San Remo Access and Movement Study and Car Parking Plan

Final

June 2025

Institute for Sensible Transport

The Institute for Sensible Transport acknowledges the people of the Wurundjeri Woi Wurrung language groups of the eastern Kulin Nation on whose unceded lands we work, as well as the people of the Bunurong/ Boon Wurrung who's unceded land this report is prepared for.

We respectfully acknowledge their Ancestors and Elders, past and present.

We also acknowledge the Traditional Custodians and their Ancestors of the lands and waters across Australia where we conduct our business.

Prepared by
Dr Liam Davies, Takuya Katsu, Billy Fellows, Jessie Tran, Dr Elliot Fishman, Tomas Lightbody, and Dr Mahsa Naseri.

Institute for Sensible Transport Pty Ltd

ABN 74 678 316 875
202/26 Rokeby Street, Collingwood
Melbourne, Australia VIC 3066
E: info@sensibletransport.org.au
www.sensibletransport.org.au

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Executive Summary

Bass Coast Shire Council began developing a Structure Plan in 2023 to guide the future growth and development of San Remo to 2041. This work identified the need for this *Access and Movement Study and Car Parking Plan,* to inform the future *Structure Plan*.

The unifying objective of the *Access and Movement Study and Car Parking Plan* is to better manage transport issues, car parking and enhance transport options and safety. This Plan will assist Council in making walking, cycling, or taking the bus easier and more attractive.

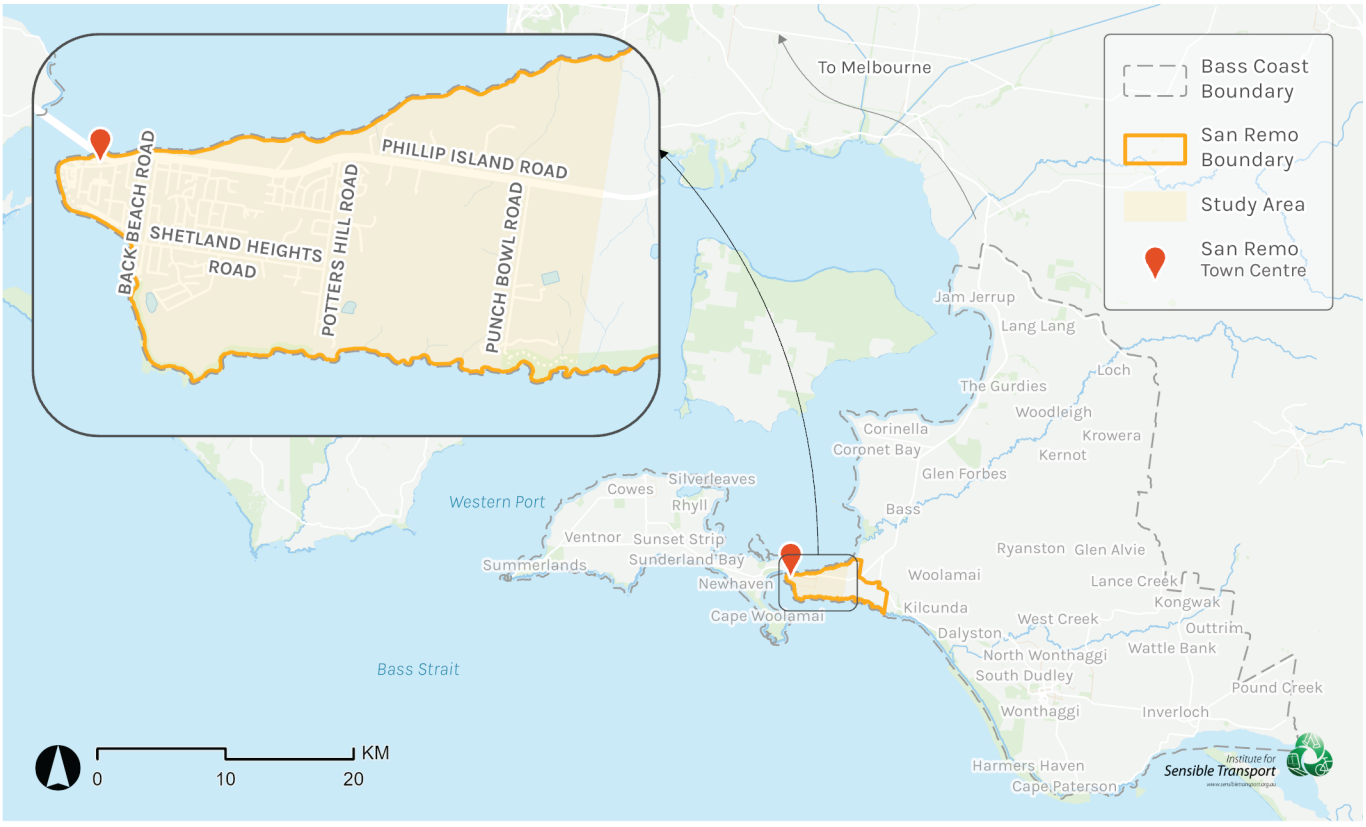
This *Access and Movement Study and Car Parking Plan* is developed to meet the needs of San Remo's growing community and visitor population. The *Plan* equips Council with a blueprint to future proof San Remo's transport network.

The *Access and Movement Study and Car Parking Plan* aims to increase mobility options while supporting broader sustainability goals.

This project has included the preparation of a series of earlier reports, including a:

- Background study
- Site assessment
- *Movement and place* assessment
- Car parking occupancy study
- Car park number plate analysis.

The map below shows the study area for this project. The project seeks to improve transport outcomes as well as enhance the vibrancy of the township, and plan for growth east of centre of San Remo.



Study area map

About San Remo

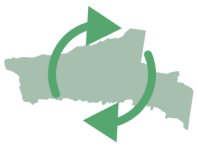
San Remo has the potential to become one of Victoria's most vibrant and sustainable coastal townships. Its compact form supports people to walk or cycle to destinations where they can socialise, shop, work, and relax.

San Remo has the potential to become one of Victoria's most vibrant and sustainable coastal townships.

A snapshot of how people travel in San Remo today is provided below. San Remo's transport options are currently dependent on the car. In the 2021 Census, more than 9 in 10 trips to work in San Remo were by car, with 6.9% by walking, and only 0.7% by public transport. No one travelled to work by bike.

The good news is that more than a third of residents live and work in San Remo. San Remo also has an extensive network of footpaths connecting people to key destinations in the central township. This highlights the potential to achieve a significant shift in how people choose to travel for short trips. But this requires a more supportive environment, in the form of safe, cohesive walking and cycling paths, safer speeds and street designs that are more people focused.

Community and Transport in San Remo today

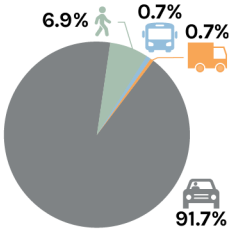


34%

of our community live and work in San Remo

Source: ABS Census 2021

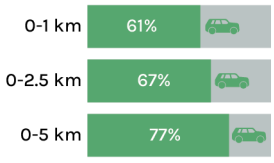
Transport is the fastest growing source of greenhouse gas emissions in Australia



7%

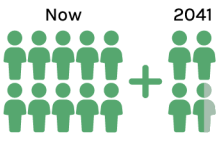
of San Remo walk to work

Source: ABS Census 2021



1 in 4 trips to work are less than 2.5km and one-third are less than 5km but **77%** of these trips are by car

Source: ABS Census 2021



San Remo is expected to grow by

38%

Source: San Remo Demographic Analysis & Long-Term Forecasts

Extensive footpaths, but inequitable access for people with mobility needs.
Poor cycling infrastructure

15,000

car trips are made between San Remo and Phillip Island daily

Source: Department of Transport and Planning

100% of crashes occurred on roads with speed limits of 60km/h and more
85% of crashes occurred on Phillip Island Road

Source: VicRoads

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How people travel in San Remo

The need for change

There are several reasons transport patterns need to change for San Remo to achieve its strategic ambitions. As San Remo's population increases, it will be more important than ever to use existing transport infrastructure as efficiently as possible. This can be achieved by giving people the freedom to choose the most suitable mode of transport. The following themes provide a brief introduction to some of the key issues that an enhanced transport system can address:

1. ***Climate change***

   Transport is a major source of emissions causing climate change and local air pollution. San Remo's commitment to tackle climate change will require strong and unprecedented action. The transformation of San Remo's streets to better support walking, cycling and public transport will be necessary to reduce these emissions.

2. ***Congestion and parking difficulty***

   By creating a set of better choices, more people will have the freedom to choose the mode of transport that best meets their needs. This will result in better outcomes for everyone, including those that need to drive or for people with a disability.

3. ***Urban vibrancy and amenity***

   One of the benefits of a more diversified, sustainable transport system is that streets become more pleasant places; to shop, socialise, and play. This will help bolster San Remo's attractiveness and therefore deliver an economic advantage. This Study has been prepared alongside the *San Remo Urban Design Framework*, and the reports should be read in conjunction.

4. ***An accessible township***

   Creating a more accessible township will be especially important as San Remo's community ages. Creating streets and places that are accessible to all, including those too young or old to drive will help increase the quality of life for all San Remo residents.

Ultimately, this *San Remo Access and Movement Study and Car Parking Plan* acts as a building block to implement Bass Coast Shire's policy ambitions into the future, and ensures that transport is considered in planning for greenfield development. This will enhance our ability to become a sustainable, vibrant township. It will also ensure that walking, cycling, and public transport are safe and attractive options. Implementing the actions included in this *San Remo Access and Movement Study and Car Parking Plan* will help Bass Coast achieve its vision.

Vision for transport in San Remo

> *"San Remo is a vibrant and people-focused township that prioritises sustainable transport choices for local trips."*

Major challenges and key actions

The major challenges facing San Remo are distilled in the left column of the figure on the following page. Key actions have been identified to directly address these challenges and are expanded upon in Sections 2 and 3.

High volumes of cars and trucks travel through San Remo every day. This reduces safety and the vibrancy of the township. Better management of traffic and creating safer speeds will improve San Remo's attractiveness, as a place to live and visit.

Better management of traffic and safer speeds will improve the vibrancy, comfort, and safety of San Remo.

Poor crossings at intersections, which reduce safety, is common in San Remo. There are also gaps in the walking and cycling networks. This reduces access to transport choice, particularly for people to old or young to drive, or those with a disability. By improving safety at intersections, building a cohesive footpath network, and installing more shared paths, Council will help support the

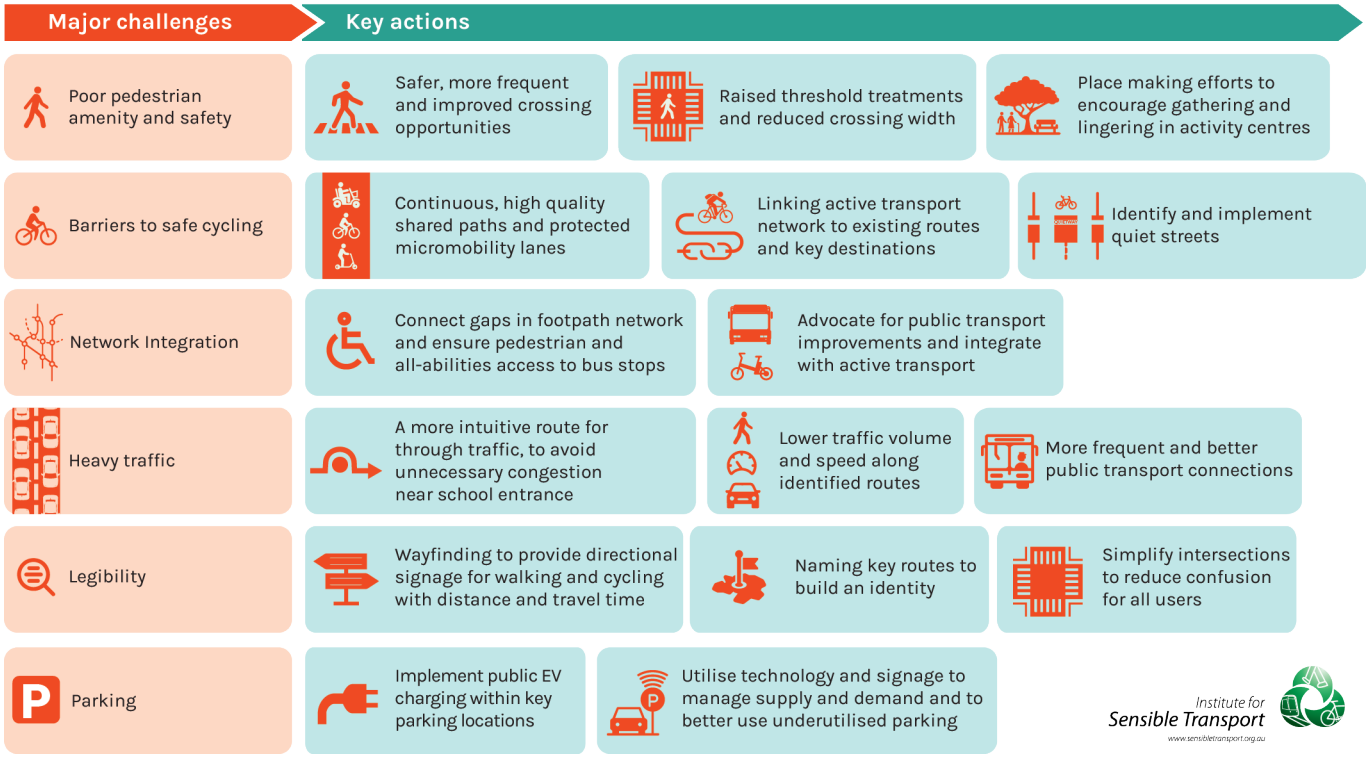
community's aspirations for better transport choices. Installing signage and directional wayfinding will make it easier for everyone to find their way while walking and cycling.

Building a cohesive footpath network and installing more shared and cycling paths will give the community more sustainable transport options.

Public transport is too infrequent to meet day-to-day needs. Advocating for better public transport, increasing choice, and providing lower emissions transport options to everyone will give the community the diversity of transport options they require.

Council recognise that parking can be a frustration, especially during peak periods, like school holidays. During these times, illegally parked cars often block residents' driveways in high demand areas. New parking regulations will help manage parking demand, while technology will reduce frustration by making it easier to find an available parking bay.

Better parking management will help reduce the frustration of finding a car park.



Major challenges and key actions

Key actions to improve access and movement in the town centre are shown in the figure below. A map showing the proposed improvements in San Remo is provided in Section 7.4.2. New walking and cycling infrastructure have been recommended along with intersection upgrades. These actions are discussed in Section 7. Actions to improve transport flow and road safety are detailed in the first half of Section 7. The second half of Section 7 outlines key moves to improve the quality and coverage of public transport in San Remo, and the walking and cycling network.

San Remo Boundary
AT6 Specific Action ID
RS1 Broad Action ID

Existing infrastructure
Footpath
Shared path
Kerb ramps

Proposed infrastructure and key actions
Upgrade footpath to shared path
Shared path
Traffic island
Raised zebra crossing
Pedestrian crossing

Planned removal of footpath
Low speed access road
Investigate management of footpath
Marine Parade Street Revitalisation*
Relocated bus stop

Key access and movement actions for San Remo town centre

*Refer to San Remo Urban Design Framework for detailed designs of the Marine Parade and foreshore street revitalisation

Improving car parking for everyone

A key component of this project is the *Car Parking Plan*. Over the years, Council has heard from the community about the need for improved car parking. The figure shown on the next page identifies some of the key changes designed to make parking easier for residents and visitors, whilst enhancing street life in San Remo.

Parking closer to the foreshore should prioritise short stays up to two hours. This will facilitate residents and visitors who are in San Remo to access shops and services. Longer stays of up to four hours are available on the east side of Marine Parade, where parking occupancy is generally lower. For businesses along the foreshore that require longer parking stays for their patrons (e.g. charter boats), a permit system is recommended. This permit will allow their patrons to park in 4P parking bays for up to 8P.

Long term parking is available on the streets orientated north south from Bergin Grove to Back Beach Road. Workers should be directed to park at unrestricted bays, usually located where there is less competition and demand from shorter stay, visitor parking. Tour buses, caravans and vehicles towing trailers will be redirected to long vehicle parking. Long vehicle parking is proposed at the San Remo Recreational Centre on non-event days, as well as at the southern end of Back Beach Road.

While the *Access and Movement Study and Car Parking Plan* aims to support residents and visitors to choose more sustainable transport modes, San Remo's growing township will face increased car parking pressures as Council works towards delivering on sustainability objectives. To ensure the function of San Remo's activity centres are preserved, additional car parking spaces are required to support San Remo's transition.

There is a net positive increase of approximately 21% in car parking supply should all actions and recommendations from the *Access and Movement Study and Car Parking Plan*, and *the Urban Design Framework*, be implemented. These key changes are discussed in Section 8.2.

Parking supply will increase by 21% to support San Remo's growth, should all actions and recommendations from this Plan and the *Urban Design Framework*, be implemented.

Additional key actions include improved parking controls, use of parking technologies, and delivery of public EV charging. These are discussed in more detail in Section 8.

Car Parking Plan - Key Actions

Note: Long vehicles are any vehicle over six metres in length, which do not fit in a regular parking space. This includes vehicles towing trailers, caravans, and boats; camper vans; buses; etc.

1. Introduction

This *Access and Movement Study* and *Car Parking Plan* arose from the recognition that San Remo requires a long-term, strategic, and holistic plan to manage the township's growth over the next two decades.

San Remo's population is expected to see a 38% increase by 2041[1], accounting for an additional 650 residents. This growth puts pressure on the transport system[2] and requires smarter, more sustainable transport options to support Council's strategic ambitions for San Remo.

San Remo's population is expected to grow 38% by 2041.

Creating more diverse transport options can reduce the high levels of car dependence within the township.

This *Access and Movement Study* and *Car Parking Plan* provides a comprehensive foundation for transforming San Remo into an even better place to live, work, and visit over the next 20 years.

1.1 Why this Study is important

San Remo plays a significant role as a township that serves both the local population and the nearby settlements of Newhaven and Cape Woolamai. In recent years, San Remo has experienced significant growth and is expected to support future growth for the western region of the Bass Coast Shire. Additionally, San Remo is a popular tourist destination that is impacted by increased visitation during event periods and peak season, normally over the summer months.

The combination of population growth and seasonal tourism is expected to place pressure on the existing transport system, including parking. This assessment is supported by the *Traffic Impact Assessment 2023*, where a number of intersections in San Remo are expected to exceed capacity by 2041.

San Remo plays a significant role in the region, providing services to nearby towns.

Smarter, more sustainable transport options are required to support Council's ambitions to accommodate population growth while better-managing car parking and enhancing the town's connection to the foreshore.

This report provides recommendations to enhance transport, accessibility, safety, and car parking management. It lays out a set of recommendations that also serve to create more diverse transport choices. Offering a street network that provides diverse transport options will help ensure San Remo's growth does not detract from its liveability.

This report provides recommendations to enhance transport, accessibility, safety, and car parking management.

1.2 About San Remo

San Remo is located approximately 125km south-east of the Melbourne CDB. San Remo caters to both residents and tourists. It attracts high numbers of visitors compared to its local population. There has also been a noticeable demographic shift towards an ageing population. Figure 1 shows the study area for this project.

San Remo, originally named Griffiths Point, has a long history rooted in its fishing heritage but has evolved into a desirable tourist destination. San Remo had its first school open in 1874, followed by the construction of a jetty to transport coal.

[1] Population growth forecast prepared by SGS Economics and Planning
[2] San Remo Traffic Impact Assessment

San Remo has a long history rooted in its fishing heritage but has evolved into a desirable tourist destination.

