

Victoria Walks Inc.
Level 7, 225 Bourke Street
Melbourne VIC 3000
P: 03 9662 3975
E: info@victoriawalks.org.au
www.victoriawalks.org.au
Registration No. A0052893U



Croydon South Walkability Assessment

1. Introduction

1.1 20-Minute Neighbourhood Pilot Program

Croydon South, in the Maroondah City Council area of the eastern suburbs of Melbourne, is a part of the State Government's *20-Minute Neighbourhood Pilot Program*. The Program seeks to create a city of inclusive, vibrant and healthy neighbourhoods where residents can access most of their daily needs including local services and facilities within a *20-minute* journey from home.

Neighbourhoods perform a central role in our city and represent an integral part of community life and local living. *Plan Melbourne 2017-2050* outlines a concept of '20-minute neighbourhoods' to help create more healthy, cohesive and socially sustainable communities.

The 20-Minute Neighbourhood Pilot Program is currently being led by the Department of Environment, Land, Water and Planning (DELWP) in partnership with Victoria Walks, the Heart Foundation and select councils to test the concept of a 20-minute neighbourhood based on hallmarks established in *Plan Melbourne*. Neighbourhoods include:

- 1. Croydon South, Maroondah City Council
- 2. Glengala, City of Brimbank
- 3. Strathmore, Moonee Valley City Council.

1.2 Croydon South – description

The Croydon South centre, also known as the Eastfield shops, sit on the south side of the intersection of Bayswater and Eastfield Roads. This is a signalised intersection with slip lanes on all four corners.

Bayswater Road is a significant north-south arterial with traffic volumes around 15,000 vehicles per day¹ and a speed limit of 70 km/h. However, it generally has only one lane in each direction, except at the signalised intersections, where additional lanes are provided.

Eastfield Rd is a significant east-west traffic connection, with a 60km/h speed limit.

Most businesses in the centre front The Mall, a small, recently traffic-calmed street on the southeastern side of the intersection. Most of the space between The Mall and the intersection is

¹ VicRoads (2018). Traffic Volume Data for Victoria, April 2018.

taken with free car parking that is not time restricted. While this makes it something of an autooriented centre, the car parking area is reasonably modest in size, well landscaped and due to the topography sits below the main roads, so does not overly dominate the centre. A service lane provides access to the rear of the main line of shops. Behind that runs Tarralla Creek, however this has been developed as a large stormwater drain.



Figure 1 – The Mall

Businesses in the main part of the centre are cafés (3); organic store (selling a wide range of products including meats and extensive fruit and veg); bakery (2); superette; milk bar; fish and chips; Chinese, noodle and pizza (2) restaurants; hairdressers (2); accountant; dentist; chiropractor; acupuncture; chemist; electronic goods; and a newsagent.

There are also a small number of shops on the western side of Bayswater Rd – the Post Office; property development office; bottlestore; international, burger and Indian restaurants.

Taken together, the businesses in the centre offer a product range that would meet most daily needs, although perhaps at a higher price than a centre with a full-line supermarket. Also notable is the absence of a GP.

Other features

Topography is a significant feature of Croydon South. Bayswater Rd essentially sits in a valley, with the land sloping fairly steeply up to the west and more moderately up to the east. North of Eastfield Rd, Bayswater Rd is on the side of the slope, with Tarralla Creek at the bottom. The land to the north-east of the centre including Eastfield Park is relatively flat.

Other features and destinations likely to impact on walking in and around the catchment include:

- To the south, Tinternvale Primary School is within easy walking distance (8-900m). At a similar distance there is a small group of (seemingly struggling) shops at the corner of Tintern Ave and Bayswater Rd.
- To the west, Maroondah Hospital is on the edge of the 1600m walkable catchment. The Ringwood East centre (and railway station) is similar in size to South Croydon and around 2km walking distance. There is also a primary school and secondary school in this area. Due to the steep slope up Eastfield Rd to this area, residents from approximately Andrew Cres west are more likely to walk to East Ringwood than Croydon South.

- The railway line creates a barrier to walking from the outer north-west areas of the catchment.
- The larger Croydon activity centre is 1.5-2 km north of the centre. Residents of some areas in the north of the catchment may be more likely to walk to Croydon, although Mt Dandenong Rd may act as a deterrent to walking to the northern parts of that centre.
- Public transport is very limited. The nearest railway station is at Ringwood East, but very few people in Croydon South are likely to walk to it, given the topography and distance. The primary public transport service is a bus route along Bayswater Rd.

1.3 Assessment process

The primary routes selected for auditing were based on the following considerations:

- All of the routes with potential for more than 600 trips (yellow, orange and red on the demand map in **Figure 1**).
- Some additional streets within the core 800m catchment that were predicted to support a substantial number of pedestrian trips, based on the PPN or other desktop analysis.
- Walking routes to the secondary destinations of Maroondah Hospital, Ringwood East Station and the Croydon leisure centre (Aquahub).

A map of routes identified for assessment can be seen in **Figure 2**.

Victoria Walks conducted on-site walking assessments on 25 June and 2-3 July 2018 to report on walkability in the area. The assessment was conducted during daylight hours and did not generally include street lighting.

