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21 November 2024

P3105 BC Cormorant Road Kooragang

Brown Commercial Building
P O Box 596
East Maitland NSW 2323

Attn: Caitlin O'Brien

Dear Caitlin,

Proposed Light Industrial Units, 295 Cormorant Road, Kooragang Island, NSW

Further to our recent correspondence, we have reviewed the request for further information provided for the proposed light industrial units to be located at 295 Cormorant Road, Kooragang.

We have prepared the following response with the preliminary Construction Traffic Management Plan documenting the responses as they relate specifically to construction.

SECA Solution has previously completed the traffic, access and parking assessment for the service station and associated facilities on the overall development site as well as this development application seeking to allow for a light industrial type development. The majority of the units being 87m2 or less are expected to appeal to small business owners such as trades people who need a storage area for their materials / supplies who service the local area and the nearby industrial and portside users in Kooragang.

Details of road transport routes to/from the site during construction and operation.

The site is located with access available through the adjacent service centre off Cormorant Road. Cormorant Road provides the main road through Kooragang Island and carries both portside traffic demands and regional through traffic. Vehicles with an origin south/west of the site would approach along Cormorant Road and turn left into the site using the existing service centre driveway.

Vehicles with an origin north/east of the site can approach along Cormorant Road and turn right into Egret Street to then enter the service centre using the two way driveway.

Egress is provided through the rear of the service centre to Egret Street where vehicles can rejoin Cormorant Road (left turn only). Outbound vehicles with a destination to the south/west use the roundabout at Teal Street 750m east of Egret Street to undertake a U-turn and travel west along Cormorant Road.

A vehicle movement plan showing routes for approaching and departing vehicles is shown over.

Figure 1 Vehicle Movement Plan within context of broader road network demonstrating inbound and outbound demands

Road traffic predictions for the development during construction and operation, including associated vehicle types.

Allowing for the predicted trade type use, with the owner / operator arriving at the beginning of the day, collecting supplies etc and then heading off site for the majority of the working day and assuming the units are occupied with 1-2 people working per unit, this could give between 18 and 36 inbound movements in the morning followed by 18 outbound movements after loading equipment etc.

These work vehicles shall then return to the site in the afternoon, to unload etc and then depart at the end of the day, giving 18 inbound and up to 36 outbound. Given the nature of the surrounding business use typically operating 24 hours a day, it is considered that the inbound and outbound trips associated with the users on the site may not coincide with the peak demands along Cormorant Road, thereby reducing the impact for the project.

The servicing demands for the proposed units is considered to be low, given the small overall footprint of the units and the type of end user. The majority of the servicing would only require light vehicles including utilities or small vans such as a Toyota Hi Ace.

The layout of the site and the size of the units means that access is restricted to an 8.80 metre Service Vehicle (Medium Rigid Vehicle as defined by AS 2890 Part 2 Off street parking for commercial vehicle facilities).

An assessment of the predicted impacts of this traffic on the safety and function of the adjacent service centre and the surrounding road network (including cumulative traffic impacts associated with the service centre, food outlet and car wash).

Traffic surveys were undertaken at the service centre entry off Cormorant Road to understand the demand for entering vehicles and the direction of travel then selected through the site. These observations were undertaken for the period 6.30-9.30AM and 3.30-6.30PM.

The peak demands are shown in the table below.

Table 1 Inbound traffic off Cormorant Road

	Entry	Truck Fuel	KFC Drivethrough	Convenience Store	Fuel Bowsers	Car Wash	Bakery/ Commercial
6.30-6.45	20	2	-	9	7	-	2
6.45-7.00	17	2	-	8	4 ST	-	1 ST
7.00-7.15	16	1	-	4 ST	5 ST	1	3
7.15-7.30	21	2	-	5 ST	10	1	2
	74	**7**	**0**	**26 + 2x ST**	**26 + 2 ST**	**2**	**8 + ST**
Eastbound 6.30-7.30	**1408**						
3.30-3.45	21	-	3	6	7	2	7
3.45-4.00	17	2	4	10	4 ST	-	2
4.00-4.15	23	-	6	2	9 ST	-	2
4.15-4.30	13	-	7	3	4 ST	-	2
	74 *	**2**	**20**	**21**	**24 + 3ST**	**2**	**13**
Eastbound 3.30-4.30	**1727**						

ST = Small Truck *Difference reflects vehicles approaching from Egret Street

From the observations the following is noted:

- There are 6 bowsers (3 rows with two each) allowing vehicles to fuel each side providing a capacity for 12 vehicles to be fuelling simultaneously. On the day of the observations one bowser was not operational.

