ROYAL RANDWICK RACECOURSE

NEW STABLES PRECINCT

TRANSPORTATION REPORT

Prepared for the Australian Jockey Club, Randwick

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1 THE STABLES – OPERATION AND PROPOSAL

1.1 Proposal

The proposal under consideration is for New Stables in the eastern portion of the Royal Randwick Racecourse (RRR) at the corner of Wansey Road and Alison Road, which is currently used for Barrier Trials and accommodates about 150 Day Stalls.

The New Stables will replace all the existing stables at the Racecourse including Lower High Street and Upper High Street, as well as providing scope for other off-site stable facilities to be accommodated and consolidated onto the RRR site.

The Barrier Trials will continue to operate from this Precinct, and the existing stables will be closed both on and off the course as the new ones are completed and occupied.

The new Stable Buildings will accommodate 600 horses housed in six buildings on two levels.

The Stables Precinct will comprise the following key stable and training facilities:

- Six Stable Buildings, each providing 100 stables across 2 levels and a mezzanine level of strapper accommodation.
- A single-storey Tie-Up Stalls Building with 50 stalls.
- 12 two-storey mechanical walkers (24 walkers in total).
- A 'Bull Ring' and 2 smaller 'Parade Rings' for horse exercising and showing.
- An equine pool.
- An equine tunnel running between the Stables Precinct and the Infield.
- Car parking for passenger vehicles and horse floats.
- Ancillary facilities buildings for Vet's, Farriers, waste, bed shavings, and trainer / rider refreshments.

The internal circulation will consist of rubberised bitumen roads.

In essence, the stables in Randwick offer a state-of-the-art training facility for the best horses, who generally stay for a period of about 3 months, then return to their "country" stable to possibly return again after a spell of approximately 3 months.

1.2 Stables Operation

The Stables will operate at a normal capacity of 85% and increase to 100% capacity around the Carnival events (twice a year). Equine Precincts are set up throughout RRR to separate as much as possible, by way of automatic gates, horses and traffic, particularly near stables, the track, access ways to the track and to the horse walkers. An exception to this are the service vehicles operated by amongst others Vet's, Farriers, Feed and Bedding Merchants and the Trainers themselves.

In a broader context, this means no access around the track from the Bump in, Bump out vehicle entry from Alison Road (see separate report).

The Equine Precinct will have a perimeter fence separating it from other activities within the Stables Precinct. All parking and all horse floats/horse transporters will generally remain outside the fenced Equine Precinct.

1.2.1 Daily cycle

On 25 August, STAP made observations at the Stables in Upper and Lower High Street. Strappers, jockeys and trainers arrived between 3.30am to 8.30am. During this time, approximately half the horses are taken for trackwork and wash down. The remainder of the horses are taken to the horse walkers for exercise. Administrators, Owners and visitors start arriving from 8.30am on. A few transfers are made by horse floats each day.

The horse floats vary in size up to a maximum 19m truck, plus a few large articulated interstate horse transporters and small single, or double stall float trailers. This

operation will be reduced in the new development as all horses undertaking daily track work will have to be domiciled on the site so there will be infrequent early morning float movements.

It is estimated that some 200 staff will be working at the Stables Precinct in the early morning, including the 60 who will be housed on-site in the strapper accommodation above the Stables.

The strappers are generally young locals, many are university students. There is no public transport at the time of morning they commence work, and they generally travel to RRR by foot or by bike; those further away are traditionally given lifts.

The existing stables are not open to the public and access can currently be made through the Equine Precinct gates into some stables using controlled "access buttons".

1.3 Barrier Trials

Barrier Trials will continue to be organised from this precinct of the racecourse.

Barrier Trials are held every 2 to 3 weeks (19 per year) when between 10 and 18 Trials are held in a day, starting 8.30am after the Track is "open" at the end of training. In effect, this is a practice race.

Horses stabled locally are mostly walked around to the Trials, but some local stables use horse floats. Between 3 to 5 floats come in from other stables.

