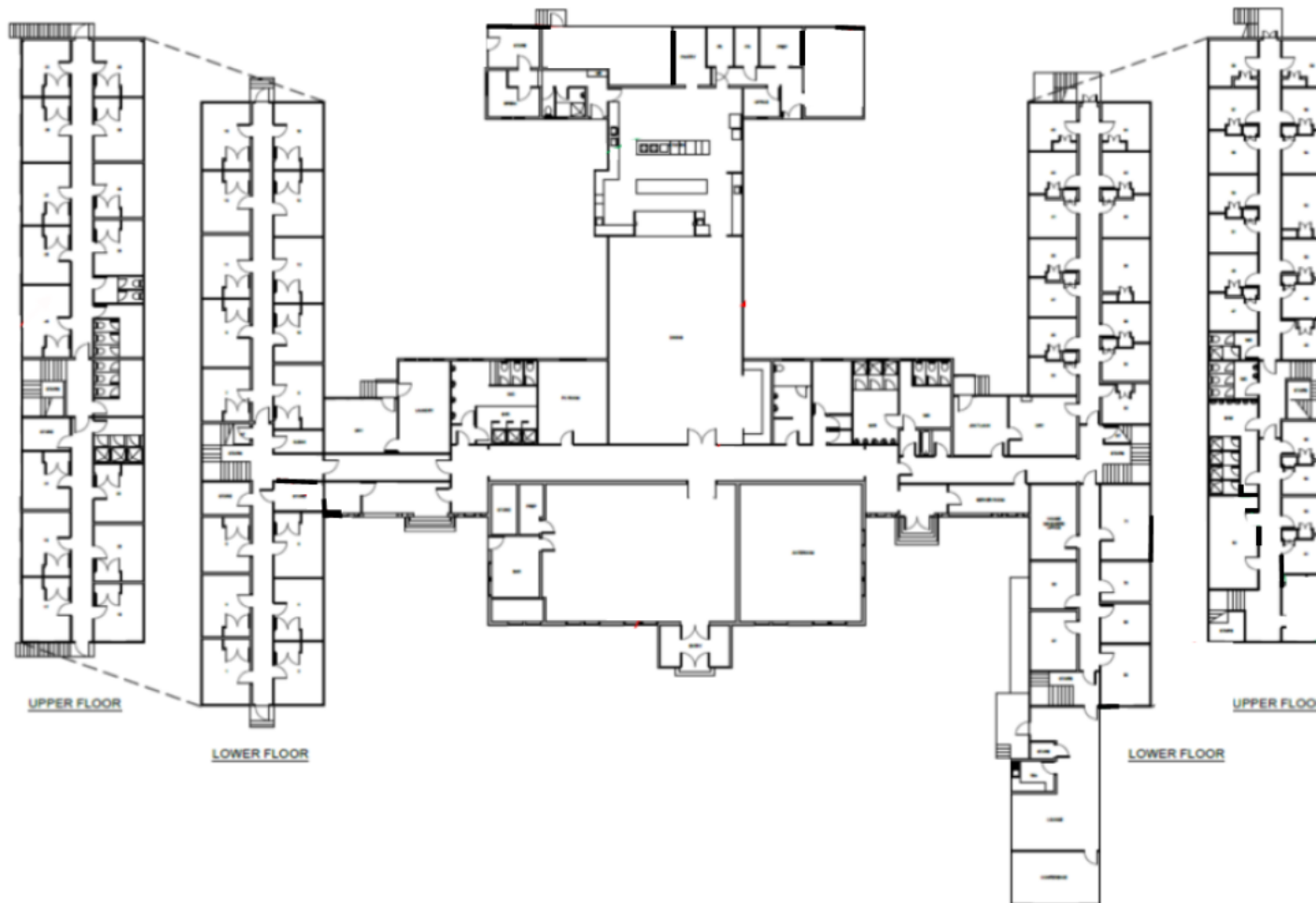
- Asbestos Detected
- Presumed to contain Asbestos
- Calico wrapped Pipework (Presumed Potable Water) - 190704SPAY0 7SS
- SMF Wrapped Pipework (Presumed Non Potable Water)



