



#### LEGEND

Structure Plan Boundary

R6

R40

R30 R25

Special Use

POS/ Conservation

Drainage

Retained Black Cockatoo Significant Tree

Continuous fencing/ No vehicle access permittedPedestrian Connection

B Bus Stop

Note: Building footprints indicative only

CONCEPT PLAN

Lot 594 Ranworth Road, Hocking

City of Wanneroo

JOB CODE SERVICE DOC.TYPE DRAW NO. REV. BARHOC DES DWG 002 L





**Technical Note:** No. 1 **Date:** 22/11/2023

**Project No:** t19.056

**Project:** Lot 594 Wanneroo Rd, Hocking

Subject: Proposed modification to the existing Pedestrian Access Way on

**Kirkstall Drive** 

### 1. Introduction and Background

This technical note is prepared by Transcore on behalf of Catholic Archdiocese of Perth and pertains to the proposed modification to the existing Pedestrian Access Way (PAW) that runs along the southern boundary of the western portion of the above-mentioned Lot along Kirkstall Drive.

The proposed amendment to the adopted Structure Plan (SP) for Lot 594 Wanneroo Road, has been approved in July 2023. **Appendix A** shows the approved concept plan depicting access into Special Use zone and adjacent road servicing residential precinct. Accordingly, Hatch RobertsDay has prepared a Subdivision Plan for Lot 594 Wanneroo Road which was approved in November 2023 for the creation of the Special Use zone, a lot for the existing primary school and a balance lot for future residential development. (refer **Appendix B** for a copy of the approved subdivision plan). The approved subdivision plan shows the existing PAW adjoining Lot 594 along Wanneroo Road and western part of the Kirkstall Drive fronting the proposed special use zone (Lot 2 in the subdivision plan).

The proposed PAW would restrict the vehicle access/ egress to Lot 2 from Kirkstall Drive. However, it is deemed necessary to establish a separate access/egress for the proposed Special Use zone in order to separate commercial traffic from residential traffic, as well as to enhance traffic operations and safety.

Accordingly, this technical note has been prepared by Transcore to:

- Review the proposed access arrangements along Kirkstall Drive,
- Review intersection and crossover spacing ensuring compliance with relevant Australian standards; and,
- Establish the required modifications to the existing PAW to allow for the provision of a full movement crossover for the proposed Special Use zone on Lot 2.

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### 2. Proposes Special Use Zone

The approved subdivision plan shows a Special Use zone for the western portion of the approved subdivision (Lot 2). The permitted land uses within the Special Use zone as per Schedule 2 of the LSP (Issued 10th Nov) are:

- Bulky goods showroom;
- Consulting rooms;
- Medical centre;
- Pharmacy;
- Office;
- Veterinary centre;
- Child care premises; and,
- Civic uses.

Access/ egress to the proposed Special Use zone is only allowed via Kirkstall Drive. To ensure the successful operation of the proposed Special Use zone, it is recommended to establish a separate access/egress on Kirkstall Drive for the following reasons:

- Legibility: The proposed Special Use zone is situated behind the residential zone and lacks direct vehicular access/egress from Wanneroo Road. By providing a separate access/egress on Kirkstall Drive, it enhances the visibility and recognition of the Special Use zone.
- Safety: Separating residential traffic from commercial traffic contributes to improved safety. With a separate access/egress, the traffic flow can be better managed, minimizing potential conflicts between residential and commercial vehicles.
- Traffic Operations: Distributing the traffic generation of the proposed Special Use zone on a separate crossover would enhance traffic operations of the residential intersection on Kirkstall Drive.
- Traffic Circulation and Flexibility: The provision of a separate access/egress on Kirkstall Drive enables better traffic circulation within the Special Use zone. It also provides flexibility in the design of the building and parking areas within the Special Use zone during subsequent stages of the development, allowing for efficient and adaptable planning.

Considering these factors, establishing a separate access/egress on Kirkstall Drive for the proposed Special Use zone is recommended to ensure efficient operation, safety, and improved traffic management.

### 3. Compliance with Relevant Standards

The approved concept plan for the proposed amendment to the adopted Structure Plan for Lot 594 Wanneroo Road shows a full movement intersection on Kirkstall Drive (at Road 1) providing access/ egress to the proposed residential component of the SP area. A full movement crossover is also proposed immediately west of the residential intersection on Kirkstall Drive (refer **Figure 1**).

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According to Figure 1 the separation distance between the intersection on Road 1 and nearby intersections on the other side of Kirkstall Drive (Tenement Loop and Ashurst Way) is approximately 43.86m and 34.89m respectively. Kirkstall Drive in this locality entails 18.0m road reserve and in accordance with Liveable Neighbourhoods (LN) Guidelines would be classified as Access Street B. The LN Guidelines specify a minimum separation distance of 20m between intersections along Access Streets, and the available separation distance between Road 1 and nearby intersections meets and exceeds this requirement.

AS 2890.1:2004 Parking Facilities-Off street car parking (Figure 3.1) outlines the appropriate location of a commercial access driveway with respect to a nearby intersection. According to Figure 3.1 of the standard, a minimum separation of 6m is required between the proposed crossover and the extension of the property line on the other side of Kirkstall Drive. **Figure 1** demonstrates that there is a minimum of 7.79m available between the crossover and the extension of the property line, indicating compliance with the AS standard.

