M^C^LAREN TRAFFIC ENGINEERING
Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness
Email: mclarenc@ozemail.com.au
Mobile (0412) 949-578

Engineering Office:
Shop 7
716-720 Old Princes Hwy
Sutherland NSW 2232
Ph 61-2-8355-2440

Accounts Office:
5 Jabiru Place
Woronora Heights
NSW 2233
Ph 61-2-9545-5161
Fax 61-2-9545-1227

24 May 2013 2010/166.L04 CM/hc

Bluestone Property Solutions
Suite 1 Level 6, 71 Macquarie Street
SYDNEY NSW 2000

Attention: Matt Crews
Dear Matt,

WOOLOOWARE BAY TOWN CENTRE
TRANSPORT & PARKING IMPACT ASSESSMENT
RESPONSE TO DEPARTMENT OF PLANNING & INFRASTRUCTURE

Reference is made to the NSW Department of Planning and Infrastructure (DoPI) letter dated 23rd April 2013. This letter details the Departments matters and request for further supporting information in relation to the Woolooware Bay Town Centre (WBTC) development and submitted Preferred Project Report (PPR). The Departments response to the PPR are summarised below:

1. The Traffic and Parking Impact Assessment is to address parking allocation for each of the uses within the proposal, including defining areas for employee parking
2. Additional justification is to be provided for the extent of the Woolooware Road North extension into the riparian setback while acknowledging the extent of the turning movement to access the loading dock
3. Further information is to be provided on discussions held with Sutherland Shire Council on the resolution of Peak Even Management Plan for the provision of parking off-site (noting Council's resolution to not support parking at Don Lucas Reserve)

Parking Allocation

The floor areas as part of our PPR Traffic and Parking Impact Assessment dated February 2013 has been compared to revised floor areas which have occurred due to recommendations and adjustments. They are as follows:

TABLE 1: PARKING REQUIREMENT (WORST CASE)

COMPONENT	FEB 2013 WBTC RETAIL ASSESSMENT	PARKING RATE	PEAK WBTC PARKING DEMAND	CURRENT WBTC RETAIL ASSESSMENT	PARKING RATE	PEAK WBTC PARKING DEMAND
Existing Club	8,500m^2	-	Average Max Demand 180	8,500m^2	-	Average Max Demand 180
REDUCED Club	5,050m^2 SMALLER	pro rata (i.e. 180/8,500)	LESS 107	5,050m^2 SMALLER	pro rata (i.e. 180/8,500)	LESS 107
Supermarket	5,300	1 space / 23.8 m^2	223	8,627 (5 tenancies)	1 space / 23.8 m^2	362
Mini / Major Retail	705	1 space / 25 m^2	28	-	1 space / 25 m^2	-
Specialty Retail	5,367	1 space / 22.2 m^2	242	4,076	1 space / 22.2 m^2	184
Restaurant	-	-	-	648	1 space/ 30m^2	22
Medical	3,072	1 space / 111.1 m^2	28	3,012	1 space / 111.1 m^2	27
Leisure**	2,801	Ancillary**	Nil**	1,340	Ancillary**	Nil**
SUBTOTAL			594			668
Allowance for dual use of supermarket / retail area by club patrons and residents (say about 10%)			LESS 49	Allowance for dual use of supermarket / retail area by club patrons and residents (say about 10%)		LESS 55
WBTC TOTAL			**545**	**WBTC TOTAL**		**613**

Note:
** Leisure uses within large shopping centres do not generate separate parking demand as they tend to trade off shoppers already within the centre. They typically exhibit low staff levels and attract children of adult shoppers.

Staff parking for the Club will be a total of 50 parking spaces. Staff parking for the retail tenants and employees has been derived from comparison to Westfield Miranda. As per the recent approval for a total of 124,000m^2 floor area, a total of 900 staff spaces are to be provided.

The floor area for WBTC is some 17,703m^2 which equates to a total of 128 staff spaces. Therefore, of the total 540 retail spaces, some 128 will be allocated to staff. On top of the total 613 parking spaces, 50 will be allocated to Club staff. Therefore, the overall parking requirement is 663 (or up to 713 when considering the Club deck, please refer to Section 4.1 of February 2013 report for justification on ancillary use).

Majority of staff spaces could potentially be located on the Level 4 car park or otherwise provided across the basement parking levels in locations which are not prime locations for

shoppers/visitors i.e. away from pedestrian entry points and near vehicular entry and ramp locations.