Activity starts from 7.30am, when the officials arrive, and the first trial is approximately 8.45am. Some spectators, trainers, organisers and jockeys remain throughout the morning. Horses and strappers tend to leave in small numbers resulting in there being no peak departure time.

2 PARKING DEMAND

2.1 Survey

Chris Stapleton conducted a survey of parked vehicles at the Lower High Street (300 horse stables) and Upper High Street (200 horse stables) on 25 August 2010 (Table 2.1).

It was observed that:

- Arrival of vehicles is gradual with no peak.
- There is no sense of urgency or time stress.
- At 5.30am, 27 vehicles were parked at the Lower High Street stables, indicating some 0.09 vehicles per horse ("vph"). At the same time, 19 vehicles were parked at the Upper High Street Stables, a figure of 0.095 vph. (Tables 2.1 and 2.2.) This ratio was used for estimating demand from the complete New Stables.
- Counts from the parking survey of the Lower High Street Stables show an increase from 27 @ 5.30am, to 30 @ 7.30am and peak of 33 @ 8.30am as the morning activities come to an end and the day routine starts.
- Parking drops off to 25 @ 9.00am, and rises again to 29 @ 9.30am as the daily routine settles down for the morning.

Table 2.1

Stables Parking Demand (25 Aug)

Lower High St

Time	Parking #	Stables #	v/h
		300	0.09
5.30am	27		
7.30am	30		
8.30am	33		
9.00am	25		
9.30am	29	(31st Aug)	

Table 2.1 Parking Survey for Stables at Lower High Street

Table 2.2			
Stables Parking Demand (25 Aug)			
Upper High St			
Time	Parking #	Stables #	v/h
5.30am	19	200	0.1

Table 2.2 Parking Survey for Stables at Upper High Street

2.2 Future Car Parking

2.2.1 Stables

The surveys were conducted on 25 August, a time when the stables were at 85% occupancy - this is typical for most of the year.

The stables are at full occupancy on the run up to the Carnivals, about 4 weeks a year.

Three conditions were considered: typical occupancy with major Barrier Trials, occurring 5 to 6 times a year; 100% occupancy with smaller Barrier Trials, also occurring 3 to 4 times a year; and typical occupancy with smaller Barrier Trials occurring 10 times a year.

The analysis is shown in table 2.3.

The typical parking demand for the New Stables (Table 2.3) will be 54 @ 5.30am (maximum shown in brackets 64), 60 @ 7.30am (71), 66 @ 8.30am (78), 50 @ 9.00am (59) and 58 @ 9.30am (68).

Table 2.3						
Stables Parking Demand (25 Aug) Lower High Street				ALL Stables		
Time	Parking #	Stables #	v/h	Stables	Observed Occupancy	Max
		300	0.09	600	@ 0.85	100% 1.18
5.30am	27				54	64
7.30am	30				60	71
8.30am	33				66	78
9.00am	25				50	59
9.30am	29	(31st Aug)			58	68

Table 2.3 Parking Demand for New Stables

2.2.2 Barrier Trials

The Barrier Trials operate from 8.30am to about 12.30pm. Attendees start arriving at 7.30am and continue to arrive at the same time as the peak activity in the Stables.

Some jockeys have remained from earlier training; additional jockeys come from other stables, along with floats, strappers, trainers and owners, plus the Organisers (Stewards etc.)

Chris Stapleton conducted a parking survey and made observations on 26 August when a typical Barrier Trial was in progress with 13 trials. The number of vehicles at the Barrier Trials continued to increase slowly from 7.30am (12) to 9.30am (36). (Table 2.4)

Note that some visitors (Press) also attend to watch the proceedings from other vantage points, some were observed near the Lower High Street (Table 2.4). These observers will continue to view from these vantage points.

