



Butler Childcare Centre
(121 Exmouth Drive, Butler)

TRANSPORT IMPACT STATEMENT

PROJECT	81113-744-FLYT-TRS-0002 Rev3			
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1. INTRODUCTION

1.1 Development Proposals

This Transport Impact Statement (TIS) has been prepared by Flyt in support of the proposed development of the current vacant land at 121 Exmouth Drive, Butler – into a Childcare Centre.

The proposed development of the existing vacant land into a Childcare Centre can be summarised as comprising:

- Childcare Centre to accommodate 92 children
 - 22 children between the ages of 0-2 years
 - 30 children between the ages of 2-3 years
 - 40 children of kindergarten (kindy) age
- Childcare Centre to be serviced under the following staff arrangements:
 - 15 educators (Monday-Friday, full time)
 - Additional part-time educators covering staff breaks (Monday-Friday, 10am-3pm)
 - 1 chef (Monday-Friday, half day)
 - 1 centre area manager (visits site once or twice a week between 10am-3pm)

1.2 Site Context

The site of the proposed Butler Childcare centre is located at 121 Exmouth Drive in Butler. The site has boundaries with the Public Transport Authority Butler Station car park to the north, Exmouth Drive to the east, Butler Central Shopping Mall car park to the south and Butler Central Shopping Mall access road to the west.

The site is conveniently located to access Butler Station (300m walk from the entrance of the proposed Childcare Centre to the Station platforms) and Butler Central Shopping Mall (150m walk from the entrance of the proposed Childcare Centre to the entrance to the Shopping Centre).

As shown in Figure 1 the site of the proposed Butler Childcare Centre is conveniently located to access a range of facilities within a 400m walk catchment including; Butler Station, Butler Central Shopping Mall, large format retail units (currently under construction), Clipstone Park, Wilton Park, Manningtree Park, Halesworth Park and John Butler Primary School.

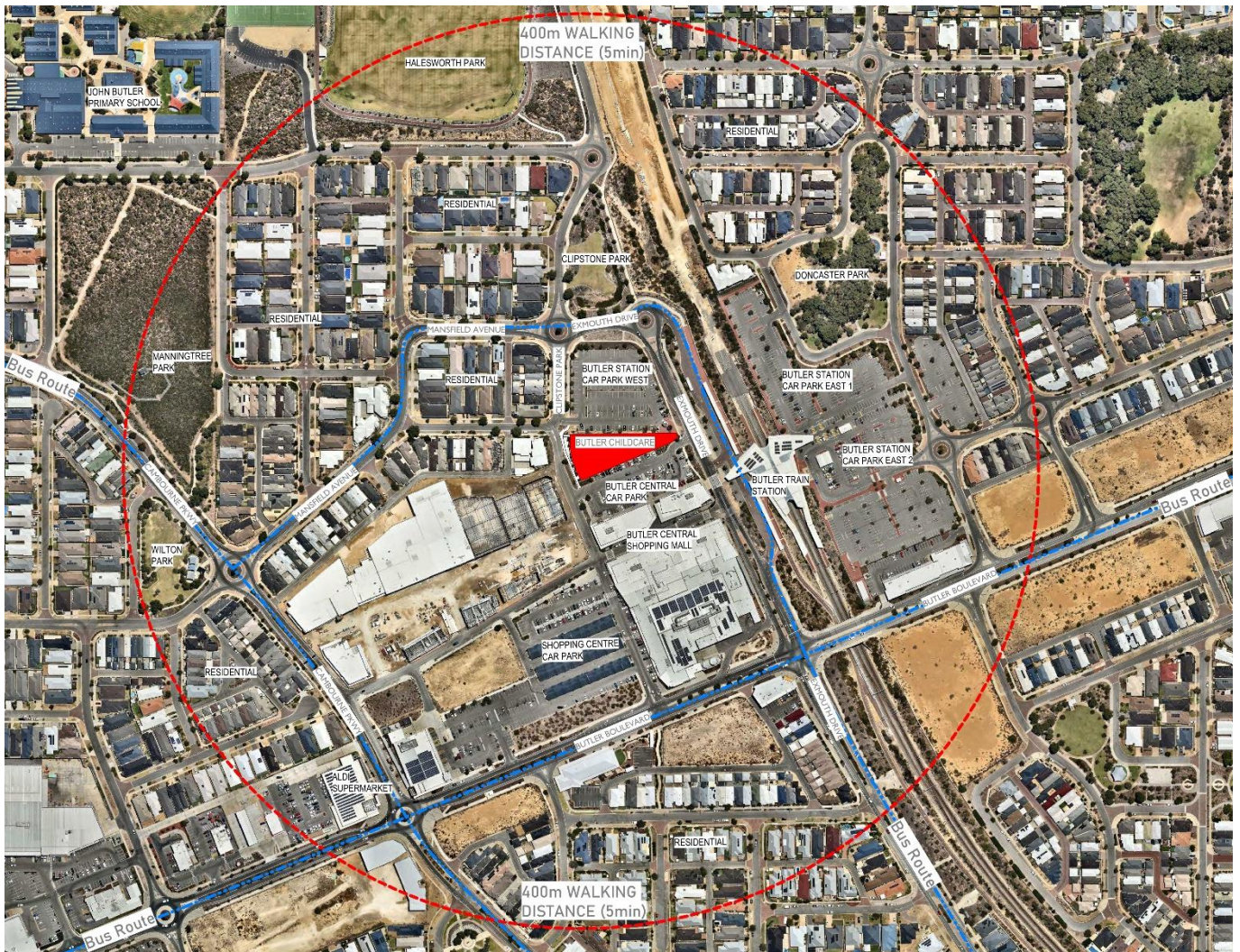


Figure 1 Location of the proposed Butler Childcare Centre (source: Peter Hobbs Architects, 2022)

1.3 Transport Impact Statement

This TIS has been prepared in accordance with the WA Planning Commission's (WAPC) *Transport Impact Assessment Guidelines – Volume 4 Individual Developments* (2016). The Guidelines promote a three level assessment process, where the required level of assessment is dependent on the likely level of impact, as follows (as shown in Figure 2):

- Low impact – less than 10 peak hour trips, no assessment required.
- Moderate impact – between 10 and 100 peak hour trips, Transport Impact Statement required.
- High impact – more than 100 peak hour trips, full Transport Impact Assessment required.

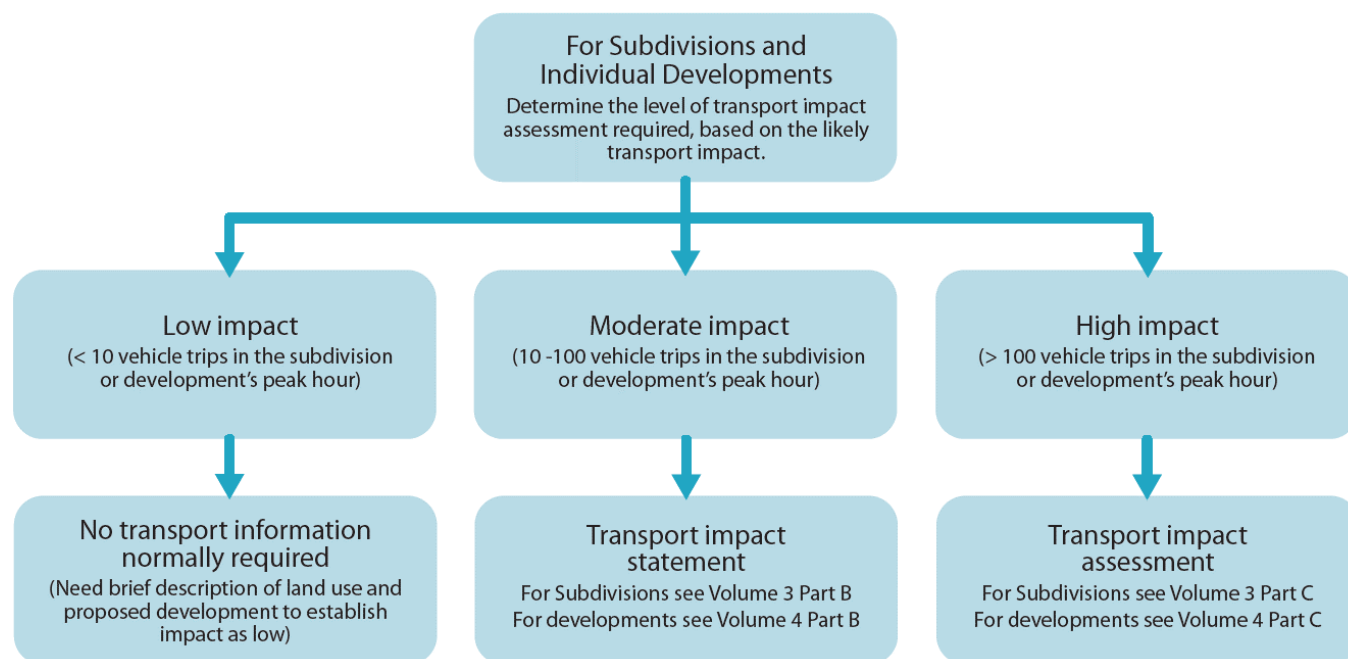


Figure 2 Level of transport impact assessment required (source: WAPC *Transport Impact Assessment Guidelines*, 2016)

As set out in this report, the traffic attributable to the proposed development has been determined to be less than 100 vehicle trips in the operating peak hour, therefore the required level of assessment is a TIS.

1.4 Report Structure

The report is structured as required by the *Transport Impact Assessment Guidelines* (WAPC, 2016), with the following sections:

- Proposed development
- Vehicle access and parking
- Provision for service vehicles
- Traffic volumes
- Frontage streets
- Public transport access
- Pedestrian access and amenity
- Bicycle access and amenity
- Site specific issues
- Safety issues
- Summary

2. PROPOSED DEVELOPMENT

The site has boundaries with the Public Transport Authority Butler Station car park to the north, Exmouth Drive to the east, Butler Central Shopping Mall car park to the south and Butler Central Shopping Mall access road to the west – as shown in Figure 3.



