Waste Management Plan 561 Tarneit Road, Hoppers Crossing

29/08/2022



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Waste Management Plan (WMP) Proposed Residential Development

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DOCUMENT VERSION

Version 0: Issued on 11/04/2022 for Client review.

Version 1: Updated collection method as per Council's comments on 26/06/2022

Version 2: Updated on 29/08/2022 as per new drawings and Council's comments

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INTRODUCTION

Frater Consulting Services have been engaged to undertake a Waste Management Plan for the proposed townhouse development located at 561 Tarneit Road, Hoppers Crossing. We have reviewed the plans of the proposed development and have, where necessary, undertaken research in the relevant field of waste management.

SITE DESCRIPTION

The proposed site is located at 561 Tarneit Road, Hoppers Crossing. The 4,078m² site is currently occupied by a single storey house which is proposed to be demolished prior to the construction of the development. It is located approximately 30kms south- west of the Melbourne CBD.

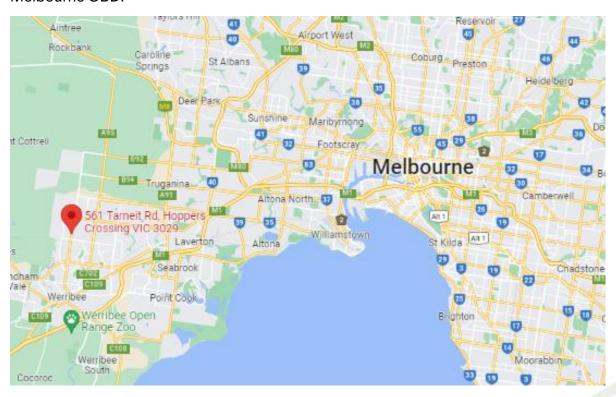


Figure 1: Location of the proposed development in Hoppers Crossing with relation to Melbourne CBD (Source: Google Maps)

PROPOSED DEVELOPMENT

The proposal consists of development of the site into 20 townhouses. The area of the site is approximately 4,078m². Each townhouse will be provided with an undercover garage and a central common driveway opening on Tarneit Road.

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TYPES OF WASTE GENERATED

The following types of waste are most commonly generated within a residential development:

- General landfill rubbish;
- Recyclables such as glass, paper, cardboard, cartons, plastics with ID Codes 1 to 7, steel & aluminium cans:
- Compostable organic material (food scraps);
- Hard rubbish such as broken furniture and large objects; and
- Sundry waste types such as electronic waste.

This list of waste types is expected to expand by 2030 in line with the Victoria State Government's Recycling Victoria Policy, to include:

- Separate glass collection and
- Inclusion of food organic waste with garden waste

Kerbside collection will transform by 2030 for each Victorian household to have access to four core waste and recycling services, this may include four bins or waste collection containers per residence.

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WASTE GENERATION RATES

General Waste, Recycling and Food/Garden Waste

The online waste calculator provided by Sustainability Victoria (https://calculators.sustainability.vic.gov.au/mud-waste-management/) has been used to estimate waste generation for the proposed development:

Multi-unit and Commercial Development Waste and Recycling Generation Rates Calculator

The following waste and recycling generation rates are recommended for estimating the number of garbage and recycling bins, and storage areas required for multi-unit developments and mixed use developments. The total number of dwellings, combined floor areas of proposed/likely commercial uses; and for accommodation uses, the likely number of occupants will be required to determine waste and recycling generation.

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Dwelling waste and recycling materials	
Number of individual dwellings?	20
Number of 3 bedroom apartments	0
Number of 2 bedroom apartments	0
Number of 1 bedroom apartments	0
Weekly generation	
Organics + Non-organics = Garbage 2400L	Recycling 2400L

Sustainability Victoria conducted the Victorian Statewide Garbage Bin Audit – Food Waste 2016, to analyse the number of items in a garbage bin, including food waste. The audit found that approximately 35% of the garbage bin is made up of food waste. Therefore, this has been factored into the above calculation rates.

Based on the proposed 20 townhouses the total waste generated by the development is therefore:

Total Development	Rubbish Generation	Comingled Recyclables	Green Organic Waste	
20 Dwellings	1,560 L/week	2,400 L/week	840 L / Week	
Proposed Bin Type	120 L	240 L	80L	
Number of Bins required	20 (1 per dwelling)	20 (1 per dwelling)	20 (1 per dwelling)	
Collection Frequency	Once per week (Private collection)	Once per fortni d(IVNC (Private Collec <mark>tion)</mark>	HAMAREITWEGOUN TOWNATPRAINTINED)	ICI

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Hard Waste

The Council contractor will provide hard waste collection. Wyndham residents are entitled to three free hard waste collections per financial year to dispose bulky, broken, unrepairable household items and garden waste. These collections must be booked by the residents online anytime or trough the phone during business hours. More information at: https://www.wyndham.vic.gov.au/services/waste-recycling/hard-and-green-waste-collection-service

Separate Glass Bin

To allow for future adoption of glass collection services, space provision to accommodate an additional 1×240 bin for glass bin will be provided for each dwelling.

