His Worship the Mayor
Councillors
City of Marion

Notice of Infrastructure and Environment Committee

Council Chamber, Council Administration Centre
245 Sturt Road, Sturt

Tuesday, 9 April 2024 at 6.30 pm

The CEO hereby gives Notice pursuant to the provisions under Section 83 of the *Local Government Act 1999* that an Infrastructure and Environment Committee will be held.

A copy of the Agenda for this meeting is attached in accordance with Section 83 of the Act.

Meetings of the Council are open to the public and interested members of this community are welcome to attend. Access to the Council Chamber is via the main entrance to the Administration Centre on Sturt Road, Sturt.

Tony Harrison

Chief Executive Officer

1 Open Meeting

2 Kaurna Acknowledgement

We acknowledge the Kaurna people, the traditional custodians of this land and pay our respects to their elders past and present.

3 Elected Member Declaration of Interest (if any)

4 Confirmation of Minutes

4.1 Confirmation of Minutes of the Environment Committee Meeting held on 13 February 2024	
Report Reference	IEC240402R4.1
Originating Officer	Business Support Officer – Governance and Council Support – Cassidy Mitchell
Corporate Manager	Manager Office of the Chief Executive – Kate McKenzie
General Manager	Chief Executive Officer – Tony Harrison

RECOMMENDATION

That the minutes of the Infrastructure and Environment Committee Meeting held on 13 February 2024 be taken as read and confirmed.

ATTACHMENTS

1. IE C 240213 - Final Minutes [**4.1.1** - 6 pages]

Minutes of the Infrastructure and Environment Committee held on Tuesday, 13 February 2024 at 6.30 pm Council Chamber, Council Administration Centre 245 Sturt Road, Sturt

PRESENT

Councillor Joseph Masika
Councillor Nathan Prior
Councillor Raelene Telfer
Councillor Luke Naismith
Councillor Jason Veliskou
Councillor Sarah Luscombe (Chair)
Councillor Jayne Hoffmann
Councillor Matt Taylor
Councillor Renuka Lama (from 6.38pm)
Councillor Jana Mates
Councillor Ian Crossland

In Attendance

Chief Executive Officer - Tony Harrison
General Manager City Services - Ben Keen
Manager Engineering, Assets and Environment - Mathew Allen
Executive Officer to the General Manager City Services - Colleen Madsen
Manager Operations – Brian Green
Coordinator Arboriculture – Ian Seccafien
Chief Finance Officer – Ray Barnwell
Manager Strategic Procurement - Jamie Dunnicliff

1 Open Meeting

The Chair opened the meeting at 6.31pm.

2 Kaurna Acknowledgement

We acknowledge the Kaurna people, the traditional custodians of this land and pay our respects to their elders past and present.

3 Elected Member Declaration of Interest (if any)

The Chair asked if any member wished to disclose an interest in relation to any item being considered at the meeting.

The following interests were disclosed:

- Nil

4 Confirmation of Minutes - Nil
5 Business Arising - Nil
6 Confidential Items - Nil

7 Reports for Discussion

7.1 Digitised Tree Asset Management Plan

Report Reference IEC240213R7.1

Coordinator Arboriculture Ian Seccafien provided an overview and demonstration of the City of Marion Digitised Tree Asset Management Plan. This is a work in progress and although an internal document, the intention over the long term is to have it front facing for public viewing.

6.38pm Councillor Lama entered the meeting

The Committee discussed the following key points:

- Depreciation and accounting standards relating to the tree AMP.
- Trademarking the plan is not something that has been considered, staff will investigate if this is possible.
- Tree Valuations.
- Minimal administration time is required for the maintenance of systems due to integration.
- Critical tree assets are defined as Regulated/Significant trees on council land.
- improvements to consider for public facing document - i.e., dropdown so that residents could view the information relating to the trees outside their property.
- Data collections on private properties
- Damage to trees by services such as Cleanaway and street sweepers.
- Tree incident in the city last week and council's ongoing tree assessment, tree inspections, risk assessment and audit system.
- Handling pest trees included in the register is linked to the Biodiversity Plan.
- Over-mature and senescent trees have a tailored management plan.
- Regulated Tree Maintenance fund page on My Marion will only accept 3 attachments. Site to be reviewed.
- Management of significant trees on private land and developments.
- Condition of trees. The Marion Tree Interactive provides stats on species name, number of these species across the city, age, canopy width and height. Residents who are concerned about the trees condition can lodge a request via My Marion or by contacting our customer service team.
- Cautious about public perception if high-risk trees are publicised once the system is public facing.
- Species information and communication plans.
- Once the plan is endorsed and the final updates/improvements have been made to the Digitised version of the plan a media campaign will be discussed with our Comms team.

Question taken on notice

Does the City of Marion have any Heritage Registered trees?

Moved Councillor Taylor **Seconded Councillor Lama**

That the Infrastructure and Environment Committee:

1. Notes the development of the Digital Tree Asset Management Plan 2024-34.
2. Supports its use publicly to inform our community on our approach to tree management once the Tree Asset Management Plan is finalised and endorsed.

Carried Unanimously

7.2 Community Renewables Program

Report Reference IEC240213R7.2

The chair welcomed the General Manager City Services, Ben Keen, Manager Strategic Procurement, Jamie Dunnicliff and Manager Engineering, Assets and Environmental Sustainability Mat Allen to discuss the Community Renewables Program.

Mr Keen provided a presentation on an outline for the implementation for the City of Marion to advance its commitment to renewable energy and sustainability, building on the successes and due diligence of our neighbouring council, the City of Mitcham.

Points covered in the presentation included:

- Achieving a carbon emissions reduction, lower the cost of living and build community energy resilience.
- We have a carbon neutral plan which is predominantly inward looking.
- Next step is to provide a community retail plan.
- How the system operates including how to sign up to the program and the various options for payment.
- EV charging trial between the City of Mitcham and SA Power Networks.

The Committee discussed the following key points:

- Costs and savings.
- Feed-in tariffs for solar systems and the potential market impact.
- Community engagement and resident feedback.
- Difference between residents using an existing solar system v entering this program.
- Limited number of companies can sell to the grid.
- Procurement options and considerations.
- Scalability of the model and associated risks.
- Due diligence is done by the scheme that the average consumer would not be able to do.
- Requirement to obtain independent advice, establish what we want, other suppliers operating in the market.
- Ongoing fees and royalties. City of Mitcham receives a royalty for their IP and has made their IP available to other councils.
- Operational aspect: the community retail plan's aggregation and ability to harvest solar to make the pool of resources and corporate Power Purchase Agreements (PPA).
- Program resources and governance.
- Existing solar on council buildings, should this equation alter the payment it gives opportunities and benefits to council in the long-term.

- Accessibility to the wider community and affordability.
- Risk and lessons learned from City of Mitcham. With approximately 800 residents on the system that they have only had 19 complaints, mainly around when first installed to do with power and poor wiring. Complaints handled within 24 hours.
- The City of Mitcham will be holding information sessions for their residents, and although fully subscribed has offered City of Marion Members the opportunity to attend. Mr Keen will send Member details of those sessions.

8.10pm Councillor Maika left the meeting

8.17pm Councillor Masika re-entered the meeting

Moved Councillor Veliskou

That the Infrastructure and Environment Committee:

1. Recommends a report be presented to General Council in March 2024 for:
    a. Endorsement to collaborate with the City of Mitcham and use their Community Renewables framework to implement a similar Community Renewables bulk buy, VPP program and Power Purchase Agreement.
    b. Consideration of an additional resource of 1FTE for 6 months for the delivery of the program, at a cost of $63,000.
2. Notes a further report will be presented to the Infrastructure and Environment Committee in July 2024 with an update on SA Power Networks Electric Vehicle (EV) Charging Station trial and the joint EV charging stations request for proposal tender between City of Marion and City of Port Adelaide Enfield.

Amendment

Moved Councillor Crossland Seconded Councillor Hoffman

That the Infrastructure and Environment Committee

1. Recommends a report be presented to General Council in April 24 which provides a detailed business case to allow for consideration of implementing a community renewable bulk buy, VPP program and Power Purchase Agreement.

The Amendment to become the Motion was Carried
The Amended motion was Carried Unanimously

8 Reports for Noting - Nil

9 Workshop / Presentation Items

9.1 Workshop Agenda for 2024

Report Reference EC240213R9.1

8.30pm Councillor Lama left the meeting
8.30pm Councillor Masika left the meeting
8.30pm Councillor Telfer left the meeting and did not return

The chair welcomed the Manager Engineering, Assets and Environmental Sustainability, Mat Allen to run the workshop with the Committee to help advise the schedule of agenda items for future meetings in 2024.

8.45pm Councillor Lama re-entered the meeting
8.45pm Councillor Masika re-entered the meeting

Mr Allen provided the committee with a list of possible topics for their consideration and provided an overview of what they would cover.

Utilising the dot system, members were asked to vote for the topics they considered most valuable to be discussed at this committee throughout the year.

Topics will be collated and those with the highest ratings will be discussed with the chair following tonight's meeting and be put forward to the draft schedule of upcoming items.

10 Other Business - Nil

11 Meeting Closure

The meeting shall conclude on or before 9.30pm unless there is a specific motion adopted at the meeting to continue beyond that time.

The meeting was declared closed at 9:08pm.

CONFIRMED THIS 9TH DAY OF APRIL 2024

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CHAIRPERSON

5 Business Arising

5.1 Business Arising Statement - Action Items	
Report Reference	IECYYMMDDR5.1
Originating Officer	Executive Officer to the General Manager City Services – Colleen Madsen
Corporate Manager	N/A
General Manager	General Manager City Services – Ben Keen

REPORT OBJECTIVE

The purpose of this report is to review the business arising from previous meetings of the Environment Committee meetings, the meeting schedule and upcoming items.

RECOMMENDATION

That the Infrastructure and Environment Committee:

1. **Notes the business arising statement, meeting schedule and upcoming items.**

ATTACHMENTS

1. IE C 240409 - Business Arising as at 09 April 2024 [**5.1.1** - 1 page]
2. IEC240409 Schedule of Upcoming Items 2024 [**5.1.2** - 3 pages]

CITY OF MARION
BUSINESS ARISING INFRASTRUCTURE AND ENVIRONMENT COMMITTEE MEETINGS **AS AT 09 APRIL 2024**

Meeting Date	Document	Item	Action Required	Assignee/s	Action Taken / Response	Status
13/2/2024	IEC240213R7.1	Digitised Tree Asset Management Plan	Question Does the City of Marion have any Heritage Registered trees?	Ian Seccafien	Committee emailed 22/3/2024.	Complete

* Completed items to be removed are shaded

Infrastructure and Environment Committee – 2024 Schedule of upcoming items

Infrastructure and Environment Committee	Date: Tuesday, 13 February	Time: 6.30pm – 9.30pm	Venue: Chamber	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Digitised Tree Asset Management Plan				I Seccafien
Community Renewables and VPP and EVs		Includes an update on EV transition plan and charging stations		M Allen
Workshop agenda for 2024				

Infrastructure and Environment Committee	Date: Tuesday, 9 April	Time: 6.30pm – 9.30pm	Venue: Chamber	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen
Walking and Cycling Action Plan				M Allen
Footpaths		Refer GC231212		C Lundborg
Streetscape program		10-year program		M Allen

Infrastructure and Environment Committee	Date: Tuesday, 11 June	Time: 6.30pm – 9.30pm	Venue: Chamber	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen
Environmental Engagement and Comms		Info update and help inform program over the rest of calendar year. Feedback on focus areas for Common thread Question about sustainability rebates program		R Neumann

Infrastructure and Environment Committee – 2024 Schedule of upcoming items

Environment Plan		Engagement on scope and directions for the CoM Environmental Sustainability Plan (and CoM Strategic Plan if time permits)		R Neumann
Carbon Inventory and Reporting				R Neumann
Strategist – Flinders University			Yes	M Allen

Infrastructure and Environment Committee	**Date: Tuesday, 9 July**	**Time: 6.30pm – 9.30pm**	**Venue: Chamber**	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen

Infrastructure and Environment Committee	**Date: Tuesday, 6 August**	**Time: 6.30pm – 9.30pm**	**Venue: Chamber**	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen

Infrastructure and Environment Committee	**Date: Tuesday, 10 September**	**Time: 6.30pm – 9.30pm**	**Venue: Chamber**	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen

Infrastructure and Environment Committee – 2024 Schedule of upcoming items

Infrastructure and Environment Committee		**Date: Tuesday, 8 October** **Time: 6.30pm – 9.30pm**	**Venue: Chamber**	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen

Infrastructure and Environment Committee		**Date: Tuesday, 12 November** **Time: 6.30pm – 9.30pm**	**Venue: Chamber**	
Topic	**Type of Report**	**Description**	**External Attendees**	**Staff Responsible**
Business Arising		Business arising from previous meetings, the meeting schedule, and upcoming items		C Madsen

6 Confidential Items - Nil

7 Reports for Discussion

7.1 Streetscapes	
Report Reference	IEC240409R7.1
Originating Officer	Manager Engineering, Assets and Environment – Mathew Allen
Corporate Manager	Manager Engineering, Assets and Environment - Mathew Allen
General Manager	General Manager City Services - Ben Keen

REPORT HISTORY

Report Reference	Report Title
GC220726R12.4	Streetscape Program Update
FORUM230620R1.1	City of Marion Streetscape Program

REPORT OBJECTIVE

The purpose of this report is to provide Council Members with an update on the Streetscape Program and to discuss future projects.

EXECUTIVE SUMMARY

Investing in streetscape projects has transformed streets, promoting walkability, sustainability, and community pride. Key principles include balancing safety with greenery, enhancing attractiveness and accessibility, and aligning with major projects.

The current program, endorsed in July 2022, prioritizes projects based on community impact, funding potential, and cost. Funding is sought from various sources, including grants. Feedback from Council Members emphasises the need for efficiency and transparency. Various funding options are proposed including adjustments to service levels.

Next steps involve gathering Committee input for consideration prior to presenting a report at the 23 July 2024 General Council meeting.

RECOMMENDATION

That the Infrastructure and Environment Committee:

1. **Provides feedback on the current and future Streetscape Program.**
2. **Support staff to develop a revised Streetscape Program with a 4-year Streetscape Plan with defined service levels, project costings and timeframes.**

DISCUSSION

Investing in streetscape projects has transformed the streets that have been upgraded whilst promoting walkability, sustainability, and a real sense of pride in the surrounding area. The key principles of Streetscaping include:

- Strategically balance streets as safe thoroughfares and green inviting destinations.
- Design streetscapes for attractiveness, accessibility, and high amenity value.
- Ensure environmentally sustainable landscaping supports street function and enhances safety.
- Foster visual connections with surrounding environments.
- Improve commercial precincts through attractive streetscapes.
- Align streetscape planning with major projects and developments in Marion.

The recently completed Community Satisfaction Survey for the Community Vision indicated our community highly values green, sustainable, safe, friendly, accessible, and socially connected places. Streetscape upgrades enhance and/promote all these community aspirations.

Current Program

The original list of streetscape projects was developed in consultation with Council Members on 28 May 2019 (GC190528R09) and aligned to other major projects (key destinations, DIT projects, property developments and internal City of Marion projects). The list of projects includes a mix of social, environmental, and economic benefits to maximise the likelihood of attracting funding from State/Federal Government and potentially major developers. Selection of the right project at the optimum time can reduce Council funding and add additional benefits to areas of investment and development.

At the Council meeting held on 26 July 2022, the below Streetscape program was endorsed:

Streetscape Program (July 2022)

Streetscape Program	+/-	Road	From	To	Suburb	Ward	Current Status	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Segment 1 19/20 to 23/24	=	Railway Terrace	Daws Road	Sixth Avenue	Edwardstown	Woodlands	Complete												
	=	Ramrod Avenue	Lonsdale Road	Zwerner Drive	Hallett Cove	Coastal	Complete												
	=	Finniss Street	Marion Road	Township Road	Marion	Warriparinga	Complete												
	=	Bray Street	Marion Road	Morphett Road	Morphettville	Mullawirra	Complete												
	=	Quick Road	Marion Road	Bradley Grove	Mitchell Park	Warriparinga	Complete												
	=	Sturt Road	South Road	Marion Road	Clovelly Park	Warriparinga	Complete												
	=	Sturt Road	Marion Road	Diagonal Road	Marion	Warriparinga	Complete												
	=	Sturt Road	Diagonal Road	Morphett Road	Seacombe Gardens	Warriparinga/Warracowie	Construction												
	=	Diagonal Road	Morphett Road	Sturt Road	Oaklands Park	Warracowie	Construction												
	=	Messines Avenue	South Road	Mons Avenue	Edwardstown	Woodlands	Construction												
	=	Morphett Road	Diagonal Road	Sturt Road	Warradale	Warracowie	Construction												
	=	Warracowie Way	Milham Street	Diagonal Road	Oaklands Park	Warracowie	Construction												
	=	Alawoona Avenue	Bradley Grove	Train Line	Mitchell Park	Warriparinga	Design												
	=	Raglan Avenue	Marion Road	Train Line	Edwardstown/South Plympton	Woodlands	Design												
Segment 2 24/25 to 28/29	▲	Newland Avenue	CoHB Boundary	Jervois Terrace	Marino	Coastal													
	=	Braeside Avenue / Calum Grove	Seacombe Road	Seacombe Road	Seacombe Heights	Warriparinga													
	▲	Adams Road	Majors Road	Lucy Court	Trott Park	Southern Hills													
	▼	Alawoona Avenue	Marion Road	Bradley Grove	Mitchell Park	Warriparinga	On Hold			TBD									
	▼	Raglan Avenue	Train Line	South Road	Edwardstown	Woodlands	On Hold			TBD									
	▼	The Cove Road	Lonsdale Road	Dutchman Drive	Hallett Cove	Coastal													
	=	Trott Grove	Diagonal Road	Pemberton Street	Oaklands Park	Warracowie													
	=	Finniss Street	Township Road	Sturt Road	Marion	Warriparinga													
	=	Perry Barr Road	Lonsdale Road	Aroona Road	Hallett Cove	Coastal													
	=	Lonsdale Road	Majors Road	Perry Barr Road	Hallett Cove	Coastal													
	=	South Terrace	Marion Road	Park Terrace	Plympton Park	Mullawirra													
Segment 3 29/30 to 33/34	=	Park Terrace	Bray Street	Wattle Terrace	Plympton Park	Mullawirra													
	=	Murray Terrace	Morphett Road	Bombay Street	Oaklands Park	Warracowie													
	=	The Cove Road	Narang Street	South Avenue	Hallett Cove	Coastal													
	=	Winifred Avenue	Tramline	Cross Road	Glandore	Woodlands													
	=	Miller Street	Diagonal Road	Seacombe Road	Seacombe Gardens	Warracowie													
	=	Capella Drive	Perry Barr Road	Manunda Way	Hallett Cove	Coastal													

Construction

Design

The current budget allocation for the Streetscape Program is $3.0m per annum (increasing by indexation each year). Staff continue to pursue funding opportunities, this funding maybe provided through (but not restricted to) Black Spot Funding, Open Space Fund, Special Local Roads Fund, and the State Bike Fund.

Current Streetscape Projects 2023-24

Alawoona Avenue (between the roundabout and rail crossing) streetscape upgrade is currently being undertaken in conjunction with the reserve upgrade, stormwater works and car park construction. The project cost is $1.25m and includes $348k of grant funding from the Special Local Roads Fund. Works have commenced and are due to be completed by August 2024.

