

June 24, 2020

Vraj Sydney Pty Ltd,  
c/- Binah By Design  
PO Box 3142  
Liverpool Westfield  
NSW, 2170, AUSTRALIA  
C/- Mr Rick Shah, Project Manager

Dear Sirs:

**Proposed Community Facility, 682 Castlereagh Road, Agnes Bank, NSW (Lot 2 DP 252556)**

**Addendum Traffic and Parking Statement**

**Introduction**

This Addendum Traffic and Parking Statement statement addresses the differences between the Original Plan proposal and the Revised Plan proposal, and addresses the issues raised by Penrith Council in a Pre-lodgement Advice for the above development (Council Ref PL19/0060 dated 11 September 2019).

**Original Plan**

The acceptability of the traffic and queueing operation with the proposed subject development was established in the DA traffic report: Transport Impact Study, by Henson Consulting, dated February 2018 (TIS 2018).

## Revised Plan

The revised plans #D1 to #D8 by Design By RJV amendment dated 18/5/2020 moved the bulk of the on-site parking spaces further west within the site, further away from the Castlereagh Road intersection. The plan now has a reduced 20 car spaces in Car Park #2 accessed via a driveway to Koorungal Drive 60m west of Castlereagh Road, and an increased 45 car spaces in Car Park #1 (including 2 accessible spaces) accessed via a driveway to Koorungal Drive 150m west of Castlereagh Road.

Moving the bulk of car parking activity further west away from Castlereagh Road therefore provides even better queuing length to and from the car parking. This will further improve an already good operation, as demonstrated for the Original Plan.

### **Addendum issues raised by Council (*shown in italics*) and response**

*1: In particular, the proposed car parking area closest to the corner will disturb an area of the site that is currently unbuilt upon and contains landscaping. I would suggest that this car parking area is relocated in its entirety to an area of the site which is already cleared of vegetation and is setback from property boundaries. You should also consolidate the driveways as this will again limit disturbance to the street frontage. You will need to consider the slope of the land should you move the carpark towards the middle of the site. High retaining walls are also likely to be problematic from a visual perspective so you will need to consider this, as well as whether additional landscaping and tiered retaining walls (designed as planter boxes) would assist.*

Relocating the car parking in its entirety was investigated by Henson Consulting via three alternative car parking and servicing options. However the client considered that the options required excessive site area, earthworks and high retaining walls with a visual impact. Reducing the number of driveways from two to one was also investigated but required an additional internal circulation road to link the parking areas, which would further increase the environmental impacts on the desired green visual buffer. The proposed two driveways will mostly serve different staff, servicing, and visitor functions and are not considered excessive.

*2. The proposal should include a Traffic and Parking Statement that may reference previous DA traffic reports and includes addressing compliance with the Penrith Development Control Plan (DCP) C5, C10, D5, Australian Standard AS2890.1, AS 2890.2, AS 2890.6, other relevant guides of best practice and include advice and plans.*

The Revised Plan is designed in accordance with best practice traffic engineering,

including the above references, and as detailed below.

This Traffic and Parking Statement is based on the TIS 2018, which remains relevant to the wider issues of the Revised Plan.

*3. The impact of traffic generated by the development on Koorungal Drive and the intersection of Koorungal Drive / Castlereagh Road. This should include a review of the suitability of the existing driveway access to Koorungal Drive for compliance with Austroads/Roads and Maritime Services driveway intersection geometry requirements, vehicle turning movements and driver sight distances;*

Traffic generation of the subject site was estimated in the TIS 2018 as a peak of 10 vehicles per hour in the peak direction on a Non-event Day and 74 vehicles per hour in the peak direction on an Event Day.

Section 4.6 demonstrated that the driveways and intersections operated at a high level of service (LOS A), and therefore had acceptable capacity and acceptable delays, as shown in the following table.

Figure 1: Summary of Intersection Analysis – Vehicles

Intersection	Peak hour	Level of Service (LOS) Existing	Level of Service with subject development on Non -event Day	Level of Service with subject development on Event Day
Castlereagh Road/Koorungal Drive	a.m.	A	A	A
	p.m.	A	A	A
Site Driveway/Koorungal Drive	a.m.	A	A	A
	p.m.	A	A	A

The SIDRA intersections analysis in the Appendix of that report showed that the 95th-percentile queue (i.e. not exceeded for 95% of the peak hour) is less than 2 vehicles long on all intersection approaches, even with a Factor of Safety of 2.5 times the peak hour volume to represent the peak 5 minutes.