Figure 3 Detailed location of the proposed Butler Childcare Centre (aerial image source: MetroMap)

The proposed development of the existing vacant land into a Childcare Centre can be summarised as comprising:

- Childcare Centre to accommodate 92 children
 - 22 children between the ages of 0-2 years
 - 30 children between the ages of 2-3 years
 - 40 children of kindergarten (kindy) age
- Childcare Centre to be serviced under the following staff arrangements:
 - 15 educators (Monday-Friday, full time)
 - Additional part-time educators covering staff breaks (Monday-Friday, 10am-3pm)
 - 1 chef (Monday-Friday, half day)
 - 1 centre area manager (visits site once or twice a week between 10am-3pm)

Figure 4 shows the site plan for the proposed Butler Childcare Centre and Figure 5 shows the site floor plan for the proposed Butler Childcare Centre.



Figure 4 Site plan for the proposed Butler Childcare Centre (source: Peter Hobbs Architects, 2022)



Figure 5 Site floor plan for the proposed Butler Childcare Centre (source: Peter Hobbs Architects, 2022)

3. VEHICLE ACCESS AND PARKING

3.1 Vehicle Access

The proposed Butler Childcare Centre is located at 121 Exmouth Drive in Butler. The site has boundaries with the Public Transport Authority Butler Station car park to the north, Exmouth Drive to the east, Butler Central Shopping Mall car park to the south and Butler Central Shopping Mall access road to the west.

The proposed Childcare Centre site benefits from access in respect of easements outlined in the Lots Certificate of Title (Volume 2969 / Folio 53) and Deposited Plan (406016) with the land notable affected by the following easements:

- *'C' on Deposited Plan – right of carriageway as per Section 136C of the Transfer of Land Act - benefit to Lot 2812 [site of the proposed Butler Childcare Centre].*
- *'Z' on Deposited Plan – access for public at large as per Section 195 & 196 of the Land Administration Act – refer to the attached easement document which confirms Z is also a public parking easement [see figure below].*

Figure 6 shows the location of the proposed Butler Childcare Centre and an extract from Deposited Plan (406016) and the easement afforded to the Lot of the proposed Childcare Centre in respect of 'C' and 'Z'.

Figure 7 to Figure 10 show the routes of vehicle access to the proposed Butler Childcare Centre site car parking from the Butler Central Shopping Mall Existing Connector Road and from Exmouth Drive.

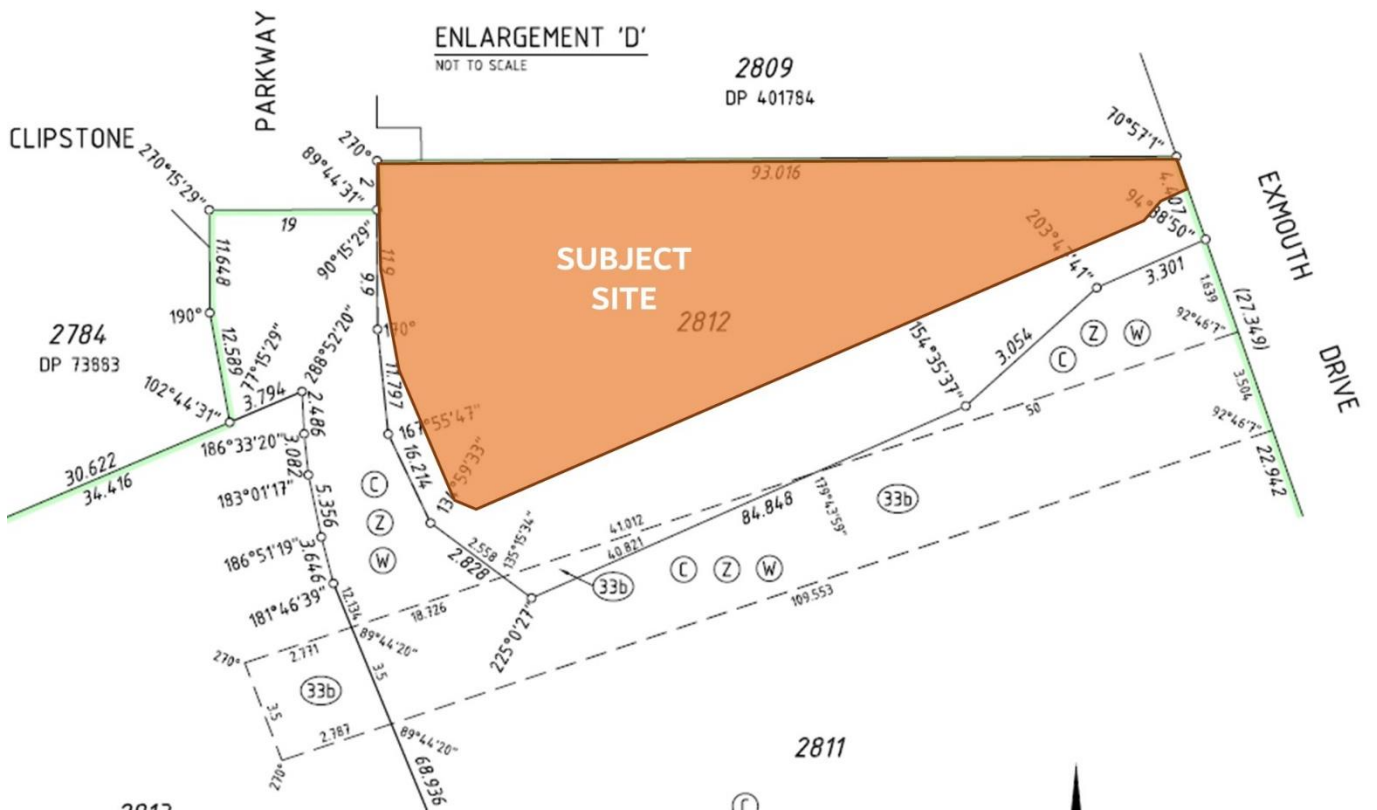


Figure 6 Vehicle access arrangement and site easements for the site of the proposed Butler Childcare Centre (source: Deposited Plan 406016, Landgate)



Figure 7 and Figure 8 show the route of vehicle access to the proposed Butler Childcare Centre site car parking from the Butler Central Shopping Mall Existing Connector Road.



Figure 7 View along the Existing Connector Road southbound on approach to the access into the Butler Central Shopping Mall northern car park (source: Google Streetview)



Figure 8 Existing access from the Existing Connector Road into the Butler Central Shopping Mall northern car park – the Butler Childcare Centre is proposed to occupy the vacant Lot on the left side of the Streetview image (source: Google Streetview)

Figure 9 and Figure 10 show the route of vehicle access to the proposed Butler Childcare Centre site car parking from Exmouth Drive.



Figure 9 View along Exmouth Drive southbound on approach to the access into the Butler Central Shopping Mall northern car park (source: Google Streetview)



Figure 10 Existing access from Exmouth Drive into the Butler Central Shopping Mall northern car park – the Butler Childcare Centre is proposed to occupy the vacant Lot in the centre of the Streetview image (source: Google Streetview)

3.2 On-Site Parking

The City of Wanneroo Local Planning Policy 2.3 *Child Care Centres* (June 2019) outlines the following traffic, access and parking requirements:

“5.1. Child Care Centres should ideally be located on Neighbourhood Connector roads.

5.2. Parking areas should be located in front of buildings or easily visible from the entrance to the site.

5.3. Disabled parking bays should be located in close proximity to the pedestrian entrance to the site.

5.4. Parking is to be provided on site at a rate of one parking bay for each staff member, in addition to the required number of bays as outlined in the table below.

<i>Children</i>	<i>Bays Required</i>
<i><25</i>	<i>5</i>
<i>26-30</i>	<i>6</i>
<i>31-38</i>	<i>7</i>
<i>39-46</i>	<i>8</i>
<i>47-54</i>	<i>9</i>
<i>>54</i>	<i>9 bays, plus 1 per 8 children accommodated in excess of 54</i>

5.5. Pedestrian access within the site is to be provided from the parking area to the entrance of the building and link into existing or future neighborhood pedestrian or cycle networks.”

Based on the above requirements under the City of Wanneroo Local Planning Policy the proposed Butler Childcare Centre has the following off-street car parking requirements:

- Staff parking = 15 bays required for 15 full-time staff
= Additional part-time/occasional staff to utilise parent parking outside of peak drop-off / pick-up periods
 - Parent parking = 14 bays required
- TOTAL PARKING = 29 BAYS REQUIRED**

The proposed Butler Childcare Centre is located adjacent to Butler Central Shopping Centre Mall northern car park. The northern car park contains 94 standard parking bays and 4 universal access parking bays – a total of 98 parking bays. The northern car park is not the main car park for the Shopping Centre, with covered parking bays available in the main park located to the west of the Shopping Centre. In addition, the Shopping Centre has retail outlets which present towards the main car park, whereas the Shopping Centre has blank walls presenting to the northern car park.

It is anticipated that the proposed Butler Childcare Centre would operate from 6.30am-6.30pm Monday-Friday, whereas the Shopping Centre has core trading hours of 9am-5.30pm Monday, Tuesday, Wednesday, Friday and 9am-8pm Thursday. Major tenant Woolworths operates 8am-9pm Monday-Friday.

The 14 parking bays in the northern Shopping Centre car park located nearest to the entrance of the proposed Butler Childcare Centre would be utilised by parents dropping-off and picking-up children at the Childcare Centre. These bays will provide direct access to the footpath to be constructed along the southern side of the Childcare Centre.

It is expected that the following factors will reduce the demand of parent parking at the site:

- Activity Centre location creating opportunities for multi-use trips.
- Higher density area resulting in significant number of families within the walkable catchment.
- Proximity to the train station and associated parking areas, particularly the likelihood of parents combining drop off / pick up with their daily commute via bus or rail.
- Extent of public train station parking available, which may be used by parents commuting and using the childcare facility.

In particular, it is expected that given the proximity of the proposed Butler Childcare Centre to Butler Station, that some parents will park to the north of the Childcare Centre in the Transperth Park and Ride car park as part of their commute by train from Butler Station. These parents are likely to walk their children to the Childcare Centre from the Transperth car park as part of their walk to the Station.

