ALEXANDRIA PARK COMMUNITY SCHOOL 1161

CONSTRUCTION WASTE MANAGEMENT PLAN

06/05/2021

RICHARD CROOKES
CONSTRUCTIONS

Delivering Certainty

Contents

Revision

Rev Date	Revision Description	PM's Initials (i.e. acceptance of changes)
5/6/2019	Updated Issue to cover plan generated by demolition subcontractor	AB
11/06/2020	Construction Waste	AB
10/11/2020	Update for Phase 2	TS
06/05/2021	Construction Waste New Locations	TS

1 Introduction

This Construction Waste Management Plan forms part of the Project Management Plan for Project 1161 – Alexandria Park Community School.

1.1 Purpose of the Plan

Richard Crookes Constructions (RCC) recognises the importance of promoting building design and construction techniques which minimise waste and provides an efficient recycle procedure for all waste material.

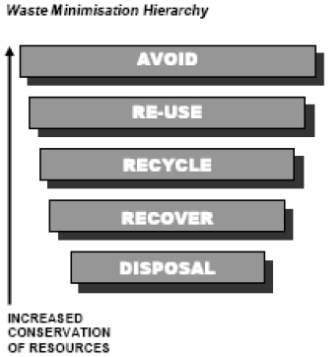
The purpose of this plan is to outline processes for:

- Objectives and Targets;
- Operational Controls;
- Recording, Monitoring Corrective Action; and,
- Reporting.

2 RCC Objectives and Targets

RCC's overall objective is to achieve a minimum of (90%) for recycled waste (by weight) generated by the Project, to satisfy the Project's Green Star requirements.

The Operational Controls implemented to achieve this include:

<table>
<tr><th colspan="2">Operational Controls</th><th>Method of Recording</th></tr>
<tr><td>General</td><td>Identify any hazardous and toxic materials (e.g. asbestos) and comply with WorkCover requirements.
Develop project Waste Management Plan
Try not to over-order on materials (initial waste avoidance).
Communicate housekeeping & litter reduction rules with subcontractors during contract letting and site inductions.</td><td>Hazardous substance survey
Waste Records
Inductions</td></tr>
<tr><td colspan="2">Implement the waste hierarchy – avoid, reuse, recycle and lastly disposal to landfill.</td><td></td></tr>
<tr><td colspan="2"> 
</td><td></td></tr>
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Operational Controls		Method of Recording
Demolition Plan	Demolition disposal for concrete, bricks, plasterboard, timber, tiles, PVC, metal, paper & cardboard, glass, appliance, carpet, vegetation, soil – to Recycled Facility Asbestos ACM to be removed by a licenced contractor (up to 30 June 2007 >200m2, 1 July 2007 > 50m3, from 1 Jan 2008 > 10m2 of bonded asbestos) & managed in accordance with WHS Act & Regulation 2012 and EPA requirements. Lead paints & dusts will be removed using we sanding and vacuum techniques (cleaners which comply with AS/NZS 3544 Industrial vacuum cleaners for particulates hazardous to health). Waste will be contained within sealed plastic bags for disposal. Clean up with a wet mop.	Monthly Waste Report Disposal dockets
Consider recycling reprocessing	Where practicable: Timber for reuse or mulching Aluminium wall frames – reprocess Plasterboard – recycled or use as soil improvers Steel – reprocess Toughened Glass – reprocess Carpet & underlay – reprocess & mulch mats	Monthly Waste Reports from Bingo & Grasshopper during construction in accordance with SSDA condition B24, C32, CC33, C36
Product Stewardship	Investigate returning waste to the supplier? (e.g. plasterboard, packaging)	Contract/ Supply agreements
Putrescibles Waste	Putrescible waste is to be contained in bins and collected by licenced contractor for disposal	Invoices
Contaminated Soils	Contaminated soils will be excavated and classified in accordance with EPA guidelines "Environmental Guidelines: Assessment, Classification & Management of Liquid & Non-Liquid Wastes" (June 2004) – www.environment.nsw.gov.au/waste/envguidlns/index.htm.	RAP Reports Test Reports Waste Records Disposal Dockets Waste handling in accordance with SSDA condition B24, C32, CC33, C36
Virgin Excavated Natural Materials (VEMN)	VENM excavated from site with suitable compaction qualities will be beneficially re-used on other construction sites whenever possible. Disposal to landfill will be the last option. No fill will be received on site that does not comply with EPA guidelines i.e. Contamination limits appropriate to the development.	Material classification Test Reports Waste Records Disposal Dockets
Acid Sulphate Soils (ASS)	Potential for acid sulphate soils ASS will be assessed based on the sites proximity to low-lying coastal areas e.g. coastal plains, wetlands and mangroves where the surface elevation is	ASSMP Test Reports Product delivery