Thus, the report demonstrated that the forecast queueing is also acceptable.

The RMS Guide to Traffic Generating Developments Section 6.2 states that direct access

across the boundary with a major road is to be avoided where possible. Revised Plan appropriately proposes access off the minor frontage road, Koorinal Drive.

Access driveway layouts and locations are referred by RMS to AS2890.1 and comply with the Section 3.2 required access driveway widths and access driveway locations from intersections.

Sight distances to driveways are referred by RMS to AS2890.1 sight distance requirement at access driveways where Figure 3.2 requires for the designated 60 km/h Koorinal Drive a stopping sight distance of 65m, which is available at both driveways.

*4. The proposed number of staff and visitors and assessment of the required parking numbers in accordance with Council DCP C10 or other examples of similar facilities;*

The number of staff and visitors, required parking spaces, and examples of similar facilities is addressed in TIS 2018 Section 4.2 and 4.8.

*5. It is suggested that driveway access at Koorinal Drive be preferably reduced to one access driveway to the western section of the site and that the car park have a circulating aisle arrangement around the car park rather than a dead-end arrangement;*

This was investigated in design development options, using RMS recommended minimum circulation road widths for two-way traffic for over 50 parking spaces and service bays of 6.0-6.5m wide. It was concluded that a circulation road would further increase the environmental impacts on the desired green visual buffer and loss of site area. The proposed parking arrangement is considered acceptable for the number of vehicles involved. The proposed two driveways will serve different staff, servicing, and visitor functions and is not considered excessive.

*6. Access and car parking locations, dimensions, car park, accessible parking, loading areas, turning swept paths for both cars, possible mini buses and waste collection vehicles and other service vehicles to enter and leave in a forward direction and to manoeuvre on site with desirably no service or medium heavy vehicle reversing or any unavoidable heavy vehicle reversing restricted to loading areas away from the car parking and public areas are requested to be addressed;*

Parking and loading areas have been designed in accordance with AS2890.1, AS2890.2, AS2890.3, and AS2890.6. Service vehicle or medium heavy vehicle visitation to the site will be infrequent, no separate service area is warranted, and some reversing within the car park area is considered acceptable. Examples demonstrating acceptable turning paths are appended to this Statement.

*7. Provision of car park drop off / pick up area arrangements as close as possible to the building access; Provision of accessible car parking, kerb ramps and accessible paths of travel to the building. It is suggested that consideration be given to relocating the accessible parking to allow a graded access to the building without the need for an undesirable wheelchair platform lift and extensive ramping;*

The walk from the furthest car space to the building is less than 50 m and is therefore considered close and acceptable. Accessible paths of travel will be addressed by the Access Consultant.

*8. Car parking space dimensions and arrangements for either wheel stops or allowance for vehicle overhang at kerbs with complying clearances to complying footpath widths;*

Wheel stops will be installed in each parking space in accordance with AS2890.1 Section 2.4.5.4

*9. Separate pedestrian access pathways from the buildings, car park spaces and drop off / pick up area that are clear of manoeuvring vehicles in the car park;*

Separate pedestrian access pathways are not considered necessary in the car parks of this small scale and in the absence of long aisles or high vehicle speeds.

*10. The layout of the parking area should allow for safe access for service and emergency vehicles, including waste service vehicles, possible mini-buses, ambulances, delivery and maintenance vehicles and allow manoeuvring areas clear of conflicts with car park vehicles and pedestrians;*

The layout is considered adequate for the number of cars, service and emergency vehicles, and pedestrians expected to use the facility at peak and off-peak times.

*11. Sight distance requirements and driveway widths are to be met in accordance with AS 2890.1, AS2890.2 and Council requirements. This is to include the requirements set out in AS 2890.1 Figure 3.2 Sight Distance Requirements at Driveways and Figure 3.3 Minimum Sight Lines for Pedestrian Safety;*

The revised plan complies with these requirements. Adequate clear sightlines are proposed within the sight triangles at the driveways (in accordance with AS2890.1 Figure 3.3) and within the site and the verge area between the property line and the carriageway which is clear of trees and other obstructions.

