

### Purpose

This Position Statement initiates development of a consistent risk-based approach to managing the disposal of soils containing low concentrations of asbestos<sup>1</sup>. Development will be via industry-wide consultation and the agreed approach incorporated into the <u>Waste industry guidelines to manage the collection, receipt,</u> transport and disposal of asbestos waste (2019).

Disposal of soil containing low concentrations of asbestos is principally an occupational health and safety matter. Environmental and health and safety regulations and guidance on the management of contaminated soil, and transport and disposal of contaminated soil to landfill are not integrated. This has created national inconsistency in approaches to the transportation and landfilling of asbestos contaminated soils. A summary of the regulatory regime and definitions is provided at the end of this document.

As a stakeholder/interested party involved in the management of asbestos contaminated soil, your views and opinions on this issue are invaluable to assist in framing and developing appropriate and practical guidance on the stewardship, management and disposal of soil containing low concentrations of asbestos.

## **Current problems**

#### Lack of clarity around the process

The bulk of New Zealand contaminated land guidance<sup>2</sup>, provides limited advice on managing asbestos in soil contamination. Assessment and management of asbestos in soil is therefore reliant on the <u>New Zealand</u> <u>Guidelines for Assessing and Managing Asbestos in Soil</u> released by BRANZ in 2017 (BRANZ guidelines). The investigation methodology in the BRANZ guidelines (if followed correctly) delivers robust assessment of asbestos in soil contamination and appropriate characterisation for waste disposal.

There is a lack of clarity on what information should be included on the waste manifest documentation to allow waste operators to manage and dispose of asbestos contaminated soil in a safe manner.

A potential area of concern exists with development projects excavating and disposing of soil not subject to contaminated land investigation work (such as sites not captured by the NES-CS), particularly on aged residential/commercial properties that could have building curtilage soil potentially impacted with asbestos. In these situations, while the risk from asbestos impacted soil may be limited, inconsistency in information provided to contractors transporting soil, along with waste operators receiving soil for disposal, creates uncertainty regarding waste stewardship and management of health and safety issues.

There is also a lack of clarity and inconsistency in the level of training required by contractors working with low levels of asbestos contaminated soils (e.g. earthworks contractors must be able to recognise and manage situations where unexpected discoveries of asbestos are encountered).

Suggested improvements to the process of stewarding known/documented asbestos contaminated soil and soil potentially contaminated with asbestos on sites not subject to a formal contaminated land investigation work into fill sites are presented in the simple flow chart given in Table 1.

<sup>&</sup>lt;sup>1</sup> asbestos fines (AF), asbestos fibres (FA) and asbestos containing materials (ACM)

<sup>&</sup>lt;sup>2</sup> The Ministry for the Environment's Contaminated Land Management Guidelines (CLMGs) and process and guidance supporting the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES-CS), including the Hazardous Activities and Industries List (HAIL)



#### Lack of clarity around controls required

In many cases, disposal of soil containing low concentrations of asbestos to a landfill is occurring not because the asbestos poses a risk to human health if it remains on site. Rather, disposal is dictated by project cut/fill requirements or the soils are geotechnically unsuitable. Therefore, the soil may not necessarily be contaminated with regards to the Resource Management Act (RMA) 1991 definition. In other cases, the driver for disposal may also be due to the presence of other contaminants, such as lead or arsenic.

The RMA and Health and Safety at Work Act 2015 (HSW Act) were developed independently for different purposes, the former to manage the effects of land use and the latter to manage health and safety risks to workers/others. The BRANZ guidelines aim to bridge the two regulatory regimes and was referenced as a means of compliance in the Approved Code of Practice: Management and Removal of Asbestos (WorkSafe, December 2016).

