Construction Contaminant Management Plan

No.1 Demolition and Excavation (NSW) Pty Ltd
Via Moody & Doyle Pty Ltd

191 Miller Rd
Chester Hill NSW

January 2009
JBS 40734-12857
JBS Environmental Pty Ltd

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1 Introduction

1.1 Introduction and Background

JBS Environmental was engaged by No.1 Demolition and Excavation (NSW) Pty Ltd via Moody & Doyle Pty Ltd to prepare this Construction Contaminant Management Plan (CCMP) for the proposed development of a Materials Recycling Facility at 191 Miller Road Chester Hill, NSW (the site).

On 27 February 2007, the Minister for Planning granted approval for CMA Corporation to construct and operate a Materials Recycling Facility at the site, for the processing of ferrous and non-ferrous metals only. No.1 Demolition and Excavation (NSW) proposes to occupy and operate the site as a Materials Recycling Facility for the recycling of building construction waste including metal. As such, an application is required to be submitted to modify the terms and conditions of the Minister's approval granted for the CMA Corporation's proposed use of the land.

It is understood that this CCMP is required to accompany the application to modify the Development Consent to broaden the nature of materials to be recycled on the site. This CCMP has been developed to manage the occupational health, safety and environmental issues during the construction phase. A detailed description of the proposal is provided in documentation included in **Appendix A**.

The main components of the development at the site are as follows:

- Removal of existing concrete and soil stockpiles form the centre of the site. Any unsealed surfaces will be sealed with concrete to form a continuous hard stand area;
- Upgrade of existing stormwater management infrastructure which would include pipe upgrades, construction of a first flush detention and installation of water quality treatment devices;
- Installation of noise barriers consisting of concrete and/or concrete plus steel panelling. Rubber material or a suitable alternative will be used to cover the first 3m of the wall;
- Installation of a new electrical substation;
- Use of the existing 2 storey substation as an administration headquarters and storage; and
- Use of an existing sealed car park for the parking of vehicles.

The operations to be conducted at the facility include:

- The receipt and collection of building demolition materials comprising concrete, timber, bricks, tiles, rubber, metal etc which are transported to the site by way of trucks from building demolition sites;

- Sorting and stockpiling of waste for various recycling streams, eg. timber and steel, concrete and bricks;
    - Crushing of concrete and brick materials through a crushing plant located at the site, into an end product which comprises aggregate ranging from 30mm to 40mm in size and DGB road base which is used under roads and under pavers for pathways;
    - Sorting of timber and steel from the light waste. The steel goes to separate steel recyclers for future re-use and the timber is mulched onsite and can be used in mulch for gardens;
- Screening of topsoil collected within the building waste material to filter any materials left over from the recycling process. This is then produced into top grade soil; and
- Removal to landfill via haulage vehicles of any material that is not recyclable.

1.2 Objectives

The objectives of this CCMP are as follows:

- To detail the health and safety controls to ensure the safety of the construction workforce and the neighbouring community;
- To detail the environmental management measures to ensure minimal impact to the surrounding environment; and
- To detail the monitoring requirements to measure the performance of the additional safety and environmental controls.

2 Regulatory Requirements

Works on the site are required to be in accordance with several pieces of environmental and occupational health and safety legislation and associated regulations. The primary Acts, Regulations and Guidelines are listed below with a brief summary of their applicability. Please note, however, that this list is not intended to be a comprehensive listing of acts and regulations. The site owner and contractors are required to satisfy themselves that all applicable permits and licences have been obtained and their conditions satisfied.

2.1 Occupational Health and Safety Regulatory Requirements

Occupational Health and Safety Act, 2000

The overarching Act for NSW setting law relating to employee health and safety and employer responsibilities.

Occupational Health and Safety Regulation, 2001

Sets Regulations and details the duties for employers to achieve required employee health and safety performance.

National Code of Practice for the Safe Removal of Asbestos [NOHSC:2002(1988)]

Outlines the basic principles for the safe removal of asbestos-based materials and is aimed at minimising the concentration of airborne asbestos fibres.

Your Guide to Working with Asbestos, WorkCover NSW, 2002

Provides specific directions for the safe handling and removal of asbestos-based materials.

2.2 Environmental Regulatory Requirements

Contaminated Land Management Act 1997 (CLM Act)

The CLM Act controls the assessment of contamination and requirement of remediation of soils and groundwater. The act also contains guidance for the determination of whether a site presents a significant risk of harm and allows for accreditation of Site Auditors.

Waste Avoidance and Resource Recovery Act 2001 (WARR Act)

The WARR Act replaced the Waste Minimisation and Management Act 1995 and controls waste generation and waste reduction.

State Environmental Planning Policy (SEPP) 55 'Remediation of Land'

SEPP 55 relates to the decision making process in undertaking remediation of land and making planning decisions in regard to contaminated and potentially contaminated land.

Bankstown City Council Policy for the Management of Contaminated Land 2005

Sets guidelines for the management of contaminated land and remediation works. Sets guidelines for determining level of statutory approvals required for remediation works.

National Environment Protection (Assessment of Site Contamination) Measure 1999

Sets guidelines for the assessment of land contamination. Includes recommended soil and groundwater assessment criteria for a variety of land uses.

Scheduled Chemical Wastes Chemical Control Order 2004 (SCWCCO)

The SCWCCO controls the manufacturing, processing, keeping and using of Scheduled Chemical Wastes (SCW).

Protection of the Environment Operations Act 1997 (POEO Act)

The POEO Act defines who is required to hold an environment protection licence, and the also defines the different types of waste and other terms used in the Act relating to waste.

3 Statement of Responsibilities

3.1 Appointment of Principal Contractor

Under the provisions of the *Occupational Health and Safety Regulation 2001*, the owner of a construction site where the cost of construction exceeds $250,000 must appoint a Principal Contractor.

3.2 Responsibilities of the Principal Contractor

Responsibilities of the Principal Contractor include, but are not limited to the following. The Principal Contractor must:

- be responsible for the construction work at all times until the work is completed;
- ensure that all persons involved with construction work have undertaken occupational health and safety training;
- keep records of induction training for site workers and any site specific training;
- prepare (as required), maintain and make available to subcontractors, a site specific occupational health and safety management plan;
- ensure that subcontractors provide safe work method statements for the activities for which they are engaged;
- monitor subcontractors to ensure that they are complying with the safe work method statements; and
- maintain an hazardous substances register for all hazardous substances used or present on site.

The Principal Contractor is responsible for co-ordinating health and safety activities for the project. Other responsibilities of the Principal Contractor include:

- Compliance with occupational health and safety and environmental legislation, regulations, standards, codes and the site-specific rules relating to safety contained in this Plan;
- Ensuring that sufficient funds are available to procure the necessary health and safety equipment such as personal protective equipment (PPE);
- Managing accident and emergency procedures; and
- Assisting the Health and Safety Manager in managing workplace injury management and rehabilitation.

