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WASTE MANAGEMENT PLAN

45-45a OAKS AVENUE, DEE WHY, NSW 2099

Multi Dwelling Residential Development Consisting of 12 Units

Prepared for: Amersfoort Investment Group

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TBA

Northern Beaches Council Application #:



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Introduction

AusWide Consulting was commissioned by Amersfoort Investment Group to prepare a Waste Management Plan (WMP) for Council approval.

The proposed development consists of:

Development Details

Demolition of Existing Structures and Construction of a Multi Dwelling Residential

Development Consisting of 12 Units

In the course of preparing this WMP, plans of the development have been examined, and all relevant council requirements and documentation collected and analysed.

This WMP has been prepared based on the following information:

- Architectural Plans provided by C & A Surveyors;
- Warringah Local Environmental Plan 2011;
- Warringah Development Control Plan 2011;
- Northern Beaches Waste Management Guidelines Chapters 1, 2 and 4;
- NSW EPA Better Practice Guide for Resource Recovery in Residential Developments 2019.

Background and Existing Conditions

The site is located on the southern side of Oaks Avenue, Dee Why. The site and encompassing streets on the southern side of Oaks Avenue on the are located within the R3 – Medium Density Residential zone. The lots directly across the site on the northern side of Oaks Avenue are within the MU1 – Mixed Use zone which also extends to 90 metres east of the site. The neighbouring lots to either side consist of existing apartment buildings.

Figure 1 on page 6 provides an overview of the area, and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surrounding the subject site. **Figure 3** on Page 7 provides a street view of the subject site and neighbouring characteristics.



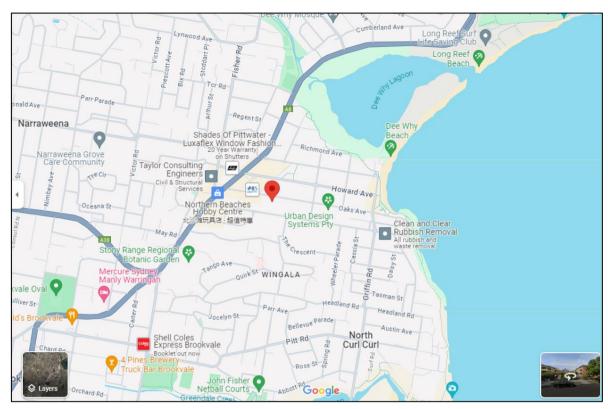


Figure 1: Location of the Subject Site (© Google 2024)

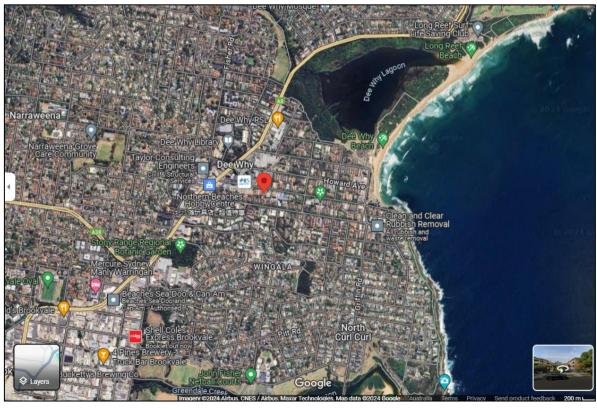


Figure 2: Aerial View of the Subject Site (© Google 2024)





Figure 3: Street View of the Subject Site (© Google 2024)



Waste Management Principles

When dealing with waste, the following hierarchy has been adopted from the Australian National Waste Policy, prioritising from top to bottom:



Avoid/Reduce

Particularly during the construction phase, avoidance of waste will be achieved through:

- Selecting design options with the most efficient use of materials; and
- Selecting materials with minimal wastage, such as prefabricated materials.

Reuse

Some of the materials encountered in the demolition and construction stages can be recovered and reused both on-site and off-site. This will be practised wherever possible. Reusable materials shall be appropriately stored to avoid damage from weather or machinery.

Recycle

Similarly, many materials from the demolition and construction stages will be recyclable. These materials will be identified prior to demolition, and a system incorporated to efficiently separate reusable materials, recyclable materials, and disposable materials. Recyclable materials shall be appropriately stored to avoid damage from weather or machinery. Details and receipts verifying the recycling of these materials shall be kept present on site at all times.

Recover/Treat

Processing of waste to recover resources, including energy, may be an option, with many waste companies processing demolition and construction waste before disposal. Some waste may also be treated to reduce its environmental impact before disposal.

Disposal

The waste disposal contractor chosen for the job will comply with Council's DCP. Details and receipts verifying the disposal of these materials shall be kept present on site at all times.



Handling

When handling waste on-site, the system (including bin placement, volumes, and access) shall be designed with the following factors in mind:

- Safety (highest priority);
- Ease of use; and
- Aesthetics.

Stockpiling

Waste sorting areas on-site during demolition and construction shall be adequately maintained. The material (demolition material, excavation material, construction material and waste) stockpiling area shall always remain within the site boundary and relocate during different demolition and construction stages as necessary. The waste area shall be largely located at the front of the site to provide access for waste collection vehicles via the site's entrance on Oaks Avenue. This is to maintain easy access and removal of waste. **Figure 4** shows an indicative initial waste area when demolition works begin. The stockpiling area shall not infringe on access to the site however, hoardings shall bind the site perimeter; therefore, the waste shall not be visible from the street.

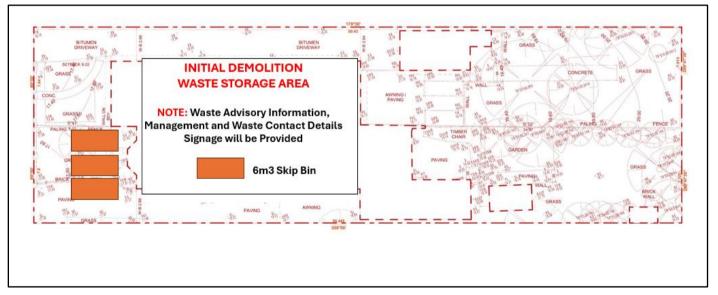


Figure 4: Indicative Initial Demolition Waste Storage Area

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Demolition & Construction Stage

The proposal involves the demolition of existing buildings on site and the construction of a multi dwelling residential building consisting of 12 units.