Two estimates where made about parking: a typical trial and a major trial, with some 31% more demand than was counted in the survey. (Table 2.4)

Barrier Trials (26th Aug)				
Time	Wansey Rd 13	Lower HS	Total on course	Max Stables 17 1.31
5.30am				
7.30am	12	4	16	16
8.30am	26	4	30	34
9.00am	36	4	40	47
9.30am	46	4	50	60

Table 2.4 Barrier Trail Parking Demand

2.2.3 Combined Parking Requirement

The maximum combined total of parking is expected to occur at 9.30am on a major Barrier Trial day when 118 cars will be parked in the precinct; this will occur 5 or 6 times a year. (Table 2.5.)

There will be approximately 4 other occasions when smaller Barrier Trials are being conducted and the Stables are fully occupied, when some 114 vehicles will be parked within the Stables Precinct at 9.30am.

Table 2.5 Combined Parking Demand and Supply							
Condition		Days/year	Peak Hour on Day	Peak Damand	Within Equine Precinct	In Main Parking Area	In Supplementary Parking Area
	Capacity				15	63	26
Average Day during the Year		307	8.30am	66	15	51	0
Leading up to Carnival		38	8.30am	78	15	63	0
Normal Barrier Trail		10	9.30am	104	15	63	26
Barrier Trail before Carnival		6	9.30am	114	15	63	36
Major Barrier Trail		4	9.30am	118	15	63	40

Table 2.5 Combined Total Parking Demand

The frequency of both of these events deems them rare, and by normal designs standards (typical traffic analysis excludes "major events" during the year) do not

need to be catered for. This is particularly relevant when noting that in the event of difficulties, the owners and jockeys will seek their own solution for parking, such as parking within the Equine Precinct, which will be appropriately managed on these "major event" days.

Hence the parking requirements for the Stables Precinct, based on empirical measurements taken at existing stables, is to accommodate 104 vehicles. This demand is calculated to occur approximately ten times a year when Barrier Trials are held.

The maximum parking demand for some 307 days a year is estimated as 66 vehicles rising to 78 vehicles prior to the Carnivals (38 days a year).

2.2.4 Recommendation for car parking

It would be expected that 10 to 15 trainers will park within the Equine Precinct beside their stables.

We recommend that 15 spaces be identified within the Equine Precinct for parking.

With 15 or so vehicles parked within the Equine Precinct, there will be a typical demand for 51 spaces in the parking area and 63 spaces during the build up to a Carnival.

We recommend that 63 permanent parking spaces are required to serve the Stables Precinct.

The parking demand will exceed 78 spaces (15 trainers + 63 permanent spaces) by 26 spaces for 10 days (hours) a year and by up to 39 spaces for a further 10 days (hours) a year.

We recommend that 26 parking spaces are required to serve the Stables Precinct built for occasional use (e.g. Permeable material.)

We recognise the total supply of 15 spaces within the Equine Precinct, 63 spaces in the permanent parking area and 26 spaces in the occasional parking will be exceeded on approximately 10 hours per year during which time other arrangements can be made to accommodate the excess demand.

2.3 Horse Floats

2.3.1 Observations

The following horse float demands were observed in the Lower High Street stables area on 25 August 2010:

- 10 smaller floats (7 a few days later) and 4 large horse transporters were observed.
- This is indicative of demand for 8 transporters and 15 small floats within the New Stables Precinct.

On Barrier Trial days, 3 to 7 horse transporters are in attendance, some from the existing stables; the demand brought in from other stables is estimated at 3 to 5.

Total demand for the New Stables is therefore 13 transporters and 15 smaller floats.

2.3.2 Recommendation

We recommend that the Stable Parking Area be built to accommodate between 10 and 15 transporters and 10 to 15 smaller horse float trailers.

Excessive demand on any day can be accommodated in temporary parking lanes that have been set aside and identified in a parking aisle.

3 TRAFFIC DEMAND AND DISTRIBUTION

3.1 Travel to the Stables

The ratio of people to horses in the Stables early in the morning is about 2 persons per three horses. The surveys indicate that of the people at the Lower High Street stables at 5.30am:

- Approximately 70 currently live at the Stables,
- 30 drive by car, and
- The balance, we estimate, 1/3 arrive as car passengers, walking or by bike.