As noted in the February 2013 PPR, the following amount of parking will be available for Club members and guests and others authorized by the club exclusively and free of charge:

- Monday to Sunday 9am-5pm, 143 car parking spaces
- Monday to Thursday 5pm to close of Club trading, 256 car parking spaces
- Friday, Saturday and Sunday 5pm to close of Club trading, 300 car parking spaces

Taking into account the worse case condition for the Club at 300 parking spaces, this in effect equates to a loss of 120 parking spaces (+107 overall surplus less Club demand of 300 gives 193 less 73 provided [180 less 107= 73 {from first two rows of Table 1}] from the retail component. However at that time (i.e. after 5pm on Fridays, Saturdays and Sundays) the vast majority of the specialty retail shops would be closed that have a parking requirement for 184 spaces. Thus even under this worse case there would still be some 64 parking spaces above the demand at that time.

The total on-site parking provided equates to 770 parking spaces over the three parking levels (copy of parking levels produced as **Annexure A**) which exceeds the WBTC plus Club staff parking (663 spaces) by 107 parking spaces.

Woolooware Road North

The extent of Woolooware Road North has been adjusted to be 8m back from the Mean High Water Mark position. As per **Annexure B**, the turning movements for the 19m Semi-trailer are successful under the adjusted position of Woolooware Road North.

Peak Event Management Plan

This remains an ongoing discussion with Veolia Transport and Sutherland Shire Council.

The Peak Event Plan will include additional buses on a trial basis this year and will be monitored in terms of patronage and operational performance via discussions with Veolia and Club management.

The trial bus routes that are additional or variations of existing peak event routes will be submitted to Council for its concurrence. The routes are of sufficient width to accommodate buses. The proposed routes and plan will exclude the use of the Wanda parking area at Don Lucas Reserve. The full routes are presented in **Annexure C**.

The plan will be reviewed and refined on an ongoing basis with consultation with Veolia Transport, Club management and Sutherland Shire Council such that it is a flexible plan.

Shuttle Bus Provision

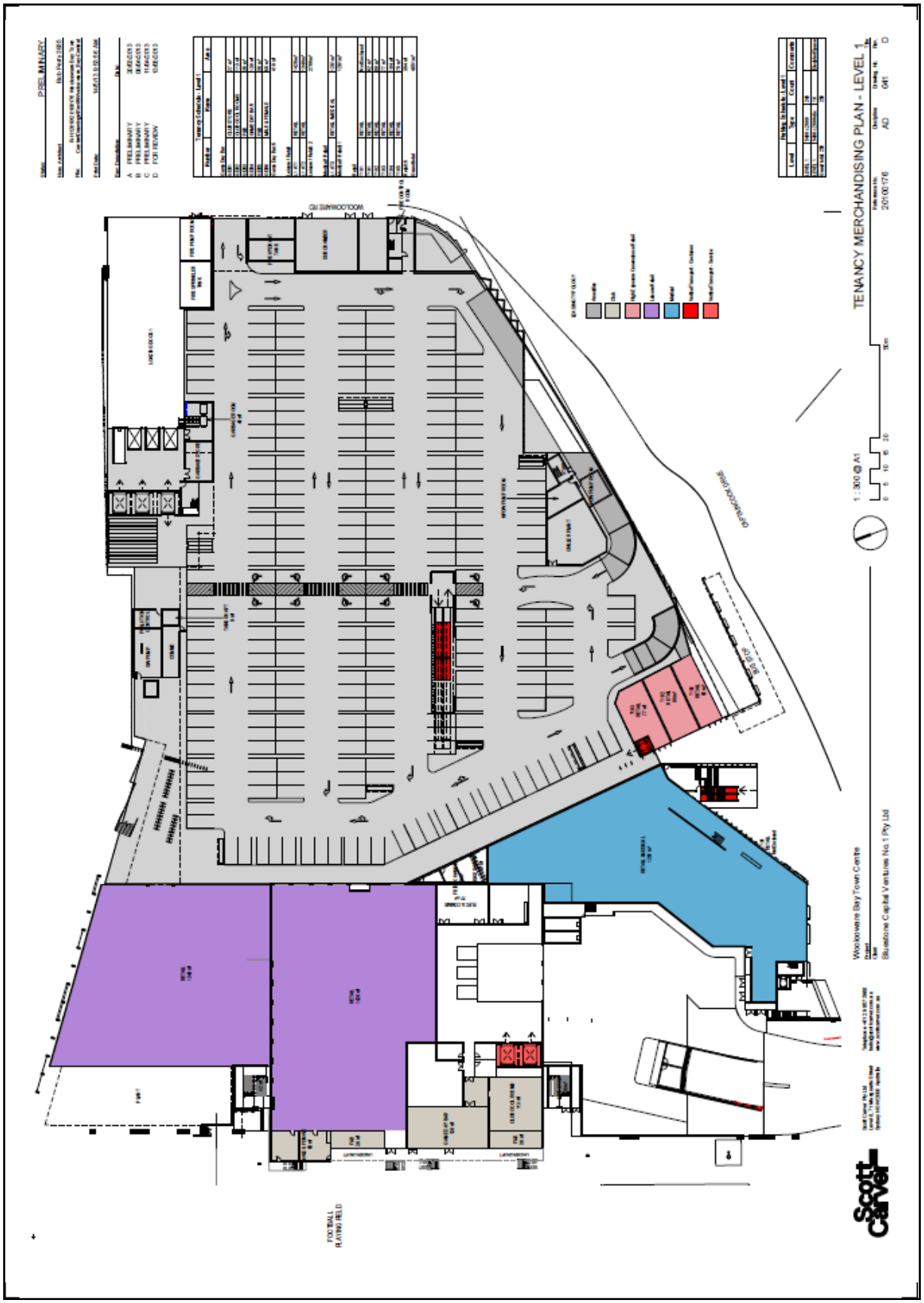
The club intends to lease or purchase a 21 seat min-bus similar to a Toyota Coaster vehicle. This is supported by the fact that a critical mass of people need to be within the development before a state regular bus service is provided.