Demolition Works

It should be noted that the demolition stage has the greatest potential for waste minimisation.

The contractor should consider whether it is possible to re-use existing buildings, or parts thereof, for the proposed use. With careful onsite sorting and storage and by staging work programs it is possible to re-use many materials, either on-site or off-site.

Councils are typically seeking to move from the attitude of straight demolition to a process of selected deconstruction, i.e., total reuse and recycling both off-site and on-site. This could require a number of colour-coded or clearly labelled bins onsite (rather than one size fits all).

Site contractors should demonstrate project management which seeks to:

- Re-use excavated material on-site and dispose of any excess to an approved site;
- Re-use green waste mulch in landscaping either on-site or off-site;
- Re-use bricks, tiles and concrete on-site as appropriate, or recycle off-site;
- Re-use plasterboard in landscaping on-site, or return to supplier for recycling;
- Re-use framing timber on-site or recycle elsewhere;
- Recycle windows, doors and joinery off-site;
- Recycle plumbing, fittings and metal elements off-site;
- Dispose of all asbestos, hazardous and/or intractable wastes in accordance with Workcover Authority and EPA requirements;
- Identify locations of on-site storage facilities for material to be reused on-site, or separated for recycling off-site; and
- Identify destination and transportation routes of all materials to be either recycled or disposed of off-site.

All appropriately licenced and experienced demolition contractors will follow the requirements of AS2601-2001 – *Demolition of Structures*. Contractors will have developed work plans for their demolition activities including procedures for identification of any hazardous materials, demolition methods, and the precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials. These documents should preferably be contained in an audited quality control system, submitted with the tender documents, and the quality of the documentation should be a key determining factor in assessing demolition contractors.



Construction Works

The following measures shall be considered during the construction stage in order to save resources and minimise waste:

- Purchasing Policy i.e., ordering the right quantities of materials and prefabrication of materials where possible;
- Reusing formwork;
- Minimising site disturbance, limiting unnecessary excavation;
- Careful source separation of off-cuts to facilitate re-use, resale, or efficient recycling; and
- Co-ordination/sequencing of various trades.

Wastage Types and Handling

Waste volumes produced by demolition and construction stages are estimated in the following **Tables 1 & 2**.

Where possible, materials shall be reused or recycled, with disposal being the last resort. The destination of all recycled and disposed material shall be announced upon the selecting the waste collectors and recyclers.

The arrangements for all reused, recycled and disposed waste shall be tracked and recorded, and all receipts shall be held on-site.

It is noted that the quantities of materials detailed in this section are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure. Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.



Table 1: Estimated Volumes of Demolition Waste and Recycling Options

Materials on Site	Waste Estimate - Volume (m³) or Weight (T)	(m³) or On-Site Reuse ht (T) Off-Site Recycling		Off-Site Disposal (Accordance with DECCW)
Excavated Material	2032.01m ³ / 3454 tonnes	Yes Re-use for filling or levelling	Yes See Table 3	See Table 3
Garden Organics	4m³ / 4 tonnes	Yes Mulch or compost	Yes See Table 3	See Table 3
Bricks	15m ³ / 19.5 tonnes	Yes Clean and Re-use or Crush for landscaping and driveways	Yes See Table 3	No
Tiles	9m³ / 11.7 tonnes	Yes Clean and Re-use or Crush for landscaping and driveways	Yes See Table 3	No
Concrete	4m ³ / 4.4 tonnes	Yes Re-use for filling, Ievelling or road base	Yes See Table 3	No
Timber	15m ³ / 16.5 tonnes	Yes Treated – Re-use as formwork, bridging, blocking and propping Untreated – Re-use as floorboards, fencing, furniture or mulch	Yes See Table 3	No
Plasterboard	15m³ / 11.25 tonnes	Yes Re-use for landscaping	Yes See Table 3	No
Metals	2m³ /1.3 tonnes	Yes	Yes See Table 3	No
Asbestos	N/A	No	No	See Table 3
Other – Residual	10m³ / 10 tonnes	No	No	See Table 3



Construction Phase

If sound construction management practices are in place, then waste volumes should be minimised with the majority of this waste being recyclable.

Table 2. Estimated Volumes of Construction Waste and Recycling Options

Materials on Site	Waste Estimate- Volume	On-Site Reuse	Off-Site Recycling	Off-Site Disposal
Excavated Material	-	-	-	See Table 3
Garden Organics	-	-	-	See Table 3
Bricks	5m³ / 6.5 tonnes	Yes Crush for landscaping and driveways	Yes See Table 3	No
Tiles	2m³ / 2.6 tonnes	Yes Crush for landscaping and driveways	Yes See Table 3	No
Concrete	8m³ / 8.8 tonnes	Yes Re-use for filling, Ievelling or road base	Yes See Table 3	No
Timber	3m³ / 3.3 tonnes	Yes Treated — Re-use as formwork, bridging, blocking and propping Untreated — Re- use as floorboards, fencing, furniture or mulch	Yes See Table 3	No
Plasterboard	3m ³ / 2.25 tonnes	Yes Yes Re-use for See Table 3		No
Metals	3m³ / 1.95 tonnes	Yes	Yes See Table 3	No
Asbestos	-	No	No	See Table 5
Other - Residual	16m ³ / 16 tonnes	No	No	See Table 5



Table 3 below details waste facilities within 50 kilometres of the site that accept various types of construction and demolition waste that may be generated from the worksite.

