

McDONALD'S AUSTRALIA LIMITED

TRAFFIC REPORT FOR  
PROPOSED McDONALD'S,  
CHISHOLM SHOPPING CENTRE,  
4 HERITAGE DRIVE, CHISHOLM

DECEMBER 2024

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ATTACHMENT A – VEHICLE SWEPT PATHS

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## I. INTRODUCTION

- I.1 Colston Budd Rogers and Kafes Pty Ltd has been commissioned by McDonald's Australia Limited to prepare a report examining the traffic and parking effects of the proposed McDonald's within the approved Chisholm shopping centre (4 Heritage Drive, Chisholm). The proposed McDonald's is located on the eastern part of shopping centre as shown in Figure I.
- I.2 The traffic and parking effects of the proposed McDonald's are assessed in Chapter 2.

## 2. TRAFFIC AND PARKING EFFECTS

2.1 The traffic and parking effects of the proposed McDonald's are assessed through the following sections:

- site location;
- approved development;
- proposed development;
- parking;
- access, parking layout and servicing;
- traffic effects; and
- summary.

### Site Location

2.2 The subject site is located within northeastern part of the approved Chisholm shopping centre with frontage to Settlers Boulevard. The approved shopping centre is located within the Thorton North urban release area and is bounded by Settlers Boulevard to the east, Tigerhawk Drive to the north and Heritage Drive to the west. Adjacent land uses are a school to the north and residential to the east, west and south.

### Approved Development

2.3 The approved shopping centre (some 11,240m<sup>2</sup> GLFA) includes a supermarket, mini major, specialty shops, tavern, childcare centre, gym and medical centre. Parking for some 668 cars is provided with access from Tigerhawk Drive (all movements), Heritage Drive (all movements) and Settlers Boulevard (left in/left

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out). As part of the approved shopping centre a new link road would be constructed along the southern boundary connecting Heritage Drive and Settlers Boulevard. The approved development identified future pad sites on the northeastern part of the site.

2.4 The traffic and parking effects of the approved shopping centre were assessed in the *Traffic and Parking Assessment of the Proposed Shopping Centre at 20 Heritage Drive, Chisholm – McLaren Traffic Engineering - 23 December 2021 (MTE Report)*. The MTE report assessed the traffic effects of the approved shopping centre taking into account full development of Thorton North urban release area. The key findings of the report are summarized below:

- based on the DCP parking rates, with consideration for parking profiles for the various uses, the approved development would require some 644 spaces. Applying TfNSW parking rates, the approved development would require 617 spaces;
- the approved development would generate some 600 vehicles per hour (two way) in the weekday AM peak hour and some 1,150 vehicles per hour (two way) in the weekday PM and weekend midday peak hours; and
- the traffic impacts of development traffic have been modelled using SIDRA and found to have no detrimental impact on the surrounding road network (taking into account full development of the Thorton North urban release area).

2.5 A subsequent S4.55 modification in 2023 reduced the size of the approved shopping centre by some 239m<sup>2</sup>. This reduced required parking by some 21 spaces to some 623 spaces (based on the DCP parking rates) or by some 23 spaces to 594 spaces (based on TfNSW parking rates). Parking provision remained at some 668 spaces.

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- 2.6 A S4.55 modification for the shopping centre is currently being assessed by Council. The S4.55 proposes only a minor increase in GFA of some 3m<sup>2</sup>.

#### Proposed Development

- 2.7 The proposed McDonald's is located in the northeastern part of approved shopping centre site in an area that was identified for future PAD sites. To accommodate the proposed McDonald's the approved car park would be modified (loss of ten parking spaces). This will reduce overall parking provision to some 658 spaces. The proposed McDonalds has a service area of some 145m<sup>2</sup> and some 52 internal seats (no external seats). A drive through with dual order points is provided, with queuing for a total 13 cars (queuing for six cars from the order points) and two wait bays. A separate loading bay is provided for deliveries and waste collection.

