

WASTE MANAGEMENT REPORT
(Revision 2)

PROPOSED DEVELOPMENT @ ROAYL HALL OF INDUSTRIES
1 DRIVER AVENUE, MOORE PARK

In a correspondence from Council to the Applicant, Council's Waste Management has raised a number of issues which require further information and clarification.

The following issues have been raised by Council (**in Bold Text**) in relation to the waste servicing of the proposed development:

In response to the issues Council has raised concerning waste management activities, the following information is provided.

1 Waste Collection Access

The submitted Waste Management Plan, prepared by Dickens Solutions, is insufficient and does not clearly identify the path of access for all users including collection vehicles. The architectural drawings also do not illustrate the locations and spaces allocated to the waste and recycling storage areas.

This report and the Amended Waste Management Plan (Revision 2) will incorporate all of the information required to address all of the waste management issues required to be addressed by Council.

2 Waste Generation Rates

The waste generation calculations to support the proposed number and configuration of bins is not prepared in accordance with the provisions of the City's Guidelines for Waste Management in New Developments. The guidelines provide clear estimates for events and conferencing facilities and as such, the proponent must use these to estimate the bins and appropriate storage locations.

Based on research, and an examination of the NSW Design Guide and from information published by the NSW Government Architect there appear to be no specific guidelines for calculating specific waste and recycling generation rates for a development of this type.

With the exception of certain requirements prescribed by the City of Sydney (for land use activities associated with general office accommodation, general retail, café's, etc.), there are no specific guidelines for calculating waste and recycling generation rates for land use activities associated with the establishment of a centre for sporting excellence and associated facilities.

Based on research, there also appears to be no specific guidelines for calculating waste and recycling generation rates for Child Care Centres in NSW.

For the purposes of this WMP, the waste and recycling generation rates for this project have been calculated using the Council's Waste and Recycling Generation Rates,

where provided in addition to a formula developed from extensive research into similar developments, those used by a number of Sydney Councils on a variety of commercial operations, and from studies of community-based activities, where they are not provided by Council – which appear to be representative for this type of land use activity.

The WMP will be updated to incorporate all of the information required by Council.

3. Waste Storage Requirements

The required storage facilities are omitted from the proposed development. Specifically, dedicated areas for bulky waste, problem waste for recycling, collection, storage and recycling of food waste are lacking in the documentation submitted with the application.

A separate area has been created for the storage of bulky waste. It has been located at the rear of the Loading Dock as indicated on the Ground Floor Plan. All bulky waste material will be collected from this area by the licensed waste contractor responsible for the removal of general waste and recycling. The loading bay has been designed to facilitate a SRV collection vehicle and all bulky waste collections will take place from this area using this type of vehicle.

All recycling material will be stored in 1100-litre mobile bins. The material that is placed in these bins will be monitored by the Building Manager/Caretaker appointed to manage all waste activities. These larger bins have been specifically provided to minimise problems associated with large cardboard packaging that have potential to create problems for recycling. As indicated in the Waste Management Plan all waste storage facilities will be inspected daily to ensure any storage problems, spillage or contamination issues are addressed.

Dedicated food waste storage and collection and arrangements have been incorporated into the development. These are described in the Waste Management Plan.

Additionally, prior to the commencement of operations, the proprietor of the facility will develop and document a Waste Management Operational Procedure that will be incorporated into the Plan of Management for the facility. This document will ensure that all waste management activities are undertaken in accordance with:

- The approved Development Consent;
- The approved Waste Management Plan;
- Where applicable and relevant this WMP has been prepared to address all of the requirements in Councils' Guidelines for Waste Management in New Developments.
- Relevant requirements of the City of Sydney Council's Local Approvals Policy;
- All relevant contractual arrangements; and,
- The Better Practice Waste Management Guide for Commercial and Industrial Developments.

The Waste Management Plan has been updated to incorporate all of these requirements.

4. Commercial Waste Contracts

Further, it is required that commercial tenancies must have a commercial waste contracts in place prior to commencement of business trading. Commercial waste service collection services and waste storage arrangements must be conducted in accordance with the City's Waste Policy –Local Approvals Policy for Managing Waste in Public Places (2017).

As stated in the Waste Management Plan the Building Owner will be required to enter into commercial waste contracts with the appointed contractor prior to the commencement of business.

All commercial waste service collection services and waste storage arrangements must be conducted in accordance with the City's Waste Policy –Local Approvals Policy for Managing Waste in Public Places (2017).

The Waste Management Plan has been updated to reflect these requirements.

Garry Dickens
Dickens Solutions
Waste Management Consultant
29 October 2019.

DICKENS SOLUTIONS

AMENDED WASTE MANAGEMENT PLAN

URBIS PTY LTD (SYDNEY SWANS LIMITED)

ADAPTIVE REUSE FOR HIGH PERFORMANCE SPORT & COMMUNITY FACILITY @ 1 DRIVER AVENUE, MOORE PARK

OCTOBER 2019

DISCLOSURE STATEMENT

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PART 1 – OVERVIEW AND PROPOSAL

1.1 EXECUTIVE SUMMARY

This Waste Management Plan (WMP) is an operational plan that describes in detail the manner in which all waste and other materials resulting from the demolition, construction and on-going use of the building on the site are to be dealt with.