These above factors are all unique to the proposed site of the Butler Childcare Centre site and would not apply under a typical Childcare Centre scenario. With these factors considered, parent parking demand is expected to be reduced.

Of the 15 full-time staff it is expected that some may drive to the site and others will car pool or use public transport to access the site. In this regard, it is noted that the site is a short 3 minute walk from Butler Station providing access to bus and train services. As such, the site is conveniently located to be accessed by public transport services – as outlined in Section 7.

Additional support staff would attend the site over the course of a day to perform various support functions. These staff are not present at the site for a whole day and are typically in attendance outside of the peak pick-up / drop-off periods (when there is no parent parking demand). Ample opportunity for support staff to attend the site is expected, given there is a significant amount of parking available in the immediate area, as well as excellent access to alternate modes of transport.

3.3 Off-Site Parking

No off-site parking is proposed as part of the Development Application for the proposed Butler Childcare Centre facility.

4. PROVISION FOR SERVICE VEHICLES

A separate Waste Management Plan has been prepared to support the Development Application for the Butler Childcare Centre. Please see the Waste Management Plan for all details of the planned waste collection regime for the development proposal.

5. TRAFFIC VOLUMES

5.1 Existing Traffic Generated by Proposed Site

The site of the proposed Butler Childcare Centre is located at 121 Exmouth Drive in Butler. The site has boundaries with the Public Transport Authority Butler Station car park to the north, Exmouth Drive to the east, Butler Central Shopping Mall car park to the south and Butler Central Shopping Mall access road to the west.

The site of the proposed Childcare Centre is vacant land and therefore does not generate any existing traffic movements.

5.2 Trip Generation of Proposed Development

It is proposed that the Childcare Centre will operate with 18 staff and 92 registered children. The following assumptions have been made in relation to traffic that would be generated by this proposal.

- The Childcare Centre will operate with the following staffing arrangements:
 - 15 staff would work on-site Monday-Friday in a full-time educator role.
 - Additional staff would work on-site Monday-Friday in a part-time role – typically working half day 10am-3pm.
 - 1 staff would work on-site once or twice a week as a visiting area manager – between 10am-3pm.
 - A conservative assumption has been made that 14 staff will independently drive to the site each day and 1 member of staff will car pool or use public transport. This may not be the case in operation with more staff likely to car pool or use public transport.

 - The 15 full-time educator staff would be required on-site Monday-Friday to care for the full complement of 92 children – this is based on a required ratio of educators per child.
 - The additional part-time staff would be required on-site Monday-Friday during the middle of the day.
 - The area manager will typically visit the site once or twice a week during the middle of the day.
 - Based on the Childcare Centre’s anticipated operating hours from 6.30am to 6.30pm – it is expected that 2 members of staff would be rostered to start work during the developments AM peak hour and finish work during the development PM peak hour, with all other staff travelling to or from the site outside of the development peak hours.

- The Childcare Centre will cater for 92 registered children:
 - At a range of childcare centres across Perth that Fly have surveyed, typically:
 - 15% of children are walked to the childcare centre by parents and do not generate a vehicle trip. These children are either walked from their home within a walkable catchment of the childcare centre or they use public transport services to access the childcare centre.
 - 25% of children are from families with more than one child attending the childcare centre – therefore 25% of the children generate 0.5 inbound vehicles trips and 0.5 outbound vehicle trips (assuming these families have two children attending the childcare centre).
 - 60% of children generate 1 inbound vehicle trip and 1 outbound vehicle trip.
 - Of those children arriving at the childcare centre by private vehicle, typically:
 - 60% of children are dropped off during the AM peak hour
 - 50% of children are pick-up during the PM peak hour

Based on maximum attendance at the Childcare Centre on a given weekday and applying the typical childcare centre mode splits outlined above, it is estimated that a maximum total of 82 vehicle trips to/from the site will occur during the developments AM peak hour and 66 vehicle trips to/from the site will occur during the development PM peak hour – as outlined in Table 1.

Table 1 Proposed Childcare Centre development peak hour vehicle trips based on the proposed operations of the Childcare Centre

Type of User	Total On-Site	Number Generating Vehicle Trips	AM Peak Hour Vehicle Movements			PM Peak Hour Vehicle Movements		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Staff (full-time)	15	15 (1.0 trips)	2	0	2	0	2	2
Staff (part-time)	3	3 (1.0 trips)	0	0	0	0	0	0
Children	92	14 (0.0 trips)	0	0	0	0	0	0
		23 (0.5 trips)	7	7	14	6	6	12
		55 (1.0 trips)	33	33	66	28	28	56
Total Staff & Children	110	14 (0.0 trips)	0	0	0	0	0	0
		23 (0.5 trips)	7	7	14	6	6	12
		73 (1.0 trips)	35	33	68	26	28	54
TOTAL VEHICLE TRIPS			42	40	82	32	34	66

5.3 Traffic Impacts of Proposed Development

The proposed Butler Childcare Centre is unlikely to generate significant additional vehicle trips on the road network – many of the vehicle trips to drop-off and pick-up children from the Childcare Centre would be part of a linked trip already being made. The majority of linked trip will be part of the parents commute to their place of work and/or school drop-off / pick-up of older children.

The proposed Childcare Centre will generate more vehicle movements during the developments AM peak hour (more concentrated child drop-off activity) as opposed to during the developments PM peak hour (more dispersed child pick-up activity).

Whilst the AM peak hour drop-off activity at the proposed Childcare Centre is more concentrated than the PM peak hour, the site benefits from far lower levels of localised vehicle activity associated with Butler Central Shopping Mall during the AM peak hour, as well as the traffic volumes on Butler Boulevard indicating lower levels of traffic on the local road network during the AM peak hour compared to the PM peak hour. The AM peak traffic represents 43% of combined AM and PM peak hour movements, compared to the PM peak traffic representing 57% of combined AM and PM peak hour movements.

Given the proximity of Butler Station it would be expected that a number of existing park and ride vehicle trips to Butler Station would include in the future a walk from/to Butler Station’s Car Park West (adjacent to the proposed Childcare Centre) and include parents dropping-off/picking-up their children from the Childcare Centre.

It is expected that the following factors will reduce the demand of parent parking at the site:

- Activity Centre location creating opportunities for multi-use trips.
- Higher density area resulting in significant number of families within the walkable catchment.
- Proximity to the train station and associated parking areas, particularly the likelihood of parents combining drop off / pick up with their daily commute via bus or rail.
- Extent of public train station parking available, which may be used by parents commuting and using the childcare facility.

These above factors are all unique to the proposed site and would not apply under a typical Childcare Centre scenario. With these factors considered, parent parking demand is expected to be reduced.

In summary:

- The level of vehicle trips generated by the proposed Butler Childcare Centre is focused on generation of vehicle trips associated with children drop-off and pick-up movements. Staff movements are generally outside of peak periods as the educators have to be on-site to cater for the arrival of children and they cannot leave the facility until certain ratios of educators to children are achieved. In addition, some staff are likely to use alternate forms of transport, such as car pooling or public transport.
- Some drop off and pick up movements will be undertaken by foot or involve trips with multiple children being dropped-off or picked-up. In addition, not all movements will be made in the development AM or PM peak hour.
- The majority of traffic movements generated by the site are expected to be a slight redistribution of existing trips on the network as part of a linked trip – primarily as part of a parents existing commute and/or school drop-off/pick-up of older children.
- The PM peak period, when the Shopping Centre and surrounding network is at its busiest and is therefore the key assessment period, will not see a significant impact as a result of traffic from this site. With the majority of traffic movements generated by the site expected to be a slight redistribution of existing trips on the network as part of a linked trip – primarily as part of a parents existing commute.

6. FRONTAGE STREETS

The proposed Butler Childcare Centre has a southern frontage to the Butler Central Shopping Mall northern car park and a western frontage to the Existing Connector Road providing north-south access through the Shopping Centre site.

Both the Existing Connector Road and aisle through the Shopping Centre’s northern car park are private roadways which provide for right of carriageway purposes to those accessing the Shopping Centre and associated land uses. As such, these private roadways are not categorised under the Main Roads WA road network hierarchy.

Exmouth Drive which runs north-south between the proposed Butler Childcare Centre site/Butler Central Shopping Mall site and Butler Station, is categorised as a Local Distributor Road under the Main Roads WA road network hierarchy.

Camborne Parkway which runs north-south to the west of the Butler Childcare Centre site and the new larger format retail units that are currently under construction, is also categorised as a Local Distributor Road under the Main Roads WA road network hierarchy.

Butler Boulevard which runs east-west to the south of Butler Central Shopping Mall is categorised as a Distributor A road under the Main Roads WA road network hierarchy – and is the highest order road in proximity of the proposed Butler Childcare Centre site.

All other roads in proximity of the proposed Butler Childcare Centre site are categorised as Access Roads under the Main Roads WA road network hierarchy.