- Heavy vehicle demands for fuel was low with an average of 2 trucks every 15 minutes in the AM peak and less in the PM. At no time did two semi-trailers enter together.
- The demand for the convenience store is very high with vehicles often driving through the empty bowser area to park near the store. During the morning one vehicle parked at a petrol bowser to go to the convenience store but didn't buy fuel.
- Peak demand for fuel occurred at 7.12am (6 vehicles at bowsers), 7.26AM (5 vehicles at bowsers), 4.05PM (8 vehicles at bowsers). During one time only there was one additional vehicle queued waiting to approach a bowser. There was an opportunity to approach a different bowser but the driver chose to wait.
- In the afternoon in particular there were some demands for vehicles to approach the fuel bowsers, the convenience store, the KFC driveway through the two-way driveway off Egret Street. The demands for this in the morning was much lower potentially reflecting the higher demand for westbound traffic over eastbound traffic in the afternoon. Also, KFC wasn't open in the morning. In the morning however there were demands for vehicles to park on the far side of the service site, nearer the bakery and commercial tenancy having entered off Egret Street.

From the data collected and observations undertaken it is evident that the demands for vehicles entering the service centre from Cormorant Road are relatively low. Peak demands in both the AM survey period (6.30-9.30) and PM survey period (3.30-6.30) saw 74 vehicles enter the site from Cormorant Road. At all other times these were less and so the observations and data above are representative of the typical demands at the site.

Allowing for the traffic generation detailed in the TIA for this project and summarised above, there is the potential for between 18-36 vehicles to enter the proposed development. As a worst-case scenario, should all of these approach from the south/east this would see the demands at the driveway entry increase from 74 to 110 vehicles in the peak hour being one additional vehicle entering every minute and a half. This is considered extremely conservative as the surveys demonstrate that whilst the peak occurs very early, eastbound flows on Cormorant Road remain high throughout the morning reflecting the broad range of start times and the demands for workers including service vehicles throughout the day. Therefore, the pattern of arrivals to the industrial units are likely to reflect a similar pattern and be spread out across a longer peak period than one hour. This would in turn reduce the cumulative demands at the site entry.

As a base for service type businesses, given the small unit sizes, a further 18 vehicles are likely to exit the site during the morning period (again being spread out across the period) with these in turn returning through the afternoon for staff to exit at the end of the work day.

These outbound vehicles will exit onto Egret Street and are primarily expected to turn left onto Cormorant Road to then disburse to the north or undertake a U-turn to travel south/west. Some however may turn left out of the site and use the local roads to access businesses within the immediate vicinity of the site.

These outbound movements will use the driveway associated with the heavy vehicle refuelling area which the surveys demonstrate carries very low demands (7vph in the AM and lower in the PM). The cumulative impact of these outbound vehicles at this exit is therefore minimal.

Impact on the function of the adjacent service centre

From observations on site, it is evident that the access from Cormorant Road operates with no delays for inbound traffic. No queues nor delays were noted at this driveway which operated with free flow into the site.

In considering the potential impact of the additional traffic associated with the development consideration has been given to the need for these vehicles to enter the service centre and turn left into the subject site.

The potential risks identified and responses are provided over.