The aims and objectives of this WMP are to: -

1. Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices;
2. Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
3. Maximise waste reduction, material separation, and resource recovery in all stages of the development; and,
4. Ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access, and that services are provided efficiently and effectively.

This WMP is prepared in accordance with: -

- NSW Dept of Planning and Environment's Critical State Significant Infrastructure Standard Secretary's Environmental Assessment Requirements (SEAR'S);
- NSW Government Design Guide for Sporting and Community Facilities;
- NSW Dept of Sport and Recreations Standard Guidelines;
- Where relevant and applicable, the City of Sydney's Guidelines for Waste Management on New Developments;
- All conditions of the development consent to be issued under the approved Complying Development Consent;
- The relevant requirements of the 'Better Practice Guide for Waste Management'; and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.

This Waste Management Plan (WMP) has been prepared for a State Significant Development Application for state significant development application.

The proposed SSDA comprises a detailed DA for the adaptive re-use of the existing Royal Hall of Industries building to provide a new high-performance sport and community facility, along with the construction of a two-storey building, provision of vehicular entrances and the consent for the proposed land uses

The SSDA will be assessed against the Secretary's Environmental Assessment Requirements (SEAR'S) Issued for the project on 7 December 2018.

This is an Amended WMP and is dated 29 October 2019. The WMP has been amended to address a number of waste management issues raised in relation to the exhibition of the Application. This Amended WMP supercedes the original WMP dated 7 May 2019.

1.2 PROPERTY DESCRIPTION

This Waste Management Plan (WMP) has been specifically designed for the development described below: -

DESCRIPTION	Alterations and additions to an existing building to create a centre of sporting excellence and community centre for the Sydney Swans Limited.
PROPERTY DESCRIPTION	The development is to be constructed over two (2) allotments of land at Lot 3, DP 861843, and Lot 52, DP 1041134, No 1 Driver Avenue, Moore Park.
STREET ADDRESS	1 Driver Avenue, Moore Park
DIMENSIONS	Refer to Drawings
AREA	1.0 Hectares (Approx.)
PLANNING INSTRUMENTS	SEPP (State and Regional Development 2011); SEPP 47 (Moore Park Showground); SEPP (Infrastructure) 2007; and Draft EPP (Environment 2017) SEPP.

The site is located at 1 Driver Avenue, Moore Park and is located on the south-western edge of the Moore Park Showground complex with further frontages along Lang Road and Errol Flynn Boulevard.

The site contains the Royal Hall of Industries (RHI) and associated service yard immediately to the south of the building, The RHI has in recent times been utilised as an exhibition space, operated on a lease from the Centennial Park and Moore Park Trust.

The RHI building has a rectilinear plan form with symmetrically placed entrances on all four (4) sides, four to the east and west, and two each to the north and south facades.

The RHI is located to the south of the Hordern Pavilion which operates as a live music entertainment venue , with associated pedestrian forecourt area which separates it from the RHI.

Other nearby venues include the Sydney Cricket Ground, the Entertainment Quarter, and the Sydney Football Stadium. The site is located 1.5km from Central Station and is approximately 2km south-east of the Sydney CBD.

The area is a major tourist attraction and its location presents significant opportunities for the government to provide sporting, community and entertainment facilities for economic, recreation and entertainment activities.

1.3 APPLICANTS DETAILS

APPLICANT	Sydney Swans Limited (C/- Urbis Pty Ltd)
ADDRESS	Angel Place, Level 8, 123 Pitt Street, Sydney. NSW. 2000.
TELEPHONE	02 8233 9900
E-MAIL	escobie@urbis.com

1.4 PROPOSAL

The proposal is for the adaptive reuse of an existing heritage listed building to create a High-Performance Sport and Community Facility. It involves the redevelopment of land at No 1 Driver Avenue, Moore Park to carry out of alterations to an existing building known as the Royal Hall of Industries to establish the headquarters and a centre of sporting excellence for the Sydney Swans AFL Club.

The building works consists of the refurbishment of both levels of the existing building, maintaining the existing façade and structure, to provide state of the art training facilities, offices, commercial and retail tenancies and associated infrastructure over two (2) levels of the building.

Upon completion of the project the building and its associate facilities will provide for:

- The home base of the Sydney Swans AFL Club and the NSW Swifts Netball Club;
- Multi-purpose indoor facility for community use and public events;
- Indoor netball court for the NSW Swifts and the netball community;
- Facilities for a Swans team in the AFL National Women's Competition;
- Player change areas and wet area recovery rooms;
- Go Foundation and Clontarf Foundation for indigenous education;
- Australian Red Cross Blood Service and Donation Centre;
- Medical, rehabilitation and sport science areas;
- Gymnasium;
- Museum, media centre and auditorium;
- Offices, café, canteen, retail shops; and,
- Associated services, infrastructure and storage facilities.

The main access to the site will be from Errol Flynn Boulevard on the western side of the site.

Waste management facilities are to be provided in accordance with the provisions of Waste Not Development Control Plan (DCP) Guideline (EPA 2008)

Waste storage facilities will be provided as indicated in Part 4.6 on pages 14 to 16 of this WMP and as indicated on the Site Plan.