Table 3: Example Construction and Demolition Waste Disposal Facilities within 50km of the site

Facility Name	Facility Address	Materials Accepted
		Asphalt, Bricks, Cardboard &
		Paper, Ceramic, Concrete,
Cleanaway Ryde Resource	145 Wicks Road, North Ryde,	Ferrous & Non-Ferrous Metals,
Recovery Centre	NSW 2113	Pallets (plastic & wood), Rigid
		& Soft Plastics, Sand, Solid Fill
		(soil), Timber (untreated)
		Asphalt, Bricks, Ceramic, Glass
Pingo Artormon Pocueling	10 McLachlan Avenue,	Sheets, MDF, Pallets (wood),
Bingo Artarmon Recycling	,	Particleboard, Plasterboard,
	Artarmon, NSW 2064	Sand, Solid Fill (soil), Timber
		(untreated)
Wanless Artarmon Waste		Cardboard & Paper, Concrete,
Management	1-5 Whiting Street, Artarmon,	Pallets (wood), Plasterboard,
ivialiagement	NSW 2064	Rigid & Soft Plastics, Solid Fill
		(soil), Timber (untreated)
		Asphalt, Bricks, Ceramic,
		Concrete, Pallets (plastic),
AE Biggs	50 Meatworks Avenue, Oxford	Ferrous & Non-Ferrous Metals,
	Falls, NSW 2099	Particleboard, Plasterboard,
		Solid Fill (soil), Timber
		(untreated)
		Asbestos, Asphalt, Bricks,
		Cardboard & Paper, Ceramics,
Kimbriki Resource Recovery		Concrete, Ferrous & Non-
Centre	Kimbriki Road, Ingleside, NSW	Ferrous Metals, Fibro, Glass
Centre	2101	Sheets, MDF, Pallets (plastic &
		wood), Particleboard,
		Plasterboard, Sand, Timber
		(untreated)
Concrete Recyclers	14 Thackeray Street, Camellia,	Asphalt, Bricks, Ceramics,
	NSW 2142	Concrete



On-Going Waste Management, Storage and Collection

The proposed development includes the construction of a multi dwelling residential building consisting of 12 units with a proposed unit mix of:

- 3 x 1 bedroom units
- 7 x 2 bedroom units
- 2 x 3 bedroom units.

Waste Generation

Waste Allocation for Overall Development

Recommended bin allocations listed in The Northern Beaches Waste Management Guidelines are shown in **Table 4** below.

Table 4: Waste Storage Area Requirements for Developments of 3 or More Dwellings

No of Dwellings	Garbage Bins	Paper Bins	Bottles Bins	Vegetation Bins	<u>Total Bins</u>
12	4	3	3	2	12

Table 5: Council MGB Specifications

Size	Height (mm)	Width (mm)	Depth (mm)
240L	1,080 lid closed	600	750
	1,830 lid open		

Figure 5 on page 16 shows the garbage and recycling rooms located in the basement. The bin rooms have been divided to provide separate storage of garbage bins from recycling bins. Residents will dispose of garbage and recyclables directly into the appropriate bins.

Residents in units generally generate minimal to no garden waste as they have minimal to no private courtyards. Any garden waste generated by the site will be from communal garden spaces and will be disposed via the site's landscaping contracts.

However, storage space in the basement bin rooms is provided for at least 1 x 240L green lidded bin to recycle any garden waste generated by residents who may have potted or planter box plants. This will also facilitate the need to have a green lidded bin onsite through the transition to FOGO implementation as per the NSW State Government mandate.



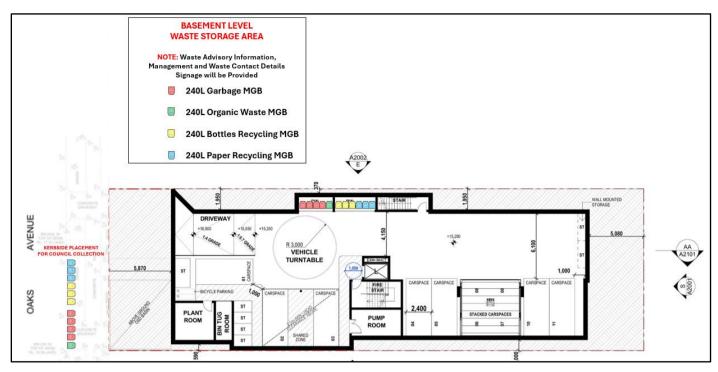


Figure 5: Scaled Diagram of Basement Bin Rooms



Waste Collection

Bins will be presented for collection at the front kerb area of the site along Oaks Avenue. Caretaker staff will transport full bins from the basement bin rooms to the collection point the day prior to collection day. A bin tug will be used to assist caretaker staff safely transport bins over the driveway ramp. The bin tug will be purchased by the site and be in ownership of the owners' corporation. Bins will be collected by Council's standard waste collection vehicles.

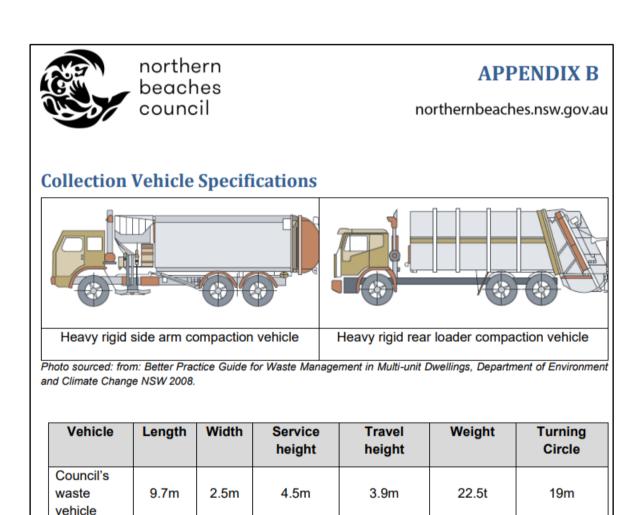


Figure 6: Council Vehicle Specifications



Amenity

Noise

The only noise generated from the waste management at the property will be that of the waste being collected, any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste storage areas will be mechanically ventilated. Ventilation systems in waste storage areas will be separate from systems providing air to the apartments.

Security

All MGBs will be secured within the lockable waste storage areas within the basement.

Cleaning Facilities

Waste storage rooms will be provided with a hose tap connected to a water supply. Caretaking staff will regularly clean and wash the rooms. Bins will be washed immediately after collection.

Prevention of Vermin

Residents will be advised to not overfill the bins so that the lids are closed at all times. Caretaking staff will also monitor the bins and break down waste when needed or spread to bins that have more available space to adequately store waste. Insect and odour control systems will also be installed in waste storage areas.



Miscellaneous

Green Waste

Communal green waste will be disposed via the site's landscaping contracts.

Bulky Hard Waste

Council's waste service provides multi-unit dwellings and complexes a choice of the following two options for bulky waste:

- 1) Multi-unit communal bulky goods booking Strata and Body Corporate Only
- 2) On demand individual unit bulky goods collections service

The strata manager or body corporate needs to make a written request to Council should they wish to change between the communal or individual unit booking methods.