RISK	RESPONSE
Risk that site the already operates with queues or congestion for entering traffic which would be made worse allowing for development traffic	Observations and counts confirmed that the existing access operates with free flow into the site with no delays or queues occurring at either the site entry or onto Cormorant Road. The low number of heavy trucks entering the site and the free flow of these vehicles to the rear of the site ensures capacity can be maintained. NO CONSTRAINTS FOR ADDITIONAL VEHICLES
Risk that queues form at the petrol bowsers or KFC Drive through could impact free flow into the site.	Petrol bowsers did not achieve maximum usage and the only time a vehicle was noted to wait was by choice, well within the area near the bowsers. The bowser area is wide with a large apron available so does not create a pinch point for entering vehicles. NO QUEUES ASSOCIATED WITH THE PETROL BOWSER OR ONE WAY DRIVEWAYS (TRUCK REFUELLING AND KFC DRIVETHROUGH) WHICH COULD IMPACT THE FREE ENTRY OF DEVELOPMENT TRAFFIC. To confirm this a plan (Attachment A 2 of 2) has been developed to demonstrate that at least 21 vehicles can be queued at the petrol bowsers before the entry driveway or cross movement of traffic would be impacted. This represents three times the maximum number of fuelling vehicles recorded at any one time during the surveys. This maximum number occurred once in six hours of observations.
Risk that a vehicle entering the subject site may impact the safe entry of heavy vehicles given that the driveway for truck refuelling is on the western side of the service centre near the subject site.	Swept paths have been prepared to confirm the entry pathway for semi-trailers. This confirms observations on site which is that trucks undertake a wide entry pathway and approach the refuelling area to the rear. THE TRUCK SWEPT PATH WOULD NOT BE IMPACTED BY A VEHICLE (INC MRV) ENTERING THE SUBJECT SITE. REFER ATTACHMENT A 1 of 2
A vehicle entering the subject site could need to wait while a vehicle completes its parking manoeuvre into or out of the first parking space within the development site.	SWEPT PATH ATTACHMENT A DEMONSTRATES THAT THERE IS SUFFICIENT STORAGE SPACE FOR A MRV TO HOLD ADJACENT TO THE DEVELOPMENT SITE ENTRY WITHOUT IMPACTING THE ENTRY MOVEMENTS OF VEHICLES INTO THE SERVICE CENTRE.
Vehicles entering the development site having approached from the east via the service centre driveway off Egret Street need to cross over the entry driveway. This could see a risk of collision with a vehicle entering off Cormorant Road.	A vehicle approaching the development site across the existing service centre tarmac has excellent visibility of vehicles approaching along Cormorant Road. This movement currently occurs with motorists approaching from this direction to access the fuel bowsers or the KFC drive through. This was particularly prevalent in the afternoon as noted above.

	To reinforce priority however and reduce the risk of confusion it is recommended to incorporate a Give Way sign and hold line for vehicles within the site approaching eastbound in this location. This would allow for existing demands as well as those associated with the development. THIS IS SHOWN ON THE PLANS IN ATTACHMENT A.

Swept path diagrams depicting vehicles entering, existing and manoeuvring throughout the site and the adjacent service centre, including consideration of any one-way internal driveway systems operating within the service station.

1. **Plans which demonstrate that all vehicles likely to be generated during operation can be accommodated on-site to avoid queuing in the adjacent service centre and the surrounding road network ATTACHMENT A**

2. **A preliminary Construction Traffic Management Plan detailing predicted construction routes, access and parking arrangements, coordination with the adjacent service centre, and consideration of how impacts on the surrounding road network would be managed and mitigate.**

We trust that the above satisfies the Department's request for further information.

Please feel free to contact our office on 4032 7979 should there be any further queries.