All waste and recycling services will be provided by a licensed private waste and recycling collection contractor.

The project consists of

- The removal of internal walls, linings, fittings and fixtures, plumbing and drainage materials, timber, floor coverings, concrete and masonry, and other relevant materials excess to construction requirements;
- The refurbishment of the building to suit;
- The construction of internal walls of both timber and masonry, multi-purpose indoor training area, indoor netball court, swimming pool, wet areas, amenities, offices, and meeting rooms, kitchen, retail area, outdoor roof terrace, communal (assembly) hall, offices, and, storerooms;
- Driveways, parking areas; and,
- Associated earthworks, civils and landscape works.

PART 2 – DEMOLITION

2.1 DEMOLITION

2.1.1 General Requirements

There is no demolition component to this WMP. All issues relating to any excavation work and the existing materials to be removed as part of construction of works associated with refurbishment works will be dealt with under Part 3 of this document.

PART 3 – CONSTRUCTION

3.1 CONSTRUCTION – GENERALLY

The construction stage of the development comprised of the following activities, and involved:

- The removal of all building materials surplus to refurbishment requirements;
- Excavation works associated with the construction and installation of the swimming pool and the construction of buildings that will house the netball court, and associated amenities;
- Footings and reinforced concrete slabs as appropriate.
- Brickwork and masonry construction;
- The fit-out of the internal walls and partitioning to form the layout of the café;
- The construction of specialist areas, such as the netball court, indoor multi-purpose facility, medical and treatment rooms,
- The construction and installation of kitchen and cooking facilities, and food preparation areas;
- The provision refrigeration and cooling equipment;
- The provision of ventilation, exhaust systems and associated facilities;
- The installation and provision of appropriate washing facilities, sinks basins, and associated plumbing and drainage fittings and fixtures;
- Storage facilities;
- Internal joinery and finishing items;
- The installation of electrical and IT equipment; and,
- The provision of waste management facilities.

All activities associated with removal and disposal of materials excess to the construction process will be processed and or disposed of at an approved facility or facilities. It is considered that the majority of materials involved in the construction process have the ability to be reused or recycled.

All materials used in the refurbishment of the building that are not required to be incorporated into it, shall be recycled, reused or disposed of in accordance with the requirements of the Protection of the Environment Operations Act (1997). It will be the appointed contractor's overall responsibility to ensure compliance in this regard.

Additionally, during the refurbishment process, every effort will be made to reduce and minimise the amount of building materials excess to construction.

Mobile Bins of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

3.2 CONSTRUCTION – RECYCLING, REUSE & DISPOSAL DETAILS

The following Table (Table 1- Processing and Disposal details – Materials Excess to Construction) details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

- a) An estimate of the types, volumes and weight of materials and recyclables to be generated;
- b) The estimated total percentage of waste surplus to construction to be reused or recycled; and,
- c) Destination and reuse details.

TABLE 1 – PROCESSING AND DISPOSAL DETAILS – MATERIALS EXCESS TO CONSTRUCTION

Waste Type	Volume (Sqm)	Weight (Tonne)	Estimated % to be Recycled	Destination & Reuse
Excavation material	50.0	85.00	To be Determined	All materials to be processed off site at a licensed facility that is approved to accept the material specified. (See list of appropriately licensed facilities in Part 3.3 of this WMP.
Timber	5.0	2.50	80%-90%	
Concrete	10.0	24.00	75%-85%	
Bricks	5.0	5.00	80%-90%	
Tiles	5.0	2.00	80%-90%	
Metal	5.0	2.00	75%-90%	
Glass	2.0	0.50	50%-60%	
Furniture	Nil	N/A	N/A	
Fixtures and fittings	5.0	2.50	80%-90%	
Floor coverings	Minimal	N/A	N/A	
Packaging, Pallets	5.0	1.00	90%-100%	
Garden organics	Nil	N/A	N/A	
Containers	2.0	0.25	90%-100%	
Paper/cardboard	2.5	0.50	80%-90%	
Residual waste	2.0	2.00	60%-70%	
Hazardous Waste	To be Determined			
Other (specify)	N/A	N/A	N/A	

It is noted that the quantities of materials detailed above are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, and any other unforeseeable activities associated with the construction works.

Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

The facilities and agencies that receive the materials listed above are to be a facility or agency that is licensed to accept the materials specified.

The developer understands that any costs associated with the transportation and receipt of these materials will be their responsibility.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials associated with the demolition of all structures on site.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to its construction.

Based on the above information, it is anticipated that between 75% and 85% of all materials excess to construction needs will be able to be recycled or re-used, well above current targets.

3.3 LICENSED WASTE MANAGEMENT AND RECYCLING FACILITIES.

The facilities nominated below are appropriately licensed to receive the materials nominated in Part 3.2 on page 8.

1. Blacktown Waste Services, 920 Richmond Road, Marsden Park.
Tel 9835 4544
2. Bingo Industries, 3-5 Duck Street, Auburn, or 38 McPherson Street, Banksmeadow.
Tel 1300 424 646
3. Brandown, Lot 9 Elizabeth Drive, Kemps Creek.
Tel 02 9826 1256
4. Jacks Gully Waste Management Centre, Richardson Road, Narellan.
Tel 1300 651 116
5. Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights.
Tel 1300 651 116
6. Suez Eastern Creel Resource Recovery Park, Wallgrove Road, Eastern Creek.
Tel 8887 6112

The facilities and agencies that receive the materials listed above are, licensed and generally able, to accept the materials specified.