If you require further information or clarification please do not hesitate to contact the undersigned.

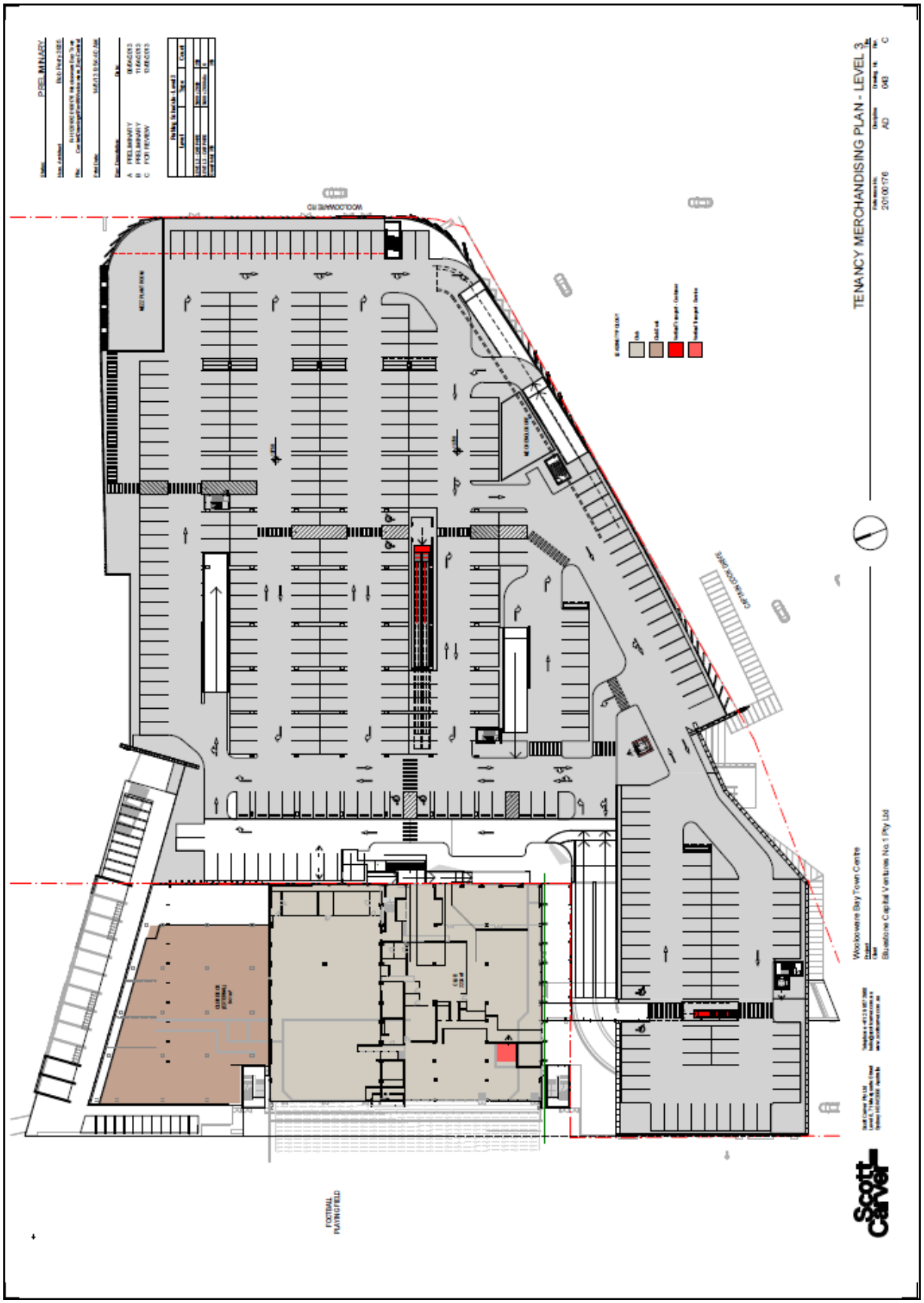
Yours faithfully,
M^CLAREN TRAFFIC ENGINEERING