The Principal Contractor has the authority to provide for the auditing of compliance with the provisions of this plan, suspension or modification of work practices, and administration of disciplinary actions for individuals whose conduct does not meet the requirements set forth herein.

3.3 Site Foreman

The Site Foreman, or his nominee, is responsible for:

- Communication of the information contained in the CCMP to all people who may work on or visit the site, and monitoring compliance with the Plan and relevant legislation;
- Displaying the site safety and environmental rules at a suitable location on site, as well as ensuring that the communication procedure for contacting the 24 hour OHS&R contact (the Principal Contractor or nominee) is communicated and clearly displayed at the site;
- Conducting the site specific safety induction training and check that sub-contractors have performed work activity training (including refresher training);
- Assessing and monitoring subcontractor's OH&S procedures to ensure they meet OH&S requirements;
- Identifying and assessing the hazards associated with the works and documenting the control measures in the CCMP;
- Keeping OHS&R records and assisting the Principal Contractor in investigating and preparing accident/investigation reports and appropriate records of OHS&R training;
- Issuing stop work orders when he believes site conditions are considered to be unsafe or acutely hazardous for field personnel;
- Managing accident and emergency procedures; and
- Providing first aid as required and managing first aid, accident and emergency procedures.

3.4 Site Environmental Representative

- Conduct the daily environmental monitoring (both sampling/analysis and daily environmental inspections/checklists);
- Assess monitoring/testing data in relation to environmental compliance on site;
- Provide on-site advice in relation to the management of environmental issues associated with the works;
- Conduct environmental incident investigations;
- Attend and participate in environmental/project control meetings;
- Prepare environmental monitoring report at the completion of the project.

3.5 Site Occupational Hygienist

- Conduct daily health and safety monitoring (sampling/analysis/data interpretation and exposure assessments);
- Provide advice in relation to the management of OH&S issues associated with the works.

4 Assessment of Health and Safety Risks

4.1 Regulatory Requirements

It is a requirement of the *Occupational Health and Safety Regulation 2001*, that for all construction work exceeding $250,000 and for any high risk construction work, a safe work method statement must be prepared for all work activities assessed as having safety risks.

Safe Work Method Statements (SWMS) must be prepared by the Principal Contractor or by sub-contractors, covering other aspects of the construction works not related to soil excavations. The SWMS are to be included in the plan prior to those activities commencing.

Safe Work Method Statements must:

- Describe how work is to be carried out;
- Identify the safety risks;
- Describe the control measures that must be applied to the work;
- Describe the equipment used in the work;
- Describe any standards or codes applicable to the work; and
- Training and qualifications required of persons undertaking the work.

4.2 Site Access Control

The Principal Contractor shall ensure that the area in which construction is taking place is designated a construction area, that the construction area is securely fenced and that access is controlled.

The secure construction area will be designated an exclusion zone, within which only personnel required for construction activities or activities associated with the works will be permitted. All construction workers within the exclusion zone will be required to meet the applicable personal protective equipment (PPE) requirements, and must have undertaken Occupational Health and Induction Training as defined in Part 8.2 of the *Occupational Health and Safety Regulation 2001* and described in **Section 6** of this Plan.

Prior to commencement of construction activities, the work area must be secured by temporary fencing. Access to the site should be controlled and permitted by the person in charge of the site only after persons entering the site have been advised of the potential contamination hazards as described in **Section 4.3**. Any authorised person accessing the site should do so in accordance with health and safety requirements as indicated in this CCMP. The implementation of the health and safety requirements should be administered by the principal contractor or designated representative.

4.3 Potential on-site hazards

The following hazards have been identified for the site as follows:

- Organic vapour
- Contaminated soil or groundwater
- Heavy equipment
- Work in or near excavations
- Cuts and abrasions
- Heat stress and UV exposure
- Underground services
- Aboveground electrical hazards
- Manual handling
- Occupational Noise
- Confined space
- Tripping/slipping hazards

4.3.1 Organic Vapours

The inhalation of organic vapours or dust contaminated with organics during operations can pose a potential health hazard. Hazard reduction will involve monitoring the ambient air for organochlorine pesticides (OCPs), VOCs (volatile organic compounds) and asbestos, in addition to the use of PPE. Workers should stand upwind of the source of contamination when possible.

Note: The photoionisation detector (PID) and gas monitor action levels are outlined in **Table 1.** In addition, should air monitoring for OCPs indicate the need to wear a respirator, then this will be advised by the Site Occupational Hygienist.

Table 1 Action Levels for Respirator Use

Instrument	Airborne Levels	Level of Protection
PID	<100 ppm	No additional protection
	> 100 ppm	Half faced respirator (organic cartridge)

Table 2 Potential Chemical Contaminants Present On Site

Media	Substances Involved	Characteristics*	Estimated Concentrations
Soil	TPH/BTEX	IG, TO, VO	Below detection
Soil	Metals	TO	0 – 240 mg/kg
Soil	OCPs/OPPs	TO	0 – 183 mg/kg
Soil	PCBs	TO	Below detection
Soil	PAHs	IG, TO	0 – 0.97 mg/kg
Soil	VOCs	VO, TO, IG	0 – 0.3 mg/kg
Atmosphere	Dust	OT	Unknown

Note: corrosive acid (CA), corrosive caustic (CC), ignitable (IG), other (OT), radioactive (RA), reactive (RE), toxic (TO), unknown (UN), volatile (VO)

4.3.2 Contaminated Soil

All personnel working on site are to avoid contact with contaminated soil and follow strict personal hygiene.

4.3.3 Heavy Equipment

When working within 10m of heavy equipment, personnel will wear hard hats, hearing protection, safety vests and steel capped boots. Observation as to the location of the machinery is necessary, and movement around any heavy machinery will only be done so when the operator has been advised.

4.3.4 Work In or Near Excavations

No person may enter any trench or excavation that is deeper than 1.5m and which is deeper than it is wide at the top, without the permission of the Project Manager. Any entry must be undertaken in accordance with the appropriate confined space entry procedures.

All excavations shall be shored, sloped or otherwise constructed so as to minimise the potential for collapse.

4.3.5 Cuts and Abrasions

The presence of demolition waste and scrap metal in the area gives rise to the risk of cuts and abrasions to personnel working in the area. As well as the direct consequences of any cut or abrasion, such injuries can lead to the possibility of exposure to contaminants through the wound as well as diseases such as tetanus. To minimise the risk of direct or indirect injury, personnel will wear the personal protective equipment described.

4.3.6 Heat Stress and UV Exposure

Site personnel may experience heat stress due to a combination of elevated ambient temperatures and the concurrent use of PPE. This is partially dependant on the type of work conducted and the time of year.

There are four main types of heat stress related problems:

Heat Rash - caused by continuous exposure to heat and humid air and aggravated by chafing clothes. Decreased ability to tolerate heat, as well as being a nuisance

Heat Cramps - caused by profuse perspiration with inadequate fluid intake and chemical replacement. Signs: muscle spasms and pain in the extremities and abdomen.

