



Saint Ignatius College
Riverview

Operational Waste
Management Plan
September 2020

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1. Introduction

This Operational Waste Management Plan report for EPM Projects has been prepared by Waste Audit & Consultancy Services (Aust) Pty Ltd for Saint Ignatius College Riverview to provide guidance on environmentally sound and cost-effective management of waste and recyclable materials during the operational phase of the proposed development.

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning, Infrastructure and Environment (DPIE) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), for the proposed development of new building and surrounding landscapes of Saint Ignatius College Riverview at Tambourine Bay Rd, Lane Cove.

This application is SSD by way of clause 8 and schedule 1 under State Environmental Planning Policy (State and Regional Development) 2011 on the basis that the development is for the purpose of an existing school and has a Capital Investment Value of more than \$20 million.

2. Background

The College Site comprises some 40 hectares, including the Main Campus (Senior School) and Regis Campus (Junior School). The Site is legally described as Lot 10 DP 1142773 and is owned by The Trustees of the Jesuit Fathers (ABN 80 167 682 043), a body corporate by virtue of the Roman Catholic Church Communities' Land Act 1942 No 23 (NSW). The College leases the Site from the landowner. The Site is currently used as an Educational Establishment for boys with an overall capacity of 1,640 students across the Main Campus and the Regis Campus. Boarding student numbers fluctuate each year to a maximum of 365. The staff numbers fluctuate to a maximum of 350, and this includes full time and part time staff. A total of 47 residences are located on site. The following objectives have been identified as forming the basis of the proposed development of the existing educational establishment.

- Create an education precinct to create a high-quality teaching and learning environment for staff and students;
- Establish additional floor space to increase availability and efficiency of teaching functions for Saint Ignatius' College Riverview;
- Upgrade the public domain to create visually interesting transitions through the campus, and promote the heritage elements of the campus;
- Ensure minimal environmental impact; Ensure the development is compatible with the approved Concept Master Plan and Ensure development is compatible with surrounding development and the local context.

The Site and proposed design are considered to meet the objectives of the project as it allows for development on land that has been previously used for educational purposes.

3. SEARS Requirements

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project by DPIE, ref no SSD-10424 issued on the 5th February 2020.

Preparation of this Operational Waste Management Plan has been undertaken with reference to the relevant SEARs requirement 20. Waste below, as well as industry best practices.

Identify, quantify and classify the likely waste streams to be generated during construction and operation and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.

4. The Site

4.1 Background & Site Description

The Site is located in the suburb of Riverview within the Lane Cove Local Government Area. The Site is bounded by Riverview Street to the north, Tambourine Bay Road to the east and the Lane Cove River to the south and west which is a prime waterfront position on the Lane Cove River. The existing campus, like many school campus developments, is characterised by a collection of buildings and facilities, which have been developed in isolation, without maximising opportunities for collaboration or connection. The College is separated by Riverview Street into two campuses being the Main Campus (Senior School) and Regis Campus (Junior School).

Of significance the College includes amongst other buildings and land uses the following: Chapel; Administration Buildings; Classrooms and Learning Spaces; Library; Halls Refectory, Kitchen and Canteen; Boarding Houses; Health Centre; Long Day Care Centre Sporting facilities including playing fields, gymnasium, swimming pool, rowing sheds, sailing club, basketball, cricket nets, mountain biking track and tennis courts; Observatory; Wharf connecting to the Lane Cove River; Staff and Jesuit residences; Weather station; Storage, maintenance, loading and waste management facilities. A range of built form and building heights exists across the College, which is typical of an Educational Establishment.

A vehicular/pedestrian loop road also exists through the Main Campus (Senior School) of the College providing two entrances and exits at Riverview Street. A further entrance and exit from Riverview Street services the Regis Campus (Junior School). The locational context of the School is illustrated at Figure 1. Figure 2 provides an aerial map of the School and its immediate surrounds. Within the School campus, the site of this SSSA is illustrated in Figure 3. The site proposed for a new building is on top of the basketball courts, as shown in blue. The site proposed for demolition works and associated façade redevelopment and landscaping works is shown in green and is limited to a portion of the existing O'Neil Building. It is anticipated that the construction works will be staged, so the construction site for any given stage will be smaller than the overall site identified in Figure 3.