The BRANZ guidelines make a clear distinction between asbestos in soil concentrations that do and do not have significant potential to generate fibres in air above trace levels (i.e. Class A/B Licensed removal work do have the potential and Asbestos-Related and Unlicensed Works do not). However, the BRANZ guidelines do not provide guidance on the transport and disposal of asbestos contaminated soil and they do not address risks from movement or mobilisation of soil materials during tipping operations at receiving landfills

The lack of information and understanding around the threshold at which asbestos contaminated soil poses negligible risk when being transported and landfilled appears to be creating a situation where:

- There are incomplete processes for stewarding the management of the removal and transport of asbestos contaminated soils.
- Some landfill operators are seeking better quality information to accompany loads and technical reports to assess the human health risk to landfill/transfer station site workers.
- Landfill/transfer station operators are accepting soils containing low concentrations of asbestos, and applying controls on the basis that the asbestos contamination is likely to present a risk to workers.
- A precautionary approach to managing asbestos contaminated soils at landfills is being adopted.

The above situation may also be exacerbated by the excavation of asbestos contaminated soil on development sites that have not been subject to contaminated land practitioner investigation/oversight. This introduces uncertainty that excavated material has been investigated correctly.

#### **Trigger concentration for controls**

The BRANZ guidelines present human health risk Soil Guideline Values for a range of land use scenarios and concentrations of different sizes of asbestos contamination in soil (AF, FA and ACM). The BRANZ guidelines also outline how a site-specific human health risk assessment could be performed, that considers use of soil characteristics (in particular soil moisture) and asbestos type. However, the BRANZ guidelines do not address transportation and disposal of asbestos contaminated soil, so there is a gap in guidance for practitioners on these issues.

The BRANZ guidelines (Figure 1 decision flow chart for work involving asbestos in soil) note asbestos soil concentrations of <0.001% weight/weight (w/w) FA/AF and <0.01% weight/weight ACM should not generate



concentrations of asbestos fibres in air above trace level and excavation of soils at these concentrations should be undertaken as either asbestos-related work or unlicensed asbestos work (based on soil concentration). This approach is consistent with the ACoP.

Procedures and processes are required to manage human health and environmental risks during asbestos contaminated soil remedial projects. Guidance and regulations also require remedial work to be overseen by a suitably qualified and experienced practitioner (SQEP) and/or competent person.

## What is the position?

Misalignment of regulatory and guidance documents is causing uncertainty and inconsistency in approach to the transportation and landfilling of asbestos contaminated soil and the Asbestos Disposal Working Group is soliciting feedback on the following critical issues:

- If soil contains asbestos at low concentrations (i.e. has been shown to meet the BRANZ guidelines residential criteria of <0.001% w/w), it should not require specific controls for transport and disposal.
- Soils containing asbestos at low concentrations (i.e. not exceeding BRANZ residential criteria, as noted above) should not come within the definition of "asbestos waste" and not be subject to the controls identified in the ACoP for asbestos waste.
- Comprehensive waste manifest documentation must accompany any asbestos contaminated soil being disposed to fill sites.
- All contractors/personnel involved (or potentially involved) in the excavation, transportation and disposal of asbestos contaminated soil must have some form of asbestos certified training, with a particular focus on the management of asbestos in soil.
- Soils containing low concentrations of asbestos should not be considered "asbestos-contaminated soil" and therefore should not be subject to the controls required for licensed asbestos removal work.
- The effects of exposure to soils containing low concentrations of asbestos (below the BRANZ guidelines residential criteria) are deemed less than minor and therefore do not pose an unacceptable risk to human health or the environment. On this basis, soil containing low concentrations of asbestos does not meet the definition of "contaminated land" requiring specific control under the RMA.
- A SQEP acting as a "competent person" should have certified experience and/or training relating to the management of asbestos in soil.
- Is additional clarity and advice required on the roles and responsibilities of the various practitioners required by the contaminated land and health and safety/asbestos regulations and guidance?

## What's next?

Responses to clarify and help resolve the issues raised in this Position Statement are welcomed by emailing <u>nic@wasteminz.org.nz</u> by Friday, 3 April 2020.