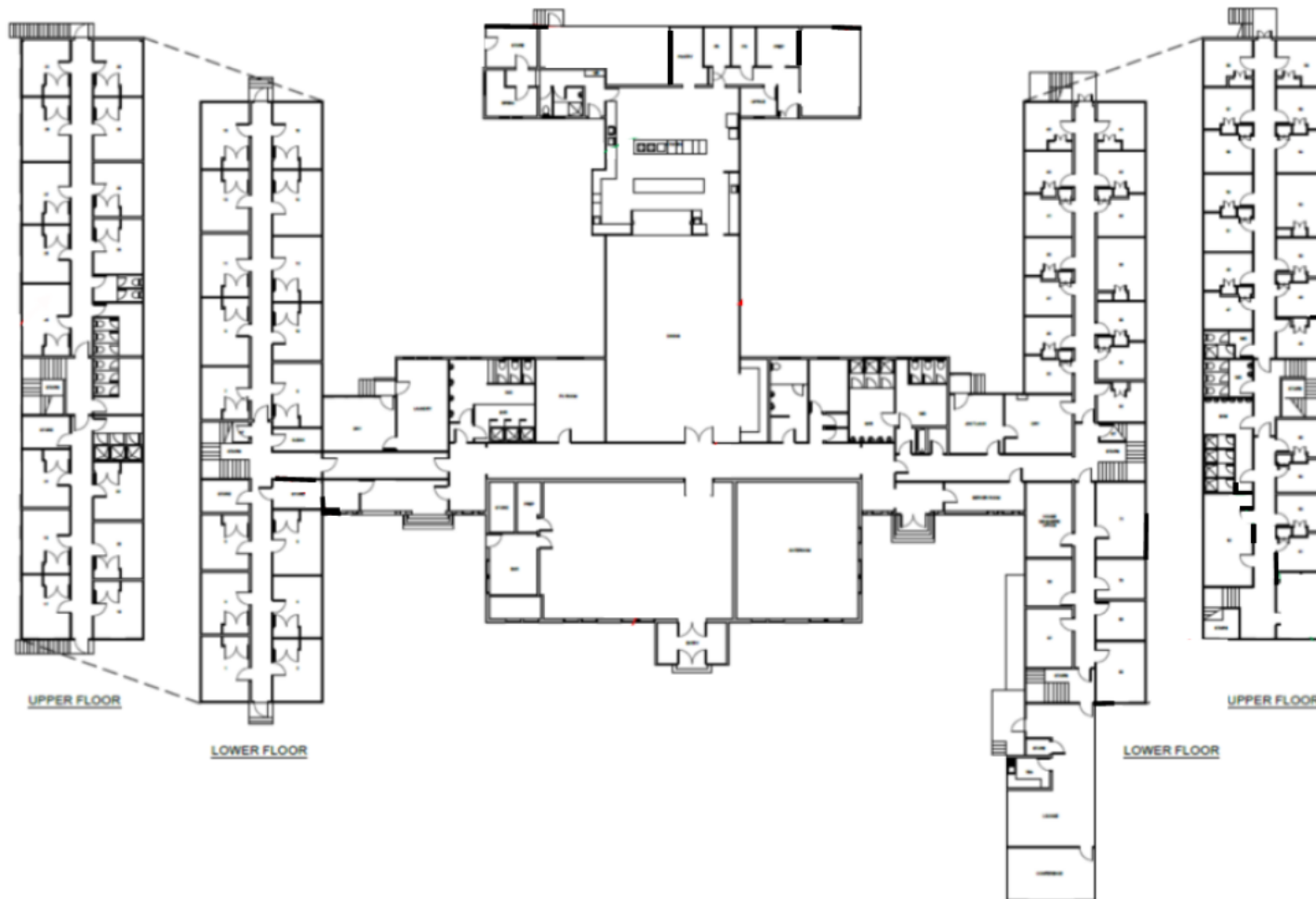
-  Abestos Detecte
-  Calico wrapped Pipework (Presumed Potable Water) -190704SPAY0 7SS
-  SMF Wrapped Pipework (Presumed Non Potable Water)