As San Remo's population growth continues, the existing transport infrastructure will face more pressure. This is exacerbated by the current heavy reliance on motor vehicles as the primary mode of transport. Moreover, summer and Easter holidays, as well as special event days, place high levels of pressure on the road network and parking.

San Remo acts as a community and commercial hub for much of the surrounding area, with notable key destinations including:

- San Remo Primary School
- Bass Coast College – San Remo Campus
- San Remo Recreation Centre and Reserve
- San Remo Jetty
- San Remo Foreshore.

The main commercial activity centre is located on Marine Parade. There is a mix of urban renewal sites within the activity centre, and an emergence of new dwellings in greenfield land to the east of the township.

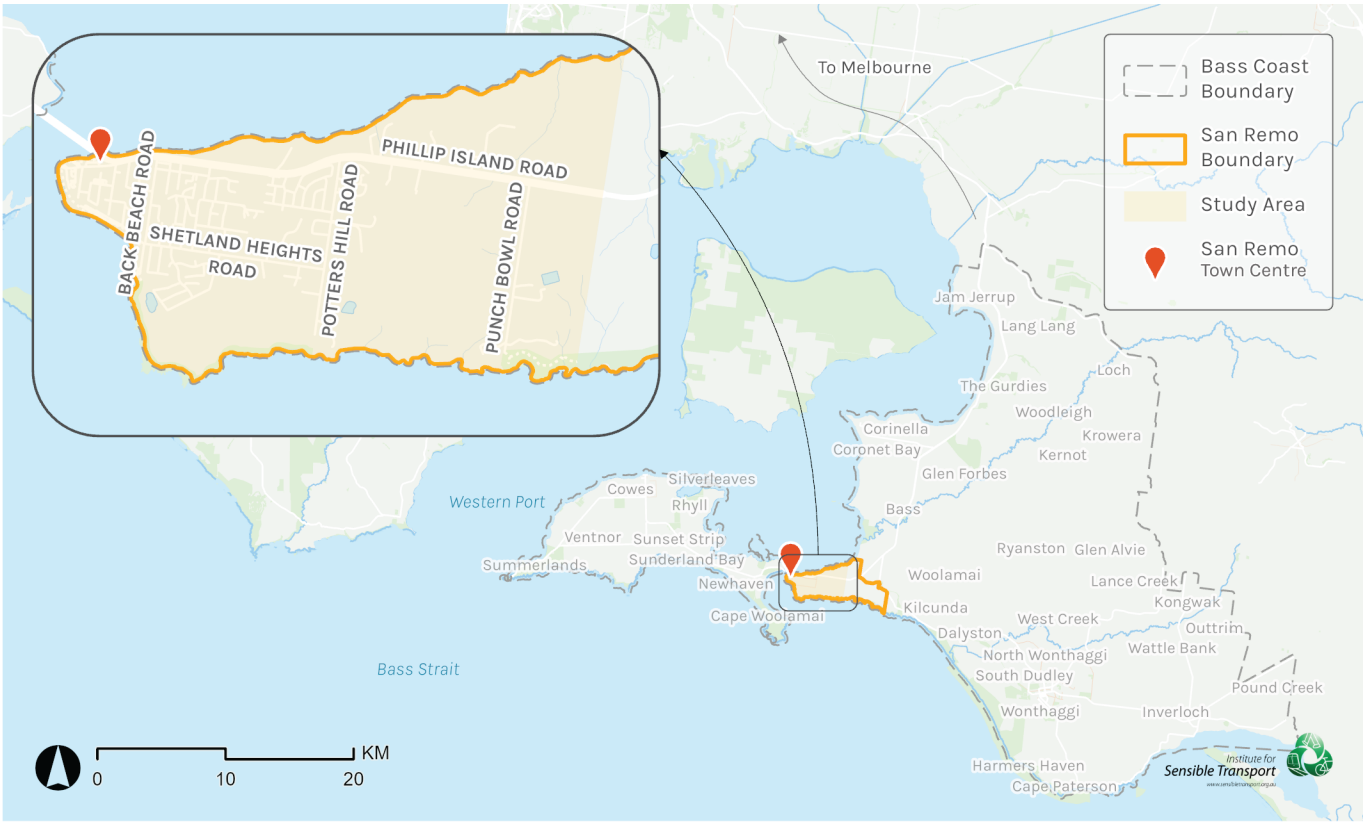


Figure 1 San Remo study area context

Source: Institute for Sensible Transport

1.3 Project objectives

Council have identified that the objectives for this *San Remo Access and Movement Study* and *Car Parking Plan* are to:

- Address car parking needs in San Remo Activity Centre; both current and future.
- Resolve access and movement issues throughout San Remo, across all modes of land transport.
- Prioritise pedestrians in the context of the district centre whilst highlighting the lack of reliable and sufficient public transport connections and services.
- Review existing documents (policies, strategies, technical reports, audits, etc.) to identify and fill any gaps in previous work undertaken.
- Create a transport hierarchy detailing different transport modes (private transport, strategic freight networks, active transport, and public transport) to inform improvements for San Remo for a 20-year horizon.
- Understand how pedestrian connections in San Remo currently operate, how they will be utilised given forecast growth, existing gaps, and where improvements can be made.
- Assess the current and projected car parking for San Remo's Marine Parade (activity centre area) demand and how it can be met and managed through a range of viable strategies and/or methods.
- Formulate an ideal reconfiguration of San Remo's vehicle, freight, public transport, active transport, micro mobility, walking and cycling networks, with recommendations for short, medium, and long-term implementation.

1.4 Document structure overview

Figure 2 provides an outline of the chapters included in this report.

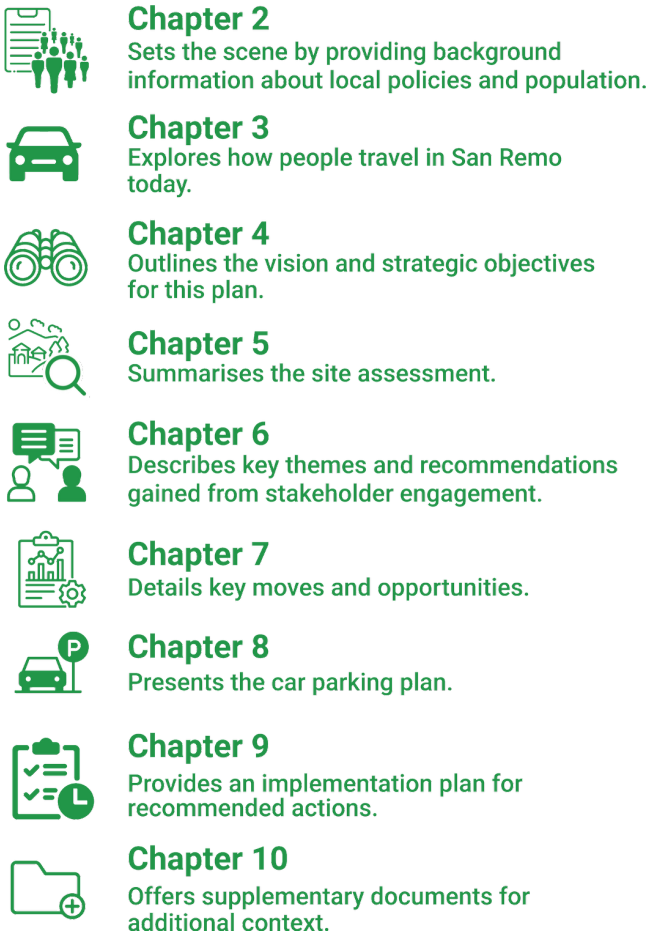
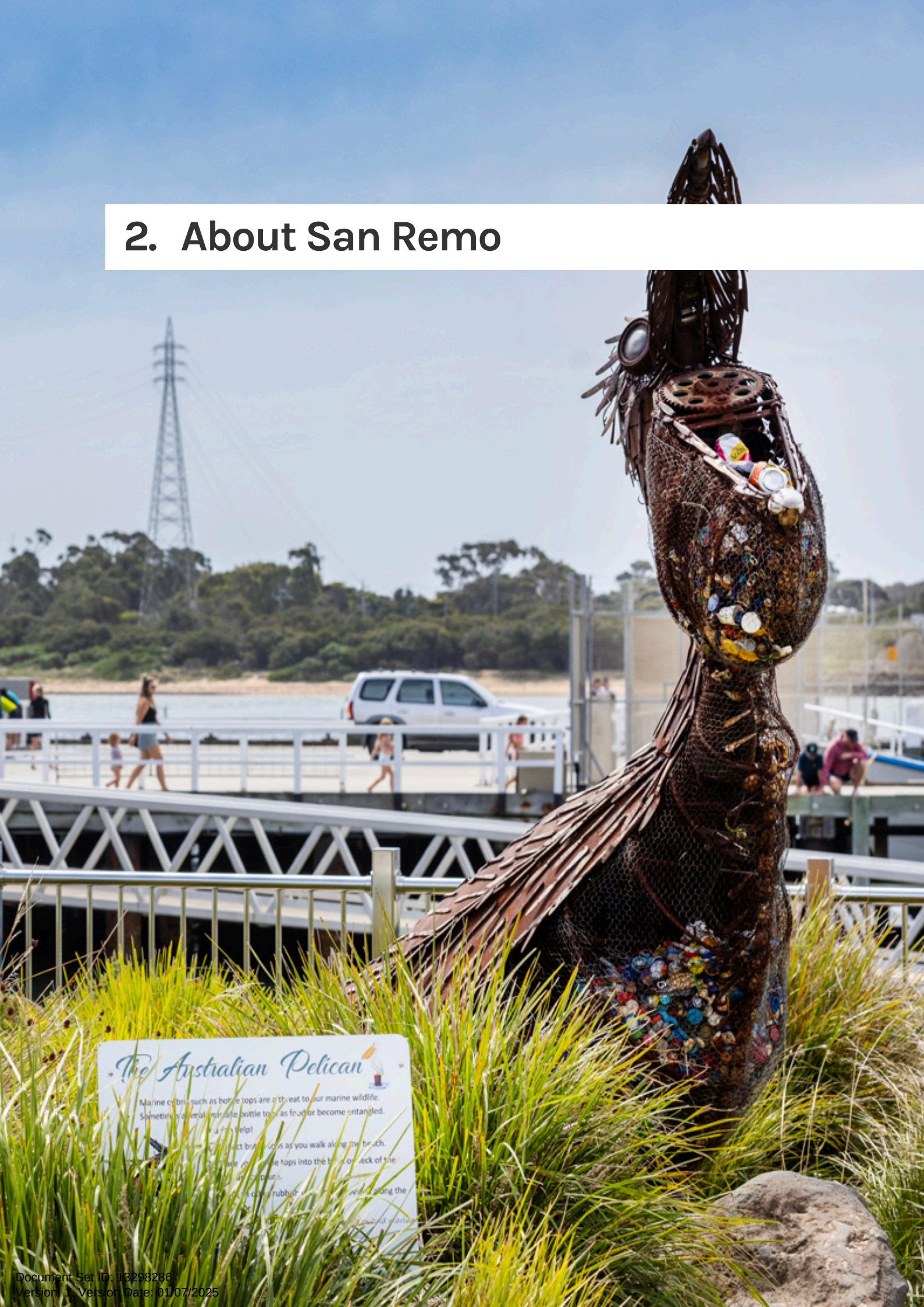


Figure 2 Outline of report chapters

2. About San Remo



This section provides a summary of Council's policies and strategies of relevance to access, movement, and car parking in San Remo. This work informs the recommendations in the *Access and Movement Study* and *Car Parking Plan*.

2.1 Policy review – key themes

The policies and strategies most relevant to this Plan include:

- Bass Coast Planning Scheme
- San Remo Access and Movement Strategy
- Bass Coast Community Vision
- Bass Coast Disability Action Plan
- Bass Coast Council Plan
- San Remo, Newhaven, and Cape Woolamai Structure Plan.

The consistent themes to emerge from the analysis of San Remo related policies and strategies include:

- Sustainable community
- Growing economy
- Inclusive and safe community environment
- Active people
- Access and movement.

Key issues emerging from previous work for San Remo include:

- An ageing population. Building a safe and sustainable transport network is essential for an ageing community to remain socially connected.
- Seasonal population fluctuations can make it difficult to find a car park at certain times of the year.
- Limited access to active and public transport is a major challenge in San Remo. Ensuring safe, reliable, and affordable transport options is essential for building an inclusive community.
- Lack of network connectivity in San Remo limits transport choice and increases traffic volumes.
- Suburban-style development threatens neighbourhood character. Typically featuring low-density, single-family housing sprawled across large areas and lacking adequate public and active transport options increases car dependency.

Considering San Remo's vision and current challenges, there are some common recommendations in local policies to improve movement and access. These include a future emphasis on:

- Pedestrian-oriented design
- Improving road safety
- Protecting the natural environment
- Sustainable development
- Improving parking management strategies
- Enhancing the sense of place and preserving the local character of San Remo
- Improving access to sustainable transport options.

Addressing the diverse access and movement challenges in San Remo requires a holistic approach. This *Access and Movement Study* and *Car Parking Plan* considers the demographics of San Remo, as well as the town's role as a tourism destination in the development of actions intended to enhance the resident and visitor experience.

Improving the management of car parking and preserving the local character have been core elements in the development of this project.

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2.2 Population

Based on the 2021 Census, San Remo had a population of 1,700 and 1,035 dwellings (with 1,664 living west of Potters Hill Road). It is expected that the population will increase to 2,350 by 2041, an increase of 38%. This represents an additional 650 residents living in San Remo by 2041.

The population over the last ~24 years (west of Potters Hill Road) is shown in Figure 3. This shows growth in population and housing in recent years. The number of expected new residents from today to 2041 is similar to the rate of growth San Remo has experienced since 2006.[3]

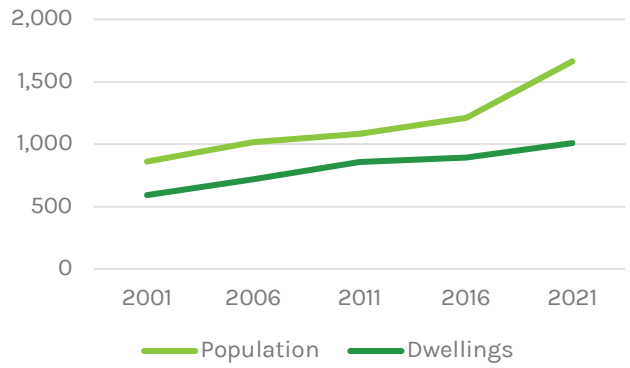


Figure 3 Population and dwelling stock of San Remo, 2001 to 2021

Source: ABS Census

Note: There was a significant increase in population in 2021. This is likely a result of COVID-19 movement restrictions in Metropolitan Melbourne, with the number of unoccupied dwellings in San Remo decreasing significantly from 43% to 30%, but average persons per occupied dwelling remaining stable.

Analysis of aerial photography from 2007 and 2024, as shown in Figure 4 and Figure 5 respectively, reveals how development has occurred in San Remo. The developed portion of San Remo was 150 hectares in 2007, with a dwelling density of 4.8 dwellings per hectare. By 2024 this had grown to 223 hectares with a dwelling density reduction to 4.6 dwellings per hectare.

It should be noted that the developed area in both periods contains many empty lots. However, this means that despite medium-density development in the town centre, the overall density has stayed essentially the same. The total geographic size of San Remo has increased by almost 50%, which has the potential to exacerbate car dependence and increase trip distances and parking pressure.

The 50% increase in San Remo's geographic size between 2007 and 2024 could exacerbate car dependence, increase trip distances, and heighten parking pressures.

Figure 4 San Remo in 2007, with developed area shown in white

Source: Google Earth

Figure 5 San Remo in 2024, with developed area shown in white

Source: Google Earth

San Remo has an ageing population, with a median age of 52 years old. Figure 6 shows a comparison of the median age within the greater region.

[3] https://www.abs.gov.au/census/find-census-data/quickstats/2006/SSC26573

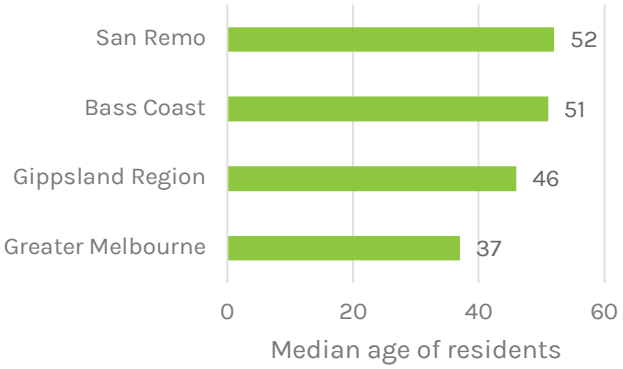


Figure 6 Median age comparison

Source: ABS Census

The fact that there are more older adults in San Remo emphasises the importance of planning with extra sensitivity for their needs. This has a direct impact on the provision of footpaths, speed limits, crossing design, and public transport.

Figure 7 shows the population density per hectare within the study area. Amongst the large areas of low residential density, pockets of higher densities can be found towards the west of San Remo. Approximately 36% of residents live within a 400m linear distance of the Marine Parade activity centre and this goes up to 75% of residents when widened out to 1km.

The current population settlement pattern supports a 20-minute neighbourhood walking catchment and reveals that San Remo has the potential to develop 20-minute neighbourhoods.

The current population settlement patterns of San Remo support the potential to develop 20-minute neighbourhoods.

It should be noted that the hilly topography of San Remo may present a barrier for older people or those with limited mobility who want to walk or cycle. To overcome these barriers, options like improved infrastructure, accessible shared paths and alternative transport solutions could make active travel more feasible. For example, e-bikes can offer a practical way for people to maintain their mobility and overcome topographical challenges.

Much of the future growth is forecast between 1 and 2km from San Remo's centre. Moreover, some future sites being investigated are over 2km from San Remo centre. These residents will be outside a walkable catchment from shops and local amenities. The continued expansion of San Remo eastwards will leave residents with little choice but to drive.

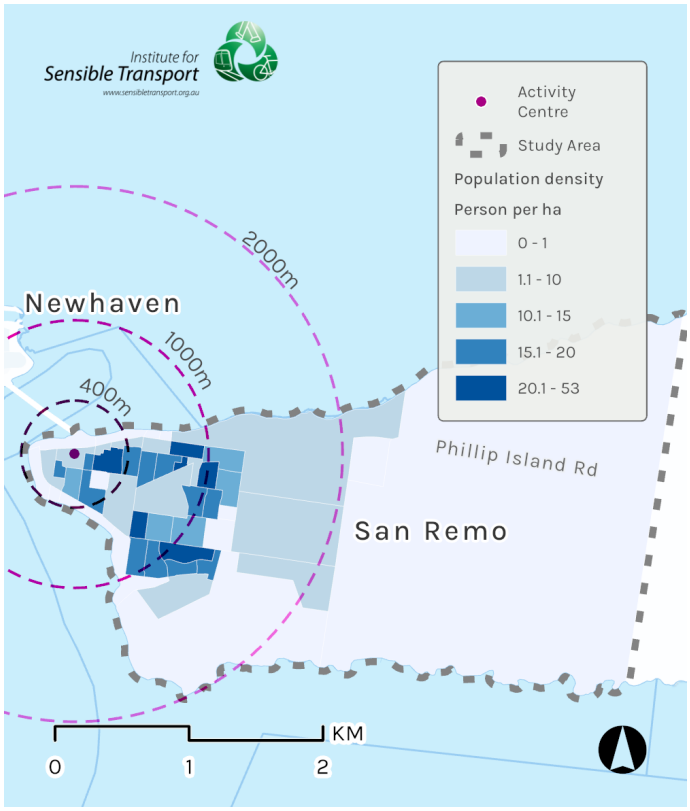


Figure 7 Population density in San Remo

Source: ABS Census, Bass Coast Shire Council

To promote sustainable development in San Remo, future residential areas must prioritise higher residential density and amenities within a walkable distance. This will require a strategic change in land-use planning in accordance with the *Bass Coast Housing Strategy*, and a diverse mix of land uses within the core of San Remo.