The appointed contractor understands that any costs associated with the transportation and receipt of these materials will be their responsibility.

Based on the above information, it is anticipated that between 75% and 85% of all materials excess to construction needs will be able to be recycled or re-used, well above the Council's required targets.

The appointed contractor is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials excess to the construction of the building.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to construction.

3.4 CONSTRUCTION – ON SITE STORAGE OF MATERIALS

During the construction of the buildings, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting;
- Segregation of materials that may be hazardous and which will be required to be disposed of;
- Recovery equipment, such as concrete crushers, chippers, and skip bins;
- Material storage; and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclables, and waste materials.

Prior to the commencement of construction works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Construction'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

3.5 CONSTRUCTION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of any activities associated with the construction of the building, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to removal, transportation and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

PART 4 – ON GOING USE OF SITE

4.1 OBJECTIVES

1. To ensure that the storage, amenity and management of waste is sufficient to meet the needs of the development.
2. To ensure that all waste management activities are carried out effectively and efficiently, and in a manner, that will promote the principles of health, safety and, convenience.
3. To promote waste minimisation practices.

4.2 ASSUMPTIONS

In preparing this Plan, the following assumptions have been made: -

1. A Waste Storage Area (WSA) will be provided for the storage of all waste and recycling bins required to be provided for all activities associated with the use of the site.
2. The WSA is a partially enclosed rectangular structure located on the laneway adjacent to the southern elevation of the RHI as indicated on the Ground Floor Plan.
3. All waste and recycling bins required for the on-going operation of the development will be stored within the confines of the WSA at all times.
4. With the exception of certain requirements prescribed by the City of Sydney (for land use activities associated with general office accommodation), there are no specific guidelines for calculating waste and recycling generation rates for land use activities associated with the establishment of a centre for sporting excellence and associated facilities.
5. The waste and recycling generation rates for this project have been calculated using a formula developed from extensive research into similar developments, those used by a number of Sydney Councils on a variety of commercial operations, and from studies of community-based activities, which appear to be representative for this type of land use activity.
6. All waste will be stored in 3 x 1100-litre mobile bins.
7. All food waste will be stored in 2 x 1100-litre mobile bins;
8. All recycling material will be stored in 3 x 1100-litre mobile bins.
9. Waste services will be provided at least four (4) times per week.
10. Food Waste services will be provided at least three (3) times per week.
11. Recycling services will be provided at least six (6) times per week.
12. A licensed private waste collection contractor will provide all waste and recycling services to the building.
13. If the waste and recycling material generated from the use exceeds the waste generation rates specified in this WMP, the frequency of collections may need to be increased. Any increase in the frequency of collections will be determined by the Occupant in consultation with the appointed contractor and an approved waste management consultant.
14. All waste and recycling collections will take place from a Loading Bay adjacent to the WSA, where bins will be presented for collection by the appointed contractor.
15. A Building Manager or Caretaker shall be appointed to monitor and supervise all waste management activities in order to ensure they are carried out in accordance with this WMP.

16. The proprietor of all tenancies and units will be required to enter into commercial waste contracts with the appointed contractor prior to the commencement of business.
17. All commercial waste service collection services and waste storage arrangements will be conducted in accordance with the City's Waste Policy – Local Approvals Policy for Managing Waste in Public Places (201).
18. Where applicable and relevant this WMP has been prepared to address all of the requirements in Councils' Guidelines for Waste Management in New Developments.
19. Prior to the commencement of operations, the proprietor of the facility will develop and document a Waste Management Operational Procedure that will be incorporated into the Plan of Management for the facility.

4.3 WASTE HANDLING & MANAGEMENT

Appropriate waste and recycling receptacles will be provided in appropriate locations throughout the complex.

All waste and recycling materials shall be removed from these receptacles by the Caretaker, their representatives, or relevant staff and transferred to the waste and recycling bins provided in the Waste Storage Area for storage prior to collection. This activity is to take place daily.

All waste, food waste, and recycling material is to be placed in appropriate waste, food waste and recycling bins. For further information in relation to what is acceptable and what is not acceptable to be placed in each bin, can be obtained from the Council's website www.cityofsydney.nsw.gov.au

Appropriate signage will be erected in prominent places within the complex to assist all staff and employees to ensure that all waste and recyclable material is placed into the appropriate bins.

The material that is placed in these bins will be monitored by the Building Manager/Caretaker appointed to manage all waste activities. These larger bins have been specifically provided to minimise problems associated with large cardboard packaging that may have the potential to create problems for recycling. As indicated in this WMP all waste storage facilities will be inspected daily to ensure any storage problems, spillage or contamination issues are addressed.

Dedicated food waste storage and collection and arrangements have been incorporated into the development. These are described in this Waste Management Plan.

4.4 WASTE & RECYCLING – SERVICE REQUIREMENTS

For the purposes of waste and recycling management the development is classified a commercial enterprise. Accordingly, commercial waste and recycling services will be provided to the complex.