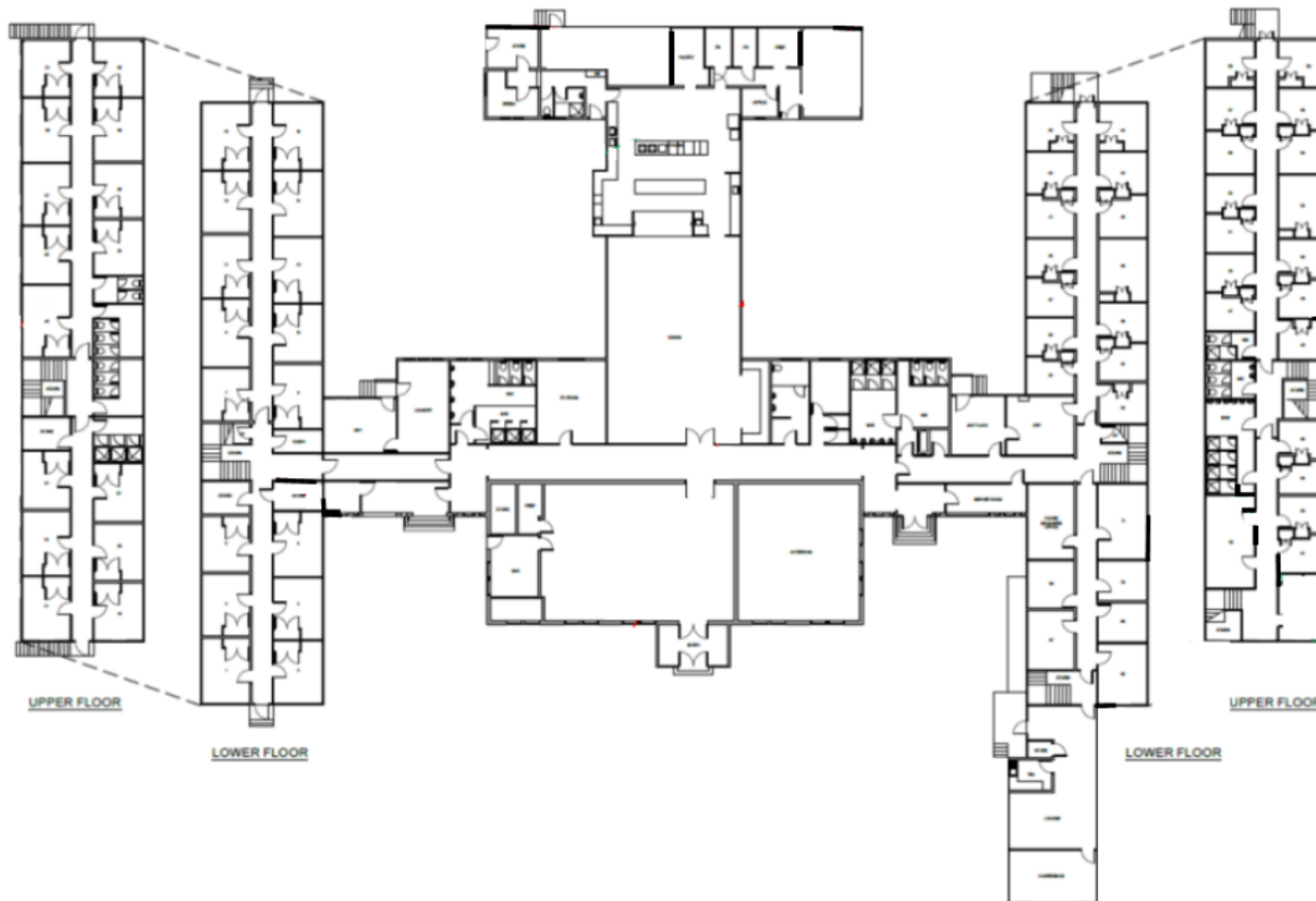
- Asbestos Detected
- Presumed to contain Asbestos
- Calico wrapped Pipework (Presumed Potable Water) - 190704SPAY0 7SS
- SMF Wrapped Pipework (Presumed Non Potable Water)