The road hierarchy surrounding the proposed Butler Childcare Centre site is shown in Figure 11

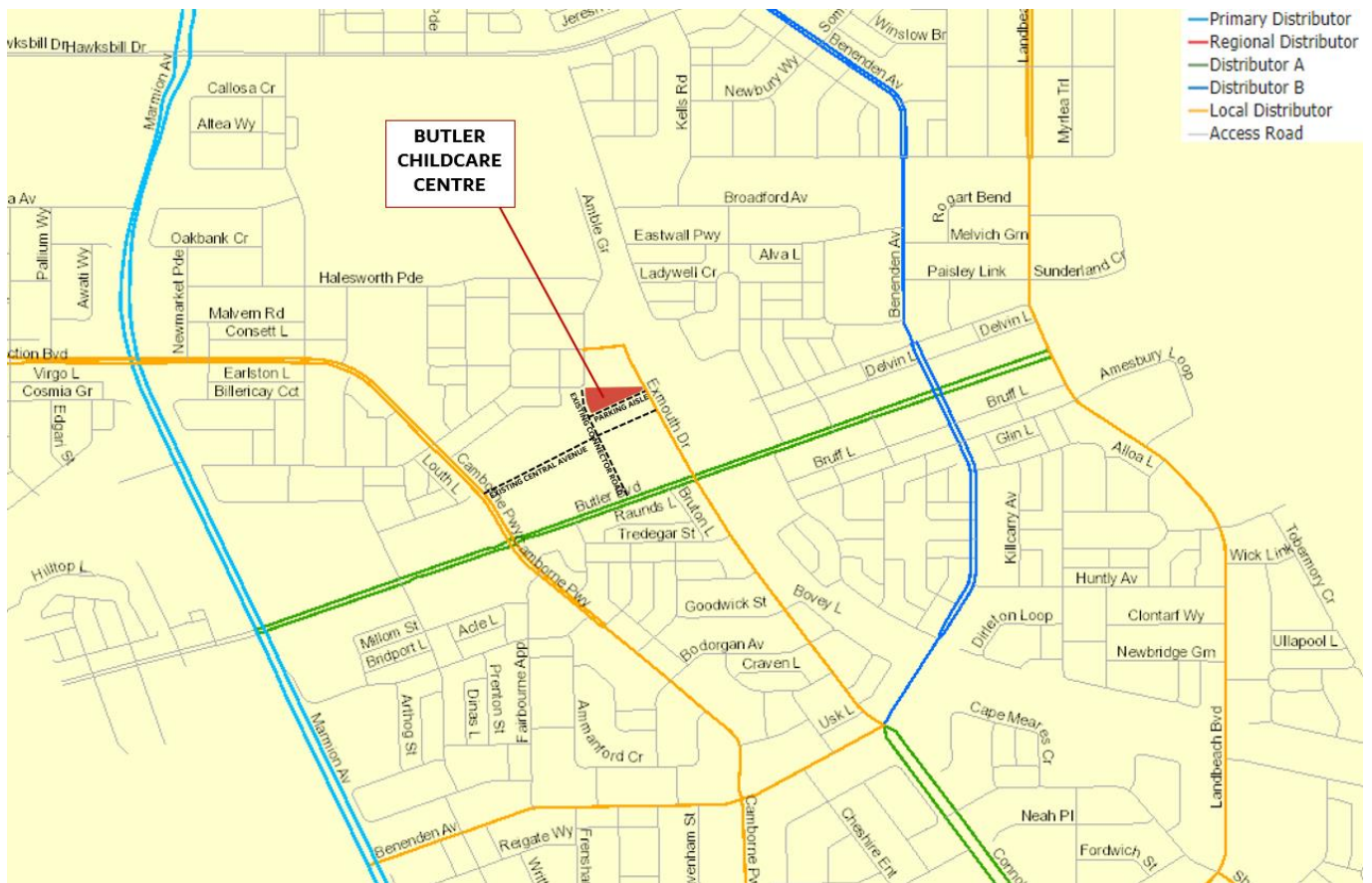


Figure 11 Road hierarchy surrounding the proposed Butler Childcare Centre site (source: Main Roads WA)



Most streets in vicinity of the proposed Butler Childcare Centre site operate under a typical default 50km/h urban speed limit.

There are no road corridors in proximity of the proposed Butler Childcare Centre that operate with a higher posted speed limit than the default 50km/h urban speed limit.

The private roadways which provide for right of carriageway purposes to those accessing the Shopping Centre and associated land uses are designed to elicit low vehicle speeds with significant 'friction' along the roadways with slow moving traffic accessing and exiting parking areas and parking bays.

The speed zoning surrounding the proposed Butler Childcare Centre site is shown in Figure 12.

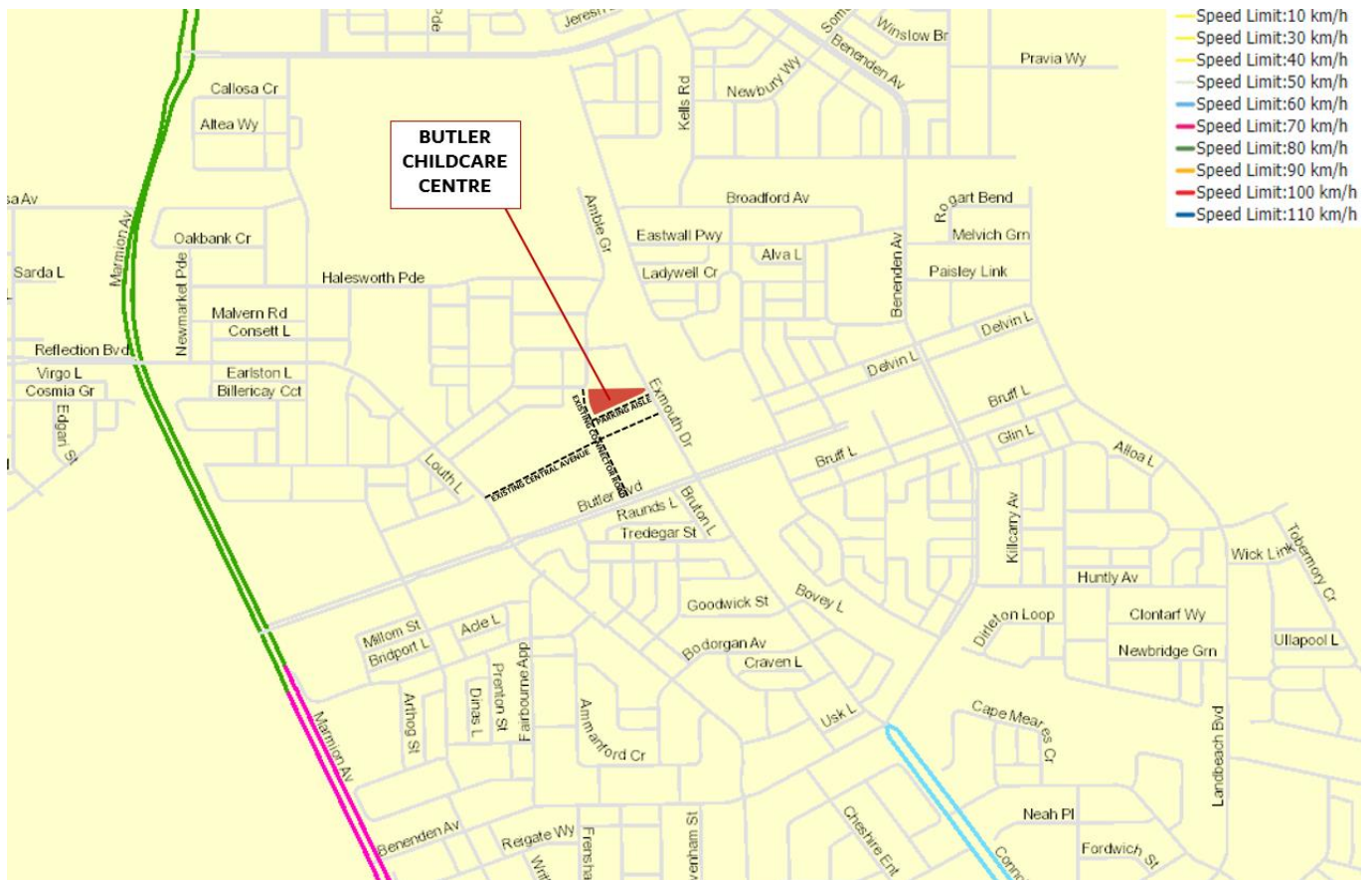


Figure 12 Speed zoning surrounding the proposed Butler Childcare Centre site (source: Main Roads WA)

7. PUBLIC TRANSPORT ACCESS

7.1 Existing Public Transport Services

The proposed Butler Childcare Centre site is conveniently located to be accessed by public transport services – these include bus and train services from Butler Station.

From the entrance of the proposed Childcare Centre bus services from Butler Station can be accessed with a 200m-250m walk (2-3 minute walk time) and train services from Butler Station can be accessed with a 300m walk (3-4 minute walk time).

Bus services – bus routes from Butler Station provide connections to the residential areas to the north of the proposed Childcare Centre via Hollington Boulevard and Santorini Promenade, and connection to the residential areas to the southeast and southwest of the proposed Childcare Centre via Benenden Avenue, Landbeach Boulevard (to the southeast) and Camborne Parkway (to the southwest).

Train services – train service operate from Butler Station and provide connections south to Joondalup, Stirling, Leederville, Perth Underground, Elizabeth Quay and through routed train services to Canning Bridge, Murdoch, Cockburn, Rockingham and Mandurah.

Figure 13 shows the location of the proposed Butler Childcare Centre site in relation to public transport routes.



Figure 13 Public transport network in vicinity of the proposed Butler Childcare Centre site (source: City of Wanneroo and Department of Transport, Wanneroo-North Active Travel Map)

The closest bus stops to the proposed Butler Childcare Centre site are shown in Figure 14. The bus stands at Butler Station are a 200-250m walk from the site, via the proposed new 1.5m footpath along the southern side of the Childcare Centre and across the raised pedestrian crossing over Exmouth Drive to access Butler station.

Butler Station also provides train services to the south towards central Perth, with the station platforms a 300m walk from the Childcare Centre site – and accessed via the same safe high quality pedestrian route as used to access the bus stands.