Raglan Av Stage 1 (Marion Rd – Eastern Avenue) streetscape upgrade is at 90% design completion and the community consultation material is on hold. The procurement process has commenced in preparedness to go to tender (on hold). Works include replacement of footpaths, bicycle lanes, improved landscaping (with tree inlets). The cost of the stage 1 streetscape upgrade is $1.8m and includes $510k in grant funding (GC230613R11.3) from the Federal Government's Community Roads and Infrastructure Funding program.

Streetscape Projects 2024-25

Callum / Braeside stage 1 - streetscape upgrade is currently in design and includes indented car parking, landscaping treatments, tree plantings, footpath upgrades, enhancement of the pedestrian crossings and road resurfacing following stormwater works. The detail survey is complete, and design is at 70%. Community consultation is planned to be undertaken in May/June and the tender process is planned to commence in August 2024. This stage of the streetscape upgrade is budgeted at $800k and staff have applied for $500k grant funding (Open Space Fund).

Raglan Av stage 2 (Eastern Avenue – Rail) – continuing from stage 1 at a cost of $2.2m.

Council Member Questionnaire

The Mayor and Each Ward Council Member received an email with the following questions:

1. Do you support the continuation of the current streetscape programme? Yes/No
2. Are you in favour of maintaining the current streetscape programme costs and delivery time frames? Yes/No
3. Would you prefer to extend the duration of the same programme to greater than 10 years? Yes (to x years) / No
4. Are there any additional projects you would like to see implemented in your ward?
5. Are there any projects you would like to see removed from the list of future projects?

The feedback received varied and is summarised below:

- One response supported stopping the streetscape program indefinitely if the basketball stadium upgrade proceeds as suggested.

- One response did not support the continuation of the current program; however, they did support the program continuing over the same duration with some amendments.
- One request asked for details and requirements of the federal grant for Raglan Avenue streetscape works, and questioned if the project was required.
- It was strongly emphasised the need for setting a lower level of improvement to achieve longer-term savings, suggesting scaling down projects if possible.
- There was a strong advocate for interrogating projects for efficiency and value, proposing a 15-year timeline for the streetscape program.
- It was suggested to undertake one street project annually and highlight that the street list was based on Councillor feedback and traffic volume assessments, and advocate for lower levels of improvement. The suggestion included to carry out Raglan Avenue over the next two financial years, with one project per year thereafter.
- There is support to modify the streetscape program rather than continuing it as is, and advocate for a consistent method to assess roads for transparency.
- Removing several low-traffic and pedestrian roads (Braeside Avenue, Trott Grove, South Terrace, Park Terrace, and Miller Street) from the list and add Patpa Drive, Lander Road, and Celtic Avenue due to their importance as thoroughfares.
- There is an openness to modify the current streetscape program for greater efficiency and value but caution against tree planting in areas like Braeside where it may obstruct views.
- Additionally, there is support extending the streetscape program from 10 to 15 years.
- A response suggests that we pause and rethink the current streetscape program with a reset on the streetscape priorities.

Options

To maximise the funding allocation for the Streetscape program, a number of options could be considered by Council, these include:

1. **Maintain current Program and Project timeframes**
   Continue with the current program with the same service level; as a result of increased construction costs there would be an increase to the annual budget from $2.8 million to $4.8 million (an increase of $2 million p.a.)

2. **Remove the Streetscape Program**
   Cease all streetscape upgrades. This will remove the $48 million allocation towards the streetscape program. This includes the streetscape upgrade for Raglan Avenue and excludes Alawoona Avenue (work in progress). It should be noted that this will not be a full savings to Council due to the asset condition of some of the Streetscape projects. Footpaths, kerb & channel, and road renewals are required, and this budget will be shifted into other programs to ensure assets are operating at the required infrastructure service levels.

3. **Reduce the Streetscape Program**
   Remove streetscapes projects that Council Members think are no longer relevant. Subject to the number of projects that could be removed from the program, this could result in the total program budget being reduced by $15.7 million. Estimate based on the removal of Braeside Avenue, Adams Road, Trott Grove, South Terrace, Park Terrace, and Miller Street.

4. **Increase the Timeframes of the Streetscape Program**
   Increase the length of the program to 22 years (deliver one project per year on average). This would result in the budget being the same over a longer period; the budget would be approx. $2.2m annually.

5. **Reduce Service Levels of Streetscapes**
   Reduce the service level. The current service level provides pedestrian and cycling connections, road geometry adjustments, stormwater treatment (WSUD), increased tree canopy, greening and landscape treatments. The project scope of work is subject to the location of the streetscape upgrade and depends on extent, road width, terrain, and existing infrastructure.

   Council could consider reducing the service level by removing treenet installations, permeable paving, artworks and WSUD treatments. This would result in a reduction of budget by approximately $8m of the program (savings are approx. 17% of the total budget).

   The service level reduction would result in reduced greening, amenity, and environmental improvements. Current designs are well balanced in terms of design, material selection, cost, and community benefit.

Questions for the Infrastructure and Environment Committee:

1. Do Committee Members support continuation of the streetscape program for this year and next?
2. Which of the above funding options (or combination of) would Council Members support for consideration at the General Council meeting in July 2024?

Next Steps

The feedback from the Committee will assist staff to prepare a report for General Council in July 2024. The report will provide greater detail on the scope of each of the streetscape projects (and a detailed 4-year program) including an outline of service levels, timeframes and funding.

ATTACHMENTS

1. Presentation - Streetscape Program (1) [**7.1.1** - 6 pages]

STREETSCAPE PROGRAM

INFRASTRUCTURE & ENVIRONMENT COMMITTEE

9 April 2024

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AGENDA

- **Streetscape Overview (Why?)**
- **Streetscape Program Options**
- **Questions**
- **Next Steps**

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STREETSCAPE OVERVIEW

➢ Key Streetscape principles

URBAN ENVIRONMENT

FUNCTIONAL & BALANCED

AMENITY

ATTRACTIVENESS & COMFORT

SUSTAINABILITY

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STREETSCAPE PROGRAM OPTIONS

1. Maintain Current Program and Project Timeframes
2. Remove the Streetscape Program
3. Reduce the Streetscape Program
4. Increase the Duration of the Streetscape Program
5. Reduce Service Levels

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QUESTIONS

1. Do Committee Members support continuation of the streetscape program for this year and next?

2. Which of the previous funding options (or combination of) would Council Members support?

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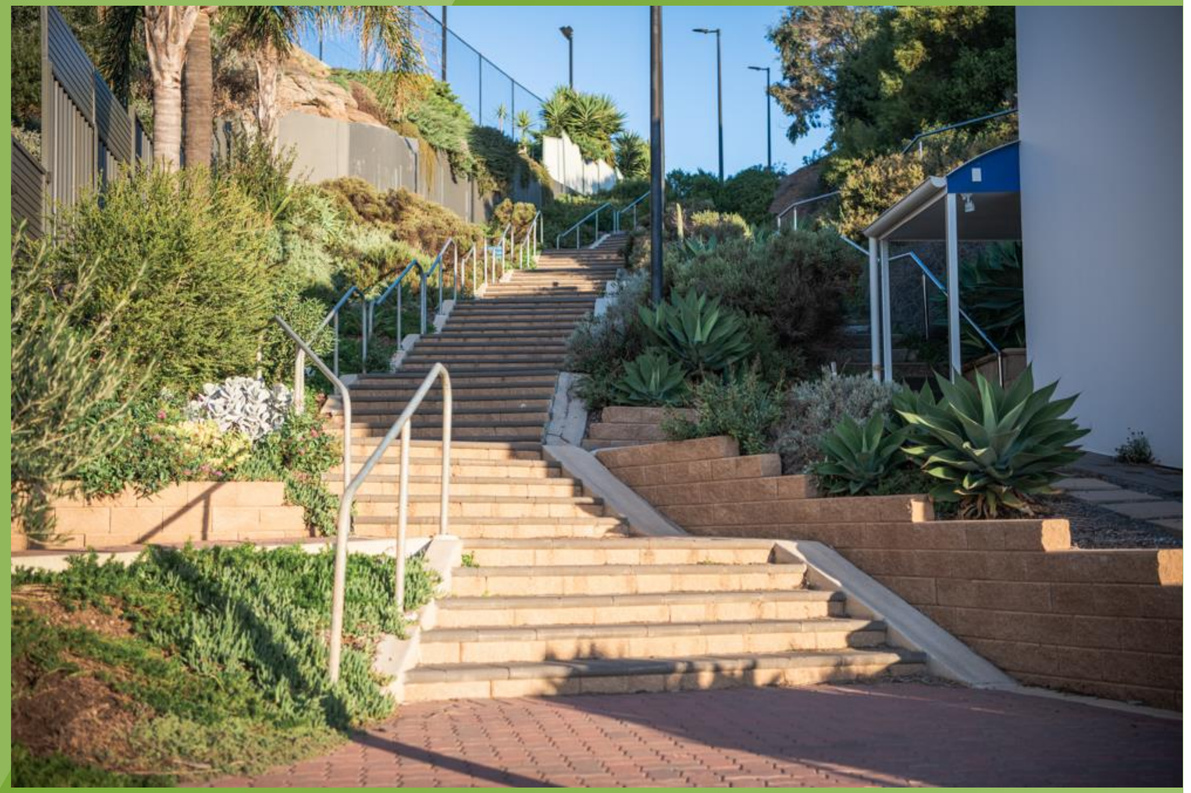
NEXT STEPS

Prepare report for General Council in July 2024.

The report will provide greater detail on the scope of each of the streetscape projects (and a detailed 4-year program) including an outline of service levels, timeframes and funding.



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7.2 Footpaths	
Report Reference	IEC240409R7.2
Originating Officer	Unit Manager Engineering – Carl Lundborg
Corporate Manager	Manager Engineering, Assets and Environment - Mathew Allen
General Manager	General Manager City Services - Ben Keen

REPORT HISTORY

Report Reference	Report Title
GC231212M14.1	Footpaths
GC240227R12.11	Footpaths Resolution Amendment

REPORT OBJECTIVE

The purpose of this report is to provide Council Members with an alternative approach to the footpath program which considers if a single footpath is required per street and kerb ramp upgrade program which considers the alignment with other infrastructure programs.

RECOMMENDATION

That the Infrastructure and Environment Committee:

1. **Provides feedback regarding the footpath and kerb ramp service levels and proposed footpath disposal program for consideration in the Draft Transport Asset Management Plan (2024).**

BACKGROUND

At the 12 December 2023 General Council meeting (GC231212M14.1), multiple recommendations were made in relation to footpaths within the City of Marion. These included:

1. Reduces the new footpath budget to $100,000 per year commencing 2024-2025 budget.
2. Prepares a report on the current footpath (and kerb ramp) renewal program with options for an alternative program which considers the necessity of either one or two footpaths noting that if a single footpath is required there are options for additional trees/verges/parking or stormwater solutions.
3. Notes that the report will be brought to a Council Forum in March 2024.

At the Council meeting on 27 February 2024 (GC240227R12.11), a resolution amendment was made to allow the Footpath Report to be prepared for the Infrastructure and Environment Committee meeting instead of the previously endorsed March Forum.

DISCUSSION

FOOTPATH SERVICE LEVELS

We know through the Community Satisfaction Survey that footpaths are important to the community, however community satisfaction is low.

All footpath assets sit within the Transport Asset Management Plan including those footpaths in reserves and surrounding community facilities. The Transport Asset Management Plan defines the current service levels for footpaths and identifies the expenditure to meet those services levels. The current community levels of service defined in the Transport AMP (2020) are:

Community Level of Service	Activities funded to sustain the service requirement
Safety/Quality	Provide a safe and quality footpath network for pedestrians and cyclists.
Capacity	Provide a footpath network that meets the requirements for pedestrians and cyclists (including meeting Disability Discrimination Act (DDA) and Australian Standards requirements).
Functionality	Provide at least 1 footpath per street (subject to local community consultation).
Sustainability	Construct footpaths with recycled base aggregate to minimise waste.

The footpath Community Levels of Service helps develop the technical levels of service and how council plans to deliver the service. The current programs that council deliver within the footpath asset class are:

Asset Lifecycle	Program	Description
Maintenance	Reactive Maintenance	When residents or users of the footpath asset identify a hazard.
	Proactive Maintenance	When staff undertake a routine inspection of the network and identify a hazard.
Monitoring	Condition & Defect Audit	Council undertakes a comprehensive condition and defect audit of the network every 4 years ***(currently in progress)***
Renewal	Renewal Program	When the condition of a footpath is beyond simple maintenance and requires a full area replacement (intersection to intersection approach) and/or triggered by an open space reserve upgrade that requires footpath renewal.
Creation	Upgrade Program	Council upgrades footpaths that are less than the council's 1.2m wide standard – typically triggered when the footpath is near the end of life. Major upgrades to footpath widths around schools/train stations (full width upgrades, back of kerb to property line) and along existing paths (typically in reserves) that are

		identified for shared use path upgrades.
	Cul-De-Sac Program	The creation of footpaths within Cul-De-Sac's (to achieve the 1 footpath per street community service level). ***Completed in 2022***
	Walking & Cycling Plan	Walking and cycling new initiatives (for example Flinders Greenway, Sturt River Linear Path, Major's Road Shared Use Path). ***4-year action plan currently in development. (anticipate commencing in 2025-26)***
	Missing Link's Program	Missing links within the footpath network (when a formalised footpath leads to nowhere or concludes just short of an existing footpath or when pedestrians use a unformalised track near existing footpaths and requires minor investment to formalise). ***Typically generated by resident, staff, or Council Member requests (low budget projects – operational)***

ALTERNATIVE FOOTPATH PROGRAM

An alternative program in relation to disposing footpath assets could be considered with the following criteria.

Asset Lifecycle	Program	Description
Disposal	Footpath Disposal Program	A disposal of a footpath asset to be considered on the following criteria: - When the footpath is considered end of life (poor condition). - When there is an existing footpath on the opposite side of the road (minimum 1 footpath per street service level). - When the Road/Footpath has low volumes/utilisation rates or in a location of low risk/criticality. - When a footpath is not in or near the vicinity of a School, Public Transport Infrastructure, or other locations that the City of Marion encourages to walk or cycle to. - Subject to Community Consultation. The selection criteria to consider when deciding which side of road to dispose of a footpath: - The side which does not have powerlines directly above the footpath. This is to ensure that tree planting opportunities are maximised. - The side which does not have parking facilities, or which has parking restrictions. This is to reduce the need for pedestrians to

		unnecessarily cross the road to access the footpath. - The footpath that has capacity constraints or 'pinch points' that cause for the footpath to be restricted. - The footpath which has the less access points to properties. - The side which has the most service pits located. - The side which has the most benefit to construct Water Sensitive Urban Design (WSUD) infrastructure.

Below are some advantages and disadvantages of a disposal program:

Advantages	Disadvantages
- Reduce stormwater run-off. - Increase tree planting opportunities. - Opportunities for on-street parking infrastructure. - Reduce footpath maintenance costs/budgets due to a reduction in network.	- Decrease in connectivity of the footpath network. - Unpopular with residents/community.

ALTERNATIVE KERB RAMP PROGRAM

The Kerb Ramp Upgrade program was identified by Council Members in 2020 as a priority infrastructure program and endorsed through the Transport Asset Management Plan in November 2020. Currently the City of Marion spends $400,000 per year on kerb ramp upgrades across the network on individual locations which are considered high priority. The program prioritises kerb ramp locations that are not Disability Discrimination Act (DDA) compliant at locations near:

- Schools
- Train Stations
- Bus Stops
- Shopping and Commercial areas
- Retirement homes/villages
- Reserves and Sporting areas

This program has been undertaken since 2021-22 and 525 ramps have been upgraded to DDA compliance in high priority areas. There are approx. 3500 non-DDA kerbs ramps upgrades remain.

It is recommended that all future upgrades of kerb ramps should only occur when aligned to other infrastructure programs, such as:

- Prior to a road reseal when proactive kerb and channel maintenance occurs.
- Footpath, traffic control devices, streetscapes or kerb and channel renewal projects.

Efficiencies will be found when combining these programs as it will reduce the kerb ramp unit rates of up to 20% through:

- No additional mobilisation costs for contractors or internal teams.
- Reduction in traffic management costs.
- No low volume concrete supply surcharge/rates.
- Efficiencies in staff time by reducing time in scoping, planning, and reporting.

Over the length of this program council could find savings of up to approx. $80,000 per year and approx. $1.75 million over the 25 years to complete. The kerb ramp upgrade budget should be incorporated into the other identified projects and upgrade kerb ramps (retrofitting) should only be considered in the cases where a high risk is present.

QUESTIONS FOR THE COMMITTEE

To help with the discussion on the alternative footpath program and kerb ramp program realignment to other programs, the follow questions have been developed.

- Does the committee see any benefits to the footpath disposal program?
- If so, what other criteria could be considered when determining if a footpath should be disposed of?
- In addition, what other criteria should be used to determine the side for disposal?
- What level of community support should be required to dispose of a footpath?
- Should the retrofitting kerb ramp upgrade program be reduced, and kerb ramps upgraded when other projects/program are nearby to reduce costs.

NEXT STEPS

Currently the Engineering team is conducting a footpath network condition and defect audit. This audit will identify the next 4 years of footpath renewals based on condition and risk. The summary of the audit will be included in the next review of the Draft Transport Asset Management Plan, subject to go to Financial, Risk and Audit Committee mid-2024.

The comments and feedback from the Infrastructure & Environment Committee regarding a potential disposal program will help inform the drafting of the Transport Asset Management Plan (2024).

ATTACHMENTS

Nil

7.3 Draft Walking and Cycling Plan	
Report Reference	IEC240409R7.3
Originating Officer	Transport Engineer – Sara Hurditch
Corporate Manager	Manager Engineering, Assets and Environment - Mathew Allen
General Manager	General Manager City Services - Ben Keen

REPORT HISTORY

Report Reference	Report Title
ASC220802R7.2	Walking and Cycling Guidelines
FORUM230620R1.2	Walking & Cycling Strategy and Action Plan

REPORT OBJECTIVE

The purpose of this report is to provide an update on the draft Walking and Cycling Plan and to present four budget scenarios for Council Members to consider.

EXECUTIVE SUMMARY

Following the development and presentation of a revised Walking and Cycling Guidelines (2024-2029) with a proposed Walking and Cycling Network in June 2023, Ward Councillors were consulted on proposed projects in late 2023 and updated priorities were then categorised across four different funding scenarios.

The number and scale of projects which can be delivered under each funding scenario varies substantially, with the lowest funding option ($100,000) estimated to be able to be deliver 9 minor projects over four years, and the biggest funding option ($1,000,000) able to deliver a broad range of small to major projects and create substantial network linkages.

An appropriate funding option is required to meet the community's expectations for better and more walking and cycling infrastructure, as expressed by the public in consultation of the Strategic Plan Review.

RECOMMENDATION

That the Infrastructure and Environment Committee:

1. **Provides feedback about which funding scenario to consider for the Draft Walking & Cycling Plan.**
2. **Supports staff to present the Draft Walking and Cycling Guidelines and Plan to the 28 May 2024 General Council Meeting for community engagement endorsement.**

DISCUSSION

COMMUNITY EXPECTATIONS

The community's desire for walking and cycling infrastructure featured prominently in feedback from the community consultation of the Strategic Plan Review | Toward 2040 Together.

The top 3 service priorities for the next 10 years included the following items relating to walking and cycling around the City of Marion:

- Council services (core services): focus on continuing to deliver services well, including footpaths (accessible design and maintenance of footpath infrastructure).
- Environmental sustainability and nature: Reducing carbon emissions, more trees through streets and reserves.
- Transportation and mobility - more walking and cycling friendly initiatives including reduced road speeds and infrastructure for safer shared road experience for cyclists and reduced car use. These things were considered key to developing the city's 'liveability.'