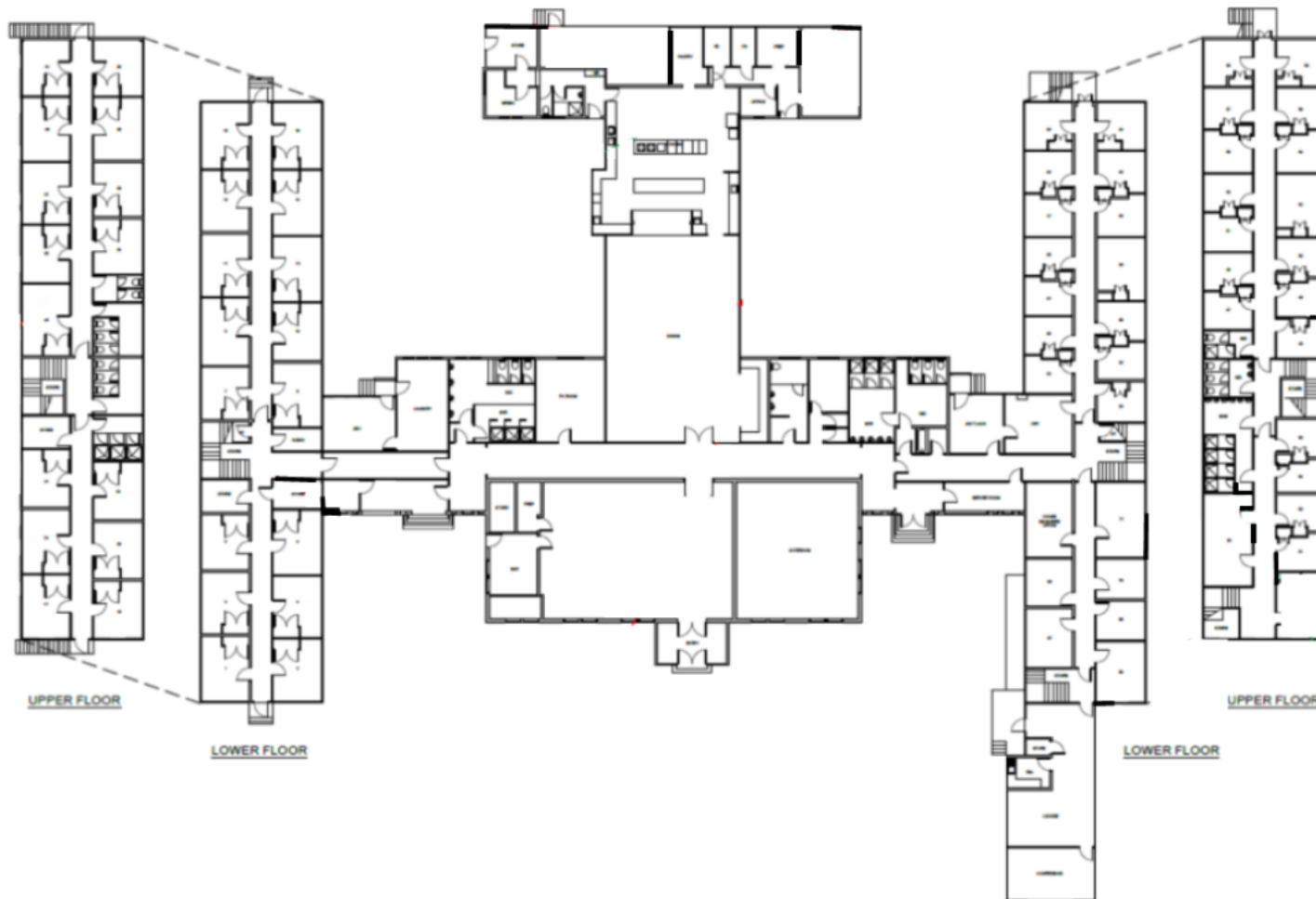
- Asbestos Detected
- Presumed to contain Asbestos
- Calico wrapped Pipework (Presumed Potable Water) - 190704SPAY0 7SS
- SMF Wrapped Pipework (Presumed Non Potable Water)