This emphasises the importance of living locally. This is not a highly paid job and can only be undertaken by those who can travel easily, or those "in the business" who can get lifts. Hence travel demand is not typically distributed over a large area.

3.2 Direction of Arrival

We have estimated the proportion of trips by car by direction, taking guidance from our previous work in the UNSW. This indicated a strong local influence with particular emphasis on the coast (20%) and Maroubra and the South (15%), leaving 65% coming via the intersection of Anzac Parade and Alison Road. (Table 3.1).

Table 3.1

		Future				Existing	
						Total all Stables	
Origin of traffic	% Arrival	Wansey Rd	High St	Alison Rd West	East	Wansey Rd	High St
Anzac Pde (City and West)	65			65		13	9
Alison Rd (East)	15				15	13	8
Botany Rd (East)	5	5				0	3
Anzac Parade (South)	15	15	15			0	5
% Demand		20.0	15.0	65.0	15.0	25.5	24.5

Table 3.1 Direction of Arrivals

3.3 Assigning demand

Assigning this directional travel to the local road system we estimate that of the 54 vehicles arriving at the Stables between 4.30am and 5.30am in the early morning, 11 will be using Wansey Road (most from High Street), 35 will approach from the west side, Alison Road, and 8 from the east. The peak flows are 16 (12), 50 and 11 respectively for each of the streets between 8.30am and 9.30am.

Applying the same distribution of arrivals to the existing Stables and to Barrier Trials, we estimate that less traffic will use Wansey Road than currently do to obtain access to the Stables in Upper High Street.

These figures indicate extremely moderate flows.

We would expect local movement of Horse Transporters to decrease as there will be no movements between the Stables at the Racecourse. Currently there are movements from between Stables and the Barrier Trials.

A small proportion of movement will occur during non-trial days, and up to 14 movements during the morning on a busy Barrier Trial day. All transporters will enter and leave via Alison Road. This will also slightly reduce traffic on Wansey Road.

3.4 Impact on Wansey Road

The traffic demands for the surrounding streets are shown in Table 3.2.

Table 3.2							
		Future				Existing	
						Total all Stables	
Origin of traffic	% Arrival	Wansey Rd	High St	Alison Rd West	East	Wansey Rd	High St
Anzac Pde (City and West)	65			65		13	9
Alison Rd (East)	15				15	13	8
Botany Rd (East)	5	5				0	3
Anzac Parade (South)	15	15	15			0	5
% Demand		20.0	15.0	65.0	15.0	25.5	24.5
Time	Two Way Demand	Future				Existing	
		Wansey Rd	High St	Alison Rd West	East	Wansey Rd	High St
4.30 - 5.30	54	10.8	8.1	35.1	8.1	13.8	13.2
8.30 - 9.30	78	15.6	11.7	50.7	11.7	19.9	19.1

Table 3.2 Difference in Traffic on Local Streets

The figures show a small change in traffic using Wansey Road south of the proposed driveway, and possibly a slight decrease during all hours of the morning.

This difference in flow is not measurable during the morning peak periods when Wansey Road is quite heavily used by traffic not associated with the RRR (daily traffic varying far more than the reduction in traffic that is predicted from the Stables.)

The flow at 4.30am in the morning is very small (11 vehicles per hour), again hardly noticeable even at this time of day.

The impact is even less in the early morning along on High Street (East of the entrance to The Lower Stables) 13 vph to 8 vph. There will be no noticeable difference in the peak period when the majority of the traffic in High Street is associated with the University.

4 WANSEY ROAD ACCESS

The proposal is to move access from the existing driveway, that requires very tight turning, to a new driveway xxm to the north closer to the intersection of Wansey Road and Alison Road.

The proposed design seeks to restrict access for trucks to turn right out of the Stables into Wansey Road and left turns into the Stables. Cars and small vehicles will not be restricted from using Wansey Road.