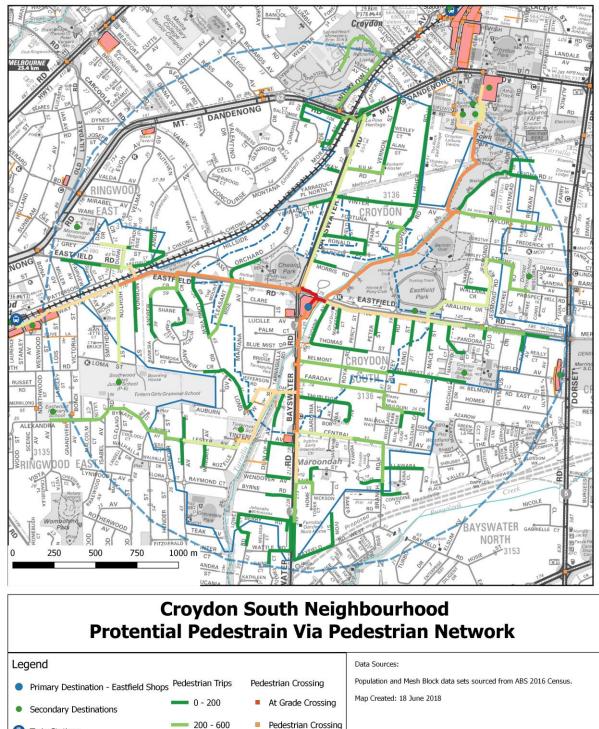
As a result of on-site consideration of topography, Railway Ave was not assessed between Highton Street and Ringwood East Station. Given the topography and distance (approximately 2km), it was considered highly unlikely that significant numbers of people will be walking to East Ringwood from Croydon South.

To support the on-the-ground assessment, assessors have also:

- Reviewed <u>VicRoads Declared Roads</u> information to see that Bayswater Rd is the only roads managed by VicRoads in the core study area.
- Considered other relevant information provided to Victoria Walks by Maroondah City Council.

This Walkability Assessment Report identifies the issues and provides preliminary recommendations for the Croydon South area. Victoria Walks will work with council staff to refine and develop infrastructure treatment options and recommendations following the delivery of this report. This will support councils to develop Pedestrian Infrastructure Improvements Reports.

PPN Demand Map



Primary Destination - Eastfield Shops
Secondary Destinations
Train Stations
Primary Catchment (1600m)
Walkable Catchment (800m)
Primary Destination - Eastfield Shops
Pedestrian Trips
At Grade Crossing
Pedestrian Crossing
Pedestrian Crossing
Activity Centres
Primary Catchment (1600m)
Table Catc

Figure 2. Estimated demand for walking routes to Croydon South centre

Routes identified for Assessment

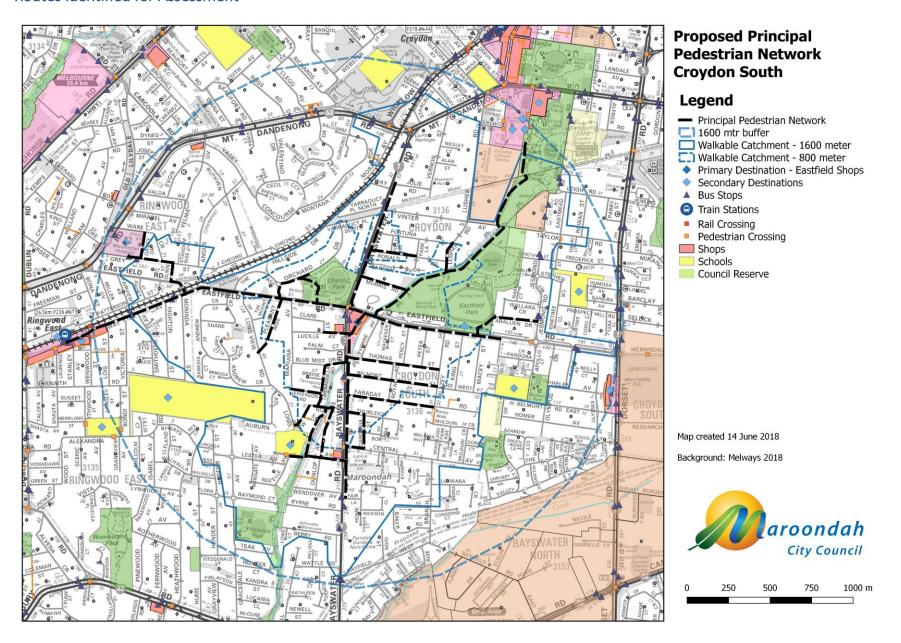


Figure 3. Key routes identified for assessment (prior to on-site evaluation)

Croydon South Walkability Assessment, Victoria Walks, July 2018

2. Walkability Map and detailed recommendations

This report is supported by an <u>online Walkability Map</u>. The Walkability Map details the walkability assessment, shows areas for improvement and was the basis of this report.

The table in Section 5 sets out all the site-specific issues identified in the assessment and the primary recommendations in response to those issues. That section allocates a priority (high, medium, low) to each of the recommendations.

The <u>online Walkability Map</u> provides further detail – the exact location and photograph(s) to illustrate the issue.

In addition to this log there is a list of minor maintenance issues at **Appendix 1**.

3. Assessment overview

This section provides an overview of the most notable issues for each area assessed. Where applicable, additional recommendations are identified to address issues not entirely captured in Section 5. Additional work with Council staff may be needed to fully develop an approach to suit the local area, but we have provided preliminary recommendations for improvement.

The issues identified in the assessment tend to be on the main roads, where traffic volumes and speeds are generally higher. The residential areas in the catchment are generally pleasant for walking, with low traffic volumes and good footpaths. Street tree coverage varies, but is generally either currently good or with existing smaller trees that appear to have the potential to grow into larger trees providing more shade in the future.

One of the most common issues identified in the assessment is the potential for high speed turning from main roads. Victoria Walks research <u>Safer Road Design for Older Pedestrians</u> identified right-turning and to a lesser extent left-turning vehicles (usually failing to give way) as the most common crash scenarios. This is a particular concern on Bayswater Rd, where many of the intersections have a splayed configuration that would allow fast turning. The footpath also tends to be some distance from the roadway. While theoretically this allows drivers to move off the main road before giving way, this may not be realistic, and also means pedestrians crossing side streets will be less conspicuous to vehicles on Bayswater Rd.



Figure 4 – common intersection configuration on Bayswater Rd

Victoria Walks considers this assessment to be somewhat conservative in that it does not recommend a uniform roll-out of high quality pedestrian infrastructure across the catchment, or multiple pedestrian crossings of major roads. That level of infrastructure might be required to give the majority of parents confidence to allow young children to walk independently, for example. Similarly, we have not

recommended the level of infrastructure that would be desirable to facilitate walking by people with impaired vision. Nonetheless we have given some consideration to the mobility needs of these groups. We have sought to provide for people who are constrained by a wheeled device such as a stroller, wheel chair or mobility scooter.