Operational Controls		Method of Recording
	less than five metres above mean sea level. If suspected, consultant to prepare Acid Sulphate Soil Management Plan (ASSMP). Excavation and neutralisation to be supervised by consultants as per ASSMP.	(lime) dockets Site Plans
Monitoring	Bin(s) with heavy lids shall be provided for putrescibles waste Daily inspections shall be carried out to ensure the worksite is litter free.	Env. Inspection Checklist
Reporting	Waste reports/management plans indicate estimated waste min (80%) of accumulated totals for the project.	Monthly Reports from Bingo & Grasshopper during construction in accordance with SSDA condition B24, C32, CC33, C36
Non-Compliance	Generation of water pollution and/or air pollution from onsite waste storage Inappropriate/illegal off-site disposal of waste materials Asbestos & CCA treated timber contamination of recoverable waste stream thereby requiring landfill disposal.	Env. Inspection Checklist Incident Report, NCRS
Emergency Response	No specific requirements associated with waste management Scenarios such as spill, fires, explosions covered by the project emergency response plans.	Incident Report

2.1 Estimated Waste Quantities: Use This to Estimate the Waste Quantities

The waste quantities developed by this job will be tracked on a waste monitoring spreadsheet using information provided by waste disposal facilities

Table 1 - Composition of demolition waste by volume

Material	M^3
Fill	26,121
Concrete	3,282
Bricks/stone	2,500
Carpet	375
Timber	250
Residual general (incl. fittings, fixtures etc)	49
Metal	15
Total	**32,592**

3 Unexpected Finds

If there are unexpected finds of contaminated materials works in the area should immediately cease, the areas made safe and the environmental consultant (Coffey) advised.

Environmental Consultant will visit site and assess the situation to provide best advise on how to best manage the unexpected finds. Coffey may advise to collect samples and conduct laboratory analysis of sampling and notify RCC and Site Auditor.

Refer to Appendix A for Coffey Contamination Environmental Management plan unexpected finds procedure.

4 Reporting

Greenstar:

The Project Green Star Administrator will be responsible for collecting monthly waste reports (Form 18.1) or utilising the waste subcontractor reporting format and issuing them to the Project Manager and Client Representative.

These reports will measure the weight of waste generated of material by classification, total weight of waste, percentage by weight recycled and percentage by weight to landfill.

General waste reporting:

Nominated member of the project team will be responsible for collecting monthly waste reports and issuing them to the Project Manager and Client Representative.

These reports will measure the weight of waste generated of material by classification, total weight of waste, percentage by weight recycled and percentage by weight to landfill in accordance with SSDA condition B24, C32, CC33, C36.

Construction Waste Disposal Destinations

The MRF's below are the destinations of the disposed construction waste:
Construction Waste Material Processing Destinations

Phase 2 Construction Material Disposal Destinations:

BINGO Recycling Centre Alexandria
EPL No. 4679

BINGO Recycling Centre Artarmon
EPL No. 20763

BINGO Recycling Centre Auburn
EPL No. 10935

BINGO Recycling Ecology Park Eastern Creek
EPL No. 20121

BINGO Recycling Centre Greenacre
EPL No. 20847

BINGO Recycling Centre Kembla Grange
EPL No. 20601

BINGO Recycling Centre Mortdale
EPL No. 20622

BINGO Recycling Centre Patons Lane
EPL No. 21259

BINGO Recycling Centre Revesby
EPL No. 20607

BINGO Recycling Centre Tomago
EPL No. 20585

Phase 1 Construction Material Disposal Destination:

MRF6 – BM Banksmeadow
BM Recycling Pty Ltd
EPA Number: 12857

MRF26 - Suez Wetherill Park
Sita Australia Pty Ltd
EPA Number: 4548

MRF31 - JJR St Marys
J.J. Richards & Sons
EPA Number: 20640

MRF32 - ResourceCo
ResourceCO RRF Pty Ltd
EPA Number: 20937

MRF35 - Veolia Clyde
Veolia Environmental Services (Australia) Pty Ltd
EPA Number: 11763