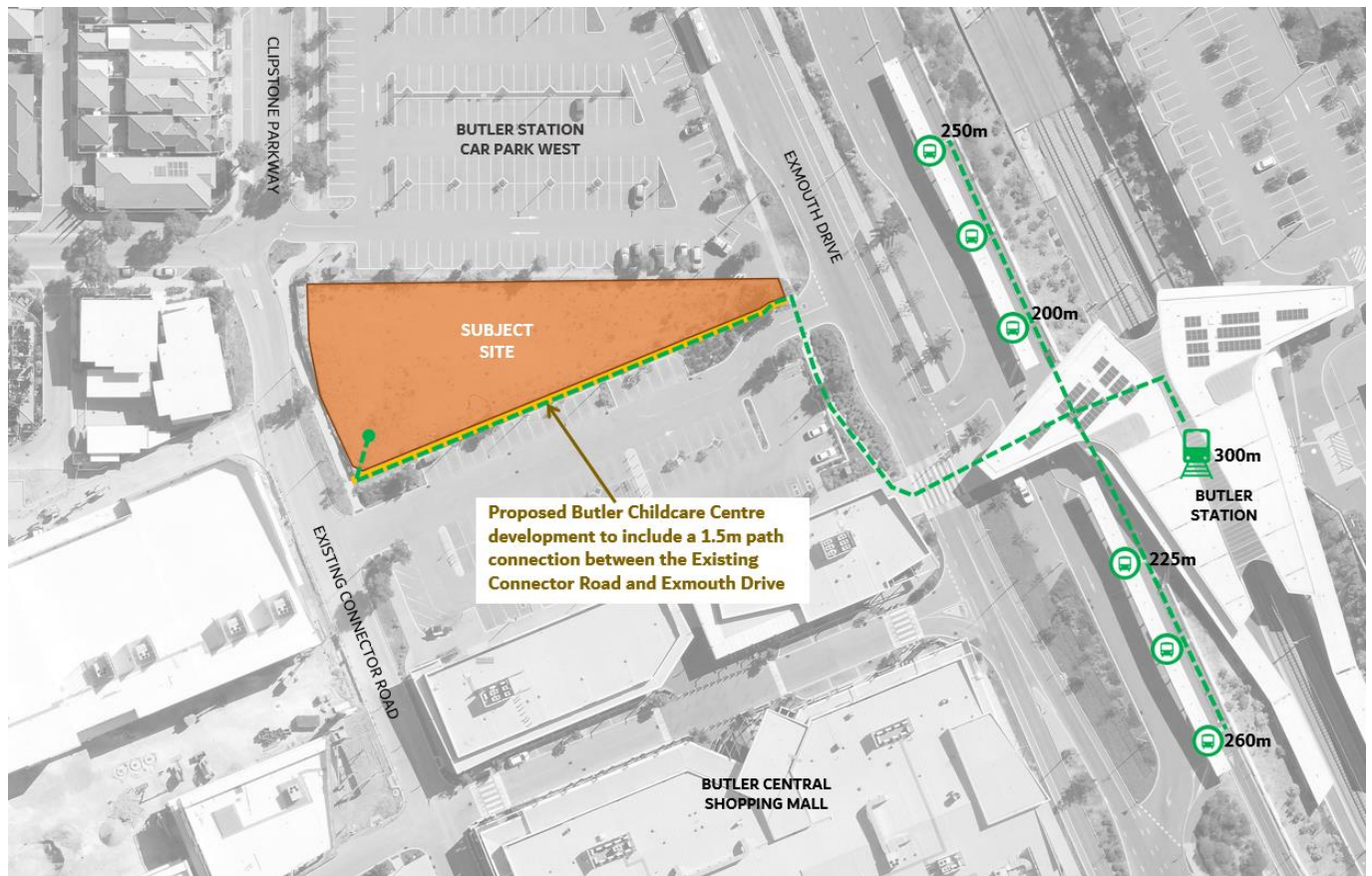


Figure 14 Walk distance from the proposed Butler Childcare Centre site to the closest bus and train services from Butler Station (aerial image source: MetroMap)

7.1.1 Bus Services

Bus routes serving the bus stands at Butler Station provide connections to the residential areas to the north and south of the proposed Butler Childcare Centre site. The following key bus routes are those that are most likely to be used by parents with their children to access the Childcare Centre:

- Bus Route 483
 - Route 483 operates between Clarkson Station and Alkimos via Merriwa and Butler Station. In proximity of the proposed Childcare Centre site the bus route operates via Camborne Parkway, Butler Boulevard, Butler Station, Mansfield Avenue, Hollington Boulevard and Santorini Promenade.
 - Weekday bus services operate between 5am and 10pm – operating on a 10 minute frequency across a 2 hour AM and PM peak period – and operating on a 30 minute frequency outside of these times.
 - Saturday bus services operate between 6am and 10pm – operating on a 60 minute frequency.
 - Sunday bus services operate between 7am and 8pm – operating on a 60 minute frequency.

- Bus Route 484
 - Route 484 operates between Clarkson Station and Alkimos via Ridgewood and Butler Station. In proximity of the proposed Childcare Centre site the bus route operates via Benenden Avenue, Butler Station, Butler Boulevard, Landbeach Boulevard and Shepperton Drive.
 - Weekday bus services operate between 5am and 8pm – operating on a 10 minute frequency across a 2 hour AM and a 12 minute frequency across a 2 hour PM peak period – and operating on a 30 minute frequency outside of these times.
 - Saturday bus services operate between 6am and 8pm – operating on a 60 minute frequency.
 - Sunday bus services operate between 7am and 7pm – operating on a 60 minute frequency.

7.1.2 Train Services

Butler Station is an end of line station on the Joondalup Line and provide connections south towards central Perth. From Butler Station the following key locations can be accessed without the need to transfer train services/train lines; Joondalup, Stirling, Leederville, Perth Underground, Elizabeth Quay and through routed train services to Canning Bridge, Murdoch, Cockburn, Rockingham and Mandurah.

Butler Station provides access to the following rail services:

- Butler Station services operate towards Perth (38 minute journey time):
 - Weekday rail services operate between 5am and 11.30pm – operating on a 10 minute frequency during the morning and afternoon peak periods and operating on a 15 minute frequency at other times (other than after 8pm where services operate on a 30 minute frequency).
 - Saturday rail services operate between 5.30am and 11.30pm – operating on a 15 minute frequency (other than after 8pm where services operate on a 30 minute frequency).
 - Sunday rail services operate between 7am and 11.30pm – operating on a 15 minute frequency (other than after 7pm where services operate on a 30 minute frequency).

8. PEDESTRIAN ACCESS AND AMENITY

8.1 Existing Pedestrian Network

The proposed Butler Childcare Centre site is located in a central area of Butler adjacent to Butler Station and Butler Central Shopping Mall and has good levels of pedestrian connectivity with footpaths on both sides of most surrounding streets.

The Walk Score walkability assessment tool considers the proposed Butler Childcare Centre site to be “car-dependent” where almost all errands require a car, with a walk score of 19 out of 100. The 15-minute walkable catchment is shown in Figure 15, which includes destinations such as Butler Station, Butler Central Shopping Mall and John Butler Primary College.

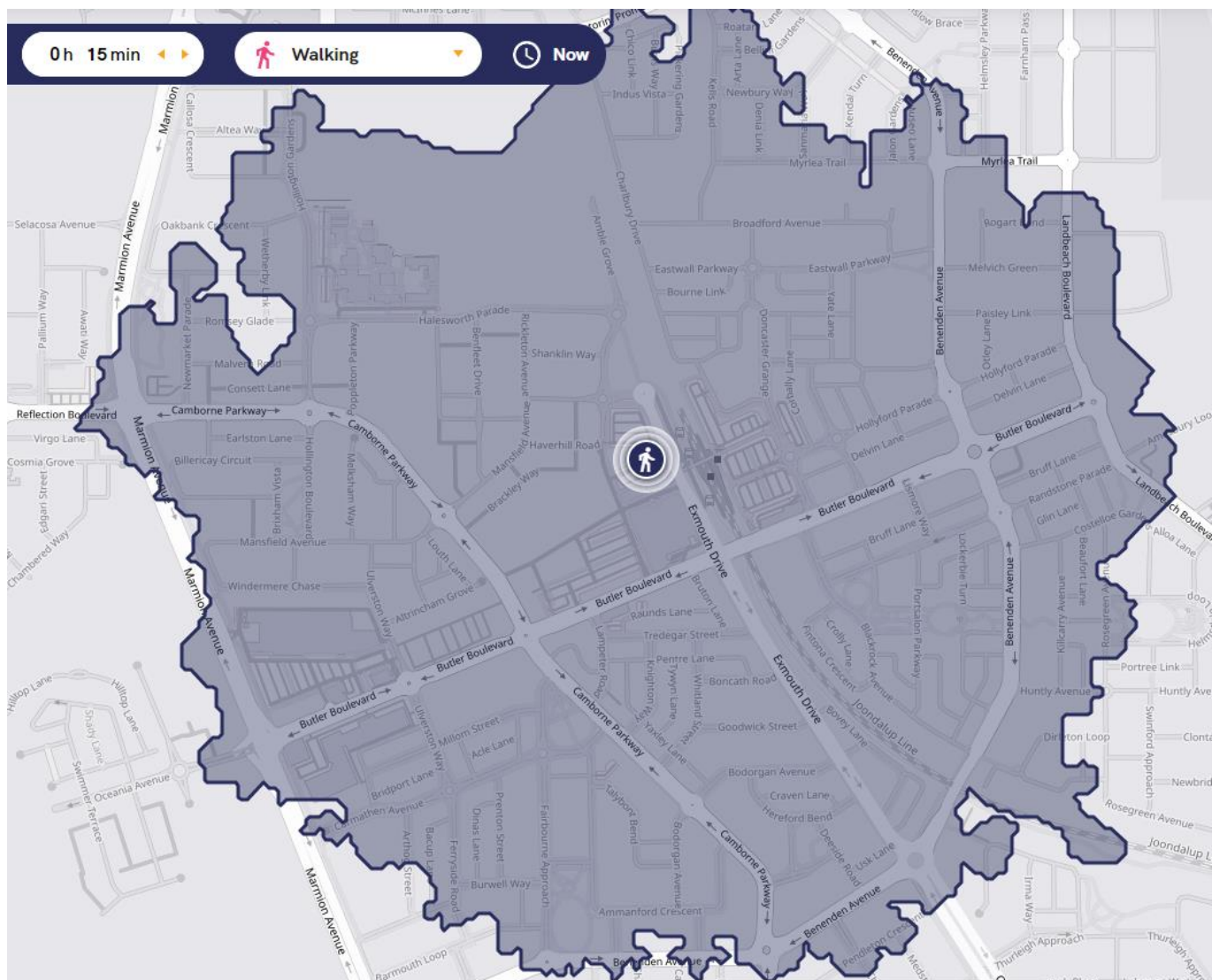


Figure 15 TravelTime Map 15 minute walking catchment from the proposed Butler Childcare Centre site (source: TravelTime)



The Department of Planning, Lands and Heritage (DPLH) recently released the Urban Tree Canopy Dashboard which provides an interactive snapshot of the extent of tree canopy coverage across the Perth and Peel regions. The urban tree canopy is an essential part of creating healthy, liveable neighbourhoods, where more dense and mature tree canopies can support active travel along walking and cycling paths.