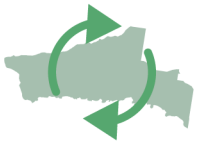
Based on the *Structure Plan Economic Analysis*, the development of secondary local activity centre east of Potters Hill Road is needed to service the town's growing population in the longer term. This development could play an important role in enhancing accessibility for residents outside of the walkable catchment of San Remo's primary activity centre on Marine Parade. This could reduce the need for longer trips and encourage the use of more sustainable transport modes.

3. How people travel in San Remo

San Remo is highly car dependent. Most trips are done by car, even when distances are very short. The car is the default transport mode. This places excessive strain on our roads, causing congestion and leading to parking frustration at high demand times.

A snapshot of how the community moves is shown in Figure 8.

Community and Transport in San Remo today



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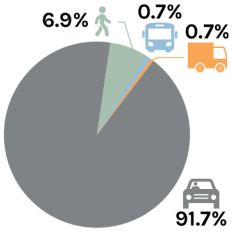

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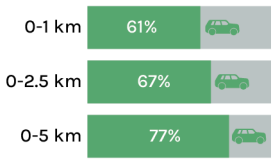

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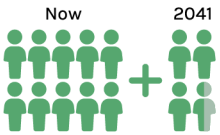

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Source: San Remo Demographic Analysis & Long-Term Forecasts

Extensive footpaths, but inequitable access for people with mobility needs.
Poor cycling infrastructure

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car trips are made between San Remo and Phillip Island daily

Source: Department of Transport and Planning

100% of crashes occurred on roads with speed limits of 60km/h and more
85% of crashes occurred on Phillip Island Road

Source: VicRoads

Institute for Sensible Transport

Figure 8 Community and transport in San Remo

Source: Institute for Sensible Transport

3.1 Travel patterns in San Remo

3.1.1 Journey to Work

3.1.1.1 Mode share

The Census asks people to nominate the mode of transport they used to travel to work. Figure 9 provides a snapshot of how San Remo residents have travelled to work at each Census since 2001, aggregated into four broad mode categories.

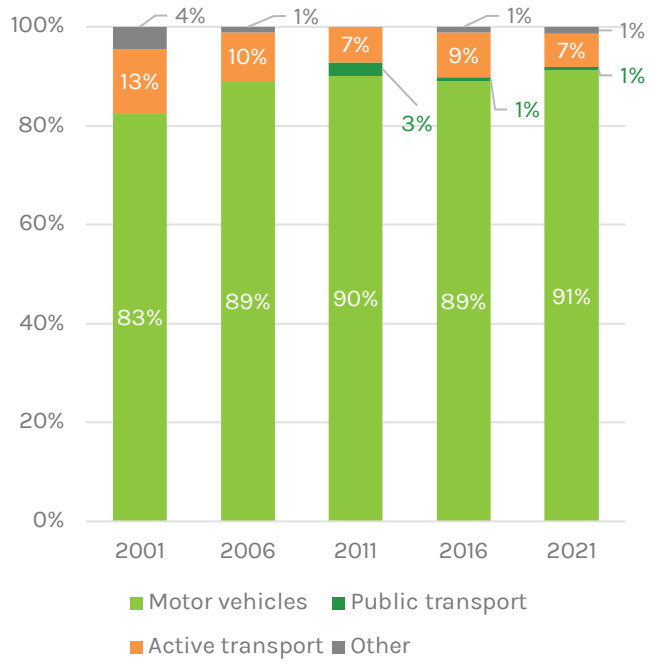


Figure 9 Journey to work by mode, 2001 to 2021

Source: ABS Census

Over the last twenty years, the proportion of residents using a motor vehicle (either as a driver or passenger) has increased from 83% in 2001 to 91% in 2021. At the same time, the proportion of people using sustainable modes such as active and public transport has decreased. In 2001, 13% of residents used active transport for their trips to work. This figure has almost halved to 7% by 2021.

9 in 10 work trips in San Remo are done by car. About 34% of residents work locally within the township.

The 2021 Census was conducted while Victoria was subject to health orders that restricted movement to halt the spread of COVID-19. Although the restrictions had an impact on the responses, the mode share of those who did travel to work is similar to pre-pandemic patterns. The largest change was in working from home, which increased from 5.9% in 2016 to 24.2% in 2021, and in the number of workers who did not go to work.

The proportion of San Remo residents who drive to work has increased over the last two decades, while rates of walking and cycling have halved.

Figure 10 shows the detailed mode share split for journeys to work in San Remo. Some 91% of those travelling to San Remo for work do so by car. Only 1% travelled by public transport, all of which being by bus, and 7% walked. Notably the active travel mode is now trending down from the early 2000s.

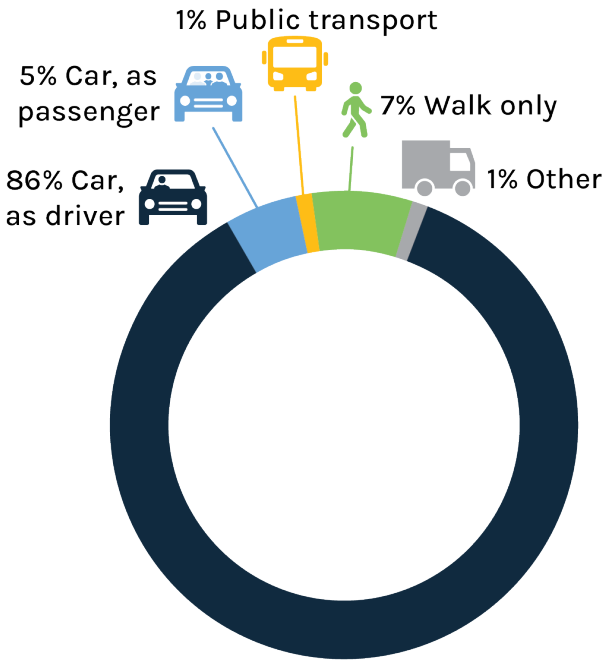


Figure 10 Journey to work mode share, 2021

Source: ABS Census

Note: There were no recorded journeys to work by bicycle in 2021

Figure 11 shows a dot density map for journeys to work within San Remo. It does not represent the actual origin of trips, but shows the proportion of transport modes in relation to the geographical area. Almost all commuters drive to work, with some limited walking and public transport trips. No one rode a bike to work in San Remo in the 2021 Census.

Most walked trips to work occur in the western region of San Remo.

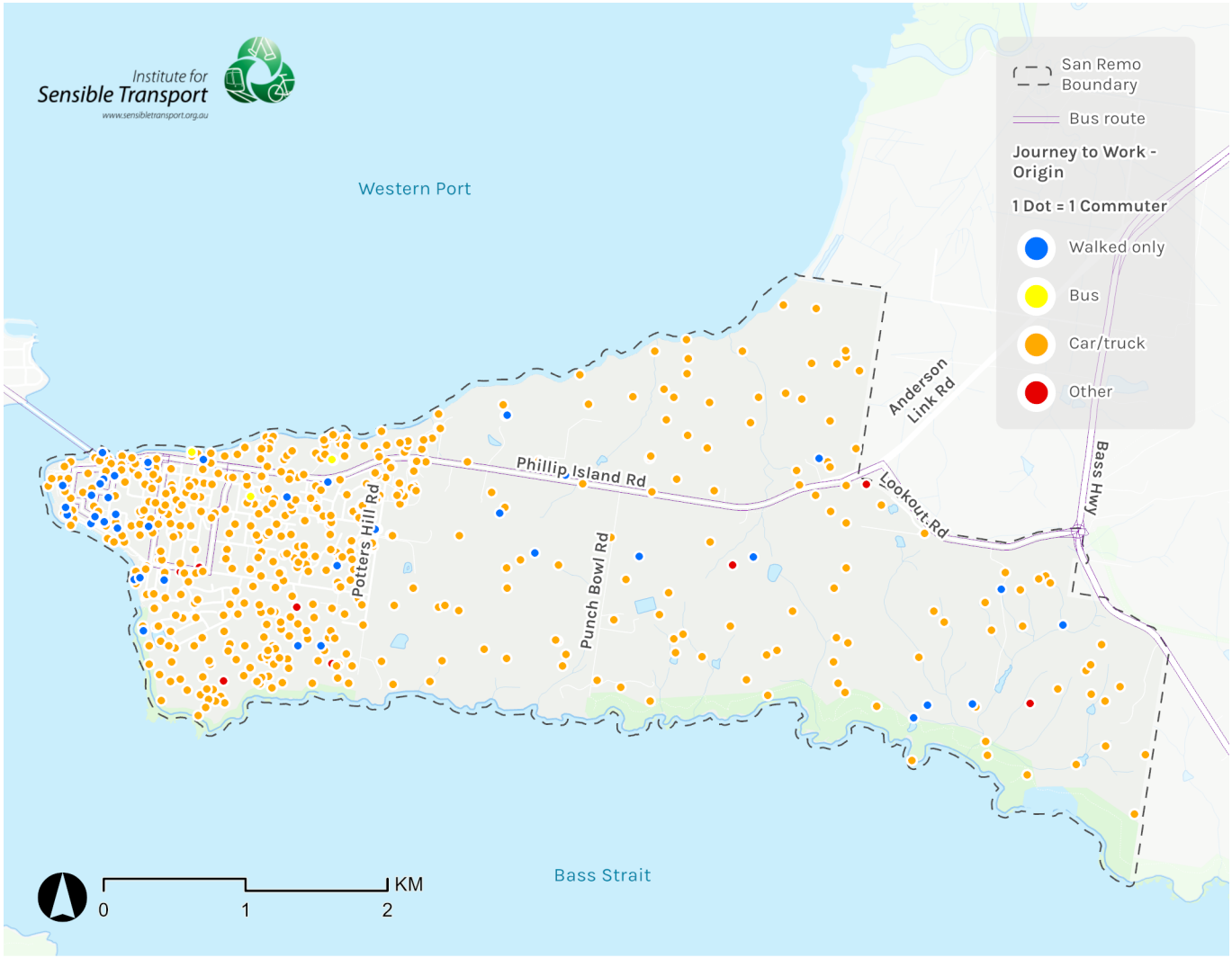


Figure 11 Journey to work, from San Remo

Source: ABS Census 2021

Note: The dots in the map are randomly distributed within the statistical area, in relation to neighbouring dots. Therefore, it does not provide detailed accuracy on the trip origin.

3.1.1.2 Distance to work

The distance travelled to work in San Remo is shown in Figure 12. For all trips to work, 33% were under 5km. This highlights the potential to increase active travel to work in San Remo.

One third of all trips to work in 2021 were under 5km, highlighting the potential for active travel to work.

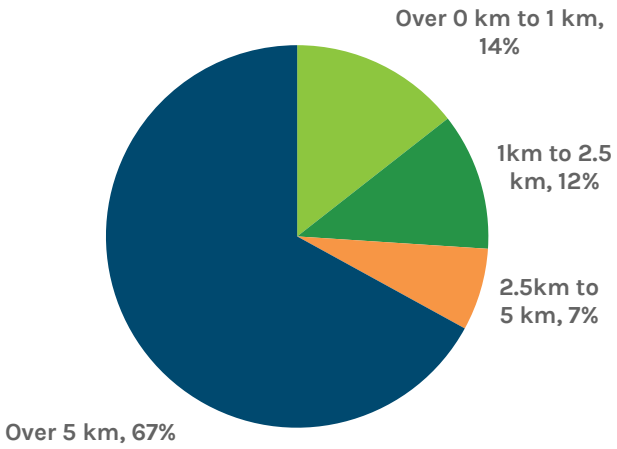


Figure 12 Trip distance for those who travelled to work, San Remo

Source: ABS Census 2021

The mode share of short trips (under 5 km) is shown in Figure 13. Even for trips under 5km, 78% of people used a car, either as a driver or passenger.

78% of trips to work under 5km were done by car.

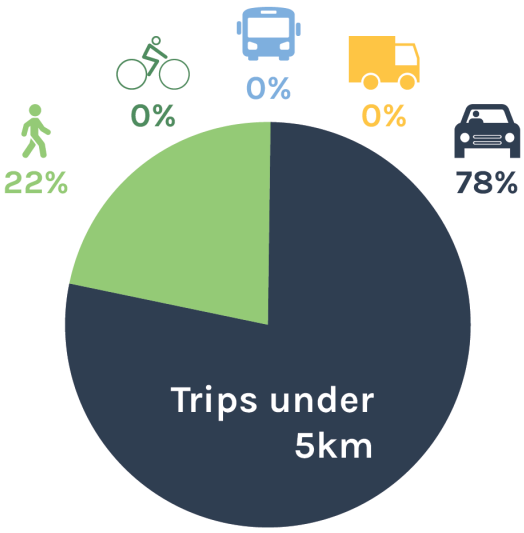


Figure 13 Mode share of trips under 5km to work

Source: ABS Census 2021

3.1.2 Impacts of tourism and major events

San Remo experience periods of intense traffic and parking demand at different times of the year. Part of the Greater Phillip Island tourism region[4], the township attracts many visitors of its own.

Visitation to the region is particularly high during holiday periods. Figure 14 offers a snapshot of the average number of daily visitors per month estimated for the Phillip Island Region, in 2023.

The highest number of daytrip and overnight visitors per day was observed in January. In January 2023, the total number of visitors exceeded 15,000 as shown in Figure 14. This is in sharp contrast to June, with around 4,600 visitors, and shows the importance of summer day trippers and holiday makers.

San Remo experiences significant through traffic on Phillip Island Road, along with many visitors of its own. Tourism is a key part of San Remo's economy, vibrancy, and prosperity. Many visitors stopover in San Remo for a meal or visit the shops before or after their journey to Phillip Island.

Tourism is a key part of San Remo's economy, vibrancy, and prosperity.

The high visitation rate, however, brings with it traffic and demand for parking. San Remo experiences heightened parking demand due to various events, including:

- San Remo Christmas Carols in December
- Variety Aussie Muscle car run in October
- San Remo Channel Challenge in February
- Tidal seafood festival in September.

In addition, major tourist events such as the Australian Motorcycle Grand Prix (AMGP) increases traffic along Phillip Island Road and the bridge. San Remo acts as a 'park and ride' station to Phillip Island for this event, resulting in a spike in parking demand throughout the duration of the AMGP. These events often attract many people from outside Bass Coast and increased traffic flow on Marine Parade and Phillip Island Road. This contributes to the demand for parking.

[4] The Phillip Island Region includes San Remo, Phillip Island, French Island, and Wonthaggi-Inverloch.

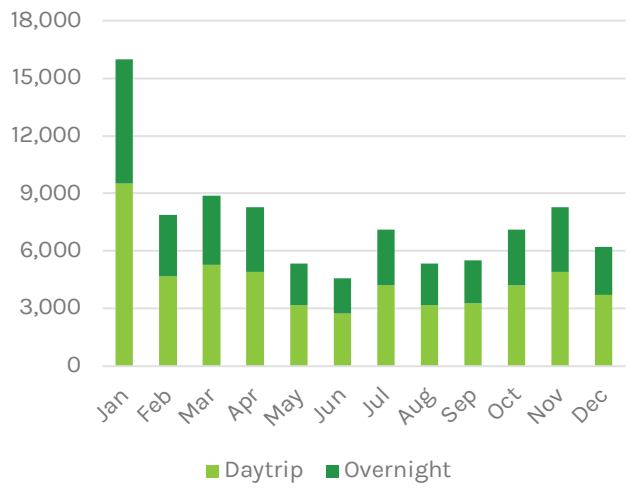


Figure 14 Estimated visitors per day, 2023

Source: Adapted from DSIR[5], Pilot On-Demand Transport Service for Phillip Island and San Remo 2022

3.2 Road safety in San Remo

Council is committed to providing a safe road environment for residents, workers, and visitors in San Remo. Creating a safe environment for all road users is important to Council, the community and the many visitors attracted to San Remo.

Council is committed to providing a safe road environment in San Remo.

The Victorian government's *Safe Systems* approach to road safety is central to the recommendations made in this report. Implementing these recommendations will result in a more *forgiving* transport system in which mistakes do not result in death or serious injury.

While road safety in San Remo has slowly improved over the last few decades, San Remo still has an inaccessibly high level of road fatalities and serious injuries. Between 2019 and 2023, there were 13 crashes in San Remo, involving 38 people. The location and the severity of these crashes are shown in Figure 15. A detailed analysis of crashes in San Remo can be found in Appendix A.2.

An assessment of current road conditions and an analysis of VicRoads crash data was conducted to improve our understanding of road safety in San Remo. The key findings of this assessment are:

- Phillip Island Road and Back Beach Road are hotspots for crashes.
- Most police reported crashes take place mid-block rather than at intersections. The most reported type of crash are rear ends (vehicles in the same lane), and head on collisions (not overtaking).
- People who walk or cycle in San Remo are more likely to experience more severe injuries in a crash. For example, a crash on Phillip Island Road resulted in a pedestrian fatality.
- All crashes in San Remo occurred on 60km/h to 100km/h roads.
- Middle-aged adults, young adults, and children aged 14 years old under are disproportionately impacted by crashes in San Remo. More than half of crash victims fell within this group.

These findings highlight the need to improve the design, controls, and use of our roads to make our road environment safer for our community. Improving road safety in San Remo is directly addressed through actions set out in Section 7 of this Plan.

[5] Victoria's Domestic Visitor Economy - Year Ending Dec 2023

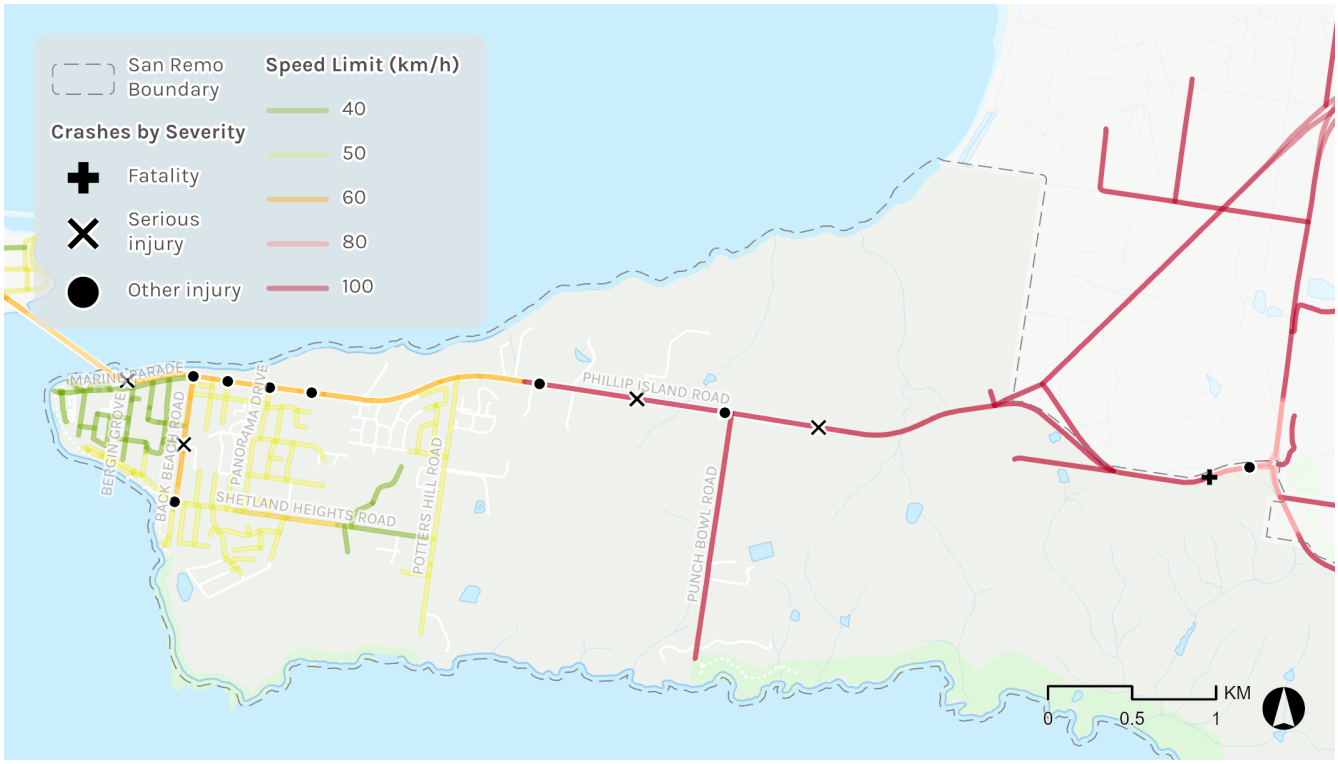


Figure 15 Crashes by severity, 2019-2023

Source: VicRoads

4. Vision, guiding principles and strategic objectives

This section lays out the strategic framework for the *Access and Movement Study* and *Car Parking Plan*.