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#### Questions

- 1. Do you think this paper has identified the most critical issues to effectively identify risk when managing the disposal of low concentrations of asbestos contaminated soil? If not, what else do you think should be considered?
- 2. Do you agree with the process outlined in Table 1? If not, what would you change?
- 3. What are your top three issues relating to effective risk management and disposal of low concentrations of asbestos contaminated soil?
- 4. Are there any specific improvements in investigation, controls, reporting, tracking, audit, training, guidance or legislative management that you think should be considered regarding the transportation and disposal of asbestos contaminated soil?

The WasteMINZ Asbestos Disposal Working Group will collate the feedback and, by the second quarter of 2020, make recommendations to the Asbestos Guidelines Working Group, who are responsible for developing the section addressing the disposal of low concentrations of asbestos in soils in the *Waste industry guidelines to manage the collection, receipt, transport and disposal of asbestos waste.* 

Issues peripheral to the resolution of finalising the outstanding section will be noted and provided to relevant industry bodies (e.g. WasteMINZ Contaminated Land Management Sector Group, ALGA Asbestos Special Interest Group) for further discussion on how these are to be managed.

### **Regulatory framework**

#### Asbestos regulations

The Health and Safety at Work (Asbestos) Regulations 2016 (Asbestos Regulations), made under the Health and Safety at Work Act 2015 (HSW Act), apply to all work involving asbestos or ACM, including workplaces such as commercial landfills and transfer stations. Persons conducting a business or undertaking have duties to not permit workers to be exposed to asbestos, particularly respirable asbestos fibres in air above a workplace exposure standard "trace level". If asbestos is identified at a workplace, including in soil, an asbestos management plan is generally required where FA/AF is more than 0.001% weight for weight because this is likely to give risk of exposure to respirable fibres in air.

If a competent person (who may also be a suitably qualified and experienced practitioner (SQEP)) has determined soil asbestos or ACM, contamination will likely lead to generation of airborne asbestos fibres above trace level, activities with the soil are deemed "asbestos removal work" and the full range of controls are brought to bear. If, however, the competent person or SQEP determines the soil does not contain enough asbestos or ACM to lead to airborne asbestos contamination above trace level, "asbestos-related work" controls apply, which recognise a reduced level of risk of exposure. As written, there is no concentration of asbestos below which no precautions are required to protect human health.

#### ACOP

WorkSafe's Approved Code of Practice: Management and Removal of Asbestos (2016) (the ACoP) sets out WorkSafe's expectations about how to comply with legal duties imposed by the HSW Act and the requirements set out under the asbestos regulations. The document refers to the New Zealand Guidelines for Assessing and Managing Asbestos in Soil (BRANZ 2017) (BRANZ guidelines).



While the ACoP can be used in court as evidence of whether the relevant duties under the HSW Act were complied with, it is important to note that the ACoP might not be the only way of complying with the HSW Act and the asbestos regulations. Other practices or methods could be used to achieve compliance if they provide a level of work health and safety equivalent to, or higher than, the standard in the ACoP.

#### **BRANZ Guidelines**

The New Zealand Guidelines for Assessing and Managing Asbestos in Soils was developed by BRANZ, in association with ALGA, in 2017. The purpose of the guidelines is to provide a methodology to ensure that management of asbestos in soil meets regulatory requirements and an acceptable level of managed risk. They follow an approach that is tailored to the remediation outcomes required for changes in land use and subdivision of asbestos-contaminated land under the Resource Management Act, but many aspects will be applicable in other cases of asbestos-contaminated land, such as continuing use as workplaces, schools or recreational land. The guidelines set conservative threshold values for determining asbestos contamination, and users should bear this in mind when applying them.

#### RMA

Contaminated land is defined under the Resource Management Act 1991 (RMA) as *"land that has a hazardous substance in or on it that– (a) has significant adverse effects on the environment; or (b) "is reasonably likely to have significant adverse effects on the environment"*, where "environment" includes people and communities, and "effect" includes any adverse effects.