Figure 1 – Saint Ignatius College Riverview Location Context Plan

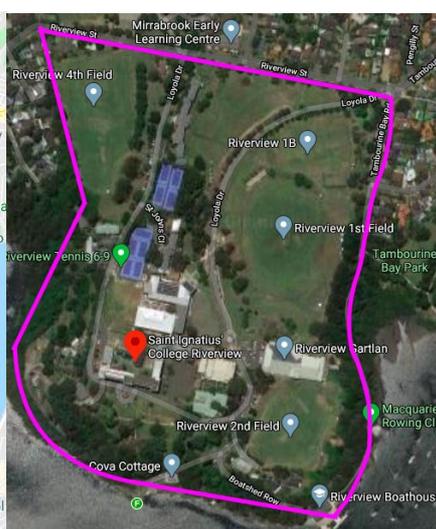


Figure 2 – Aerial Map of the Saint Ignatius College Riverview Campus

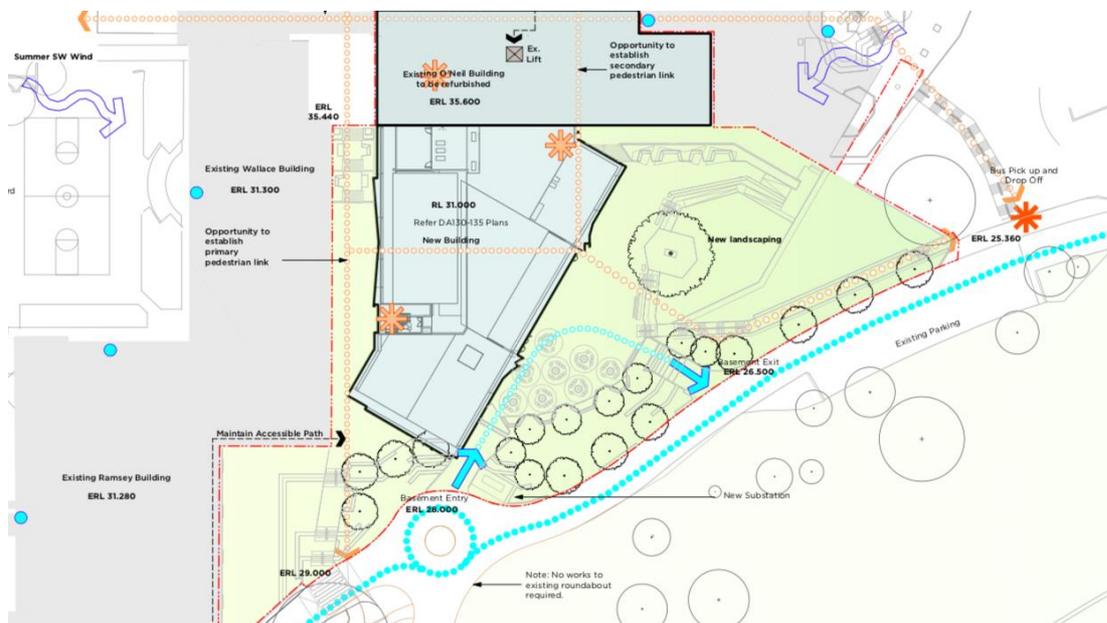


Figure 3 – Project Scope

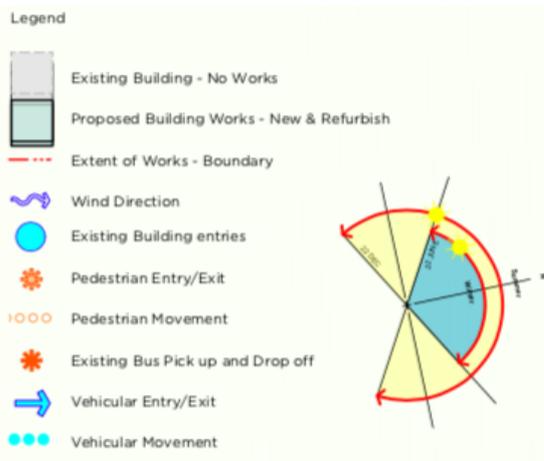


Figure 4 – Key Plan

4.2 Overview of Proposed Development

This SSDA includes detailed plans for a new learning precinct, refurbishment of the existing O'Neil Building and surrounding landscapes. Accordingly, consent is sought for the following:

- Construction of new five (5) storey building with a maximum RL52.00 at the heart of the Campus to accommodate modern, flexible teaching and learning spaces;
- Provide improved learning opportunities for Science, Technology, Engineering, Mathematics and PDHPE as a STEMP facility, along with six (6) Pastoral Care House areas, and staff rooms;
- The ground floor will accommodate a C.O.L.A, multi-purpose Hall and Canteen (Food and Beverage) with servicing by a loading area on basement level;
- Refurbishment of existing O'Neil Building to allow integration of New Ignis Stage 2 STEMP Building to connect to existing fabric;
- New North Landscaped Area; New Landscaped Area between the existing Wallace Building and the New Ignis Stage 2 STEMP Building;

- Upgrade courtyard to improve the integration of the learning space and create a sense of place.