Heat Exhaustion – is caused by increased stress on various organs as they meet the increasing demand to cool the body. Signs: shallow breathing; pale, cool, moist skin; profuse sweating; dizziness, and lassitude

Heat Stroke - result of overworked cooling system. Heat Stroke is the most severe form of heat stress. Body must be cooled immediately to prevent severe injury and/or death. Signs: red, hot, dry skin; no perspiration, nausea; dizziness and confusion; strong, rapid pulse and coma. Medical help must be obtained immediately.

In addition to the above, overexposure to UV radiation in sunlight can result in sunburn to exposed skin. The use of a high protection sunscreen (SPF15 or greater) on all exposed skin is recommended. Hats (including hard hats in specified areas) will also provide additional sun protection during the peak sun period (ie. 10am to 3pm). Sunglasses should be worn (where appropriate) to protect eyes from effects of UV exposure.

4.3.7 Underground Services

There is the potential for underground services (electricity, natural gas lines, water, telephone, sewer and stormwater) to be present beneath the work area. Appropriate procedures will be taken to minimise the risk associated with excavation near services.

4.3.8 Aboveground Electrical Hazards

No work will be conducted within 3m of overhead power transmission lines. If work is required to be conducted in areas within specified distances of electrical equipment of power transmission lines, an electrician will be called to advise on electrical isolation requirements.

The following clearance distances will be maintained:

Personal Electrical Clearance

Exposed 1500 volt equipment	1.0m
Exposed low voltage equipment	0.5m
Above 650V but not exceeding 11kV	1.2m
Above 11kV but not exceeding 66kV	1.5m
Above 66kV but not exceeding 132kV	2.0m

Electrical Clearance for Cranes and Plant

General (reg 133A) Up to 132kV	3.0m
Electrical Clearance for Scaffolding	4.6m

4.3.9 Manual Handling

If possible, find a mechanical means to move an object. If manual lifting is required, be sure to rock/tip the load to judge the weight before lifting a load, and always:

- Lift with your hands (that is, the load) close to the body;
- Bend knees as much as is comfortable;
- Bend from the hips. Do not bow the back forward; and
- Lift slowly.

4.3.10 Occupational noise

When working within 10m of heavy equipment all personnel will wear adequate hearing protection.

4.3.11 Confined space

A confined space means a space in any vat, tank, pit, pipe, duct, flue, oven, chimney, silo, reaction vessel, container, receptacle, underground sewer, shaft, well, trench, tunnel or similar enclosed or partially enclosed structure if the space:

- is, or is intended to be, or is likely to be, entered by any person; and
- has a limited or restricted means for entry or exit that makes it physically difficult for a person to enter or exit the space; and

- is, or is intended to be, at normal atmospheric pressure while any person is in the space; and
- contains, or is intended to contain, or is likely to contain -
    1. an atmosphere that has a harmful level of any contaminant, where contaminant means any substance which may be harmful to health or safety; or
    2. an atmosphere that does not have a safe oxygen level; or
    3. any stored substance, except liquids, that could cause engulfment.

In relation to excavation on the site any excavation which is greater than 1.5m in depth is regarded as a confined space and will not be entered unless a permit to work for confined space entry has been completed.

4.3.12 Tripping/slipping

All personnel and sub contractors working on site are required to wear oil resistant safety boots in good repair.

4.3.13 Personal Protective Equipment

All workers will wear the following PPE:

- steel capped boots;
- high visibility vest or jacket;
- hard hat; and
- long sleeve shirt, long pants, chemical resistant gloves if in direct contact with soil.

In addition to the above, the following PPE will be available at the site and shall be worn when appropriate:

- P2 dust mask if any asbestos materials are identified;
- disposable overalls if any asbestos materials are identified;
- air purifying respirator (half face or full face) fitted with organic vapour cartridge(s), to be worn when:
    - organic vapour monitoring action levels are exceeded (see **Table 1 Section 5.3**);
    - strong odour is present; or
    - symptoms such as headaches or dizziness are experienced.
- Safety goggles; and
- ear muffs or ear plugs, when noise levels make normal conversation difficult(approx 85dB.

If any PPE is damaged or is suspected to not be functioning properly, it should be repaired or replaced immediately.

4.4 Training and Certification

Part 8.2 of the *Occupational Health and Safety Regulation 2001* requires that an employer of employees undertaking construction work must ensure that the employees have completed induction training as specified by the Regulation. In addition, the Principal Contractor must not allow any person to carry out construction work unless satisfied that the person has undergone OHS induction training.

The OHS induction training required by the Regulation is as follows:

- General occupational health and safety training for construction work;
- Work activity based health and safety training (job specific training); and
- Site-specific health and safety induction training.

For each person carrying out construction work, for a period of three years, the Principal Contractor must keep a record of the following:

- A copy of relevant statements of OHS induction training, or a statement indicating that the Principal Contractor is satisfied that the relevant OHS induction training has been undertaken; and
- A brief description of the site-specific training undertaken by the person.

4.5 Site Safety Induction

It is the responsibility of the Principal Contractor to ensure that all persons carrying out construction work on site are given site-specific occupational health and safety training. The training must include at least the following topics:

- Identification of any site specific hazards and risk control measures;
- Regulatory requirements or codes of practice relevant to identified site specific hazards;
- Site orientation including location of safe access, amenities and first aid;
- Site specific safety rules;
- Accident, emergency and evacuation procedures, and knowledge of any associated equipment on site; and
- The induction should include a review of this Plan and signoff by site personnel to confirm understanding of requirements.

The Principal Contractor is responsible for establishing site specific safety rules. The rules must be displayed in an easily observable location (nominally in the site office) so as to ensure that all site workers, including sub-contractors, can readily access.

4.6 Management of Subcontractors

Subcontractors working on-site will be required to adopt the provisions of this CCMP and will be advised of potential safety and environmental issues on site during site-specific induction training. This induction will include the occupational health and safety responsibilities, requirements and controls for all subcontractors working on site. All subcontractor activities will be monitored by the Principal Contractor/Site Foreman to ensure compliance with the requirements of this plan.

Contractors and subcontractors whose work will be performed on-site, or who otherwise could be exposed to health and safety hazards, will be advised of known hazards through distribution of site information contained in this CCMP.

In addition, they shall also be advised of the protocol to be followed in the event that unexpected hazardous substances are encountered during earthmoving and excavation works.

They shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations. All contractors and subcontractors are responsible for:

1. Providing their own PPE;
2. Training their employees in accordance with applicable laws;
3. Providing medical surveillance and obtaining medical approvals for their employees;
4. Ensuring their employees are advised of and meet the minimum requirements of this CCMP and any other additional measures required by their site activities; and
5. Designating their own site safety officer.

Subcontractors must sign an acceptance form prior to commencing work on site. Subcontractors may only modify, and then only to improve, the conditions specified in this CCMP with approval from the Principal Contractor or nominee.