BIN TYPFS

Below are the types of bins that the private contractor will provide with the common dimensions:

Bin Storage Type	Capacity	Colour	Waste Type	Comments
	120L (1 per townhouse)	Dark Green Body with red lid	General Garbage	Average dimensions are: Height 0.93m, Width 0.48m, Depth 0.545m Total floor area required: 0.26m²/bin
	240L (1 per townhouse)	Dark Green Body with blue lid	Commingled recyclables	Average dimensions are: Height 1.06m, Width 0.585m, Depth 0.73m Total floor area required: 0.42m²/bin
	80L (1 per townhouse)	Dark Green Body with bright green lid	Organic/Green Waste	Average dimensions are: Height 0.79m, Width 0.45m, Depth 0.49m Total floor area required: 0.0.22m²/bin

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Bin Storage Type	Capacity	Colour	Waste Type	Comments	ER
er Carri	240L (1 per townhouse)	Dark Green Body with purple lid	Glass	Average dimensions are: Height 1.06m, Width 0.585m, Depth 0.73m Total floor area required: 0.42m²/bin	

Private contractor will provide the bins for the development.

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SIGNAGE

Appropriate signage will be made available by the developer or the private contractor for the resident for their own installations (such as on the underside of the bin's lid). These visual prompts (such as Figure 2 below) will assist in the proper disposal of the different types of waste.



Figure 2: Example signage from the Sustainability Victoria waste signage library. Printable signage can be found in Sustainability Victoria's website: http://www.sustainability.vic.gov.au.

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WASTE STORAGE

 20×120 L bins for general rubbish (1 per townhouse) and 20×240 L bins for recycling (1 per townhouse), 20×80 L bins for green/organic (1 per townhouse) and 20×240 L bins for glass (1 per townhouse) will be provided for the development by private contractor.

All bin types will be stored in each townhouse's respective POS. This will make it easy for the residents to store and roll out the bins to their respective collection point on the collection day. Occupants will not be permitted to store bins in front of the townhouses to protect visual amenity of the common areas.

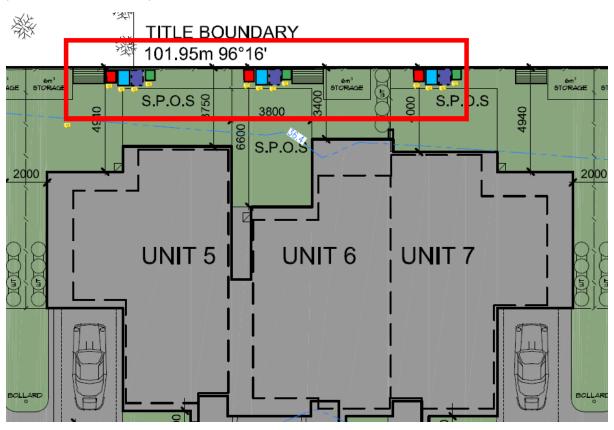


Figure 3: Example of bin storage area within the townhouses' respective POS.

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WASTE COLLECTION & DISPOSAL

Private collection is proposed for the development.

Residents will roll their bins from their storage area (POS) to the front of their dwelling on the evening prior to collection day. Private waste contractor will enter the site on a forward direction, collect the bins directly from the front of each townhouse and return them to each dwelling once empty. Individual bin collection will prevent the occupants to roll their bins long distances to shared waste storage areas and will prevent vermin and smell affecting the development.

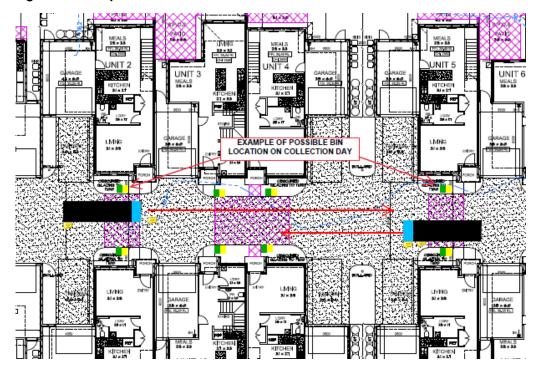


Figure 4: Bin presentation and collection on collection day.

The bins will be placed at the front of the dwellings only the night prior collection and will stay there for a short period of time. Occupants will be required to roll the bins back to their POS at the end of collection day to ensure the aesthetics of the site are not impacted. To ensure the bins can be placed at the front of each dwelling, the development will implement low grass on all temporary bin locations where occupants will sit their bins on collection day.

As collection of the bins is to be made within the site, it is proposed that a Waste Wise Mini Rear Loader or any vehicle able to enter and exit the site in a forward direction will be used for collection. The Waste Wise Mini Rear Loader is approximately 2.08m high, 6.35m long and 1.7m wide.