Turn path analysis were undertaken for the proposed driveway and intersection on Kirkstall Drive to ensure service vehicles and waste collection trucks would be able to access/ egress the intersection and crossover satisfactorily (**Appendix C** shows the relevant turn paths). For the proposed driveway crossover which provides access to the special use zone an 8.8m service truck was assumed as a design vehicle for the turn path analysis. A 10m rubbish truck was also used as a design vehicle for the proposed new intersection at Road 1/ Kirkstall Drive. As shown in **Figure 1** some widening may be required at the connection of the proposed driveway and Road 1 to Kirkstall Drive to accommodate the turning movement of the design vehicles. The details of the intersection and crossover will need to be reviewed and investigated during the detailed design stage of the development. It is important to note that these specific design aspects will not compromise the compliance with the relevant Australian standards or suitability of the proposed modification of the PAW to allow for a separate crossover for the Special Use zone.

The separation distance of the proposed driveway and Road 1 to the intersection of Wanneroo Road/ Kirkstall Drive was reviewed and addressed as part of the Revised TIA prepared by Transcore for the approved Structure Plan Amendment in March 2021. The assessments undertaken in the revised TIA was based on the higher trip generator land uses such as service station, fast food outlet and showroom for the commercial part of the SP area. However, the approved SP no longer permits the service station and fast-food outlet uses and indicates Special Use zone with permissible land-uses which would generate significantly fewer trips than service station, fast food outlet. On this basis, the reduced traffic generation of the site would further support the provision and location of the proposed crossover for the Special Use zone.

Based on the above considerations, it is recommended that the existing PAW on Kirkstall Drive should be modified slightly and pushed further west as detailed in **Figure 2** to allow for provision of a separate driveway and crossover for the proposed Special Use zone.

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Figure 1: Separation distances between intersections and crossover

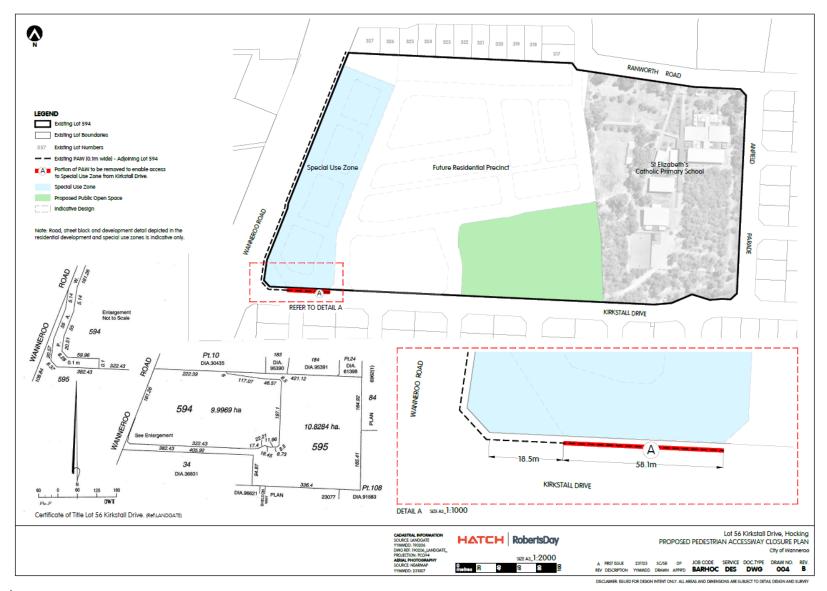


Figure 2: Proposed PAW closure plan

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#### 4. Conclusions

The amendment to the adopted Structure Plan for Lot 594 Wanneroo Road has been approved, and a Subdivision Plan has been prepared by Hatch RobertsDay which was approved in November 2023 for the creation of the Special Use zone, a lot for the existing primary school and a balance lot for future residential development. The approved subdivision plan depicts the existing PAW adjacent to Lot 594 along Wanneroo Road and the western part of Kirkstall Drive, which fronts the proposed Special Use zone (Lot 2 in the approved subdivision plan).

The PAW would limit vehicle access/egress to Lot 2 from Kirkstall Drive. However, it is considered necessary to establish a separate access/egress for the proposed Special Use zone in order to separate commercial traffic from residential traffic and improve traffic operations and safety.

Based on the assessments conducted in this technical note, it is recommended that the existing PAW on Kirkstall Drive be slightly modified and pushed further west. This modification will allow for the provision of a separate driveway and crossover for the proposed Special Use zone.

The assessments further indicate that the provision of a separate crossover for the special use zone is feasible, and the intersection and crossover spacing will comply with the relevant Australian standards.

There is no technical basis for preventing the suggested modifications to the PAW to facilitate access to Lot 2 (Special Use zone). Therefore, a separate access/egress on Kirkstall Drive for the proposed Special Use zone is recommended to ensure efficient operation, safety, and improved traffic management.