All waste and recycling materials will be stored in approved receptacles of an appropriate size as specified in this WMP. The lids of the bins shall be closed at all times to reduce litter, stormwater pollution, odour and vermin.

4.5 WASTE & RECYCLING GENERATION RATES

Based on research, and an examination of the NSW Design Guide and from information published by the NSW Government Architect there appear to be no specific guidelines for calculating specific waste and recycling generation rates for a development of this type.

With the exception of certain requirements prescribed by the City of Sydney (for land use activities associated with general office accommodation, general retail, café's, etc.), there are no specific guidelines for calculating waste and recycling generation rates for land use activities associated with the establishment of a centre for sporting excellence and associated facilities.

Based on research, there also appears to be no specific guidelines for calculating waste and recycling generation rates for Child Care Centres in NSW.

For the purposes of this WMP, the waste and recycling generation rates for this project have been calculated using the Council's Waste and Recycling Generation Rates, where provided in addition to a formula developed from extensive research into similar developments, those used by a number of Sydney Councils on a variety of commercial operations, and from studies of community-based activities, where they are not provided by Council – which appear to be representative for this type of land use activity.

The number and size of bins have been calculated using these formulae, which is summarised in the following table (Table 1).

TABLE 1 – WASTE & RECYCLING GENERATION RATES

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Convention Centre/Conference/Events	50 litres of waste per 100m ² of floor area per day
Recycling	Convention Centre/Conference/Events	225 litres of recyclables per 100m ² of floor area per day
Food Waste	Convention Centre/Conference/Events	20 litres of waste per 100m ² of floor area per day
Waste	Entertainment Venue	100 litres of waste per 100m ² of floor area per day
Recycling	Entertainment Venue	125 litres of recyclables per 100m ² of floor area per day
Food Waste	Entertainment Venue	30 litres of waste per 100m ² of floor area per day
Waste	General Retail (No Food)	25 litres of waste per 100m ² of floor area per day
Recycling	General Retail (No Food)	200 litres of recyclables per 100m ² of floor area per day
Food Waste	General Retail (No Food)	5 litres of waste per 100m ² of floor area per day
Waste	Café/Restaurant	100 litres of waste per 100m ² of floor area per day
Recycling	Café/Restaurant	500 litres of recyclables per 100m ² of floor area per day
Food Waste	Café/Restaurant	100 litres of waste per 100m ² of floor area per day
Waste	Office	15 litres of recyclables per 100m ² of floor area per day
Recycling	Office	20 litres of recyclables per 100m ² of floor area per day
Food Waste	Office	5 litres of waste per 100m ² of floor area per day
Waste	Pool, Wet Areas (Not in Guide)	10 litres of waste per 100m ² of floor area per day
Recycling	Pool, Wet Areas (Not in Guide)	10 litres of recyclables per 100m ² of floor area per day
Food Waste	Pool, Wet Areas (Not in Guide)	5 litres of waste per 100m ² of floor area per day
Waste	Active Sport Arena / Gymnasium	10 litres of waste per 100m ² of floor area per day
Recycling	Active Sport Arena / Gymnasium	10 litres of recyclables per 100m ² of floor area per day
Food Waste	Active Sport Arena / Gymnasium	5 litres of waste per 100m ² of floor area per day
Waste	Meeting Rooms (Not in Guide)	10 litres of waste per 100m ² of floor area per day
Recycling	Meeting Rooms (Not in Guide)	10 litres of recycling per 100m ² of floor area per day
Food Waste	Meeting Rooms (Not in Guide)	5 litres of waste per 100m ² of floor area per day
Waste	Child Care Centre	50 litres of waste per 100m ² of floor area per day
Sanitary	Child Care Centre	50 litres of recyclables per 100m ² of floor area per day
Recycling	Child Care Centre	50 litres of waste per 100m ² of floor area per day
Food Waste	Child Care Centre	15 litres of recyclables per 100m ² of floor area per day
Waste	Medical and Clinical Waste	See Part 4.7 (Not in Guide)

The following table (Table 2) on page 15 details the various activities carried out within the building and the approximate floor areas that each use occupies. This table is provided to calculate the number of bins and frequency of waste and recycling services required based on the waste and recycling generation rates and the floor areas of each activity.

TABLE 2 – DESCRIPTION OF ACTIVITIES

LAND USE	LOCATION	FLOOR AREA (Sqm)	COMMENTS
Retail	Ground Floor	35	See Tables 3 & 4
Blood Bank	Ground Floor	142	See Part 4.7
Café and Kitchen	Ground Floor	118	See Tables 3 & 4
Offices, Meeting Rooms, Auditorium, Learning Centre	Ground and First Floors	6,000 (Approx.)	See Tables 3 & 4
Multi-Purpose Facility, Netball Court, Gymnasium	Ground and First Floors	3,000 (Approx.)	See Tables 3 & 4
Swimming Pool, Change Rooms, Lockers	Ground and First Floors	3,000 (Approx.)	See Tables 3 & 4
Medical Facility	Ground and First Floor	491	See Part 4.7
Tenancy (Office)	First Floor	500	See Tables 3 & 4
Child Care Centre	First Floor	84	See Tables 3 & 4

The following tables (Table 3, 4 and 5) specifies the service requirements for the provision of waste and recycling services based on the information provided in Tables 1 and 2.