Asbestos can have significant adverse effects on human health above certain concentrations in or on soil. It is functionally a physical contaminant in terms of the environment and may be dealt with as a discharge where the soil fails to meet the definitions for clean fill or other types of fill which may have impacts on the fate of the soil for re-use and disposal. However, below a certain concentration in soil, where the effects may be deemed less than minor, or unable to be quantified, or the risk from effects are considered acceptable to society, the soil may not be considered to meet the definition of contaminated land requiring control under the RMA. Therefore, it is important to clarify at what concentrations of asbestos in soil any controls are to be triggered.

#### NESCS

The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NESCS), sits under the RMA.

The NESCS provides a national framework for planning controls and soil contaminant standards for managing public health risks (not those to workers' safety) around development, including soil disturbance subdivision, and land use. It ensures that land potentially affected by contaminants in soil is appropriately identified and assessed before it is disturbed and/or developed. Territorial Authorities are required to give effect to and enforce the NESCS.

The soil guideline values in the BRANZ guidelines provide Tier 1 soil contaminant standards for asbestos in soil under various land use scenarios.



## Definitions

**Asbestos contaminated soil:** Soil that is contaminated with asbestos or ACM (Approved Code of Practice: Management and Removal of Asbestos, 2016).

**Asbestos-related work** means work involving asbestos (other than asbestos removal work to which Part 3 applies) that is permitted under the exceptions set out in regulation 7(2), (3), and (4) of the Health and Safety at Work (Asbestos) Regulations 2016.

Asbestos removal work includes work involving the removal of asbestos-contaminated soil.

**Asbestos waste**: Asbestos or asbestos-contaminated soil or asbestos-containing material removed, and disposable items used during asbestos removal work, including plastic sheeting and disposable tools (Health and Safety at Work (Asbestos) Regulations 2016).

**Clean fill:** A Class 5 landfill. Accepts only clean fill material, including clean excavated natural materials (VENM) such as clay, soil and rock that are free of:

- combustible, putrescible, degradable or leachable components;
- hazardous substances or materials (such as municipal solid waste) likely to create leachate by means of biological breakdown;
- products or materials derived from hazardous waste treatment, stabilisation or disposal practices;
- materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health if excavated;
- contaminated soil and other contaminated materials; and
- liquid waste.

When discharged to the environment, clean fill material will not have a detectable effect relative to the background (Technical Guidelines for Disposal to Land 2018).

**Competent person**: A person who has the knowledge, experience, skills, and qualifications to carry out a particular task under these regulations, including any knowledge, experience, skills, and qualifications prescribed in a safe work instrument (Health and Safety at Work (Asbestos) Regulations 2016).

**Contaminated land** is defined under the Resource Management Act 1991 (RMA) as land that has a hazardous substance in or on it that –

- (a) has significant adverse effects on the environment; or
- (b) is reasonably likely to have significant adverse effects on the environment

Note: Environment broadly includes human health.

DSI: Detailed Site Investigation means an investigation that-

- (a) is done by a suitably qualified and experienced practitioner; and
- (b) is done in accordance with the current edition of *Contaminated Land Management Guidelines No. 5– Site Investigation and Analysis of Soils*, Wellington, Ministry for the Environment; and
- (c) is reported on in accordance with the current edition of *Contaminated Land Management Guidelines No. 1–Reporting on Contaminated Sites in New Zealand*, Wellington, Ministry for the Environment; and

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 (d) results in a report that is certified by the practitioner (Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011).

**Friable**: Means, in relation to asbestos or ACM, in a powder form or able to be crumbled, pulverised, or reduced to a powder by hand pressure when dry (Approved Code of Practice: Management and Removal of Asbestos 2016). A Class A asbestos removal licence is required to remove friable asbestos.

**HAIL:** Means the current edition of the *Hazardous Activities and Industries List*, Wellington, Ministry for the Environment (Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011).