These themes were similarly reflected across several of the desired 'Liveability' and 'Safety' themes from the Council Member Planning Day Summary on 20 January 2024, including:

- Accessible and safe roads, footpaths, and public spaces for all, with targeted initiatives to support our ageing population, people with a disability and families with young children.
- A linked road, footpath and public transport network that encourages active, green transport and ease of movement, that promotes reduced car use.
- Active modes of transport e.g. walking and cycling are promoted through planning, education, and promotion.

The Walking and Cycling Plan and Guidelines are focussed toward delivering the goals of both the community and Council Members. The intentions of the Guidelines and Plan are to establish a safe and accessible network for riders and pedestrians at all ages and abilities.

The Engineering Unit is also working closely with the Open Space Unit to integrate biodiversity plantings, trees, and other facility improvements wherever possible within walking and cycling upgrade projects to improve our streetscapes and encourage activity and sustainable transport modes.

It will be important for the updated Walking and Cycling Guidelines and Plan to be matched with a funding mechanism that can deliver key projects and meet community and Council Member expectations.

PROJECTS AND SCENARIOS

Four budgetary scenarios were assessed against the estimated delivery costs of scoped and prioritised walking and cycling projects, across a four-year period, from 2025-26 to 2028-29.

The results indicate that the investment scenario substantially affects the type of project and the number of projects which can be delivered annually and in total across the four-year timeframe (see Attachment 1). The $100,000 scenario delivers fewer, smaller projects with an average value of $50,000 compared to the $1m scenario which delivers more than 20 projects with an average value of nearly $176,000.

The summary of annual investment scenarios between 2025-26 and 2028-29 are shown below (see Attachment 2 for detailed projects):

Scenario 1 ($100,000 p.a.)

- 9 minor priority projects can be delivered during the four-year timeframe.
  - No new footpath linkages can be delivered.
  - Includes 2 minor footpath upgrades and road crossings, on-road traffic calming infrastructure.
  - Equates to delivery of 1 to 4 small projects per year.

Scenario 2 ($400,000 p.a.)

- At least 13 projects across a range of different facility types including new paths and path upgrades, is possible.

- Equates to delivery of between 1 and 7 projects per annum, according to project size and value.
- Incorporates all minor priority projects as well as strategic medium sized projects.
- Larger projects need to be deferred to 2029-30 and staged, but there is capacity for network development through the delivery over time.

Scenario 3 ($750,000 p.a.)

- Up to 22 projects, from minor to major in size across a range of different facility types can be delivered.
  - Up to 4 significant new path connections may be delivered and one partially delivered contributing to significant City of Marion walking and cycling linkages.
  - Can deliver a combination of major projects and minor/medium sized projects per annum.

Scenario 4 ($1,000,000 p.a.)

- 24 projects from minor to major in size across a broad range of facility types are estimated to be delivered.
  - Up to 5 new large path connections may be delivered.
  - School footpath upgrade projects can be delivered earlier.
  - Incorporates all the minor priorities plus some significant new network linkages.

STATE GOVERNMENT FUNDING

State Government Funding consists of the State Bike Fund, which awards up to $200,000 per project in a 50/50 funding arrangement, and Way2Go Funding which can provide up to $20,000 in a 50/50 arrangement per project for school-related safety related initiatives.

Whilst very important, Council cannot rely on these grants on a year-to-year basis to deliver projects given the following risks:

- Grants are a competitive process and are not guaranteed. The State Government may also elect to no longer service the grant funding in future years or substantially cut funding.
- Walking-only projects (including paths less than 2m wide) tend to not be eligible for funding unless within close proximity to schools.
- Funding awards are generally not announced until late in the *same* year as the project delivery, which can affect the Councils' project design and delivery pipeline.
- Inability to undertake consultation or provide certainty to the community or elected members about project delivery.
- Inability to provide reliable forward estimates or programs.
- Impacts to other areas of Council, such as the inability to reliably coordinate projects / share plans with Open Space, such as tree and biodiversity planting, seats, and signage.

These funding pools are generally not announced until late in the same funding year (e.g., projects planned for delivery in 2023-24 FY were not announced until late October 2023), relying on these funds to deliver projects does not create sufficient certainty for forward planning and delivery processes.

Committing to an in-house annual funding program for four years will provide certainty and efficiency to council planning, design, coordination, and consultation processes, whilst still enabling funding to be returned to general review should grant funding be awarded.

WALKING AND CYCLING GUIDELINES

Since 2012, walking and cycling project design and delivery has been directed by the Walking and

Cycling Guidelines (refer Attachment 3), and funded through the Asset Management Plans and State Bike Fund contributions. The previous guidelines are now out of date and need to be updated with a focus on the latest best-practice infrastructure.

At the June 2023 Council Forum, a revised 2024-2029 Walking and Cycling Guidelines and presentation on progress made and project funding options was provided to Members. This included the introduction of a Walking and Cycling Network Hierarchy of Primary, Secondary and Local routes. Members were asked if they endorse the Walking & Cycling network hierarchy structure, what the annual budget should be for these initiatives and if the existing allocation across path renewal, creation, kerb ramps and traffic control devices was appropriate.

Members requested more information and additional details regarding the types of projects that could be delivered for the investment, which led to the further development of project scoping across different funding scenarios and consultation on a ward-by-ward basis.

The next phase is to endorse a funding scenario at the General Council meeting in May and obtain approval to consult the public on the proposed new Walking and Cycling Guidelines and Plan.

ATTACHMENTS

1. 2025-26 to 2028-29 Walking and Cycling Projects [**7.3.1** - 1 page]
2. 2029-30 and Beyond Walking and Cycling Projects [**7.3.2** - 2 pages]
3. Four Year Action Plans under different scenarios [**7.3.3** - 4 pages]
4. Results Walking and Cycling Scenarios 2025 26 to 2028 (5) [**7.3.4** - 3 pages]
5. Draft Walking Cycling Guidelines 2023 Review - Version 2.1 [**7.3.5** - 34 pages]
6. Presentation Template Walking and Cycling Strategy and Action Plan_V2 [**7.3.6** - 8 pages]

2025-26 to 2028-29 DELIVERABLE WALKING AND CYCLING PROJECTS							
Priority	**Project**	**Purpose**	**Est. cost**	**$100k**	**$400k**	**$750k**	**$1m**
1	**Miller Street pedestrian and cycle refuge**	Busy road, will help facilitate pedestrians and cyclists get across the road both to bus stop, Darlington school, Diagonal Rd and local shops	$ 16,975	✓	✓	✓	✓
2	**Gully Road, Seacliff Park - Shared Path (Stage 2)**	North-south bikeway and pedestrian access through reserve*PENDING OPEN SPACE FUNDING APPROVAL	$400,000*	✗	✓	✓	✓
3	**Adams Rd cycling connection**	Cycling and walking path connection to Adams Rd streetscape	$ 100,665	✓	✓	✓	✓
4	**Waterman Tce Cycle Upgrade**	Flinders Bikeway extension to Marion Road - traffic calming and wayfinding	$ 39,609	✓	✓	✓	✓
5	**Trott Grove connection (Chrysler Trail)**	Complete Chrysler Trail connection, Boyle to Diagonal Rd	$ 151,023	✗	✓	✓	✓
6	**Marion Road crossing**	Connection over arterial for Marion Hotel, Flinders Bikeway and Marion Primary School	$ 42,500	✓	✓	✓	✓
7	**Celtic cut through and Hamilton college access**	Connection of Flinders Greenway to Hamilton College bypass via Sampson	$ 45,059	✓	✓	✓	✓
8	**Daws Rd to South Rd footpath cycle connection**	Gets cyclists away from high traffic in constrained area where bike lane ends	$ 94,188	✓	✓	✓	✓
9	**Norfolk Rd pedestrian upgrade**	Marion Basketball Centre and footpath connection to Westfield	$ 183,319	✗	✓	✓	✓
10	**Hallett Cove Beach Train Station Connection (Stage 1)**	New path connection following existing desire line to Hallett Cove Beach Railway Station	$ 145,000	✗	✓	✓	✓
11	**Adams Rd green cycle treatment**	Bike lane green treatment along Adams Rd	$ 50,000	✗	✗	✓	✓
12	**Majors to Black Rd shared path link (Main South Rd)**	To connect cyclists travelling from Onkaparinga via Black Rd with the new Majors Rd Shared Use Path	$ 121,000	✗	✓	✓	✓
13	**Lonsdale to C2V Stg 1 - Lander Rd**	Improve connection to St Martin de Porres school and extend cycle connection to Lonsdale HWY	$ 287,098	✗	✓	✓	✓
14	**South Suburban Link #1 - Lander to Cv2**	Major North - South connection to west of Southern Expressway and Onkaparinga	$ 262,688	✗	✗	✓	✓
15	**South Suburban Link #3 - Majors to Morphett Rd**	Completes North - south connection in south western area and increases accessibility of Marion's BMX facility	$ 610,725	✗	✗	✓	✓
16	**Sixth Avenue cycle connection**	First half of new east-west cycle connection from Flinders Bikeway and Marino Rocks to Marion Rd	$ 33,020	✓	✗	✓	✓
17	**Young Street footpath upgrade**	Path connection upgrade to Coast to Vines and Woodend Primary school. DDA	$ 133,409	✗	✗	✗	✓
18	**Hallett Cove Beach Train Station Connection (Stage 2) The Bridge Path widening**	Connects pedestrians and cyclists to Hallett Cove Beach Railway Station up platform and Conservation Park/Shorefront	$ 116,416	✗	✗	✓	✓
19	**Travers Rd - Diagonal to Marion link**	Cycle link to new development, new signals and SRLP	$ 28,654	✗	✗	✓	✓
20	**South Suburban Link Stage 2 - Lander to Adams**	New north-south path connection west of the Southern Expressway	$ 1,100,000	✗	✗	✗	✓
21	**Marion Rd crossing point Sixth and Wallala**	Ramps and signage, linemarking	$ 7,620	✓	✗	✓	✓
22	**Hunt Street cycle connection**	Connection from Hendrie St & Duncan and Reserve to SRLP. Extends from crossing	$ 21,383	✗	✗	✓	✓
23	**Aroona to Perry Bar cycle link**	Connects Waterfall Creek Path with Perry Barr Rd	$ 5,775	✓	✓	✓	✓
24	**Keynes Avenue pedestrian upgrade**	Oaklands Green and Warradale Primary connection - footpath renewal and crossing upgrade	$ 277,405	✗	✗	✗	✓

2029-30 AND BEYOND							
Priority	**Project**	**Purpose**	**Est. cost**	**$100k**	**$400k**	**$750k**	**$1m**
25	**Keynes Avenue cycle connection**	Cycle link Oaklands Green to Diagonal Rd and Warradale Primary	$ 44,467	✓	✓	✓	✓
26	**Forbes Primary School access, Thomas St STAGE 1**	Forbes Primary school pedestrian access upgrade	$ 272,556	✗	✓	✓	✓
27	**Forbes Primary School access, Thomas St STAGE 2**	Forbes Primary school pedestrian access upgrade	$ 280,758	✗	✓	✓	✓
28	**Mons Avenue (East Side) footpath**	Connection of South Rd to Edwardstown Railway Station	$ 123,000	✗	✓	✓	✓
29	**Arafura Court Reserve path upgrade**	Access to Hallett Cove Beach	$ 175,000	✗	✓	✓	✓
30	**Russell Ave cycle connection**	Major East - West cycle connection between major roads plus kerb rarmps	$ 91,476	✓	✓	✓	✓
31	**Finniss St bike lane treatment**	Extends from Finniss St Streetscape program	$ 30,000	✓	✓	✓	✓
32	**Morphett Rd Shared Path**	New north-south path connection west of the Southern Expressway	$ 153,313	✗	✓	✓	✓
33	**Folkestone Road cycle connection**	Completes major E-W connection to Holdfast Bay	$ 57,750	✓	✓	✓	✓
34	**Braeside Avenue cycle connection**	Seaview High school connection, bike link N-S, sharrows etc	$ 111,355	✗	✓	✓	✓
35	**C2Vines stage 2 - Patpa to Werlinga**	Enhances connection to St Martin de Porres school and extend cycle connection to Lonsdale HWY	$ 265,225	✗	✓	✓	✓
36	**Towers Tce/Raglan/Roberts Roundabout upgrade**	Junction of existing secondary routes	$ 100,000	✗	✓	✓	✓
37	**Hendrie street Green Treatment**	Busy road, will improve safety for people accessing Sturt River Linear Path and Morphettville	$ 30,000	✓	✓	✓	✓
38	**Edward Beck footpath upgrade**	Woodend Primary school access	$ 388,029	✗	✓	✓	✓
39	**Mitchell Park Railway Station Connections**	Upgrade of condition paths adjacent railway station	$ 258,938	✗	✓	✓	✓
40	**Dwyer Rd cycle route**	Connects Trott Grove and Oaklands Railway Station	$ 24,800	✓	✓	✓	✓
41	**Duncan / Hendrie crossing**	Slip lane removal and crossing provision for peds and cyclists to access Sturt River Linear Path via Hunt St	$ 28,133	✓	✓	✓	✓
42	**Hawker Ave Path upgrade**	Morphettville Racecourse Development connection	$ 401,625	✗	✓	✓	✓
43	**Mulga St walk and cycle connection**	Darlington and Seaview Heights school active travel connections	$ 50,000	✓	✓	✓	✓
44	**Norfolk Rd Cycle Connection**	Marion Basketball Centre and to Finniss and Trott Grove	$ 60,000	✓	✓	✓	✓
45	**Boyle St and George cycle connection**	Connects Finniss St and Westfield	$ 24,800	✓	✓	✓	✓
46	**Daws Rd to Marion Rd bike lane safety treatment**	Cars turning left are reportedly cutting across the bike lane and endangering cyclists	$ 10,000	✓	✓	✓	✓
47	**Perry Barr Rd Green Treatment**	This extends on from Perry Barr Streetscape Program	$ 39,525	✓	✓	✓	✓
48	**Apollo Drive DDA footpath and kerb ramp renewal**	DDA access to shops and surrounding areas	$ 254,540	✗	✓	✓	✓
49	**Miller St Green Treatment**	Safety improvement N-S connection	$ 18,125	✓	✓	✓	✓
50	**Norfolk Ave Path Upgrade**	East west connection to Westfield and basketball centre	$ 183,319	✗	✓	✓	✓
51	**Wallala Avenue cycle connection**	Completion of western link to Hendrie St from Sixth Avenuue	$ 50,000	✓	✓	✓	✓
52	**Thomas/Laurence roundabout upgrade**	Improves safety for children bike riders and those going east-west across the city	$ 100,000	✓	✓	✓	✓
53	**Furness Avenue (North Side) Path Upgrade**	Woodlands Park Station and Castle Plaza access upgrade	$ 150,000	✗	✓	✓	✓

Priority	Project	Purpose	Est. cost	$100k	$400k	$750k	$1m
54	**Furner Road (West Side) Path Upgrade**	Mitchell Park Railway Station access upgrade	$ 198,825	✘	✓	✓	✓
55	**Waterman Terrace (South Side) Path Upgrade**	Mitchell Park Sports Centre access upgrade	$ 150,000	✘	✓	✓	✓
56	**Perry Barr Rd / Capella roundabout treatment**	This extends on from Perry Barr Streetscape Program	$ 50,000	✓	✓	✓	✓
57	**Darlington Primary School pedestrian upgrade**	Darlington Primary School Pedestrian access upgrade	$ 113,015	✘	✓	✓	✓
58	**Darlington Primary School Crossing**	Identified need for traffic management and children safety improvement	$ 40,000	✓	✓	✓	✓
59	**Seaview Heights path # 1**	Connect Seaview Downs Primary School to Morphett Rd stg 1	$ 148,500	✘	✓	✓	✓
60	**Seaview Heights path # 2**	Connect Seaview Downs Primary School to Morphett Rd stg 1	$ 445,500	✘	✘	✓	✓
61	**Edward Beck / Hugh Johnson Blvd. Roundabout treatment**	Woodend Primary school access	$ 40,000	✓	✓	✓	✓
62	**Newland Avenue Path Upgrade**	Connection to residential and commercial Seacliff Village destinations	$ 218,715	✘	✓	✓	✓
63	**Edward Beck / Nolte Street roundabout treatment**	Woodend Primary school access	$ 40,000	✓	✓	✓	✓
64	**Claines Avenue (North Side) Path Upgrade**	Connection between Morphett Rd and Sturt River Linear Path	$ 120,000	✘	✓	✓	✓
65	**Hawker Tce link to Morphettville cycle connection**	Connections Morphettville development. sharrows, road cushion, crossing	$ 47,174	✓	✓	✓	✓
66	**Constellation Drive path new or renewal**	DDA access to shops and surrounding areas	$ 162,938	✘	✓	✓	✓
67	**Panalatinga Creek catchment path**	Recreational path, potential n-s link by mountain bike or hike	$ 322,050	✘	✓	✓	✓
68	**Islington Drive Reserve path**	New footpath through reserve - share with open space	$ 110,000	✘	✓	✓	✓

Plan Across Different Annual Funding Scenarios

Scenario 1: $100,000 per annum

2025-26	**Miller Street pedestrian and cycle refuge**	**TRAFFIC CONTROL DEVICE**	Pedestrian and cycle refuge	Busy road, will help facilitate pedestrians and cyclists get across the road both to bus stop, Darlington school, Diagonal Rd and local shops etc	State Bike Fund	$ 16,975
	Waterman Tce Cycle Upgrade	**TRAFFIC CONTROL DEVICE**	New Sharrows and traffic calming	Flinders Bikeway extension to Marion Road - traffic calming and wayfinding	State Bike Fund	$ 39,609
	Sixth Avenue cycle connection	**TRAFFIC CONTROL DEVICE**	New Sharrows and traffic calming + road crossing	First half of new east-west cycle connection from Flinders Bikeway and Marino Rocks to Marion Rd	State Bike Fund	$ 33,020
2026-27	**Celtic cut through and Hamilton college access**	**TRAFFIC CONTROL DEVICE**	works, sharrows	Connection of Flinders Greenway to Hamilton College bypass	State Bike Fund	$ 45,059
	Marion Rd crossing point Sixth and Wallala	**TRAFFIC CONTROL DEVICE**	Ramp connections, wayfinding	East-west link, connects school, shops and across Marion Rd.	State Bike Fund	$ 7,620
	Waterfall Creek / Aroona Rd to Perry Barr Rd cycle link	**TRAFFIC CONTROL DEVICE**	sharrows, signs	Connects Waterfall Creek path to bike lanes on Perry Barr Rd	State Bike Fund	$ 5,775
	Marion Road crossing	**TRAFFIC CONTROL DEVICE**	New Pedestrian Refuge	Connection over arterial for Marion Hotel, Flinders Bikeway and Marion Primary School	State Bike Fund	$ 42,500
2027-28	**Adams Rd cycling connection**	**FOOTPATH UPGRADE**	Shared path connection	Cycling and walking connection to Adams Rd streetscape programmed for this year.	State Bike Fund	$ 100,665
2028-29	**Daws Rd to South Rd footpath cycle connection**	**FOOTPATH UPGRADE**	Cycle ramp to footpath and path upgrade north side.	Gets cyclists away from high traffic in constrained area where bike lane ends	State Bike Fund	$ 94,188