#### Parking

- 2.8 The approved shopping centre provides 668 parking spaces with a requirement for 623 spaces (based on DCP parking rates) and 594 spaces (based on TfNSW parking rates) as per the 2023 S4.55 modification. To accommodate the proposed McDonald's, the at-grade car park will be modified resulting in the loss of ten parking spaces (provision of 658 spaces). Maitland DCP 2011 sets out the following rates for Drive-in Take Food Outlets:
- *one space per 8m<sup>2</sup> GFA; plus*
  - *one space per 3 seats;*
  - *plus queuing for 5 to 12 cars from the pick-up point (including queuing for 4 cars from order point)*
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- 2.9 Applying these rates the proposed McDonald's would require 35 spaces. By way of comparison TfNSW guidelines (which are based on extensive surveys) suggest provision of the greater of:
- one space per two internal seats; or
  - one space per three external plus internal seats;
  - plus queuing for 10 to 12 cars from the order point and queuing for a minimum of 4 cars from the order point.
- 2.10 Applying the TfNSW rates, the proposed McDonalds would require 26 parking spaces.
- 2.11 Overall, the parking requirement for the approved shopping centre (including McDonalds) would be some 658 spaces (based on the DCP parking rates) and 620 spaces (based on TfNSW parking rates). This is satisfied by the provision of 658 spaces. Queuing for 13 cars in the drive through from the order point and queuing for six cars from the order point satisfies TfNSW Guidelines.
- 2.12 One accessible space and 4 bicycle parking spaces are provided for the proposed McDonald's.

#### Access, Parking Layout and Servicing

- 2.13 No changes are proposed to the location of the approved access driveways to the shopping centre on Heritage Drive, Settlers Boulevard and Tigerhawk Drive. To accommodate the proposed McDonald's, the northeastern part of the car park will be modified with the loss of ten parking spaces. As per the MTE report, the parking bays have been designed to be 5.4 metres long by 2.6 metres wide with a minimum aisle width of 6.6 metres. The accessible space will be a minimum of 2.4 metre wide with an adjacent 2.4 metre wide shared zone. These dimensions
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satisfy the requirements for User Class 3A as set out in AS2890.1-2004 and AS2890.6-2009.

- 2.14 A separate pedestrian access is provided from Settlers Boulevard with a raised pedestrian crossing provided at the exit from the drive through.
- 2.15 Service vehicles will include waste collection and deliveries. Service vehicles will enter/depart via Settlers Boulevard in a forward direction, with a loading dock separate to the car park. McDonald's will be serviced by vehicles ranging in size up to an 8.8 metre long medium rigid truck, with typically one or two deliveries per day. Deliveries will be made outside of busy periods. Vehicle swept paths are provided in Attachment A.
- 2.16 Following DA approval, access arrangements, parking layouts, servicing and vehicle swept paths should be reviewed and confirmed for compliance certification.

#### Traffic Effects

- 2.17 The road network in the vicinity of the site includes Heritage Drive, Tigerhawk Drive and Settlers Boulevard. Heritage Drive is located west of the site and travels in a north-south direction, providing one traffic and one parking lane in each direction clear of intersections. It intersects Tigerhawk Boulevard at a priority controlled intersection to the northwest of the site and Settlers Boulevard at a roundabout to the south of the site.
- 2.18 Tigerhawk Drive is located north of the site and runs in an east-west direction. It provides one traffic lane on bicycle lane and one parking lane in each direction. Tigerhawk Drive transitions into Grasshawk drive to the west of the site. it
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intersects Settlers Boulevard at a roundabout. Tigerhawk Drive east of Settlers Boulevard is still currently under construction.