Craig M^CLaren
Director

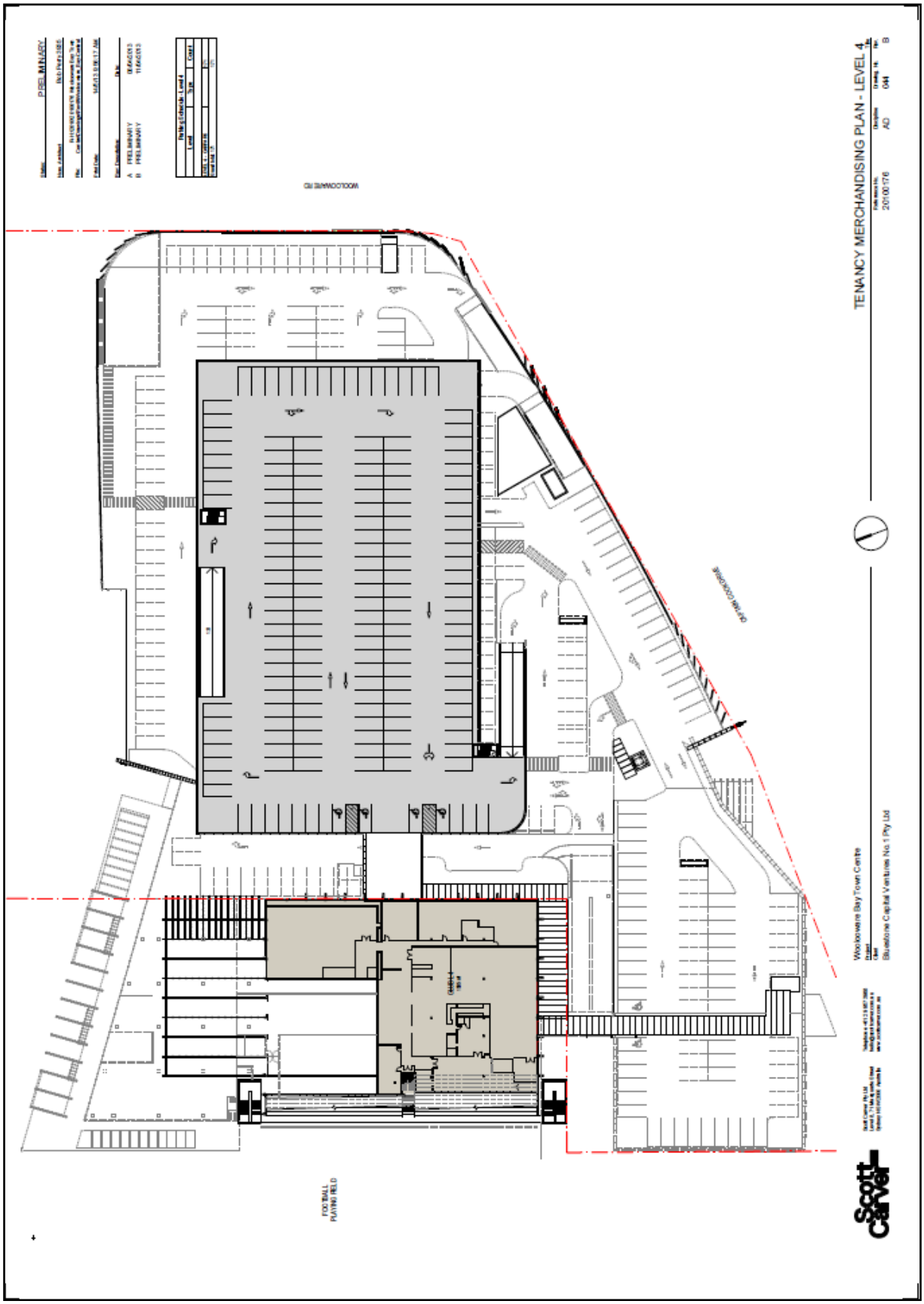
ANNEXURE A: SITE LAYOUT (Sheet 1 of 3)



