

OPERATIONAL SUMMARY

BLACKTOWN MRF

Date: May 2021Prepared by: Peter NguyenVersion: Final - Approved

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1. INTRODUCTION

Cleanaway - NSW Solids Post Collections was approved to tender for the processing of recyclables from Blacktown City Council in August 2020. Cleanaway seeks to design, construct, install and commission a state significant infrastructure - Material Recovery Facility (MRF)(11,500 sqm) Plant in a brand new purposed built building and office space. The delivery of the plant is to ensure Cleanaway meets its commitment to Blacktown City Council for a facility commencement date of February 2023.

The material to be processed at the MRF will include, paper, cardboard, glass, aluminium, plastics, steel etc.

The Scope includes (but is not limited to):

- A materials recovery facility with the latest Materials Recovery technology and building a new plant that has the capacity of sorting more then 120, 000 TPA
- The MRF will be designed for yellow lidded bins, Container Deposit scheme (CDS). Comingle Materials to be processed to include paper, cardboard, glass, aluminium, plastic, steel etc
- Development of concept designs for the MRF plant (11,500sqm), ancillary office (400sqm), 3 x weighbridges, truck parking and staff car parking area
- The MRF will be designed with the capability of 24/7 operation with also CCTV system, thermal scanners, MDB, MCC, Air room and SCADA control
- The facility will be design and constructed according to Australian Standards (National Codes, Building codes, Compliance with NSW Fire Rescue guidelines and EPA waste facility environmental management guidelines for waste facilities – Feb 2020
- Construction or redevelopment of an old industrial site within the Blacktown local government

1.1 Site Location

The site is a brownfield industrial site which will be demolished, and a new bespoke building constructed specifically for Cleanaway (built by others). The site is located within the Blacktown Local council area. The site was selected by Cleanaway for:

- ✓ Easy access available to main freight roads
- ✓ Ability to maintain Cleanaway WHS requirements of vehicular access allowing for drive around or drive through and truck queueing capabilities
- ✓ Sufficient distance from residential neighbours so that neighbours are not affected by noise created by our operation during both normal working hours and after hours

Site details: Site (Old Fletchers Insulation site) is situated in South Western Sydney – Glendenning. Within the local government area of Blacktown Council. Located off the M4 and M7 in an older industrial area amongst other heavy industries in neighbouring properties (Holcim, Hume). The site has existing HV and LV power supplies currently. The site is located on the corner of Woodstock Ave and Kellogg Road. The property has 3 road frontages, with vehicular access to all four sides of the properties.

OPERATIONAL SUMMARY Version: Final - Approved Location: 600 Woodstock Avenue, Glendenning, NSW (Cnr Woodstock Avenue and Kellogg Road)

Site area approx.: 1.98Hectares

DP: 804292

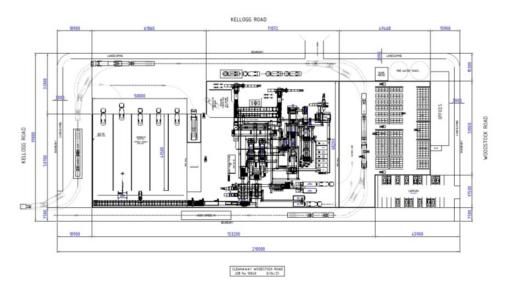
Site Area	Approximately 24,120sqm		
Building Area	Main Office & amenities	400 m ² - 730 m ² (TBC)	
	MRF Building	10,575m2	
	Car Parking (incl disabled and stacking spaces)	45 spaces (STCA)	
Targeted Occupation Date	Q1 2023		

Site location - Old facility (Prior to demo) - Fletchers Insulation



Cleanaway's Proposed new facility – complete knock down and rebuild

Blacktown – MRF



2. Occupier Information

2.1 About Cleanaway

Cleanaway is Australia's leading total waste management, industrial and environmental services company. For more than 50 years we have supported Australian industry, business, government, communities and households – delivering a comprehensive range of solutions that not only offer extraordinary benefits for our customers, but for our communities for generations to come.