The Perth Metropolitan area has an average of 12% canopy cover from trees over 3m tall in street blocks. In 2018, the street blocks in the City of Wanneroo had 7% canopy cover from trees over 3m tall, resulting in 93% of the street block area without any canopy cover. In 2018, the street blocks in the suburb of Butler had 2% canopy cover from trees over 3m tall, resulting in 98% of the street block area without any canopy cover – as shown in Figure 16.

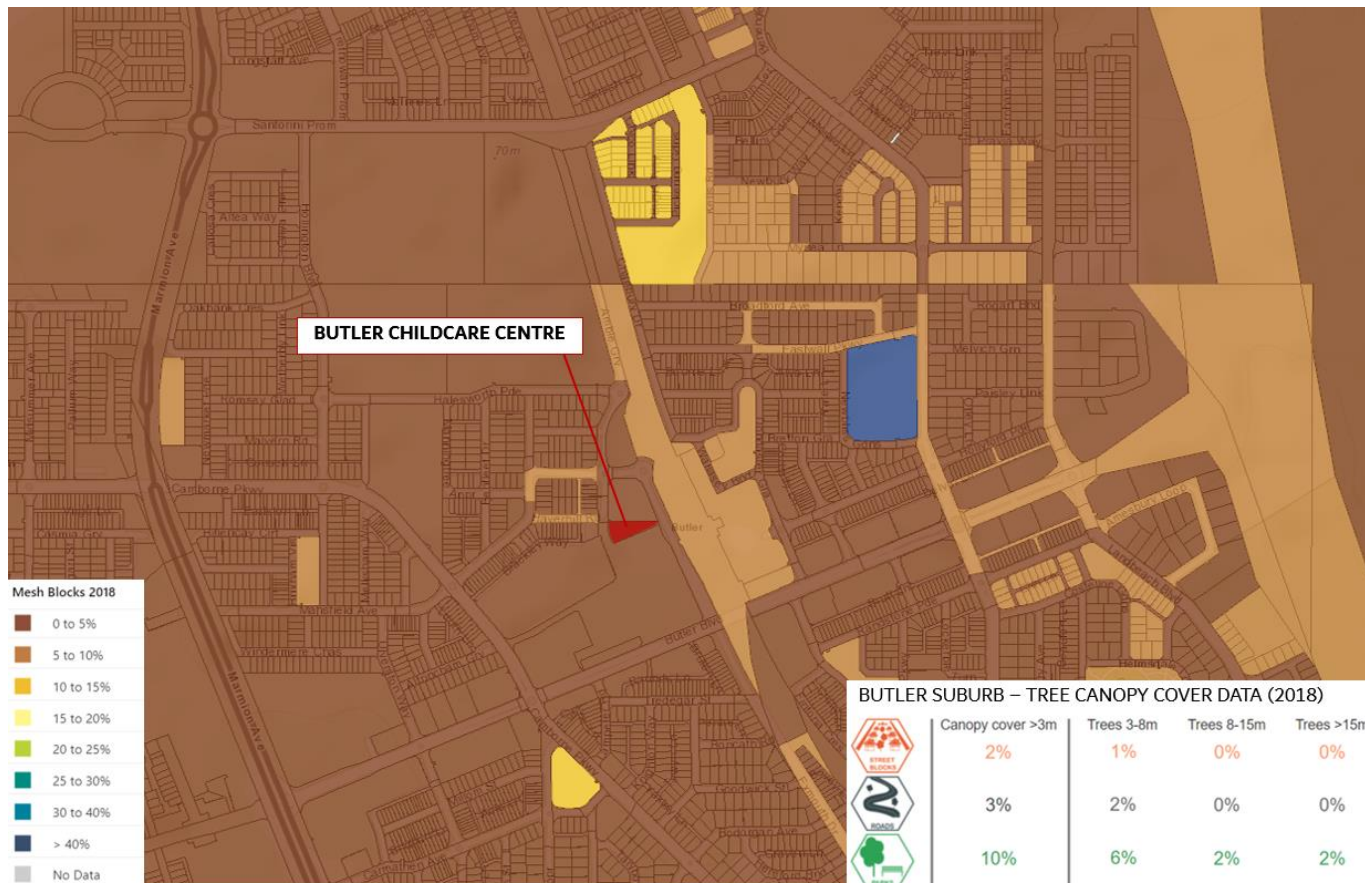


Figure 16 Central Butler urban tree canopy (source: Department of Planning, Lands and Heritage)

The very low street block tree canopy cover with trees greater than 3m high, is reflective of the recent development and build-out of the Butler suburb. Over time street trees planted as part of the development of the suburb will grow and mature and increase the tree canopy cover.

8.2 Development Proposals

The development proposals for the Butler Childcare Centre include a proposed 1.5m wide footpath along the southern side of the Childcare Centre building – providing a footpath connection between the existing footpaths along the Existing Connector Road and Exmouth Drive.

The new footpath connection would enable pedestrians to walk safely between the proposed Childcare Centre and Butler Station and Butler Central Shopping Centre.

Figure 17 shows the location of the proposed connecting footpath infrastructure.



Figure 17 Connecting footpath infrastructure for the Butler Childcare Centre (base plan source: Peter Hobbs Architects, 2022)

9. BICYCLE ACCESS AND AMENITY

9.1 Existing Cycle Network

The proposed Butler Childcare Centre site has a good level of bicycle accessibility, with the existing cycle network shown in Figure 18.

A Principal Shared Path (PSP) runs along the western side of the Joondalup Line rail corridor and provides access from the south to Butler Station at the end of the Joondalup Line. From the PSP the local path network provides access to the proposed Childcare Centre.

Butler Boulevard to the south of the proposed Childcare Centre includes regular shared paths on both the northern and southern sides of the corridor.

A network of regular shared paths to the north of the proposed Childcare Centre provide a connections between residential areas to the north and the Childcare Centre site.

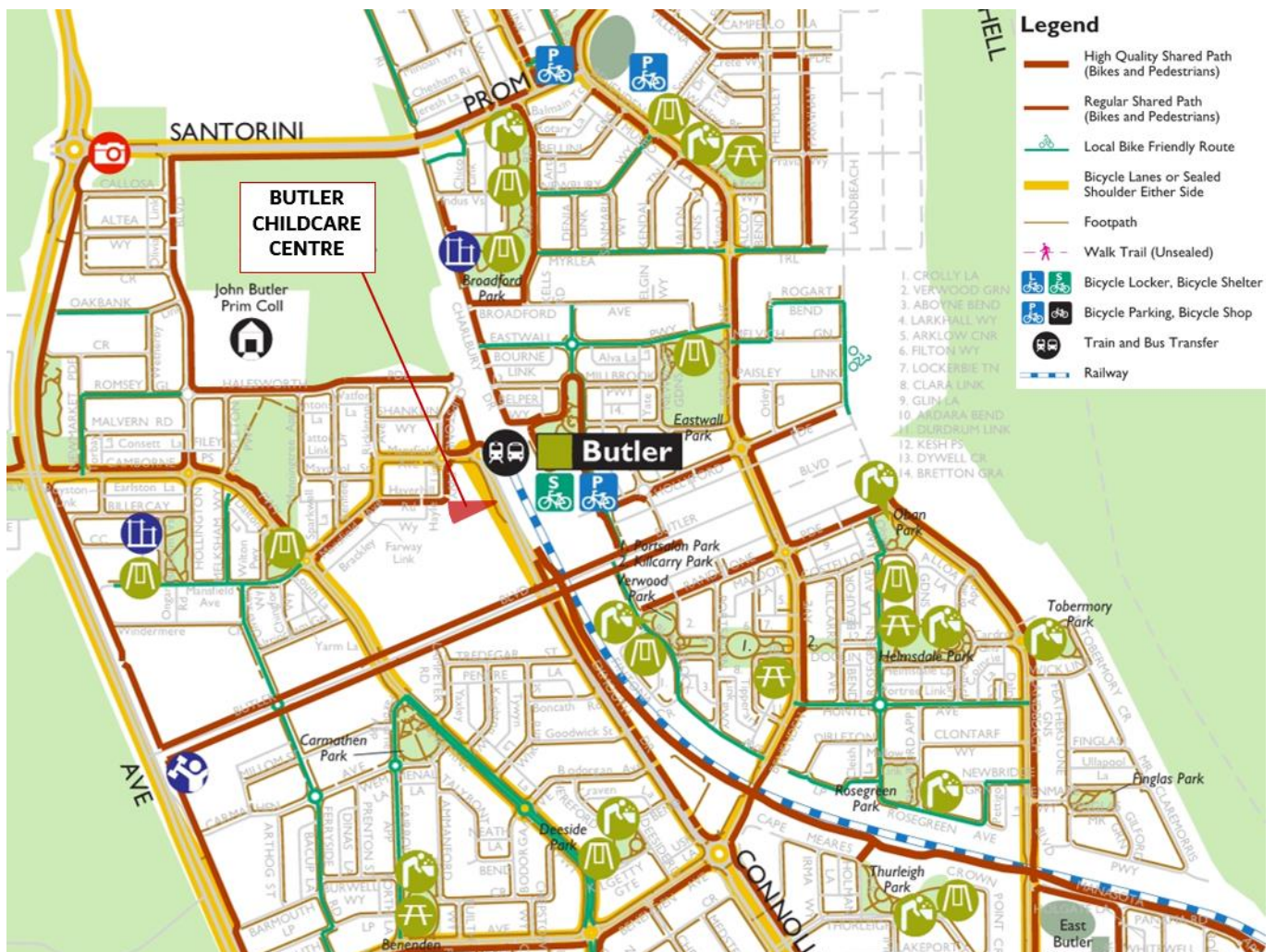


Figure 18 Existing bicycle network surrounding the proposed Butler Childcare Centre site (source: City of Wanneroo and Department of Transport, Wanneroo-North Active Travel Map)

A heatmap of cycle activity in the vicinity of the proposed Butler Childcare Centre site is shown in Figure 19. This is produced by cyclists tracking their trips using the commercial product Strava. The local regular shared paths in the residential areas to the north of the Childcare Centre site are well used bicycle routes, as well as higher order bicycle routes along Butler Boulevard and the Joondalup Line PSP.