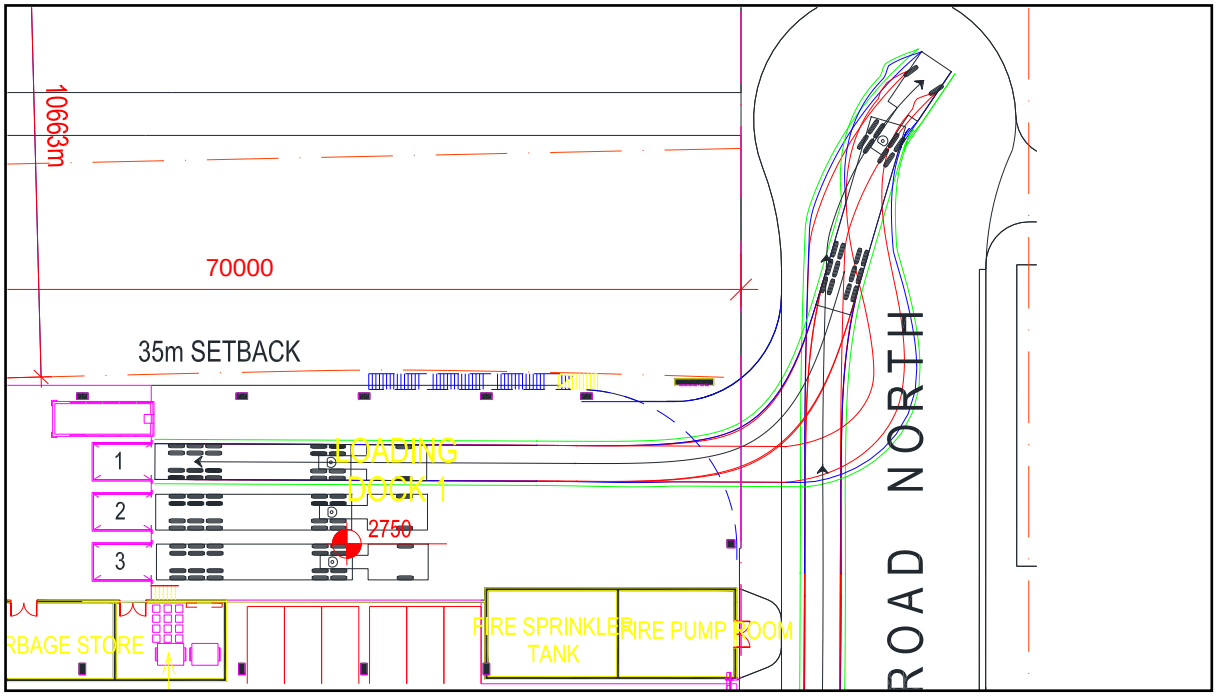
ANNEXURE A: SITE LAYOUT (Sheet 2 of 3)



ANNEXURE A: SITE LAYOUT (Sheet 3 of 3)