This conservative approach is also evident in the prioritisation of works. For example a number of streets were identified that did not have footpaths, or had a footpath on one side only. However we have not always recommended that a footpath be provided and, where we have, it is often identified as a lower priority for action. A lower priority recommendation should not be interpreted as unimportant, it simply reflects our relative consideration of the most important issues to address in order to improve pedestrian safety and amenity across the entire walking catchment. Works closer to the centre, where the highest number of people are likely to walk, have typically been given a higher priority than sites further away.



Figure 5 – a number of streets in Croydon South have no footpath, or only on one side

3.1 The Croydon South centre

We have made a number of recommendations in Section 5 to improve pedestrian connection, safety and amenity in the centre. The most important of these is provision of a pedestrian crossing of Bayswater Rd at Lucille Ave. This crossing would serve three key purposes:

- Provide access between businesses on either side of the centre, which straddles Bayswater Rd
- 2. Provide access to The Mall for people walking to the centre from the south-west.
- 3. Provide better access to the bus stops on either side of the road for people to the south of those stops.

While there is provision to cross at the signalised intersection, it is not realistic to expect people to do that, given that it would involve walking a total additional distance of about 300 metres (there and back).



Figure 6 – the current situation facing people wanting to cross Bayswater Rd in the centre (Lucille Ave)

Despite the presence of zebra crossings, the slip lanes at the intersection of Bayswater and Eastfield Roads are a concern. In our view, drivers tend to be focused on other traffic when approaching slip lanes. Victoria Walks is aware of pedestrians who have been killed on zebra crossings over slip lanes in Melbourne. We have recommended a number of changes at this intersection including construction of raised platforms for the zebra crossings to force drivers to slow and further highlight the need to give way.



Figure 7 – crossing at the intersection of Eastfield and Bayswater Roads

Tarralla Creek would seem to be a missed opportunity to provide a positive interface and approach to the centre. We have recommended that the council explore opportunities to naturalise the stream channel (point 3 in Section 5). This would be particularly important at the southern end of the centre, where the stream is a prominent feature of the approach but the concrete drainage channel and fencing does not present well. Subject to meeting drainage requirements, there may be an opportunity to turn a negative into a positive and make this an attractive landscape feature. It may also be possible to expand the centre somewhat and provide café's with outdoor dining overlooking this area.



Figure 8 – Tarralla Creek next to the centre. Not the aesthetic asset that it could be

There are no public toilets in the centre. The closest toilets are in Cheong Park, a walk of about 400m from the centre of The Mall, and there are no signposts at the centre to alert people to their availability. There are no drinking fountains or street furniture, apart from a picnic table in the open space area at the southern end of The Mall. Rubbish bins are provided.

Additional recommendations

- 1. Provide a public toilet, more seating and a drinking fountain in the centre, preferably on The Mall
- 2. As an immediate interim measure, erect signs advising of availability of toilets at Cheong Park.

3.2 West of the centre

The steep hill up Eastfield Rd is the most noticeable feature of this corridor and will limit walking in the area.



Figure 9 – on the return route from Maroondah Hospital, the footpath on the north side of Eastfield Rd ends at a critical point, the crossing of the railway line.

Eastfield Rd in this area is only one lane in each direction but is wide and traffic feels fast (60 km/h limit). The absence of a footpath along much of the northern side of Eastfield Rd is a significant issue given that it is not easy to cross. Council has some intention to address this, but Victoria Walks do not have detail plans and so have provided our own specific recommendations.

There are no pedestrian crossings of Eastfield Rd, apart from the intersection of Bayswater Rd. The intersection with Railway Ave is a particular concern, with fast moving and turning traffic and no crossing facilities. Discussions with people in this area suggest they often avoid crossing here because it is (probably correctly) perceived as dangerous.



Figure 10 – the intersection of Eastfield Rd (top, all the cars in this photo are on Eastfield Rd), Morinda St (right) and Railway Ave (left).

There was a notably high level of both vehicle and pedestrian traffic on the approaches to Maroondah Hospital. It is likely that many of the people walking are doing so after parking a car in surrounding streets, or are walking between the various medical related businesses and facilities in the area. We have recommended some improvements on the specific approach from Croydon South, but there is a need for a broader review of pedestrian access to the Hospital (recommended in point 75).

The railway line creates a barrier to accessing the centre for residents in the vicinity of Cheong St, who would otherwise be within fairly easy walking distance. Discussion with a local person suggests an informal path was previously available, until fencing was erected to prevent access to the railway line. Interestingly, she said that she used to walk to Croydon South that way, but now that it was closed, and given the problems with the intersection at Eastfield Rd and Railway Ave, she walked to Ringwood East instead. We have recommended (point 84) that the Council work with relevant railway agencies to promote provision for a pedestrian connection.

Walking to the centre by residents in the area around Andrew Cres and Auburn Grove is limited by the lack of pedestrian connection between Long View Rd and Mariana Ave. There is one property, at 41-43 Long View Rd, that has a frontage to both Long View Rd and the corner of Mariana Ave and Jefferson Rd. This could potentially provide an excellent shortcut, but unfortunately it appears that a large house has recently been constructed on that property. Nonetheless, this should be noted for possible acquisition as an open space link or securing a pedestrian connection as part of any future development.

3.3 Other areas





Figure 11 – common examples of lack of footpath connection to bus stops on Bayswater Rd

Bayswater Rd is a bus route, but pedestrian connections to the bus stops and capacity to cross this busy road to access the stops or other destinations is often limited. Many of our recommendations seek to address this.

Maroondah City Council is advocating to VicRoads for improvements that will include curb and channel, footpaths and pedestrian crossings.

East of the centre, Eastfield Rd has a split configuration with a service lane on the north side, separated from the main carriageway by a heavily vegetated landscape strip. Along with the fact that there are no side streets, this means that walking along the north side of the road is easy and pleasant.