Listed as one of the top 100 companies on the ASX (ASX: CWY), in 2018 we welcomed Toxfree and Daniels Health into the fold, increasing our footprint to over 6000 highly trained staff, supported by a fleet of more than 4,500 specialist vehicles, working from a network of more than 260 locations around Australia.

All this adds up to one of the largest waste, recycling, industrial services and liquids collections fleet on the road, with a substantial network of recycling facilities, transfer stations, engineered landfills, liquid treatment plants and refineries. At Cleanaway, we can offer our customers an almost unrivalled capacity to collect, process, treat, recycle or safely dispose of any type of waste.

The business has three major operating segments:

- Solid Waste Services—Our state-based Solid Waste Services business operates the largest solid waste
 and recycling services fleet in Australia supported by the leading resource recovery and post
 collection facilities network across the country. We service more than 95 municipal councils and
 over 135,000 local businesses.
- Liquids & Health Services We are the largest hydrocarbons recycling business in Australia and a leader in the overall liquids market, collecting and processing 140 million litres of mineral oil as well as collecting and processing 680 million litres of hazardous and non-hazardous liquids. The acquisition of Daniels Health allows us to handle all healthcare generated waste streams, with an unrivalled national service infrastructure and best in class products and services.
- Industrial Services —Our Industrial Services offers a wide range of plant and asset management services that provide solutions to reduce production down time, the risk of unscheduled plant stoppages and the reliance on labour; increase plant efficiency; and help customers comply with strict environmental and OHS requirements.

For us, sorting waste is not a matter of asking 'where does it go now?', but 'what can it be next?'. Seeing waste as a resource allows our business to continue growing –returning commodities to the value chain and providing our customers and communities with the best solutions on the market. Our unmatched experience and expertise in the industry means we are always finding better, smarter and cleaner ways to deliver on our mission – to make a sustainable future possible.

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3. PROPOSED OPERATION

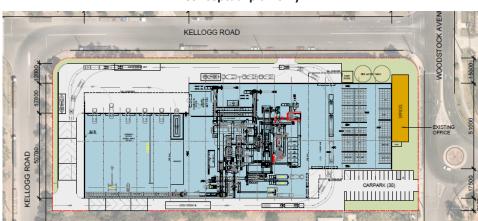
3.1 Hours of Operation

The proposed development would see be a brand-new purpose-built building with new staff, facilities, equipment, and automation plant. The brown field redevelopment and capital project value is well over \$70 million in investment into the local economy.

The facility has been designed to potentially operate 24 hours and the plant equipment to have a capacity throughput of 120,000TPA to service the state, as demand grows with population growth.

All operations will be undertaken wholly within the facility as per EPA regulations and licence requirements.

Yellow lidded bins comingle recyclables material is collected from the Blacktown Local Government Area and other Areas within the Greater Sydney area to be sorted and recycled into commodities of a high value. All waste or bi products are contained on site in containers and transported to other Cleanaway facilities



Conceptual plan only

3.2 Shift Patterns and Staffing

The facility is to be designed to accommodate the following anticipated population numbers:

AREA		POPULATION
All areas	Male amenities	25 persons
	Female amenities	15 persons
	Total population	40 persons

The typical anticipated staffing requirements for the proposed development are as follows:

SHIFT HOURS:

MRF AM shift: 4am - 2:15pm

• OFFICE staff shift: 9am – 5pm

 MRF PM Shift (If required): 2:30PM-12:30pm

STAFFING NUMBERS:

MRF AM shift: 24 Staff

• OFFICE staff shift: 11 Staff

• MRF PM shift: 20 staff

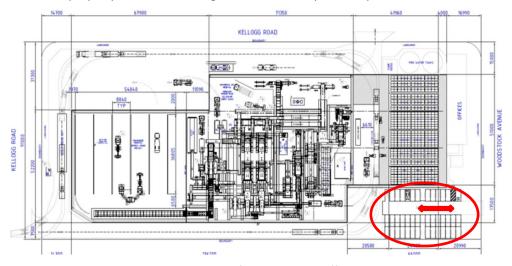
Initially only 1 shift to operate with an increase to 2 shifts or more, dependant on demand with time. When the plant is at capacity there will be approximately 4 hours down time per day allocated for plant maintenance and downtime.