4.7 Incident Management and Emergency Response

The Principal Contractor must ensure that an employee is nominated and acts as the Site Safety Representative. The chief responsibility of the nominated person in this regard is to ensure proper coordination of incident and emergency response systems.

A written Incident Report Form must be completed for any incident or near-miss which may have resulted in an injury. Incident Report Forms are to be completed by the Site Safety Representative and submitted to the Principal Contractor within 24 hours of the Site Safety Representative becoming aware of the incident.

Notification of WorkCover is be required for any lost time injuries exceeding seven days of lost work and is required for all serious injuries.

4.7.1 Incident Response

Once a safety issue or incident is brought to the attention of the Site Foreman, the Site Foreman will:

1. Order all work to cease immediately;
2. Attempt to contain the situation and administer first aid (if appropriate);
3. Seek any medical help as required;
4. Notify any necessary agencies; and
5. Notify the Principal Contractor as soon as possible.

The Site Safety Representative will report environmental or OH&S incidents in an Incident Form developed by the Principal Contractor, which is to be completed detailing corrective and preventative actions taken.

Any non-conformance issues shall be corrected to the satisfaction of the Principal Contractor prior to work continuing.

4.7.2 Emergency Response

A copy of the emergency response information is to be posted on site.

An emergency evacuation muster point must be nominated and a site diagram depicting the location, posted on the site office. When the site is evacuated due to on-site emergency the Site Foreman is responsible for conducting a head count to ensure that all personnel have been evacuated.

1. Personnel shall not re-enter the site until:
2. The conditions resulting in the emergency have been corrected;
3. The hazards have been reassessed;
4. The Site Safety Plan has been reviewed; and
5. Site personnel have been briefed on any changes in the Site Safety Plan.

For treatment of potentially life-threatening injury or illness, the ambulance service should be contacted immediately. Any incidents will be immediately notified to the Principal Contractor. Emergency Contact details should also be provided by the Principal Contractor.

5 Management of Environmental Issues

5.1 Soil and Water Management

5.1.1 Site Access

During construction works, perimeter fencing will be installed which will restrict access to the site. Only authorised persons will be able to enter the site and all vehicles, other than haulage vehicles, ware to remain outside the site.

There will be a sign on/sign off register to log the movement of all people and vehicles.

5.1.2 Stockpiles

Any stockpiled materials will be managed in such a way to prevent the release of dusts, odours or sediment into stormwater infrastructure. Such measures may include:

- Spraying of odour suppressants;
- Spraying with water to reduce dusts;
- Covering (depending on size); and
- Perimeter silt fencing (as appropriate).

5.1.3 Water Management

In a storm event, the structures located on site for sediment control will need to be inspected and replaced or altered if necessary.

Any material which is retained behind the sediment control structures shall be collected at the end of the trial (or earlier, if daily inspections identify any significant accumulation of material) and stored in the stockpile area for handling and disposal as other contaminated materials.

As an additional precaution, filter socks shall also be installed around the perimeter of any stormwater drainage infrastructure on the street frontage.

5.1.4 Landscaping / Rehabilitation

Following the completion of the remedial works, the ground surface will be suitably graded and stabilised to prevent erosion and the subsequent creation of wind-blown dusts or sediment-impacted runoff.

5.2 Noise

5.2.1 Hours of Operation

The works shall only be permitted during the following hours:

Monday to Friday: 7:00 am to 6:00 pm

Saturdays: 8:00 am to 1:00 pm

Sundays and Public Holidays: No work permitted.

Emergency work is permitted to be completed outside of these hours.

5.2.2 Acoustical Measures

All machinery and equipment used on site will be in good working order and with the fitted with appropriate silencers when necessary.

5.2.3 Vibration

There will be negligible vibration created during the works. However, the use of plant and machinery shall not cause vibrations to be felt or capable to be measured at the neighbouring premises.

5.3 Air Quality

5.3.1 Odour

In order to ensure odours are minimised during the works, the following actions shall be undertaken:

- Excavated materials will be transferred to the stockpile area without delay;
- Stockpiled materials will be covered;
- Impacted soil will be kept moist as required; and
- Excavations and stockpiles will be sprayed with fine mist sprays with odour suppressants on an as-needed basis.

5.3.2 Dust Control

Dust shall be controlled by ensuring:

- Water sprays will be used on the stockpiles and haulage pathways;
- All haulage vehicles (not including vehicles used for intermittent transfer of materials within the trial area) shall be covered and leave via the designated (stabilised) site access;
- All access roads are sufficiently maintained to ensure no visible dust at the site boundary; and
- Dust suppressors will be fitted to equipment as required.

If dust is visible at the site boundary, then additional dust control measures shall be employed, which may include:

- Temporarily suspending activities until winds speeds reduce; and/or
- Additional use of water sprays.

5.4 Waste Management

5.4.1 Waste Classification

There shall be no wastes brought onto the site for storage, treatment, processing, reprocessing or disposal unless permitted by a licence issued under the POEO Act.

All wastes will be classified, managed and disposed in accordance with the *Waste Classification Guidelines* (DECC 2008).

5.4.2 Waste Transporting / Disposal

Wastes will be transported in accordance with the following requirements:

- Vehicle access to/from and within the site shall be stabilised to facilitate all-weather access and prevent the tracking of materials to/from and within the site.
- All access ways to/from and within the site will be swept or cleaned on an as-needed basis.
- Vehicles must remain on the designated access ways at all times.
- Trucks will be loaded in a designated hardstand area.
- Prior to leaving the loading area, the load will be securely covered.
- The treatment area will incorporate a vehicles cleaning facility, should visible material be present on wheels and/or material is being tracked from the site.
- All site vehicles must leave the site in a forward direction.
- All appropriate road rules shall be observed and state roads will be selected as far as practicable over local roads when deciding on the transport route to the off-site material disposal location.

5.4.3 Waste Tracking Requirements

All wastes disposed off site will be controlled as per the DECC's requirements for waste tracking and acceptance. These are as follows:

- Obtain a written consignment authorisation number from an EPA-licensed waste disposal or treatment facility before moving waste to the facility.
- Accurately complete a waste data form signed by the consignor before the waste is dispatched.
- The waste consignor, the waste transporter and the waste facility must each keep a copy of the waste data form for up to four years for auditing purposes.
- The waste consignor must give a completed copy of the waste data form to the transporter, who must check that it is completed and then sign it. The driver must carry the waste data form in the vehicle.
- The transporter must give a completed copy of the waste data form to the waste facility on arrival at the destination. The waste facility operator must check the load details on the form. The waste data form must be signed by a representative of the waste facility on receipt of the waste at the destination.
- The waste consignor must receive from the waste facility written confirmation of receipt of the waste within 21 days of dispatch. This must be kept for up to four years for auditing purposes.

5.5 Fuel and Servicing

No fuels shall be stored on site. All refuelling will be conducted by mobile tanker and a spill kit will be on-site for the duration of the trial to address any minor leaks or spills.