**Landfill:** A waste disposal site used for the controlled deposit of solid waste onto or into land (Technical Guidelines for Disposal to Land 2016). For the purposes of this document the term landfill is used to refer to an appropriately consented disposal facility for the acceptance of asbestos.

**Managed Fill:** A Class 3 landfill that accepts predominantly clean fill material and controlled fill material that may also contain material with contaminant concentrations in excess of controlled fill limits where site specific management controls are in place to manage discharges to the environment. (Technical Guidelines for Disposal to Land 2018). For the purposes of this document the term managed fill is used to refer to an appropriately consented disposal facility for the acceptance of asbestos.

PSI: Preliminary site investigation means an investigation that-

- (a) is done by a suitably qualified and experienced practitioner; and
- (b) is reported on in accordance with the current edition of *Contaminated Land Management Guidelines No. 1–Reporting on Contaminated Sites in New Zealand*, Wellington, Ministry for the Environment; and
- (c) results in a report that is certified by the practitioner (Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011).

**Suitably qualified and experienced practitioner (SQEP)**: As defined in Section 2.1.1 in the Ministry for the Environment's <u>Users' Guide</u>: <u>National Environmental Standard for Assessing and Managing Contaminants</u> in Soil to Protect Human Health 2012.



## **Further information**

For more information see:

- BRANZ. New Zealand Guidelines for Assessing and Managing Asbestos in Soil. Retrieved from: <u>https://www.branz.co.nz/asbestos</u>
- Parliamentary Counsel Office. Health and Safety at Work (Asbestos) Regulations 2016. Retrieved from: http://www.legislation.govt.nz/regulation/public/2016/0015/latest/DLM6729706.html
- Ministry for the Environment. About the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. Retrieved from: www.mfe.govt.nz/land/nes-assessing-and-managing-contaminants-soil-protect-humanhealth/about-nes
- WorkSafe New Zealand. Approved Code of Practice: Management and removal of asbestos 2016. Retrieved from: <u>https://worksafe.govt.nz/topic-and-industry/asbestos/management-and-removal-of-asbestos/</u>

#### Other legislation potentially relevant to asbestos (but not so relevant to this specific disposal issue?)

Territorial Authorities have a statutory function in protecting the safety and health of people from exposure to contaminants and hazardous agents or contaminants under the Health Act 1956 and the Building Act 2004.

Regional Councils and Unitary Authorities have the following functions relevant to contaminated land under the RMA:

- the investigation of land for the purposes of identifying and monitoring contaminated land (s30);
- the control of discharges of contaminants into or onto land, air, or water and discharges of water into water (s30);
- preventing or mitigating any adverse effects of the storage, use, transport and disposal of hazardous substances (s30); and
- a duty to gather information, monitor, and keep records for the purposes of carrying out effectively, each of their respective functions under the Act (s35).

Territorial Authorities (TAs) also have functions relevant to contaminated land under the RMA:

- preventing or mitigating any adverse effects of the development, subdivision, or use of contaminated land (s31);
- preventing or mitigating any adverse effects of the storage, use, transport and disposal of hazardous substances (s31); and
- a duty to gather information, monitor, and keep records for the purposes of carrying out effectively, each of their respective functions under the Act (s35).