Food/Office Waste
MRF36 – Bulk Recovery Solutions
Bulk Recovery Solutions Pty Ltd
EPA Number: 20797

For the latest report refer to Appendix B

APPENDIX A: Unexpected Finds Procedure

Should an unexpected find of actual or suspected contamination or unexpected in ground infrastructure be encountered during the remediation or site redevelopment works, the following procedure applies:

1. Stop work in the potentially hazardous area as soon as it is safe to do so and move to the upwind side of the area, or away from the area.
2. Assess the potential immediate risk to human health posed by the unexpected find and assess if evacuation or emergency services need to be contacted.
3. Delineate an exclusion zone around the affected area using fencing and/or appropriate barriers and signage. Additional control measures may be required for odours and/or volatile compounds, such as moving workers to the up-wind side of the impacted area.
4. Contact the Project Manager and advise of the unexpected find.
5. Contact the appointed environmental consultant and/or LAA for advice and request a site visit to undertake an assessment of the unexpected find.
6. The environmental consultant and/or LAA will assess the unexpected find and provide advice regarding:
    a) Preliminary assessment of the contamination or infrastructure and need for immediate management controls;
    b) What further assessment and/or remediation works are required and how such works are to be undertaken in accordance with contaminated site regulations and guidelines;
    c) Preparation of an addendum to the RAP or RWP (if necessary) or provide clean up advice;
    d) Remediation works required (where applicable);
    e) Validation works required following remediation works (if applicable).
7. Works are not to recommence in the affected area until appropriate advice has been obtained from the asbestos assessor/environmental consultant.
8. If it is deemed safe to do so by the Principal Contractor or appointed Subcontractor, works may resume in the affected area.

7.2. Potential unexpected finds

Based on findings of previous investigations and site history, potential unexpected finds which could reasonably be expected within the site are summarised in Table 5-2.

Table 5-2: Summary of Non-specific Unexpected Finds

Potential Unexpected Find	Observed Characteristic	Key Contaminant of Concern
Buried dry waste materials	May include a variety of waste materials including wood, plastic, metal fragments, building rubble (e.g. concrete, brick, asphalt, friable asbestos etc.).	Heavy metals, TRH, PAH, other forms of asbestos other than bonded (i.e. friable)

Chemical spills from the former industrial site use	The site may have been subject to the use of various chemicals. Contamination could be identified as follows: Discoloured/locally stained soils; Sheens on water within excavations; Odours soils.	TRH, PAH, Heavy Metals, VOC, SVOC, Phenols
Abandoned in ground infrastructure, structures or conduits containing deleterious materials	Could be identified as follows: Abandoned buried underground storage tank, distribution lines, vents etc.; Abandoned below ground vehicle maintenance facilities, hoists, inspection/servicing pits, oil tanks etc.; Deeper sand fill sometimes with stained or odorous characteristics; Presence of small concrete footings surrounding by odorous or visually impacted soils and/or groundwater.	TPH, BTEX, PAH, lead, VOC
Hydrocarbon Compounds	May be identified by a hydrocarbon odour which may vary in strength from weak (just detectable) to very strong (easily detectable at a distance from the source). The odour may or may not be accompanied by specific areas of dark staining (black-grey) or larger scale discolouration of strata from a previously identified 'natural colour' (e.g. brown-dark brown fill, or brown red mottled residual clay) May also be visible as a distinct coloured sheen on water within an excavation.	TPH, BTEX, PAH, lead, VOC

8. Contingency plan

Table 8-1 lists some unforeseen environmental/health issues that may arise during subsurface works at the site. Also listed are possible control measures that could be applied. The Contractor is responsible for assessing the appropriateness of these control measures prior to their application.

Table 8-1: Summary of some unforeseen events and possible control measures.

Unforeseen Issue	Detail	Possible Control Measures
Discovery of unknown materials	Bringing potentially contaminated soil and/or material of unknown origin and composition to the surface.	If potentially contaminated material is encountered during excavation (e.g. drums, brightly coloured materials, petroleum odours etc.), cease work and immediately notify the RCC Site Manager. The RCC Site Manager should notify and seek advice from the environmental consultant as to the nature and origin of the material and potential health impacts associated with it.