- 2.19 Settlers Boulevard forms the eastern boundary of the site and will act as a primary frontage once construction is complete. It travels in a north-south direction and provides one traffic one bicycle and one parking lane in each direction clear of intersections with a central median. Settlers Boulevard intersects Raymond Terrace Road at a signalised T-intersection to the south of the site. Raymond Terrace Road is the main road that connects Chisholm to Maitland.
- 2.20 Traffic flows on the roads adjacent to the site have been extracted from the MTE report. With the approved shopping centre and full development of the Thorton North urban release area traffic in place, the MTE report estimated the following weekday AM and PM peak hour traffic flows:
- Tigerhawk Drive, some 55 to 165 vehicles per hour (two way);
  - Settlers Boulevard, some 670 to 785 vehicles per hour (two way); and
  - Heritage Drive, some 435 to 610 vehicles per hour (two way).
- 2.21 The MTE report found that with the above traffic flows, the intersections of Settlers Boulevard/Heritage Drive (roundabout), Settlers Boulevard/Tigerhawk Drive (roundabout) and Tigerhawk Drive/Heritage Drive (priority control) would all operate with average delays of less than 20 seconds per vehicle (for the movement with highest delay) in the weekday AM and PM peak hours. This represents level of service B, a good level of service with spare capacity.
- 2.22 Traffic generated by McDonald's will have its greatest effects during the weekday AM and PM peak hours when it combines with development from the approved shopping centre.
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- 2.23 To estimate traffic generation of the proposed McDonald's, reference is made to a study commissioned on behalf of TfNSW 'Trip Generation and Parking Demand – Surveys of Fast-Food Outlets – Analysis Report' (Bitzios Consulting 2016). Completed in 2016, this study provides current data and trends on traffic generation and parking demand for various fast food outlets including McDonald's.
- 2.24 The study found that McDonald's has a traffic generation of some 180 vehicles per hour (two way) in the weekday AM and PM peak hours, with some 50% passing trade and/or linked trips.
- 2.25 The primary access for the proposed McDonald's will be via Settlement Boulevard (some 56% of traffic) with secondary access through the shopping centre car park to Heritage Drive and Tigerhawk Drive (each some 22% of traffic). 25% of McDonald's traffic would be linked trips with the shopping centre and 25% passing trade. Therefore, the proposed McDonald's would result in an additional traffic generation of some 90 vehicles per hour (two way) to the surrounding network with increases of some:
- some 50 vehicles per hour (two way) on Settlers Boulevard in the weekday AM and PM peak hours; and
  - some 10 to 15 vehicles per hour (two way) on Tigerhawk Drive and Heritage Drive (either side of the site accesses) in the weekday AM and PM peak hours.
- 2.26 Based on these minor increases in traffic flows (less than 10% of the traffic generated by the approved shopping centre in the weekday PM peak hour), the adjoining road network would continue to operate at a good level of service with spare capacity (LOS B) in the weekday AM and PM peak hours.
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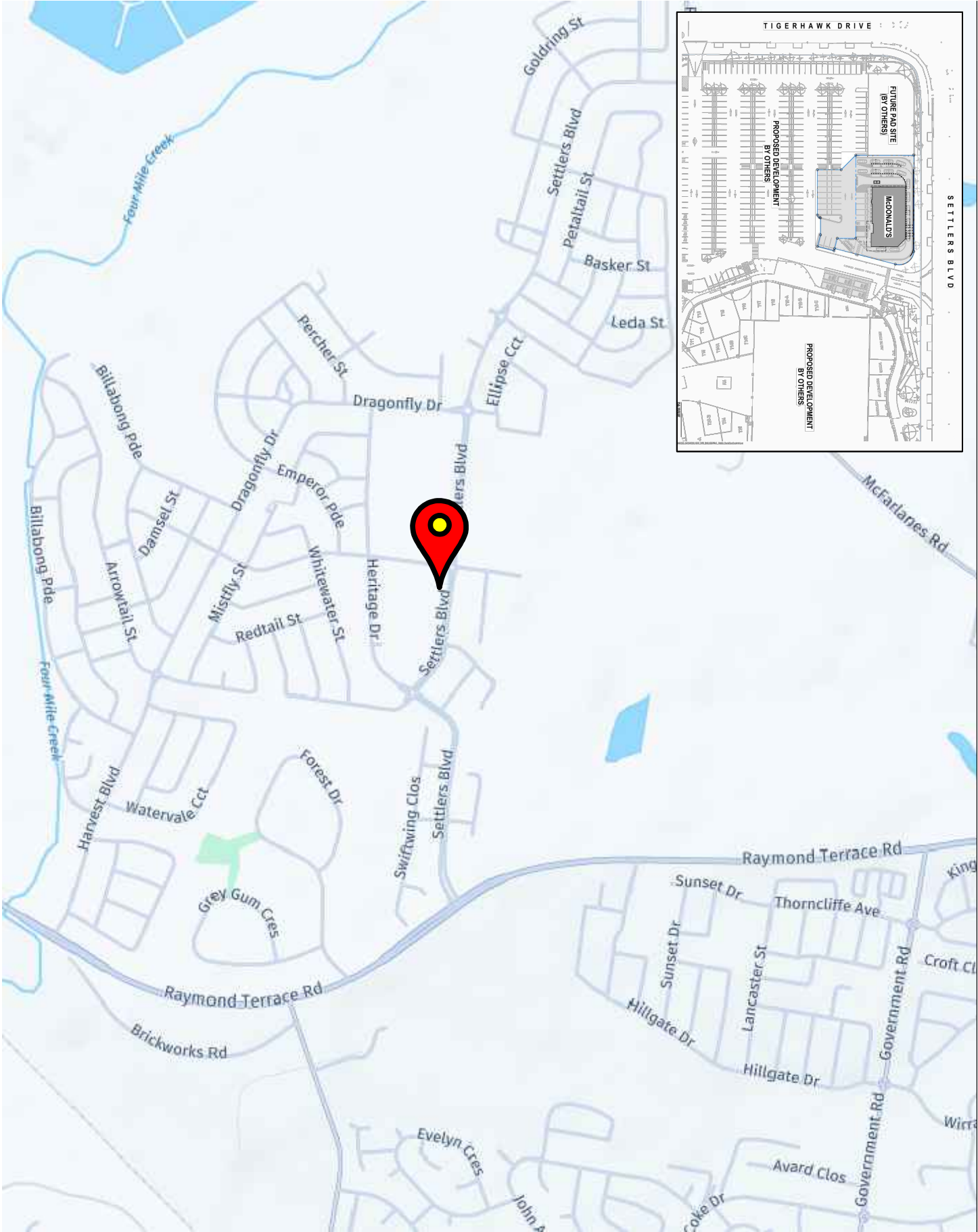
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### Summary