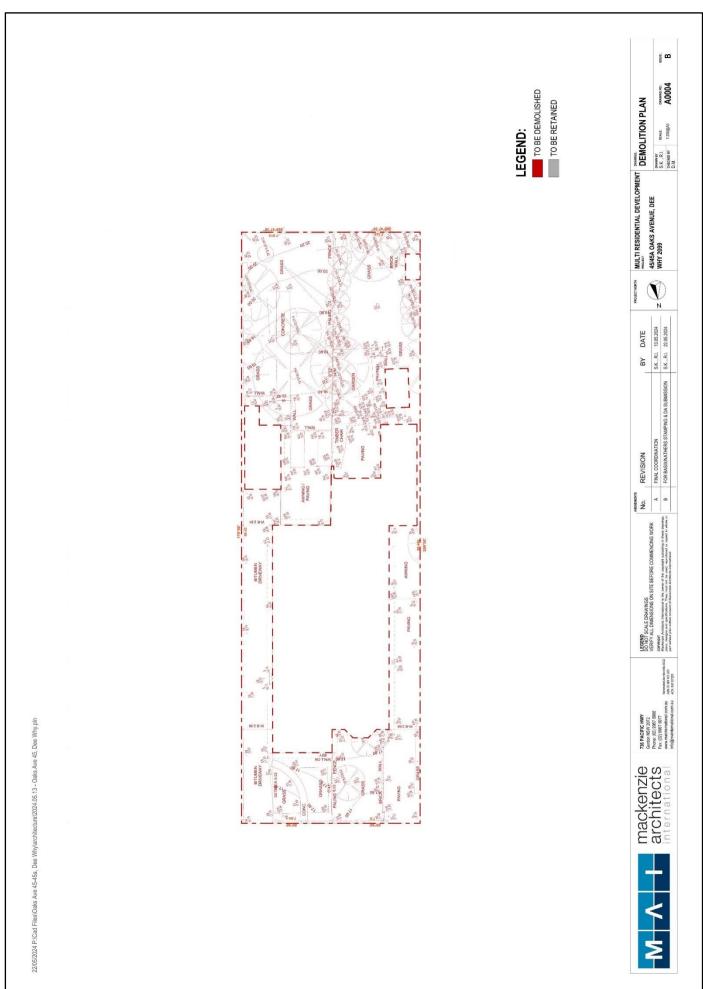
E-Waste

E-Waste should be sought to be rehomed as a first priority. If items cannot be rehomed: TVs and computer equipment can be taken to local organisations who will accept items through the National TV & Recycling Schemes. Other electronic items can be placed in bulky goods clean-up collections for metal recycling.