Unforeseen Issue	Detail	Possible Control Measures
Air quality	Generating excessive dust during excavation.	Stop work and wait for dust to dissipate. If dust generation persists, advice should be sought from a suitably qualified environmental consultant.
	Odorous situations developing during excavation.	Advice should be sought from the environmental consultant.
Excessive rain during site work	Large volumes of water creating significant erosion or sediment transport.	If the site experiences a period of heavy rainfall during excavation work, all excavation activities should cease. Excavations and materials should be contained using plastic sheeting and hay bales (or similar) and the work area should be monitored. The environmental consultant should be advised and may undertake a site visit to observe impacts on the soil (Fill) and/or the capping system. An emu pick by a licensed asbestos assessor may be required.
Spillages and leakages	Oils and lubricants spilling from machinery.	Make available “spill kits” on site. Clean up spillage as soon as practicable using spill kits. Depending on the nature and size of the leakage/spillage, an assessment of the extent of chemical contamination may need to be made by the environmental consultant.
Buried infrastructure remains from historical use of site	Buried tanks and/or related infrastructure pertaining to the historical use of the site for match manufacturing purposes.	If abandoned underground infrastructure (i.e. tanks, pipelines, pits etc) is encountered during sub-surface works, then the works should cease. Advice should be sought from the environmental consultant.
Others	-	Any other unexpected events should be notified to the Site Manager. Where necessary, advice should be sought from the environmental consultant and/or the licensed asbestos assessor or Site Auditor.

9. Contact numbers and emergency response

Contact details are provided as a means of ensuring the relevant people can be contacted with respect to management and implementation of the CCEMP, and also in the event of an emergency, such as associated with occupational health and safety and environmental management. The details should be completed and updated as soon as they become available. Relevant contact details are summarised in Table 9-1.

Table 9-1: Contact numbers and emergency response.

Organisation	Name	Position	Phone	Fax	Responsibility
Department of Education	tba	tba	tba	tba	Site Owner

APPENDIX B: Construction Waste Reporting

Total To date **1719.46**

#1161 APCS - WASTE FIGURES

CONSTRUCTION WASTE

MONTH	FACILITY	TYPE	AMOUNT COLLECTED (t)	RECYCLED (t)	PERCENTAGE
Jul-19	GRASSHOPPER	CONSTRUCTION WASTE	0.187	0.140	75
Aug-19	GRASSHOPPER	CONSTRUCTION WASTE	0.774	0.641	83
Sep-19	GRASSHOPPER	CONSTRUCTION WASTE	3.800	3.610	95
Oct-19	GRASSHOPPER	CONSTRUCTION WASTE	8.288	7.771	94
Nov-19	GRASSHOPPER	CONSTRUCTION WASTE	51.988	51.131	98
Dec-19	GRASSHOPPER	CONSTRUCTION WASTE	17.061	16.021	94
Jan-20	GRASSHOPPER	CONSTRUCTION WASTE	22.795	20.471	90
Feb-20	GRASSHOPPER	CONSTRUCTION WASTE	103.089	89.701	87
Mar-20	GRASSHOPPER	CONSTRUCTION WASTE	118.647	103.611	87
Apr-20	GRASSHOPPER	CONSTRUCTION WASTE	134.455	118.251	88
May-20	GRASSHOPPER	CONSTRUCTION WASTE	165.968	153.981	93
Jun-20	GRASSHOPPER	CONSTRUCTION WASTE	207.502	192.551	93
Jul-20	GRASSHOPPER	CONSTRUCTION WASTE	185.172	167.711	91
Aug-20	GRASSHOPPER	CONSTRUCTION WASTE	415.772	397.411	96
Sep-20	GRASSHOPPER	CONSTRUCTION WASTE	188.362	169.351	90
Oct-20	GRASSHOPPER	CONSTRUCTION WASTE	6.080	5.350	88
Jan-21	BINGO	CONSTRUCTION WASTE	2.810	2.610	93
Feb-21	BINGO	CONSTRUCTION WASTE	8.400	7.760	92
Mar-21	BINGO	CONSTRUCTION WASTE	43.964	41.644	95
Apr-21	BINGO	CONSTRUCTION WASTE	34.354	32.574	95
TOTAL			1719.464	1582.291	91