## Table 1 - Proposed Asbestos Contaminated Soil Transportation and Disposal Methodology

| PROCESS TO BE FOLLOWED DURING A STANDARD CONTAMINATED LAND INVESTIGATION – HAIL SITE |  |   |  |                |   |                |   |   |   |   |
|--|--|---|--|----------------|---|----------------|---|---|---|---|
| Contaminated Land  |  | Remediation   |  | Transportation |   | Soil Disposal  |   | Comments  |   |   |
| Investigation  |  |   |  |                |   |                |   |   |   |   |
|  |  |   |  |                |   |                |   | General Flov  |   |   |
| 1.   | Investigation approach<br>follows BRANZ<br>guidelines and MfE<br>CLMGs.<br>PSI and DSI undertaken. | <ol> <li>Re preasl</li> <li>soi</li> <li>BR</li> <li>1 a</li> <li>for</li> <li>dis</li> <li>2. As</li> <li>Co</li> <li>ne</li> <li>3. Preasl</li> <li>for</li> <li>reconstruction</li> <li>4. He</li> <li>co</li> <li>gu</li> </ol> | emedial Action Plan<br>epared – a) use<br>bestos contaminated<br>il categories given in<br>RANZ guidelines Figure<br>and b) have controls<br>r accidental asbestos<br>scovery.<br>bestos Removal<br>ontrol Plan prepared, if<br>eeded.<br>epare documentation<br>r transporter and<br>ceiving fill site on the<br>oture of the asbestos<br>intamination.<br>ealth and safety<br>introls as per BRANZ<br>idelines and ACoP. | 1.<br>2.<br>3. | Class A and B<br>classification asbestos<br>contaminated soil<br>wrapped and placed in<br>truck/skip. Unlicensed<br>Asbestos Work and<br>Asbestos Related Work<br>excavated asbestos<br>contaminated soil<br>placed in truck, not<br>wrapped and trucks<br>covered.<br>Accidental discovery<br>material wrapped, if<br>need be.<br>Trucks and plant will<br>need decontamination. | 1.<br>2.<br>3. | Class A and<br>contaminate<br>disposed of<br>waste at the<br>Asbestos Re<br>asbestos con<br>soil disposed<br>and covered<br>immediately<br>Unlicensed A<br>Related wor<br>contaminate<br>disposed to<br>or landfill ar<br>immediately | B asbestos<br>ed soil<br>as asbestos<br>e landfill.<br>elated Work<br>ntaminated<br>d to landfill<br>d<br>y.<br>Asbestos<br>rk<br>ed soil<br>managed fill<br>nd covered<br>y. | Waste ma<br>document<br>nature and<br>asbestos of<br>being delif<br>Manifest f<br>characteri<br>and Asbestos<br>signed off<br>Asbestos of<br>SQEP. Ma<br>characteri<br>Asbestos of<br>a Licenseo<br>Assessor,<br>competen | nifest<br>ation to detail<br>d classification of<br>contaminated soil<br>vered to fill site.<br>For soils<br>sed as Class A, B<br>tos Related Work<br>by a Licensed<br>Assessor and/or<br>nifest for soils<br>sed as Unlicensed<br>Work signed off by<br>I Asbestos<br>SQEP and/or<br>t person. |