All plant and equipment will be inspected for leaks (and repaired if necessary) prior to being brought into the site. There will be no servicing of plant or equipment on site, with the exception of minor operational adjustments to the blending equipment (e.g., emergency/urgent repairs to hydraulic hoses).

Any wastes which are generated as part of any maintenance activities at the site will be stored in a designated bin and removed from the site for disposal at a place lawfully able to accept such waste.

5.6 Hazardous Substances

All liquid hazardous substances shall be stored in impervious bunded areas with volume no less than 110% of the largest single container within the bund.

5.7 Site Signage and Contact Numbers

A sign will be installed at the entrance to the site with a 24 hour contact number for members of the public to direct any queries / complaints.

6 Monitoring Program

6.1 Asbestos Air Monitoring Program

Should asbestos materials be identified, an air monitoring program will be implemented, including:

- Personal monitoring on 1 excavator most involved in the movement of asbestos containing materials; and
- Static air monitoring at 3 locations around the site including the site boundaries to monitor airborne asbestos fibre concentrations during the excavation works.

Asbestos fibre monitoring will be carried out using calibrated SKC portable air sampling pumps. Monitoring will be conducted with up to 6 locations during the excavation and stockpile relocation works each day over an approximate 4 to 6 hour period. At the end of each monitoring period the pump and attached filter will be collected and analysed at a NATA-accredited laboratory in accordance with NOHSC Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition (NOHSC: 3003, 2005)

The results of air monitoring will be available on a 24-hour turnaround time basis, allowing results to be reported in the following day's Air Quality Report. The daily Air Quality Reports will be provided to neighbouring workplaces on a daily basis.

6.2 Odour Monitoring Program

Should excessive odours be generated (they are not expected), then an odour monitoring program will be implemented.

Routine environmental inspections will be conducted throughout the works. Inspections will occur on a weekly basis. The Contractor's Environmental Engineer will complete the inspection.

The inspection findings shall be recorded on the environmental inspection checklist (**Appendix B** – Environmental Inspection Checklist). The checklist includes assessing the odours at each of the site boundaries.

Note: Odour observation readings will be taken twice a day (morning and afternoon). The observations at each area, excluding perimeter locations, are to occur downwind of the potential source. The odour intensity will be recorded on the inspection report.

The odour intensity will be measured using the Nasal Ranger Field Olfactometer. Refer to **Section 5.1.2** and **Appendix C** for details on the Nasal Ranger Field Olfactometer and Field Sheets.

Nasal Ranger Field Olfactometer

The Nasal Ranger® Field Olfactometer is the "state-of-the-art" in field olfactometry for confidently measuring and quantifying odour strength in the ambient air. The Nasal Ranger® Field Olfactometer, a portable odour detecting and measuring device, determines ambient odour "Dilution-to-Threshold" (D/T) values objectively.

The Nasal Ranger® Field Olfactometer, as a nasal organoleptic instrument, provides field olfactometry with a scientific method for dependable ambient odour quantification.

A Nasal Ranger® Olfactometer creates a calibrated series of discrete dilutions by mixing the odorous ambient air with odour-free (carbon) filtered air. Field olfactometry defines each discreet dilution level as a "Dilution-to-Threshold", D/T, ratio. The "Dilution-to-Threshold" ratio is a measure of the number of dilutions needed to make the odorous ambient air "non-detectable".

Field olfactometry calculates the "Dilution-to-Threshold" (D/T) ratio as:

$$D/T = \frac{\text{Volume of Carbon Filtered Air}}{\text{Volume of Odorous Air}}$$

Procedure for the operation of the Nasal Ranger is provided in the Nasal Ranger Operations Manual (provided separately to this CCMP). Site work sheets and odour descriptors are presented in **Appendix B and C**.

In essence, the Nasal Ranger is designed with a flow regulator and indicator so that the operator can measure odour at a flow rate of 17-20 litres per minute which is the same requirement as for the laboratory olfactometer specified in AS4323.3. Hence, field olfactometer results can be traced to AS4323.3 provided operator has been screened in accordance with AS4323.3.

7 Complaints Procedure

Complaints may be received either via:

- Residents telephoning the company directly;
- Contact details provided at the entrance to the site;
- Email; or
- The DECC.

The person receiving the complaint shall document:

- The date and time of the complaint;
- The method by which the complaint was made;
- Any personnel details of the complainant which were provided by the complainant or if no such details were provided, a note to that effect;
- The nature of the complaint;
- The action taken in relation to the complaint, including follow up action; and
- If no action was taken, the reasons why.

The complaint will be investigated within 12 hours of receipt of the complaint. If justified, a remedial action report shall be prepared.

The complaint report and, if required, the remedial action report shall be reviewed and approved by the Principal Contractor and the site owner.

If action is required, it will be implemented immediately if urgent, otherwise within 24 hours of the complaint.

The person who lodged the complaint will be notified of the action taken.

8 Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all management protocols stated should be reviewed by a competent person with experience in environmental investigations, before being implemented.

Notwithstanding the recommendations in this report, property owners and contractors or other parties working on the site are responsible for ensuring that all work practices employed at the site meet or exceed any and all relevant regulatory requirements.

The stated management protocols are designed as an outline, and specific circumstances may arise where the protocol may need to be altered. Should this be required, then the protocol should stand as the minimum requirement, and changes should only increase or improve upon the requirements of this plan.

JBS Environmental Pty Ltd accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced or amended in any way without prior approval by JBS Environmental Pty Ltd, and should not be relied upon by other parties, who should make their own enquires.

Appendix A
Documentation Regarding the Proposal

MOODY & DOYLE

TOWN PLANNERS

Tony Moody BTP (UNSW), LL.B (UTS) (Hons.)
Lance Doyle M.Plan (UTS) B.App Sc. (UWS) MPIA
Peter Fryar BTP (UNSW), Ord 4 T&CP, MPIA

OUR REF: PF:SF:08200TM
YOUR REF:

21 October, 2008

The Director-General
The Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Sir,

RE: **REQUEST FOR MODIFICATION OF THE MINISTER'S APPROVAL OF PROJECT APPLICATION NO 06_0052,
LOT 8, DP1039882,
NO. 191 MILLER ROAD, CHESTER HILL
MATERIALS RECYCLING FACILITY**

On 27th February 2007 the Minister granted approval for the use of the subject site for the purpose of a Materials Recycling Facility. Our client, No. 1 Demolition and Excavation Ltd proposes to occupy the site for the purpose of operating a Materials Recycling Facility.

In summary, the Minister's approval granted consent for the proponent CMA Corporation to construct and operate a Materials Recycling Facility for the processing of ferrous and non-ferrous metals. The proposal involves the upgrade of the existing stormwater system, provision of a continuous hard stand for processing areas and vehicle movements, installation of noise barriers and a new substation and the provision of parking for heavy vehicles. The existing buildings on the site would be used for administration and storage purposes.