*12. The required sight lines around the driveway entrance and exit are not to be compromised by street trees, landscaping, fencing or signposting;*

Complies, as above

*13. All car spaces are to be sealed/line marked and dedicated for the parking of vehicles only and not be used for storage of materials/products/waste materials etc.*

Complies.

### **Conclusion**

We therefore conclude that the proposed Revised Design will operate safely for all road users and site users, and at a high level of service with negligible queuing and negligible delays. Entry and exit traffic from the subject site car parking will not adversely affect the main traffic flow along Castlereagh Road, or traffic flow along Koorringal Drive.

Should you have any questions, please contact the undersigned on telephone 0408 249 743.

Yours sincerely



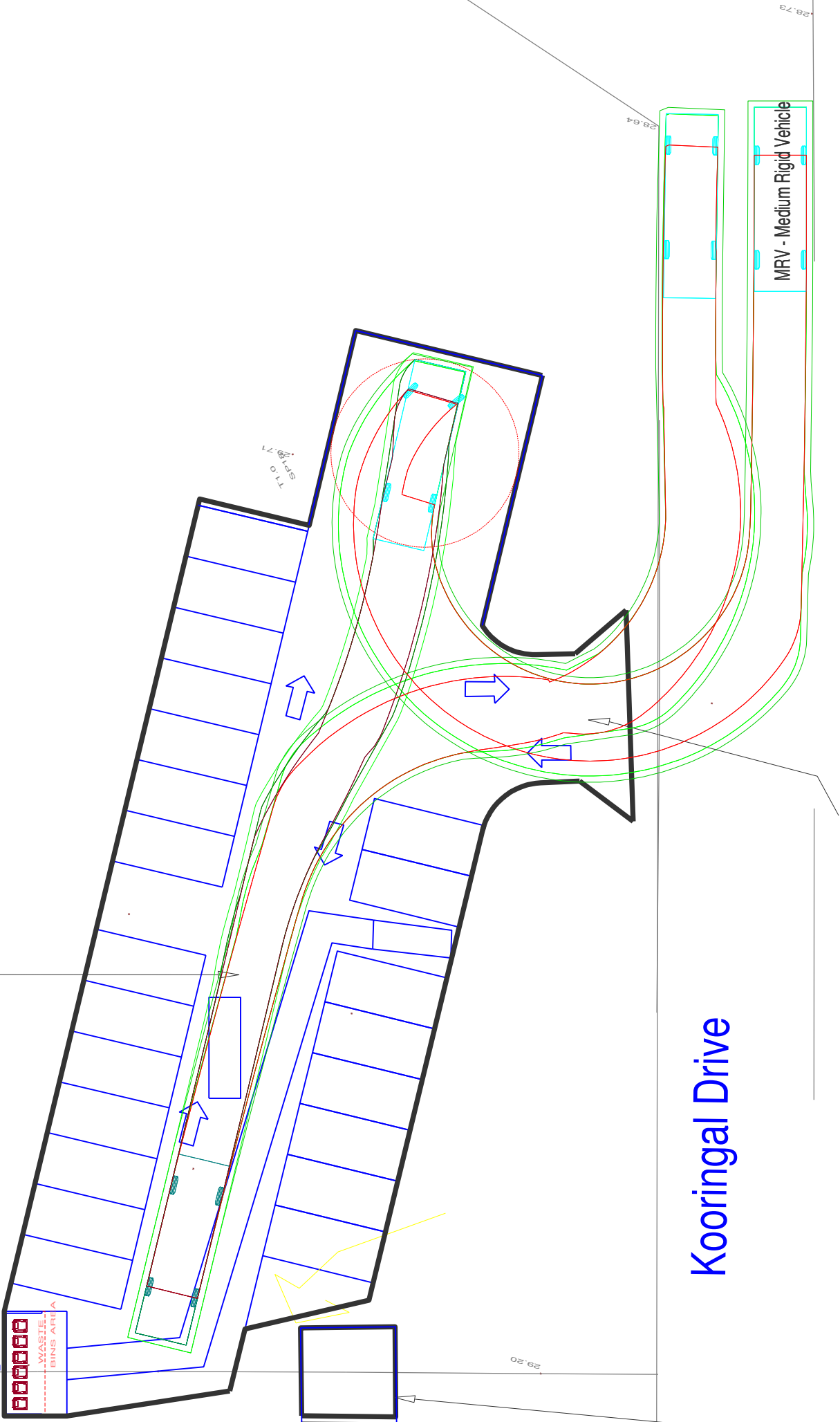
Colin Henson

MIE Aust, CPEng, Fellow PIA, MITE.