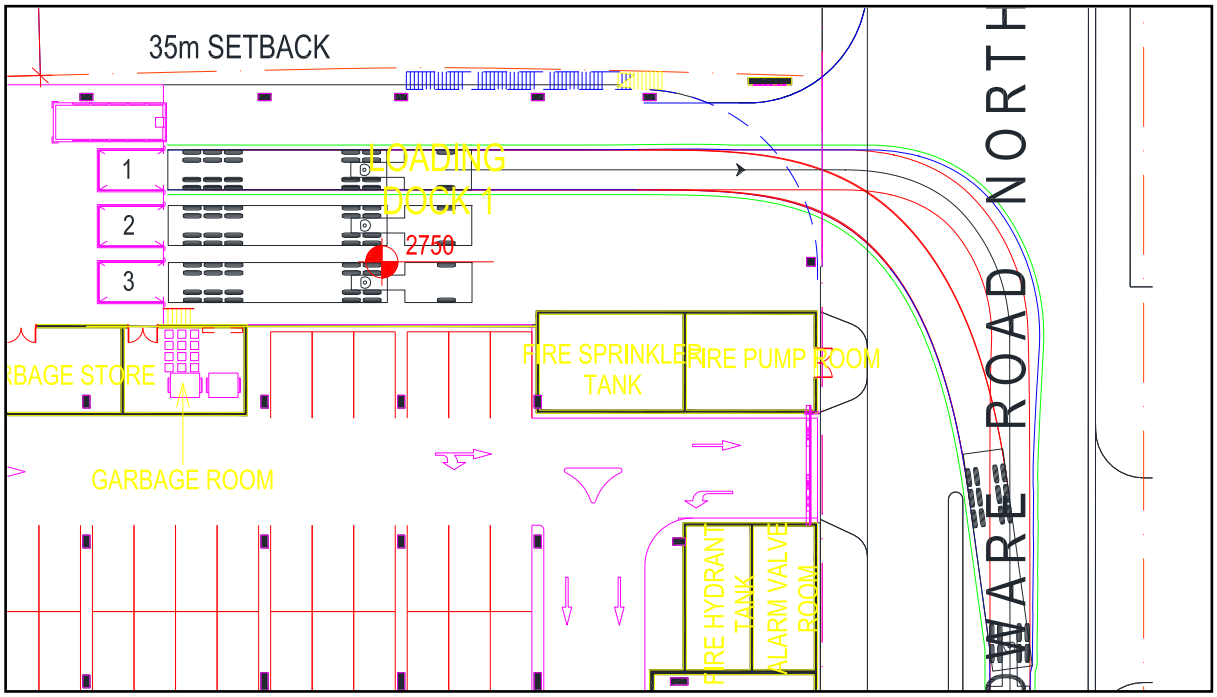
ANNEXURE B: LOADING DOCK SWEPT PATH TESTS (Sheet 1 of 4)



19m Semi-Articulated reverse into loading dock 1
Tested @ 10km/h within public roads, 5km/h within the site
Successful – 2 manoeuvres

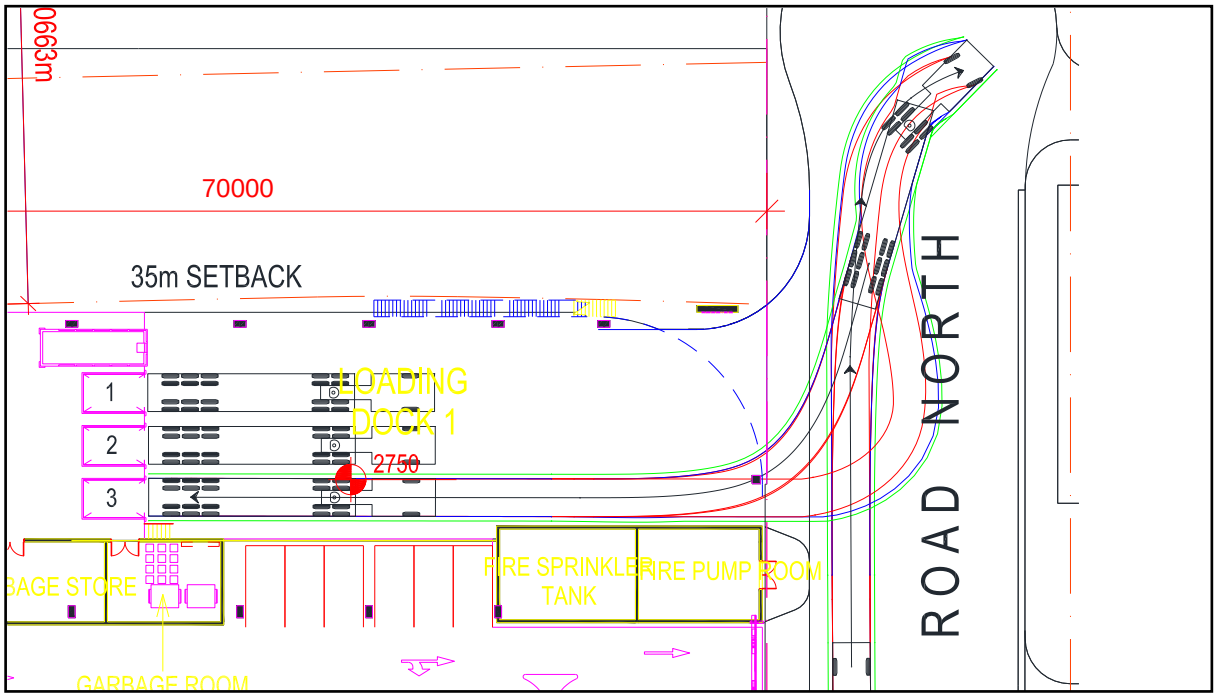
Red = Tyre Paths
Blue = Vehicle Body
Green = 300mm clearance

