



Memo

To: Nathan Stewart; Principal Town Planner at Rowe Group
From: Jacob Martin; Senior Principal - Transport Planning and Osama Hashmi; Traffic Engineer
Subject: Lot 9053 - Aldi Dalyellup, Western Australia – Access Route Assessment
Our ref: PS214079-PTH-PAM-MEM-001B
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Introduction

This Technical Memo describes the vehicle access routes entering and exiting Lot 9053, Dalyellup (the Aldi Site), considering the existing and proposed access arrangements.

Two (2) access driveway locations have been assessed for the Site, comprising a crossover located on Grafton Lane and a crossover located on Portobello Road.

Customer Vehicle Access

Several customer vehicle access routes have been assessed for the proposed Site, referencing the current road network including turn restrictions. These routes include:

1. Rear access via Grafton Lane
2. Full access via Portobello Road
3. Mitigated access via Portobello Road (LILO/right-out ban).

The representative routes are described in the following review.

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Rear access via Grafton Lane

The existing Dalyellup District Centre Structure Plan assumes access and egress to the subject Site via Grafton Lane. This arrangement relies on rear laneway access running north to south and providing access to the Lots fronting the western side of Portobello Road.

The viability of this arrangement has been assessed in the context of two alternative approach routes from the north (reflecting the primary catchment for destination retail in the vicinity).



Route 1: Grafton Lane (inbound via Norton Promenade)

Route 2: Grafton Lane (inbound via Portobello Road)

Customer Vehicle Access Routes via Grafton Lane (Structure Plan access)

Route 1 uses the minor access provided by Wicklow Boulevard and Mile Lane to provide connection from Norton Promenade. While this route is theoretically possible, its use requires an expert knowledge of the local network and the lack of legibility is expected to deter new Aldi customers from trying to access the Site. This is because the natural approach route is via Portobello Road, which is identifiable as the ‘address’ of the Store. It is therefore expected that a sizeable proportion of prospective customers would arrive via Portobello Road, with no access available to Grafton Lane (due to the left-in/left-out (LILO)) turning restrictions at the Portobello Road / Grafton Lane intersection.

In this event, it is anticipated that Aldi customers would either seek on-street parking (where available), abandon their trip and go elsewhere, or make a U-turn at the existing break in the Portobello Road median (Route 2). This movement would conflict with egress movements from the Dalyellup Shopping Centre and (given its proximity to the major signalised intersection of the Norton Promenade / Portobello Road intersection) and is therefore considered to be inherently unsafe.

Shared use of the Grafton Lane crossover by both service vehicles and customer vehicles is also not recommended, due to the narrow geometry of Grafton Lane and the potential for conflict.

Full access via Portobello Road

To address the above issues, an alternative access arrangement is proposed, with direct access via Portobello Road. This alternative has been considered in two forms: left-in/left-out only (LILO) and full movement access. The representative customer vehicle access routes for these alternatives are shown below.



Configuration 1: Portobello Road – LILO (inbound/outbound) **Configuration 2:** Portobello Road – full movements

Customer Vehicle Access Routes via Portobello Road (proposed alternative)

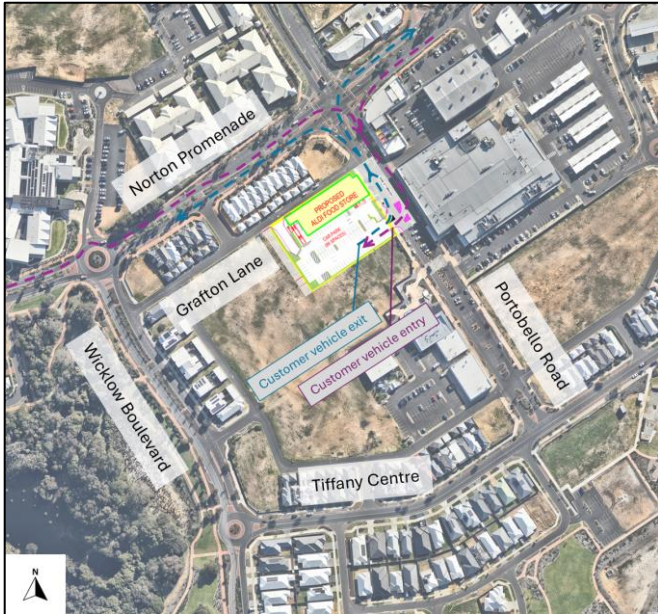
The above route assessment shows that while the legibility to the store is improved with a new Site access/egress onto Portobello Road, the LILO configuration still requires a circuitous detour via Tiffany Centre or a U-turn within Portobello Road. This suggests that the LILO access is not sufficient to address the access restrictions of the Site as it retains most of the issues of the Grafton Lane location. The LILO access also requires the removal of three (3) kerbside bays on the western side of Portobello Road.