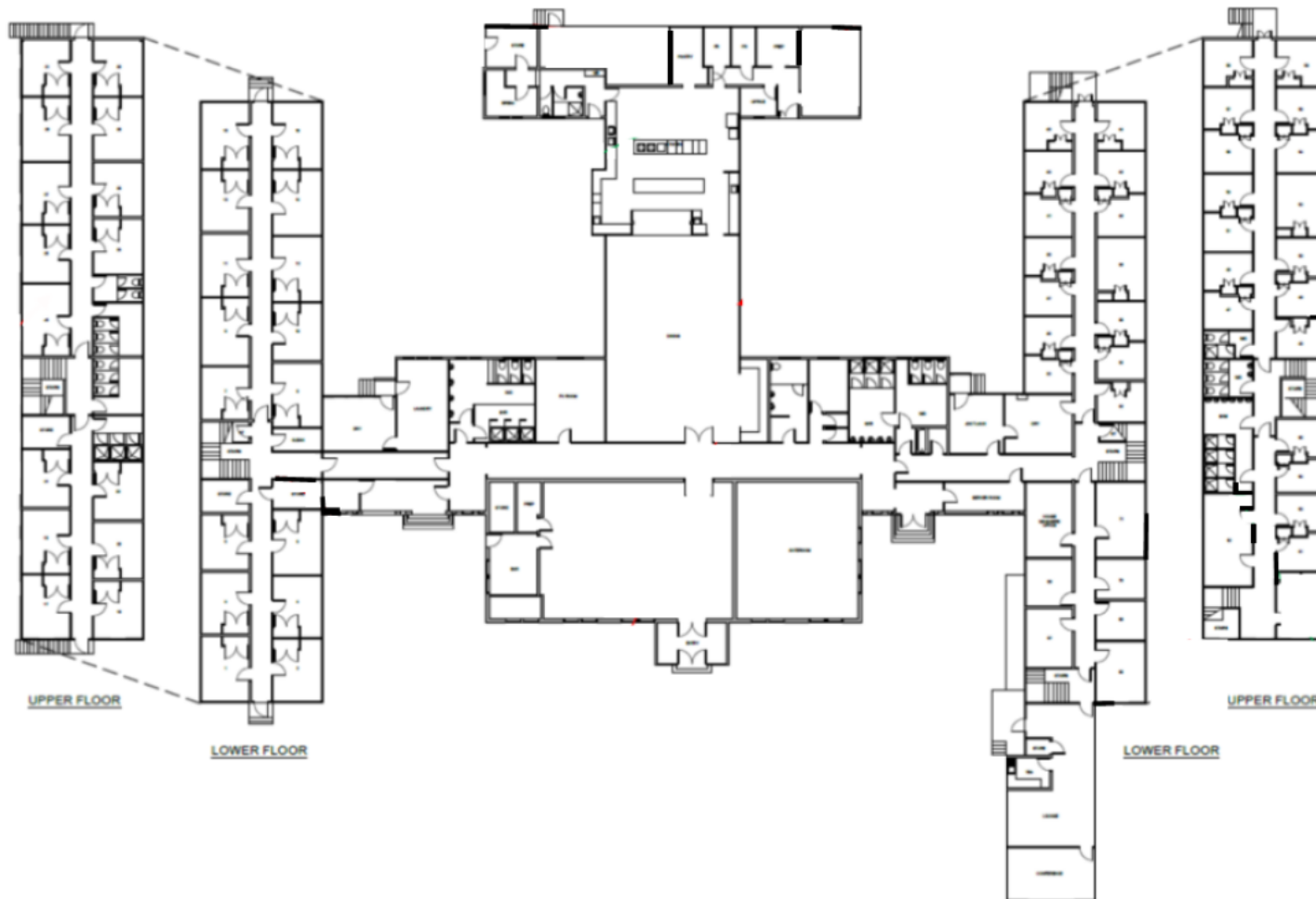
■ sbestos ected



-  Abestos Detecte
-  Calico wrapped Pipework (Presumed Potable Water) -190704SPAY0 7SS
-  SMF Wrapped Pipework (Presumed Non Potable Water)