TABLE 3 – WASTE SERVICE REQUIREMENTS

DESCRIPTION			
Proposed Use	General Retail	Offices, Meeting Rooms	Arena, Gym, Pool, etc.
Waste Generation Rate	25L/100m2 Floor Area/Day	15L/100m2 Floor Area/Day	10L/100m2 Floor Area/Day
Total Floor Area	100	6,500	6,000
Waste Generation/Week	25 x 100 / 100 x 7	15 x 6,000 / 100 x 7	10 x 6,000 / 100 x 7
Total per Week	175.00	6,300.00	4,200.00
Proposed Use	Restaurant Café	Child Care Facility	Medical Facility
Waste Generation Rate	100L/100m2 Floor Area/Day	50L/100m2 Floor Area/Day	Refer to Part 4.7 on page 16
Total Floor Area	118	84	
Waste Generation/Week	100 x 118 / 100 x 7	50 x 84 / 100 x 7	
Total	826.00	294.00	
Space per Week all Units	11,795.00 litres per week		
Bins and Services per Week	3 x 1100-litre Bins – 4 x Services per Week		
Total Space Serviced	13,200 litres per Week		

TABLE 4 – RECYCLING SERVICE REQUIREMENTS

DESCRIPTION			
Proposed Use	General Retail	Offices, Meeting Rooms	Arena, Gym, Pool, etc.
Waste Generation Rate	200/100m2 Floor Area/Day	40L/100m2 Floor Area/Day	10L/100m2 Floor Area/Day
Total Floor Area	250	6,000	6,000
Waste Generation/Week	200 x 100 / 100 x 7	20 x 6,000 / 100 x 7	10 x 6,000 / 100 x 7
Total per Week	1,400.00	8,400.00	4,200.00
Proposed Use	Restaurant Café	Child Care Facility	Medical Facility
Waste Generation Rate	500L/100m2 Floor Area/Day	50L/100m2 Floor Area/Day	Refer to Part 4.7 on page 16
Total Floor Area	118	84	
Waste Generation/Week	500 x 118 / 100 x 7	50 x 84 / 100 x 7	
Total per Week	4,130.00	294.00	
Space per Week all Units	18,424.00 litres per week		
Bins and Services per Week	3 x 1100-litre Bins – 6 x Services per Week		
Total Space Serviced	19,800 litres per Week		

TABLE 3 – FOOD WASTE SERVICE REQUIREMENTS

DESCRIPTION			
Proposed Use	General Retail	Offices, Meeting Rooms	Arena, Gym, Pool, etc.
Waste Generation Rate	5L/100m ² Floor Area/Day	5L/100m ² Floor Area/Day	5L/100m ² Floor Area/Day
Total Floor Area	250	6,500	6,000
Waste Generation/Week	5 x 250 / 100 x 7	5 x 6,500 / 100 x 7	5 x 6,000 / 100 x 7
Total per Week	87.50	2,275.00	2,275.00
	Restaurant Café	Child Care Facility	Medical Facility
Waste Generation Rate	100L/100m ² Floor Area/Day	15L/100m ² Floor Area/Day	N / A
Total Floor Area	118	84	
Waste Generation/Week	100 x 118 / 100 x 7	15 x 84 / 100 x 7	
Total	826.00	88.20	
Space per Week all Units	5,551.70 litres per week		
Bins and Services per Week	2 x 1100-litre Bins – 3 x Services per Week		
Total Space Serviced	6,600 litres per Week		

The provisions for the waste management arrangements for the above activities are based on the general day to operations of the facility. As detailed in Part 4.8 on page 18, all special events where the facility caters for conferences, entertainment events of conventions, the Waste and Recycling Generation Rates specified on page 14 will apply, and all waste management arrangements will be conducted in accordance with the provisions of Part 4.8

4.6 PROVISION OF WASTE AND RECYCLING SERVICES

4.6.1 Waste and Recycling Collection Service Provider Details

All waste services and recycling services will be provided by a licensed private waste and recycling collection contractor.

The Building Owner will be required to enter into commercial waste contracts with the appointed contractor prior to the commencement of business.

4.6.2 Details of Mobile Containers

In relation to the size and design of the waste and recycling mobile bins, the following technical information is provided: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
1100-litre mobile container	1.470	1.070	1.240

4.6.3 Waste & Recycling Requirements

Waste and recycling requirements are provided in the table below.

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	3 x 1100-litre mobile containers	4 Days (Services) per Week
Recycling Service	3 x 1100-litre mobile containers	6 Days (Service) per Week
Food Waste Service	2 x 1100-litre mobile containers	3 Days (Service) per Week

4.6.4 Location, Design, and Construction of Waste Storage Area

A Waste Storage Area (WSA) is provided to facilitate all waste and recycling storage and collection activities.

The WSA will be located externally of the building. It is an enclosed rectangular structure, measuring 10.5m x 1.2m, with a floor area of approximately 12.6 square

metres and is located adjacent to the laneway on the southern side of the main building as indicated on the Ground Floor Plan.

All mobile waste and recycling bins required for the on-going operation of the development will be stored within the confines of this WSA at all times.

