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SITE WASTE MINIMISATION AND MANAGEMENT PLAN

Muswellbrook Racing Club

Racecourse Road, Muswellbrook NSW 2333

Licenced Club Extension works

Prepared for:	Muswellbrook Racing Club
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1. Introduction

AusWide Consulting was commissioned by Muswellbrook Racing Club in 2018 to prepare a Waste Management Plan (WMP) for approval of building extension works at Muswellbrook Racecourse, Racecourse Road, Muswellbrook NSW 2333. Muswellbrook Shire Council issued development consent on 19 November 2018. The Muswellbrook Racing Club modified the plans for the development in late 2023, and reengaged AusWide Consulting to update the Waste Management Plan to reflect these changed plans.

The Licensed Club development now consists of:

Lower Level

Office Area 90m², Amenities/Toilets/Change Rooms/Kitchenette 110m², Weigh In 14m², Storage/Cleaners Room/Services 55m², Circulation Space/Lifts 53m².

Upper Level

Function Room including Bar, Servery, Betting Counter 255m², Amenities 27m², Circulation 15m², Storage 21m², Kitchen and Storage 43m².

In the course of preparing this WMP, the subject site and its environs have been inspected, plans of the development examined, and all relevant council requirements and documentation collected and analysed.

This WMP has been prepared based on the following information:

- Architectural Plans provided by CKDS Architecture Pty Ltd (7/12/2023);
- Waste Management Plan by AusWide Consulting for the Muswellbrook Racing Club upgrade, stamped by Muswellbrook Shire Council 13/11/2018;
- Muswellbrook DCP 2009;
- NSW Waste Code for New Developments in Multi-Unit Dwellings & Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities.



2. Background and Existing Conditions

The subject site is located at Muswellbrook Racecourse, Racecourse Road, Muswellbrook NSW, on the Western side of Denman Road. The nearby land uses are a mix of rural and residential with most land uses for the training of racehorses.

Figure 1 provides an overview of the area and its surrounding land uses whilst **Figure 2** provides an aerial view of the immediate area surrounding the subject site.



Figure 1: Location of the Subject Site





Figure 2: Aerial View of the Subject Site



3. Waste Management Principles

When dealing with waste, the following hierarchy has been adopted, prioritising from left to right:



Avoid/Reduce

Particularly during the construction phase, avoidance of waste will be achieved through:

- Selecting design options with the most efficient use of materials;
- Selecting materials with minimal wastage, such as pre-fabricated materials.

<u>Reuse</u>

Some of the materials encountered in the demolition stage can be recovered and reused both on-site and off-site. This will be practised wherever possible. Reusable materials shall be appropriately stored to avoid damage from weather or machinery.

<u>Recycle</u>

Similarly, many materials form the demolition stage will be recyclable. These materials will be identified prior to demolition, and a system incorporated to efficiently separate reusable materials, recyclable materials, and disposable materials. Recyclable materials shall be appropriately stored to avoid damage from weather or machinery. Details and receipts verifying the recycling of these materials shall be kept present on site at all times.

<u>Disposal</u>

The waste disposal contractor chosen for the job will comply with Council's DCP. Details and receipts verifying the disposal of these materials shall be kept present on site at all times.

Handling

When handling waste on-site, the system (including bin placement, volumes, and access) shall be designed with the following factors in mind:

- Safety (highest priority);
- Ease of use; and
- Aesthetics.



Stockpiling

Waste sorting areas and vehicular access on-site during demolition and construction shall be adequately maintained. The material (demolition material, excavation material, construction material and waste) stockpiling area shall always remain within the site boundary and relocate during different demolition and construction stages as necessary. The waste area shall be largely located at the front of the site. This is to maintain easy access and removal of waste. The stockpiling area shall not infringe on access to the site however, hoardings shall bind the site perimeter; therefore, the waste shall not be visible from the street.



4. Demolition & Construction Stage

The proposal involves the alterations & additions of the existing building;

Lower Level

Internal stripout and construction of two additional rooms (Winners Room 22m², Sky TV Media Room 22m²)

Upper Level

Internal stripout of amenities, kitchen and storerooms, removal of southern and northern walls and construction of the second function space, new kitchen and storerooms, additional bar area, and new amenities.