The structure of the Access and Movement Study is illustrated in Figure 16, beginning with the *vision* at the centre. A set of guiding principles has been developed to support San Remo's ability to achieve the long-term vision. Eight strategic objectives provide measurable goals to assist Council to make San Remo a more vibrant, sustainable, and safe township.

Figure 16 Access and Movement Study and Car Parking Plan – Structure

4.1 Vision

A vision has been developed for this project based on key directions from Council's policy positions related to San Remo:

San Remo is a vibrant and people-focused township that prioritises sustainable transport choices for local trips.

4.2 Guiding principles

The following principles have been developed to help achieve the Access and Movement vision for San Remo. The guiding principles are linked to the broader strategic objectives, below, and will help Council to deliver the transport network the community needs in the future.

- **Safety** – This plan is guided by the Victorian Road Safety Strategy's goal of eliminating all fatalities on our roads by 2050. Council will prioritise access to safe and sustainable transport options for all people in San Remo.
- **Sustainability** – Transport is the second largest source of emissions, and low-density development increases car dependence, congestion, and parking issues. Therefore, Council will prioritise sustainable land use and transport choices to make walking and cycling attractive and comfortable for shorter trips.
- **Connectivity** - A connected transport system allows all residents to get where they want with more transport choices.
- **Accessibility** – Goods, services, and amenities are accessible by all residents, of all ages and abilities.
- **People-oriented** – Streets prioritise people, are vibrant and support a sense of place.
- **Thriving economy** – The street network will be designed to attract visitors and encourage economic and social exchange, including tourism.

4.3 Strategic objectives

The following set of strategic objectives have been designed to build on the above *guiding principles* by offering *measurability* to assist in evaluation. These objectives aim to address the key challenges, as identified via the analysis of policies, data, site assessments, and stakeholder engagement conducted for this project. The nine strategic objectives are to:

- Increase local access to cycling infrastructure.
- Reduce serious road injury and fatalities by half, in line with the *Victorian Road Safety Strategy*.
- Increase the proportion of residents living within 400m of quality public transport.
- Increase the proportion of trips by foot, bicycle, and public transport.
- Lower transport emissions, in line with our climate change targets and policies.
- Better manage car parking in the town centre.
- Increase the amount of space dedicated to people-oriented activities.

- Increase the number of visitors to the town and surrounds.
- Continue advocating to the Victorian Department of Transport and Planning (DTP) to deliver transport network improvements.
    - This is pertinent for intersections along the Phillip Island Corridor, where significant housing growth and increased pressures on the road network is projected. Continued advocacy will help to ensure intersections along the Phillip Island Corridor operates in accordance with the guiding principles and are assessed for potential improvements when they no longer meet the operational requirements set out in the guiding principles.

4.4 Using a mode hierarchy to guide decision making

Space on the street network in San Remo is limited. A mode hierarchy, shown in Figure 17. It is designed to support more consistent decision making as to how space is allocated on our streets, to ensure these decisions align with the long-term objectives for San Remo. Where there is competition for space, the mode hierarchy will be used to guide how space is allocated on San Remo streets.

The needs of pedestrians sit at the top of the hierarchy, as this best supports our goal of being an accessible and sustainable township. This is followed by public transport, then people on bikes. Commercial and multi-occupancy vehicles are next, followed by single occupancy motor vehicles. The *mode hierarchy* reflects San Remo's vision to be a more sustainable, accessible, and vibrant town.

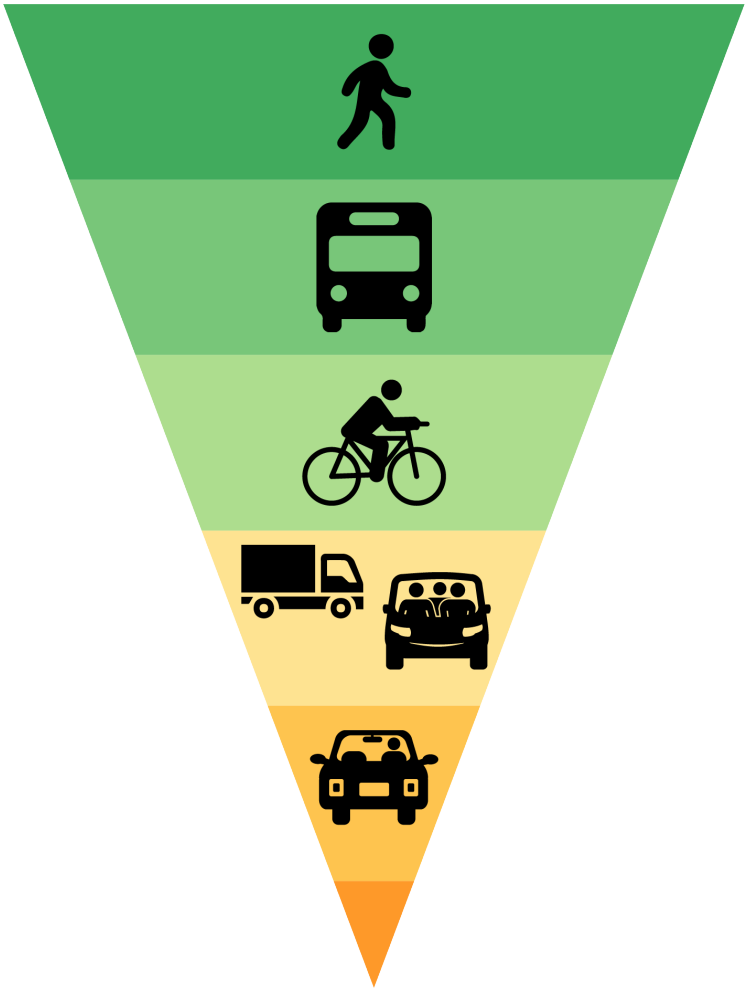
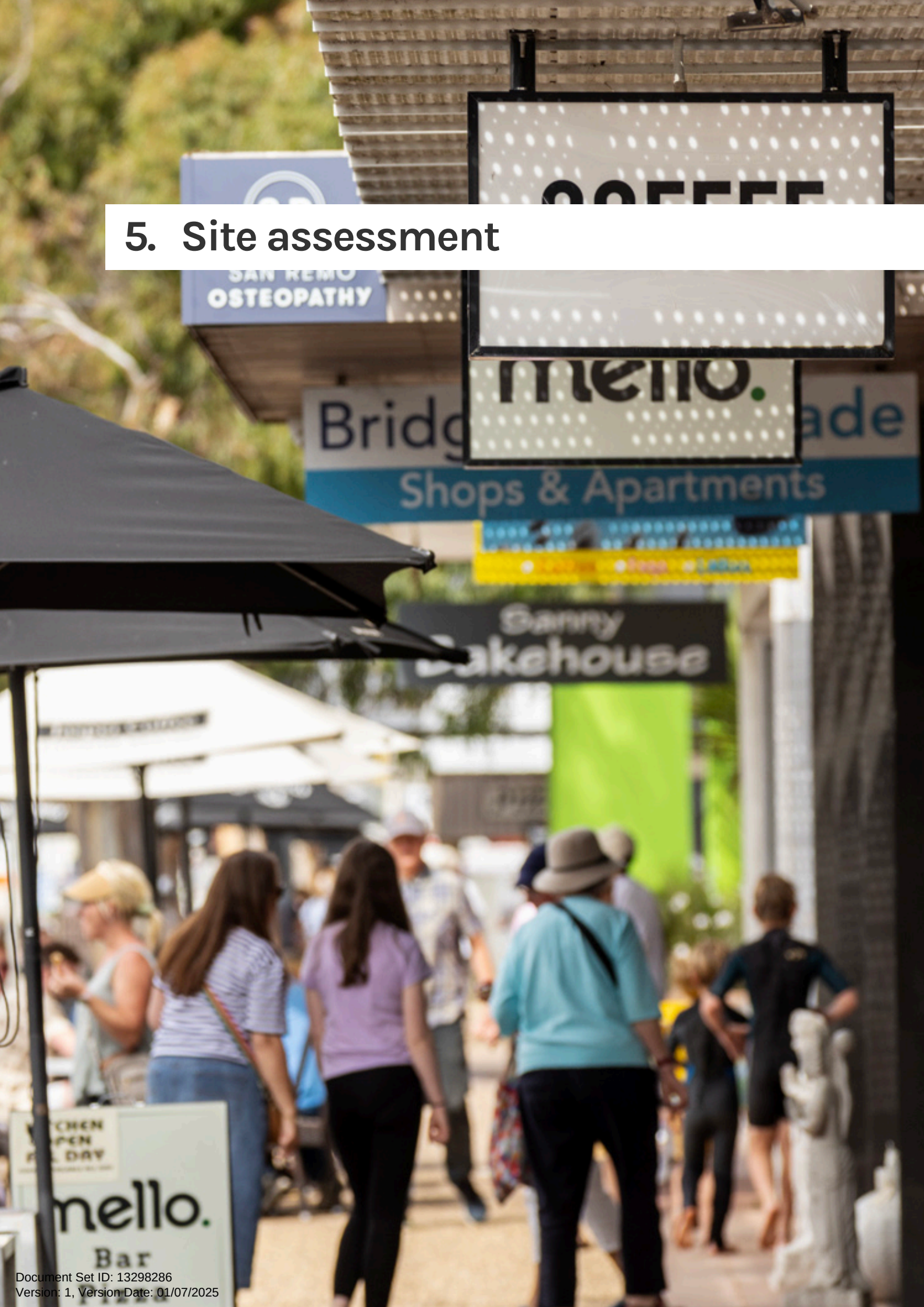


Figure 17 San Remo Mode Hierarchy

Source: Institute for Sensible Transport

5. Site assessment



A site assessment was undertaken in April 2024 to examine transport infrastructure, as well as urban realm conditions. This section offers a synthesis of the key findings.

5.1 Key challenges and issues

Key challenges/issues identified in the site assessment are shown in Figure 18 and include:

- Poor crossing safety at intersections and mid-block. This is particularly the case on Marine Parade, where the foreshore is disconnected from the shopfronts, due to motor vehicle priority and car parking provision.
- Reduced quality of place and vibrancy in the town centre due to high levels of through traffic on Phillip Island Road.
- Poor wayfinding for people walking or cycling, particularly to important landmarks.
- Gaps in the footpath network, with people often forced to walk on the road. This is the case at many buses stops and reduces accessibility.
- A lack of cohesive cycling network, with an absence of on-road infrastructure and a fragmented shared path network.
- Limited bike parking at key destinations.
- Limited bus operations resulting in an unattractive service offering.
- Poor legibility at intersections connecting Marine Parade and Phillip Island Road resulting in unsafe and unpredictable driving behaviour.
- High motor vehicle speeds detract from high *place* value streets.
- Poor utilisation of existing car parking supply, with some car parks at capacity while others remain under used.
- Fluctuations in car parking demand during peak periods, and major events.
- Lack of electric vehicle (EV) charging opportunities.

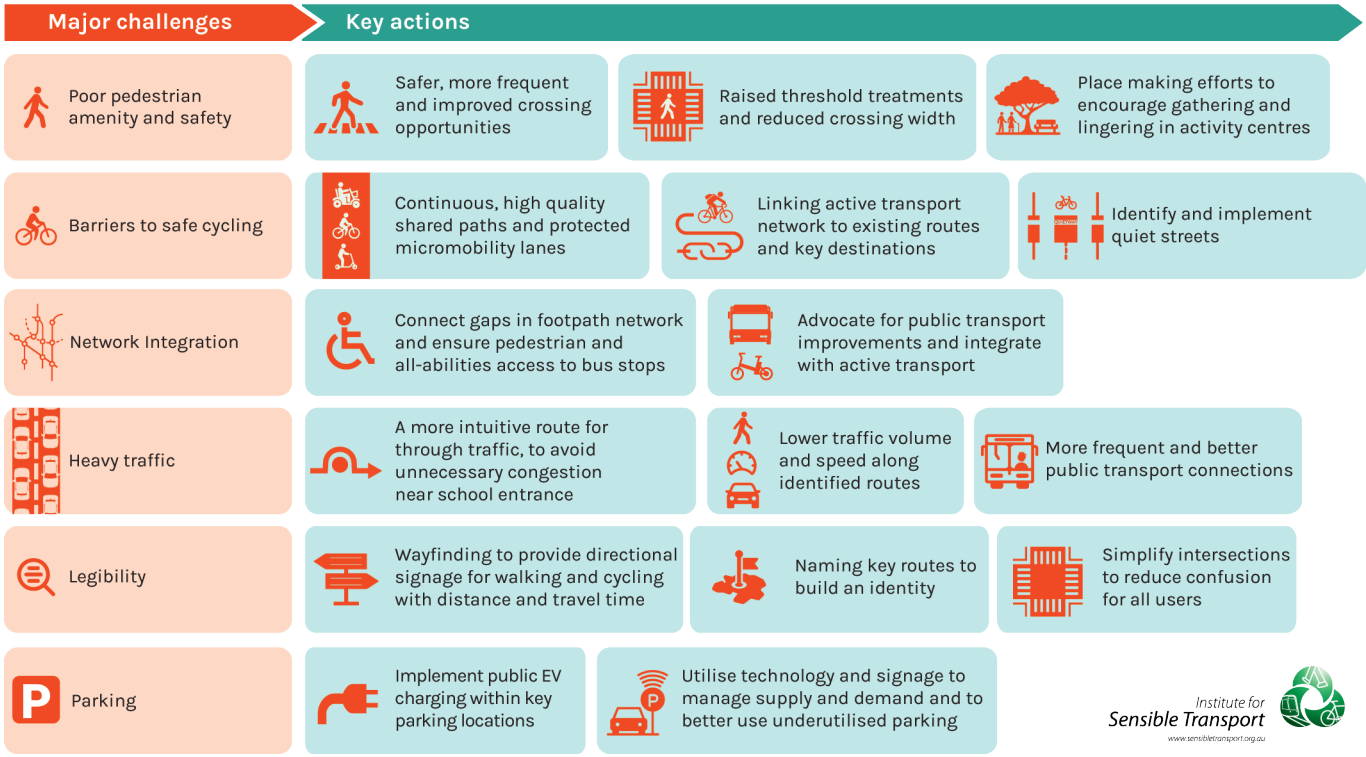


Figure 18 Major challenges and key actions in San Remo

Source: Institute for Sensible Transport

6. What you told us

Stakeholder engagement was undertaken to identify challenges and opportunities related to access and movement in San Remo.

This section details the key findings of the stakeholder engagement.

6.1 Stakeholder engagement and workshops – key findings

Three engagement sessions were held for each of the following groups:

- Council officers and urban design consultants (*UrbanFold*)
- Department of Transport and Planning (DTP)
- San Remo District Tourism & Business Association (SRDTB).
- San Remo Structure Plan Community Reference Group
- Council officers and internal stakeholders.

Key themes on the challenges identified in the stakeholder engagement workshops included:

- Car dependence
- Speed management
- Freight movement and access to businesses
- Car parking occupancy
- Poor public transport connectivity
- Barriers to walking and cycling
- Barrier to bus use
- Road safety, vehicle speed, and road legibility on Marine Parade. Particularly at the Bergin Grove, and Back Beach Road intersections. Implementing short-term, low-cost solutions is a priority
- Urban design/public realm improvements, including on Marine Parade, and Phillip Island Road.

Figure 19 provides a snapshot of the key recommendations/opportunities identified by workshop participants.

Some of the recommendations that came out from the engagement workshops are:

Walking

> Investigating safe pedestrian crossings

> Place making (making walking environment attractive)

> More protection from the elements for pedestrians

Public Transport

> Better public transport service

> Community bus service

> Relocating bus and coach stops

> On-demand services at major events

> Consider commuter parking where possible

Cycling

> Expanding safe and connected bike path networks

> Better integration of cycling network with public transport services

Road Network

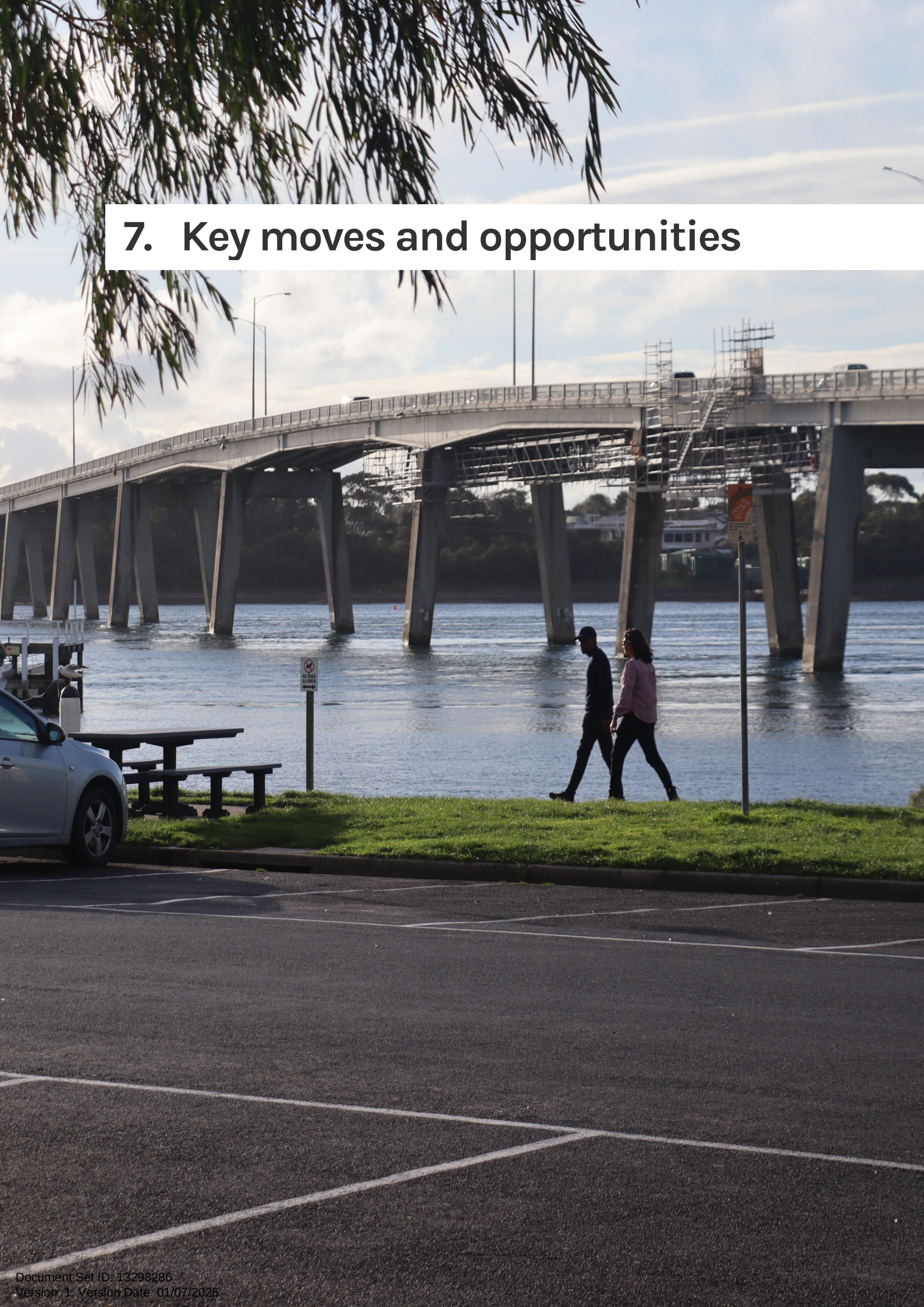
> Improve intersections interface by clear line marking

> Traffic calming measures

Figure 19 Engagement workshop recommendations

Source: Institute for Sensible Transport

7. Key moves and opportunities



To achieve the vision and targets set out in the *Access and Movement Study* and *Car Parking Plan*, taking a people-oriented approach to decision-making on transport and land use is critical. This section highlights the major moves that will create a more accessible, sustainable, and safe San Remo.

