Concept Site Waste Minimisation and Management Plan

Life City Wollongong

Including Tertiary Teaching Referral Inpatient Hospital

Lot 4 DP 258635 Warwick Street

Lot 2 DP 534116 Nottingham Street

Lot 2 DP 249814 York Street

Lot 21 DP 1008877, Lot 2 DP 860917

Berkeley

Prepared for Delbest Pty Ltd

by TCG Planning

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URBAN DESIGN

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1 Executive Summary

TCG Planning has been engaged by Delbest Pty Ltd to prepare a Site Waste Minimisation and Management Plan (SWMMP). This Plan will accompany the Concept Application and Environmental Assessment for the proposed 'Life City Wollongong' development at Lot 4 DP 258635 Warwick Street, Lot 2 DP 534116 Nottingham Street & Lot 2 DP 249814 York Street, Berkeley. This Concept SWMMP outlines measures to minimise and manage waste generated during construction and for the ongoing use of the proposed facility.

The proposed staging of the development is summarised as follows:

Table 1: Proposed Staging of the Facility

Description of Proposed Development	Stage
Medical Centre, Day surgery, Child Care Centre & Respite Care Centre Medical Centre & Day Surgery comprising; specialist rooms, childcare centre, respite care centre including initial structural works and landscaping.	1
Holistic Health Care Course Holistic health course including yoga, reiki, laughter therapy, meditation, auras, pranic healing and outdoor structures for these activities.	2
Serviced apartments Serviced apartments for attendants of patients and patients seeking outpatient services.	3
Ancillary accommodation & research, library, lecture theatre, auditorium complex Ancillary accommodation & research including library, lecture theatre, auditorium, research and development facility.	4
Hi Tech Holistic Cancer & Medical Hospital Hi-tech holistic, tertiary, referral, inpatient cancer and medical hospital including oncology and holistic, medical and rehabilitation, dementia and psychiatric wings.	5
Self Care Seniors Housing	6
Residential Care Facility & Hostel Residential care facility and hostel with 167 beds.	7
Healthcare Technical High School Wollongong Healthcare Technical High School for 350 students including oval.	8
Roads	All
Landscape works and regeneration of rainforest	All

As the site is currently vacant, there is no demolition to take place as part of the proposal. Therefore, waste will relate to construction and on going operation only. The details in this plan are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as Wollongong City Council, NSW DECC or NSW WorkCover.

Future more detailed SWMMPs for each stage of the development will address the objectives and controls within Chapter E7 of Wollongong Development Control Plan 2009 (WDCP 2009), however, it should be noted that this subject application is for a 'Concept Plan' only and therefore a detailed assessment of waste minimisation measures will be implemented for each stage.

The waste collection arrangements for each stage are detailed in Table 2 below:

Table 2: Waste Collection for Each Proposed Stage

Stage	Description of Proposed Development	Waste	Collection
1	***Medical Centre, Day surgery, Child Care Centre & Respite Care Centre***	General Recyclable Clinical	Collection from lower ground floor basement via mechanical turning area within loading area.
2	***Holistic Health Care Course***	None	N/A
3	***Serviced apartments***	General Recyclable	Stored in centralised garbage storage area on lower ground floor, external to the building to be collected by a private contractor
4	***Ancillary accommodation & research, library, lecture theatre, auditorium complex***	General Recyclable	Garbage will be stored within the ground floor, accessed via a service lift and collected via a loading area.
5	***Hi Tech Holistic Cancer & Medical Hospital***	General Recyclable Clinical	A dedicated waste compactor is proposed within the Basement Level 3, adjacent to the loading area to allow direct waste collection. A service lift on the northern region of the building will allow for transport of general, recyclable and clinical waste across all levels of the hospital facility to then be transported to the compactor and loading area within Basement Level 3
6	***Self Care Seniors Housing***	General Recyclable	General and Recyclable waste to be collected on street
7	***Residential Care Facility & Hostel***	General Recyclable Clinical	A garbage storage area is located on the ground floor, adjacent to a loading area with a mechanical turning bay to allow entry and exit by a service vehicle directly from the street
8	***Healthcare Technical High School***	General Recyclable	Private contractor to collect on site

2 Legislation and Guidelines

2.1 SEPP 33 Hazardous and Offensive Development

SEPP Hazardous and Offensive Development applies to the state. Clause 3 defines "potentially hazardous industry" and "potentially offensive industry" being:

"potentially hazardous industry" means a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

(a) to human health, life or property, or
(b) to the biophysical environment,

and includes a hazardous industry and a hazardous storage establishment.

"potentially offensive industry" means a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

Clause 4 includes other relevant definitions:

"hazardous industry" means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the development from existing or likely future development on other land in the locality), would pose a significant risk in relation to the locality:
(a) to human health, life or property, or
(b) to the biophysical environment.