The Minister's approval (No. 06_0052) permits the facility to receive up to 100,000 tonnes of ferrous and non-ferrous metals per annum. The material associated with the operation would be transported to the site by CMA Corporation's contractors and the general public. Prior to the processing of the metals, the delivered material would be inspected and foreign items removed.

The processing is proposed to be undertaken with industrial grade shearers. The operation would involve the cutting of the metal into small pieces. The metal is then bundled and stockpiled for transport to Port Kembla.

Moody & Doyle Pty. Ltd.
ACN 102 593 215 / ABN 24 102 593 215

First floor, Suite 102, 25 - 29 Berry Street,
North Sydney, N.S.W. 2060
Telephone: (02) 9922 1655 Facsimile: (02) 9922 3544
Email: mdplanning@bigpond.com

The project approval granted described the project as being a "Materials Recycling Facility". The Minister's approval attached a number of conditions set out in Schedules 2 – 4 of the Project Approval Document. Specifically, Condition 2 contained within Schedule 2, states:

> ***"2. Terms of Approval***
>
> *The proponent shall carry out the project generally in accordance with the:*
>
> *a) EA;*
> *b) Final Statements of Commitments; and*
> *c) conditions of this approval.*
>
> *If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the inconsistency."*

The Environmental Assessment (EA) which accompanied the applications which is referred to in Condition 2 (Schedule 2) above, states at Paragraph 1.3 (Page 6) that:

> *"Application is made for approval to the construction and use of a portion of No. 191 Miller Road, Chester Hill as a materials recycling facility for the processing of ferrous and non-ferrous metal waste. No other waste will be processed at the facility. The physical layout of the proposed facility is indicated on the Project Application plan in Appendix 2."*

Our client, No. 1 Demolition and Excavation Ltd, propose to establish a Materials Recycling Facility on the subject land, generally in accordance with the approved plans. The operation involves the recycling of building construction waste including metal.

Essentially, the nature of the proposed modified use of the land can be summarised as follows:

- The operation involves the receipt and collection of building demolition materials comprising concrete, timber, bricks, tiles, rubber, metal etc which are transported to the site by way of trucks from the building demolition sites.

- At the proposed Chester Hill site, the materials will be sorted and crushed through a crushing plant.

- The concrete and brick products are crushed and sorted into an "end product" which comprises aggregate ranging from 30mm to 40mm in size and DGB road base which is used under roads and under pavers for pathways.

- Timber and steel is sorted from the light waste. The steel goes to separate steel recyclers for future re-use and the timber is mulched on site and can be used in mulch for gardens.

- The topsoil collected within the material is screened through a screener to filter any materials left over from the recycling process. This is then produced into top grade soil.

- Any material that is not recyclable is taken to a landfill.

Attached at Annexure A is the approved plan with notation as to how No. 1 Demolition and Excavation Ltd would propose to establish their operation. All works required under the terms and conditions of the Minister's approval would be undertaken. The major difference between the proposed modified operation and the operation approved under the Minister's approval for the land, is that metal comprises only 20% of the volume of the material proposed to be processed on the site whereas the approval granted for the CMA Corporation operation was restrictive to only ferrous and non-ferrous metals.

Attached at Annexure B is a profile of the company No 1 Demolition and Excavation Ltd.

The volume of materials to be ultimately processed on the site will be in accordance with the 100,000 tonnes per annum under the current approval. The characteristics of the approved use and the proposed modified use are very similar. The main difference between the use approved under the Minister's Approval for the land and the proposed modified operation is that the facility will process various types of demolition and waste material which is not strictly limited to ferrous and non-ferrous metals as specified under the current approval.

Accordingly, we seek the agreement of the Director-General to consider the proposed use of the land by No. 1 Demolition and Excavation Ltd as summarised above as an application to modify the terms and conditions of the Minister's approval of the land. We also seek advice on any Environmental Assessment requirements with respect to a proposed modification application pursuant to Section 75W (3) of the Environmental Planning and Assessment Act 1979.

Your prompt response to this request would be greatly appreciated. Should you seek any further clarification in relation to the matters contained above, please don't hesitate contacting me on (02) 9922 1655.