## **APPENDIX A**

## Proposed Concept Plan Lot 594 Wanneroo Road, Hocking



#### LEGEND Structure Plan Boundary R60 R40 Special Use POS/ Conservation Drainage Retained Black Cockatoo Significant Tree ---- Continuous fencing/ No vehicle access permitted Pedestrian Connection Bus Stop Note: Building footprints indicative only

CONCEPT PLAN

Lot 594 Ranworth Road, Hocking

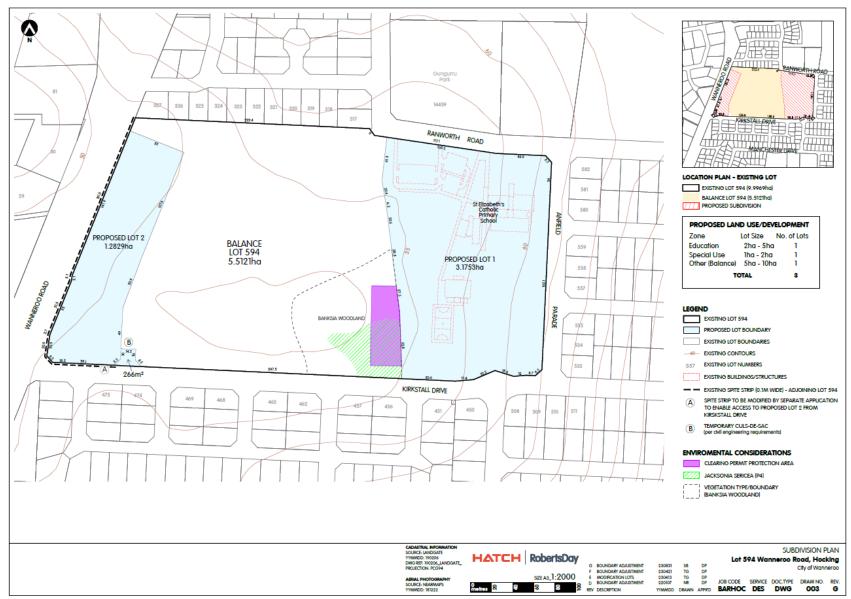
City of Wanneroo

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# **APPENDIX B**

# **Approved Subdivision Plan**



DISCLAIMER: ISSUED FOR DESIGN INTENT ONLY. ALL AREAS AND DIMENSIONS ARE SUBJECT TO DETAIL DESIGN AND SURVEY

# **APPENDIX C**

## **Turn Paths**

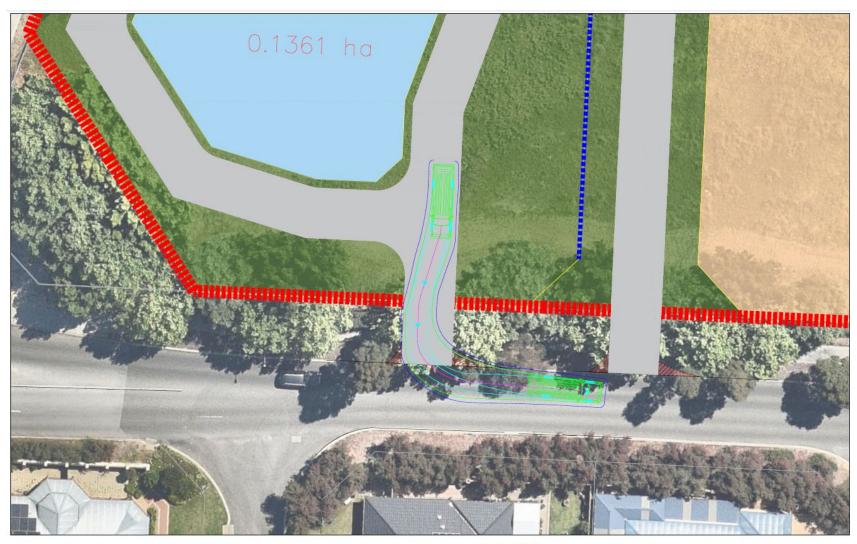


Lot 594 Wanneroo Road, Hocking

Austroads 2013: 8.8m Service Vehicle Service vehicle entry - Commercial Driveway (Western) LEGEND Vehicle Body Wheel Path 500mm Clearance t19.056.sk03 21/11/2023

transcore

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Lot 594 Wanneroo Road, Hocking

Austroads 2013: 8.8m Service Vehicle Service vehicle exit - Commercial Driveway (Western) LEGEND Vehicle Body Wheel Path 500mm Clearance



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21/11/2023 Scale: 1:250 @ A3





Lot 594 Wanneroo Road, Hocking

Austroads 2013: 10.0m Service Vehicle Service vehicle entry - Residential Driveway (Eastern) LEGEND Vehicle Body Wheel Path 500mm Clearance

t19.056.sk05 21/11/2023 transcore

Scale: 1:250 @ A3



Lot 594 Wanneroo Road, Hocking

Austroads 2013: 10.0m Service Vehicle Service vehicle exit - Residential Driveway (Eastern)

LEGEND Vehicle Body Wheel Path 500mm Clearance

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Scale: 1:250 @ A3