The south side of Eastfield Rd is more conventional, with only a narrow nature strip approximately 1.5 metres wide separating the footpath from the road and a range of side streets to cross. These side streets

are generally configured with a standard design at a right-angle to Eastfield Rd, so the potential for fast turning into them is not unduly high. For that reason, we have identified desirable treatments without allocating them a high priority. Nonetheless, Eastfield Rd is fairly narrow for a major road, with no capacity for vehicles to wait to turn right without holding up the traffic behind. This may make drivers distracted and impatient to turn and therefore less likely to identify and give way to a pedestrian crossing a side road.



Figure 12 – typical north side of Eastfield Rd between Tarralla Creek Trail and park access at Blazey Rd

There is no pedestrian crossing of Eastfield Rd in the area, apart from the intersection of Bayswater Rd. We have recommended that a crossing be provided to connect directly into the footpath along The Mall at the centre. This is a critical need, because it would serve anyone wanting to walk to the centre from the north-east of the catchment, including the north side of Eastfield Rd and the Tarralla Creek Trail. People coming from the north along Bayswater Rd might also chose to use this crossing rather than the signalised intersection.



Figure 13 – Tarralla Creek Trail between Eastfield and Lusher Roads



Figure 14 – informal connection only between Morris Rd and Tarralla Creek Trail

would assist with passive surveillance.

We have also recommended raised zebra crossings on all legs of the roundabout at Blazey Rd. While this is not as high a priority as a pedestrian crossing at The Mall, it would facilitate walking to Eastfield Park by residents on the south side of Eastfield Rd. It would also have a general traffic calming effect, improving safety at the roundabout. While it is unusual to have raised crossings on a 60 km/h street, the current roundabout already makes that speed impractical at this particular point.

The Tarralla Creek Trail through Eastfield Park is typically very pleasant for walking, especially between Eastfield Rd and Lusher Rd, where it has the character of a forested corridor.

North of Lusher Rd the path effectively splits, and the western path is not so pleasant as it runs along the side of an industrial area. While the path was fairly well frequented when we visited, passive surveillance was generally poor. This is likely to deter some women from walking alone here, even during the day. At night a high proportion of people including many men would be deterred from walking alone.

We have recommended a number of measures to address this, including the provision of lighting, at point 9 in Section 5. Whatever measures are taken, however, it is likely that many people will remain wary of walking here at night. We have also recommended improving connections to surrounding streets and open space, which

South-west of the centre, Tintern Grammar was not identified for detailed assessment, but desktop assessment suggests that it is unnecessarily difficult to access from Croydon South (the main access points to the school are in Ringwood East). It would also appear to be a barrier to general pedestrian movement in the area. The potential for walking to and through this school appears to be highly limited by security fencing. This is an interesting contrast with the neighbouring Tinternvale Primary School, which enables pedestrian movement in the neighbourhood.

Additional recommendation

3. Work with the management of Tintern Grammar to provide pedestrian access to the school.

4. General Issues

This section outlines a number of general issues and observations that apply to the broader area rather than specific locations.

4.1 Speed limit reduction

Pedestrians are at greatest risk of excessive or inappropriate vehicle speed. This is discussed in the Curtin-Monash Accident Research Centre's fact sheet Improving Pedestrian Safety. The risk of pedestrian death rises exponentially with collision speeds beyond 30 km/h. It is estimated that less than 10% of pedestrians would die when struck by a vehicle travelling at 30 km/h, compared with fatality rates of 26% at 40 km/h and over 80% at 50 km/h.

A reduction in speed limits on local roads is predicted to have only a minor impact on average travel time (<u>Social Cities</u> p.38). Longer driving trips will largely take place on arterial roads.

In Croydon South, a reduction in speed limit to 40 or 50 km/h on Bayswater Rd at the centre would be particularly valuable. Ideally this would extend as far south as Tintern Ave, as this would take in the route to Tinternvale Primary School, the shops in that area, Good Start Early Learning, the existing pedestrian crossings and those we are proposing. This would also open the potential to have raised zebra crossings rather than pedestrian operated signals.

It would also be desirable to reduce the speed limit on Eastfield Rd to 50 km/h, perhaps between Mariana Ave in the west and King St in the east.

Broader 40 km/h limits should also be considered in the residential streets around the centre.

Additional recommendation

4. Consider speed limit reductions as discussed above (priority high).

4.2 Wayfinding signage and marketing



Figure 15 - The connection between Eastfield Rd and Orchard Drive. There are a number of excellent pedestrian connections through open space that could be promoted

Residents living within easy walking distance of the centre may not necessarily be conscious of that fact. This may be particularly true of people for whom the shortest route is via shortcuts through open space rather than the street network alone. Examples would be residents around Lusher Rd, Jesmond Rd, Shane Cres and Orchard Drive.

Providing wayfinding signage with simple messages like "Shops, 10 minutes walk" is likely to help people in the 400-1200 metre range reconceptualise the potential to walk to the centre.

Additional recommendation

5. Install wayfinding signage on key routes to the centre or areas where shortcuts are available.

5. Croydon South Walkability Assessment – specific issues

This section provides a list of notable issues taken from the <u>online Walkability Assessment Map</u>, the reference numbers relate to those in the map. To find the location of any of the points in the table below, simply click on it in the list on the online map and it will be highlighted on the map itself.

Most of the recommendations in the table would need to be implemented by transport or traffic engineering functions. Any issues likely to require implementation by other council functions are noted in the 'non-transport' column.

The different priority ratings are set out below. Where no priority is allocated this is because the issue is addressed by a recommendation under another point and priority is allocated there.

H = High priority M = Medium priority L = Lower priority N = Not a priority SFI = Subject to further investigation NA = No action needed

In addition to this log there is a list of minor maintenance issues found at Appendix 1.