Scenario 2: $400,000 per annum

Year	Project	Type	Description	Purpose	Grant funding opportunity?	Project cost estimate
2025-26	Gully Road Reserve South Seacliff Park - Shared Path (Stage 2)	NEW FOOTPATH INFRASTRUCTURE	Shared path connection	North-south bikeway and pedestrian access through reserve - *PENDING OPEN SPACE FUNDING APPROVAL FOR PROJECT AT MAY GC MEETING	State Bike Fund	$400,000*
2026-27	Miller Street pedestrian and cycle refuge	TRAFFIC CONTROL DEVICE	Pedestrian and cycle refuge	Busy road, will help facilitate pedestrians and cyclists get across the road both to bus stop, Darlington school, Diagonal Rd and local shops etc	State Bike Fund	$ 16,975
	Marion Road crossing	TRAFFIC CONTROL DEVICE	New Pedestrian Refuge	Connection over arterial for Marion Hotel, Flinders Bikeway and Marion Primary School	State Bike Fund	$ 42,500
	Celtic cut through and Hamilton college access	TRAFFIC CONTROL DEVICE	kerb works, sharrows	Connection of Flinders Greenway to Hamilton College bypass	State Bike Fund	$ 45,059
	Waterman Tce Cycle Upgrade	TRAFFIC CONTROL DEVICE	New Sharrows and traffic calming	Flinders Bikeway extension to Marion Road - traffic calming and wayfinding	State Bike Fund	$ 39,609
	Trott Grove connection (Chrysler Trail)	NEW FOOTPATH INFRASTRUCTURE	Path upgrade and sharrows	Complete Chrysler Trail connection, Boyle to Diagonal Rd	State Bike Fund	$ 151,023
	Aroona Rd to Perry Barr Rd cycle link	TRAFFIC CONTROL DEVICE	sharrows, signs	Connects Waterfall Creek Path with Perry Barr Rd bike lanes	State Bike Fund	$ 5,775
	Adams Rd cycling connection	FOOTPATH UPGRADE	Shared path connection	Cycling and walking connection to Adams Rd streetscape programmed for this year.	State Bike Fund	$ 100,665
2027-28	Hallett Cove Beach Train Station Connection (Stage 1)	NEW FOOTPATH INFRASTRUCTURE	New footpath and crossing	New path connection following existing desire line to Hallett Cove Beach Railway Station. 2.5m path	State Bike Fund	$ 145,000
	Daws Rd to South Rd footpath upgrade and cycle connection	FOOTPATH UPGRADE	Cycle ramp to footpath and path upgrade north side.	Gets cyclists away from high traffic in constrained area where bike lane ends	State Bike Fund	$ 94,188
	Norfolk Rd pedestrian upgrade	FOOTPATH UPGRADE	Footpath upgrade	Marion Basketball Centre and footpath connection to Westfield - north side		$ 183,319
2028-29	Lonsdale to C2Vines - Stage 1 - Lander Rd	NEW FOOTPATH INFRASTRUCTURE	Shared path connection	Improve connection to St Martin de Porres school and extend cycle connection from Werlinga to Lonsdale HWY	State Bike Fund	$ 287,098
	Majors to Black Rd shared path link (Main South Rd)	NEW FOOTPATH INFRASTRUCTURE	New path link	To connect cyclists travelling from Onkaparinga via Black Rd with the new Majors Rd Shared Use Path	State Bike Fund	$ 120,990

Scenario 3: $750,000 per annum

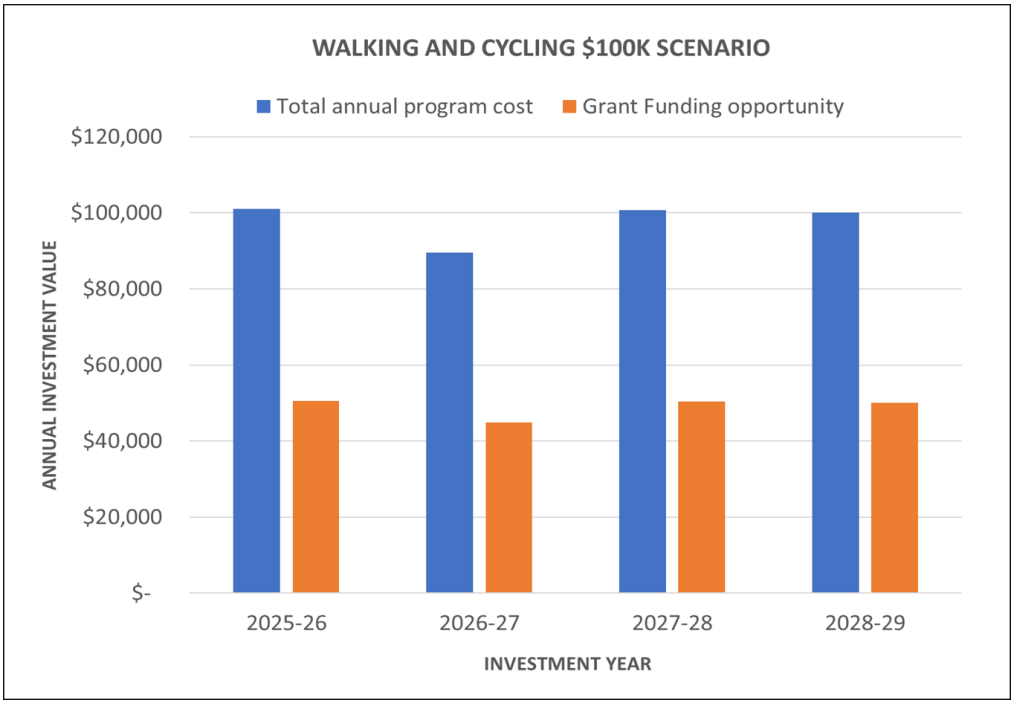
Year	Project	Type	Description	Purpose	Grant funding opportunity?	Project cost estimate
2025-26	Gully Road Reserve South Seacliff Park - Shared Path (Stage 2)	NEW FOOTPATH INFRASTRUCTURE	Shared path connection	North-south bikeway and pedestrian access through reserve *PENDING OPEN SPACE FUNDING APPROVAL FOR PROJECT AT MAY GC MEETING	State Bike Fund	$400,000*
	Miller Street pedestrian and cycle refuge	TRAFFIC CONTROL DEVICE	Pedestrian and cycle refuge	Busy road, will help facilitate pedestrians and cyclists get across the road both to bus stop, Darlington school, Diagonal Rd and local shops etc	State Bike Fund	$ 16,975
	Waterman Tce Cycle Upgrade	TRAFFIC CONTROL DEVICE	New Sharrows and traffic calming	Flinders Bikeway extension to Marion Road - traffic calming and wayfinding	State Bike Fund	$ 39,609
	Marion Road crossing	TRAFFIC CONTROL DEVICE	New Pedestrian Refuge	Connection over arterial for Marion Hotel, Flinders Bikeway and Marion Primary School	State Bike Fund	$ 42,500
	Celtic cut through and Hamilton college access	TRAFFIC CONTROL DEVICE	Kerb works, sharrows	Connection of Flinders Greenway to Hamilton College bypass	State Bike Fund	$ 45,059
	Adams Rd cycling connection	TRAFFIC CONTROL DEVICE	Shared path connection	Connection to Adams Streetscape / Majors Rd link	State Bike Fund	$ 100,665
	Trott Grove connection (Chrysler Trail)	FOOTPATH UPGRADE	Path upgrade and sharrows	Complete Chrysler Trail connection from	State Bike Fund	$ 151,023
2026-27	Majors to Black Rd shared path link (Main South Rd)	NEW FOOTPATH INFRASTRUCTURE	New path link	To connect cyclists travelling from Onkaparinga via Black Rd with the new Majors Rd Shared Use Path	State Bike Fund	$ 120,990
	Hallett Cove Beach Train Station Connection (Stage 1) - Manunda	NEW FOOTPATH INFRASTRUCTURE	New footpath and crossing	New path connection following existing desire line to Hallett Cove Beach Railway Station	State Bike Fund	$ 145,000
	Daws Rd to South Rd footpath cycle connection	FOOTPATH UPGRADE	Cycle ramp to footpath and path upgrade	Gets cyclists away from high traffic in constrained area where bike lane ends	State Bike Fund	$ 94,188
	Norfolk Rd Pedestrian Upgrade	FOOTPATH UPGRADE	footpath upgrade	Marion Basketball Centre and footpath connection to Westfield		$ 183,319
	South Suburban Link Stage 1	NEW FOOTPATH INFRASTRUCTURE	New path link	Major North - South connection Lander to C2V	State Bike Fund	$ 262,688
2027-28	Lonsdale to C2V Stg 1 - Lander Rd	FOOTPATH UPGRADE	Shared path connection	improve connection to St Martin de Porres school and extend cycle connection to Lonsdale HWY	State Bike Fund	$ 287,098
	Adams Rd cycling treatment	FOOTPATH UPGRADE	Bike lane green treatment	Cycling and walking connection to Adams Rd streetscape	State Bike Fund	$ 50,000
	Hallett Cove Beach Train Station Connection (Stage 2) The Bridge Path widening	FOOTPATH UPGRADE	Footpath upgrade	Connects pedestrians and cyclists to Hallett Cove Beach Railway Station up platform and Conservation Park/Shorefront		$ 116,416
	South Suburban Link Stage 2 (Section 1)	NEW FOOTPATH INFRASTRUCTURE	New path link to bridge	Major North - South connection Lander Rd to Adams Rd	State Bike Fund	$ 350,000
2028-29	South Suburban Link #3 - Majors to Morphett Rd	NEW FOOTPATH INFRASTRUCTURE	Major new path	Completes North - south connection in south western area and increases accessibility of Marion's BMX facility	State Bike Fund	$ 610,725
	Sixth Avenue Cycle Connection	TRAFFIC CONTROL DEVICE	New Sharrows and traffic calmingg	First half of new east-west cycle connection from Flinders Bikeway and Marino Rocks to Marion Rd	State Bike Fund	$ 33,020
	Marion Rd crossing point Sixth and Wallala	FOOTPATH UPGRADE	Ramp connections, wayfinding	East-west link, connects school, shops and across Marion Rd.	State Bike Fund	$ 7,620
	Hunt Street cycle connection	TRAFFIC CONTROL DEVICE	Sharrows and traffic calming	Connection from Hendrie St & Duncan and Reserve to SRLP. Extends from crossing	State Bike Fund	$ 21,383
	Aroona Rd to Perry Barr Rd cycle link	TRAFFIC CONTROL DEVICE	sharows and signage	Connects Waterfall Creek path to bike lanes on Perry Barr Rd	state Bike Fund	$ 5,775
	Travers Rd - Diagonal to Marion cycle link	TRAFFIC CONTROL DEVICE	Sharrows and traffic calming	Cycle link to new development, new signals and SRLP	state Bike Fund	$ 28,654

Scenario 4: $1,000,000 per annum

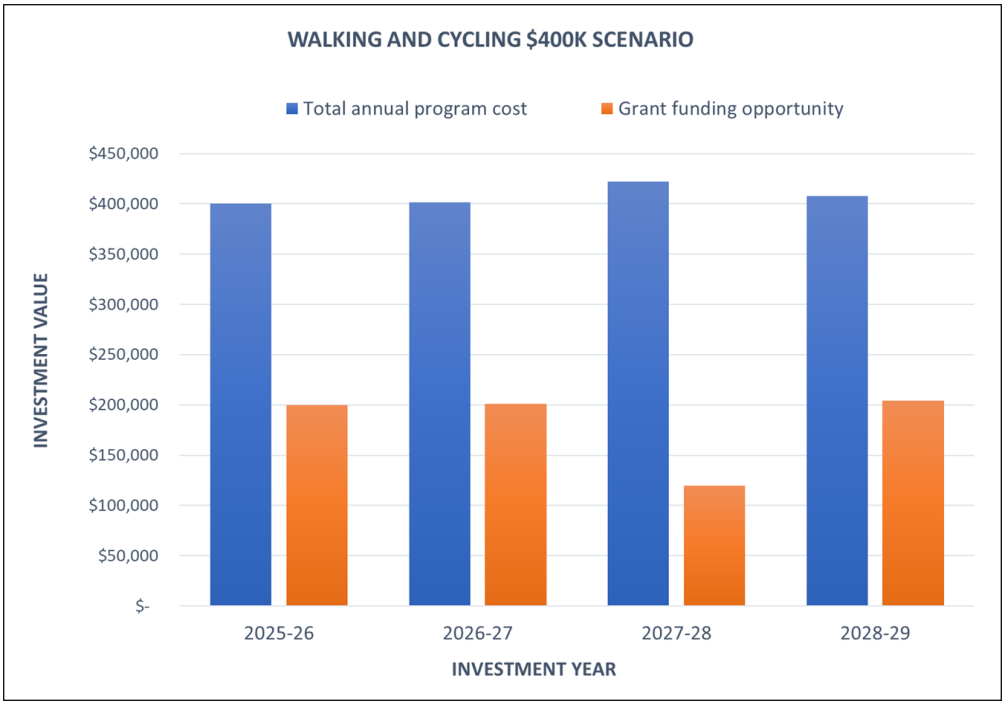
Year	Project	Type	Description	Purpose	Grant funding opportunity?	Project cost estimate
2025-26	Gully Road Reserve South Seacliff Park - Shared Path (Stage 2)	NEW FOOTPATH INFRASTRUCTURE	Shared path connection	North-south bikeway and pedestrian access through reserve. *PENDING OPEN SPACE FUNDING APPROVAL FOR PROJECT AT MAY GC MEETING	State Bike Fund	$400,000*
	Miller Street pedestrian and cycle refuge	TRAFFIC CONTROL DEVICE	Pedestrian and cycle refuge	Busy road, will help facilitate pedestrians and cyclists get across the road both to bus stop, Darlington school, Diagonal Rd and local shops etc	State Bike Fund	$ 16,975
	Waterman Tce Cycle Upgrade	TRAFFIC CONTROL DEVICE	New Sharrows and traffic calming	Flinders Bikeway extension to Marion Road - traffic calming and wayfinding	State Bike Fund	$ 39,609
	Adams Rd cycling connection	FOOTPATH UPGRADE	Shared path connection	Cycling and walking connection to Adams Rd streetscape programmed for this year.	State Bike Fund	$ 100,665
	Trott Grove connection (Chrysler Trail)	FOOTPATH UPGRADE	Path upgrade and sharrows	Complete Chrysler Trail connection from	State Bike Fund	$ 151,023
	Marion Road crossing	TRAFFIC CONTROL DEVICE	New Pedestrian Refuge	Connection over arterial for Marion Hotel, Flinders Bikeway and Marion Primary School	State Bike Fund	$ 42,500
	Celtic cut through and Hamilton college access	TRAFFIC CONTROL DEVICE	Kerb works, sharrows	Connection of Flinders Greenway to Hamilton College bypass	State Bike Fund	$ 45,059
	Daws Rd to South Rd footpath cycle connection	FOOTPATH UPGRADE	Cycle ramp to footpath and path upgrade north side.	Gets cyclists away from high traffic in constrained area where bike lane ends	State Bike Fund	$ 94,188
	Norfolk Rd pedestrian upgrade	FOOTPATH UPGRADE	Footpath upgrade	Marion Basketball Centre and footpath Could be done as part of project		$ 183,319
2026-27	Lonsdale to C2V Stg 1 - Lander Rd	FOOTPATH UPGRADE	Shared path connection	Improve connection to St Martin de Porres school and extend cycle connection to Lonsdale HWY	State Bike Fund	$ 287,098
	Hallett Cove Beach Train Station Connection (Stage 1) - Manunda	NEW FOOTPATH INFRASTRUCTURE	New path and crossing	New path connection following existing desire line to Hallett Cove Beach Railway Station	State Bike Fund	$ 151,200
	Adams Rd cycle treatment	FOOTPATH UPGRADE	Green treatment across intersections	Connection to Adams Streetscape	State Bike Fund	$ 50,000
	Marion Rd crossing point Sixth and Wallala	FOOTPATH UPGRADE	Ramp connections, wayfinding	East-west link, connects school, shops and across Marion Rd.	State Bike Fund	$ 7,620
	Sixth Avenue Cycle Connection	TRAFFIC CONTROL DEVICE	New Sharrows and traffic calmingg	First half of new east-west cycle connection from Flinders Bikeway and Marino Rocks to Marion Rd	State Bike Fund	$ 33,020
	Young Street footpath upgrade	FOOTPATH UPGRADE	Path widening and DDA upgrade	Path connection upgrade to Coast to Vines and Woodend Primary school. DDA	State Bike Fund	$ 133,409
	Majors to Black Rd shared path link (Main South Rd)	NEW FOOTPATH INFRASTRUCTURE	New path link	To connect cyclists travelling from Onkaparinga via Black Rd with the new Majors Rd Shared Use Path	State Bike Fund	$ 120,990
	South Suburban Link Stage 1	NEW FOOTPATH INFRASTRUCTURE	New path link	Major North - South connection Lander to C2V	State Bike Fund	$ 262,688
2027-28	South Suburban Link #3 - Majors to Morphett Rd	NEW FOOTPATH INFRASTRUCTURE	Major new path	Completes North - south connection in south western area and increases accessibility of Marion's BMX facility	State Bike Fund	$ 610,725
	Hallett Cove Beach Train Station Connection (Stage 2) The Bridge Path widening	FOOTPATH UPGRADE	Footpath upgrade	Connects pedestrians and cyclists to Hallett Cove Beach Railway Station up platform and Conservation Park/Shorefront	State Bike Fund	$ 116,416
	Aroona Rd to Perry Barr Rd cycle link	TRAFFIC CONTROL DEVICE	Sharrows and signs	Connects Waterfall Creek path to bike lanes on Perry Barr Rd	State Bike Fund	$ 5,775
	Hunt Street cycle connection	TRAFFIC CONTROL DEVICE	Sharrows and traffic calming	Connection from Hendrie St & Duncan and Reserve to SRLP. Extends from crossing	State Bike Fund	$ 21,383
	Keynes Avenue pedestrian upgrade	FOOTPATH UPGRADE	Footpath upgrade	Oaklands Green and Warradale Primary connection - footpath renewal and crossing upgrade	Way2Go	$ 277,405
	Travers Rd - Diagonal to Marion cycle link	TRAFFIC CONTROL DEVICE	Sharrows and traffic calming	Cycle link to new development, new signals and SRLP	state Bike Fund	$ 28,654
2028-29	South Suburban Link Stage 2	NEW FOOTPATH INFRASTRUCTURE	Major new path link	Major North - South connection Lander to Adams (whole project)	State Bike Fund	$ 1,045,575