"hazardous storage establishment" means any establishment where goods, materials or products are stored which, when in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the establishment from existing or likely future development on the other land in the locality), would pose a significant risk in relation to the locality:
(a) to human health, life or property, or
(b) to the biophysical environment.

"offensive industry" means a development for the purposes of an industry which, when the development is in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the development from existing or likely future development on other land in the locality), would emit a polluting discharge (including, for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.

"offensive storage establishment" means any establishment where goods, materials or products are stored which, when in operation and when all measures proposed to reduce or minimise its impact on the locality have been employed (including, for example, measures to isolate the establishment from existing or likely future development on other land in the locality), would emit a polluting discharge (including, for

example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land in the locality.
"the Act" means the Environmental Planning and Assessment Act 1979 .

Due to the nature of the facility which involves a holistic approach to cancer treatment, there will be some level of cytotoxic waste in conjunction with the treatment process. Such material is stored and used in very small doses appropriate for cancer treatment. Such material will be appropriately transferred to, from and stored within the hospital in accordance with health guidelines for hospitals. This material, when correctly transported, stored and used appropriately by medical staff will not be hazardous to human health or the physical environment.

2.2 Waste Management Guidelines for Health Care Facilities (NSW Health 1998)

The 'Waste Management Guidelines for Health Care Facilities (NSW Health, 1998) defines these types of waste as follows:

Clinical Waste: Waste which has the potential to cause sharps injury, infection or offence. When packaged and disposed of appropriately there is virtually no public health significance. Clinical waste contains the following type of waste:

- *Sharps;*
- *Human tissue (excluding hair, teeth and nails);*
- *Bulk body fluids and blood*
- *Visible blood stained body fluids and visibly blood stained disposable material and equipment;*
- *Laboratory specimens and cultures;*
- *Animal tissues, carcasses or other waste arising from laboratory investigation or for medical or veterinary research*

Unless treated by a method approved by the Director General, NSW Department of Health.

Sharps: Any object capable of inflicting penetrating injury, which may or may not be contaminated with blood and or body substances. This includes needles and any other sharp objects or instruments designed to perform penetrating procedures.

General Waste: Any waste not included above and which is not capable of being composted, recycled, reprocessed or re-used. This stream includes incontinence pads, drained dialysis wastes, sanitary wastes and disposable nappies.

Recyclable Products: Items which are composed of materials or components, capable of being manufactured or reused. Items are considered recyclable if facilities are available to collect and reprocess them.

3 Construction Phases

Due to the scale and separate staging of the project, comprehensive data specifying volume and detailed method of disposal or recycling of waste at the construction phase will be prepared by the nominated construction contractor and will follow estimates of construction materials for each stage.

Waste associated with the construction of the building is to be minimised through careful ordering of materials and pre-cutting of ordered products so as to reduce waste of on-site materials. Ordering to strict measurements will reduce over ordering, wastage and expense to the developer. Materials will be delivered to the site on a scheduled "as need" basis to prevent degradation and to avoid damage. Site area constraints for storage of materials will ensure this is achieved. Any over-order or oversupply will be returned to the supplier or manufacturer at the earliest opportunity. It is recommended that reduction of packaging of materials be achieved by: returning packaging to supplier, purchasing in bulk, request for cardboard or metal packaging rather than plastic, and metal straps rather than shrink wrap.

The detailed SWMMP to be prepared by the nominated construction contractor should adhere to the following principles:

- Require the appointment of a supervisor to oversee waste and recyclable from the site;
- Identify waste materials before work commences;
- Consider site offices, sheds and day to day waste produced by staff and sub contractors;
- Require waste contractors to ensure records kept and waste targets met;
- Develop a disposal procedure which includes:
    - specification of number and type of containers for each stage of the project;
    - organise signage and location of bins, skips and stockpiles;
    - designate areas for reusables, returnables, and recyclables;
    - keep separate waste materials clean;
    - provide training and education to ensure waste management objectives are met.

The contractor will be required to provide an on-site sorting and/or collection system for processing including colour-coded, clearly labelled bins, signage and timetable skip pick up. Investigation of potential markets as part of the waste planning process, participation in recycling opportunities and training of staff to recover recyclable materials will also be required by the nominated contractor to ensure waste is minimised and recycling is achieved during the construction phase.

Details of the above can be clarified by the appointed contractor prior to the project proceeding.

4 Operation of the Facility

4.1 Waste storage and collection arrangements

Stage 1 Day Surgery and Medical Facility

Plan No. ST1_B_01 prepared by Boss Design indicates a loading area to be located within Lower Ground Floor level. Within this loading area is a mechanical turning bay to allow service vehicles forward egress. All waste, including clinical waste, will be transferred via the service lift from the ground and first floor levels. This loading area and mechanical turning bay can be serviced by a pantech truck with a clearance of 3.5m.