The key actions related to *Access and Movement* are presented in Figure 20 for the town centre, and Figure 31 for the wider area. Actions related to car parking can be found in Section 8.

San Remo Boundary
AT6 Specific Action ID
RS1 Broad Action ID

Existing infrastructure
Footpath
Shared path
Kerb ramps

Proposed infrastructure and key actions
Upgrade footpath to shared path
Shared path
Traffic island
Raised zebra crossing
Pedestrian crossing

Planned removal of footpath
Low speed access road
Investigate management of footpath
Marine Parade Street Revitalisation*
Relocated bus stop

Figure 20 Proposed transport network changes in San Remo

Source: Institute for Sensible Transport

*Refer to *San Remo Urban Design Framework* for detailed designs of the Marine Parade and foreshore street revitalisation.

7.1 Motor vehicles and freight

Motor vehicle through traffic impacts negatively on San Remo's sustainability, vibrancy, and amenity of the streetscape. A conceptual *Circulation Plan* has been developed to enable vehicles to access their destination, while minimising unnecessary through traffic. This will help make San Remo a more beautiful and vibrant place.

7.1.1 Circulation Plan

Figure 21 shows a conceptual vision of a traffic circulation plan for San Remo. Currently, the internal roads permit through traffic within the residential streets and into the activity centre. An effective traffic circulation plan would restrict through traffic and rather facilitate those movements on the arterial and connector road network. Access into the main activity centre would still be permitted, but vehicles would be required to exit back out the way they came in. Exceptions for delivery vehicles, maintenance, taxi services, and buses could be provided. Careful design should ensure that emergency services are not impacted by restrictions to access without good reason.

The key roads in the circulation plan include Phillip Island Road (the main access road), Potters Hill Road, Shetland Heights Road, Back Beach Road, Marine Parade, Bergin Grove, Woolamai Grove, Park Road, Thomas Grove, Ocean Grove, and Davis Point Road. Proposed future roads and shared paths are also shown in Figure 21. Proposed roads and shared paths include modal treatment controls at strategic locations which will improve access in the growth areas. This will restrict passing through motorists from using the future street network between Potters Hill and Punch Bowl Road.

Figure 21 shows low speed access roads and shared paths are also recommended to improve access to some of the key destinations in San Remo including Marine Parade (see Section 7.1.2). Lowering speed zones is regulates traffic volume and is essential to improving road safety. More detail regarding the reduction of speed zones is provided in Section 7.2.

Figure 21 Proposed Circulation Plan

*The exact alignment of the future proposed roads and shared paths are to be determined.

7.1.2 Marine Parade revitalisation

Marine Parade is the key activity area within San Remo, and its revitalisation presents an opportunity to enhance the public realm and improve pedestrian access.

It is recommended Council investigate a new 30km/h, pedestrian-focused zone along the main activity area of Marine Parade. This should prioritise pedestrian movement while maintaining angled parking to the north and introducing parallel parking to the south. This shift will allow for wider footpaths, expanded public spaces, and more outdoor dining opportunities, contributing to a vibrant and active streetscape.

Creating pedestrian priority will offer a seamless connection between the shops on Marine Parade and the foreshore area, encouraging greater use for social and leisure activities. Footpath upgrades should offer a high quality, consistent pedestrian experience along the length of Marine Parade.

A conceptual urban design and street cross section for the shared zone on Marine Parade is shown in Figure 22 and Figure 23 respectively. For detailed designs, refer to *San Remo Urban Design Framework* produced by *UrbanFold.*

As noted in the previous section, a low-speed access road is recommended to connect Mary Grove/Park Road to Marine Parade. This road (named the *Foreshore Lane*) will improve access from Marine Parade to Mary Grove for both pedestrians and motor vehicles, as well as creating opportunities for redevelopment behind Marine Parade businesses. The *Foreshore Lane* should be made one way in the south-bound direction (subject to community consultation) to restrict vehicle movements onto Marine Parade. A 15km/h speed zone is recommended for this lane so that all modes of transport can share the space. Appropriate traffic calming designs should also be applied to create a safe pedestrian-focused environment.

Figure 22 Proposed Marine Parade urban design rendering

Source: San Remo Urban Design Framework, UrbanFold

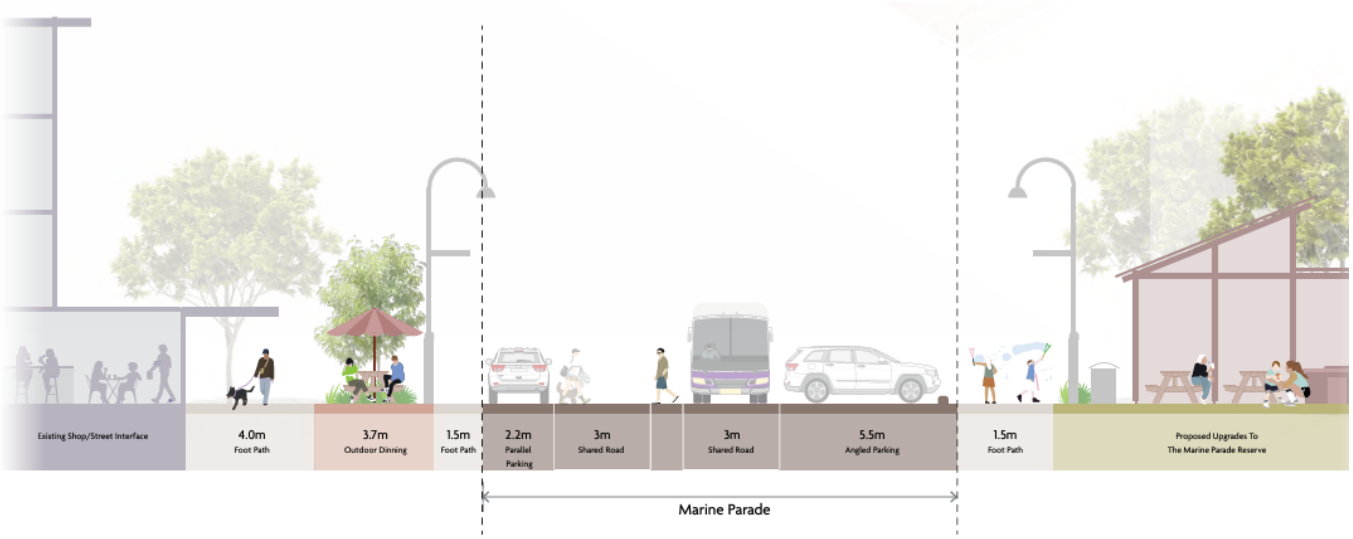


Figure 23 Proposed Marine Parade cross-section

Source: San Remo Urban Design Framework, UrbanFold

7.1.3 Recreation Reserve precinct

The San Remo Recreation Reserve has the potential to fulfil a role as the primary community gathering place and recreation hub.

There are existing challenges regarding land management and maintenance arrangements for the site.

Access to the Recreation Reserve is limited for both pedestrians and vehicles. There is significant opportunity for greater pedestrian connection into the precinct to support greater activation and safer spaces.

There is also scope for a future north-south active transport connection through the precinct. The current built form would not allow for this connection, but under a full re-development scenario, this may be plausible. This would provide greater pedestrian connection into the precinct to support activation, permeability, safer spaces, and make it easier to get around.

For detailed designs, refer to the *San Remo Urban Design Framework* produced by *UrbanFold.*

7.2 Road Safety

Streets in San Remo should be designed to prioritise safety, which is central to this *Access and Movement Study and Car Parking Plan*. Achieving the Victorian government's goal of eliminating fatalities and serious injuries by 2050 is *a guiding principle* of this Plan. Safer speed limits will underpin the creation of safer streets.

Figure 24 provides an indication of the proposed speed limit changes.

Safety is central to the *Access and Movement Study and Car Parking Plan.*

Figure 24 Safer roads in San Remo

*The exact alignment of the future proposed roads and shared paths are to be determined.

Recommendations for the study area include:

- A consistent speed limit of 50km/h on all circulation roads outlined in Figure 21. On roads not managed by Council, advocate and seek approval from the relevant authority to implement these changes.
- Apply a 30km/h speed zone along Marine Parade and include traffic calming designs focused on enhancing activation and place making.
- Apply a consistent speed limit of 30km/h on all residential streets, pedestrianised streets, activity centres and shopping strips to support safety and vibrancy.
- Upgrade Punch Bowl Road to support urban development in the growth area. Apply a 50km/h speed zone to ensure the street environment is safe for motorists, cyclists, and pedestrians alike.

A speed limit of 15km/h is recommended for low-speed access roads proposed in the *Urban Design Framework*. These streets are likely to be shared by all modes of transport and will benefit from traffic calming designed to maintain a low-speed environment. Key changes to speed limits in the study area are shown in Figure 24.

The Department of Transport and Planning (DTP) is the authority for implementing changes to speed zones. Council is responsible for assessing speed limits on local roads before proposing the change to DTP. For roads managed by the State government, Council should collaborate with and advocate to DTP for changes to the speed zones.

7.2.1 Making intersections pedestrian friendly

Intersections are important focal points within the central activity area of San Remo. Intersections are both places of movement and exchange. Most trips to San Remo will involve a walk, including most car trips. Movement throughout San Remo is dependent on pedestrians being able walk down streets and cross intersections safely. Figure 25 shows the type of treatments that can be applied to make intersections safer to cross.

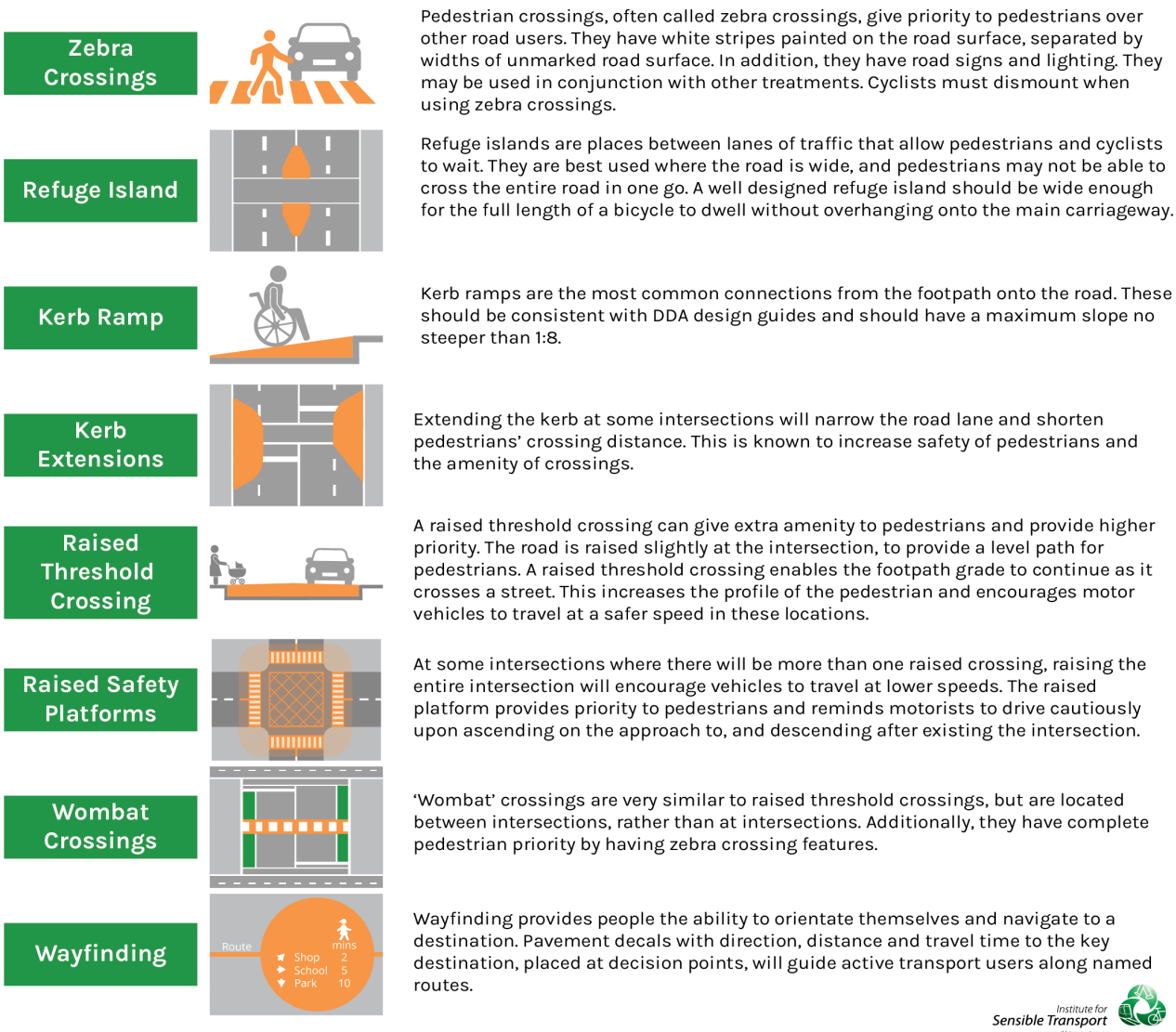


Figure 25 Intersection treatments

Source: Institute for Sensible Transport

Opportunities have been identified in Figure 20 to make intersections in the central activity area safer and easier to navigate. On state managed roads, Council should seek approval for crossings upgrades to achieve safer, more vibrant streets.

More details regarding the most pertinent intersections along Phillip Island Road are discussed in the following sections. Council should also monitor all intersections for safety and traffic impacts. As traffic volumes increase from development and visitation, Punch Bowl Road and Phillip Island Road may require more pedestrian-focused treatments.

A high-quality pedestrian environment is essential to San Remo's development and ongoing improvement to amenity and place making.

7.2.1.1 Intersections on Phillip Island Road

As San Remo develops, there is likely to be an increase in vehicle movements to and from Phillip Island Road. This will be due to two factors, firstly, an increase in vehicles from population growth and economic development, and secondly, from new road connections associated with development in the east of San Remo.

These intersections will need to be monitored and upgraded in close collaboration and discussion with DTP and Regional Roads Victoria. As general principles, upgrades should seek to:

- Better accommodate vehicle movements,
- Increase safety of all road users,
- Provide quality access to people walking and riding bicycles (and other forms of micromobility), and

- Support a sense of place within San Remo.

A brief discussion of potential upgrades to key intersections is provided below. All designs are conceptual only, being subject to further planning, design, and funding. There are opportunities for advocacy to State and Commonwealth governments for these further works.

Bergin Grove

A conceptual design for the intersection of Bergin Grove, Marine Parade and Phillip Island Road is detailed in Figure 26. This design is in line with the intersection upgrade proposed by DTP and Regional Roads Victoria, with some additional safety related improvements added. The design supports vehicle movements, the provision of quality walking and cycling paths, and enhanced safety.

Figure 26 Conceptual design for the Bergin Grove, Marine Parade and Phillip Island Road intersection

Source: Institute for Sensible Transport

Back Beach Road

A conceptual design for the intersection of Back Beach Road, Marine Parade and Phillip Island Road is detailed in Figure 27. This design is in line with the intersection upgrade proposed by DTP and Regional Roads Victoria, with some additional safety related improvements. The design provides better links between Marine Parade and the waterfront, while also supporting vehicle movements and enhancing safety.

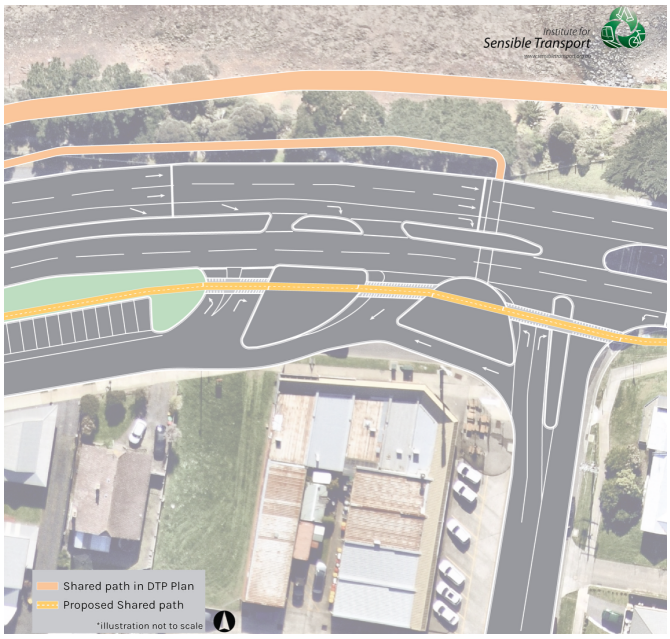


Figure 27 Conceptual design for Back Beach and Phillip Island Road intersection

Source: Institute for Sensible Transport

Potters Hill Road

The intersection of Potters Hill Road and Phillip Island Road is a critical junction in San Remo, and its redesign is essential to improve safety and connectivity. This intersection was also identified in the Traffic Impact Assessment prepared for the Structure Plan in 2023, to exceed capacity in the future. Council should work with DTP to develop an intersection design that accommodates all users, including pedestrians and cyclists. The new design should incorporate safe crossing options, such as raised thresholds or zebra crossings, ensuring accessible and safe connections for people walking or cycling.

The intersection design should consider the potential development of a secondary activity centre located to the east of Potters Hill Road. This future activity centre will further increase traffic and pedestrian flows already expected for the area. Student enrolment at the San Remo campus of Bass Coast College will also increase alongside residential growth. The San Remo campus is already expecting an attendance of 500 students in 2026. The increase in student enrolment will add pressure on the surround road network, affecting motorists and public transport buses. The intersection at Potters Hill Road and Phillip Island Road will be significantly impacted at peak hours. A well-planned intersection that supports both current and future needs will be necessary.

7.3 Public transport

Public transport can be the most accessible form of transport. It can offer mobility to all, including people with disability, people of all ages, and those unwilling or unable to drive a car or ride a bicycle. Delivering quality public transport to San Remo is key to delivering transport choice and reducing transport emissions.

This Plan recommends advocating to the State government for a series of actions aimed at improving public transport services in San Remo. The detailed actions related to public transport are presented in Section 9.2 (Table 7).

The key elements of a quality public transport network are shown in Figure 28. Balancing *legibility*, *frequency*, and *coverage* is essential in providing high-quality public transport. The *legibility* of the transport network in San Remo refers to the accessibility and the ease of navigating public transport services, as well as the coherence of the network.