The maximum anticipated employee numbers on the site at <u>any time is expected to be a maximum of 35 staff</u>. Shifts may be staggered to minimise overlapping of staff numbers.

4. Carparking

4.1 Parking overview (relative to the above)

Bituminous pavements to designated car parking areas to facilitate the number of car spaces including all necessary disabled car spaces with bollards, kerbing and access ramps to the relevant Council requirements. Approx 40 (28 of these are double stacked parking spaces) hard surface cars spaces is to be provided on the Northern end of the property with its own designate exit and entry driveway off Woodstock Avenue.



The Proposal provides more than adequate parking for the actual staff parking demands. Customers or Visitors are not expected to frequently visit the facility. However, a very conservative assumption of 2 visitors per day could be assume. The car park provides significant redundancy to allow for any infrequent customers or visitors should they need to attend site.

4.2 Truck Types

Designed operationally for safety, for one way traffic to circulate the facility. With the ability to maintain Cleanaway WHS requirements of vehicular access allowing for drive around or drive through and truck queueing capabilities for the following truck types:

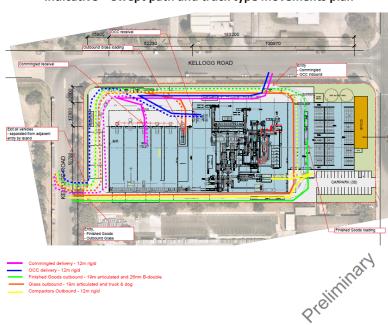
- 26m-28m B-doubles
- 19m Articulated
- Truck and dog
- and 12 m rigid trucks
- also the usage of Loaders and forklifts on site.

4.3 Deliveries and Truck movements

Proposed vehicles deliveries 7 days a week include:

- 26m -28m B-double
 - Product Storage
 - o MRF Glass Outbound
- 19m articulated
 - Product Storage
 - o MRF Glass Outbound
- 12m rigid

- o OCC receival
- o Packer Wet recyclables materials / Bulky metal
- o Co-mingled receival
- Komatsu WA 480-6-wheel loader (or similar); all areas
- Forklift all loading areas



Indicative - Swept path and truck type movements plan

4.4 Loading and unloading of Trucks

The image below highlights Loading and unloading areas within the building footprint:

Red markups, areas where "loading zone" could reasonably be implemented



4.5 Volumes and frequencies

The likely traffic volumes the operations of the facilities are as follows for 7 days of the week:

Inbound and Outbound

- B-doubles / 19m Articulated / Truck and dog
 - o 25/day
- 12m rigid
 - o 75/day

4.6 Timing trips/hr relative to timeslots

The hours of movements anticipated 7 days a week.

Inbound and Outbound

- Time slots (AM and PM): 12m rigid onsite turn around aimed at under 15 minutes per vehicle
- Time slots (AM PM): Larger trucks onsite turn around aimed at 1 hour per vehicle

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Operational overview 5.

5.1 Product Storage

Other than being a new purposely built resource recovery facility. In addition to the requirements of the Building Code of Australia (NCC/BCA) & WHS Act, fire services. Additional design guidelines have been considered:

- EPA NSW Fact Sheet Fire Safety in Waste Facilities, dated January 2020
- Fire Rescue NSW Fire Safety Guideline Fire safety in waste facilities (Feb 2020)

The proposed facility will receive inbound recyclable material into segregated bunkers with deluge systems. Stockpile of combustible material will be stored according to NSW Fire safety guidelines specifically designated for Waste recovery facilities. The processed outbound material will either be baled and stored indoors in bunkers or into metal containers ready for transportation. All other waste material generated will be stored in containers for transporting to other processing facilities.

5.2 **Additional Structural fire containment measures**

To further optimise the facilities operation additional structural fire containment measures have been included in the facility. These include but not limited to; thermal cameras, Water cannons, stockpile separation bunkers and push walls, separation and minimise stockpiles, fire protection of structural columns and fire walls to separate the facility into 3 fire containment zones.