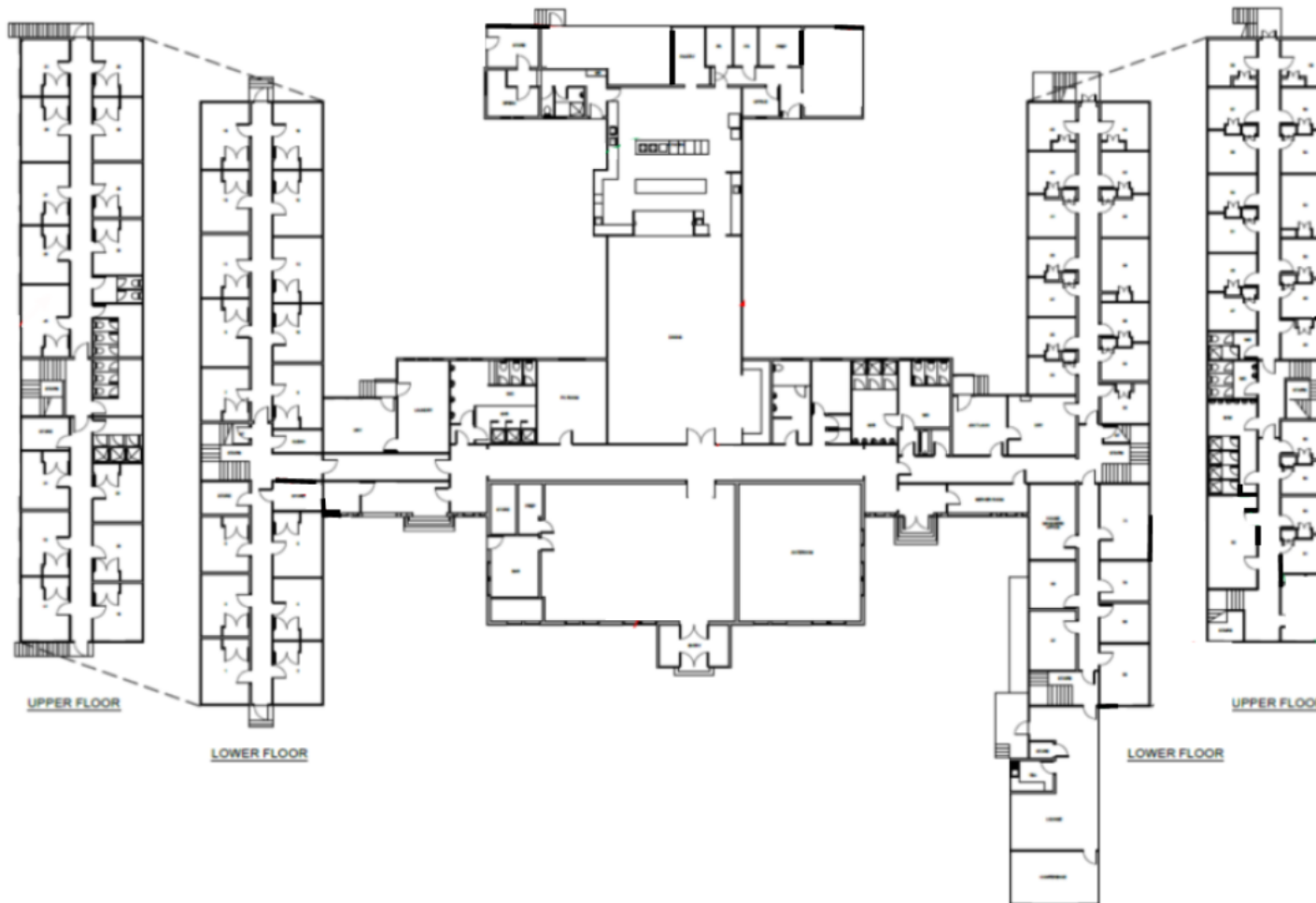


■ sbestos ected




■ asbestos detected

Subfloor - Areas Not Accessed




Subfloor - Areas Not Accessible for Inspection

Central Block Roof Void - Areas Not Accessed

 Area Not Accessible for Inspection

Roof Void (West and East Wings) - Areas Not Accessed

 Area Not Accessible for Inspection (assumed)

APPENDIX D

**R J HILL LABORATORIES
SAMPLE ANALYSIS REPORT**



Hill Laboratories
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R J Hill Laboratories Limited
Level 1, 72 Grafton Road
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Auckland 1010 New Zealand

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T +64 7 858 2000
E mail@hill-labs.co.nz
W www.hill-laboratories.com

Certificate of Analysis

Page 1 of 2

Client: Maynard Marks Limited	Lab No: 2203723	A2Pv1
Contact: Simon Paykel	Date Received: 04-Jul-2019	
C/- Maynard Marks Limited	Date Reported: 05-Jul-2019	
PO Box 1299	Quote No: 83152	
Shortland Street	Order No: PO 01287	
Auckland 1140	Client Reference: N2DF - A 2460 - NK278	
	Add. Client Ref: Sampled: 04/07/19	
	Submitted By: Jack Adlam	