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 1. No crossing	Eastfield Rd	No crossing to houses opposite centre.	Construct a pedestrian crossing of Eastfield Rd at this point (east side of access to 75 Eastfield Rd) to serve residents and all points north-east of the centre.	Н	
Point 2. Rear of shops	Centre	Do not present well to Eastfield Rd.	Explore opportunities to improve presentation including landscaping on Eastfield Rd frontage	L	Economic development
Point 3. Taralla Creek	Centre	Developed as a drain through the rear of the centre - not the attractive feature it could be.	Explore opportunities to naturalise the stream channel, especially at the southern end of the centre.	Н	Drainage, Economic Development, Open space
Point 4. No crossing	Eastfield Rd	Only ramps provided to cross Eastfield Rd.	Construct pedestrian crossing to the west as described in point 1.		
Point 5. No connection to Morris Rd	Tarralla Creek Trail	No path connection to Morris Rd, bur clear desire line.	Construct a path connection.	М	Open space?

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 6. Missing connection	Tarralla Creek Trail	Evidence of people 'bush bashing' to get to paddocks (equestrian area) on other side. No formal path connection to this area between Eastfield and Lusher Rds.	Consider whether a path connection is needed.	L	Open space
Point 7. Open space	Tarralla Creek Trail	This open space area is not really visible from the trail, but desire line suggests people walk between them. Has a seat and some direct access to adjoining properties as well as Morris Rd.	No action required.	NA	
Point 8. Creek bed	Tarralla Creek Trail	Creek bed relatively dry, able to walk along and across it.	No action required.	NA	
Point 9. Taralla Trail	Tarralla Creek Trail	Trail is pretty with mostly dense vegetation either side - few views in or out a concern for personal safety. No apparent lighting. Shared path raises potential conflict with cyclists.	 Provide lighting on the trail, particularly between Lusher and Eastfield Roads. Provide linkages as recommended in points 5, 6 and 10. Consider strategic removal of vegetation to improve passive surveillance, eg at Morris Rd. Consider ways of further activating the path, eg fitness stations. 	H L L	Open space?
Point 10. No access	Tarralla Creek Trail	Security fence prevents access to development at 79 Bayswater Rd. Pedestrian gate padlocked. If access was available, this would be the best route to the centre for residents around Park Lane.	Work with landowners to see if pedestrian access can be provided.	М	Landowner engagement
Point 11. Good connection	Tarralla Creek Trail	Good bridge connection across creek to Lusher Rd	No action required.	NA	
Point 12. Eastern trail	Tarralla Creek Trail	Trail on eastern side of creek not paved - unlikely to be used by cyclists. Seat at this point	No action required.	NA	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 13. Unclear connection	Tarralla Creek Trail	While it is not entirely clear from the trail, there is a connection to an informal path through the vegetation to the east	Consider formalising or signposting this connection.	L	Open space
Point 14. No connection	Tarralla Creek Trail	No clear path to the Croydon Leisure Centre or points beyond. Requires wandering along Civic Square roadway to find destination. Grass area presents an opportunity for a pleasant path connection.	Build a path to the west through the grass area, then ramps and a painted zebra across the car park to connect directly to the footpath on the western side of the aquatic centre. Install wayfinding signage to direct people to destinations in this area.	M	Open space? Community facilities?
Point 15. Industrial interface	Tarralla Creek Trail	The trail adjoins an industrial area that provides neither aesthetic quality or good passive surveillance. Path on eastern side of creek provides a more pleasant alternative	Consider opportunities to provide screen planting.	L	Open space
Point 16. No footpaths	Vinter Ave	No footpaths either side of Vinter Ave. Commercial/industrial land use on north side has potential to generate truck traffic.	Construct a footpath on one side of Vinter Ave, between Lusher Rd and the Taralla Creek Trail.	М	
Point 17. Ronald Rd shade	Ronald Rd	Ronald Rd is a pleasant street for walking, but street trees mostly small and not always well located. Some placed under power lines while some areas with no lines have no trees. Street slopes up to Bayswater Rd.	Consider opportunities to provide additional street trees where there are no power lines.	L	Street trees
Point 18. Ronald Rd	Bayswater Rd	There is no apparent provision to cross Bayswater Rd to reach the bus stop. Configuration allows fairly fast turning movement into Ronald, but footpath substantially offset from Bayswater Rd, so pedestrians not very conspicuous. Trees may also obscure views.	 To facilitate crossing of Bayswater Rd: Extend the footpath on one side of Ronald Rd to reach the Bayswater Rd pavement Construct pedestrian refuge On western side of Bayswater Rd, create footpath connection to bus stop as required. To facilitate crossing of Ronald Rd, construct central median from vehicle stop line to line of footpath (with refuge). 	H	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 19. Possible shortcut		This utilities reserve provides a possible shortcut to destinations around Croydon Leisure Centre, as well as being the shortest route to Vernon and adjoining streets. Appears to be utilised to some extent.	Consider opportunities to improve this as an open space and walking corridor, particularly from Bayswater Rd to Vernon St. This should include working with relevant land managers to ensure access is available for all-terrain strollers at all road connections.	M	Open space and Transport
Point 20. Vinter Ave	Bayswater Rd	Configuration allows fairly fast turning off Bayswater Rd.	To facilitate crossing of Vinter Ave and reduce turning speed, construct central median from vehicle stop line to line of footpath (with refuge).	М	
Point 21. Bus stops	Bayswater Rd	Bus stops either side of Bayswater Rd, but no crossing facilities.	Construct a pedestrian crossing of Bayswater Rd (POS) between the north side of Yarraduct Place Nth and the adjacent bus stops (this also addresses point 24).	Н	
Point 22. No footpaths	Croydon Way	No footpaths either side of Croydon Way, but 'goat tracks' suggest significant demand.	Construct a footpath on south side of the street. As an alternative or interim measure, signpost Croydon Way as a shared zone and install traffic calming. Croydon Way between the railway line and Bayswater Rd is a higher priority than the part running parallel to railway.	M	
Point 23. No footpath	Yarraduct Place Nth	No footpath on Yarraduct Nth, but demand evident.	Construct a footpath on north side of the street. As an alternative or interim measure, signpost Yarraduct Place Nth as a shared zone and install traffic calming.	L	
Point 24. Unpaved footpath	Bayswater Rd	From Yarraduct Place Nth southward, the footpath on the western side of Bayswater Rd is unpaved. Some crossovers, notably the one at 52 Bayswater Rd, change the level of the footpath and may make it difficult to traverse with a wheeled device like a mobility scooter.	 Construct a footpath as proposed by Council; or Construct a pedestrian crossing as recommended under point 21. 		