ANNEXURE B: LOADING DOCK SWEPT PATH TESTS (Sheet 2 of 4)



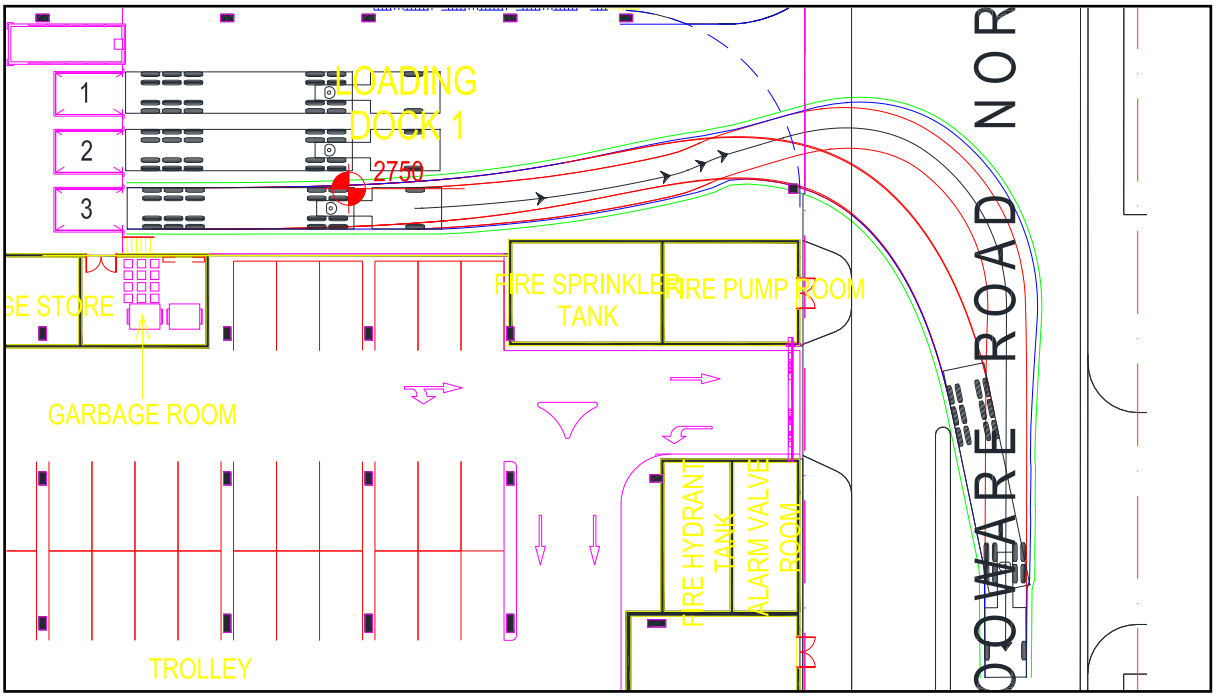
19m Semi-Articulated forward out of loading dock 1
Tested @ 10km/h within public roads, 5km/h within the site
Successful – 1 manoeuvre

ANNEXURE B: LOADING DOCK SWEPT PATH TESTS (Sheet 3 of 4)