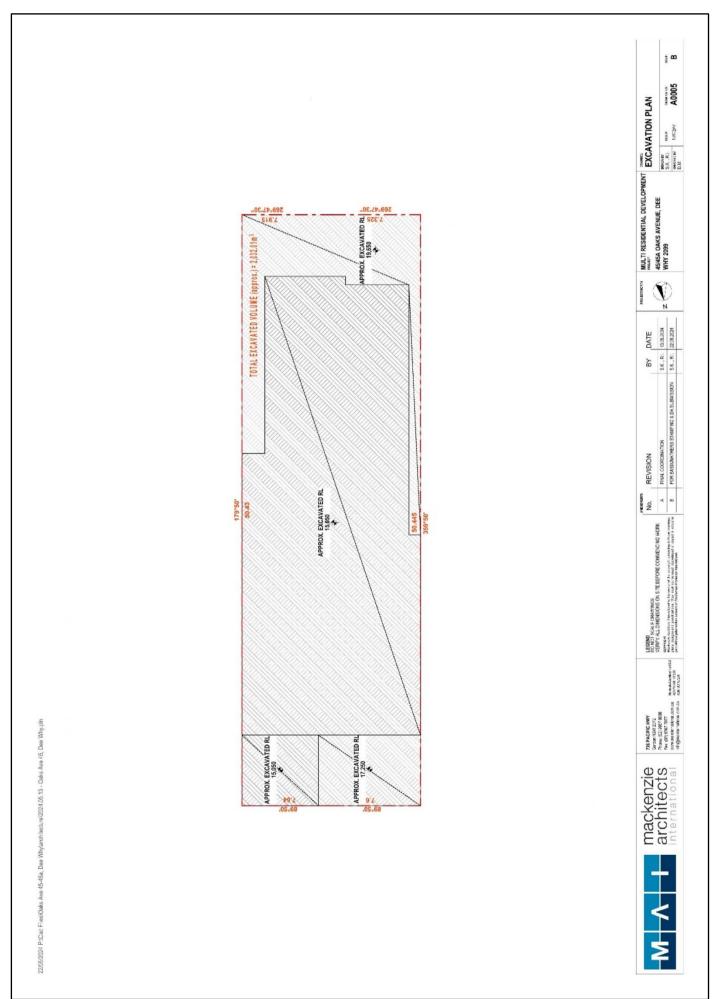


APPENDIX A – DEMOLITION AND EXCAVATION PLANS











APPENDIX B – ARCHITECTURAL PLANS



DEVELOPMENT APPLICATION 45/45A OAKS AVENUE, DEE WHY 2099

SEPP 2021 (HOUSING) - PART 2 DIVISION 1: IN-FILL AFFORDABLE HOUSING

DRAWING SCHEDULE

		DRAWING NAME	ISSNE	SCALE
	A0000 GENERA	A0000 GENERAL INFORMATION		
	A0001	COVERPAGE	80	
	A0002	SITE ANALYSIS 1/2	В	1:100
	A0003	SITE ANALYSIS 2/2	В	1:100
	A0004	DEMOLITION PLAN	В	1:200
	A0005	EXCAVATION PLAN	Ф	1:200
	A0006	SITE PLAN	В	1:200
A	A1000 GENERAL	AL ARRANGEMENT PLAN		
	A1001	BASEMENT PLAN	В	1:200
	A1002	GROUND FLOOR PLAN	В	1:200
	A1003	FIRST FLOOR PLAN	В	1:200
	A1004	SECOND FLOOR PLAN	В	1:200
	A1005	THIRD FLOOR PLAN	В	1:200, 1:50
_	A1006	ROOF & COS PLAN	œ	1:200
	A2000 ELEVATIONS	SNOI		
Į,	A2001	NORTH & SOUTH ELEVATIONS	В	1:200
	A2002	EAST & WEST ELEVATIONS	В	1:200
Į.	A2100 SECTIONS	NS		
ļ,	A2101	SECTION A	ш	1:200
	A3000 ADDITIONAL INFO	ONAL INFO		
	A3001	LANDSCAPE + DEEP SOIL CA	œ	1:200
Ý	A3002	COMMUNAL OPEN SPACE	80	1:1, 1:200
	A3003	CROSS-VENTILATION	В	1:300
TORE	A3004	PRE-POST ADAPTABLE & SIL	В	1:100
	A3005	SAMPLE BOARD	В	1:300
3	A3006	DOOR & WINDOW SCHEDULE	В	1.7
0	A4000 SOLAR	ACCESS		
9	A4001	SOLAR ACCESS 1/2	В	
6	A4002	SOLAR ACCESS 2/2	В	
e e	A4100 SHADOW DIAGRAMS	W DIAGRAMS		
77 (A4101	SHADOW DIAGRAMS (9-11am)	В	1:850
2	A4102	SHADOW DIAGRAMS (12-2pm)	Ф	1:850
	A4103	SHADOW DIAGRAMS (3pm)	В	1:850
	A4104	47-49 OAKS SHADOW IMPAC	80	1:100
	A4105	47-49 OAKS SHADOW IMPAC	В	1:100
į	A4106	43 OAKS SHADOW IMPACT S	В	1:100
Ь	A4107	43 OAKS SHADOW IMPACT S	В	1:100

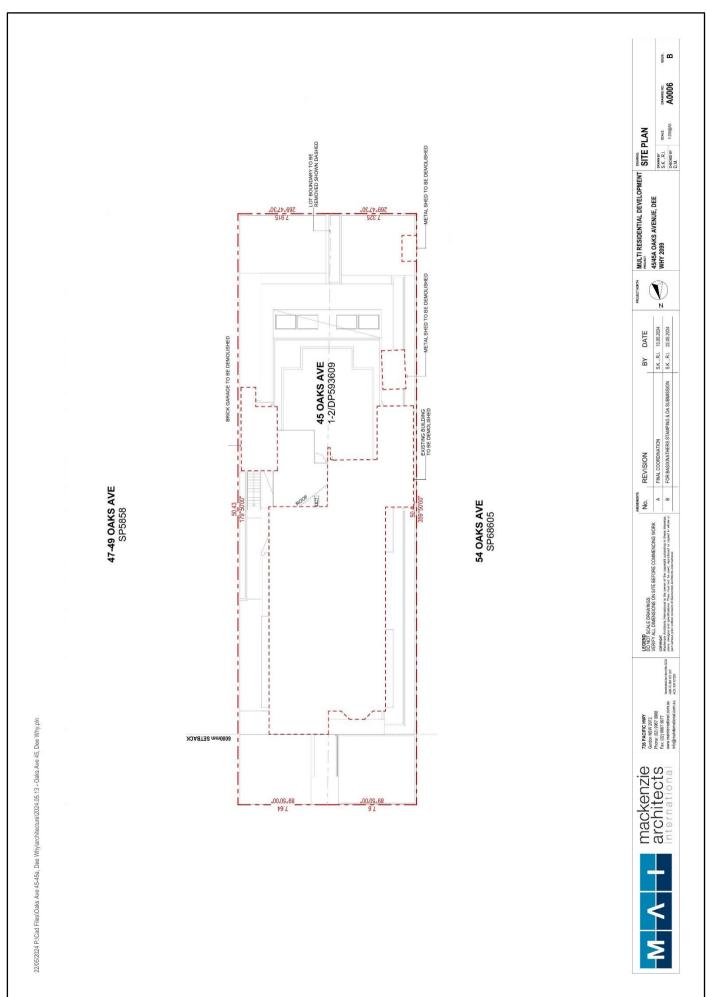




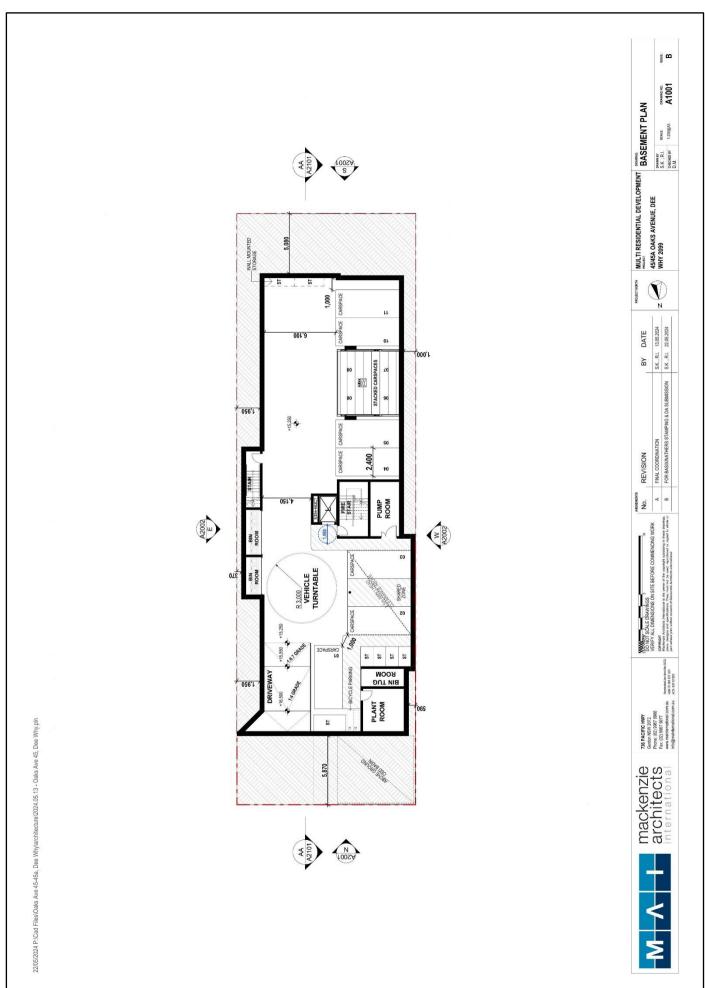
IND	UNIT SCHEDULE				STORAG	STORAGE SCHEDULE (BASEMENT)	SEMENT)
TINO	BEDROOMS	AREA (m2)	POS	(AREA m2) UNIT STORE (m3)	FLOOR	TINO	UNIT STORE
GROUND FLOOR					BASEMENT		found
601	1 BED (S)	54.45	8.64	6.03		101	4.73
G02	3 BED	98.27	58.53	11.29		103	8.09
603	2 BED	75.01	58.22	5.47		104	3.83
FIRST FLOOR						201	3.83
101	2 BED	75.11	10.00	5.64		203	3.83
102	1 BED (A)(S)	63.24	10.00	6.00		204	4.73
103	2 BED (AF)	76.94	11.50	4.03		603	3.83
104	2 BED (AF)	76.00	11.65	4.34			
SECOND FLOOR							
201	2 BED	75.08	10.00	5.64			
202	1 BED (A)(S)	63.24	10.00	00.9	SCHEDULE (A)	(A) ADAPTABLE UNIT	362 S
203	2 BED	76.92	11.50	4.57	(S)	SILVER LEVEL UNIT	TI ONIO
204	2 BED	76.00	11.65	6.71	(,,,,)	ALL CADABLE TIO	DAILO DAILO
THIRD FLOOR							
301	3 BED	117.43	12.22	12.02			

