

11 March 2021

Matthew Rawlinson
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Dear Matthew,

Re: Waterloo Metro Quarter: Northern & Central Precinct– City of Sydney Council Waste Responses

The purpose of this letter is to address City of Sydney Councils Waste Responses (72 & 74), as per the below:

City of Sydney Response	Elephants Foot Recycling Solutions (EFRS) Response
<p>72. The City has developed a waste calculator to ensure development provides sufficient waste storage facilities in accordance with the City's Guidelines for Waste Management in New Developments. Please find attached a PDF with the estimated area required for waste bins. The City requests that the developer use the waste calculator and demonstrate that sufficient area has been provided to meet the needs of each use proposed on site. Please note that the City discourages more than 3 collections per week to minimise traffic movements.</p>	<p>Elephants Foot Recycling Solutions (EFRS) notes that City of Sydney Council's waste calculator will not be entirely accurate for some waste areas, as it does not account for additional storage requirements of equipment to manage the separate waste and recycling streams. The additional equipment proposed in the Waste Management Plan that City of Sydney Council's waste calculator does not account for includes the following:</p> <ul style="list-style-type: none"> • Volume handling equipment including linear track systems for the residential chute discharge room. • Portable 12m³ compactor for the management of general waste for the retail, commercial and childcare components. • Cardboard baler and pallets for storage (sized according to Australian Standards) for the management of cardboard for the retail commercial and childcare components. • Glass crusher for the management of glass recyclables for the retail, commercial and childcare component. <p>It is also evident that some calculations in the waste calculator do not align with City of Sydney Council's <i>Guidelines for Waste Management in New Developments 2018</i>, hence there are inconsistencies in information. EFRS have based all calculations in the Operational Waste Management Plan (OWMP) upon Council's <i>Guidelines for Waste Management in New Developments 2018</i>.</p> <p>A comparison of spatial advice derived from City of Sydney Council's waste calculator and actual waste room sizes based off the architectural plans for each waste area are provided below.</p> <p><u>Residential Chute Discharge Room (Basement)</u></p> <p>This room has been designed to accommodate two days' storage capacity of waste and recycling, including 5 x 1100L waste bins and 5 x 1100L recycling bins. Volume handling equipment, including 2 x 2-bin linear track systems have also been provided to automatically transfer bins when full.</p>

As City of Sydney Council's waste calculator does not consider volume handling equipment, the following City of Sydney waste calculator figure in the comparison below is based off 10 x 1100L bins only, whereas the area provided in the proposed development includes the provision for 10 x 1100L bins in conjunction with 2 x 2-bin linear track systems.

The area provided in the architectural plans is significantly larger than that derived from the City of Sydney Council's waste calculator and Guidelines for Waste Management in New Developments 2018, as per the below comparison:

Calculator: 18.4 m²
Area Provided: 41.5 m²

Residential Bulky Storage Waste Room (Ground)

The area provided is consistent with City of Sydney Council's waste calculator and *Guidelines for Waste Management in New Developments 2018*, as per the below comparison:

Calculator: 16m²
Area Provided: 16.2m²

Residential Bin Holding Room (Ground)

The area provided in the architectural plans is significantly larger than the area specified in City of Sydney Council's waste calculator. The area provided in the architectural plans allow for the bin footprint as well as sufficient room to safely access and manoeuvre bins.

Calculator: 40m²
Area Provided: 67m²

Commercial/Retail Waste Room (Ground)

As discussed above, City of Sydney Council's waste calculator does not consider portable compactors, balers and glass crushers. The waste calculator only considers the option for separating waste, recycling, and food waste into 1100L and 120L bins (collected 3 x weekly).

The Waste Management Plan has separated waste and recycling streams further than what the waste calculator allows for, including cardboard, mixed recycling, and glass.

The 12m³ portable compactor provided for general waste has the capacity to compact waste at a compaction ratio of up to 5:1, therefore it has the equivalent storage capacity of approximately 50 x 1100L bins per week. Allocated staff and/or cleaners are responsible for monitoring the capacity of the portable compactor and scheduling in collections when required, hence a set collection schedule is not generally allocated.

	<p>The cardboard baler and glass crusher also has the capability to compact and significantly reduce the volume of cardboard and glass. Similarly to the portable compactor, cardboard bales and glass receptacles are serviced when scheduled. Typically, waste service providers will collect a minimum of 4 x cardboard bales at a given time, hence it is likely that collections will occur 2-3 x weekly.</p> <p>Due to the high putrescible nature of food waste, 120L food waste bins are serviced daily to maintain a high standard of cleanliness in the facility.</p> <p>The 1100L mixed recycling bins are collected 5 x weekly. Traffic Consultant, PTC have assessed this and have advised that 5 x weekly collections will have no impact on traffic congestion.</p> <p>Due to the justification above, the calculator figure is inconsistent with the area provided, as per the below:</p> <p>Calculator: 86m² Area Provided: 76m² (including waste room & compactor)</p> <p><u>Commercial/Retail Bulky Waste Storage Room</u></p> <p>The area provided was calculated using City of Sydney Council's <i>Guidelines for Waste Management in New Developments 2018</i>, which conflicts with the waste calculator requirement. Therefore, the area provided complies with City of Sydney Council's <i>Guidelines for Waste Management in New Developments 2018</i>.</p> <p>Calculator: 27m² Area Provided: 16m²</p> <p><u>Station Waste Room</u></p> <p>The bin quantities and area provided is in line with the MQD PDA (Schedule A28).</p> <p><u>Station Bulky Waste Storage Room</u></p> <p>The area provided is in line with the MQD PDA (Schedule A28).</p>
<p>74. It is noted that the development does not currently provide for separate food waste collection, contrary to the guidelines. Sufficient space must be provided for food waste for each relevant use. The City is trialling a food waste collection service and the developer is encouraged to make provision for this service, rather than providing on-site composting which in the City's experience is likely to fail. Again, the Guidelines for Waste Management in New Development provides suitable provisions.</p>	<p><u>Residential</u></p> <p>If City of Sydney Council's current food waste trial progresses to a scheduled Council collection service during operation of the site, the residential component will consider options to integrate separate food waste facilities into the facility. Food waste generation rates, available bin sizes and collection frequencies are not readily available at this stage in the <i>Guidelines for Waste Management in New Developments 2018</i>.</p>

	<p>Based on the food waste generation rate available for single dwellings (40L/dwelling/week), 25 x 120L bins would substitute 3 x 1100L general waste bins. If the substitution of general waste bins to food waste bins is to occur during operation, 25 x 120L food waste bins will be provided in the residential chute discharge room on basement 2 and the chute offsets and linear track systems will be caged off with prohibited access to residents. Residents will then be required to walk their food waste down to the allocated 120L food waste bins.</p> <p><u>Retail, Commercial and Childcare</u></p> <p>Separate food waste bins have been provided for the retail, commercial and childcare component, including 15 x 120L bins. The Waste Management Plan stipulates that food waste receptacles will be provided in all kitchen areas and then transferred by staff and/or cleaners to the central 120L bins when required.</p>
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If you require any further information or clarification, please do not hesitate to contact me.

Kind Regards,



Ashleigh Armstrong
Consultancy Services Manager