5.3 Recyclables materials volumes

The likely material volumes that are to form the basis of the building requirement are as follows:

- Daily incoming volume approximately 400 tonnes per day
- Co-mingled receival stockpile volume 6 x 1000m3
- Finished Goods Product storage volumes approximately 5000m3

5.4 Where does inbound recyclables material comes from

Yellow lidded bins - Recycling Bins collected from Municipal Comingle recyclables from Blacktown and Greater Sydney. The plant will be designed to also able to accommodate additional cardboard and recyclables materials from our Commercial Customers as well.

5.5 Where does the material go from here

Recovered commodities will go to facilities to be used to manufacture new products domestically and nationally

5.6 **Acoustic considerations**

The purpose-built building has been built with full height precast concrete wall panels and insulation. The full operations of the MRF will be wholly inside.

The plant equipment has been designed with noise attenuation.

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The proposed operation is consistent with the surrounding existing use of the Industrial area. The operational usage of the facility will be compliant with requirements relating to the development, even during the night-time period.

End of Document

DOCUMENT CONTROL	ву	Date
CWY_blacktown MRF_ Operational Plan_ Draft_V1	Created by Infrastructure – P Nguyen	22.05.2021
CWY_blacktown MRF_ Operational Plan_ Draft_V2	Reviewed by Procurement – S.B	27.05.2021
CWY_blacktown MRF_ Operational Plan_ Final	Approved by (CWY) – S.B	28.05.2021
CWY_blacktown MRF_ Operational Plan_ Final	Forwarded to S.J & T.L (WTP) for further review	02.07.2021
CWY_blacktown MRF_ Operational Plan_ Final	Revised by PN and TG (Cross checked with TMP)	10.12.2012

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CWY NSW SOLIDS

NSW - Western Sydney - Blacktown MRF

Revision Status

Date	Issue	Ву	Checked	Approved
24.9.2021	1	Peter Nguyen	S. B	Drafted
01.12.2021	2	Peter Nguyen	Pending Review by M.S	APPROVED
09.12.2021	3	Peter Nguyen	Feedback Project strategy	Updated
11.12.2021	4	Peter Nguyen	Cross checked with Ops Plan	Updated





This Traffic Management Plan has been developed from the risk assessment. This plan aims to outline the designated traffic rules on the site and to provide a safe system for employees, visitors, and contractors. The plan provides for the orderly movement of vehicles, pedestrians, loading and unloading of goods, and parking.

This plan considers the risks associated with the identified hazards including, but not limited to:

- Requirement to segregate pedestrians from vehicles.
- Workplace layout.
- Traffic volumes, including routes, priority, and exclusion zones.
- Signage.
- Lighting and visibility.
- Speed limits; and,
- Parking.

The Business Unit Manager, Supervisor, and employees review this traffic management plan on a regular basis as the needs and issues of the site change and develop. Any changes are subjected to further risk assessments. The traffic management plan is reviewed as a minimum on an annual basis.

Note**

Further information surrounding the management of health and safety risks associated with traffic management including signage, walkways, vehicles routes and separating pedestrians and vehicles can be found in section 274 of the Work Health and Safety Act (the WHS Act) or the Traffic Management in Workplaces Code of Practice.

Reference: 4.2.6.12 Version: 3.3 Uncontrolled When Printed



TRAFFIC MANAGEMENT

1.0 Site Access

The site is located at: 600 Woodstock Ave, Glendenning NSW - Australia

Entrance to the site is via: Kellogg Road

Exit from the site is via: Kellogg Road (Side Street - cul-de-sac)

Parking is provided for employees, visitors and contractors and is situated at:

The Northeast corner of the site. Entry and exit via Woodstock Ave, Glendenning

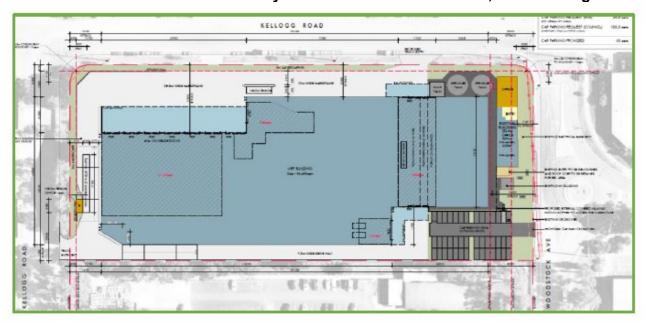


Figure 1: Site Layout Plan

1.1 Speed Limit

Like any other public road, speed restrictions shall apply to all vehicles using the roadways and parking facilities at the site.