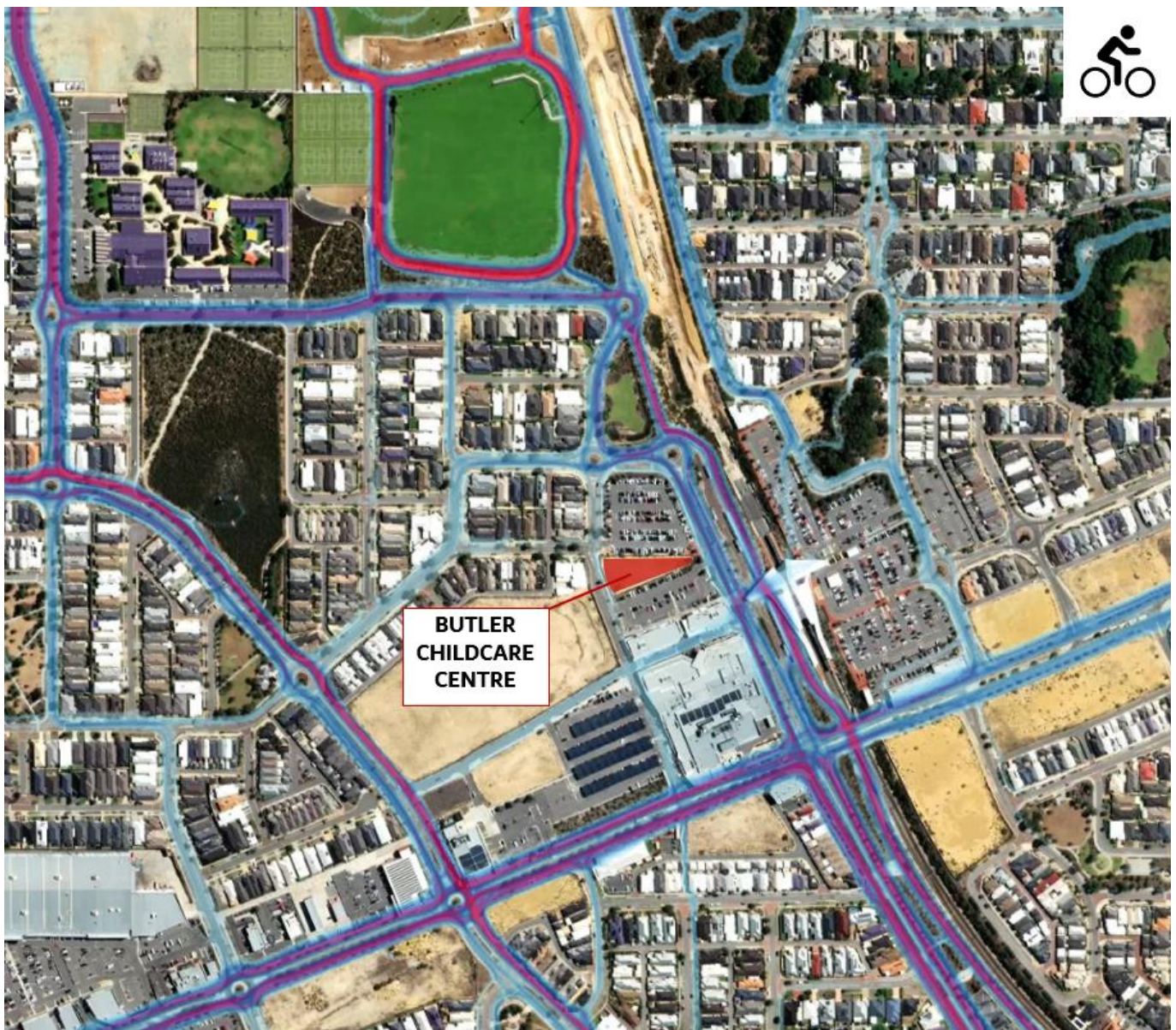


Figure 19 Strava heatmap for cycling in vicinity of the proposed Butler Childcare Centre site (source: Strava)

9.2 Future Cycle Network

Between 2018-2020 the Department of Transport worked with 33 local governments across Perth and Peel on the Long Term Cycle Network (LTCN) project. The LTCN project has been a collaboration between State and local governments to agree on an aspirational network of bicycle routes that link parks, schools, community facilities and transport services, to make cycling a convenient and viable option for more people and more journeys.

The aim of the project was to develop an aspirational blueprint to ensure State and local governments work together towards the delivery of one continuous cycling network providing additional transport options, recreational opportunities and support for tourism and commercial activity.

In June 2020 the City of Wanneroo Council endorsed their LTCN – from July 2020 the LTCN is eligible for the City to seek grant funding support from DoT to deliver bicycle infrastructure along the identified routes – as shown in Figure 20.

The identified LTCN shows the long term goal to extend the Primary Route along the Joondalup Line (the existing PSP) north of Butler Station with the northern extension of the rail line. This would extend the northern cycling catchment of the site to residential catchments along the rail corridor to the north of the Childcare Centre site.

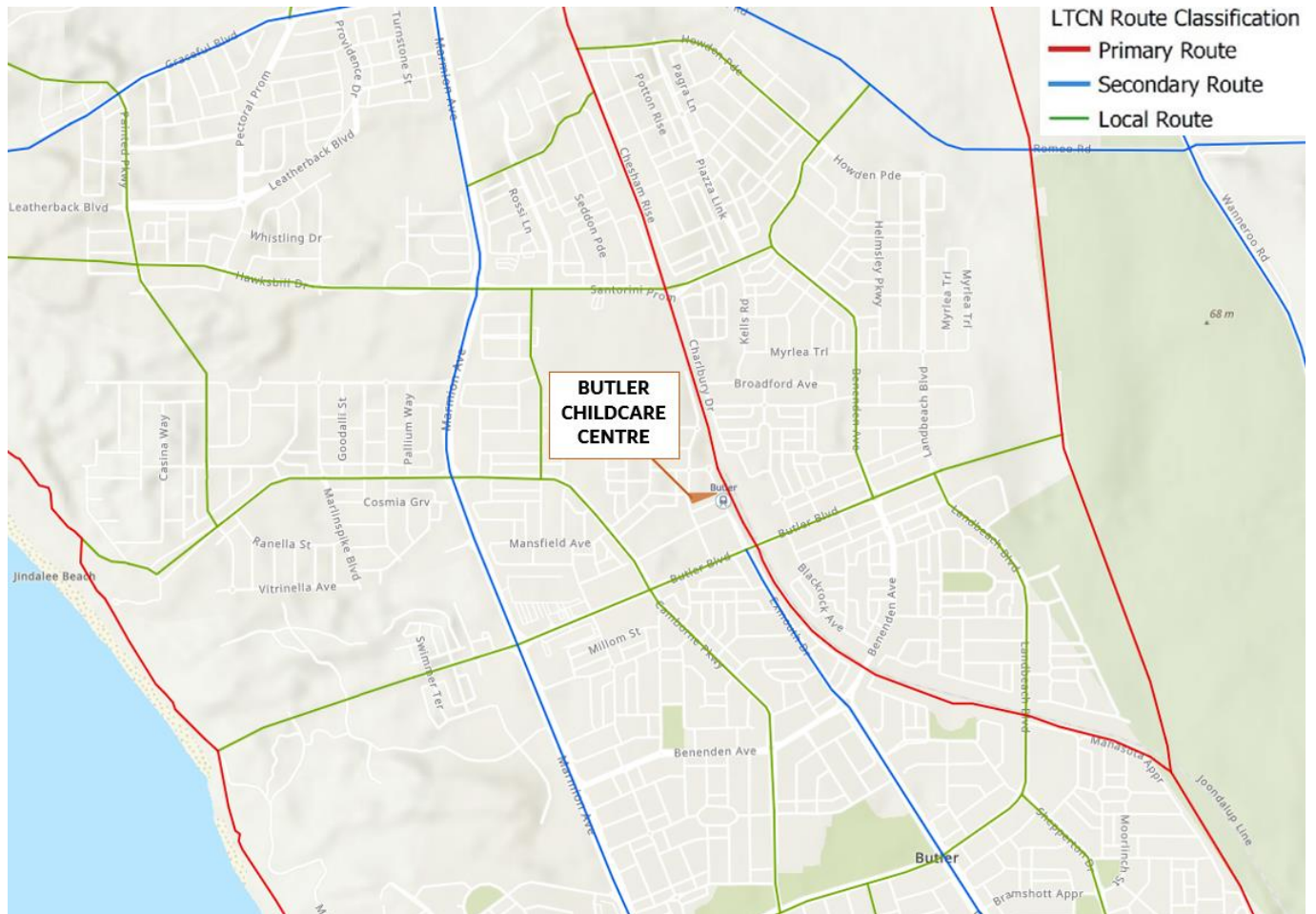


Figure 20 Long Term Cycle Network in vicinity of the proposed Butler Childcare Centre (source: Department of Transport)

10. SITE SPECIFIC ISSUES

There are no additional site specific issues that are required to be addressed as part of this TIS.

11. SAFETY ISSUES

11.1 Crash History

In the five-year period ending November 2020, there were the following reported crashes within immediate proximity of the proposed Butler Childcare Centre site:

- Exmouth Drive x4 crashes
 - x1 midblock crash south of Exmouth Drive roundabout – single vehicle collision with an animal resulting in major vehicle property damage.
 - x1 midblock crash to the north of the access to the existing Butler Central Shopping Mall northern car park – collision between two vehicles, one exiting on-street parking bay resulting in major vehicle property damage.
 - x1 midblock crash to the south of the access to the existing Butler Central Shopping Mall northern car park – collision between two vehicles, one exiting on-street parking bay resulting in minor vehicle property damage.
 - x1 intersection crash at the intersection of Exmouth Drive and the existing Butler Central Shopping Mall Central Avenue – collision between two vehicles resulting in minor vehicle property damage.

No other crashes were reported during the five-year period ending November 2020 on any other boundary road to the proposed Butler Childcare Centre site.

Figure 21 shows the recorded location of the reported crashes (blue dots) in relation to the proposed Butler Childcare Centre site.