Public transport can be the most accessible form of transport.

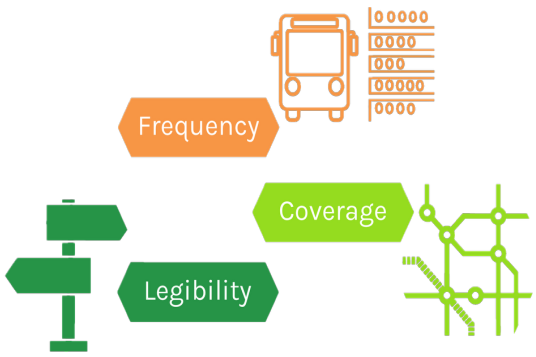


Figure 28 Key elements in the quality of public transport

Source: Institute for Sensible Transport

7.3.1 On-demand transport in San Remo

In 2022, Bass Coast Shire commissioned the Institute for Sensible Transport to prepare a *Service Design and Implementation Plan* for an on-demand transport public transport service pilot in Phillip Island and San Remo.[6] Stakeholders including DTP, Destination Phillip Island, and Council have endorsed the pilot, with a request for funding completed in 2023. It is recommended that Council continue advocating for the implementation of the recommendations outlined in the *service design and implementation plan*.

The proposed service areas are shown in Figure 29, with catchments at San Remo Foreshore, San Remo Post Office, and San Remo Recreation Centre. As development continues to grow to the east, the service area should be expanded to cover new developments.

Council should continue advocating for on-demand public transport for San Remo.

7.3.1.1 Integration with on-demand transport

All public transport services in San Remo should be met by the aforementioned on-demand bus. Aligning the timetables between services will create a seamless public transport experience for current and future residents.

7.3.2 Town bus frequency

Currently two town bus routes operate in San Remo, between Cowes and Wonthaggi as well as Cowes and Fountain Gate. Further, there are V/Line coaches to Melbourne that stop on Marine Parade. These coaches can require interchanges at Koo Wee Rup or Anderson, but timetables for the services do not always align, resulting in unnecessarily long journeys.

A lack of frequent service and poor timetable coordination makes public transport difficult to use and unlikely to be considered a viable option for most people's daily transport needs.

Council should continue advocating to the State government for improved public transport services. These improvements should include increasing service frequency, operational hours, and the

[6] On-Demand transport service design and implementation plan

timetable alignment between town buses and V/Line coach services.

Infrequent services and poor timetable coordination make public transport impractical for most people's daily needs.

Between Cowes and Wonthaggi, Council should advocate for a minimum of one service per hour between the hours of 7am to 9pm every day. During weekday peak hours, this could be doubled to be one service every half an hour.

Additionally, as part of the revitalisation of Marine Parade, the relocation of the existing town bus and coach stop is also proposed. It is recommended that the current PTV bus and tourist coach stop be moved to the southern side of Marine Parade, outside the IGA. This new location will offer a more central and convenient stop for users, directly connecting them to the main activity area in San Remo.

Figure 29 Proposed hubs and associated catchment area

Source: Institute for Sensible Transport

7.3.3 Multi-modal integration

Public transport should also integrate with other modes of transport. The Anderson Interchange provides car parking for residents taking the V/Line Coach. This is unnecessary at other bus stops, however, a minimum of one bike parking hoop should be adopted to allow riders to park their bikes and get onto the bus. On-street bike parking is discussed in more detail in Section 7.4.2.1. Furthermore, Council should advocate for the installation of bike racks on all V/Line coach and town bus services stopping in San Remo.

Alignment of bus services to the Westernport Ferry timetable will also allow an additional transport option into San Remo.

7.4 Active transport

One of the *strategic objectives* of this Plan is to increase the proportion of trips by walking and cycling. Currently, San Remo has poor network connectivity for people on foot or bicycle. Limited safe cycling facilities, missing footpath connections, and a general lack of safe crossing points all reduce the safety and attractiveness of walking and cycling.

As highlighted earlier, active transport use has halved over the last 20 years in San Remo. This is notable given that 33% of all work-related trips are under 5km and almost 8 in 10 trips under 5km are made by car. This highlights the potential to increase active travel in San Remo by enhancing both walking and cycling infrastructure for current and future residents.

The detailed actions related to active transport are presented in Section 9.2 (Table 8).

There is potential to shift many short trips from cars to active modes, given current patterns of car use and trip length.

Reducing the number of cul-de-sac streets will serve to increase active transport connectivity and permeability. For existing cul-de-sac style streets, including pedestrian and cyclist permeability will provide an important modal filter. This will enhance the competitive advantage of active travel and make residential streets safer for local communities. Council has already implemented several examples of active transport cut-throughs in the newer residential developments east of Back Beach Road and should continue ensuring these connections are provided.

Improving pedestrian and cyclist permeability will make walking and riding more direct and convenient for short trips.

The level of street lighting is one of the factors influencing walking and cycling after dark. Adequate lighting ensures that pedestrian and cyclists can see their surroundings and reduce the risk of crashes. However, it is essential to keep a balance between adequate lighting and energy efficiency to prevent light pollution and unnecessary energy consumption. This could be an important consideration for the development of the second activity centre in San Remo. It is recommended that Council ensure environmentally sensitive street lighting is installed on all key pedestrian and cycling routes, particularly in and around the town centre.

7.4.1.1 Walking in San Remo

People in San Remo love to walk. It is the second most reported mode of travel in San Remo, with 7% to 9% of trips to work being made on foot over the last decade. Despite this, many footpath connections and safe crossing point points are missing. This includes key community destinations such as San Remo Recreation Centre and Reserve.

7.4.1.2 Cycling and micromobility in San Remo

Cycling and other forms of micromobility do not currently play a substantial role in San Remo's transport system. Yet as noted previously, current trip patterns suggest high potential growth for these modes. This is primarily due to the large number of trips under 5km.

The accessibility and quality of bicycle infrastructure have a profound influence on cycling participation. Key bicycle network planning principles are offered in Appendix A.4 to assist in the delivery of network enhancements.

Cycling and other forms of micromobility do not currently play a substantial role in San Remo's transport system.

7.4.2 Active transport network upgrades

Proposed upgrades to the walking and cycling network in San Remo are shown in Figure 31. Recommendations for the walking network include creating pedestrian-prioritised crossings, continuous DDA-compliant footpaths to key destinations, and integration between the walking and public transport networks. The recommendations also focus on extending the network by addressing missing links in the footpath network.

Recommendations for the cycling network focus primarily on upgrading key existing paths to shared facilities (refer to Figure 30). The actions will create a safer environment for bike riders and motorists sharing the road. Ensuring active transport users have safe access to key destinations will enhance safety and sustainability and provide people the freedom to choose the mode of transport that suits them.

A key recommendation is a shared path between Marine Parade, San Remo Primary School, San Remo Recreation Centre, and Lions Park. This action should be complemented by other initiatives such as safer speed and crossing points for pedestrians and people on bikes.

The path that runs between Davis Point and Lions Park should be investigated to accommodate *all abilities access*. New access points should also be identified.

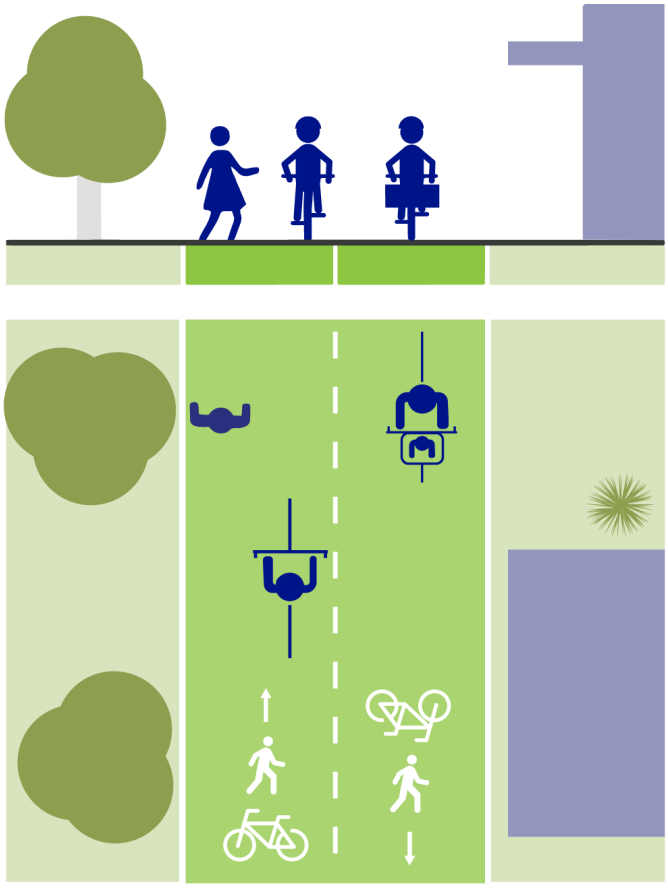


Figure 30 Conceptual shared path design

Source: Tasmanian Cycling Infrastructure Design Guide

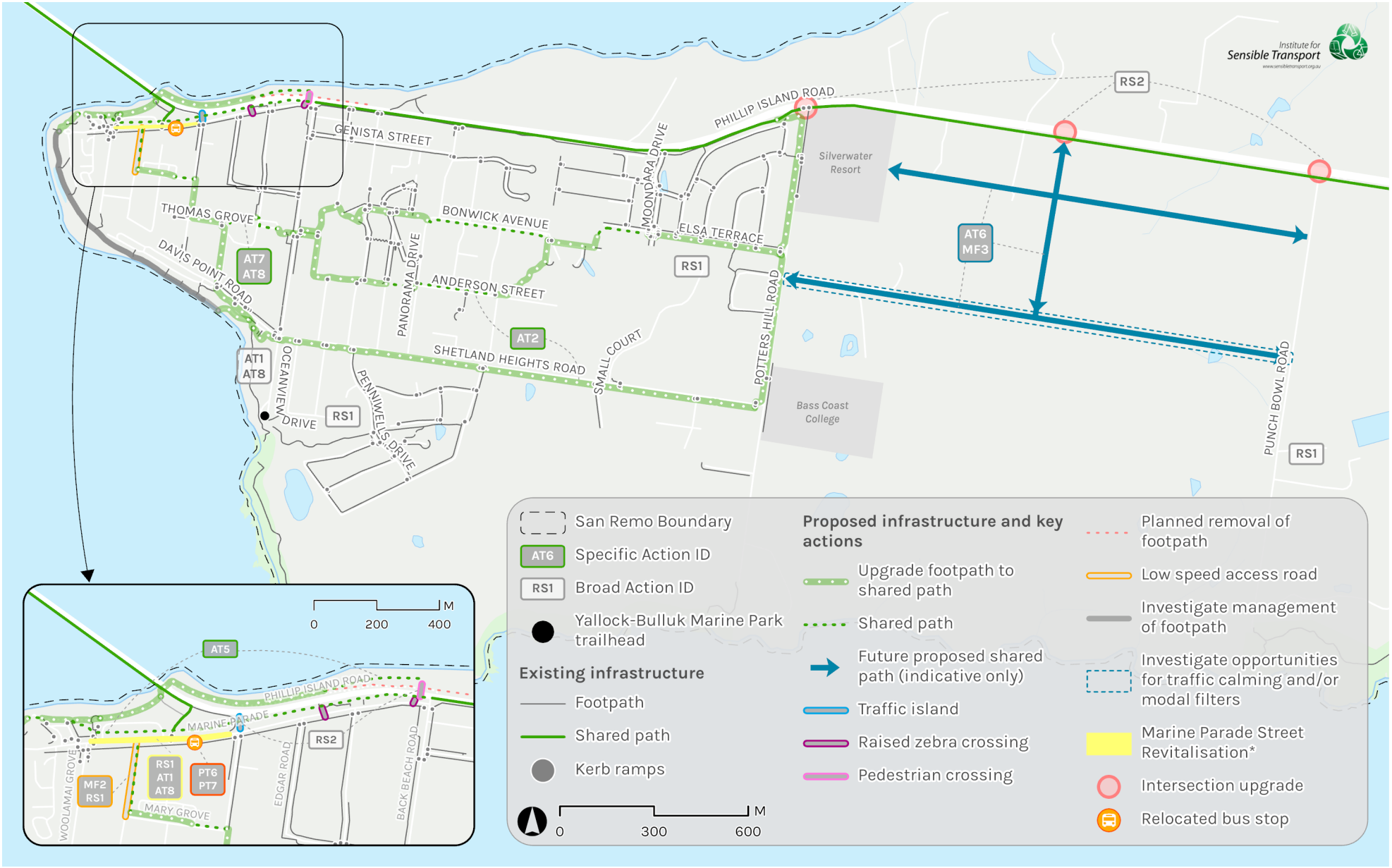


Figure 31 Proposed active transport network upgrades

*The exact alignment of the future proposed roads and shared paths are to be determined.

7.4.2.1 Bike Parking

Having a safe place to store a bicycle is an essential requirement for increasing cycling participation. People require short term on-street parking for visiting shops, community facilities etc. as well as off-street parking (e.g. multi-dwelling developments and workplaces). Bicycle parking rates and design guidelines specified in the *Planning Scheme* have not been updated in consideration of current demand contemporary bicycle design (e.g. bikes with baskets, cargo bikes, e-bikes etc). E-bikes are especially suited to the San Remo region due to hills and longer distances. New bicycle parking must be able to accommodate a diversity of bicycle designs. Installing more bicycle parking in high demand areas should follow an audit of existing facilities.

On-street parking

Council should adopt a consistent approach to the provision of bike parking in public places. A suitable design for a bicycle parking hoop in public places is shown in Figure 32. This design is consistent with Austroads guidelines and enables a wide selection of bicycle types to be locked, using the frame rather than the wheels. This helps to reduce theft, maximises user friendliness and a uniform approach increases cost effectiveness.

Figure 32 On street bike hoop

Source: Institute for Sensible Transport

In order to achieve a consistent level of bike parking in areas likely to require it, Council should install:

- A minimum of four bike parking hoops every 100m along Marine Parade, on either side of the street, west of Bergin Grove.
- A minimum of two bike parking hoops every 100m along Marine Parade, outside the shops, east of Bergin Grove.
- A minimum of two bike parking hoops outside community facilities. These should be located with the convenience of the user and the security of the bicycle in mind.
- A minimum of four bike parking hoops at popular foreshore carparks (i.e. Lions Park) with the convenience of the user and the security of the bicycle in mind.
- A minimum of one bicycle hoop at each bus stop.

Ensuring parking is secure, accommodates various bike types, including odd-shaped bicycles, and is placed in well-lit areas with good passive surveillance helps remove barriers to cycling. Additionally, providing covered parking where possible will help protect bikes from the weather will further encourage cycling as a reliable transport option.

Off street parking

Ensuring people have a safe and convenient place to park a bike at a residential or work location is important if Council is to increase rates of active travel. For new developments, Council will require:

- Bike parking rates of one hoop per bedroom in multi-dwelling developments. No more than 20% of installed bike parking can be wall mounted, as this configuration is impractical for many bikes and many riders.
- Increased bicycle parking for all non-dwelling uses.

This requirement should be placed in the planning scheme through local policies, and design requirements, where appropriate. In its current form, there are no tools in the *Planning Scheme* for changing the bicycle parking rates specified in Clause 52.34. At sporting venues such as the Recreational Centre, it is likely that many locals can and would want to ride to the centre. A 10% bike parking to car parking ratio is recommended to allow 1-in-10 attendees to ride to the centre.

Special Events

For events expected to attract large numbers of people on bikes, the provision of temporary bicycle

parking may be necessary. This should be considered on an event-by-event basis.

7.4.3 Shared micromobility

The hilly topography of San Remo can be a barrier to walking and cycling. To overcome these barriers, options such as shared micromobility solutions can make active travel more feasible. Shared micromobility devices provide a convenient, and sustainable alternative to driving for those who do not own a bike or scooter. These forms of transport also have potential in San Remo in part because of the high tourism rates. This could bridge an important gap for short trips and last-mile transport in San Remo but must be complimented with adequate safe infrastructure.

There are two main types of shared micromobility: e-scooters and e-bikes. E-scooters are often preferred for very short trips, while e-bikes provide a more comfortable ride for longer trips and allows the rider to carry items in the front basket. Additional information on shared micromobility can be found in Appendix A.4.

Where would a micromobility service operate in San Remo?

To provide the strongest value proposition to the user, the service area would include the same catchment as the on-demand bus service in San Remo which is shown in Figure 29.

The shared e-bikes would be able to travel anywhere a regular bicycle can travel. Operators can work with Council to 'geo-fence' certain areas out of bounds (e.g. areas with very high pedestrian traffic such as San Remo Jetty). Should Council choose to create pedestrian-only zones on certain streets or during events, it may be possible to work with providers to geo-fence these areas.

Next steps

Council should consult with the community and tourism industry regarding a shared micro mobility service. If there is strong support for such a service, an Expressions of Interest should be called from the commercial shared micro mobility sector. All proposals should be examined by a suitability qualified reviewer before the selection of one or more operators that meet Council's minimum requirements.

It is not expected Council would need to contribute financially to the provision of such a service.

7.4.4 Wayfinding

San Remo currently lacks an effective wayfinding system. Wayfinding includes signs, maps, and other visual cues, to help people navigate and interpret their environment.

An effective wayfinding system helps users understand what destinations can be reached via the walking and path network. This is especially important for visitors to San Remo.

San Remo lacks effective wayfinding.

An example of a well-designed *heads-up* map is shown in Figure 33, which assist with establishing a user's understanding of the environment.

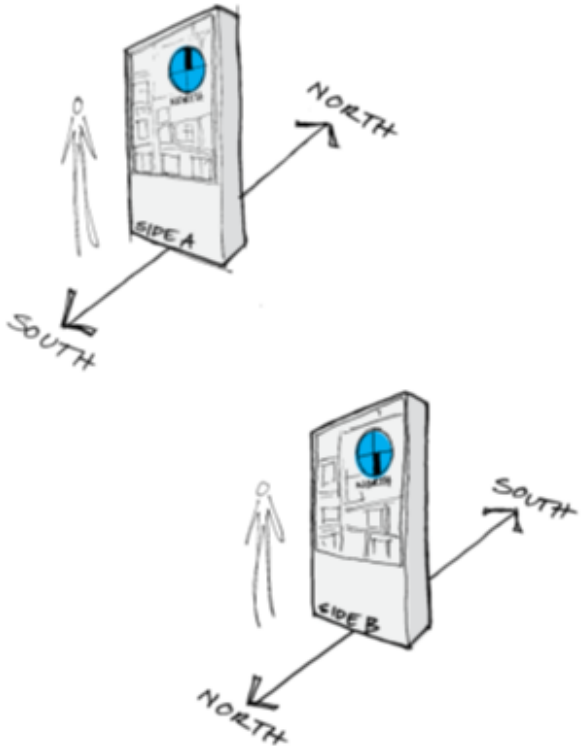


Figure 33 Heads up wayfinding example

Source: Institute for Sensible Transport

Council should update wayfinding directional and interpretive boards at key destinations including the San Remo Foreshore, San Remo Recreation Reserve, Anderson Street Reserve, and Lions Park. Shared path signs should be installed alongside the delivery of proposed shared paths, as well as existing paths.

7.5 Development patterns and traffic impacts

Most streets in San Remo were built many decades ago. The allocation of road space for different transport modes often reflects the priorities of previous decades. For example, older subdivisions often did not include footpaths, a requirement now commonly required in new developments.

By working with key stakeholders, Council can help to ensure land use decisions align with the vision of the *Access and Movement Study*, and Council's wider strategic ambition. This will help advance San Remo's development towards a future that is less car dependent and easier to undertake trips by foot, bicycle, and public transport. The *Traffic Impact Assessment* (TIA) performed for San Remo calculated post-development traffic volumes to exceed capacity at the intersections of:

- Phillip Island Road / Bergin Grove
- Phillip Island Road / Back Beach Road
- Phillip Island Road / Potters Hill Road.