| PROCESS TO BE FOLLOWED DURING RESIDENTIAL HOUSE/COMMERCIAL DEVELOPMENT – NO PSI/DSI – NON-HAIL SITE |  |             |                                    |                |                          |               |                |              |             |                     |
|---|--|-------------|------------------------------------|----------------|--------------------------|---------------|----------------|--------------|-------------|---------------------|
| Contaminated Land   |  | Remediation |                                    | Transportation |                          | Soil Disposal |                | Comments     |             |                     |
| Investigation   |  |             |                                    |                | -                        |               | -              |              |             |                     |
|   |  | •           |                                    |                |                          |               |                | General Flo  | w of Work   |                     |
|   |  |             |                                    |                |                          |               |                |              |             |                     |
| Su  | rface Scrape following Buil              | ding        | Demolition and Curtilage           | Exca           | vation                   |               |                |              |             |                     |
| 1.  | Asbestos demolition                      | 1.          | Earthworks undertaken              | 1.             | Excavated soil placed in | 1.            | Excavated so   | oil disposed | Waste ma    | nifest              |
|   | survey and demolition                    |             | by a contractor who has            |                | trucks, not wrapped and  |               | to landfill an | d covered    | document    | ation to detail     |
|   | clearance.                               |             | received asbestos                  |                | trucks covered.          |               | immediately    |              | nature and  | d classification of |
| 2.  | Visual clearance                         |             | awareness training –               | 2.             | Accidental ACM           |               |                |              | asbestos o  | contaminated soil   |
|   | certificate for                          |             | specific to asbestos               |                | discovery material       |               |                |              | being deliv | vered to fill site. |
|   | demolition issued.                       |             | contaminated soil.                 |                | wrapped, if need be,     |               |                |              |             |                     |
| 3.  | Surface scrape over                      | 2.          | Accidental discovery               |                | and placed in a lined    |               |                |              | Manifest s  | signed off by       |
|   | demolished area and                      |             | protocol for asbestos              |                | skip/bin.                |               |                |              | Licensed A  | sbestos Assessor,   |
|   | building curtilage                       |             | discovered during                  | 3.             | Trucks and plant will    |               |                |              | SQEP and    | or competent        |
|   | excavation (0.2 m deep)                  |             | earthworks – use 10 m <sup>2</sup> |                | need decontamination.    |               |                |              | person.     |                     |
|   | <ul> <li>all soil disposed to</li> </ul> |             | ACM requirement to                 |                |                          |               |                |              |             |                     |
|   | landfill.                                |             | control whether                    |                |                          |               |                |              |             |                     |
| 4.  | Visual clearance to                      |             | asbestos related work or           |                |                          |               |                |              |             |                     |
|   | include a rake with an                   |             | unlicensed asbestos                |                |                          |               |                |              |             |                     |
|   | excavator bucket/teeth                   |             | work.                              |                |                          |               |                |              |             |                     |
|   | along the outline of                     | 3.          | Health and safety                  |                |                          |               |                |              |             |                     |
|   | buildings.                               |             | controls as per BRANZ              |                |                          |               |                |              |             |                     |
| 5.  | Visual clearance report                  |             | guidelines and ACoP –              |                |                          |               |                |              |             |                     |
|   | for surface scrape                       |             | as asbestos related                |                |                          |               |                |              |             |                     |
|   | issued.                                  |             | work.                              |                |                          |               |                |              |             |                     |

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| PROCESS TO BE FOLLOWED DURING RESIDENTIAL HOUSE/COMMERCIAL DEVELOPMENT – NO PSI/DSI – NON-HAIL SITE |  |  |  |   |  |  |  |  |  |  |
|---|--|--|--|---|--|--|--|--|--|--|
| Additional Earthworks Post Demolition Scrape  |  |  |  |   |  |  |  |  |  |  |
| Contaminated Land Remediation   |  | Transportation   | Soil Disposal  | Comments  |  |  |  |  |  |  |
| Investigation   |  |  |  |   |  |  |  |  |  |  |
| No investigation  | <ol> <li>Earthworks overseen by<br/>a contractor who has<br/>received asbestos<br/>awareness training –<br/>specific to asbestos<br/>contaminated soil.</li> <li>Soil excavated as clean<br/>fill.</li> <li>Accidental discovery<br/>protocol for burn<br/>pits/buried waste and<br/>asbestos discovered<br/>during earthworks - use<br/>10 m<sup>2</sup> ACM requirement<br/>to control whether<br/>asbestos related work or<br/>unlicensed asbestos<br/>work.</li> </ol> | <ol> <li>Excavated soil placed in<br/>trucks, not wrapped and<br/>trucks covered.</li> <li>Accidental ACM<br/>discovery including soil,<br/>wrapped, if need be,<br/>and placed skip/bin.</li> <li>Accidental<br/>contaminated soil<br/>discovery separated<br/>from other excavated<br/>soils.</li> </ol> | <ol> <li>Accidental discovery<br/>ACM and associated soil<br/>disposed to landfill.</li> <li>Accidental discovery<br/>contaminated soil<br/>disposed to managed<br/>fill/landfill depending on<br/>contamination<br/>concentrations/nature<br/>of impact.</li> </ol> | Manifest document to detail<br>nature of soil excavated and<br>details of any accidental<br>discoveries.<br>Manifest to be signed off by<br>Licensed Asbestos Assessor,<br>SQEP, competent person<br>and/or site manager. |  |  |  |  |  |  |