Sample Type: Building Material

Sample Name	Lab Number	Sample Category	Sample Weight on receipt (g)	Asbestos Presence / Absence
190704 Spay 001 - Kitchen-ceiling void lagging debris 1	2203723.1	Lagging / Insulation	3.62	Chrysotile (White Asbestos) detected. Organic fibres detected.
190704 Spay 002 - Kitchen-ceiling void lagging debris 2	2203723.2	Lagging / Insulation	5.48	Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected. Organic fibres detected.
190704 Spay 003 - Subfloor (central block) lagging debris	2203723.3	Lagging / Insulation	41.86	Chrysotile (White Asbestos) detected. Organic fibres detected.
190704 Spay 004 - Electrical room insulation board (AIB)	2203723.4	Fibre Board	13.01	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.
190704 Spay 005 - Boiler room - swab debris under pipework	2203723.5	Other	4.47	Chrysotile (White Asbestos) detected. Organic fibres detected. #1
190704 Spay 006 - Boiler room - swab of cable tray	2203723.6	Other	0.40	Chrysotile (White Asbestos) detected. Organic fibres detected. Synthetic mineral fibres detected. #2
190704 Spay 007 - Boiler room - subfloor lagging - pipework	2203723.7	Lagging / Insulation	8.86	Chrysotile (White Asbestos) detected. Organic fibres detected.
190704 Spay 008 - Boiler room subfloor gasket sheet material	2203723.8	Gasket	1.24	Chrysotile (White Asbestos) detected.

Analyst's Comments

#1 Multiple fragments of ACM and loose fibre bundles found.

#2 Multiple loose fibre bundles found.

Appendix No.1 - Chain of Custody

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material

Test	Method Description	Default Detection Limit	Sample No
Asbestos in Bulk Material			
Sample Category	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland.	-	1-8
Sample Weight on receipt	Sample weight. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland.	0.01 g	1-8



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Sample Type: Building Material			
Test	Method Description	Default Detection Limit	Sample No
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1-8

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.



Keith Benson HNC Chem
Laboratory Technician - Asbestos



Hill Laboratories
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E mail@hill-labs.co.nz
W www.hill-laboratories.com

Certificate of Analysis

Page 1 of 2

Client:	Maynard Marks Limited	Lab No:	2207853	A2Pv1
Contact:	Simon Paykel C/- Maynard Marks Limited PO Box 1299 Shortland Street Auckland 1140	Date Received:	12-Jul-2019	
		Date Reported:	12-Jul-2019	
		Quote No:	83152	
		Order No:	PO006219	
		Client Reference:	NZDF Nationwide - NZDF-A-2460	
		Add. Client Ref:	Sampled: 11/07/19	
		Submitted By:	Robert McAllister	

Sample Type: Building Material

Sample Name	Lab Number	Sample Category	Sample Weight on receipt (g)	Asbestos Presence / Absence
190711JADL001 SS	2207853.1	Other	4.56	Asbestos NOT detected. Organic f bres detected.
190711JADL002 SS	2207853.2	Other	5.17	Asbestos NOT detected. Organic f bres detected. Synthetic mineral f bres detected.
190711JADL003 SS	2207853.3	Other	5.34	Chrysotile (White Asbestos) detected. Organic f bres detected. Synthetic mineral fibres detected. #1
190711JADL004 SS	2207853.4	Other	2.88	Asbestos NOT detected. Organic f bres detected.
190711JADL005 SS	2207853.5	Other	4.67	Asbestos NOT detected. Organic f bres detected. Synthetic mineral f bres detected.
190711JADL006 SS	2207853.6	Other	4.79	Asbestos NOT detected. Organic f bres detected.
190711JADL007 SS	2207853.7	Other	5.54	Chrysotile (White Asbestos) detected. Organic fibres detected. #2
190711JADL008 SS	2207853.8	Other	5.80	Chrysotile (White Asbestos) detected. Organic fibres detected. #3
190711JADL009 SS	2207853.9	Other	5.17	Asbestos NOT detected. Organic f bres detected. Synthetic mineral f bres detected.
190711JADL010 SS	2207853.10	Other	6.20	Asbestos NOT detected. Organic f bres detected.
190711JADL011 SS	2207853.11	Other	5.51	Asbestos NOT detected. Organic f bres detected.
190711JADL012 SS	2207853.12	Other	5.57	Asbestos NOT detected. Organic f bres detected. Synthetic mineral f bres detected.
190711JADL013 SS	2207853.13	Other	5.56	Asbestos NOT detected. Organic f bres detected.
190711JADL014 SS	2207853.14	Other	5.63	Asbestos NOT detected. Organic f bres detected.
190711JADL015 SS	2207853.15	Other	5.17	Asbestos NOT detected. Organic f bres detected.

Analyst's Comments

#1 A single loose fibre bundle found.

#2 Multiple loose fibre bundles found.

#3 A few fragments of ACM and loose fibre bundles found.