The TIA modelled trip generation rates based on South Dudley, a residential-only urban area in Wonthaggi. Consideration was given to the type of dwelling likely to be developed and the typical travel pattern associated with it as shown in Table 1. The ranges reflect different levels of access to amenities, public transport, and other factors, which are all shown to decrease car trip generation. The TIA assumes the top of the detached housing generation rate range, of 10 vehicle movements per day, with one in the peak period.

Table 1 Average vehicle generation rates by dwelling type

Dwelling type	Ave. vehicle trips during peak hour (per dwelling)	Ave. vehicle trips per day (per dwelling)
Detached houses	1*	8 - 10
Medium density (i.e., townhouses, units)	0.8*	6 - 8
High density (i.e., apartments)	0.6*	3 - 6

Source: San Remo Traffic Impact Assessment

Note: *Peak hour rates are 10-12% of daily rates

While separated dwellings have a higher trip generation rate, they typically have more residents. However, lower density LGAs also tend to have greater numbers of vehicle trips, based on Victorian Integrated Survey of Travel and Activity (VISTA) analysis, shown in Table 2. This analysis shows that the ranges included in the TIA are broadly consistent with what is observed across Melbourne and Geelong. The number of trips by vehicle decrease as dwelling density increase. Note that the total number of trips per person tends to increase with density, indicating that people make more trips, but fewer are by car.

A comparison of different car trip generation rates is shown in Table 3. These are based on the vehicle generation rates in Table 1, with the baseline development scenario of 295 extra dwellings and high development scenario of 970 extra dwellings considered. All baseline and high development scenarios are assumed to have stable housing and population. Changes in car vehicle generation rates are assumed to change based on built form rather than people per dwelling. Car vehicle generation rates are assumed to decrease with density, due to proximity to amenity and public transport, as stated in the TIA.

Lower density LGAs tend to have greater numbers of vehicle trips.

Table 2 Trip generation rates of selected LGAs in Victoria

LGA	Dwellings	People	People per dwelling	Dwellings per hectare	Car trips per weekday	Total trips per weekday	Vehicle trips per dwelling	Total trips per dwelling	Vehicle trips per person	Total trips per person
Port Phillip	63,174	101,956	1.6	30.7	190,000	400,000	3.0	6.3	1.9	3.9
Bayside	43,058	101,306	2.4	11.6	260,000	380,000	6.0	8.8	2.6	3.8
Glen Eira	66,162	148,908	2.3	17.0	320,000	500,000	4.8	7.6	2.1	3.4
Kingston	67,560	158,129	2.3	7.4	360,000	480,000	5.3	7.1	2.3	3.0
Frankston	58,774	139,281	2.4	4.5	350,000	440,000	6.0	7.5	2.5	3.2
Casey	122,583	365,239	3.0	3.0*	790,000	960,000	6.4	7.8	2.2	2.6
Cardinia	43,511	118,194	2.7	0.3*	280,000	340,000	6.4	7.8	2.4	2.9
Greater Geelong	120,584	271,057	2.2	1.0*	620,000	800,000	5.1	6.6	2.3	3.0
Mornington Peninsula	93,502	168,948	1.8	1.3*	440,000	540,000	4.7	5.8	2.6	3.2
Mornington Peninsula (occupied dwellings only)	64,650	168,948	2.6	0.9*	440,000	540,000	6.8	8.4	2.6	3.2

Source: VISTA and ABS Census

Note: * includes land outside of the growth boundary

Table 3 Comparison of car trip generation rates from different development options

Housing typology and surrounding built form scenario	Baseline development case		High development case	
	Peak hour vehicle trips	All day vehicle trips	Peak hour vehicle trips	All day vehicle trips
Detached housing with no commercial area	295	2,950	970	9,700
Detached housing with commercial area	236	2,360	776	7,760
Medium density housing with no commercial area	236	2,360	776	7,760
Medium density housing with commercial area	177	1,770	582	5,820

Source: Based on assumption from the San Remo Traffic Impact Assessment

The analysis in Table 3 shows that vehicle trips could be 3,880 (40%) lower if medium density housing were built with a supporting commercial area, a comprehensive walking and cycling network, and quality public transport. This reduced level of car trips is not likely to be a result of reduced mobility, but rather increased mobility choice. This is exactly what is observed in denser areas of Melbourne, as shown in Table 2

Increasing dwelling density in San Remo will be a necessary part in alleviating forced car dependency and created choice for residents. A density of 25 dwellings per hectare is appropriate as it reflect the subdivisions that have already been developing in San Remo.

Increasing dwelling density in San Remo will be a necessary part in alleviating forced car dependency and created choice for residents.

Council should introduce a range of measures into the Planning Scheme to improve accessibility and sustainability. These measures include density targets, walking and cycling infrastructure requirements for new developments, along with supporting the construction of a new commercial shopping strip along Potters Hill Road.

7.5.1 Street design in growth areas

There is opportunity for many streets in San Remo to better reflect and support the community's ambitions for the future. San Remo would benefit from safer multimodal designs that integrate various forms of transport, including walking, cycling, public transport, and vehicles, while ensuring safety for all users.

San Remo will benefit from safer multimodal designs.

These benefits can first be established for new streets in growth areas, and when upgrading existing streets. Each street will have unique opportunities as well as challenges and must be assessed individually. Specific elements for each street include tree planting, well designed footpaths and provision for cycling, lighting, and street furniture.

Modal filters can also be applied to limit vehicle movements onto residential streets. Street designs for the growth areas will consider applying modal filters, as shown in Figure 34, to restrict vehicle movements from Punch Bowl Road.

Good street designs will make active transport safer, providing more transport options for residents in the growth area.

Figure 34 Modal filter on Canning Street, Carlton North.

8. Car Parking Plan

Improving car parking management will play a pivotal role in balancing supply and demand as San Remo grows. This must be done in a manner that works to enhance people's access to other modes of transport and improving the vibrancy of San Remo.

This section proposes changes to the management and supply of car parking in San Remo. These recommendations aim to better accommodate the needs of residents, visitors, and local businesses, and to support San Remo in reaching its long-term goals.

Effective management of car parking requires a whole of council approach, with multiple teams working collaboratively together. This includes formalisation of current parking areas, introduction of parking restrictions to ensure everyone has fair access to parking (and to protect residential amenity), and to allow residents to have parking permits.

There are also options to build more car parking, but this is very expensive, with one car parking space in a multi-deck car park costing up to $78,000. Due to this high cost, the first option should be to better manage car parking, and only build more where there are no other options.

This *Car Parking Plan* is informed by an occupancy study detailed in Section 8.1.2 and a car parking number plate analysis detailed in Section 8.1.5. Previous parking studies conducted by AusTraffic (2019), and BVY (2023) have also been considered.

8.1 Parking in San Remo today

Council manages a large supply of car parking in the town centre. This consists of both on-street and off-street carparks, including 784 car parking bays that are within a short walk of key destinations such as Marine Parade, San Remo Foreshore, San Remo Recreation Centre, and Lions Park.

Demand for parking in San Remo can fluctuate significantly depending on the time of year. On-street parking bays can be in very high demand, with occupancy reaching 100% in high-demand locations during peak periods. At the same time, people can leave their vehicles parked in some of these spaces for an unlimited amount of time. There are often available spaces a short walk from areas of high demand.

While Marine Parade has the highest demand for parking, it also has the highest place potential. Therefore, there is a need for activation and fostering a people-focused environment to strengthen the vibrancy of the street. Marine Parade is highly suitable for revitalisation. Box 1 provides a brief description of on-street dining/parklets.

On-street dining and parklets

On-street designing and pop up parklets are a successful outcome of the COVID-19 experience. These areas are often located in places that were formally used as kerbside car parking and can support local hospitality businesses. When placed in the right locations, the economic and social benefits gained from parklets outweigh the benefit of the space as a car park.

Box 1 On-street dining and pop up parklets

Image: Bass Coast Shire Council

8.1.1 Car parking time restrictions

Regulating the duration of stay in car parking bays is one approach to balancing the supply and demand for car parking. Time restrictions can assist in boosting levels of *'turn over'* by preventing vehicles for occupying bays for long periods. They are generally used in high demand areas.

Most of the parking in San Remo is unrestricted, except on Marine Parade. Car parking along Marine Parade currently comprises a mix of unrestricted off-street parking, and time-restricted on-street parking (usually 2 hours or less).

San Remo is somewhat unusual in its use of time restrictions; there are some parts within the town centre that offer unrestricted parking in a location that has very high demand.

Formalising parking includes introducing time restrictions and line marking. Line marking ensures the most efficient use of the space and will provide more parking bays than if they were left to motorists to manage themselves. When time restrictions are applied to residential areas, parking permits can be used, as discussed in Box 2.

A detailed map of San Remo town centre's car parking time restrictions is shown in Figure 35. The only restricted parking is the Recreation Centre. No standing is allowed at the parking bays closest to the tennis court on Tuesdays between 1pm to 6pm Tuesday, and Wednesdays between 8:30am to 12:15pm.

Residential parking permits

Many councils offer parking permits to residents which allow them to exceed the time restriction. This approach gives Council the ability to manage car parking to stop people from parking for too long, while still allowing residents to park at their homes.

Box 2 Residential parking permits

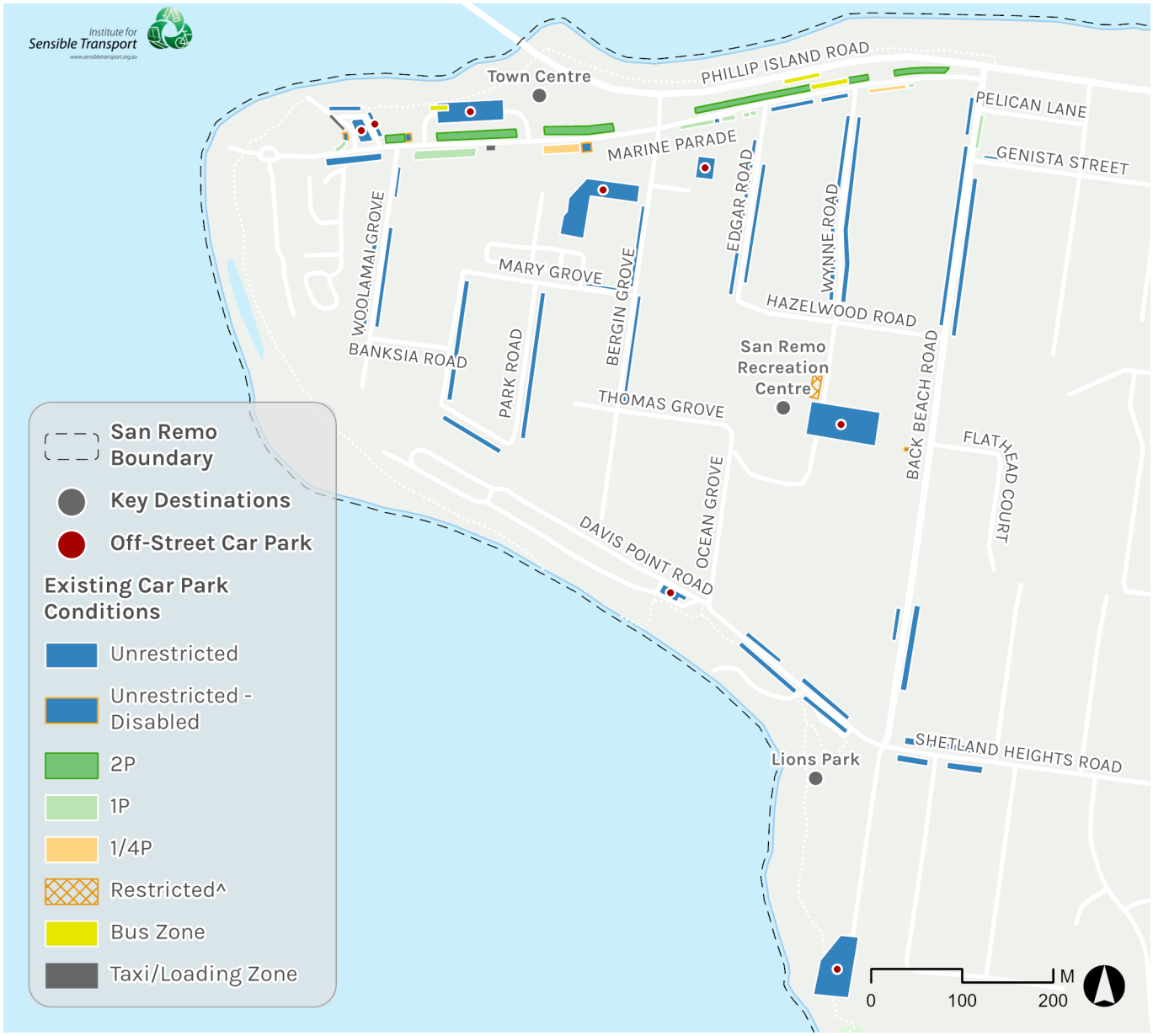


Figure 35 Existing car parking restrictions, San Remo

Source: Bass Coast Shire Council. Note: ^ No Stopping 1pm to 6pm Tuesday, and 8:30am to 12:15pm Wednesday

8.1.2 Stakeholder views on car parking

This project has involved a series of stakeholder discussions around various aspects of the transport system serving San Remo. Residents and traders have voiced their frustration regarding the times of the year in which the demand for car parking exceeds supply. This has resulted in people having to park some distance from their intended destination and some vehicles being parked inappropriately in informal locations. Stakeholder frustrations include:

- Limited parking near shops
- Limited car parking to access the foreshore for recreation
- Bus services and garbage trucks unable to navigate through Mary Grove due to on-street parking.
- Issues with freight delivery due to on-street car parking blocking access to certain businesses.

8.1.3 Car parking occupancy

A car parking occupancy analysis was conducted as part of the development of this *Car Parking Plan*. Aerial imagery from the 23rd of January 2022 (a period of high demand), was analysed to gain insights into the spatial variation of parking demand relative to supply in San Remo. The extent of the study included all on-street and off-street carparks within a short walking distance of the key destinations and San Remo town centre. The results of the car parking occupancy analysis are shown in Figure 36. The analysis found:

- Pockets of very high car parking occupancy, especially on Marine Parade and at San Remo Foreshore.
- Low parking occupancy on the eastern end of Marine Parade and side streets within a very short walk.
- Very low parking occupancy at San Remo Recreation Centre and Lions Park.

These findings are similarly reflected in previous car parking studies conducted by BVY Traffic (2023) and Austraffic (2019). A detailed review of the survey conducted by Austraffic can be found in the Appendix. This study was selected for review as the survey period occurred before the COVID-19 outbreak and best captures car parking demand at a peak period (Easter holidays) during *normal* travel patterns.

Figure 36 Car parking occupancy during summer holidays, 2022

Source: MetroMap and Institute for Sensible Transport

8.1.4 Understanding the relationship between car parking demand and land use

Based on the occupancy study, commercial land uses are associated with higher demand for car parking. Figure 37 illustrates that when public open space is also included, there is even greater demand. In contrast, areas zoned as general residential typically experience lower parking demand, except around key destinations such as schools, parks, and local shops. High parking demand is mostly concentrated on the western end of Marine Parade around the town centre. This area is the commercial centre of San Remo and hosts many of the town's key attractions.

Better managing car parking can help to balance supply and demand in San Remo.

Areas of medium parking demand are located around the eastern end of Marine Parade, the southern areas of Edgars Road and Wynne Road, and Back Beach Road between Genista Street and Hazelwood Road. The mixed-use land at the west end of Genista Street experiences medium parking demand, likely driven by workers in the area, often forcing people to park in informal locations. This is exacerbated by the limited availability and quality of formal parking infrastructure in the vicinity, which contributes to ad-hoc parking.

The areas south of Marine Parade are predominantly zoned residential, with streets that offer access to public recreational spaces. Residential and public recreation areas impacted by parking demand and parking overspill include Marine Parade and San Remo Foreshore, Mary Grove, and Woolamai Grove.

A key distinction to recognise is that increasing car parking supply often leads to more car trips. Council's efforts should focus on enhancing alternative transport options before expanding parking supply. This is as relevant for off-street car parking as it is for on-street car parking. Bass Coast Shire Planning Scheme 52.06 has set minimum car parking requirements for developments. In some cases, these are inappropriate or too high, and Council should continue to use discretion afforded to it through the planning scheme to issue waivers where they are appropriate. This aligns with the *guiding principles* of this Plan, to increase the proportion of trips made by walking, cycling, and public transport.

Figure 37 Relationship between high parking demand and land use zoning

Source: Institute for Sensible Transport

8.1.5 Understanding where parked vehicles originate

It can be useful to gauge the distances cars parked in San Remo travel before arriving in the centre of town. An analysis of number plates and post code of vehicle registration was undertaken in April 2024 and the results shown in Figure 38. Council requested the postcode of vehicle registration from DTP to gain insights into where these vehicles originated from. This provides an indication of the number and proportion of vehicles that are local, compared to those travelling from further afield.

Findings from the analysis highlight that some 31% of the vehicles parked in San Remo originated from the same postcode as San Remo (indicative of a relatively short trip).[7] Moreover, an additional 13% of the vehicles were registered to a postcode in Cowes. This means that 44% of all vehicles recorded on the day were registered to either a San Remo or Phillip Island postcode.

31% of the vehicles parked in San Remo were registered to the San Remo postcode.

Some of the other locations that had higher than 4% of the vehicles parked include Anderson and Wonthaggi (5%), and Grantville (7%), all of which are within the boundary of the Bass Coast Shire.

Overall, 62% of vehicles are from postcodes located within Bass Coast Shire while 25% come from Greater Melbourne and 13% from other locations. It is important to note that just because a car is registered to a postcode, it does not necessarily mean that it originated from that location.

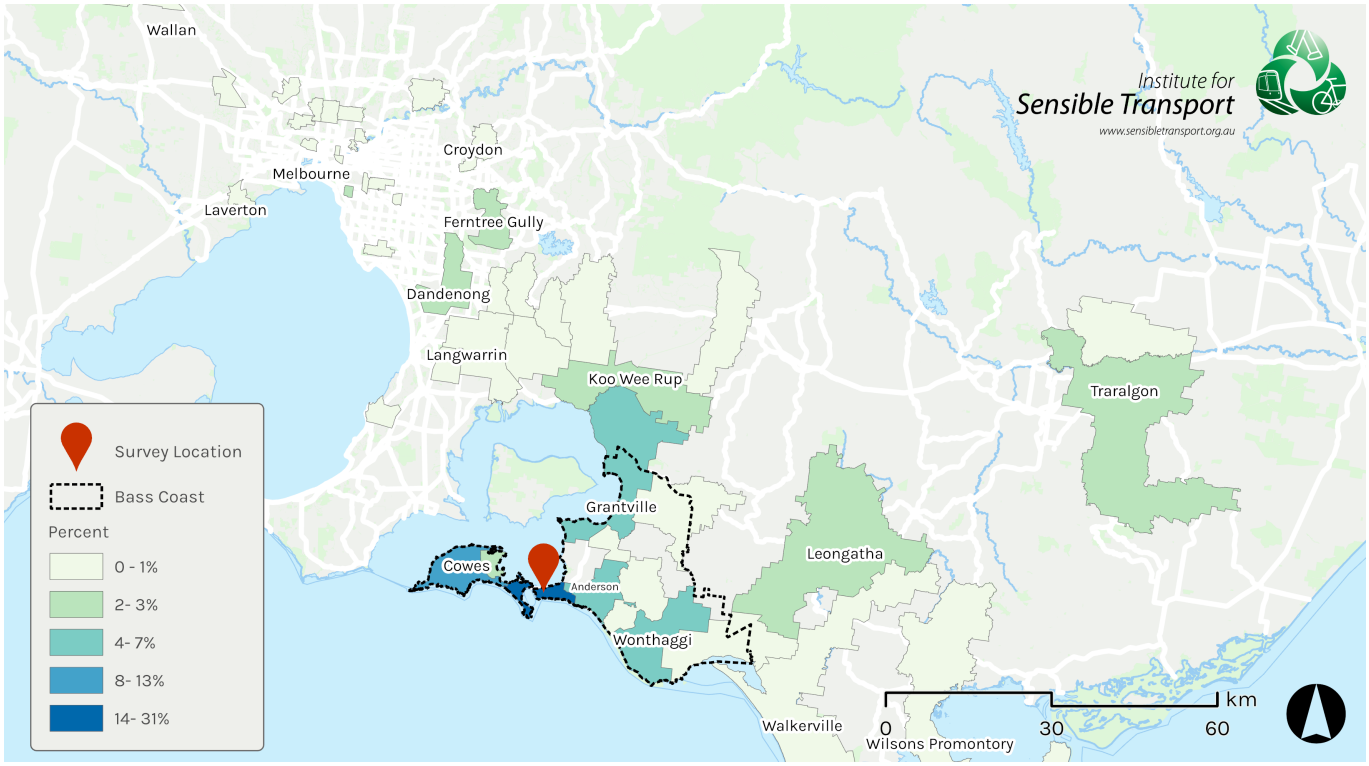


Figure 38 Postcode origin of parked cars in San Remo

Source: Institute for Sensible Transport, in combination with postcode data supplied by DTP

[7] Postcode 3925 includes San Remo, Cape Woolamai and Newhaven.