Results Walking and Cycling Plan – Investment Scenarios

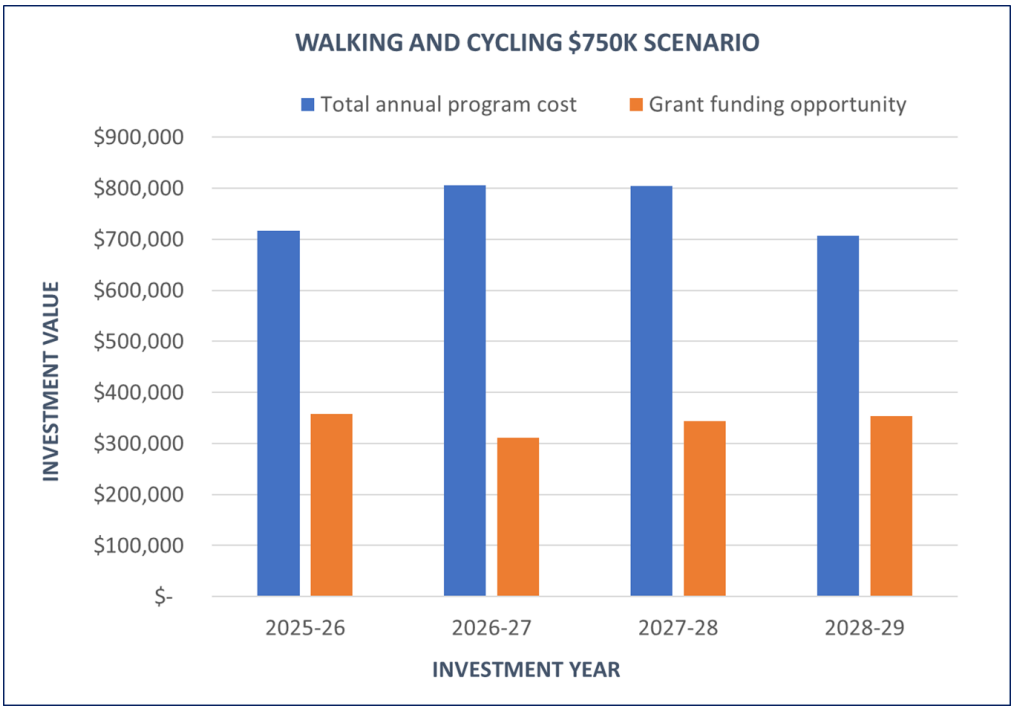
Scenario 1: $100,000 Per Annum



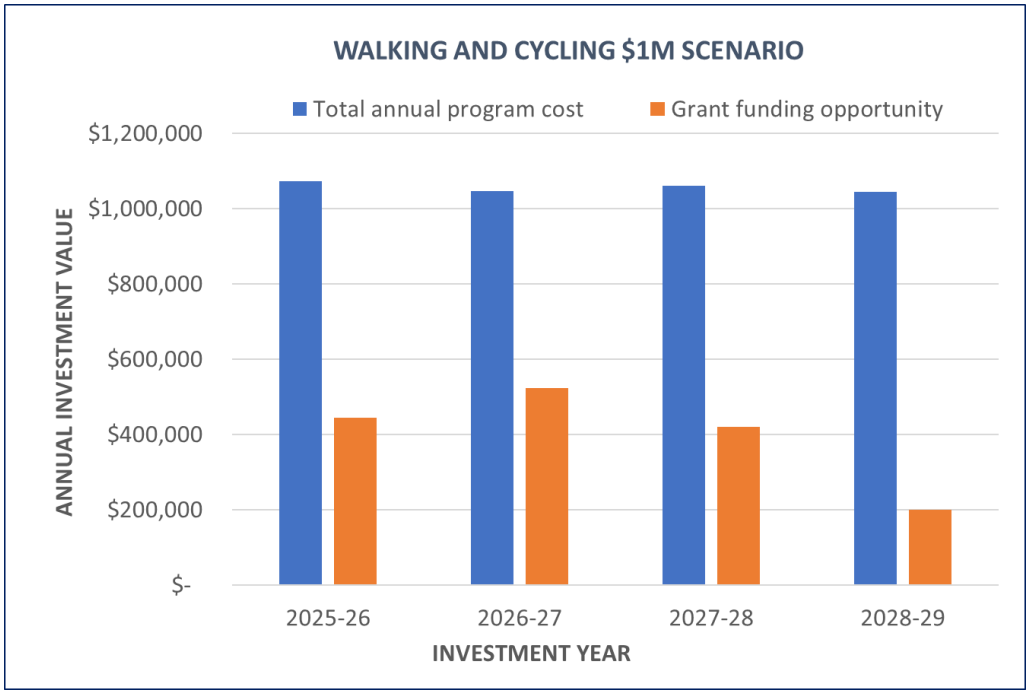
Scenario 2: $400,000 Per Annum



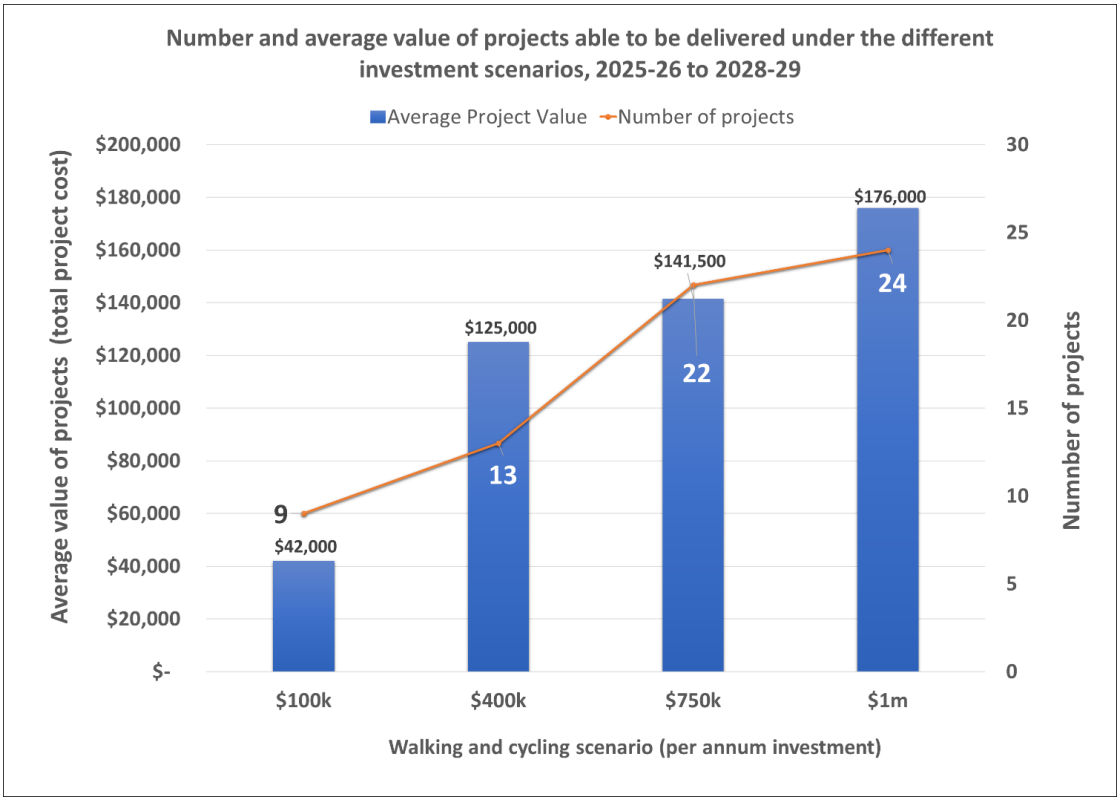
Scenario 3: $750,000 Per Annum



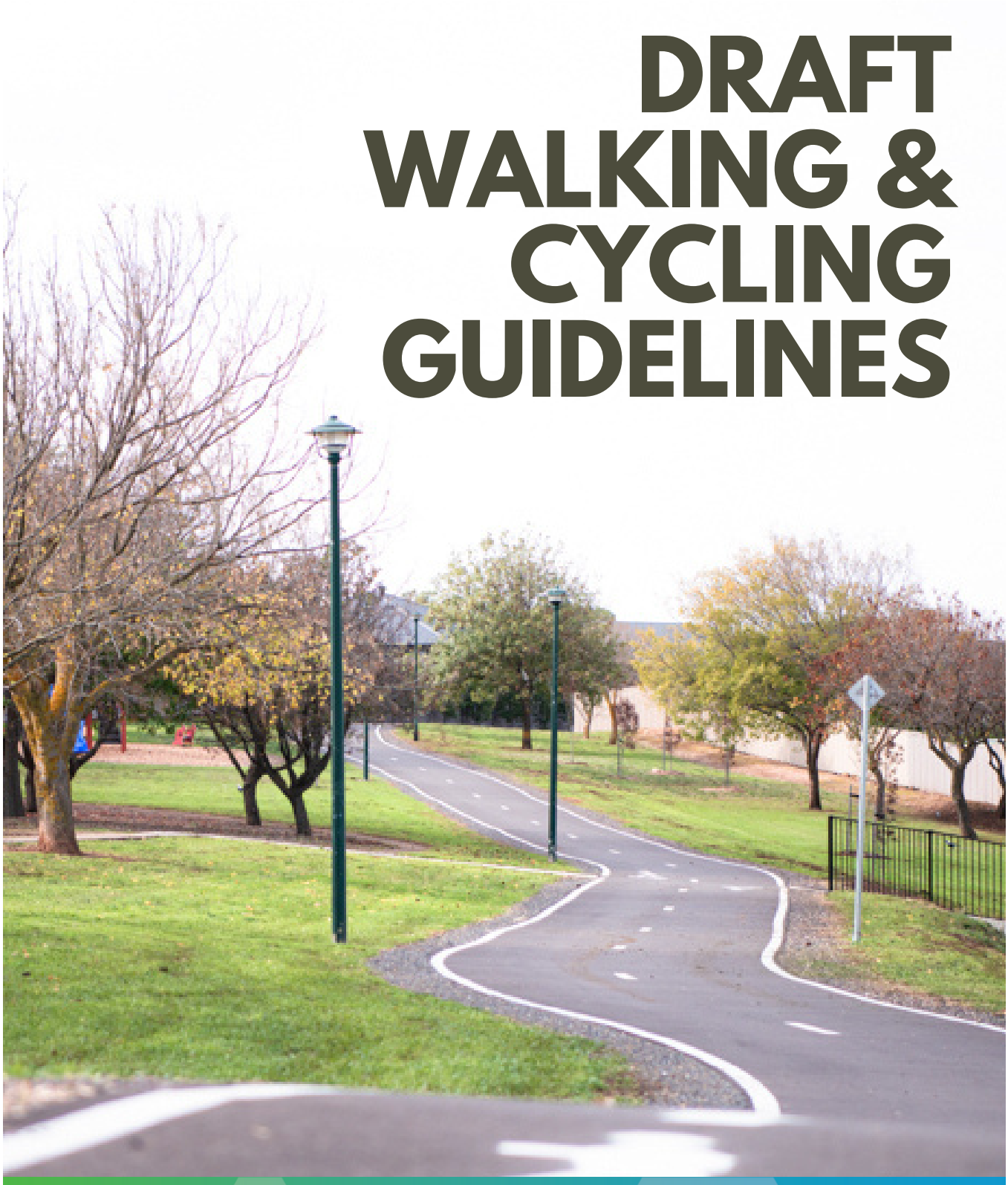
Scenario 4: $1 million Per Annum



Comparison of scenarios by project number and value



DRAFT WALKING & CYCLING GUIDELINES



2023 REVIEW

DRAFT VERSION 2.1 (JUNE 2023)

CITY OF MARION

TABLE OF CONTENTS

Acknowledgement of Traditional Owners

The City of Marion respectfully acknowledges the Traditional Owners of the land, Kaurna people and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past, present and emerging.

DOCUMENT CONTROL

PREPARED BY

Document Owners	Organizational Role
Mathew Allen	Manager Engineering, Asset & Environment
Carl Lundborg	Unit Manager Unit Engineering
Nathan Saxty	Coordinator Transport
Sara Hurditch	Transport Engineer

DOCUMENT HISTORY / VERSION CONTROL

Version	Date	Author/s	Change Status
1	August 2012	Mark Griffin, Brett Grimm, Elaine Delgado & Oxigen	Walking & Cycling Strategy 2012-2017 endorsed by Council (GC280812R05)
2	December 2018	Mathew Allen, Mark Griffin, Brett Grimm, Joyce Louey & Oxigen	Walking & Cycling Guidelines 2018-2022 endorsed by Council (GC080518R04)
2.1	June 2023	Mathew Allen, Carl Lundborg, Nathan Saxty, Sara Hurditch & Oxigen	Drafted a 3rd version of the Walking & Cycling Guidelines for Elected Member Forum. Changes include: - Consolidation of document - Focus on techniques - The creation of a Walking & Cycling Hierarchy - Separation of a 4 Year Walking & Cycling Capital Works and Operational Plan

THE WALKING & CYCLING GUIDELINES

INTRODUCTION

These Guidelines provide direction for the City of Marion's on-going commitment to enhance our current walking and cycling network and create safe, people-friendly and 'activated' streets.

Regular walking, cycling and other active travel modes (which include mobility scooters and other small-wheeled devices) encourage healthy and active lifestyles, reduce traffic congestion, and support vibrant local economies and environmental sustainability.

The Guidelines inform and support the development of four-year priority cycling network plans, and new and improved walking links, by exemplifying best practice techniques.

Expanding walking and cycling networks, designed in accordance with the Guidelines, will provide better connections for the city's growing population ('People') by encouraging our community to walk and cycle to destinations, transport hubs and for fun ('Places').

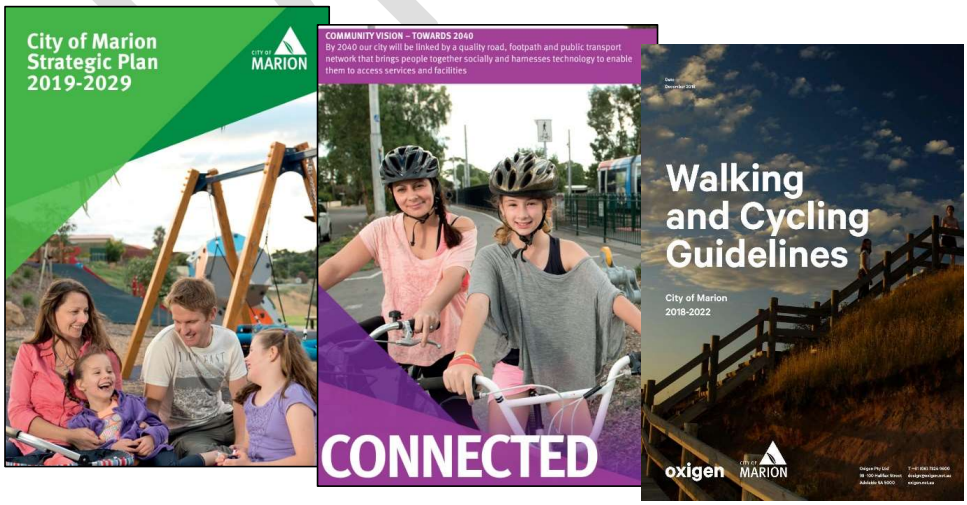
Active travel infrastructure supports 'liveability' within cities as it helps people to move easily and efficiently between places and supports equitable access to services and facilities. Walking and cycling also helps connect people by making connections through a smile or greeting.

The City of Marion has evaluated its road and path network, key destinations and developments to identify a suitable hierarchy, or priority level, of pedestrian and cycling routes to connect people across the city.

The hierarchy is classified into Primary, Secondary and Local routes. Popular primary routes provide the most direct and highest level of service, where possible, for the community. Secondary routes also provide high quality facilities to key destinations and local routes connect local streets to these paths.

Defining the hierarchy in this way helps the community to know what to expect along a particular route and guide the design of appropriate treatments.

This includes upgrading our facilities to better accommodate older people, those with mobility impairments and school children. Investing in better active travel facilities will encourage physical and mental health benefits for our community and improve the sustainability of our transport networks.



WHY WALK & CYCLE

Active travel benefits all people and the community as a whole.

People who walk and cycle are rewarded through improved physical and mental health.

Places that offer good walking and cycling facilities are more 'vibrant' and 'liveable' urban areas and contribute to the revitalization and sustainability of the local community.

The SA Walking Strategy wants:

- More people to make short trips by walking
- More people to access green open space for walking
- More people to improve their health and wellbeing through walking

The Cycling Strategy for SA wants:

- More people to cycle with the benefits being reduced health care costs, reduced traffic congestion and reduced emissions
- Cycling to be inclusive, accessible, integrated and enjoyable

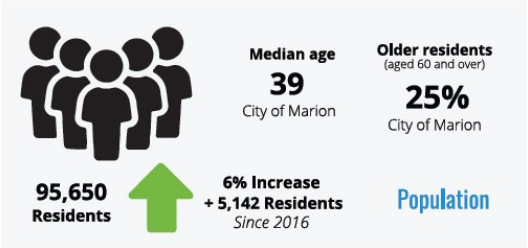
 Health	 Social	 Environment	 Economy
Improves general health and fitness Lowers blood pressure and improves heart health. Reduces weight and obesity levels. Improves mental health and wellbeing. Increases life expectancy by reducing the risk of heart disease and stroke through improving conditions like high blood pressure, high cholesterol and diabetes. Reduces joint and muscular stiffness and pain. Increases happiness by reducing stress. Reduces stress and depression.	Increases social interaction. Supports community life and more active and interesting streets. Reduces crime through passive surveillance. Increases road safety, with research showing increased street activity slows vehicles and increases driver alertness. Reduces traffic congestion. Enhances community pride through tactile experiences of place	Are sustainable transport options. Do not produce air-pollutants, noise pollution or carbon emissions. Increases local amenity by reducing the number of vehicles on our roads. Associated infrastructure such as appropriate street trees provide shade, biodiversity and amenity.	Through urban areas attracts local retail trade and 'activates' community spaces. Infrastructure can increase the value of adjacent residential & commercial properties. Reduces economic costs related to poor health, including fewer sick days, and reduces pressure on public health services. Reduces congestion for quicker travel times and the number of road accidents. Improves urban quality

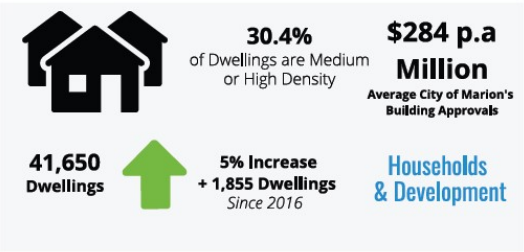
WALKING & CYCLING AT THE CITY OF MARION

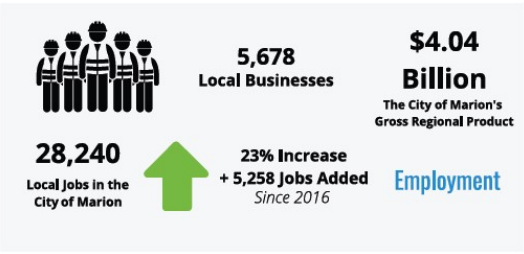
CITY OF MARION CONTEXT

Like many Adelaide councils, the City of Marion is characterized by:

- A growing population and infill development
- High levels of car ownership and demand for parking
- A high proportion of families and an ageing population
- Low incidence of cycling and walking for everyday trips







These present both challenges and opportunities for connecting our city sustainably and enhancing liveability across all segments of our community.

This means creating streets which are safe, comfortable and healthy for all users, not just motor vehicles, to encourage people to travel actively and reduce the need for some vehicle trips - or even a second or third car.

The City of Marion is home to a range of different services, facilities, and attractions. We need to support our community to get to both existing and developing destinations easily, efficiently and actively if they choose to.