If the Portobello Road access is provided in a full-movements form: allowing right-turn movements into and out of the Site, then these existing access constraints are fully mitigated. Access from Norton Promenade becomes straightforward and direct, with all critical inbound and outbound movements accommodated by the network. Customers will also have direct access via the frontage street without the requirement to undertake unsafe U-turn manoeuvres at the Tiffany Centre / Portobello Road intersection. This arrangement would result in the removal of a further six (6) median parking bays.

It is understood that the Shire of Capel has raised safety concerns related to customers make a right-turn outbound movement when exiting the Site. While this movement would ultimately increase the *theoretical* potential for conflict, the wide central median and distance of the access point from the pedestrian crossing are more than sufficient to allow for safe operation.

Mitigated access via Portobello Road (LILO and Right-out ban)

An alternative option has been prepared to address the above concerns, modifying the access arrangement to support left-in/left-out/right-in movements, alongside a right-out movement ban. The representative customer vehicle access route for the mitigated access is shown below:



Customer Vehicle Access Routes via Portobello Road (proposed mitigation using a right-out ban)

The Portobello Road access could be modified to only allow the right-turn movement into the Site, which retains inbound access for customers approaching the Site from Norton Promenade. This route is still direct and legible for the key retail catchment, comprising residential cells to the north and access via Bussell Highway.

The loss of the right-out movement results in some potential for circuitous egress routes for customers heading south – this is primarily a concern under the future network arrangement (as defined in the Dalyellup District Centre Structure Plan) which includes provision for connection via Wicklow Boulevard to Bussell Highway. The resulting outbound route would be via Norton Promenade, then either to Wicklow Boulevard or direct to Bussell Highway.

It is understood that the result of this mitigation measure will result in the removal of six (6) on-street car parking spaces as a result of the changes to the median parking area (as shown below). However, the proposed Aldi store would supply on-site parking over and above planning requirements to ensure no net loss of bays.



Proposed Mitigation Measure – right-out ban

Service Vehicle Access

The service vehicle access route (up to 19.0m Articulated Vehicles (AV)) is shown below. This route consists of the following:

- Service vehicles will enter from Grafton Lane, via Norton Promenade and Wicklow Boulevard
- Site access is permitted via a right-turn movement, with all manoeuvring occurring within the Lot
- Deliveries and waste collection activities take place within a controlled loading dock environment, separated from customers
- The egress route traverses the customer car park in forward manner, exiting the Site via the Portobello Road crossover
- Vehicles will turn left and return to Norton Promenade.

It is noted that the Norton Promenade intersections with Wicklow Boulevard and Portobello Road allow safe turning movements in all directions, allowing efficient servicing to the Site from the boundary road network and beyond.



Figure 0.1 Service Vehicle Access Routes

Service Vehicle Access Routes

Service vehicles exiting the Site onto Portobello Road will require the whole crossover width to turn, but sufficient driveway width is available to allow for navigation by both customer and service/delivery vehicles. The proposed driveway configuration acknowledges the needs of both trucks and customers, with painted central linemarking proposed to reinforce the customer egress route (see above).

Summary

In conclusion, key findings from this access review are as follows:

- Access to the Site via Grafton lane from the primary approach direction (via Norton Promenade) is indirect, illegible and circuitous. Alternatives exist in the network which would tend to promote unsafe U-turn manoeuvres on Portobello Road.
- Modification to the access location to Portobello Road would assist in aligning with customer expectations and improve legibility.
- A potential left-in/left-out treatment (LILLO) was investigated for the Portobello Road access location, but this failed to address many of the issues.
- A full-movements access arrangement has been investigated for the Portobello Road crossover, which shows better outcomes from a connectivity perspective. The proposed Portobello Road crossover would result in the removal of nine (9) on-street bays, which would be offset against an on-site surplus of parking within the Aldi Site, to would ensure no net loss of parking.
- The Shire of Capel has raised safety concerns regarding the right-turn outbound movement out of the access crossover. An alternative treatment allowing left-in, left-out and right-in movements is shown to mitigate all identified access issues.
- Service vehicles would continue to access the Site via Grafton Lane, egressing via Portobello Road. Swept path analysis confirms that all movements can be accommodated safely.

The preferred access arrangement considering the constraints of the network, would be to construct a full-movements crossover on Portobello Road. This would provide effective connectivity to the Site without inducing circuitous and unsafe manoeuvring within local streets.

Should this arrangement not be supported by the Shire, a modified access arrangement could be constructed, in the form of a left-in/left-out/right-in access. This arrangement retains the majority of the identified benefits of the Portobello Road access location.



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