Clinical waste generated by the consulting rooms, radiology, pathology and the day surgery theatres and beds on the first floor will be collected by a specialist waste contractor. General and recyclable waste generated from the admission areas, office areas and retail spaces will also be collected from the lower ground floor level.

The proposed Day Surgery will provide 4 operating theatres; 5 pre-op; 9 first stage and additional second stage beds on the first floor. It is noted that the pre and post operating chairs and beds do not generate a significant amount of waste, and that the waste is primarily generated by the four operating theatres of which these pre and post op chairs and beds are associated. On the ground floor is the Medical Centre which contains consulting rooms radiology, X-ray, MRI and pathology rooms. All waste from the centre will be transported from other parts of the building via the lift and service corridor (typically by trolley) to the waste storage and loading area.

Waste will be separately stored as general, recyclables and clinical, and will be collected appropriately by a private contractor. The clinical waste will be collected by a small pantech truck operated by a private contractor and will stored in appropriate bags and bins accordance with the Guidelines. Incineration of any cytotoxic waste will occur off site at an appropriate facility.

Stage 2 – Holistic Health Care Course

This facility operates as an open space integrated into the scenic landscaping for both organised and casual group use. Any waste can be disposed of in outdoor bins scattered throughout the site.

Stage 3 – Serviced Apartments

As these apartments are to be serviced, waste will be collected for each apartment and stored within a screened waste storage area on the lower ground floor on the western end of the north eastern serviced apartment building. General and recyclable waste will be stored here and collected by a waste contractor who can access the site directly from the road via a service driveway.

Stage 4 – Ancillary accommodation & research, library, lecture theatre, auditorium complex

Garbage will be stored within the ground floor, accessed via a service lift and collected via a loading area. Service vehicles will be required to either exit or enter the loading area in a reversing movement. Adequate area exists, if required, to redesign this service area in conjunction with the Stage 4 development application to accommodate forward ingress/egress.

Stage 5 - Hi Tech Holistic Cancer & Medical Hospital

Stage 5 of the Life City proposal involves a tertiary teaching referral inpatient hospital, which will generate general, recyclable and clinical waste. It is noted that the proposed Stage 5 Hi Tech Holistic Cancer & Medical Hospital will provide a dedicated garbage room and waste compactor within the Basement Level 3, adjacent to the loading area to allow direct waste collection. A service lift on the northern region of the building will allow for transport of general, recyclable and clinical waste across all levels of the hospital facility to then be transported to the compactor and loading area within Basement Level 3. This area will be able to be serviced by a small rigid vehicle. Manoeuvring plans provided on the Lower Ground-03(Parking) Plan ST5_B_02 provided by Boss Design confirms there is sufficient manoeuvring area within this basement for forward egress of such a service vehicle.

The loading area is located on the Lower Ground 03 level, however, within this area, there is void area located on Lower Ground 02 allowing for a ceiling height of 5.4 for the loading area, which is sufficient for access by a service vehicle.

Incineration of any cytotoxic waste will occur off site at an appropriate facility. Recyclables and general waste generated by office and administration areas, staff areas, physiotherapy and rehabilitation areas, consultation rooms, waiting areas, dementia ward, dining areas and retail spaces will be collected by a private contractor from Basement Level 3.

Stage 6 – Self Care Seniors Housing

General and Recyclable waste is anticipated to be collected on street.

Stage 7 – Residential Care Facility and Hostel

A garbage storage area is located on the ground floor, adjacent to a loading area with a mechanical turning bay to allow entry and exit by a service vehicle directly from the street. General and recyclable waste will be generated from common rooms, activities rooms, kitchen and dining facilities, office and administration areas.

Stage 8 – Healthcare Technical High School

General and recyclable waste will be generated from classroom activities, the café and dining area, staff rooms, and outdoor common areas. Private contractor to collect on site

5 Conclusion

The management of Life City Wollongong, including the Medical Centre & Day Surgery and Hi Tech Holistic Cancer & Medical Hospital will encourage waste minimisation and recycling opportunities, in addition to the avoidance of waste by appropriate purchasing of materials and products. This will be achieved through education and training of staff and implementation of an operational waste management strategy. Other operational management measures will be implemented such as spill management and waste handling procedures. This can also be implemented through the occupational health and safety processes of the hospital.

Further details of waste generation and storage facilities will be determined prior to the development proceeding. Waste generation has been considered at a concept level at this stage only, to accompany the Concept Plan application. However, the requirements for waste collection have been appropriately considered and incorporated into the design of each facility to ensure suitable arrangements can be achieved as the development proceeds. It is recommended that, waste collection areas and arrangements adhere to the principles contained within this report.