REVISION BY DATE FINAL COORDINATION SK., RI. 1385294 FOR BASSWATHERS STAMPHOLS ON SIGNISSION SK., RI. 22052294	MULTI	45/45A	
FINAL CORDINATION SK., R. FOR BASKNATHERS STAMPING & DA SUBMISSION SK., R. SK., R.	DATE	13.05.2024	22.05.2024
REVISION FINAL COORDINATION FOR BASKNATHERS STAMPING & DA SUBMISSION	ВУ	S.K., R.I.	S.K., R.I.
	REVISION	FINAL COORDINATION	FOR BASIXINATHERS STAMPING & DA SUBMISSION
	LEDRAWINGS	DIMENSIONS ON SITE BEFORE COMMENCING WORK	frota intervational is the owner of the occupied autoriting in these drawings, and applications. They must not be used, reproduced or copied in whose or man applications.

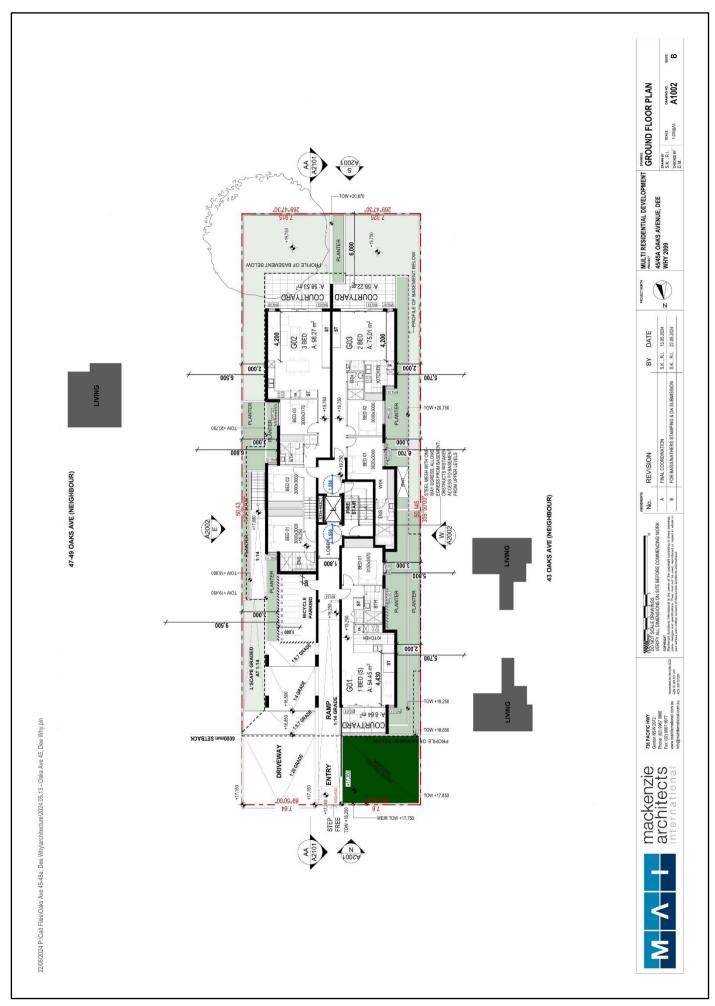




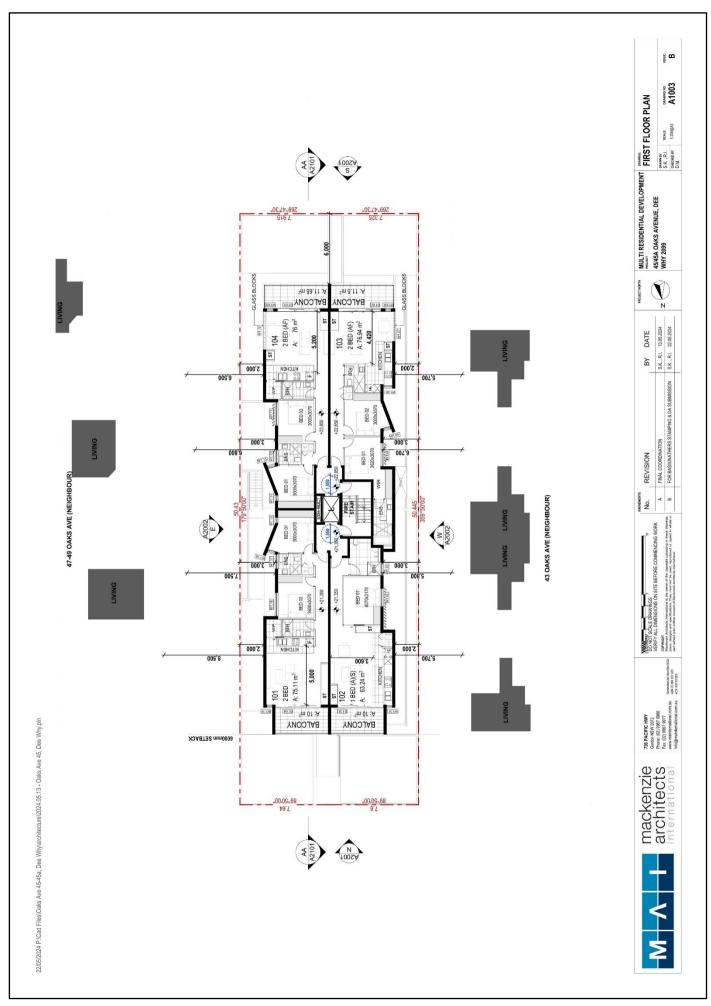




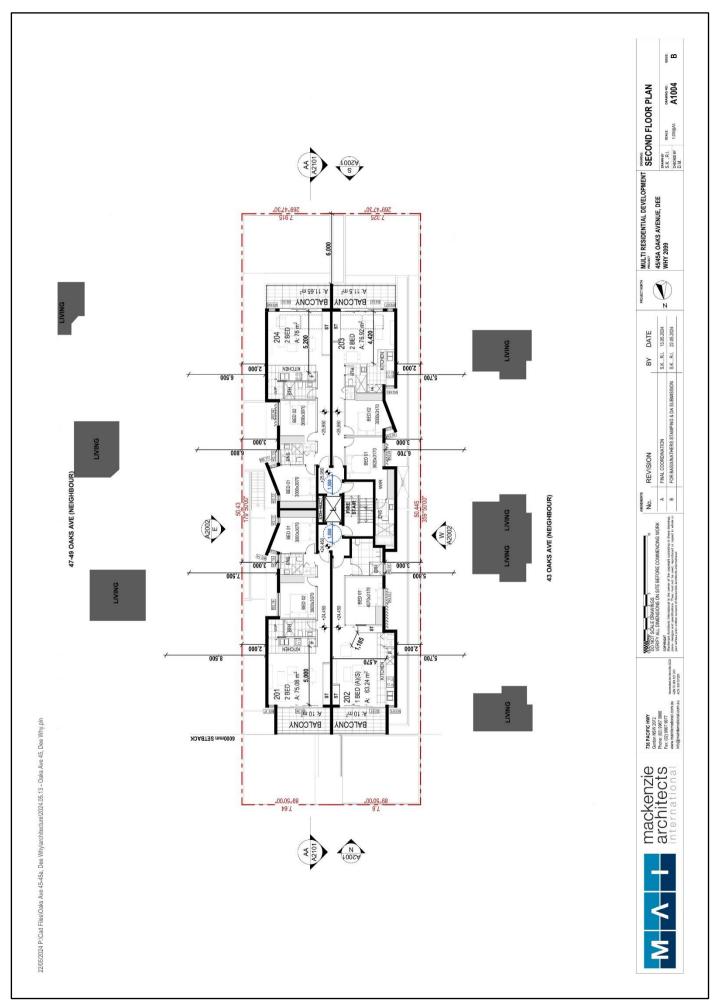




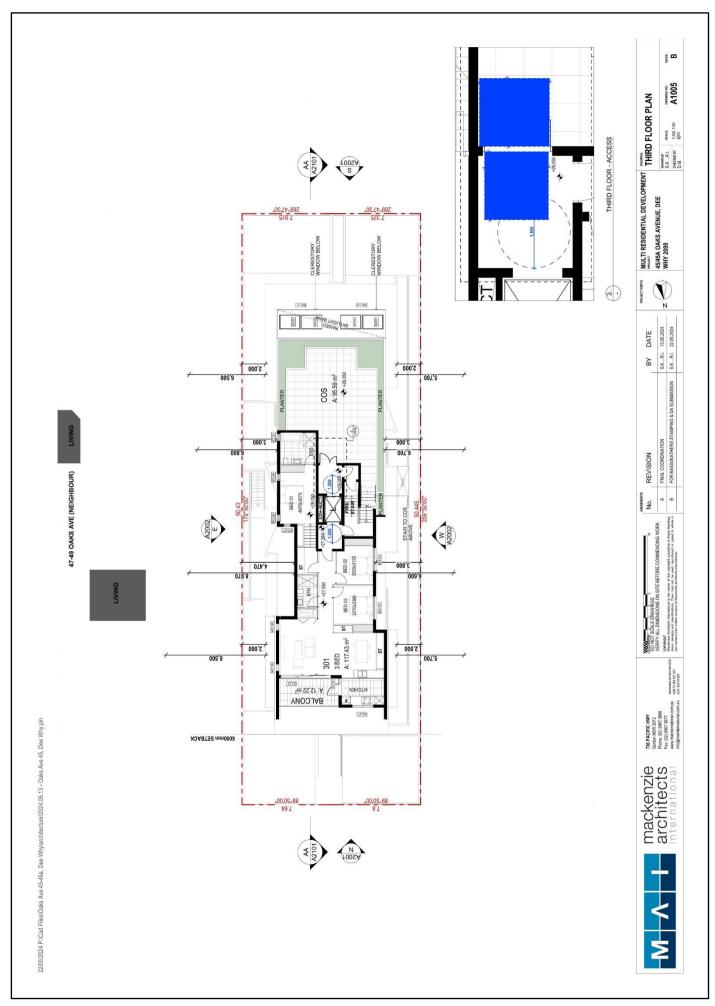




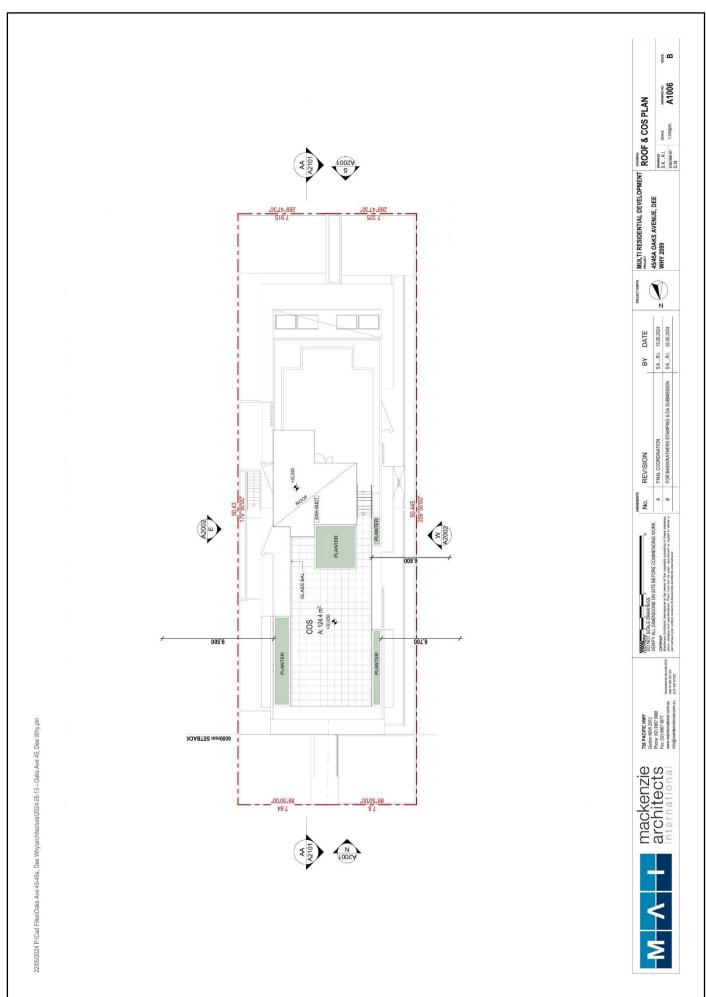