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 25. No crossing facility	Bayswater Rd	No crossing facility to access bus stop on other side of Bayswater Rd.	 Implement first recommendation under point 18. Construct a pedestrian refuge at the bus stop on the eastern side of Bayswater Rd. 	М	
Point 26. Morris Rd intersection	Bayswater Rd	Configuration allows fairly high speed turning, with offset footpath meaning pedestrians may not be conspicuous to drivers on Bayswater Rd.	To facilitate crossing of Morris Rd and reduce turning speed, construct central median from vehicle stop line to line of footpath (with refuge).	Н	
Point 27. No footpaths	Morris Rd	No footpaths either side of Morris Rd.	Construct a footpath on one side of the street (probably south side). As an alternative or interim measure, signpost Morris Rd as a shared zone and install traffic calming. Note also point 5.	М	
Point 28. Yvonne Ave	Eastfield Rd	Some potential for fast turning off Eastfield Rd. Ramps and TGSI provided, but not on desire line.	To facilitate crossing of Yvonne Ave and reduce turning speed, construct central median (with refuge) from vehicle stop line to line of existing ramps.	Н	
Point 29. MacKenzie Ct	Eastfield Rd	Some potential for fast turning off Eastfield Rd.	Construct raised threshold.	М	
Point 30. Blazey Rd roundabout	Eastfield Rd	Traffic moving through at modest speed. Not required to give way when turning. Medians allow staged crossing of Eastfield, but no similar treatment of Blazey.	Install raised zebra crossings on all legs of the intersection.	М	
Point 31. Dog park	Eastfield Rd	Fenced off-leash area provided.	No additional action required, but emphasises the need for crossing at Blazey Rd.	NA	
Point 32. Shortcut	Eastfield Park	There is a shortcut through the park to Araluen Drive, next to the playground.	No action required	NA	
Point 33. Araluen connection	Eastfield Park	The connection between Araluen Dr and the playground is not direct and is only a soft dirt path that may be difficult to negotiate with wheeled devices.	Construct an all weather path.	L	Open space

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 34. Sloping street	Araluen Dr	Araluen Dr slopes significantly down to the park. This may deter some people from walking to and from streets to the north-east of here.	No action possible.	NA	
Point 35. Raised intersection	Araluen Drive	Requires vehicles to slow somewhat, assisting crossing	No action required	NA	
Point 36. No refuge	Eastfield Rd	Not too bad, but pedestrian refuge desirable.	Construct pedestrian refuge at Pandora Cres intersection.	L	
Point 37. No refuge	Eastfield Rd	Similar to Pandora, potential for reasonable turning speed, refuge desirable.	Construct pedestrian refuge at Macey St intersection.	L	
Point 38. Limited shade	Eastfield Rd	Few street trees on southern side of Eastfield in this general area. Appear to be failed plantings.	Street tree planting.	M	Street trees
Point 39. No refuge	Eastfield Rd	Similar to Pandora and Macey intersections.	Construct pedestrian refuge at King St intersection.	L	
Point 40. Shared path connection	Bayswater Rd	Blind corner on shared path connection. Creek channel generally ugly. Opportunity for shortcut.	 Install a speed hump on the approach to blind corner from the east. Install give way to pedestrians signage. Explore opportunities to naturalise the stream channel and remove fencing. Assess potential for a small pedestrian bridge over stream to provide a shortcut to centre. 	M M M	Transport, Open space, Community/Ec onomic development
Point 41. Missing kerb ramp	Thomas St	Thomas St is a very pleasant street with good street trees. A number of intersections on Thomas do not have kerb ramps on all legs, but this is acceptable given limited traffic. The location where a kerb ramp is considered most necessary is the north-eastern leg of the Blazey St intersection.	Install kerb ramp on the north-eastern leg of the Blazey/Thomas St intersection.	L	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 42. Existing crossing	Bayswater Rd	Shared bike and ped operated signals. Immediate response to pressing button. Audio tactiles operating. Serves bus stop on western side of Bayswater Rd, but no footpath connection on that side.	Construct footpath connection to bus stop on the western side of Bayswater Rd.	L	
Point 43. Slope	Belmont Rd	Belmont Rd is a pleasant street to walk on, but slopes significantly up to Blazey Rd.	No action required.	NA	
Point 44. No shade	Faraday Rd	Faraday Rd slopes up to Blazey Rd but is otherwise pleasant for walking. However there are no street trees on the northern side from 67-73.	Conduct street tree planting, including the northern side from 67-73 Blazey Rd.	L	
Point 45. No crossing	Bayswater Rd	There is no provision for crossing Bayswater Rd to access the bus stop. Footpath does not even extend to the edge of Bayswater Rd.	 Extend footpath on north side of Thurleigh Ave to reach the pavement on Bayswater Rd. Construct pedestrian refuge to facilitate crossing Bayswater Rd. Construct footpath connection to bus stop on the western side of Bayswater Rd. 	H H M	
Point 46. No crossing	Bayswater Rd	No crossing to access bus stops (narrow painted median only). Central Ave intersection is close by, but no crossing on closest leg. Bayswater Rd four lanes and 70 km at this point. Wide access for Goodstart Early Learning.	 Construct pedestrian refuge to facilitate crossing Bayswater Rd. Construct footpath connection to bus stop on the western side of Bayswater Rd. Provide crossing on northern leg of Central Ave intersection (point 47). Use paint or materials, and speed hump or similar to emphasise the footpath crossing entry to Goodstart Early Learning. 	М	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 47. Poor configuration	Bayswater Rd	The intersection with Central Ave is signalised, but no crossing on northern leg. No auto-on, but late intro for crossing Central. Pushing button calls up green to cross Bayswater. Adequate crossing time allowed. Unusual configuration means crossing of Central is not on desire line - evidence of people not using the crossing. Audio tactiles operating. Poor ramp configuration for vision impaired.	 Provide crossing on northern leg. Review alignment of crossing and ramps on Central Ave. 	M	
Point 49. No crossing	Bayswater Rd	No connection or crossing to bus stop opposite Fair Lane. Existing painted median. No footpath connection to bus stop on western side of Bayswater.	 Extend footpath on north side of Fair Lane to reach the pavement on Bayswater Rd. Construct central median similar to that currently linemarked, with pedestrian refuge to facilitate crossing Bayswater Rd. Construct footpath connection to bus stop on the western side of Bayswater Rd. 	Н	
Point 50. Wide intersection	Bayswater Rd	Configuration allows fast turning. Poor ramp configuration on southern side.	 Reconfigure ramps towards direct crossing of Wendover Ave. Construct median with pedestrian refuge. 	L	
Point 51. Shops	Bayswater Rd	Businesses seem marginal and most closed at time of audit (Monday afternoon). No seating or street trees. Poor presentation to Tintern Ave. No Bayswater Rd crossing opportunity (but existing raised median) on south side of Tintern, which is the route to Tinternvale PS, and southern approach to shops. Need to prioritise pedestrians crossing Tintern to the shops.	 Provide landscaping and seating at the shops. Provide pedestrian crossing of Bayswater Rd south of Tintern Ave. Provide raised threshold over Tintern Ave for Bayswater Rd footpath. 	L M	
Point 51. Pedestrian connection	Dunlop Ave	Connection to Dunlop mostly good but dark and enclosed in part. Only one street light.	Install street light at the end of Dunlop Ave next to pedestrian connection, or in the connection itself.	L	Lighting