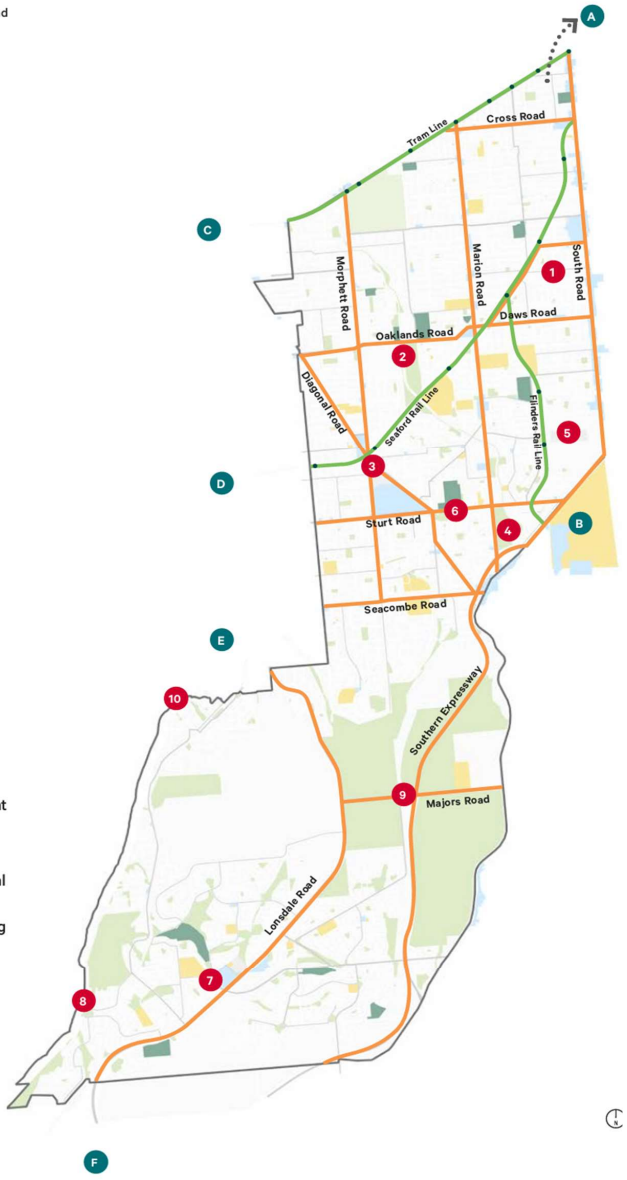
KEY DESTINATION & ROUTES

Key destinations within the City of Marion include:

1. **Edwardstown Employment Precinct**
   - Castle Plaza Shopping Centre
   - Edwardstown Oval Soldiers Memorial Ground
2. **Oaklands Recreation Precinct**
   - Oaklands Wetland
   - Oakland Recreation Plaza
   - Marion Outdoor Swimming Centre
3. **Marion Cultural & Leisure Precinct**
   - State Aquatic and Leisure Centre
   - Marion Cultural Centre
   - Westfield Marion
4. **Warriparinga**
   - Living Kaurna Cultural Centre
   - Warriparinga Wetland
   - Marion Holiday Park
5. **Tonsley**
   - Tonsley Innovation District
   - Mitchell Park Sport and Community Centre
6. **Marion Precinct**
   - City of Marion Administration Centre
   - Cooinda Community Centre
   - Marion Sports and Community Club
7. **Hallett Cove Precinct**
   - Cove Civic Centre
   - Hallett Cove Shopping Centre
   - Cove Sport and Community Centre
8. **Hallett Cove Beach**
   - Coastal Walkway - Hallett Cove to Marino
   - Hallett Cove Conservation Park
   - Heron Way Reserve and Playground
9. **Majors Road**
   - O'Halloran Hill Mountain Bike Trails
   - Sam Willoughby International BMX Facility
   - Southern Soccer Facility
   - Glenthorne National Park
   - Riding for the Disabled Facility
10. **Marino, Marino Rocks**
    - Adelaide Coast Park
    - Bandon Terrace Reserve
    - Marino Conservation Park
    - Coastal Walkway - Marino to Hallett Cove

While located outside the City of Marion, the following destinations also influence movement patterns:

- A Adelaide CBD
- B Flinders University and Flinders Medical Centre
- C Glenelg Beach and Jetty Road Shopping Precinct
- D Brighton Beach and Jetty
- E Seacliff Beach and Brighton Caravan Park
- F Lonsdale Industrial Precinct

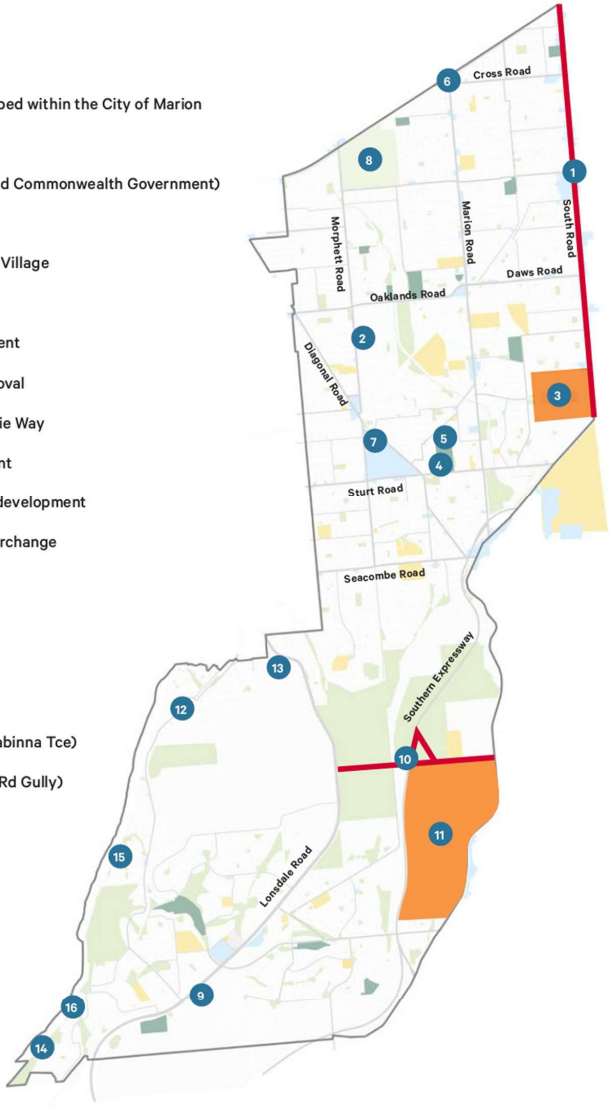


- Regional Centers
- Schools and child care facilities
- Key reserves / open spaces
- Key sport and recreation
- Arterial Roads

MAJOR PROJECTS & DEVELOPMENTS

Major projects currently being planned or developed within the City of Marion include:

1. North South Corridor Upgrade (State and Commonwealth Government)
2. Oaklands Green Housing Development
3. Tonsley Innovation District and Tonsley Village
4. Ice Rink and Rock Climbing Facility
5. Marion Basketball Stadium Redevelopment
6. Marion/Cross Road Level Crossing Removal
7. Marion Cultural Centre Plaza, Warracowie Way
8. Morphettville Racecourse Redevelopment
9. Cove Sports Netball and Lower Oval Redevelopment
10. Majors Road/ Southern Expressway Interchange
11. Glenthorne National Park
12. Marino Community Hall Redevelopment
13. Seacliff Village Housing Development
14. Cove Point Housing Development
15. Coastal Walkway Redevelopment (Kurnabinna Tce)
16. Coastal Walkway Redevelopment (Grey Rd Gully)



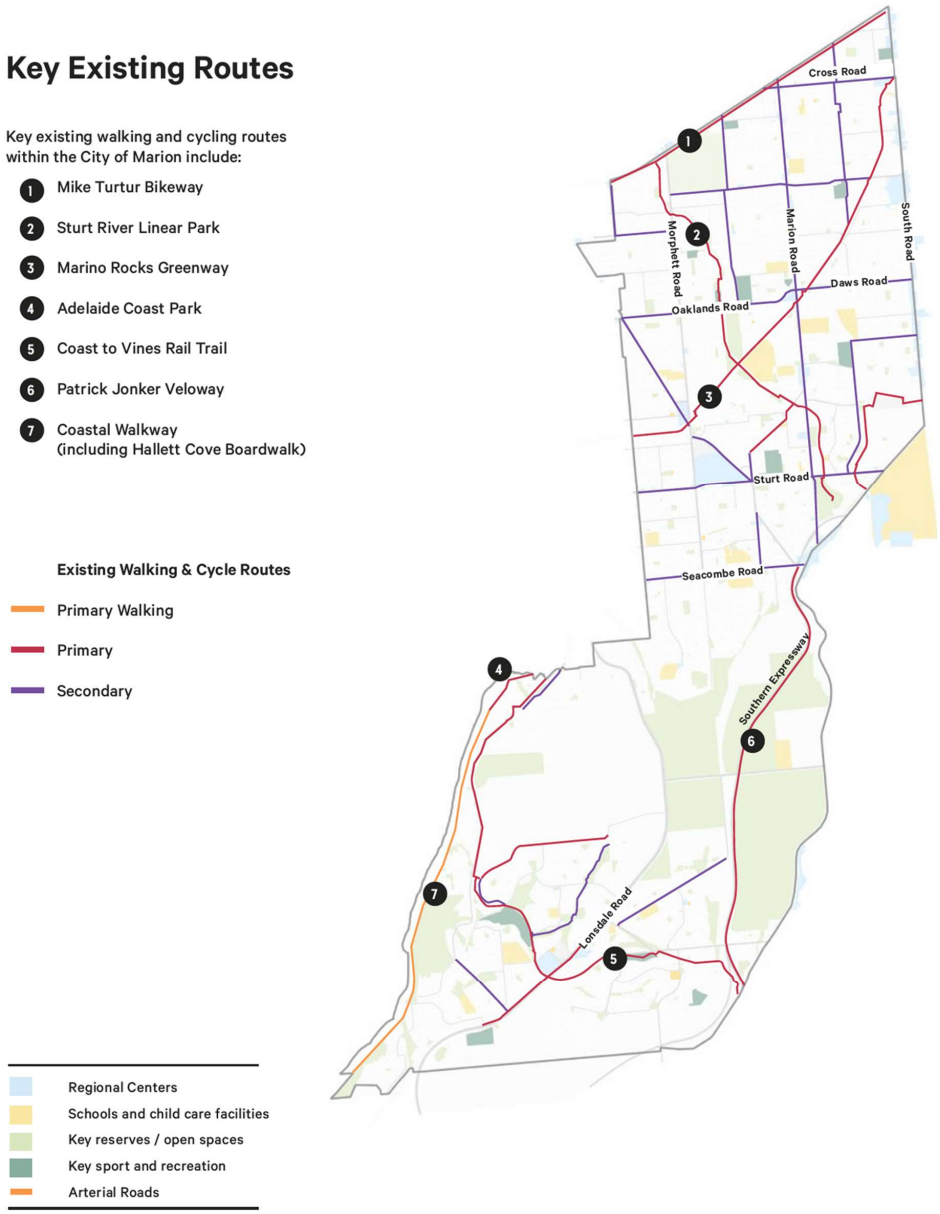
KEY EXISTING WALKING AND CYCLING ROUTES

The City of Marion has an established walking and cycling network that can be expanded upon and enhanced with investment in maintenance and asset upgrades. The following routes form the 'backbone' of the Walking and Cycling Network and from which future investment in active travel infrastructure will be built upon.

Key Existing Routes

Key existing walking and cycling routes within the City of Marion include:

1. Mike Turtur Bikeway
2. Sturt River Linear Park
3. Marino Rocks Greenway
4. Adelaide Coast Park
5. Coast to Vines Rail Trail
6. Patrick Jonker Veloway
7. Coastal Walkway (including Hallett Cove Boardwalk)



DESIGN PRINICPLES

TOWARDS 2040 COMMUNITY VISION

The City of Marion Strategic Plan 2017-2027 outlines a Towards 2040 Community Vision. These principles have been applied to the Walking and Cycling Guidelines:

1. **LIVEABLE**

The liveability of cities can be enhanced by quality active travel infrastructure. This means creating a transport network which improves the safety of vulnerable users, uses compliant infrastructure, provides shade and amenity and increases the capacity of our assets to comfortably accommodate people.

2. **VALUING NATURE**

Walking and cycling supports community interactions with other people and with nature.

3. **ENGAGED**

Promotion, education and advocacy encourages participation in walking and cycling with resulting benefits to community health and wellbeing.

4. **INNOVATIVE**

A connected and strategically planned network encourages walking and cycling that can be inclusive, viable and a safe alternative to vehicle travel.

5. **PROSPEROUS**

Increased walking and cycling supports local business and drives economic development.

6. **CONNECTED**

A continuous and integrated network of walking and cycling routes connects people and places, both within and outside of the City of Marion. Connected communities are safe as more people are out and about providing passive surveillance to streets and parks. The inclusive nature of walking and cycling means that everyone receives the rewards of improved health and social wellbeing. In particular, children and the elderly can gain greater independence.

OBJECTIVES

We want walking and cycling within the City of Marion to:

- Be a safe, comfortable option to travel for work, study, recreation and shopping trips.
- Become an easy, everyday activity in our city for people of all ages and mobilities.
- Improve the access people have to everyday, local shopping precincts and creating 'vibrant' spaces.
- Actively connect people to public transport
- Reduce our reliance on motor vehicles and demand for parking.
- Support children to safely travel to school.
- Maximise people's opportunity to connect with nature.
- Provide opportunities for the community to improve their fitness, social interaction and mental well-being.

To do this we need a quality, connected walking and cycling network. A network that:

- Is founded on good design principles to enhance walkability and liveability throughout the City.
- Is comprehensive and links to cycling and walking paths in other Councils.
- Connects the community to where they want to go as the City develops, without the need for a car trip.
- Has 'inclusive' infrastructure and improves safety for vulnerable road users, including on busy roads.
- Includes green infrastructure (trees and shade) where possible to encourage people to be outdoors and enhance the City's resilience to climate change.

And a focus on different trip types and destinations, including:

- long range inter-suburban trips that deliver us to regional centres.
- intra-suburban trips that connect us to destinations and major paths.
- local connections which can offer lower traffic, lower speed environments and link to more major routes.

WALKING & CYCLING HIERARCHY

Like the existing network, the Proposed Walking and Cycling Network reflects a hierarchy of different service levels – or priority – given to active travelers through the City of Marion. The proposed network is divided into Primary, Secondary and Local routes to:

- Establish the purpose of the route from a strategic city-wide perspective.
- Indicate to users what level of service they can expect (eg bike lane, shared path or sharrows).
- Help guide the level of planning and investment which may be needed at various locations.

The network of Primary, Secondary and Local routes to be implemented over the next 20 years has been designed to:

- Expand upon the existing network to infill and extend north-south and east-west travel connections.
- Connect up new residential, commercial and open space developments.
- Connect streetscape projects and major transport corridors (T2D and Flinders Bikeway)
- Enhance the safety of vulnerable users through higher traffic areas where possible.
- Improve access to public transport and activity centres (e.g. shops)
- Improve access to schools and public places (e.g. parks)

PRIMARY ROUTES

High demand corridors that connect to major destinations. Typically, Greenways and Bikeways. They provide high-quality, safe, convenient (and where possible uninterrupted) routes that form the spine of the cycling and walking network. These routes are conducive to medium or long-distance commuting/utility, recreational, training and tourism trips.

SECONDARY ROUTES

A lower demand than primary routes but provides high quality, safety and convenience. These routes provide connections between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities. The walkability of these routes should be to a high standard.

LOCAL ROUTES

Generally lower demand local street routes. They are predominantly located in local residential areas. They connect to secondary and primary routes, local amenities and recreational spaces. These can, but don't have to, include traffic calming treatments which help to deflect traffic and manage their volumes. The walkability of these routes should be to a high standard where an enhanced level of service is identified – such as through a bicycle boulevard.

EXISTING & PROPOSED ROUTES

Key Existing & Proposed Routes

Key existing walking and cycling routes within the City of Marion include:

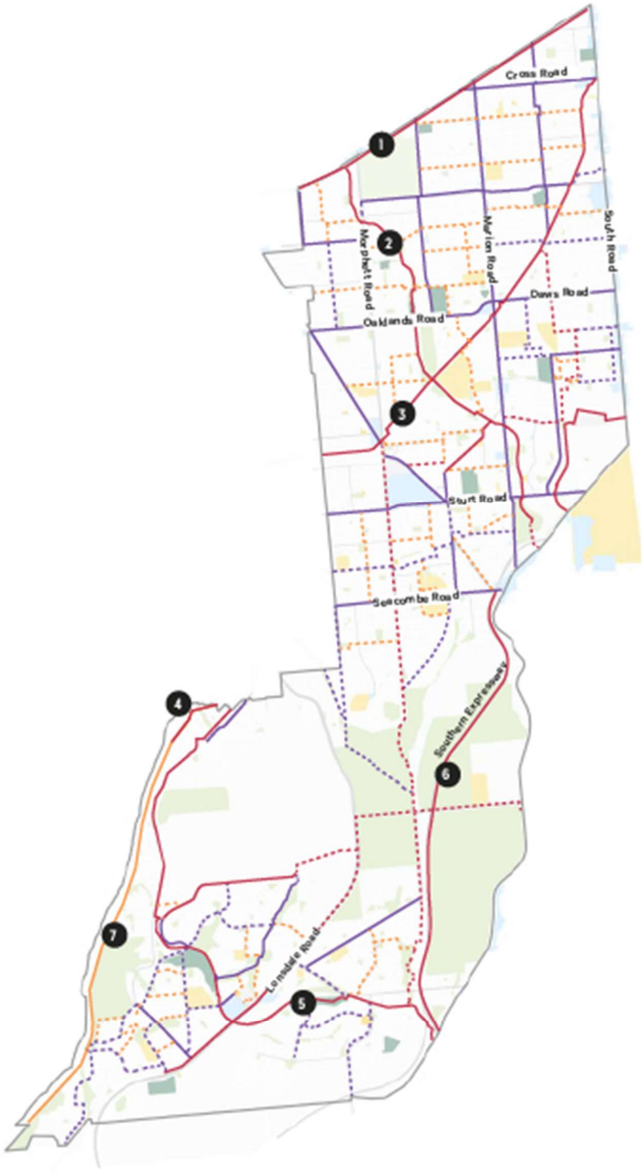
1. Mike Turtur Bikeway
2. Sturt River Linear Park
3. Marino Rocks Greenway
4. Adelaide Coast Park
5. Coast to Vines Rail Trail
6. Patrick Jonker Veloway
7. Coastal Walkway

Existing Walking & Cycle Routes

- Primary Walking
- Primary
- Secondary

Proposed Walking & Cycle Routes

- Primary
- Secondary
- Local



- Regional Centers
- Schools and child care facilities
- Key reserves / open spaces
- Key sport and recreation
- Arterial Roads

TREATMENT & TYPOLOGIES

There are a variety of different walking and cycling treatments and service level classifications (typologies) which can be applied across the network to encourage people to travel actively.

Different treatments provide different levels of priority for walkers and cyclists which subsequently prescribe the application of primary, secondary and local routes.

These include, among other things:

Path Infrastructure

- Shared Use paths
- Footpaths
- On-Road Cycle Lanes
- Separated Bikeways
- Shared Spaces
- Local Streets / Bike Boulevards

Crossing and Intersection Infrastructure

- Pedestrian and bicycle/pedestrian activated crossings.
- Wombat Crossing.
- Emu Crossing
- Koala Crossing
- Zebra Crossing
- Mid-block refuges and kerb ramp connections
- Protected roundabouts

Traffic Control Devices

- Driveway Links / Slow Points
- Road Cushions
- Kerb and Line Marking Protuberances

Walking & Cycling Facilities

- Bike parking
- Water fountains
- Cycle Repair Stations

PATH INFRASTRUCTURE

 **Shared Use Paths**	 **Footpaths**	 **On-Road Cycle Lanes**
Shared paths are where pedestrians and cyclists use the same infrastructure. They tend to be separated from the road through road reserves, adjacent rail corridors or through linear parks.	Typically 1.8m footpaths are appropriate for highly foot trafficked areas. Bicycle riders of all ages can also use the footpath unless a 'no bicycles' sign is present.	On-road bicycle lanes are marked lanes on roadways for exclusive use by cyclists. Green treatments within lanes particularly across intersections can be applied to highlight road space for cyclists.
These are **PRIMARY** cycling and walking routes. Providing a high level of service* for users and generally link many suburbs towards key urban centres.	These are generally **LOCAL** walking and cycling routes, unless located in areas of high pedestrian traffic (eg within or adjacent activity centres).	These are **SECONDARY** cycling treatments unless it is the only facility that can fit within the street network along a **PRIMARY** route.
Advantages Efficient in providing both cycle and pedestrian access together. Improves cyclist safety and comfort compared to on-road lanes, particularly for roads with higher speeds and vehicle numbers, encouraging less confident people to travel actively. 'Sharing' the path is generally well-understood by the community.	**Advantages** If designed to suit the urban setting of their location, and are linked to key destinations, walking trips will be encouraged within the community and higher community activity levels will result. Their level of service can be enhanced with shady trees and shrubs, seating and lighting.	**Advantages** Cost-effective to existing streets with line marking. Generally, well understood by the community (although not always respected). Buffered lanes provide extra clearance from adjacent parking and/or vehicle lane.
Disadvantages Finding room within or adjacent road and rail corridors can be challenging. Centre-line markings should be installed to encourage pedestrians and cyclists to travel on the left.	**Disadvantages** Does not provide dedicated provision for cyclists. Footpaths are areas designated for use primarily by pedestrians. Many existing facilities are 1.2m wide but new paths should be 1.5m or 1.8m in width.	**Disadvantages** Full time bike lanes can be opposed by residents due to their impact on parking. Can be an uncomfortable cycling environment for less confident bike riders when there are higher vehicle volumes and speeds. A high level of service may be defined as the 'quality' of the facility in terms of convenience, comfort, amenity and volumes which can be catered for.