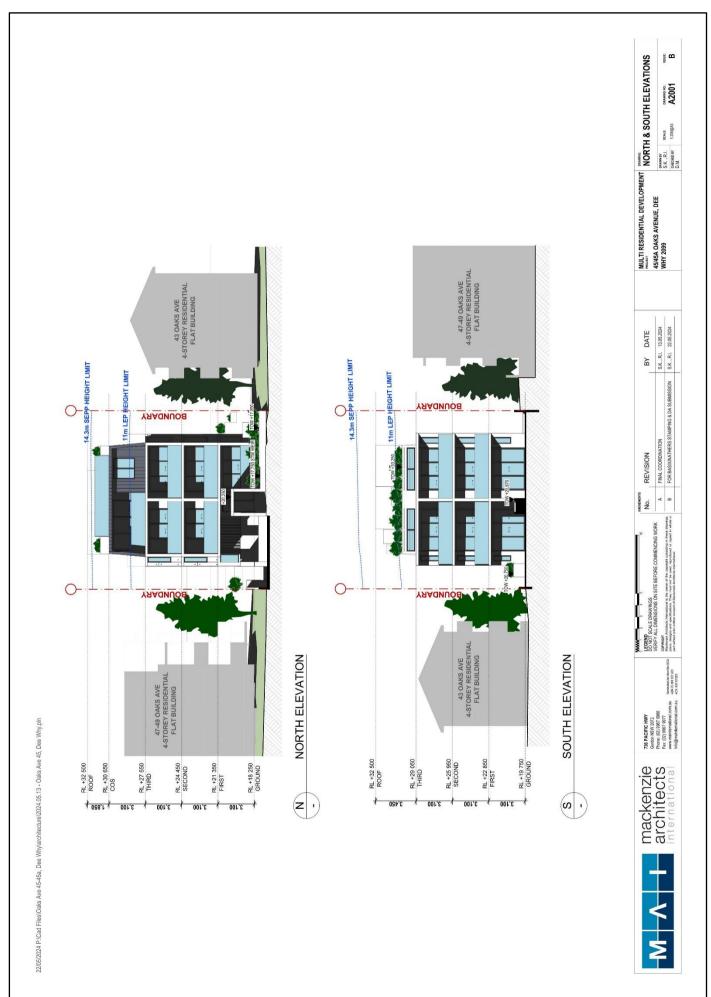








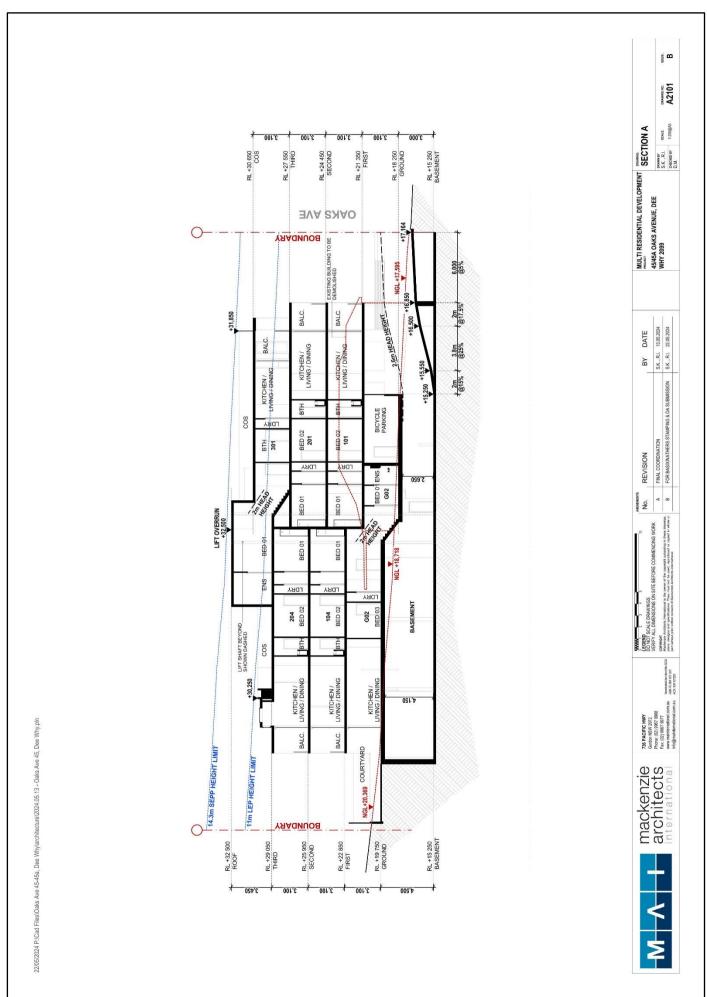














APPENDIX C – CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT REGISTER

eceipt				
Signature/Receipt Number				
Receival Facility				
Amount/ Volume Mode of Transport Receival Facility				
Amount/ Volume				
Waste Stream				
Bin Type				
Date/ Time				



APPENDIX D – TYPICAL BIN TUG