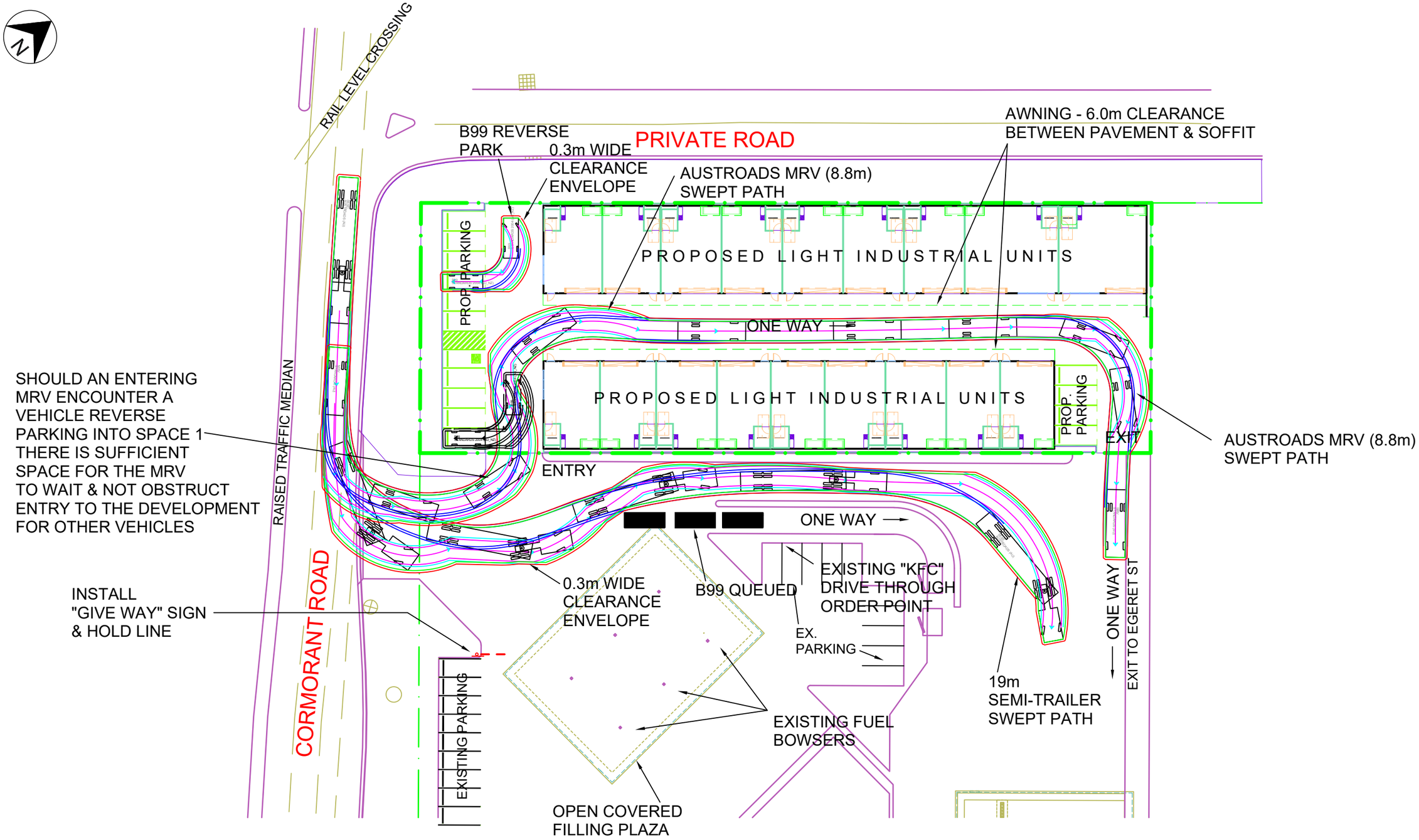
Yours sincerely,

Cathy Thomas

Director

Version	Date	Description	Prepared by	Reviewed and Approved for Issue
Ver01	21/11/24	RFI	C.Thomas	F.Iacono