In assessing the size and design of the WSA, it is considered that it is of a sufficient size and dimension to adequately house, store and manoeuvre (for collection and return) all of the required number of bins.

The building occupants will access the WSA to dispose of their waste and recyclable material by the shortest and most direct paths of travel from the building in which they exited from. In transferring any waste and recycling material all material will be transported strictly in accordance with all relevant Work Health and Safety Requirements.

4.6.5 Servicing Arrangements – Waste Collections

All waste collections will take place from a loading bay in the vicinity of the WSA, where the bins will be presented for collection by the contractor into a waiting collection vehicle stationed adjacent to the entry to the WSA.

The waste bins will be serviced four (4) days per week, on days to be determined by the Occupant and the appointed contractor.

Subject to any contractual arrangements between the Building Owner and the Service Provider, the contractor will physically transfer the 3 x 1100-litre mobile waste bins from the WSA to the waiting collection vehicle via an at-grade pathway located in the laneway between the two (2) buildings. Upon completion of servicing the bins will be immediately transported back to the WSA.

All 3 x 1100-litre mobile waste bins will be serviced on each collection day. All waste bins will be returned to the WSA as soon as practicable after they have been serviced.

4.6.6 Servicing Arrangements – Food Waste Collections

All waste collections will take place from a loading bay in the vicinity of the WSA, where the bins will be presented for collection by the contractor into a waiting collection vehicle stationed adjacent to the entry to the WSA.

The food waste bins will be serviced three (3) days per week, on days to be determined by the Occupant and the appointed contractor.

Subject to any contractual arrangements between the Building Owner and the Service Provider, the contractor will physically transfer the 2 x 1100-litre mobile food waste bins from the WSA to the waiting collection vehicle via an at-grade pathway located in the laneway between the two (2) buildings. Upon completion of servicing the bins will be immediately transported back to the WSA.

Both 1100-litre mobile food waste bins will be serviced on each collection day.

The food waste bins will be returned to the WSA as soon as practicable after they have been serviced.

4.6.7 Servicing Arrangements – Recycling Collections

All recycling collections will take place from the vicinity of the WSA, where the bins will be presented for collection by the contractor into a waiting collection vehicle stationed adjacent to the entry to the WSA.

The recycling bins will be serviced six (6) days per week, on days to be determined by the Occupant and the appointed contractor.

Subject to any contractual arrangements between the Building Owner and the Service Provider, the contractor will physically transfer the 3 x 1100-litre mobile recycling bins from the WSA to the waiting collection vehicle via an at-grade pathway located in the laneway between the two (2) buildings. Upon completion of servicing the bins will be immediately transported back to the WSA.

All 3 x 1100-litre mobile recycling bins will be serviced on each collection day.

All recycling bins will be returned to the WSA as soon as practicable after they have been serviced.

4.6.7 Loading Bay / Collection Area

All collections will take place from an area located adjacent to the entry to the laneway between the two (2) buildings and the WSA. The collection area will be located adjacent to the laneway entry, where the side of vehicle will be stationed parallel to the wall of the building.

The bins will be wheeled from the WSA (an at-grade distance of approximately 10 metres) and placed onto the rear loading lifter and emptied into the body of the vehicle. The bin will be transferred back to the WSA as soon as they have been serviced.

Subject to any contractual arrangements between the Building Owner and the Service Provider, it is recommended that all waste. Food waste and recycling services be carried out between 4.00am and 7.00am on each collection day.

The collections will be carried out at this time as it is assumed that pedestrian and vehicle movements in and out of the site will be the lowest in terms of on-site activities and such will minimise any resultant impact on the operation and use of the buildings

Additionally, any motor vehicles entering the site at this time, will still be able to access the buildings when the collection vehicle is parked in the area for the loading of the bins. According to the Architectural Drawings, this area of the driveway has a width of approximately 6m – the width of the collection vehicle (mirror to mirror) is approximately 2.9m, leaving a distance of 3.1 clearance for vehicle movement around the truck, and as it is one-way in direction, cars can easily drive through without the worry of on-coming traffic.

In general, it would take approximately 10 to 15 minutes on each collection day to remove the bins from the WSA, empty them into the collection vehicle and return them to the WSA.

A rear loading waste collection vehicle will be used to provide all waste and recycling services to the building. The vehicle will be a MRV, with the following approximate dimensions:

- Length – 8.8m;
- Operational Height – 3.3m; and,
- Width – 2.82m (mirror to mirror).

All collection vehicles will enter and exit the building in a forward direction. The servicing of bins will take place without obstructing vehicle movements in and out of the site. All internal access, parking and servicing arrangements are to comply with all relevant Australian Standards.

4.7 MEDICAL & CLINICAL WASTE

Medical facilities in the form of a medical unit, with a floor area of approximately 491 square metres, will be located on Level 1 of the building, and a Blood Bank, with a floor area of 142 square metres will also be incorporated into the development.

Additionally, injuries and the treatment of the sportsmen and women who use the facility may involve the storage and disposal of clinical and medical waste.

All clinical and medical waste generated from all medical facilities are to be stored and disposed of separately to the general waste requirements, and in accordance with the following: -

- The relative provisions of the Protection of the Environment Operations Act;
- Waste Management Guidelines for Health Care Facilities August 1998, published by the NSW Department of Health;
- The relative requirements of Safe Work NSW; and,
- The requirements of any applicable regulatory authority.