The speed restrictions applying to the site are: 5km/hr. -10km/hr.

- 10km/hr. for vehicle traffic areas (e.g., roadways).
- Walking pace in loading/unloading areas.
- Walking pace in pedestrian designated areas; and,
- 5km/hr. vehicle parking areas.

1.2 Vehicle Rules

The following rules shall apply regarding the 'right of way' at this site:



GENERAL

Designated Area	Right of Way
Roadways	Vehicles
Road Intersections	Vehicle on the right
Loaded and Unloading Areas	Loaded forklift and yellow gear
Pedestrian walkways	Pedestrians

DETAILED

Designated Areas Right of Way All vehicles must enter headfirst. Entry / exit into site Always follow the instructions of the (2 Way radio used on site) weighbridge officer for traffic conditions including using 2-way radio to communicate while on site Upon entry containers will head for the In and Weighbridge (Weighbridge office) and then circulate to back laneway and wait to be invited to enter the Breezeway Reversing out of the yard is not permitted. Should reverse be required operationally then a TMP and Risk assessment must first be completed and approved by the operations manager All vehicles must reverse into the

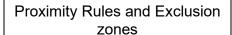
Entry / exit into Receivables or dispatch area

- designated loading dock number as advised by Cleanaway staff.
- Operations are to instruct / direct /provide spotter assistance if required.



- The proximity rules are 3 meters between pedestrians and forklifts, and 5 meters between heavy vehicles and pedestrians.
- Vehicles shall not move within the proximity of pedestrians that are present.
- Pedestrians shall not move within the proximity of vehicles that are present.
- Whilst a truck is tipping their load, a 4-meter exclusion zone must be always maintained around the vehicle. Yellow gear is only permitted to move the load once the truck is clear of the product.
- only permitted to move the load once the truck is clear of the product.

 A pedestrian may only move within the proximity of a vehicle after the vehicle has stopped and permission has been given by the
- proximity of a vehicle after the vehicle has stopped and permission has been given by the vehicle operator. The vehicle operator is only permitted to commence operation once verbal / visual acknowledgement with the pedestrian has been made and the pedestrian is outside of its proximity.
- Pedestrians and vehicles may only operate concurrently within proximity if there is a









	physical solid barrier separating the two (i.e., concrete block or cardboard / paper bale). • As a further risk control measure, employees sorting material in the immediate vicinity of the pit conveyor must activate the strobe light to indicate that they're in the area. This must be deactivated only when clear of the area or separated by a physical barrier. Whilst the strobe light is activated, no vehicle may enter or operate in the area. • Where drivers are not required to attend to their trucks, they must remain within their vehicles or a dedicated driver safe zone.
Loading and unloading of trucks/driver responsibilities	 Whilst waiting for product to be loaded / unloaded, drivers must always observe the proximity rules and remain in a driver safe zone unless attending to their vehicle. Drivers are not permitted to be positioned on the opposite side of the truck or holding their curtains during loading.
Traffic flow	 Whilst waiting for product to be loaded / unloaded, drivers must always observe the proximity rules and remain in a driver safe zone unless attending to their vehicle. Drivers are not permitted to be positioned on the opposite side of the truck or holding their curtains during loading.
Pedestrian Crossing	 Whilst waiting for product to be loaded / unloaded, drivers must always observe the proximity rules and remain in a driver safe zone unless attending to their vehicle. Drivers are not permitted to be positioned on the opposite side of the truck or holding their curtains during loading.

1.3 Demarcation Zones

Specific zones delineating vehicle operational areas and pedestrian areas have been clearly defined and designated.