Appendix No.1 - Chain of Custody



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Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Bulk Material			
Sample Category	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland.	-	1-15
Sample Weight on receipt	Sample weight. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland.	0.01 g	1-15
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1-15

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

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Keith Benson HNC Chem
Laboratory Technician - Asbestos



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R J Hill Laboratories Limited
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E mail@hill-labs.co.nz
W www.hill-laboratories.com

Certificate of Analysis

Page 1 of 2

Client: Maynard Marks Limited	Lab No: 2208575	A2Pv1
Contact: Simon Paykel	Date Received: 15-Jul-2019	
C/- Maynard Marks Limited	Date Reported: 16-Jul-2019	
PO Box 1299	Quote No: 79116	
Shortland Street	Order No: PO006232	
Auckland 1140	Client Reference: NZDF - Nationwide NNK 278 (NZDF-A-2460)	
	Add. Client Ref: Sampled: 15/07/19	
	Submitted By: Jack Adlam	

Sample Type: Building Material

Sample Name	Lab Number	Sample Category	Sample Weight on receipt (g)	Asbestos Presence / Absence
190712JADL001 SS - Vinyl - East wing corridor	2208575.1	Linoleum / Vinyl floor tile	4.31	Asbestos NOT detected.
190712JADL002 SS - Pantry walls/ceiling - Fibre cement	2208575.2	F bre Cement	1.99	Asbestos NOT detected. Organic f bres detected.
190712JADL003 SS - Prep room - Walls (F bre cement)	2208575.3	F bre Cement	9.30	Asbestos NOT detected. Organic f bres detected.
190712JADL004 SS - West wing - Subfloor - Fibre cement debris	2208575.4	F bre Cement	25.46	Amosite (Brown Asbestos), Chrysotile (White Asbestos) and Crocidolite (Blue Asbestos) detected.
190712JADL005 SS - West wing 1st floor below ceiling hatches - Composite swab	2208575.5	Other	6.64	Asbestos NOT detected. Organic f bres detected.
190712JADL006 SS - East wing 1st floor below ceiling hatches	2208575.6	Other	6.58	Asbestos NOT detected. Organic f bres detected.
190712JADL007 SS - Bar kitchenette FC infill - Floor	2208575.7	F bre Cement	2.22	Asbestos NOT detected. Organic f bres detected.
190712JADL008 SS - East wing GF laundry wall infill	2208575.8	F bre Cement	5.77	Amosite (Brown Asbestos) and Chrysotile (White Asbestos) detected.

Analyst's Comments

Appendix No.1 - Chain of Custody

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Building Material			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Bulk Material			
Sample Category	Assessment of sample type. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland.	-	1-8
Sample Weight on receipt	Sample weight. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland.	0.01 g	1-8
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 72 Grafton Road, Auckland. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	-	1-8



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APPENDIX E

MATERIAL ASSESSMENT ALGORITHM

Material Assessment Algorithm

Material Assessment Algorithms are typically completed for Asbestos Management Surveys; however, we have also included scores within this report for the purposes of highlighting the risks only associated with the materials confirmed to contain asbestos.

In the material assessment process, the main factors influencing fibre release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fibre released from an ACM when subject to disturbance are:

Sample Variable	Examples of scores	Score	
Product type.	Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc)	1	
	Asbestos insulating board, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt	2	
	Thermal insulation (eg pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing	3	
Extent of damage or deterioration.	Good condition: no visible damage	0	
	Low damage: a few scratches or surface marks; broken edges on boards, tiles etc	1	
	Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres	2	
	High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris	3	
Surface Treatment	Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles	0	
	Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc	1	
	Unsealed asbestos insulating board, or encapsulated lagging and sprays	2	
	Unsealed laggings and sprays	3	
Asbestos Type	Chrysotile	1	
	Amphibole asbestos excluding crocidolite	2	

	Crocidolite	3	
Total Material Score (maximum score of 12)			

Each parameter scored between 1 and 3. A score of 1 is equivalent to a low potential for fibre release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fibre release).

The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACMs are scored as crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise. Examples of scoring for each parameter are given below.

Table 1: Materials with Assessment Scores

Scores of 4 or less - very low potential to release fibres	<4	Very Low
Scores of 5 and 6 - low potential to release fibres	5-6	Low
Scores of between 7 and 9 - medium potential to release fibres	7-9	Medium
Scores of 10 or more - high potential to release fibres	10+	High
Non-asbestos materials are not scored	0	Not Recorded