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 52. Shared path	Bayswater Rd	Shared path is marked like a road. Risk of alienating vulnerable walkers.	Remove line marking.	L	
Point 53. Fast turning	Bayswater Rd	Configuration allows fast turning into Blue Mist Drive. For people walking to the centre, desire line is to cross Bayswater on the north side of Blue Mist. Existing raised median.	 Construct raised threshold over Blue Mist Drive. Provide crossing of Bayswater Rd at Lucille Ave (point 54). 	Н	
Point 54. No crossing	Bayswater Rd	Shops on either side of Bayswater Rd, but no crossing to/from Lucille Ave. Lucille a very nice street but 122 Bayswater presents poorly to it.	 Provide crossing of Bayswater Rd, including service road / car parking on western side (ideally raised zebra) at Lucille Ave. Ideally on south side of Lucille Ave to connect directly into footpath to main set of shops on The Mall. Construct raised zebra across Lucille Ave. 	H M	
Point 55. School crossings	Tintern Ave	There are two school crossings of Tintern Ave, either side of Rozelle Ave	No action required.	NA	
Point 56. No footpath	Long View Rd	No footpath on southern side of Long View Rd. Desire line evident. Shortcut possible through Tinternvale PS. School crossing at this gate.	Construct footpath on the south side of Long View Rd.	М	
Point 57. Shared path link	Tarralla Creek Trail	Shared path narrow at northern end. Connection into north-east corner of school. Pedestrian connection to Long View Rd. Seat provided.	Install signage reminding riders to give way to pedestrians.	М	
Point 58. No footpath	Tarnagulla Rd	No footpath on the east side of Tarnagulla Rd. Mostly park frontage, but some houses at either end without footpath.	Construct footpath outside 18-22 Tarnagulla Rd.	L	
Point 59. Steep slope	Jefferson Rd	Jefferson Rd is a good street for walking, but slopes quite steeply up to Mariana Ave.	No action required.	NA	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 60. No footpath	Blue Mist Drive	No footpath on the southern side of Blue Mist Drive, or around the corner into Tarnagulla Rd. Grass suggests some demand to walk here.	Construct footpath on south side of Blue Mist Drive between Bayswater Rd and Tarnagulla Rd.	М	
Point 61. Mall entrance, north	Centre	Capacity for fast turning into Mall. No clear, direct ped entrance from western approach on Eastfield Rd.	Construct direct path connection into the centre with raised threshold and/or zebra over The Mall.	М	
Point 62. No footpath	Centre	There is no footpath on the NW side of The Mall. The car parks are effectively shared space, but not signposted as such.	 Signpost the car park as a shared zone. Design and signpost The Mall as shared space. 	M M	
Point 63. Mall entrance, South	Centre	Potential for fast turning. Gravel car park not a great first impression. Picnic table provided in adjacent open space.	 Install raised zebra or threshold over The Mall. Consider removing gravel car park. Otherwise formalise it, with landscaping adjacent to the footpath. 	H L	Economic Development and Transport
Point 64. Bus stops	Centre	No formal crossing to access bus stops on either side of Bayswater Rd, but some capacity to cross for more adventurous pedestrians, with raised median.	Provide a pedestrian crossing of Bayswater Rd at Lucille Ave (point 54).		
Point 65. Traffic signals	Centre	Slip lanes with zebras on each corner - potentially dangerous. Appears to be some degree of late intro in certain situations. Surface quality not great. Controlled right turns. Steep ramps to crossings on all sides except SE.	 Install raised platforms for zebras across slip lanes. Ensure ramps are not too steep and provide an opportunity for people in wheelchairs to wait outside the crossing. Review signal phasing to provide auto-on or ensure late introduction always available if possible. Resurface primary (signalised) crossings. 	H H L	
Point 66. Mariana Ave	Eastfield Rd	Potential for fast turning.	Install raised threshold.	М	
Point 67. Pleasant Rise	Pleasant Rise	No footpath on western side of street.	Construct footpath on western side of street.	L	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 68. Sloping intersection	Eastfield Rd	Eastfield Rd very steep in this area. Possible fast turning into Pleasant Rise, but right turn lane provided.	Install raised threshold or pedestrian refuge to facilitate crossing Pleasant Rise.	L	
Point 69. Ped connection	Eastfield Rd	Good connection to The Mount, but no lighting.	Install lighting	М	Lighting
Point 70. Wide intersection	Eastfield Rd and Long View Rd	Potential for fast turning. No footpath on eastern side of Long View Rd.	Install raised threshold or pedestrian refuge and kerb extension to facilitate crossing Pleasant Rise. Provide right-turning bay on Eastfield Rd to facilitate vehicle turning into Long View Rd.	L	
Point 71. Problem intersection	Eastfield Rd	Busy intersection with poor sightlines and no crossing facilities. Discussion with ablebodied passerby confirmed difficult to cross. Bus stop with raised platform approx 30m to west.	Consider: Signalising intersection and providing pedestrian crossings; or Installing a zebra crossing at the raised platform.	Н	
Point 72. No footpaths	Highton St	No footpaths on Highton St, which provides access to Tintern Grammar.	Construct a footpath on one side of Highton St.	Н	
Point 73. Dunn St	Eastfield Rd	No crossing of Eastfield Rd at Dunn St, although kerb ramps provided. Grass suggests desire line to cross Eastfield on eastern side of Dunn.	Construct pedestrian refuge and kerb extension on the south side, to facilitate crossing of Eastfield Rd. Ideally this would be aligned with the footpath on the west side of Dunn St.	M	
Point 74. No crossing	Grey St	No crossing facility on approach to hospital.	 Construct a raised zebra crossing over Grey St, to align with the footpath on the western side of Davey Drive. Construct a raised threshold at entrance to Davey Drive. 	H	
Point 75. Davey St entrance	Davey Drive	Walkers required to cross vehicle access. Ped entry involves steps and is indirect, with clear desire line straight to entrance.	Conduct a review of pedestrian access to Maroondah Hospital, in consultation with the hospital administration.	М	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 76. Grey St entrance	Grey St	Designated ped entrance indirect - 'goat tracks' illustrate desire line.	Conduct a review of pedestrian access to Maroondah Hospital, in consultation with the hospital administration (point 75).		
Point 77. Footpath ends	Eastfield Rd	No footpath on the northern side of Eastfield	 Construct a footpath on the northern side of Eastfield Rd, from the existing path through to The Pass. Facilitate crossing of Eastfield Rd at raised platform (point 71) and Dunn St (point 73). 	L	
Point 78. Desire line	Eastfield Rd	Evidence of people walking along the edge of the railway line	Construct a footpath as recommended in point 77. Council is proposing to construct a footpath in this area.		
Point 79. No crossing or path	Eastfield Rd	No footpath on north side of Eastfield, and no crossing for residents of The Pass to access other side.	Construct a footpath on the north side of Eastfield Rd from The Pass to connect with existing path around 47 Eastfield Rd.	Н	
Point 80. No footpath		Grass suggests demand for footpath on North side of Eastfield, east of The Pass through to ped connection with Orchard Drive, where footpath resumes.	Construct footpath as recommended in point 79.		
Point 81. Good connection	Eastfield Rd	Open space connection.	No action required	NA	
Point 82. Orchard Drive	Orchard Drive	No footpath on NW side of Orchard. Fence limits access to park, although break allows access at western end. Easy for able bodied people to get through fence, but not prams etc	Provide breaks in fence.	L	Open space
Point 83. No footpath	Eastfield Rd	No path through the park on the northern side of Eastfield Rd. No formal crossing of Eastfield Rd in this area.	Construct pedestrian crossing of Eastfield Rd in the vicinity of Mariana Ave, to provide for direct access to the centre, as well as access to the park for people on south side of Eastfield.	М	