The currently proposed changes to the building, and how they compare to the approved DA is shown in **Table 1** below and the plans in **Appendix A**. It can be seen from **Table 1** that the current proposal is considerably scaled back from the approved DA plans.

Room Names	Room	Occupants	Existing	Approved	Proposed Area
Entry Eover/Circulation	R001	1	Alea	14m ²	62m ²
Euler Foyen Circulation	R002	126	213m ²	$216m^2$	172m ²
Function Space 02	R002	126	210111	$230m^2$	1/2m 1/3m ²
Punction Space 02	R003	120	- 25m ²	20011 40m ²	140m ²
Batting Counton	R004	4	2011 Gm ²	4 0111 7 m ²	40111 Gm ²
Betting Counter	RUUS	4		17m ²	611-
Servery	R006	0	11m-	17m-	-
Mala Tailata	D007	5	11m ²	20m ²	11m ²
		5	10m2	2011	152
	RUUO	5	1311	2211	15111
Accessible WC	R009	1	311-	911-	500
Airlock	R010	-	-	002	8m ⁻
Storage	R011	-	11m ²	39m ²	44m ²
Kitchen	R012	10	32m ²	48m ²	51m ²
Circulation (Gross Area)	-	-	15m ²	23m ²	26m ²
Total Area			340m²	715m²	591m ²
	5010		00 2	a. 2	o z 2
MRC Reception/Entry	R013	2	33m ²	34m ²	2/m²
MRC Office	R014	4	30m²	54m²	25m ²
MRC GM Office	R015	1	13m ²	20m ²	9m ²
MRC Storeroom	R016	-	11m ²	11m ²	4m ²
Staff Kitchenette	R017	-	3m ²	3m ²	3m ²
Accessible WC	R018	1	5m ²	5m ²	6m ²
Stowarda Boom/Training	B010	0	11 m2	10m ²	22m ²
Stewards Room/Training	RUI9	0	14 11	4011 45m ²	33III -
Гетаје Јоскеу Коот	R020	15 (luture	2011-	45m-	47m-
Mala Jackey Deem	D001	growin)	60m ²	00m ²	com ²
	RU21	20	62m-	8011-	02111-
Communal Jockey Room	RUZZ	8	-	-	14m ⁻
Unisex Jockey Spa Room	R023	4	-	-	8m-
Weigh-in Room	R024	-	14m²	14m ²	14m ²
Jockey Storage	R025	-	/m²	7m²	/m²
Winners Room	R026	20	14m²	22m²	22m ²
Media Room	R027	3	-	-	23m ²
Under-croft (Future Stage)	R028	твс	-	280m ²	(265m ²)
					· · · · ·
Lift/Stairs	R029	-	3m ²	15m ²	18m ²
Cleaners Room/Store	R030	-	14m ²	5m ²	14m ²
Services Room	R031	-	23m ²	4m ²	6m ²
Circulation (Gross Area)	-	-	50m ²	29m ²	49m ²
Total Area			322m ²	676m ²	391m ² (265m ² Future)
Total Net Area			597m ²	1339m ²	907m ²
Total Gross Building Area			662m ²	1391m ²	982m ²

Table 1: Current, Approved and Proposed Areas



Demolition Works

It should be noted that the demolition stage has the greatest potential for waste minimisation, particularly in the Hunter region where there are high levels of development and relatively high tipping charges7.

The contractor should consider whether it is possible to re-use existing buildings, or parts thereof, for the proposed use. With careful onsite sorting and storage and by staging work programs it is possible to re-use many materials, either on-site or off-site.

Councils are typically seeking to move from the attitude of straight demolition to a process of selected deconstruction, i.e. total reuse and recycling both off-site and on-site. This could require a number of colour-coded or clearly labelled bins onsite (rather than one size fits all).