HSE MANAGEMENT SYSTEM



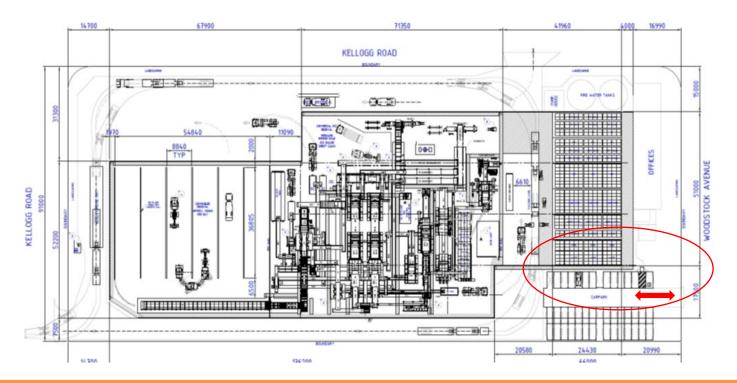
1.4 Parking

Parking is provided in the designated location and parking outside this area is not permissible unless specific approval from the Business Unit Manager has been obtained.

Contractors required to have their vehicle near the contracted works shall be advised by their Company representative of the location.

The site also has provision for staff parking. Most parking spaces will be allocated to staff.

- Cars must be reversed in (only) and must parked in their designated spots.
- MRF plant staff will have designated tandem parking spots. All tandem spaces (rear spaces) are allocated to MRF staff only and therefore can be managed internally
- Management of these spaces will be through the implementation of staggered shift start and finish times.
 - ➤ MRF STAFF AM shift 4AM 2:15PM (stacked parking)
 - > **OFFICE STAFF shift** 9 AM 5 PM
 - > MRF STAFF PM shift 2:30PM 12:30PM (stacked parking)
- To assist with the tandem parking management- pre allocated spots will be color coded for MRF plant staff and Office admin staff.
- MRF Plant staff will staggered shift starting times. This assist with traffic congestion and part of Cleanaway COVID 19 site safety management.
- MRF staff supervisors' team (Team leaders and above up to 5 staff per shift approx.)
 will start 30 minutes earlier then the main shift staff. This will assist with shift handover and minimize parking congestion on site.
- The administration of the stack parking will be centralized and managed by the Operations Leader during the day and the Team leader during for the night shift.
- All MRF staff will have access to 2-way radio communication for safety and accessibility
- Note all truck driver's vehicles will be stationed off site at our Glendenning Depot.



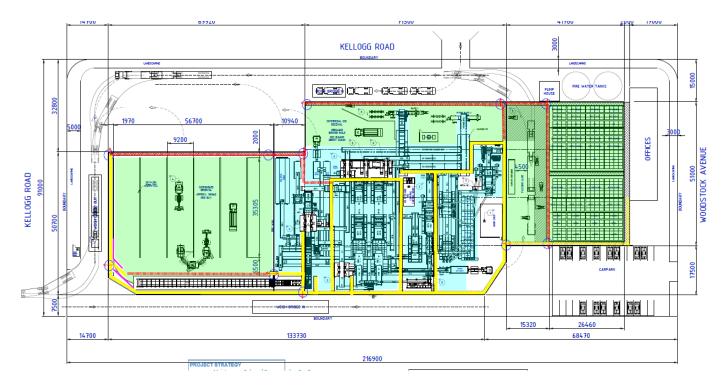
HSE MANAGEMENT SYSTEM



1.5 Pedestrian Interaction

Pedestrian interaction within the site has been minimized using several traffic controls measures, including, but not limited to:

- Designated walkways clearly colour coded (Yellow (Ped), Red (Egress), Blue (Maintenance only) and Green (Vehicles+ Plant only no Ped).
- Crash barriers.
- High visibility clothing; and,
- Vehicle speed limits.



At times, pedestrians and vehicles will be required to work in the same general area. Where this is necessary, the interaction shall be managed by means of a safe process, including, but not limited to:

- Site inductions
- Take 5
- Toolboxes
- Risk assessments
- Physical barriers around exclusive pedestrian walkways; and,
- Mobile plant and pedestrian demarcation zones.