2.27 In summary, the main points relating to the traffic implications of the proposed McDonald's are as follows:

- i) the proposed parking provision is appropriate and complies with DCP and TfNSW parking rates;
  - ii) modifications to the car park will be provided in accordance with AS2890.1-2004 and AS2890.6-2009;
  - iii) following DA approval, access arrangements, parking layouts, servicing and vehicle swept paths should be reviewed and confirmed for compliance certification;
  - iv) the proposed McDonalds would generate would result in an increase in traffic generation to the surrounding road network of some 90 vehicles per hour (two way) in the weekday AM and PM peak hours;
  - v) this would result in increases of some 50 vehicles per hour (two way) on Settlers Boulevard and some 10 to 15 vehicles per hour (two way) on Tigerhawk Drive and Heritage Drive; and
  - vi) with these minor increases in traffic flows (less than 10% of the traffic generated by the approved shopping centre in the weekday PM peak hour), the adjoining road network would continue to operate at a good level of service with spare capacity (LOS B) in the weekday AM and PM peak hours.
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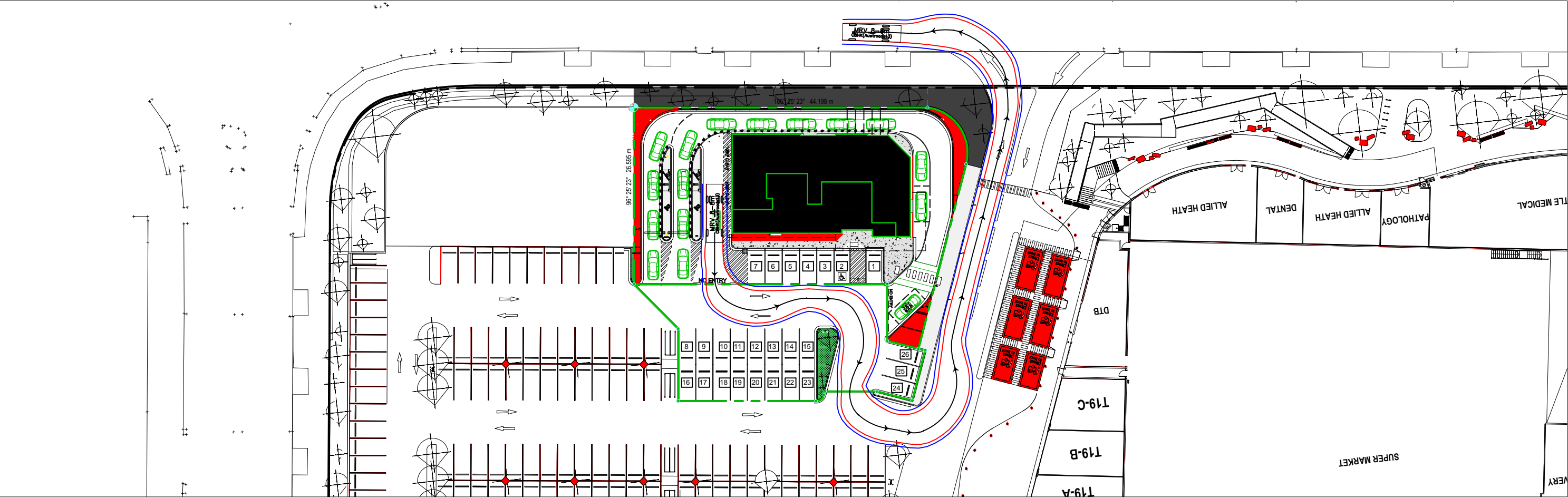
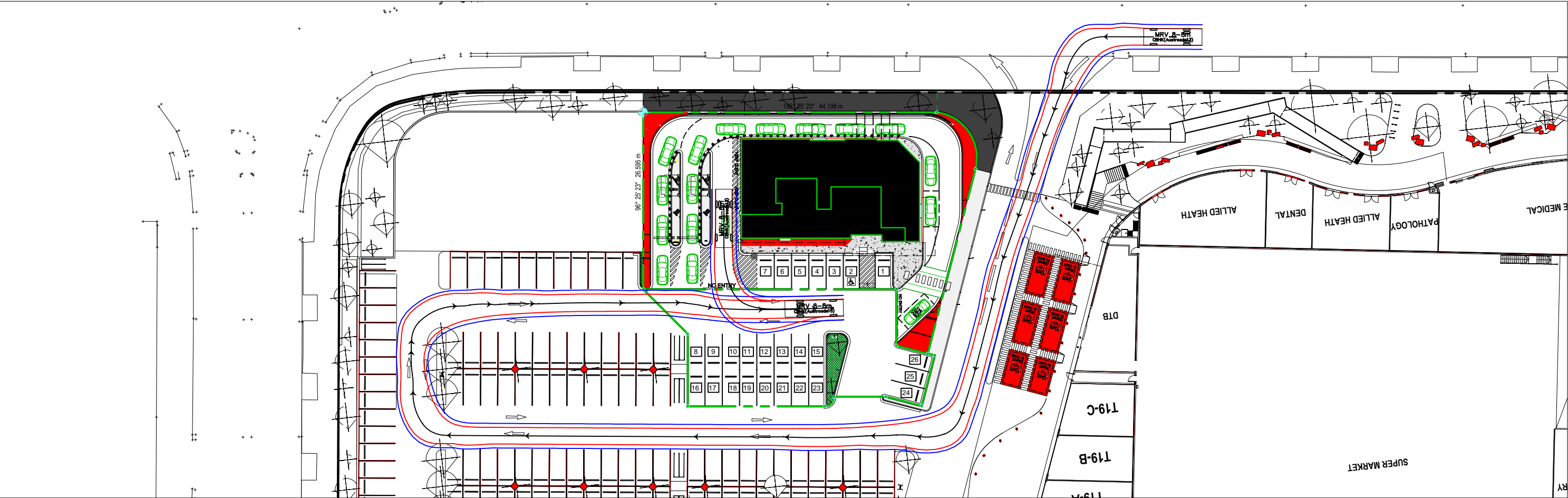


Location Plan

ATTACHMENT A

VEHICLE SWEPT PATHS

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**NOTE:**  
SKETCH PLAN ONLY. PROPERTY BOUNDARIES, UTILITIES, KERBLINES & DIMENSIONS ARE SUBJECT TO SURVEY AND FINAL DESIGN. TRAFFIC MEASURES PROPOSED IN THIS PLAN ARE CONCEPT ONLY AND ARE SUBJECT TO FINAL DESIGN BY CIVIL ENGINEERS. THIS PLAN SHOULD NOT BE USED FOR COMPLIANCE CERTIFICATION OR FOR CONSTRUCTION.

— Swept Path of Vehicle Body  
— Swept Path of Clearance to Vehicle Body

8.8m MEDIUM RIGID VEHICLE  
SWEPT PATHS