Yours faithfully,

PETER FRYAR
MOODY & DOYLE PTY LIMITED

M&D/ 08200TM/OCTOBER 21, 2008-LTR

ANNEXURE A

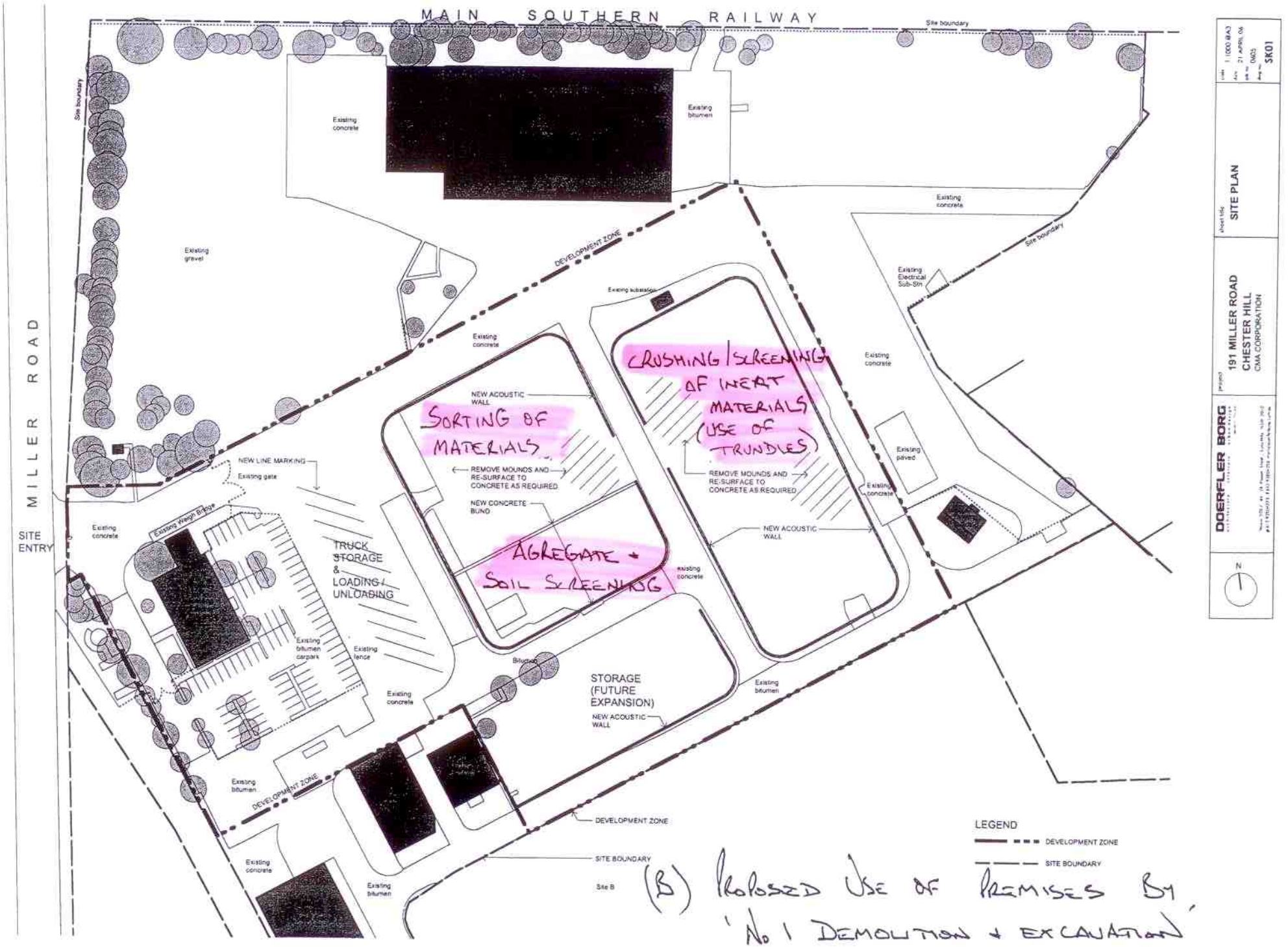
(A) USE ALLOWED BY MINISTER

scale 1:1000 @A3
date 21 APRIL 06
job no. 0605
dwg no. SK01

short title SITE PLAN

project 191 MILLER ROAD CHESTER HILL CMA CORPORATION

DOERFLER BORG



(B) Proposed Use of Premises By
'No 1 Demolition & Excavation'

ANNEXURE B

COMPANY PROFILE

Number 1 Demolition & Excavation Ltd was founded in 1998 with one goal in sight –
'To provide quality demolition and exaction services to the construction industry'. Based in Sydney, we operate throughout New South Wales and along the eastern seaboard of Australia. Our dedicated years of experience and commitment to safety and quality workmanship has earned us a reputation as a recognized provider of first class demolition and excavation services.

From the early days of inception in 1998, the business started with just 3 trucks. We currently have a fleet of 25 trucks, 20 excavators, 2 bobcats and 3 prime movers. Our workforce has also grown considerably over the years and we currently have a 62 man workforce in place. We are pleased that our business has grown dramatically and is continuing to grow at a consistent pace.

ALLWAYS RECYCLING was founded because of the distinct correlation between our industry and recycling. Because of the massive volume of commercial waste we encounter in our work we are placed perfectly to endorse and engage in active recycling strategies. We take pride in our work and the positive impact we have had on the environment by responsibly recycling commercial waste we encounter, thereby helping our clients meet their legislative obligations whilst simultaneously reducing the added stress on land fills and dumping sites. ALWAYS RECYCLING is a new company that will carry on this work but on a much larger scale, promoting and endorsing the necessity of responsible waste management and recycling to commercial operators across Sydney.

A trend in rubbish recycling for all types of waste in Australia has shown massive growth in demand over the past 20 years increasing by 825% between 1996-97 and 2002-03, (Article excerpt from: Australian Bureau of Statistics 4613.0 'Australia's Environment: Issues and Trends' 2006. Presently the local community will benefit dramatically with the services that we propose to offer. The introduction of a recycling plant in an area has been shown to deliver the following benefits to the community at large:

- Cleaner streets and neighbourhoods with less rubbish left for irregular council pick ups.
- General suburb stature is elevated
- Higher perceived quality of living
- Attract new younger residents to an area
- Improvement of property values in the community.
- Community contribution in Australia's effort to be leaders in improving the future.
- Creation of new jobs
- Education to gain better understanding of the benefits of recycling.

Our business is firmly committed to working with the community. A web site will be launched to assist the community with education about recycling and the interaction with the facility. Local households, schools and businesses can be involved in the process of making their current and future environment a better place to live.

We intend to form partnerships with local businesses and groups to educate and inform them of how easy it is to recycle, assisting them with all the information and support they need to get started via our Community Liaison Officer.

Many groups have been developed over the years with a view to education and action regarding recycling. Our business will join this recycling community in an effort to continue the tireless work already been done by so many.

ALLWAYS RECYCLING is moving beyond mere compliance with all regulatory and legal requirements for the environmentally safe conduct of operations, including the design, purchase, operation and maintenance of plant equipment and systems.

ALLWAYS RECYCLING recognizes that compliance should not be restricted merely to processing existing waste streams, rather we must encourage the adoption of a "reduce, reuse, recycle" philosophy among our people and our clients, recognizing that waste minimization means good business. Likewise, we strongly encourage our suppliers, sub-contractors and customers to enter

into partnerships to move beyond environmental compliance. To encourage this practice ALLWAYS RECYCLING will provide information and assistance to support them in their efforts.

In addition, our employees will be highly trained in processes to identify, measure and monitor opportunities to improve environmental conditions.

COMPANY WORKS SUMMARY:

- The Matta Family Investments (Number 1 & Always Recycling) already operates a Waste Management Facility at its current site at 3 Burroway Road, Homebush Bay. The current operations of the Matta Family Investments essentially involves the receipt by road transport and rail of a range of building materials which are separated and then transferred to a machine which crushes the material resulting in a range of end products including, but not limited to, the following:-

  (i) Aggregate material which can be used in a range of new building works, roads, pathways and environmental protection works.

  (ii) Mulched material which can be used for gardens and the like.

  (iii) High grade top soil which can be used in a range of works such as landscaping, gardens and landform restoration.

  The end products are either produced on site by the company's machinery or, alternatively, transported to other locations which include the movement of the end products to locations intra state, interstate and overseas. Included in this movement of end products overseas are as follows:-

  (i) Processed rubber particles exported to China.

  (ii) Mulched timber to China.

  (iii) Processed black steel particles to China.

  (iv) Processed blue steel particles to China.

Appendix B
Environmental Inspection Checklist

Name & Signature of Inspector:		Time / Date:	
Weather: - Temperature - Wind Speed - Wind Direction - Rain / Fine			

Inspection Time	**Inspection Frequency**
Mid morning during works	Daily
Mid afternoon during works	Daily
Major storm events	Hourly
Prior to the re-commencement of work after >15mm rainfall	As needed
Following receipt of a complaint	As needed
Following an environmental incident	As needed

Environmental Inspection Checklist			
	Answer		**Action Required**
	Yes	**No**	
Water quality and erosion control			
Have all persons on site received induction and environmental training?			
Are all erosion control measures in place?			
Are sedimentation basins in good condition?			
Are filter fences in good condition?			
Are all drains and bunds clear?			
Water quality and erosion control comments?			
Is the water retention pond full?			
Dust Control			
Are dusty conditions observed? If yes, what operations are creating dust? (I.e. face of excavation / stockpiles)			
Are internal and external roads free of dust and tracking marks?			
Are all trucks entering and leaving the site covered?			