Map ref	Location	Issue description	Recommendation	Priority	Non transport
Point 84. Shortcut potential	Railway line	The railway line creates a barrier to accessing the centre for residents in the vicinity of Cheong St, who would otherwise be within fairly easy walking distance. Discussion with local suggests an informal path was previously available, until fencing was erected to prevent access to the line.	Promote provision for a pedestrian connection with relevant railway agencies.	M	
Point 85. Peter Street	Eastfield Rd	Some potential for reasonably fast turning into Peter St. No right turning bay on Eastfield Rd.	Install raised threshold or pedestrian refuge to facilitate crossing Peter St.	L	
Point 86. Percy Street	Eastfield Rd	Some potential for reasonably fast turning into Percy St. No right turning bay on Eastfield Rd.	Install raised threshold or pedestrian refuge to facilitate crossing Percy St.	L	
Point 87. Potential shortcut	Long View Rd	Ideal pedestrian connection between Long View Rd and Mariana Ave / Jefferson Rd.	Note for possible acquisition as an open space link or securing a pedestrian connection as part of any future development.	Н	Transport, Open Space, Planning

Appendix 1: Croydon South Walkability Assessment Log – Maintenance

The following table indicates the sites requiring maintenance work. The nature and location of these issues including photographs are set out in the <u>online assessment map</u>.

Point 1m. Dumped furniture	On nature strip		
Point 2m. Overgrown shrubs	Vegetation encroaching significantly at 100 Eastfield.		
Point 3m. Dumped mattress	Number 8 Araluen		
Point 4m. Dumped rubbish	Number 18 Yvonne		
Point 5. Redundant TGSI?	TGSI here for no apparent reason. Not an appropriate place to cross Eastfield Rd. No bus stop		
Point 6m. Dumped rubbish	Number 38 Belmont. No sticker		
Point 7m. Overgrown path	Outside 163 Bayswater Rd. Could generate personal safety concerns.		
Point 8m. Footpath closed	Outside 189 Bayswater		
Point 9m. Dumped carpet	13 Tarnagulla Rd		
Point 10m. Overgrown vegetation	Footpath on this stretch of Eastfield quite overgrown.		