Site contractors should demonstrate project management which seeks to:

- Re-use of excavated material on-site and disposal of any excess to an approved site;
- Re-use green waste mulched in landscaping either on-site or off-site;
- Re-use bricks, tiles and concrete on-site as appropriate, or recycle off-site;
- Re-use plasterboard in landscaping on-site, or return to supplier for recycling;
- Re-use framing timber on-site or recycle elsewhere;
- Recycle windows, doors and joinery off-site;
- Recycle plumbing, fittings and metal elements off-site;
- Dispose all asbestos, hazardous and/or intractable wastes in accordance with Workcover Authority and EPA requirements;
- Identify locations of on-site storage facilities for material to be reused on-site, or separated for recycling off-site; and
- Identify destination and transportation routes of all materials to be either recycled or disposed of off-site.

Construction Works

The following measures shall be considered during the construction stage in order to save resources and minimise waste:

- Purchasing Policy i.e., ordering the right quantities of materials and prefabrication of materials where possible;
- Reusing formwork;
- Minimising site disturbance, limiting unnecessary excavation;
- Careful source separation of off-cuts to facilitate re-use, resale or efficient recycling; and
- Co-ordination/sequencing of various trades.



Estimating Waste Quantities

There are many simple techniques to estimate volumes of construction and demolition waste. The sequence of steps provided below can be used as a guide:

- 1. Quantify materials for the project
- 2. Use margin normally allowed in ordering
- 3. Copy these amounts of waste into your waste management plan

When estimating waste generation, the following percentages can be used as a "rule of thumb" practice:

Material	Waste as a Percent of the Total		
	Material Ordered		
Timber	5-7%		
Plasterboard	5-20%		
Concrete	3-5%		
Bricks	5-10%		
Tiles	2-5%		

Table 2: General Waste Portions from Demolition

Subsequently, the following table illustrates how to convert volumes of material to their respective weights. This information is particularly important during material storage and transportation stages.

Table 3: Converting Waste Volume to Weight

Wastage Types and Handling

The estimated waste volumes to be produced by excavation, demolition and construction stages based on the site plans are contained in **Table 3** below but should be confirmed by the contractor at the construction certificate stage. Where possible, materials shall be reused or recycled, with disposal being the last resort. The destination of all recycled and disposed material shall be announced upon the selecting the waste collectors and recyclers.

The arrangements for all reused, recycled and disposed waste shall be tracked and recorded, and all receipts shall be held on-site.



Table 4: Estimated Demolition Waste Quantities and Disposal

Materials On Site	Waste Estimate - Volume (m ³) or Weight (t)	On-site Reuse	Off-site Recycling	Off-site Disposal (In accordance with NSW EPA)
Bricks	5t	Recovered bricks as commons 10%	90%	0%
Ceramic Tiles	1t	0%	20%	80%
Timber	10m ³	Formwork, props, etc 10%	70%	20%
Concrete	25t	Reuse of crushed recycled concrete 10-20%	70-90%	0%
Metals	12t	0%	100%	0%
Glass	5t	0%	70%	30%
Plasterboard	3t	0%	80%	20%
Other	12t	0%	20%	80%

The Demolition reuse/recycling/disposal information will be confirmed at CC Stage.

Table 5: Estimated Construction Waste Quantities and Disposal

Materials On Site	Waste Estimate - Volume (m3) or Weight (t)	On-site Reuse	Off-site Recycling	Off-site Disposal (In accordance with NSW EPA)
Bricks	1t	0%	90%	0%
Ceramic Tiles	1t	0%	20%	80%
Timber	5m ³	0%	70%	20%
Concrete	5t	Reuse of crushed recycled concrete 10-20%	70-90%	0%
Metals	2t	0%	100%	0%
Glass	0.5t	0%	70%	30%
Plasterboard	1t	0%	80%	20%
Other	5t	0%	20%	80%

The Construction reuse/recycling/disposal information will be confirmed at CC Stage.



5. On-going Waste Management

Due to the development being commercial, waste collection will continue be done by a private contractor (currently JJ Richards).