Overall, the proposed built form approval seeks to provide a framework for the future physical development of the Campus to ensure the best teaching and learning outcomes, and ongoing evolution of the School.

5. Current Operational Waste Generation

The proposed new building, surrounding landscape and refurbishment of the O’Neil building will not influence the maximum student cap at Saint Ignatius College Riverview. Therefore, Saint Ignatius College Riverview is not expected to see an increase/decrease in waste generation and the current servicing arrangement will be adequate. Currently, Saint Ignatius College Riverview produces the following volumes of general waste and recyclables weekly, based on information provided by the school:

Table 2: Current General Waste & Recycling

Waste Stream	Bins/Week	Collection Frequency	Litres/Week	Storage Area (m ²)
General Waste	15m ³ hook	Weekly	15,000	12
General Waste	18m ³ Compactor	Fortnightly	9,000	14
Cardboard & Paper Recycling	15 x 240L	Fortnightly	1,800	8
Cardboard & Paper Recycling	1 x 1100L	1 per week	1,100	2
Cardboard Bale	1 x 4.5m ³	Fortnightly	2,250	3
Commingled Recycling	1 x 4.5 m ³	1 per week	4,500	3
Green Recycling	1 x 23 m ³	Monthly	5,750	18
Confidential Paper Bins	12 x 240L	Fortnightly	1,440	6
Total			40,840	66

No new waste and recycling streams are expected to be generated by the development, and the existing storage area located on the school’s campus at Loyola Drive will continue to be used for storage of all future operational general waste and recycling streams. As these bins can be easily accommodated within the existing storage area, the proposed development will not require construction of any new storage facilities.

Figure 5 shows the location of the current bin storage area:

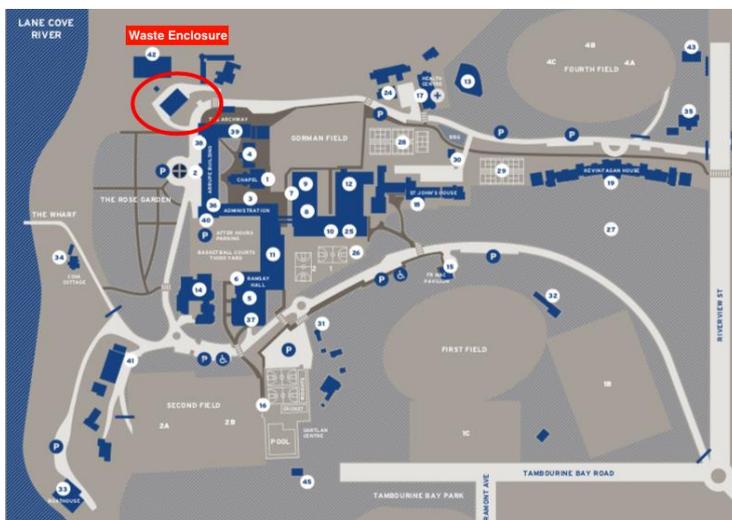


Figure 5 – Saint Ignatius College Riverview, Waste storage area

6. Waste & Recycling Streams

6.1 General Waste & Recycling

Standard procedures for managing general waste and recycling generated from classrooms, general learning areas, sporting facilities, changerooms, and offices, will be as follows:

- Staff and students dispose of material into designated bins located throughout the campus' corridors
- Cleaners collect materials and transfer waste/recycling to the bins to the designated waste storage area
- General Waste and Recycling contractors' services bins to designated schedule

6.2 Organic Waste

Green garden waste will continue to be managed by maintenance staff, who will place the materials in the two dedicated 23m skip bins. No increase in the volume of green waste is expected as a result of the proposed development.

6.3 Electronic Waste

Electronic waste (e-waste) current arrangement of a quarterly collection drop off/collect at the Junior School campus will remain in place.

7. Roles & Responsibilities

The school's Facilities Manager will be responsible for reviewing the Operational Waste Management Plan annually, ensuring its objectives are met, and making adjustments where required, to ensure continued accuracy and relevance to actual operational circumstances.

Students are also involved in ongoing efforts to reduce waste to landfill.

7.1 Waste Diversion Targets

Based on the expected waste profiles of the proposed development, we recommend setting an initial diversion target of 50% of overall waste diverted from landfill. This target should be reviewed by the school after the first year of operations, and annually thereafter, and adjusted accordingly based on actual measured performance.