		
Separated Bikeways	**Shared Spaces**	**Local Streets/ Bike Boulevards**
These are paths adjacent to a roadway but separated and protected by a kerb or other barrier. Separated bicycle paths can include contraflow lanes where a single bicycle path allows for multi-directional travel.	Where road space is shared between pedestrians, cyclists, vehicles and other road users. This may be full-time or part-time.	Sharrows indicate to drivers that bike riders have priority through the street. Pedestrian amenity is improved through raised crossings, 'green' infrastructure, and traffic calming. Higher scale investments are known as 'Bicycle Boulevards'
This treatment type is suited to **PRIMARY** cycling infrastructure routes.	Depending on street design / cycling priority, these may be implemented on **SECONDARY** or **LOCAL** walking and cycling routes.	Depending on the available road space intersections, this type of treatment is suited to **PRIMARY, SECONDARY** or **LOCAL** route linkages.
Advantages Provides a physically separated facility that offers increased safety and comfort for cyclists. The separation provides extra protection for cyclists compared to on-road lanes and can notably increase cycling participation. Is an excellent facility through areas with concentrated traffic.	**Advantages** A slow speed environment that makes streets places for people, not just for vehicles. Creates vibrancy, encourages outdoor dining and personal interaction. Supports local economic activity. Improves amenity and reduces through traffic.	**Advantages** Promotes lower vehicle volumes and speeds creating direct, comfortable and safe routes due to lower and/or calmed traffic levels. Street trees and plantings provide an attractive and comfortable route for pedestrians and assist in stormwater management.
Disadvantages May require removal of parking or vehicle lane to install and is more expensive than on-road cycle lanes. Difficult to integrate where intersections are closely spaced. Can create potential conflict points at intersections, particularly with left turning vehicles.	**Disadvantages** Perceived increase in vehicle travel times. Can require significant investment and complete street re-design.	**Disadvantages** Local resident opposition to slower speed cyclists prioritising their street. Perception of cyclists having control of the street and potential conflict.

CROSSING AND INTERSECTION INFRASTRUCTURE

Road crossing infrastructure should be designed and constructed appropriate to the traffic conditions and volume of individuals crossing. Safe road crossings provide 'permeability' of the street network for walkers and riders, encouraging them to actively travel to places and minimise the likelihood of inappropriate crossing behaviours.

Consideration should be given to:

- Providing high levels of service across roads where traffic volumes are high, such as Pedestrian and/or Bicycle Activated Crossings (PAC/BPAC) and signalized or unsignalized raised platform crossings (e.g. Wombat Crossings).
- Aligning road crossing connections with existing and new path connections to provide more seamless links through the City.
- Designing crossings to adequately cater for higher volumes around key trip generators (shops, recreation areas) and vulnerable users such as school children, the elderly and people with mobility impairments.
- Separating cyclists and pedestrians from vehicles ahead of potential conflict zones, such as roundabouts.
- Considering appropriate application of innovative 'protected' intersections for pedestrians and cyclists.
- Working with State Government to provide strategically placed mid-block crossings and cycling/pedestrian priority intersections through arterial roads.
- Where applicable, modifying road speeds in higher volume pedestrian areas and in conjunction with crossing treatments.

		
Bicycle/Pedestrian Activated Crossings (PAC/BPAC)	**Wombat Crossing**	**Emu Crossing**
These are signalised crossings designed to facilitate high numbers of pedestrian and bicycle crossing movements.	Raised platform crossings to facilitate high numbers of pedestrian and bicycle road crossings. Applied with 40km/h speed limit within 40m of crossing. Can incorporate flashing lights to enhance driver awareness but not mandatory.	Dedicated school crossings with distinctive red and white poles and kerb protuberances where roads are wider than 6m. Orange CHILDREN CROSSING signs are erected during school start and finish times to highlight times when children are present ad 25km/h traffic speeds are expected.
Infrastructure suited to **PRIMARY** cycling infrastructure routes.	Infrastructure suited to **PRIMARY** cycling infrastructure routes.	Depending on street design / walking & cycling priority, these may be **SECONDARY** or **LOCAL** walking and cycling routes.
Advantages High level of safety. PAC's and BPACs bring traffic to a complete stop. Are most suited to high traffic, higher speed roads. Increases the confidence of cyclists and pedestrians to cross busy roads and connect seamlessly between cycle and walking paths and community facilities.	**Advantages** Wombat crossings with flashing light warning systems highlight the priority pedestrians and cyclists have over other traffic. The raised platform requires traffic to slow significantly and give way or risk damage to their vehicle. They provide seamless connections along priority bikeways.	**Advantages** When the Children Crossing flags are out, are generally effective at warning drivers of the need to slow and give way to pedestrians.
Disadvantages Need to be assessed for traffic congestion impacts and queuing at each location if not incorporated within traditional traffic signals.	**Disadvantages** Can be costly to construct. Need to assess for impacts on traffic congestion. Not suitable for roads over 50km/hr.	**Disadvantages** Flags need to be put out and brought in reliably each school day. Drivers are expected to know the speed limit (25km/hr) through these zones.

		
Koala Crossing	**Zebra Crossing**	**Mid-Block Pedestrian / Cycling Refuges and Kerb Ramps**
Dedicated school crossings with red and white posts and two yellow alternate flashing lights to draw the attention of drivers.	White parallel stripe crossings with signage or flashing lights often installed within busy urban streets.	Mid-block refuges provide protected crossing opportunities over busy roads where there are large distances between signals. Kerb ramps provide a steady slope from the footpath to the road, with tactiles inset to indicate to the vision impaired the location of the road edge and minimize chance of slipping. 1.5m and 3m landing widths accommodate pedestrians and shared users respectively.
Depending on street design / walking & cycling priority, these may be **SECONDARY** or **LOCAL** walking and cycling routes.	Depending on street design / walking & cycling priority, these may be **SECONDARY** or **LOCAL** walking and cycling routes.	Infrastructure suited to **SECONDARY** or **LOCAL** cycling and walking infrastructure routes.
Advantages Can increase the level of compliance with speed restrictions near schools as they incorporate flashing lights indicating 25km/hr. Good for busy and/or higher speed roads where the chance of speed non-compliance is higher.	**Advantages** Zebra crossings are well recognised traffic control devices which indicate to drivers that pedestrians have the right of way. They are cheap and easy to install and effective in popular pedestrian areas with low-speed traffic conditions.	**Advantages** Mid-block and kerb ramp crossings make the street network more 'permeable' and easy to navigate. They significantly enhances the 'inclusivity' of the path network as DDA compliant ramps allow safe movement of prams, wheeled devices, people with mobility impairments and the elderly. Cycle -only and shared use crossing points and kerb ramps limit conflict between cyclists and pedestrians.
Disadvantages May be costly to install. Requires signal maintenance.	**Disadvantages** They are not suitable in areas with higher speeds without signals.	**Disadvantages** Maintenance.

TRAFFIC CONTROL DEVICE INFRASTRUCTURE

Traffic calming is a form of Local Area Traffic Management (LATM) that manages vehicle speeds, behaviours and volumes primarily through local streets. Some devices are also suited to collector and semi-arterial roads to highlight the presence of pedestrian and cyclists and reduce vehicle speeds, making for a safer environment.

Consideration needs to be given to:

- The appropriate type of traffic calming device according to the operation of the street - there are many different types, from warning signs to line marking, surface treatments, kerb modifications and installations. The Austroads Guide for Local Area Traffic Management provides direction on the different devices and their applications.
- Traffic calming is particularly important for use along key pedestrian and cyclist routes as it improves the safety of these vulnerable users.
- Previously employed treatments which have worked successfully within the City of Marion such as complete streetscape upgrades which narrow the road and enhance amenity, kerb build outs, road closures, line marked corners with rumble bars, green treatments within bike lanes, driveway links, flat top road humps and road cushions.

		
Road Cushions	**Driveway Link / Slow Point**	**Kerb or Line Marked Protuberances**
Used to control speed of vehicles. Can be installed with cyclist bypasses to separate vehicles and cyclists Infrastructure suited to **PRIMARY** cycling infrastructure routes. **Advantages** Significantly slows traffic along popular bike routes to enhance the safety of users. Used in conjunction with pavement markings and signage, they provide a high level of driver awareness as to the presence of cyclists and other active travellers. **Disadvantages** Potential noise impacts. Very low set vehicles may bottom out over the cushions.	Designed to match with surrounding environment and create a low-speed device Infrastructure suited to **PRIMARY** or **SECONDARY** cycling infrastructure routes. **Advantages** Significantly slow traffic along popular bike routes to enhance the safety of users. Is effective in diverting cut-through and rat-running traffic when used in conjunction with other devices which deflect vehicle movements, limiting speed **Disadvantages** Can be expensive to construct.	When layout allows can be either constructed with concrete islands/ kerbs or line marked to re-align intersections to lower speed. Infrastructure suited to **PRIMARY** or **SECONDARY** cycling infrastructure routes. **Advantages** Causes drivers to slow significantly before turning a corner and look properly at intersections, minimizing crash incidence. Can be a cheap and easy risk-mitigation measure. Effective on local roads connecting to roads with cycle ways. **Disadvantages** Unlikely to be effective if linemarking is not incorporated with raised pavement bars.

Protected Roundabouts

With a prioritized and separated crossing point for pedestrians and cyclists (which can include a raised crossing), these roundabouts provide a high level of protection at these common conflict points.

Infrastructure suited to **PRIMARY** or **SECONDARY** cycling infrastructure routes.

Advantages

Constantly moving traffic through roundabouts make them quite challenging for cyclists and pedestrians to navigate. Separating, highlighting through colour contrasting and even staging the movements of each user type substantially improves the safety of vulnerable users at these junctions.

Where there is limited room or feasibility for larger scale upgrades, cyclist safety can be enhanced by connecting them to the verge ahead of the intersection, effectively removing them from the road.

Disadvantages

Depending on the scope of the project, these treatments can be expensive.

The community may initially be reluctant to adopt these treatments due to the perceived traffic impacts, so additional engagement and education and would be required.

Protected Signalized Intersections

These intersections dedicate room for pedestrians and cyclists to cross, either together or independently, through busy signalized intersections. Kerb protuberances are strategically placed to prevent turning vehicles crossing into the travel paths of crossing pedestrians and cyclists.

Infrastructure suited to **PRIMARY** or **SECONDARY** cycling infrastructure routes.

Advantages

These treatments lead to significant safety improvement where medium to high volumes of vulnerable users navigate busy or high-risk intersections.

They significantly slow the turning movements of traffic reducing the risk of crashes.

Excellent option for improving connections through Primary bike routes, around regional centres schools and public transport.

They accommodate bus routes/

Disadvantages

Depending on the scope of the project, these treatments can be expensive.

The community may initially be reluctant to adopt these treatments due to the perceived traffic impacts, so additional engagement and education and would be required.

WALKING & CYLING FACILITIES

Bike parking at shops, parks, work places and education centres encourage people to ride where it is a little too far to walk. Bike parking at public transport stations and hubs also provide a 'last mile' connection between home and work or study places that can replace the need for a vehicle trip. Work and study places can further support active travel commutes by providing change room facilities.

Water fountains and bike repair stations are facilities important along major routes to support riding for work / study commutes and longer weekend rides.

		
Bike Parking	**Water Fountains and Toilet Facilities**	**Bike Repair Stations**
Typically provided with by facilities such as a bike rail (rack).	Typically, in destination areas combined with other facilities. Requires connection to Water Mains.	Contains tools to assist with changing tyres, adjust seats, handlebars and fix broken part.
Infrastructure suited to **PRIMARY** cycling infrastructure routes.	Infrastructure suited to **PRIMARY** cycling infrastructure routes.	Infrastructure suited to **PRIMARY** cycling infrastructure routes.
Advantages	**Advantages**	**Advantages**
Cheap and easy to install.	Encourages active travelers and park visitors to spend more time in a place, as there are amenities which increase their level of comfort.	Suitable for popular shared paths where the likelihood of a blown tyre or other issue is higher.
Indicates the area is welcoming to cyclists.	Offers the opportunity for long commute and recreational riders to refill their water bottles and go to the toilet along their journey.	Gives everyday riders who do not generally carry bike repair kits, or even those who do not have bike repair kits at all, the opportunity to repair their cycle and get on their way.
Encourages people to ride as there is somewhere to secure their bikes to while shopping or visiting places.		
Can be made to look interesting and artistic, adding to the amenity of the area.		
Disadvantages	**Disadvantages**	**Disadvantages**
Non-standard bike parking may not be particularly secure.	Can be costly to install.	May be vulnerable to vandalism if not placed in well-lit, high traffic areas.
Not as secure as bike cages or bike boxes.	Needs to be within close proximity to water mains.	Needs to be maintained.
Need sufficient pavement space to install safely.		

BEST PRACTICE APPLICATION

Walking and cycling solutions are influenced by individual circumstances such as vehicle speed and volumes, movement hierarchy and physical constraints.

Low vehicle speed and less busy streets are generally more suited to mixed traffic solutions. Higher vehicle speeds and busier streets are more suited to off-road separated paths wherever possible.

Best practice examples provide a 'tool-box' of walking and cycling solutions that may be applied within the City of Marion. The various techniques are by no means definitive. Other solutions may be explored to ensure appropriate practical outcomes for specific sites.

The selection of appropriate cycling and pedestrian friendly infrastructure for a location should consider a number of factors, including, but not restricted to:

- Meeting the required standards (minimum widths, lengths and other evidence for a treatment) as set out in Australian Standards and Austroad Guidelines documentation.
- The purpose of the facility (if it provides a 'link' or a 'place')
- The primary users, particularly children and older persons.
- Proximity to railway stations, bus interchanges, public transport corridors
- Pedestrian and traffic volumes
- On road speeds and crossing options
- Available widths of roads, medians and footpaths
- Road hierarchy (e.g. transit corridor, neighborhood street)

These aspects will inform the level of service and specific treatments needed for that link or place. Suggested treatment applications are outlined in the tables below.

PATH	PRIMARY	SECONDARY	LOCAL
Shared Use Path			
Footpaths			
On road bicycle lanes			
Separated Bikeways			
Shared Spaces			
Local Streets & Bike Boulevards			

CROSSING & INTERSECTION	PRIMARY	SECONDARY	LOCAL
Bike/Pedestrian Activated Crossing (BPAC/PAC)			
Wombat crossing			
Emu Crossing			
Koala Crossing			
Zebra Crossing			
Mid-Block Pedestrian / Cycling Refuges and Kerb Ramps			

TRAFFIC CONTROL DEVICES	PRIMARY	SECONDARY	LOCAL
Road Cushions			
Driveway Link / Slow Point			
Kerb / Line Marked Protuberances			
Protected Roundabouts			
Protected Signalized Intersections			

WALKING & CYCLING FACILITIES	PRIMARY	SECONDARY	LOCAL
Bike Parking			
Water Fountains			
Bike Repair Stations			

DESIGN & CONSTRUCTION TECHNIQUES

This section describes some of the detailed techniques that can be used to achieve a well-connected and safe network for walking and cycling.

TECHNIQUE 1 – SHARED USE PATHS

DESIGN GUIDANCE

1. Width

Provide adequate width to comfortably accommodate pedestrians and bike riders. 3.0m width minimum for shared use paths and 1.8m minimum for priority pedestrian paths.

Allow a minimum 0.5m clearance from fixed objects on both sides of the path.

2. Surface

Asphalt (AC7) tends to be a suitable surface treatment for popular and priority cycling routes. It uses a small aggregate to provide a smooth and consistent surface for walking and cycling. It is easily maintained but may require frequent maintenance for cracking and tree root damage.

Block paving is more appropriate for local path connections to encourage slower speed environments popular with pedestrians.

Permeable paving may be particularly suited to areas at risk of tree root damage or poor drainage.

Concrete may be a suitable option for wide footpaths in particular and is durable.

3. Line marking

Provide centreline marking to pathways with higher volumes of pedestrians and cyclists (as per Australian Standards). Line marking is generally not required for less busy routes (eg. local parks).

4. Planting and trees

Use tree and groundcover planting adjacent pathways to assist in water management and provide shade and amenity.

Ensure resilience to urban heat through the use of tree plantings and green spaces adjacent walking and cycling paths to improve climate resilience of the infrastructure and help the community adapt to any future temperature increases.

5. Intersections and cross-overs

DDA compliant kerb ramps and paths (maximum 3% fall), if possible with a wider shared facility should be adopted as a priority where they connect to all key destinations, schools, community centres, shopping precincts and recreation grounds.

Shared-use paths should be to be designed away from driveway crossovers where possible.

Bike lanes crossing intersections where they have right of way, or on the approach to major intersections, should be evaluated for potential green treatments to emphasize cyclist priority.

Well-planned, wide, bicycle and pedestrian refuges should be provided across busy roads where possible, or with bicycle and pedestrian activated crossings at major intersections.

6. Lighting

Minimum P3 LED lighting should be provided adjacent popular pedestrian and cycle ways, particularly on approach to intersections.

Adequate lighting will enhance the real and / or perceived safety of active travel through the street and path network, encouraging its use.

Useful references:

- *DIT Guide to Bikeway Pavement Design, Construction and Maintenance for South Australia.*
- *City of Marion Streetscapes Design Guidelines.*
- *Austroads Guide to Road Design Series.*
- *City of Marion Standard Drawings & Technical Specifications*
- *City of Marion Public Lighting Guidelines*

CASE STUDY – STURT RIVER LINEAR PATH

The Sturt River Linear Path provides a 6.2km long Shared Use Path between the Patrick Jonker Veloway in Darlington and the Mike Turtur Bikeway in Morphettville.

The City of Marion staged construction of the Sturt River Linear Path from 2013-14 within the open space adjacent the Sturt River.

The 3m wide linear path provides the community with a high standard shared-use facility for pedestrians, cyclists and small wheeled mobility devices. It is a 'Primary' classified path which supports both weekday commuters as well as recreational and Fitness seekers.

The path provides connections to parks and other open space facilities such as fitness parks, playgrounds, water fountains, toilet amenities and public art.

TECHNIQUE 2 – FOOTPATHS

DESIGN GUIDANCE

1. Width

Provide footpaths of sufficient width to allow comfortable pedestrian movement and clear access for all (e.g. pram or wheelchair). Provide wider paths around activity areas such as shops and schools.