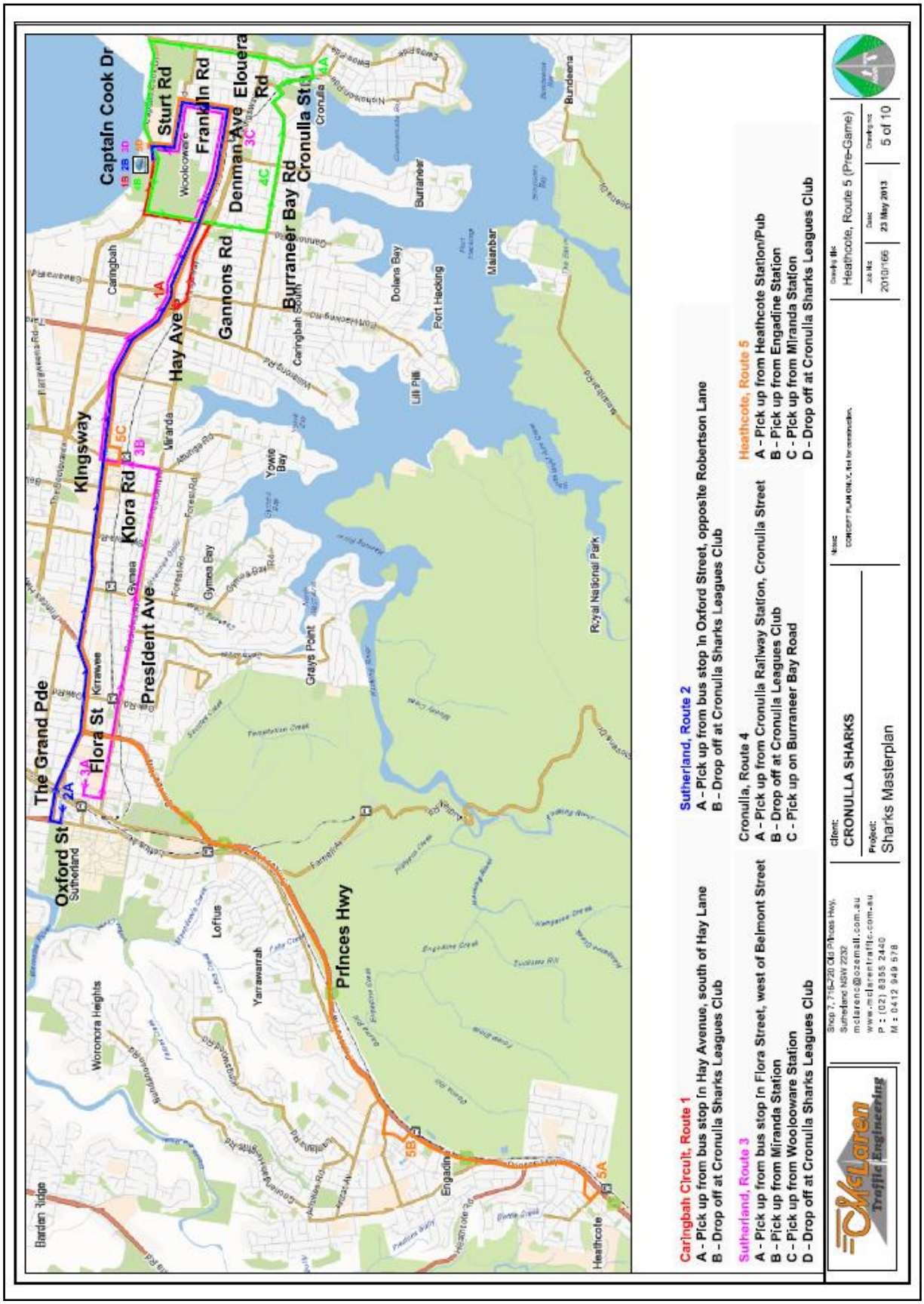
19m Semi-Articulated reverse into loading dock 3
Tested @ 10km/h within public roads, 5km/h within the site
Successful – 2 manoeuvres

ANNEXURE B: LOADING DOCK SWEPT PATH TESTS (Sheet 4 of 4)



19m Semi-Articulated forward out of loading dock 3
Tested @ 10km/h within public roads, 5km/h within the site
Successful – 1 manoeuvre

ANNEXURE C: PEAK EVENT BUS ROUTES (Pre-game)



ANNEXURE C: PEAK EVENT BUS ROUTES (Post-game)