7.2 Monitoring & Measurement

Saint Ignatius College Riverview already has systems in place for monitoring, measurement, and reporting of operational waste management performance. Reports and invoices provide weights of materials streams and numbers of bins collected.

Annual performance and contract reviews will be conducted with the school's Facilities Manager, waste contractor, and cleaning manager, to assess progress towards annual waste diversion targets and other KPIs, identify operational issues, and address any shortcomings. Waste audits will also be conducted annually to benchmark performance.

8. Internal Receptacles

It is recommended that all internal areas of the development are equipped with bin hubs for:

- Paper & Cardboard Recycling
- Commingled Recycling
- General Waste

Bins should be situated in areas which effectively service a group of workstations and offices, with no bins under desks; this improves cleaning staff efficiencies by reducing the number of bins that require collection, and also reduces the number of bin liners required.

Examples of bins that are commonly used in office or educational settings are shown below. Differently coloured bin liners (general waste-black; paper-clear; commingled-blue) are recommended to assist cleaning staff to distinguish the different streams and enable them to identify contamination, prior to final disposal in the bins in the central storage room.

The green lid bin bins shown in the second two photographs are for food organics: if the school is looking at implementing a recycling program for this material, care must be taken to place the bins in correct locations, i.e. those where most generation and disposal takes place, such as kitchens, dining areas, and common rooms.



9. Vehicle Access & Site Safety

Contractors responsible for the removal of general waste and recycling will be required to undertake a site induction process to ensure their operational practices are conducted safely and efficiently, and conform with the specific requirements listed in Section 9.

General waste and recycling will be collected in standard trucks as shown below:

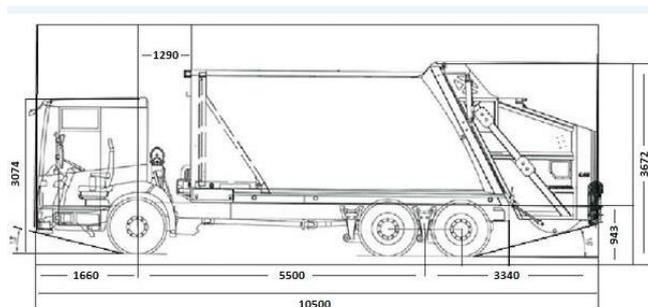


Figure 6 – Rear load collection vehicle

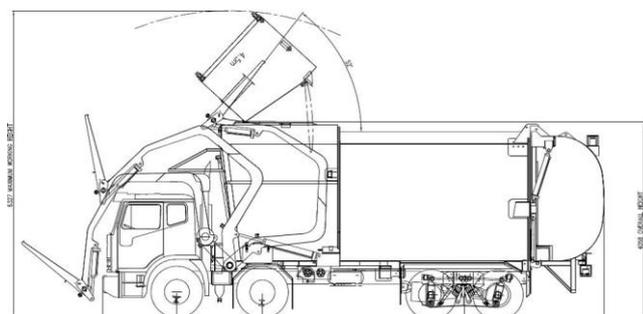


Figure 7 – Front load collection vehicle

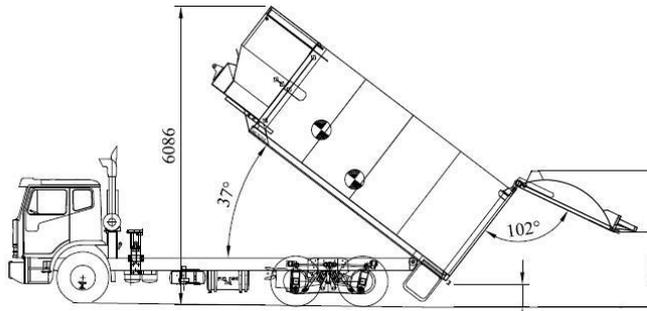


Figure 8 – Compactor/hook lift collection vehicle

10. Waste Contractor Requirements

Saint Ignatius College Riverview's waste contractor(s) will comply with the following specific requirements:

- Reliable and efficient servicing, and meeting agreed schedules
- Working with the site to achieve continuous improvements in recovery rates
- Providing monthly reports on diversion and financial outcomes
- Providing tenant engagement and education programs
- Maintaining current details of processing facilities used
- Having collection vehicles fitted with weighing technology
- Maintaining evidence of compliance with relevant Green Star reporting criteria

11. Relevant Legislation, Standards and Guidelines

The following guidelines and standards have been used as references in compiling this Waste Management Plan:

- NSW EPA *Protection of the Environment Operations Act 1997* and *Protection of the Environment Operations (Waste) Regulation 2014, Part 11*
- NSW EPA *Waste Classification Guidelines 2014*
- *SEARs Requirements*

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