Environmental Inspection Checklist			
	Answer		Action Required
	Yes	No	
Are all stockpiles: moist / covered / protected / bunded?			
At the end of the working day – have the stockpiles been moistened?			
Dust control comments?			
Noise Control			
Are any adverse noise conditions occurring on site?			
Noise control comments?			
Leaks & Spills Control			
Are all fuels and chemicals stored correctly and in appropriately bunded areas?			
Are bunds free of stormwater and gate valves locked?			
Is spill kit adequately stocked?			
Are there any spills / leaky drums or plant noted?			
Leaks & spills control comments?			
PPE			
Are site personnel wearing the required PPE? (Tyvek & P2 mask for buffer and exclusion zone)			

Environmental Inspection Checklist			
	Answer		Action Required
	Yes	No	
Additional Air Quality Control			
Are the stockpile dust/odour controls operating correctly? (covers / sprinklers / odour suppressant)			
Is there any dust visible at the trial area boundary?			
Are there any odours at the trial boundary without the Nasal Ranger?			
Are there any odours detected with the Nasal Ranger at the specified monitoring locations? (Dilution-to-Threshold units, or D/T)			ML1 _____ D/T ML4 _____ D/T ML2 _____ D/T ML5 _____ D/T ML3 _____ D/T ML6 _____ D/T
General			
Are all access restrictions and signage in place?			
Is the remediation area neat and tidy?			
Is the remediation area free of litter?			
Are wastes placed in appropriate bins / containers?			
Is spare equipment stored in a tidy manner?			
Are vehicles parked in designated area?			
Are access roads clean?			
Are ablutions correctly plumbed and functioning adequately?			
Site photos taken?			

Appendix C

Nasal Ranger Details

NASAL RANGER

Date: _____

Time	Location	D/T 60	30	15	7	4	2	<2	Descriptors	Comments

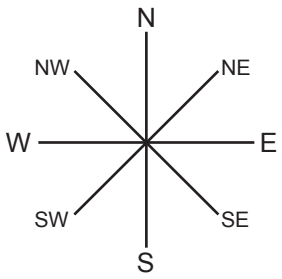
Weather Conditions

- ☐ Sunny
- ☐ Partly Cloudy
- ☐ Mostly Cloudy
- ☐ Overcast
- ☐ Hazy

Precipitation:

- ☐ None
- ☐ Fog
- ☐ Rain
- ☐ Sleet
- ☐ Snow

Wind Direction
Blowing From: (circel one)



Wind Speed:

- ☐ Calm
- ☐ Light Breeze (1-5 mph)
- ☐ Moderate Wind (5-15 mph)
- ☐ Strong Winds (15 or higher mph)

Temperature:_____°F/°C Relative Humidity:_____% Barometric Pressure:_____

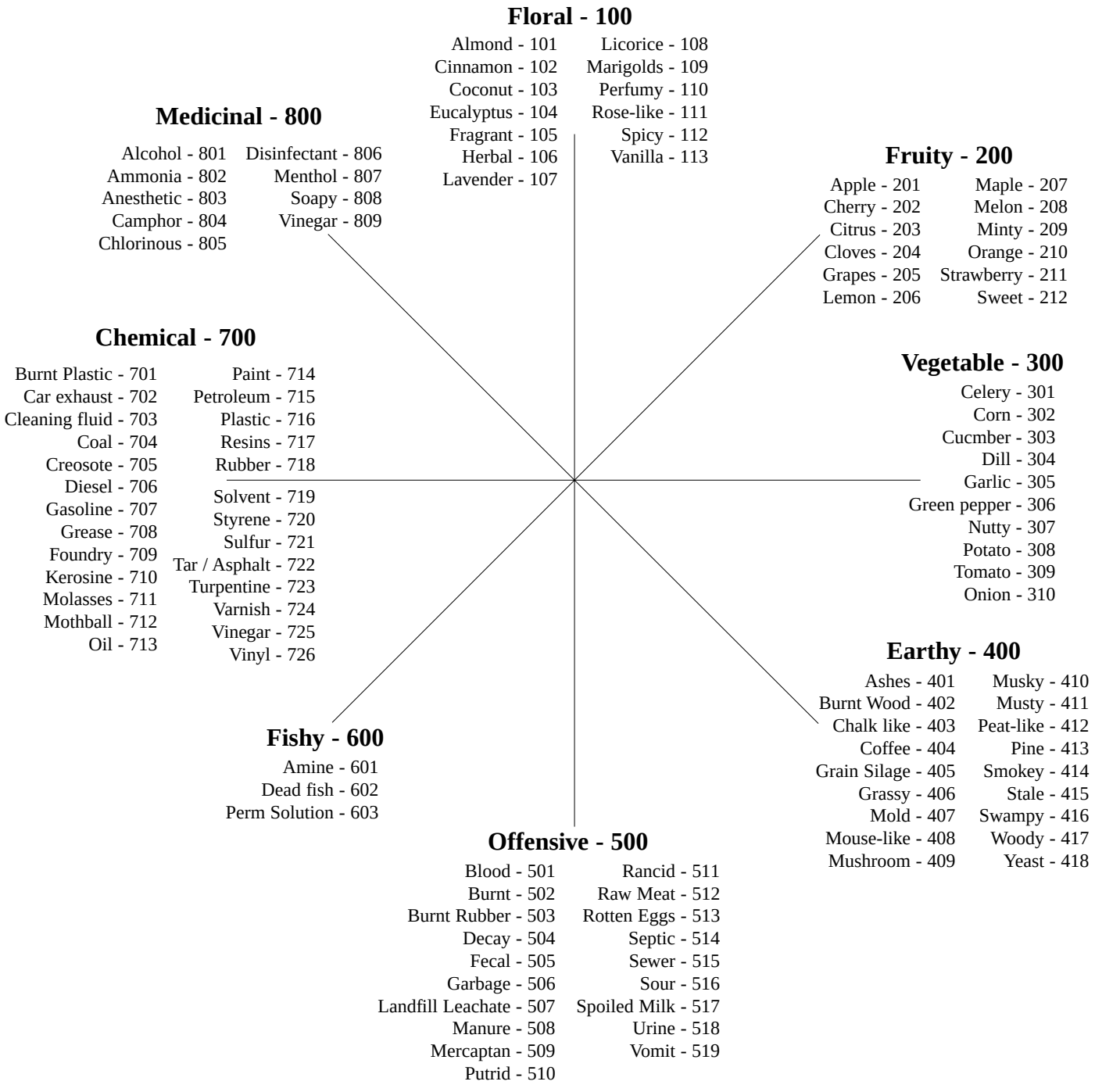
Comments: _____

_____

_____

_____ Code _____ Name _____ Signature

Odor Descriptors



Document Status

Rev No.	Author		Approved for Issue		
	Name	Reviewer	Name	Signature	Date
0	Andrew Lau	Andrew Lau	Andrew Lau		22/8/2006
1	Cathy Roberts	Andrew Lau	Andrew Lau		16/1/2009