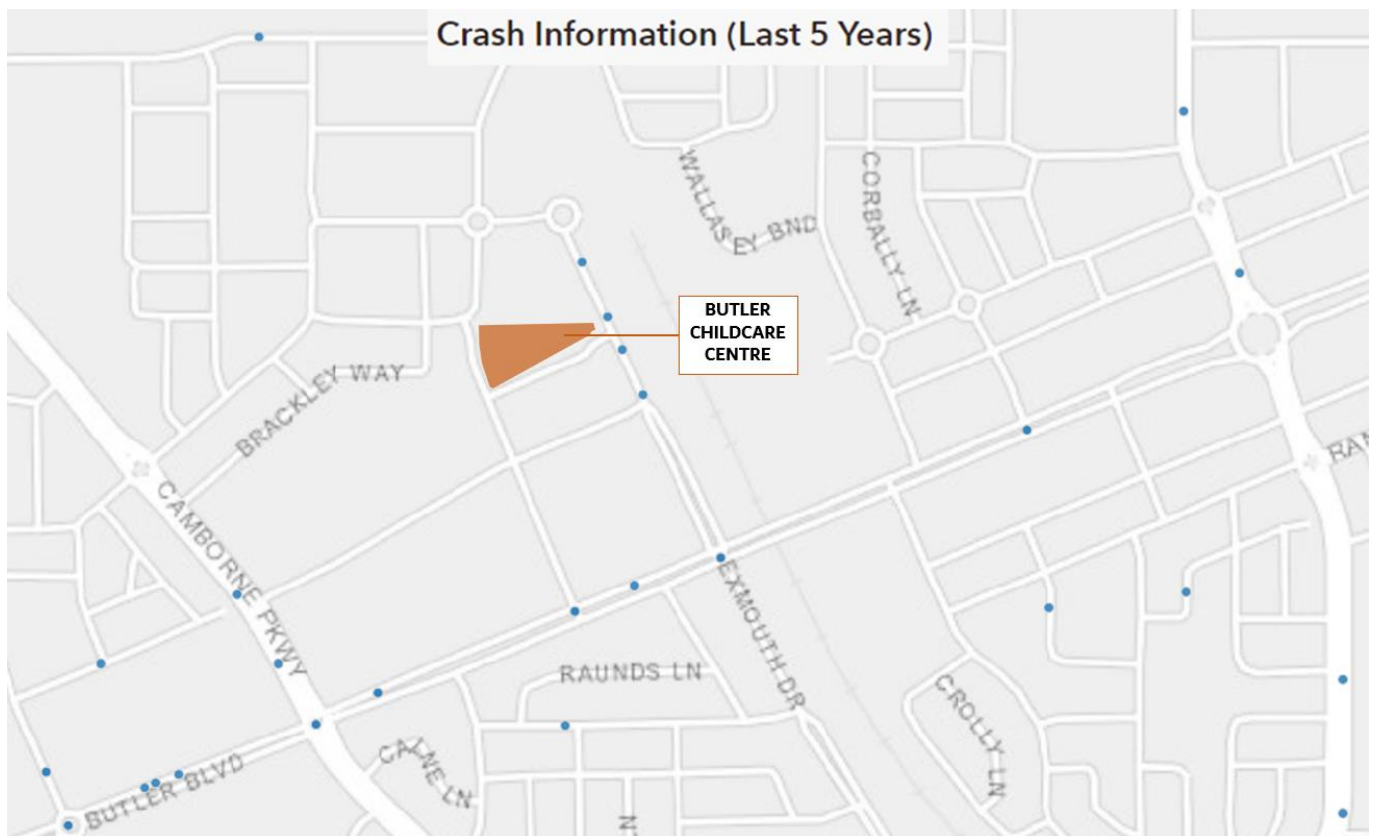


Figure 21 Crash Summary for five-year period ending November 2020 in proximity to the proposed Butler Childcare Centre site (source: Main Roads WA)

12. SUMMARY

12.1 Development Proposals

This TIS has been prepared by Flyt in support of the proposed development of the current vacant land at 121 Exmouth Drive, Butler – into a Childcare Centre.

The proposed development of the existing vacant land into a Childcare Centre can be summarised as comprising:

- Childcare Centre to accommodate 92 children
 - 22 children between the ages of 0-2 years
 - 30 children between the ages of 2-3 years
 - 40 children of kindergarten (kindy) age
- Childcare Centre to be serviced under the following staff arrangements:
 - 15 educators (Monday-Friday, full time)
 - Additional part-time educators covering staff breaks (Monday-Friday, 10am-3pm)
 - 1 chef (Monday-Friday, half day)
 - 1 centre area manager (visits site once or twice a week between 10am-3pm)

12.2 Vehicle Access and Parking

The proposed Butler Childcare Centre is located at 121 Exmouth Drive in Butler. The site has boundaries with the Public Transport Authority Butler Station car park to the north, Exmouth Drive to the east, Butler Central Shopping Mall car park to the south and Butler Central Shopping Mall access road to the west.

The proposed Butler Childcare Centre will have approximately 18 staff and 92 children on-site. The site has the following parking requirements under the City of Wanneroo Local Planning Policy 2.3:

- Staff parking bays 15 bays (for full-time staff)
- Parent drop-off / pick-up parking bays 14 bays
- **TOTAL REQUIRED PARKING BAYS 29 BAYS**

The proposed Butler Childcare Centre is located adjacent to Butler Central Shopping Centre Mall northern car park. The northern car park contains 94 standard parking bays and 4 universal access parking bays – a total of 98 parking bays.

The 14 parking bays in the northern Shopping Centre car park located nearest to the entrance of the proposed Butler Childcare Centre would be utilised by parents dropping-off and picking-up children at the Childcare Centre. These bays will provide direct access to the footpath to be constructed along the southern side of the Childcare Centre.

It is expected that the following factors will reduce the demand of parent parking at the site:

- Activity Centre location creating opportunities for multi-use trips.
- Higher density area resulting in significant number of families within the walkable catchment.
- Proximity to the train station and associated parking areas, particularly the likelihood of parents combining drop off / pick up with their daily commute via bus or rail.
- Extent of public train station parking available, which may be used by parents commuting and using the childcare facility.

These above factors are all unique to the proposed site of the Butler Childcare Centre site and would not apply under a typical Childcare Centre scenario. With these factors considered, parent parking demand is expected to be reduced.

Of the 15 full-time staff it is expected that some may drive to the site and others will car pool or use public transport to access the site. In this regard, it is noted that the site is a short 3 minute walk from Butler Station providing access to bus and train services. As such, the site is conveniently located to be accessed by public transport services.

Additional support staff would attend the site over the course of a day to perform various support functions. These staff are not present at the site for a whole day and are typically in attendance outside of the peak pick-up / drop-off periods (when there is no parent parking demand). Ample opportunity for support staff to attend the site is expected, given there is a significant amount of parking available in the immediate area, as well as excellent access to alternate modes of transport.

12.3 Provision for Service Vehicles

A separate Waste Management Plan has been prepared to support the Development Application for the Butler Childcare Centre. Please see the Waste Management Plan for all details of the planned waste collection regime for the development proposal.

12.4 Traffic Impact

The proposed Butler Childcare Centre is estimated to generate a total of 82 vehicle trips to/from the site during the development AM peak hour and 66 vehicle trips to/from the site will occur during the development PM peak hour.

The proposed Butler Childcare Centre is unlikely to generate significant additional vehicle trips on the road network – many of the vehicle trips to drop-off and pick-up children from the Childcare Centre would be part of a linked trip already being made. The majority of linked trip will be part of the parents commute to their place of work and/or school drop-off / pick-up of older children.

The Childcare Centre will generate more vehicle movements during the development AM peak hour (more concentrated child drop-off activity) as opposed to during the development PM peak hour (more dispersed child pick-up activity).

Whilst the AM peak hour drop-off activity at the proposed Childcare Centre is more concentrated than the PM peak hour, the site benefits from far lower levels of localised vehicle activity associated with Butler Central Shopping Mall during the AM peak hour, as well as the traffic volumes on Butler Boulevard indicating lower levels of traffic on the local road network during the AM peak hour compared to the PM peak hour. The AM peak traffic represents 43% of combined AM and PM peak hour movements, compared to the PM peak traffic representing 57% of combined AM and PM peak hour movements.

It is expected that the following factors will reduce the demand of parent parking at the site:

- Activity Centre location creating opportunities for multi-use trips.
- Higher density area resulting in significant number of families within the walkable catchment.
- Proximity to the train station and associated parking areas, particularly the likelihood of parents combining drop off / pick up with their daily commute via bus or rail.
- Extent of public train station parking available, which may be used by parents commuting and using the childcare facility.

These above factors are all unique to the proposed site and would not apply under a typical Childcare Centre scenario. With these factors considered, parent parking demand is expected to be reduced.

12.5 Public Transport Access

The proposed Butler Childcare Centre site is conveniently located to be accessed by public transport services – these include bus and train services from Butler Station.

From the entrance of the proposed Childcare Center bus services from Butler Station can be accessed with a 200m-250m walk (2-3 minute walk time) and train services from Butler Station can be accessed with a 300m walk (3-4 minute walk time).

Bus services – bus routes from Butler Station provide connections to the residential areas to the north of the proposed Childcare Centre via Hollington Boulevard and Santorini Promenade, and connection to the residential areas to the southeast and southwest of the proposed Childcare Centre via Benenden Avenue, Landbeach Boulevard (to the southeast) and Camborne Parkway (to the southwest).

Train services – train services operate from Butler Station and provide connections south to Joondalup, Stirling, Leederville, Perth Underground, Elizabeth Quay and through routed train services to Canning Bridge, Murdoch, Cockburn, Rockingham and Mandurah.

12.6 Pedestrian Access

The proposed Butler Childcare Centre site is located in a central area of Butler adjacent to Butler Station and Butler Central Shopping Mall and has good levels of pedestrian connectivity with footpaths on both sides of most surrounding streets.

The site's 15-minute walkable catchment includes destinations such as Butler Station, Butler Central Shopping Mall and John Butler Primary College – as well as residential areas fringing central Butler.