For local streets, 1.5m is the preferred width (allows two wheelchairs to pass simultaneously), although the following should be considered:

- 1.8m for high trafficable routes.
- Consider full-width paving (kerb to property boundary) where appropriate.

2. Surface

Provided surface need to be flat, even and slip resistant in accordance with Australian Standards.

Councils current standard is block paving, with permeable paving to be considered where applicable to maximize stormwater runoff and amenity.

3. Planting and trees

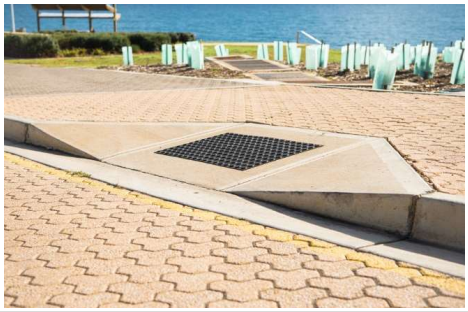
Large street trees can provide a walking and cycling environment. Plant trees with suitable tree species that provide shade and amenity.

4. Intersections and cross-overs

DDA compliant kerb ramps and paths (maximum 3% fall) should be installed as a priority where they connect to all key destinations, schools, community centres, shopping precincts and recreation grounds.

Well-planned, wide, bicycle and pedestrian refuges should be provided across busy roads where possible, or with bicycle and pedestrian activated crossings at major intersections.

Align paths and kerb ramps to provide direct routes for crossing intersections.



5. Layout

Give priority to footpaths over driveways and minor streets. Provide suitable paving at driveway crossovers to allow vehicle movement.

Provide adequate sight distance for pedestrians and approaching vehicles at crossing points.

Keep footpaths, kerb lines and medians straight where possible.

Ensure footpath crossfall slope is less than 1 in 40 (2.5%). Incorporate access for people with disabilities.

Avoid the use of barricades and bollards.

Locate objects (street furniture, shop signage) in consistent locations along footpaths to provide a clear and predictable pedestrian walkway.

Useful references:

- *City of Marion Streetscapes Design Guidelines.*
- *Austroads Guide to Road Design Series*
- *City of Marion Standard Drawings & Technical Specifications*
- *City of Marion Public Lighting Guidelines*

TECHNIQUE 3 – ON ROAD BICYCLE LANES

DESIGN GUIDANCE

1. Width

Provide on-road bicycle lanes of appropriate width (Austroads, 2017: Cycling Aspects of Austroads) Guides.

60km/h	1.5m (preferred) 1.2 - 2.5m (acceptable range)
80km/h	2.0m (preferred) 1.8 - 2.7m (acceptable range)

2. Buffers

Where space allows, provide buffers to:

— Parallel parking for door opening clearance.

— Vehicle travel lanes.

— Buffers provide cushion space between cyclists and vehicles in the travel lane and parked cars.

Buffers are important where there are higher vehicle speeds and volumes. The Austroad Guide recommends a 'buffer' width of 0.4-1.0m to parallel parking (widths vary for angle on-street parking). Where space prohibits a full-buffer, an extra thick white edge line to the travel lane can also be effective.

3. Surface

Provide smooth surfaces for comfortable and safe travel without obstacles. Bikes have narrower tyres than vehicles and are more vulnerable to rough surfaces.

4. Colouring

Provide green coloured surface treatment at busy intersections and conflict points to promote cyclist safety. Green coloured treatments are used to distinguish the bicycle lane and alert drivers and cyclists of conflict area.

The Cycling Aspects of the Austroads Guide states that green coloured surface treatments 'should be used sparingly to maintain effectiveness'.

Highlights priority for cyclists on roads with higher volumes of traffic and cyclists

The Cycling Aspects of the Austroads Guide states that green coloured surface treatments 'should be used sparingly to maintain effectiveness'.

Highlights priority for cyclists on roads with higher volumes of traffic and cyclists

Standard on-road bicycle lane

On-road bicycle lane with colouring at intersection

5. Intersections

Provide exclusive space for cyclists at intersections. Ensure bicycle lane continuity at intersections ensuring they do not 'disappear'.

Or allow cyclists to mount the kerb ahead of intersections and roundabouts to separate them from traffic.

6. Maintenance

Provide regular maintenance for a smooth cycling surface.

7. Part Time / Full Time

Bicycle lanes may be 'full time' (24/7) or 'part time' to cover peak hour periods (7-9am and 3-6pm).

Part time lanes allow on-street parking outside labelled bike lane times. An assessment on requirements for cyclists & residents/communities and safety & risk will be required to determine the appropriate selection.

Useful references:

- *DIT Guide to Bikeway Pavement Design, Construction and Maintenance for South Australia.*
- *City of Marion Streetscapes Design Guidelines.*
- *Austroads Guide to Road Design Series.*
- *City of Marion Standard Drawings & Technical Specifications*

TECHNIQUE 4 – SEPARATED BIKEWAYS

DESIGN GUIDANCE

1. Extent

Implement over a reasonable length to provide a useful link.

2. Width

Provide adequate width (refer Austroad Guides).

Provide a buffer that is sufficiently wide to allow bicycles to safely pass open car doors on the passenger's side and allow room for passengers to disembark or unload.

3. Kerb

Consider whether to use full-kerb, semi-mountable kerb or flush kerb.

4. Planting

Provide trees and plantings for amenity and shade, and to define the separated bicycle path areas.

Include WSUD planting adjacent paths where possible.

5. Intersections

Give priority to cyclists at intersections with minor streets and driveways.

Restrict parking at main intersections and convert the raised bicycle paths to cycle lanes to increase visibility of cyclist for motorists.

Consider priority signal phases for cyclists.

6. Colouring

Provide green surface treatment at intersections to differentiate the bicycle lane from other roadway and footpath features.

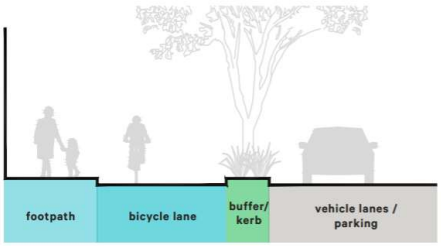
Useful references:

- *DIT Guide to Bikeway Pavement Design, Construction and Maintenance for South Australia.*
- *City of Marion Streetscapes Design Guidelines.*
- *Austroads Guide to Road Design Series.*
- *City of Marion Standard Drawings & Technical Specifications*

7. Types of Separated Bikeways

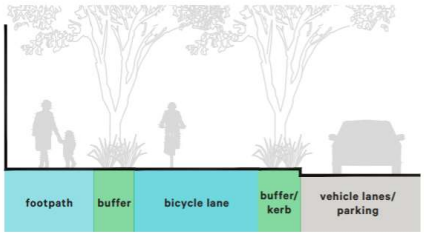
Determining whether to use a channel, raised or parking protected path depends on existing site conditions such as width of road reserve, footpath condition and location of stormwater infrastructure.

Channel Bicycle Path



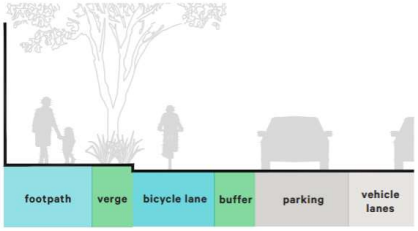
Channel paths use existing road paving and stormwater infrastructure but add a wide-kerb separating the bicycle lane from vehicles. The bicycle lane is a 'channel' between the footpath and new kerb.

Raised Bicycle Path



A raised path is located on footpath level and provides an exclusive bicycle path clearly distinguished from a walkway for pedestrians.

Parking Protected Bicycle Path



Parking protected bicycle paths are exclusive bicycle lanes located against the kerb and separated from the vehicle travel lane by a parallel parking lane.

TECHNIQUE 5 – SHARED SPACE

DESIGN GUIDANCE

Leigh Street, Adelaide

1. Layout and Design

Design shared spaces with people in mind.

Do not 'over-design' streets with clutter and infrastructure.

Increase the level of ambiguity for drivers so they drive slowly and understand pedestrians and cyclist have priority.

Allow access for loading and emergency vehicles.

Integrate tree planting to improve amenity and assist circulation.

Incorporate street furniture that enhances pedestrian priority and amenity.

2. Surface

Use paving and pavement markings to define shared spaces as a pedestrian-focused environment.

Consider a single surface (ie. no kerb and gutters) that allows free flow of pedestrian movement and water sensitive urban design opportunities.

3. Vehicle Speeds and Volumes

Use traffic control/calming devices and speed limits to control and lower observed speed limits

Use diversion techniques to reduce traffic from adjoining streets.

Useful references:

- *DIT Guide to Bikeway Pavement Design, Construction and Maintenance for South Australia.*
- *City of Marion Streetscapes Design Guidelines.*
- *Austroads Guide to Road Design Series.*

City of Marion Standard Drawings & Technical Specifications

CASE STUDY – RAGAMUFFIN DRIVE, HALLETT COVE

Ragamuffin Drive in Hallett Cove demonstrates a local approach to a 'Shared Space by Design' for pedestrians, cyclists and motorists.

The single surface design (no kerbs or gutters) through much of the area allows ease of access between the Hallett Cove Library, Hallett Cove Baptist Church and the Good Shephard Lutheran Church.

Traffic calming has been applied through variable surface treatments (paving, concrete and asphalt), rubber road cushions and horizontal road deflections.

The street integrates Water Sensitive Urban Design initiatives, including raingardens, to capture and filter stormwater runoff. Cycle visitors are catered for via cycle parking.

85% percentile vehicle speed

42km/h

Before Upgrade

28km/h

After Upgrade

TECHNIQUE 6 – LOCAL STREETS / BIKE BOULVARDS

DESIGN GUIDANCE

1. Traffic Calming

Reduce vehicle speeds to 40km/h (or below) using traffic calming methods and speed limits.

Reduce the width of streets, plant street trees in parallel parking areas and narrow entrance and exit points to promote pedestrian and cycle priority.

Widen footpaths and emphasize pedestrian and cyclist crossing points.

2. Traffic Reduction

Undertake Local Area Traffic Management to divert through-traffic and reduce vehicle numbers. This may include vertical and horizontal deflections (slow points and raised treatments).

Preference is for less than 500 vehicles per day.

Consider strategic 'dead-ends' for vehicle traffic and creation of pocket parks. Ensure pedestrian and cycle access is maintained.

Encourage local-only traffic access.

3. Branding Traffic Calmed Streets

Provide a distinctive look recognisable to motorists, cyclists and pedestrians.

Use large cycle pavement signs (sharrows) and wayfinding to direct cycle traffic.

4. Prioritise Travel

Undertake Local Area Traffic Management to adjust give ways/stops allowing to have priority for travel and reducing disruptions for bicycle riders.

Beulah Bikeway – raised platform with sharrow markings

(courtesy of City of Norwood, Payneham and St Peters website)

5. Intersections

Provide safe crossing of major roads to link neighbourhood streets. The higher the traffic volume, the higher the level of service required for pedestrians and cyclists.

Apply warning signage for traffic ahead of popular pedestrian and cyclist crossing points.

Slow traffic navigating corners by building out kerb lines using line marking with traffic control devices.

6. Pedestrian Amenity

Enhance pedestrian amenity through suitable paving, large street trees and planting to assist in stormwater management.

Useful references:

- *DIT Guide to Bikeway Pavement Design, Construction and Maintenance for South Australia.*
- *City of Marion Streetscapes Design Guidelines.*
- *Austroads Guide to Road Design Series.*
- *City of Marion Standard Drawings & Technical Specifications*

CASE STUDY – RUGBY PORTER BIKEWAY

The Rugby-Porter Bikeway provides a 'Primary' level on-street cycling route between Mitcham Square and the Adelaide City parklands.

The Bikeway offers a slower, safer more comfortable alternative to cycling on main arterial roads, such as Unley Road.

Located in the Unley Council area with broad 40km/hr speed limits, traffic is further managed with a series of road closures incorporating pavement markings (such as green treatments and sharrows) and wayfinding to highlight the priority of cyclists.

The Bikeway has become a popular bike route connecting children to schools and commuters, students and visitors to the city via the local street network.

Other bikeways, such as the Beulah Bikeway in Norwood, apply more traffic control devices such as driveway links, angled slow points, and roundabout treatments.

The ease of travelling locally by bike encourages cycle trips in the place of a car, easing upward pressure on vehicle volumes and making it safer for both pedestrians and cyclists to move around locally.

WALKING & CYCLING FOUR YEAR ACTION PLAN

CITY OF MARION

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WHY WALKING AND CYCLING

Walking is an essential part of all journeys. It is accessible, affordable, and socially equitable.

Cycling is among the most efficient and sustainable means of transportation.

Together, walking and cycling have economic, social, environmental and health benefits.

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World Health Organisation (WHO) 2021

Toward 2040...*Together*
City of Marion Strategic Plan Review

Service priorities

We asked our community what their top 3 service priorities were for the next 10 years.

The top 3 priorities were:

1. **Council services (core services)** - a focus on continuing to deliver services well (footpaths, roads, waste, maintenance, trees community programs,libraries etc.)
2. **Environmental sustainability and nature** - focus on, wise waste management, more cooling and greening the streets with trees and vegetation, nature-based recreation,climate resilience, reducing carbon emissions.
3. **Transportation and mobility** - more walking and cycling paths, addressing traffic congestion and street parking. Focus group participants stated this to be the highest contributing factor towards liveability.

7 Walking and cycling friendly initiatives – reduced road speeds, infrastructure for safer shared road experience for cyclists, and reduced car use.

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Background

JUNE 2023

ELECTED MEMBER FORUM
MORE DETAIL ON PROJECTS REQUESTED

JULY – OCTOBER 2023

PROJECT PRIORITISATION AND COST ESTIMATION OF PROJECTS

OCTOBER – DECEMBER 2023

PRESENTATION OF PRIORITY PROJECTS TO MAYOR AND WARD MEMBERS

DECEMBER – FEBRUARY 2024

INCLUSION OF FEEDBACK AND REFINING PRIORITY LIST

NOW

INFRASTRUCTURE & ENVIRONMENT COMMITTEE MEETING PRESENTING THE 4 YEAR ACTION PLAN

MAY 2024

COUNCIL MEETING FOR ENDORSEMENT TO GO TO CONSULTATION

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Results of scenario comparison

INVESTMENT PER ANNUM	PROJECTS DELIVERED* 2025/26 TO 2028/29	OUTCOME
$100,000	UP TO 9 PROJECTS	NO NEW PATH PROJECTS POSSIBLE (eg GULLY ROAD) BUT MINOR PATH UPGRADES POSSIBLE
$400,000	13 SMALL TO MEDIUM SIZE PROJECTS	ALL TYPES OF PROJECT POSSIBLE, LARGER ONES STAGED
$750,000	UP TO 22 LARGER PROJECTS	MAJOR PROJECTS DELIVERED. EVEN SPREAD BETWEEN ALL PROJECT TYPES
$1,000,000	UP TO 24 SMALL TO LARGE PROJECTS	SUBSTANTIAL NEW NETWORK LINKS ESTABLISHED

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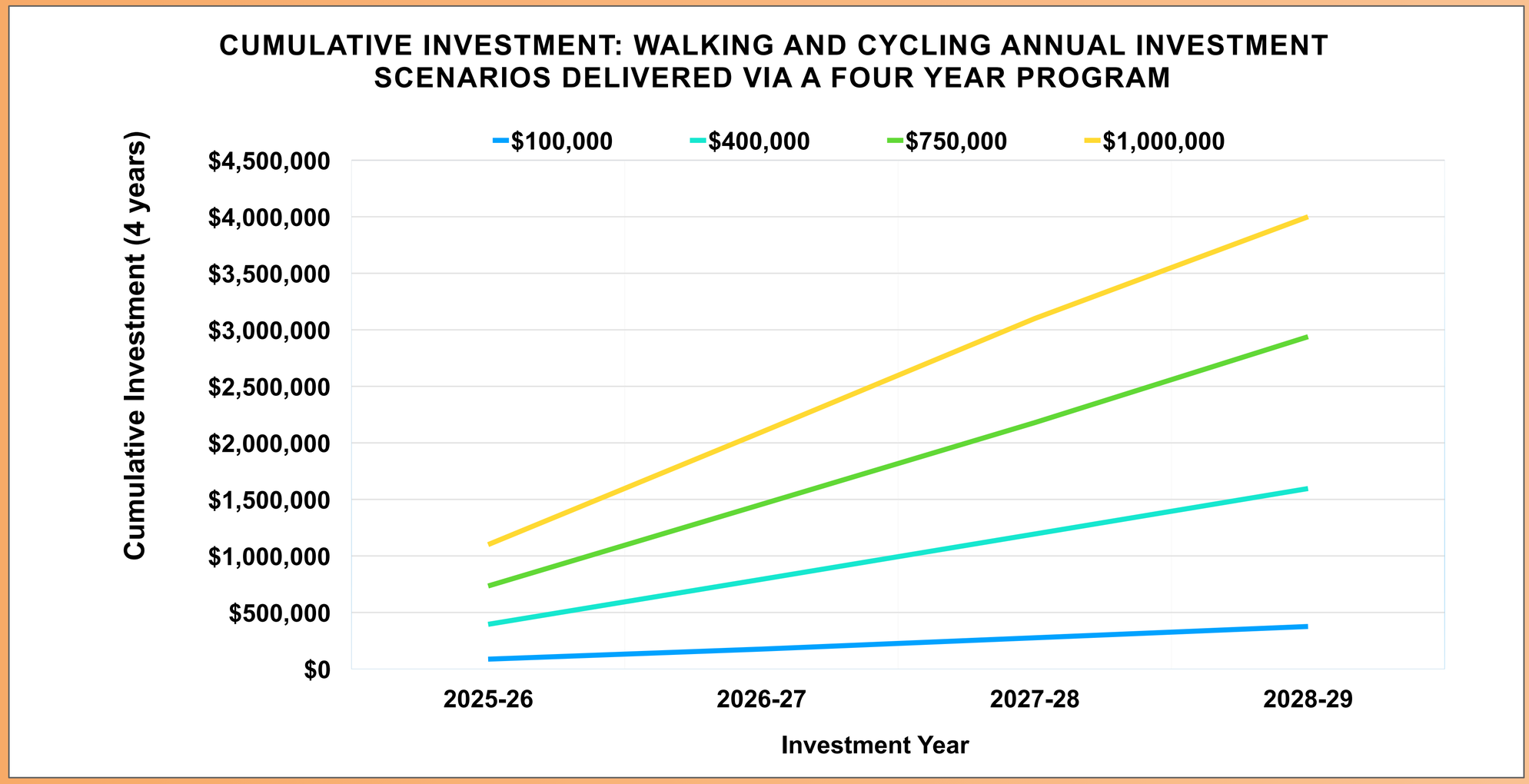
Investment over time



Grant funding opportunities

- All *shared* - walking and cycling - and cycling *only* projects are eligible for State Bike Fund (SBF) grants of up to $200,000 per project (DIT).

- School safety related projects are eligible for Way2Go funding (DIT).

- SBF is not announced until late in the *same* funding year and is never guaranteed (competitive process).

Questions…

- WHICH SCENARIO DOES THE COMMITTEE PREFER ?
- ARE THERE ANY COMMENTS OR QUESTIONS?

NEXT STEPS…

§ COLLATE FEEDBACK FROM THE COMMITTEE AND PREPARE REPORT FOR GENERAL COUNCIL 28 MAY 2024.

CITY OF MARION

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8 Reports for Noting - Nil

9 Workshop / Presentation Items - Nil

10 Other Business

11 Meeting Closure

The meeting shall conclude on or before 9.30pm unless there is a specific motion adopted at the meeting to continue beyond that time.