Attachment A – Swept paths



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SHEET 1 OF 2

SCALE 1 : 500 @ A3

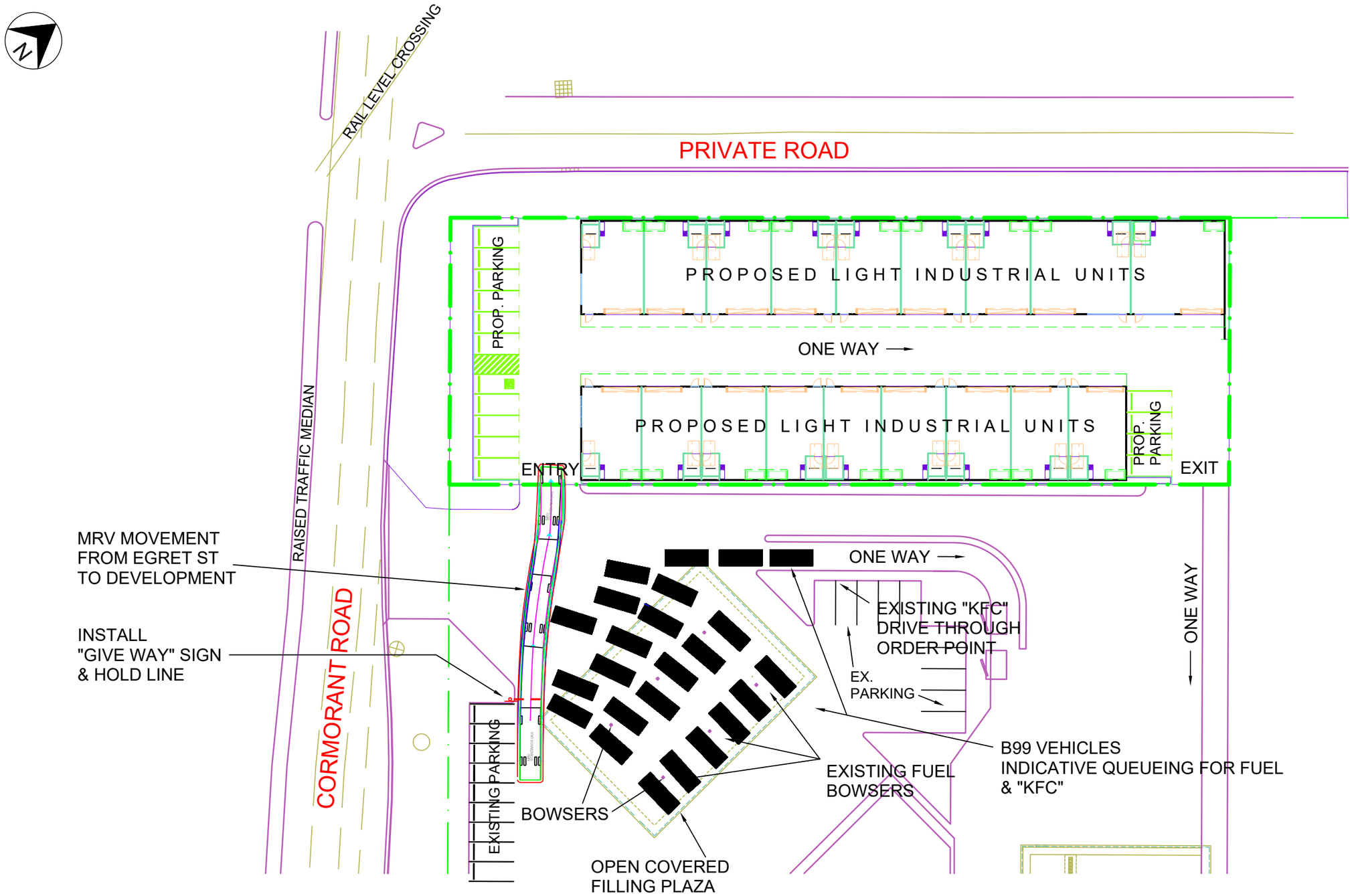
VEHICLE MOVEMENT PLAN
AUST STANDARD 8.8m MRV
MOVEMENT THROUGH DEV.

PROJECT
P3105

DETAILED BY
FRANK IACONO

APPROVED BY

LIGHT INDUSTRIAL DEVELOPMENT
295 CORMORANT RD KOORAGANG
KOORAGANG



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SHEET 2 OF 2

SCALE 1 : 500 @ A3

VEHICLE MOVEMENT PLAN
MRV MOVEMENT AROUND
QUEUED VEHICLES

PROJECT
P3105

DETAILED BY
FRANK IACONO

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