All clinical and medical waste is to be managed in accordance with the following provisions:

- Stored only in approved receptacles;
- All receptacles used for the storage of medical and clinical waste shall be stored in appropriate locations within the respective medical units and blood bank facility;
- Transported by approved and appropriately licensed waste contractors; and,
- Only removed from the respective storage areas by the approved licensed waste contractor, and returned to the storage areas on completion of servicing;
- Disposed of at appropriately licenced waste management facilities.

Appropriate signage will be provided in a prominent location within the complex that will distinguish between the medical/clinical and general waste streams, and the requirements in relation to what can and cannot be deposited into the respective receptacles.

This information can be obtained from the Waste Management Guidelines for Health Care Facilities 1998, the NSW Department of Health, and where appropriate Work Cover NSW.

4.8 WASTE MANAGEMENT FOR SPECIAL EVENTS

Separate arrangements shall be made for managing waste and recycling from any special events that are conducted within the complex.

Depending on the nature of the event and the expected numbers of persons attending, additional waste and recycling receptacles may be required, and separate arrangements for the transportation and disposal or processing of waste and recycling material will be required.

It is recommended that an appropriately qualified waste management consultant be engaged to assist in developing a strategy and program for the management of waste and any special event staged at the centre.

All special events will be conducted in accordance with the Plan of Management of the site. All waste management activities associated with these activities may require additional waste, food waste and recycling bins to accommodate each of these events depending upon the size and scope of each event.

According to the Plan of Management of the site, a contractor will be appointed to manage all activities associated with the provision of waste management services for these special events.

All waste, food waste, and recycling services will be required to meet all relevant waste and recycling generation rates for these events, as described in this WMP.

It is recommended that an appropriately qualified waste management consultant be engaged to assist in developing a strategy and program for the management of waste and any special event staged at the centre.

4.9 BULKY WASTE

A separate area has been created for the storage of bulky waste. It has been located at the rear of the Loading Dock as indicated on the Ground Floor Plan. All bulky waste material will be collected from this area by the licensed waste contractor responsible for the removal of general waste and recycling.

The loading bay has been designed to facilitate a SRV collection vehicle and all bulky waste collections will take place from this area using this type of vehicle.

All bulky waste collections will take place in accordance with the Waste Management Operational Procedure that will be incorporated into the Plan of Management for the facility.

4.10 ON GOING OPERATION, USE & MAINTENANCE OF WASTE MANAGEMENT FACILITIES

All waste management facilities will be maintained in a clean and hygienic condition that will promote the principles of health, safety and convenience.

In order to achieve these objectives, the following requirements will apply: -

1. The walls and floor of the Waste Storage Area (WSA) will be constructed of smooth faced masonry or concrete.
2. The WSA is be washed and cleaned on a regular basis.
3. All bins will be washed and cleaned on a regular basis.
4. Any electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
5. Appropriate signage will be displayed in a prominent position within the complex identifying the location of the WSA, as well as providing instruction to employees on how to use waste and recycling facilities, including what is and what is not recyclable.
6. The Proprietor will be responsible for ensuring that all waste and recyclable matter and materials are placed and stored within the appropriate containers provided.

Additionally, prior to the commencement of operations, the proprietor of the facility will develop and document a Waste Management Operational Procedure that will be incorporated into the Plan of Management for the facility. This document will ensure that all waste management activities are undertaken in accordance with:

- The approved Development Consent;
- The approved Waste Management Plan;
- Relevant requirements of the City of Sydney Council's Local Approvals Policy;
- All relevant contractual arrangements; and,
- The Better Practice Waste Management Guide for Commercial and Industrial Developments.

PART 5 – SUMMARY

5.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan has been prepared in accordance with: -
 - a) NSW Dept of Planning and Environment's Critical State Significant Infrastructure Standard Secretary's Environmental Assessment Requirements (SEAR'S) for the adaptive reuse of an existing heritage listed building to create a High-Performance Sport and Community Facility.
 - b) All conditions of the development consent to be issued under the approved Complying Development Consent;
 - c) The relevant requirements of the 'Better Practice Guide for Waste Management'; and,
 - d) The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.
2. With the exception of certain requirements prescribed by the City of Sydney (for land use activities associated with general office accommodation), there are no specific guidelines for calculating waste and recycling generation rates for land use activities associated with the establishment of a centre for sporting excellence and associated facilities.
3. The waste and recycling generation rates for this project have been calculated using a formula developed from extensive research into similar developments, those used by a number of Sydney Councils on a variety of commercial operations, and from studies of community-based activities, which appear to be representative for this type of land use activity.
4. All waste and recycling services will be provided by a licensed private waste and recycling collection contractor.
5. The Occupant will be responsible for ensuring that all on-going waste management activities are carried out in accordance with the provisions of this Waste Management Plan.

The measures set out in this WMP aim to demonstrate that all such activities will be carried out effectively and efficiently, in a healthy, safe and convenient manner, to acceptable community standards, and to the requirements of the NSW Department of Sport and Recreation and where applicable and relevant the City of Sydney Council.