The design addresses the issue of crossing the bike lane by bringing bikes across the driveway at close to right angles, hence improving vision for bike riders and vehicle drivers. Trucks will climb out from the Stables and the first 10m will be at a gradient of 5%, allowing good visibility and standing space.

The traffic islands in Wansey Road provide for Interstate Horse floats to turn in and out of the Stables.

The gradient of the driveway within the Stables is maintained at not more than 10% to provide a smooth ride for the Horse Floats and avoid difficulties with horses that have just been loaded.

Traffic flow was observed to be very steady, with no peaking whatsoever - very different from most uses.

The driveway is xxm from the intersection of Wansey Road and Alison Road. This is more than sufficient for peak hour traffic. Given the small traffic demands of the Stables, particularly those leaving during the morning peak, there should be no bank up of traffic to the driveway or from the driveway back into Alison Road.

5 INTERNAL LAYOUT

The internal layout for the Precinct requires:

- Access to the Stables for small service vehicles and the occasional Horse Transporter for sick horses.
- Parking for employees and those attending Barrier Trials - 63 to 104 vehicles.
- Unloading for large Horse Transporters - 3 to 5.
- Parking for Horse Transporters -10 to 15.
- Unloading for small Horse Floats.
- Parking for small Horse Floats -10 -15.
- Truck access to Waste Collection and straw/feed delivery.

The design must:

- Keep parking and circulation for transporters and vehicles separate from the Equine Precinct.
- Limit the impact on existing vegetation, potential aboriginal sites and topography.
- Limit the interaction between the unloading/loading of horses and vehicles circulating.
- Provide for a security entrance/exit.

The proposal achieves these requirements as noted on Figure 6.

1 Unlimited access to the Waste Station and the Stables.
2 Has almost no additional intrusion into potential Aboriginal Sites.
3 A transporter loading area accommodating:
   a. 3 large transporters; or
   b. 2 large transporters and two interstate transporters; or
   c. small horse floats, some of whom would remain in place until departure.
4 A separate area for 5 transporters to be parked.
5 A lane within the car park allowing overflow parking by transporters.

6 A separate area with 8 defined small horse float spaces also providing space for loading.
7 Parking for 104 vehicles allowing for some duplicate use by small floats.
8 Fits within the topography, minimising retaining walls and step slopes unsuited to horse floats.

6 RECOMMENDATIONS AND CONCLUSIONS

The DGR specifically refers to addressing the following issues:

a) Assessment against RTA's Guidelines for Traffic Generating Developments

Response: There are no specific Guidelines to Traffic Generation of Stables and we have therefore followed the general instruction to conduct our own surveys and conclusions.

b) Traffic Demand Management, highlighting / recommending measures to be used to increase use of non-car transport for workers.

Response: The Stables Precinct is adjacent to one of the main bus corridors in Eastern Sydney and this can and does serve those arriving during the day. However the majority of those arriving in the morning do so before 5.30am when little or no transport is available. This has resulted in most people living near to the stables and encouraged the tradition of giving lifts to those without cars. There is no reason to suggest this will continue in the future.

c) Impacts on pedestrians and cyclist movements during construction.

Response: The Stable precinct is situated within RRR which has no general pedestrian access. The footpath and Cycleways in Wansey Road and Alison Road will not be affected by construction traffic other than the increase in demand. A separate Construction Management Strategy must be completed before work commences. This has been included in this submission and the selected Contractor will need to produce their own detailed CMP

d) Demonstrate on-site parking is consistent with RTA and Australian Standard requirements

Response: There are no parking standards for Stables and we have therefore followed the general instruction to conduct our own surveys and conclusions.

Concerning traffic the development of the Stables Precinct should be accompanied by management of traffic at the new access to Wansey Road to the satisfaction of Randwick City Council and the provision of the following minimum parking spaces.

- 15 car spaces be identified within the Equine Precinct for parking.
- 63 permanent parking spaces.
- 26 parking spaces are required to serve occasional use.
- Between 10 and 15 transporters and 10 to 15 smaller horse float trailers.

On the basis of the information provided in this report, STAP support and recommend this application for approval.