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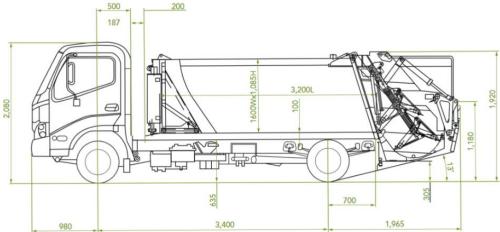


Figure 5: Dimensions of the "Waste Wise Mini Rear Loader" truck (Source: Waste Wise Environmental Australia)

The truck will manoeuvre using the space between Units 10, 11 and the eastern boundary and will exit the site on a forward direction. The swept path below demonstrates enough space is provided at the end of the driveway for the truck to turn and exit the site in a forward direction.

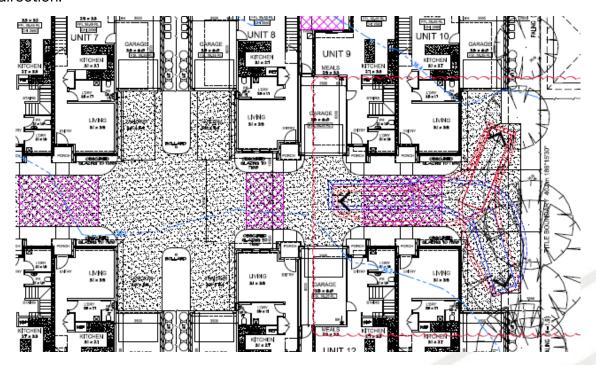


Figure 6: Swept paths for waste collection within the site

The collection will require four separate trucks, one each for waste stream. All general bins will be collected by the private contractor, with pickups made once per week for general waste and fortnightly for recycling and green/organics.

Collection will occur outside of peak traffic hours and will be in accordance with EPA and The City of Wyndham requirements, so as to minimise any traffic disturbance for residents WYNDHAM CITY COUNCL or visitors entering or exiting the site.

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OTHER WASTE TYPES

Resident will have access to Council's hard waste service. Wyndham offers three prebooked hard waste collection each financial year. Please visit

https://www.wyndham.vic.gov.au/services/waste-recycling/hard-and-green-waste-collection-service for more information.

E-Waste has been banned from landfill from 1st July 2019. Occupants will be required to dispose of their E-waste at their nearest drop-off point. Nearest e-waste recycling drop-off point can be found on Planet Ark's *Recycling Near You at* https://recyclingnearyou.com.au/electrical.

Other Recycling Options

The following recycling options may also be useful:

Waste Exchange Database: Allows communication between generators of waste and potential recyclers.

Ziilch: Simple online recycling of unwanted goods.

Freecycle: A non-profit portal for exchanging unwanted goods for free.

Reverse Art Truck Inc.: A non-profit organisation that collects seconds and factory off cuts for reuse as art materials. Free pick up.

Ozrecycle: Another way to give and get things for free instead of sending them to landfill.

FreeTreasure: Free Treasure is developing to become one of Australia's best communities to find free stuff.

The Sharehood: Helps you share resources within your neighbourhood.

Other recycling services such as St Vincent de Paul, Brotherhood of St Laurence, The Smith Family and The Salvation Army accept a range of household items.

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WASTE REDUCTION SUGGESTION

Reduction of plastic bag

Up to four billions or 20,000 tonnes of plastic bags are sent to landfill each year in Australia. There are some ways to reduce the plastic bag usage of the household:

- Use re-useable bags, cardboard boxes or baskets when shopping; and
- Use supermarkets and shops that endorse re-usable bags, or provide recycling outlet for plastic bags.

Recycling

In order to minimise the waste production of the household, it is important to recycle effectively and try to select recycled product when possible. There is a range of practical things easy to do at home to improve recycling:

- Remove lids and empty bottles when recycling;
- Recycle newspapers;
- Buy product with minimal packaging or/and with recycled material content;
- Buy recycled products (e.g. toilet paper); and
- Ensure recycling materials is not spoiled (e.g. food scraps) before recycling.

PREVENTATIVE MEASURES

Disposal Procedures

Residents are to ensure that all internal general rubbish bin bags are tied up securely before being placed in the bins. They will also ensure that recyclables are placed in the blue lidded bins in a way that minimises potential litter and overflow (for example crushing boxes, cans and plastic bottles).

Maintenance

As a minimum, residents will be required to keep the bins neatly placed in their garages. To further reduce the risk of litter, residents will be asked to make sure bins are not overfilled and to keep the lids closed. The above measures will minimise the dispersion of site litter and risk of vermin. The resident will be required to conduct periodic maintenance of their bins such as wash-downs and any necessary repairs/replacements will need to be organised with the private contractor.

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SUMMARY

Correct implementation and resident induction to the WMP will ensure that all waste streams are correctly disposed of and sorted into their proper bins. Proper bin management will ensure that all waste is stored & collected efficiently and effectively without compromising the amenity, capacity and tidiness of the storage areas. Private contractor will supply the bins and will be responsible for bin collection once a week for general waste and fortnightly for recyclables and green/organic waste.

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