All personnel working in and entering operational areas of the site are required to wear high visibility clothing or hi-visibility vest.

Visitors shall be provided with a hi-visibility vest prior to entering operational areas by their Company representative. Such vests shall be returned when leaving the site.

HSE MANAGEMENT SYSTEM



1.6 Signage

Appropriate traffic control signage is displayed throughout the site. These signs serve as a constant reminder to all vehicle operators and pedestrians of conditions and requirements when accessing various areas on the site.

All signage requirements are reviewed and audited annually and checked during workplace inspections.

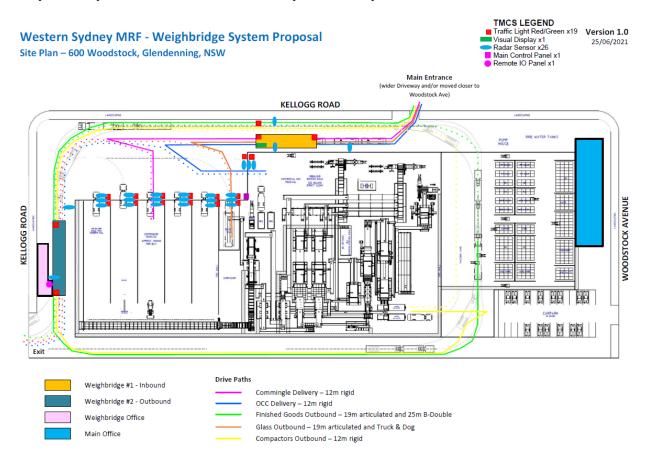
1.7 Lighting and Visibility

Lighting has been specifically designed to ensure that vehicle and pedestrian operations are always visible.

Vehicles on site always use their lights whilst operating and where fitted, flashing orbital lights, and reversing alarms are operated.

1.8 Traffic Management Control System

The facility is managed by a Traffic Management Control System which will be centralized and controlled by a dedicated Weigh Bridge officer. All will be communicated through a 2-way radio system and on-site intercom system at key site locations.





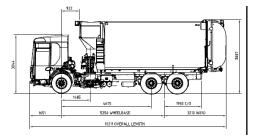
The facility will have a minimum of 2 x Front end loader working within the facility, along with up to 4 forklifts loading and unloading at any time.

Front Loaders shall be operating in mainly "No Pedestrian zoned" areas. However, should pedestrians be sited, then the loader operator must; uses its horn, Bucket nose down and stop the loader operation until both parties acknowledge and the Pedestrian is at a safe distance to the machinery. While driving outside the building loader will have its bucket down. Flashing lights are always fitted on all loaders and on during loader operation.



The B double Trucks that come site are up to 28 m in length. The vehicles enter site via the regular site entry and proceed onto the weighbridge to weigh on. An overflow queuing system would be activated by the Weighbridge Officer if the main Driveway is too congested.

Commingle Trucks will queue and proceed to the small weighbridge when directed by the Weighbridge officer. Then be allocated a door and bunker to top the Co mingle waste.



Comingle vehicles enter the site via the regular site entry and proceed to the weighbridge to weigh on. After weighing on the truck must proceed to the designated area in the yard as directed by the weighbridge operator. Whilst tipping, an exclusion zone around the truck of 4 meters must always be maintained, and yellow gear is only permitted to move the load once the tipping truck has cleared the area.

All trucks must weigh off prior to departure.

The semi-trailers that come to the MRF site usually pick up product, but at times they deliver. The vehicles enter site via Kellogg Rd and the main driveway and following this go onto weighbridge to weigh on. These trucks must use the large weighbridge and ensure that the weighbridge is always accessible for incoming / outgoing trucks.

Should there be no truck space available within the yard, the truck will be directed by the weighbridge to enter via the back driveway and queue up in the back lane way of the property. Loop back to the large weighbridge and Weighbridge office.



HSE MANAGEMENT SYSTEM



After weighing on the vehicle must park in their designated area as directed by the weighbridge operator. Drivers must remain either in their truck or within a safe zone when not attending to their truck (e.g., moving curtains, etc.). At all times drivers must be aware of other vehicles moving in and out of the warehouse.