Principal

Henson Consulting

(Encl: Vehicle turning path diagrams #0030 and #0032.)



AutoTrack v10.207 (Build 20121212) (c) Savoy Computing Services Ltd. www.SavoyComputing.com

Notes:  
Swept turn paths for Medium Rigid Vehicle (MRV)/ Garbage Truck of 8.8m long,  
In accordance with AS2890.2, on a minimum turning path of 10m to the outside wheel.

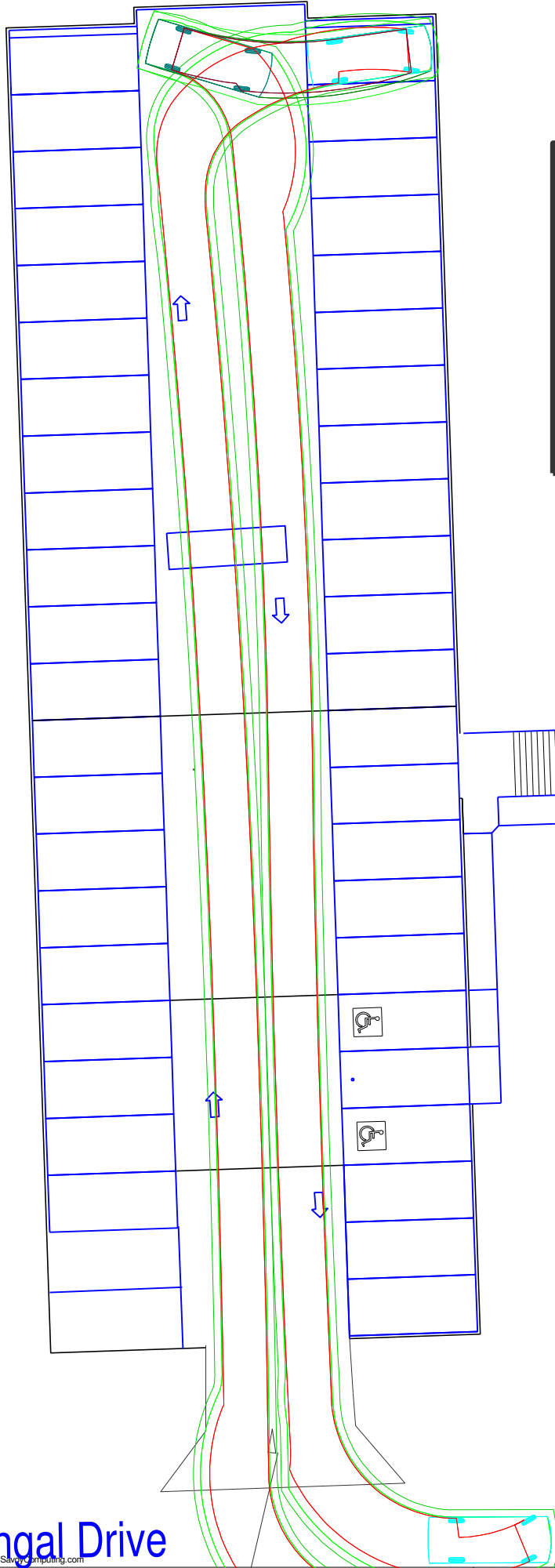
Title: Haveli, Castlereagh Road HRV turn in and out Garbage Truck	Scale: 1:250
	Date: 24/06/2020
Client: Haveli	Prepared: Henson Consulting
	Checked: CCH
	Dwg No: 0030

GRASSED AREA

+26.74

+26.71

+26.71 TO.3 SP4



# Koorringal Drive

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Notes:  
 Swept turn paths for Minibus based on B99 car (99.8 th percentile such as Ford Transit Van),  
 In accordance with AS2890.2, on a minimum turning path of 6.3m to the outside wheel.

Title:  
 Haveli, Castlereagh Road  
 Minibus turn in and out  
 B99 Car or Minibus

Scale:	1:250
Date:	24/06/2020
Prepared:	Henson Consulting
Checked:	CCH
Dwg No:	0032

Client:  
 Haveli