Waste Generation

As per the NSW Waste Code for New Developments in Multi-Unit Dwellings & Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities, the relevant waste generation rates are shown in **Table 6** below:

Table 6: Typical Garbage and Recycling Generation Rates for Licenced Clubs and Offices

Type of premises	Garbage generation	Recycling generation
Licensed club	50L/100m² floor area/day	50L/100m ² of bar and dining areas/day
Offices	10L/100m²/day	10L/100m²/day

NOTE: As per current practice, the club staff will be responsible for emptying the bins that are placed throughout the Licenced Club into the MGBs in the main waste storage area.

It is noted that unlike a conventional licenced club that operates every day, this facility operates on an infrequent basis for race meetings and private functions. For example, the facility hosted only nine race meetings in the second half of 2023 but held 45 private functions over the year.

The proposed extension will double the current 126 seat function area with a movable divider, which can either be opened up to cater for 252 seats or closed to cater for two 126 seat functions at once. This will allow for the facility to cater for larger private functions, or two functions at once.

To cater for this variable waste generation, the site has two large skip bins situated near a site shed. One skip is for general waste and the other is for recycling waste (beer bottles/cans/cardboard etc). The red and yellow bins around the race club are emptied after each race meeting by the 11 permanent track staff and additional casuals as required and the waste is put into the respective bins. The track manager contacts JR Richards when the skips are full, and the skips are emptied approximately twice a month when the site is busy.

It is proposed that the current waste collection and disposal practices continue with the proposed development, with the ship bins emptied on a weekly basis to cope with the additional demand as required.



Waste within Overall Development

Upper Level

Function Areas 315m², Kitchen 51m², Bar 48m², Betting Area 6m².

Lower Level

Offices 34m², Kitchenette 3m², Weight-in/Winners/Media rooms 59m².

Using the general waste and recycled waste generation rates above, the following can be calculated:

Office Area (Lower Level - 96m²)

- 10L/100m²/day of general waste per 5-day week = 48L (uncompacted)
- 10L/100m²/day of recycling waste per 5-day week = 48L (uncompacted)

Licenced Club (Upstairs - 420m²)

- 50L/100m² floor area/day of general waste per 3-day week = 630L (uncompacted)
- 50L/100m² of bar & dining areas/day of recycling waste per 3-day week = 630L (uncompacted)

Waste Storage Area

Based on the total waste generated by the development, the following combination of bins should be provided within the waste storage area of each warehouse:

- 3 x 240L General Waste MGBs collected weekly.
- 3 x 240L recycling Waste MGBs collected weekly.

The following figure illustrates the typical dimensions of the 1,100L, 660L & 240L MGBs mentioned above.





Figure 3: Typical Dimensions of a 240L MGB

The following figure illustrates a scaled diagram of the MGBs within the waste storage area.





Figure 4: Scaled Diagram of the Waste Storage Area



6. Waste Collection

The waste collection service for the proposed development will continue to be provided by a private contractor.

Site staff will collect the bins from the waste room using the racecourse access road and bring the bins to the central skip bin for emptying. When required, the private waste contractor will be contacted to replace the skip bins.



7. Amenity

Noise

The only noise generated from the waste management at the property will be that of the waste being collected. Any other noise related to the waste management will be kept to a minimum.

Ventilation

The waste storage area is located within the licenced club waste storage area and will need to be ventilated.

Security

All MGBs will be stored within the waste storage area, which is the secured.

Cleaning Facilities

The private contractor and caretaker is responsible for keeping the MGBs clean.

Prevention of Vermin

The occupiers will be advised to not overfill the bins so that the lids are closed at all times. It is suggested to place rat traps in the corners of the waste storage areas.



8. Miscellaneous

Green Waste

The landscaping at the development has been designed as such to be very low maintenance. Green Waste will be managed by the race club's track maintenance staff which is minimal.

Hard Waste

If hard waste collection is required, management should call the private contractor directly.



9. Conclusions

We trust that the information provided above is sufficient at this initial stage. It has been demonstrated that all waste encountered during the demolition and construction stages shall be dealt with according to the best-practice principles outlined within the report. Upon construction stage, specific waste volumes, handling and destinations shall be disclosed to Council. On-going waste management work involved is minimal and shall be managed using the established processes according to Council policy.



Appendix A – Site Plans











Racecourse Road, Muswellbrook NSW 2333

by AusWide Consulting