8.2 A sustainable parking future

To achieve equitable and sustainable outcomes for the community, principles for managing on-street car parking have been developed. The principles shown in Figure 39 are designed to guide Council's decision-making regarding car parking.

This Proposed Car Parking Plan for San Remo is shown in Figure 40. The specific actions related to car parking can be found in Table 10 (Section 9). Where possible, car parking actions specified in Table 10 have been illustrated on the map.

A more detailed summary of these changes can be found in Appendix A.3.

Better distribution

- Manage parking, to better distribute parking demand across San Remo.
- Time limits and spaces for buses and loading vehicles.

Equal access

- Increase disabled parking bays near popular destinations.
- Ensure EV charging bays are compliant to DDA standards.

Appropriate time restrictions

- Parking should be time restricted in a manner proportionate to demand and typical duration of stay
- Parking demand during peak times should not unfairly impact residents.

Relocating long stay parking

- Longer stay parking spaces should be further away but still within walking distance.
- Maximising turnover and benefit of prime spots for the largest number of people.

Utilising parking technology

- Parking technology should be used to make it easier to find a parking space.
- People can spend less time looking for a space and more time enjoying San Remo.

Provision for Long Vehicles

- Longer vehicles such as cars towing trailers or caravans which take up more space than cars will be accommodated in areas of less demand.

Figure 39 Principles for on-street parking

Source: Institute for Sensible Transport

Figure 40 Proposed Car Parking Plan, San Remo

Source: Institute for Sensible Transport

Note: Long vehicles are any vehicle over six metres in length, which do not fit in a regular parking space. This includes vehicles towing trailers, caravans, and boats; camper vans; buses; etc.

Note: *Additional long vehicle/trailer parking at the San Remo Recreation Centre for non-event days only. All other parking restrictions not specified remain unchanged.

8.2.1 Car parking changes

While the *Access and Movement Study and Car Parking Plan* aims to support residents and visitors to choose more sustainable transport modes, San Remo's growing township will face increased car parking pressures. To ensure the function of San Remo's activity centres are preserved, additional car parking spaces are required to support San Remo's transition. There is a net positive increase of approximately 21% in car parking supply should all actions and recommendations from this *Access and Movement Study and Car Parking Plan*, and the *Urban Design Framework*, be implemented.

Parking supply will increase by 21% to support San Remo's growth.

The key car parking changes reflected in the *Urban Design Framework* are summarised below:

- 40 new car parking bays – IGA Car Park expansion
- 52 new car parking bays - development of a new car park at the rear of Marine Parade
- 42 new car parking bays - development of a new car park accessible from Woolamai Grove
- 19 new car parking bays - development of a new car park at Davis Point, and the formalisation of car parking bays at the beach access point
- 44 additional car parking bays - formalised 2P car parking bays on Woolamai Grove, Mary Grove, and a section of Bergin Grove, and 4P car parking bays on Park Road
  - While these are not *new* parking bays, formalised parking bays are a useful tool to maximum car parking efficiency, particularly in high demand areas. An assumption has been made that parking efficiency can increase by 50% with car parking formalisation. This assumption is based on survey observations and is supported by findings from car parking occupancy studies.
  - Time restrictions are proposed for these streets to protect residential amenity. This will preventing workers and holiday visitors for parking all day, or even for multiple days, which significantly reduces residents' ability to park near their homes in busy periods.
- 14 additional long vehicle/trailer parking bays on the southern end of Back Beach Road
- Potential for 8 or more formalised parking spaces on Marine Parade

The total number of car parking bays removed as part of the reactivation of Marine Parade include:

- 8 car parking bays from the Fisherman's Co-op Car Park. This will be replaced with a bus zone.
- 45 car parking bays from the Marine Parade/Foreshore area car park.

Through these actions, the car parking supply in San Remo's town centre will increase by 166 car parking bays.

An additional 166 car parking bays will be delivered through the San Remo *Access and Movement Study and Car Parking Plan.*

Some of these spaces are provided through the formalisation of areas used for parking. This requires increased line marking, a low-cost option. However, the other key requirement to properly manage car parking is enforcement. This is particularly important in residential areas, where excessive parking can be detrimental to local amenity.

A residential parking permit system will ensure that local residents and their visitors will still be able to park at their homes. Vehicles which display a valid parking permit would be exempt from time limits. This provides a balance between the needs of those who live in San Remo, and those who visit San Remo (including those who work there), to ensure everyone has access to car parking. This will require a Shire-wide approach to residential car parking permits, which should be included in a Shire-wide *Car Parking Strategy.*

The following sections provide greater detail on car parking changes and considerations specific to San Remo destinations.

8.2.1.1 Car parking on Marine Parade

There is significant potential to improve car parking experiences for residents and visitors alike on Marine Parade. There is also significant potential for reimagining the use of the foreshore, which is currently dominated by car parking, at the expense of the public realm. This is highlighted further in the *Urban Design Framework*.

There is significant potential to improve car parking experiences for residents and visitors.

A key action in reactivating Marine Parade is to extend the open space near the jetty. This will bridge the foreshore and shops and allow for more place making. Some 53 car parking bays will have to be relocated to celebrate San Remo's coastal town feel. The car parking supply within 200m of the Marine Parade activity centre has approximately 535 bays. This figure includes existing on-street parking supply along streets running north – south from Woolamai Grove to Back Beach Road. However, actual supply is possibly less, as more space is often left between vehicles when the bays are not marked.

It is also important to address the need for different types of parking facilities for various users. Along Marine Parade, these include:

- **Loading Zones:** ensure loading zones are near to activity centre and businesses. Depending on the UDF, the existing loading bay on Marine Parade could be relocated to the parking bays west of Foreshore Lane.
- **Accessible parking:** Include enough accessible parking in high-demand areas along Marine Parade. More details are provided in Section 8.4.
- **Bus bays:** Ensure bus bays are visible and well-signed to prevent obstruction with parked vehicles.
- **Taxi bays:** Ensure taxi bays are visible and accessible for the elderly and people with disability. Taxi bays should be located close to shops and the foreshore.
- **Long vehicle bays:** This ensures there are bays for vehicles over 6 metres in length, which do not fit in a regular parking space. This includes vehicles towing trailers, caravans, and boats; camper vans; buses; etc. The recommended locations are at the San Remo Recreation Reserve and west of Back Beach Road, near the southern end. Buses would also be able to use the bus stop on Marine Parade for drop-offs and pick-ups, but not for parking.

8.2.1.2 Car parking at Davis Point

Formalising parking at the unsealed parking area currently at Davis Point will provide another option for parking. Depending on design, an estimated 18 – 20 bays can be developed at this site, but further investigation and design will be required.

The Davis Point carpark can be used for longer stay parking. While a 4P limit is recommended, businesses running activities that can apply for overstay permits. These permits must specify that overstay parking is only allowed in 4P parking bays.

8.2.1.3 Car parking at the San Remo Recreation Centre

The Council managed carpark at San Remo Recreation Centre serves local events. It is approximately 400m away from Marine Parade and can also be used for overflow parking during high seasons.

Through the application of appropriate signage and directional wayfinding, the carpark can be used for long vehicle parking on non-event days. Long vehicle parking at the Recreational Centre should be limited to 8P. On-event days, the carpark should be reserved for visitors to the Recreation Centre itself. Visitors should be directed to long vehicle parking towards the southern end of Back Beach Road.

There is an existing restriction for parking bays located closest to the tennis courts, which served a mobile library that is no longer in operation.

8.2.1.4 Car parking for the George Bass Coastal Walk

The *George Bass Coastal Walk* is a popular walking track from Kilcunda to Punch Bowl Road. It is common for people to park one car at one point, then drive to the other, and walk along *George Bass*

Coastal Walk, which increases demand for car parking, particularly in Punch Bowl Road.

The *George Bass Coastal Walk* will be extended from Punch Bowl Road to Lions Park in San Remo in the near to medium term. This extension is part of the *Yallock-Bulluk Marine and Coastal Park Access and Infrastructure Plan*.

Parking at the Lions Park is sufficient for current uses and is likely to be sufficient for the near future. However, new car parking options at Bore Beach, at the end of Potters Hill Road and the Punch Bowl Road Beach Lookout carpark, at the end of Punch Bowl Road can be investigated. The areas of investigation are shown in Figure 41.

These locations are on the *George Bass Coastal Walk* and have been identified for car parking upgrades in the *Yallock-Bulluk Marine and Coastal Park Access and Infrastructure Plan*. Both locations are currently unsealed roads with wide verges. The *Plan* provides some design guidance along with the proposed number of car parking which indicates use of road reserves. The existing and proposed number of carparking bays from the report is shown in Table 4.

Table 4 Proposed car parking at foreshore carparks

Car park	Existing	Proposed
Lions Park	21	21
Potters Hill Road	8	20
Punch Bowl Road	10	20

Source: Yallock-Bulluk Marine and Coastal Park: Access and Infrastructure Plan

Car parking at the end of Punch Bowl Road provides access to *George Bass Coastal Walk*. It is expected there will be higher parking demand once the *George Bass Coastal Walk* has completed construction.

Figure 41 Parking actions along the George Bass Coastal Walk

Source: Institute for Sensible Transport

There is concern that the increased visitation of the *George Bass Coastal Walk* may overwhelm parking. There are various options for managing car parking at this location:

- Formalise current parking spaces
- Increase parking capacity as proposed by Parks Victoria
- Increase parking capacity beyond what is proposed by Parks Victoria.
- Provide a shuttle bus
- Remove car parking and provide a shuttle bus.

Each of these options have their own pros and cons. Formalising current parking is the cheapest option, but will do little to increase capacity, and may become saturated quickly. Increasing capacity to what is proposed by Parks Victoria will add some capacity, but may still become full during busy periods of the year. At grade car parking bays can cost around $20,000 per space for earthworks, sheeting, and associated works such as line markings, signposting, etc. This means that extra parking capacity comes at an additional cost.

A shuttle bus has the potential to reduce parking demand, particularly at Punch Bowl Road, and at Potters Hill Road in future. However, this could be an operationally expensive solution, with public buses being contracted at approx. $7 per kilometre travelled, meaning a return trip between Kilcunda Beach Car Park and Punch Bowl Road (9.4km each way) could cost $131.60 to deliver. Such a service would also only have high patronage if it were frequent enough to be more convenient than driving. Given the high costs of delivering the shuttle bus, and low marginal cost of driving, fares would have to be very low (ideally free), with a deep subsidy covering the cost gap.

One operating model could be to ban all parking from Punch Bowl Road during busy times, and instead operate a free shuttle bus from Kilcunda or San Remo to Punch Bowl Road. This is the same as what Parks Victoria currently does at Wilsons Promontory between Telegraph Saddle and the Visitor Centre Car Park (a distance of 3.6km).

Council can choose one of these options based on their ambition and available resources. It is important to note the provision of a shuttle bus will be costly, and the demand may not justify the operational costs. The successful implementation of a shuttle bus is also dependent on a strict ban of car parking at the beginning of the *George Bass Coastal Walk*.

8.2.2 Technology to help manage car parking

Introducing new parking restriction should be managed in a way that avoids possible negative amenity impacts. It is recommended that:

- Parking Overstay Detector Systems (PODS) be installed in lower demand parking areas
- Real time displays used to direct motorists to low occupancy parking areas
- Parking technology is used for day-to-day management
- Council monitor levels of compliance
- Compliance officers to be deployed, as necessary.

8.2.3 Taking a different approach to parking for new commercial areas

As the community grows, there will be a need for the commercial areas to expand. This impact will likely create future demand for car parking, which could be fulfilled by off-street parking. Council should monitor this growth and investigate suitable options to support the community's needs.

As noted in Section 2.2, based on the *Structure Plan Economic Analysis*, a secondary local activity centre may be required east of Potters Hill Road. This could include a small convenience supermarket and other convenience/local shops (approx. 1,000 sqm of retail floorspace), plus ancillary medical/health, childcare etc.

This development is likely necessary to serve the town's growing population in the long term. In this new centre, trip distances are likely to be very short, helping to make walking and cycling the preferred mode of travel in many instances. However, to achieve this, it will be necessary to create conditions in which walking and cycling become more attractive for local trips. The provision of future car parking should not take priority over the vibrancy of the area or diminish the quality of access by foot and bicycle.

Off-street parking should be designed to enhance the sense of place in San Remo. This means, whenever possible, off-street parking should avoid

direct interface with the streetscape. The interface can be accomplished by:

- Locating off-street parking above or below ground level
- Locating off-street parking behind shops or nearby, away from the activity centre
- Using active street frontages (such as shops) to divide off-street parking into smaller lots that integrate better with the streetscape.

8.3 Car Parking Action Framework

To support Council's vision and guiding principles, the *Car Parking Action Framework* (see Figure 42) was produced to provide a transparent process for determining actions to better manage car parking in San Remo. The *Framework* presents the process for the appropriate actions and response to feedback from the community and visitors.

The steps of the framework are described in the following sections. By following the process identified in Figure 42, Council can ensure decisions on car parking align with the municipality's wider strategic objectives and current best practice.

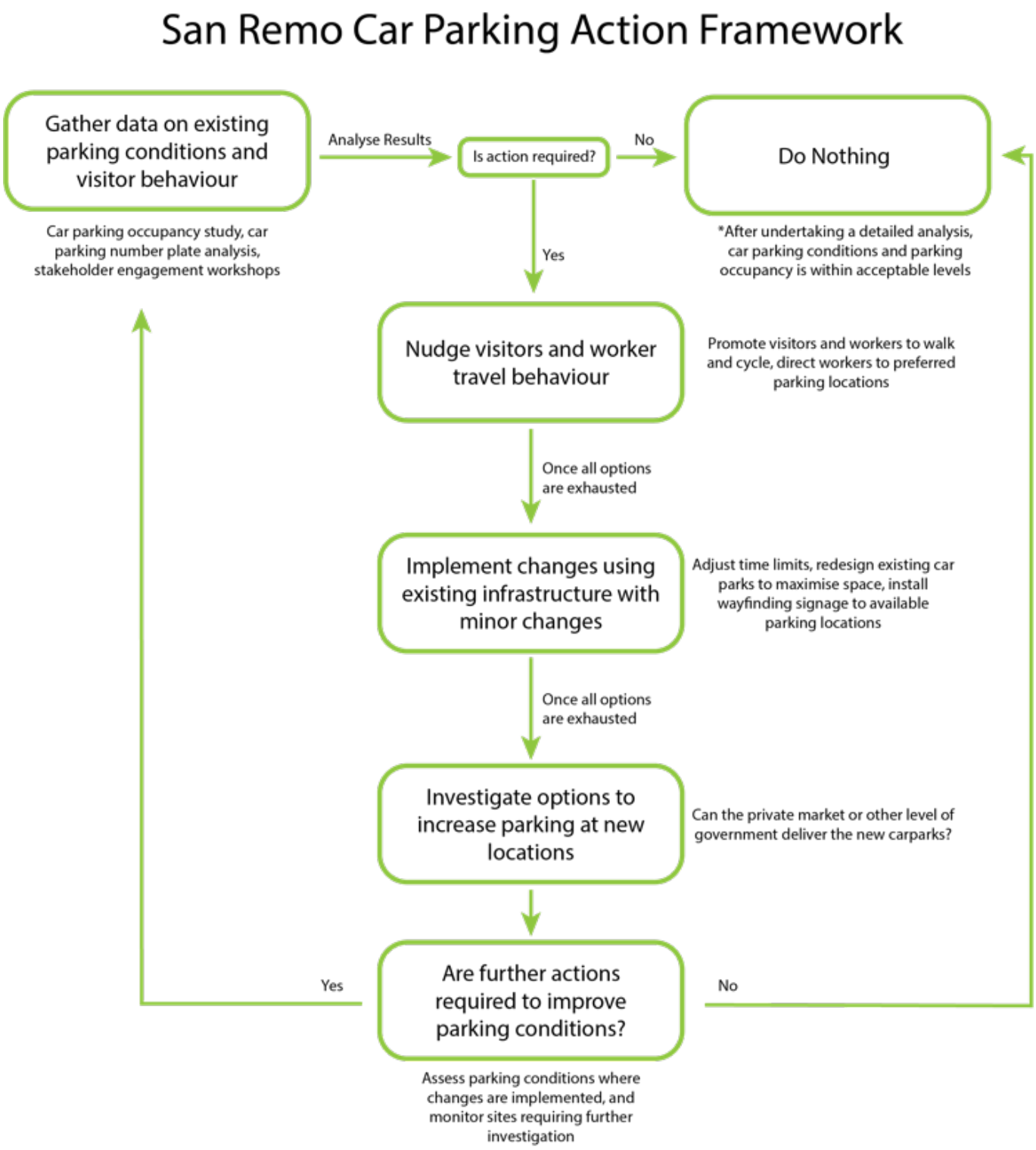


Figure 42 San Remo Car Parking Action Framework

Source: Institute for Sensible Transport

8.3.1 Gather data on existing parking conditions and visitor behaviour

Following feedback from residents or traders, Council should commence monitoring car parking in, and around the area of concern. The necessary data can be collected from:

- Car parking occupancy study
- Car parking number plate analysis.

Council should also consult with the community at this stage to develop a solution. A stakeholder engagement workshop should also be held when the subsequent steps described in the Car Parking Framework are exhausted, and further measures are still required.

8.3.2 Nudge visitors and worker travel behaviour

When a response to manage car parking is required, Council should encourage behavioural change before embarking on other measures.

As behaviour changes can take time, Council should take the necessary actions prior to periods of intense car parking demand. These actions include using direct and indirect communication to:

- Promote and encourage walking, cycling, and public transport to San Remo
- Direct workers to preferred parking locations
- Direct visitors to preferred long stay or long vehicle parking locations at the southern end of Back Beach Road.

8.3.3 Implement changes using existing infrastructure with minor changes

This step improves gaps in the existing infrastructure by implementing cost effective measures such as:

- Adjusting time restrictions to suit demand and discourage long duration parking in high demand areas with quick turnovers
- Redesigning car parking spaces to increase the total number of spaces
- Installing wayfinding signs to nearby car parking that may be underutilised
- Consider installing Parking Overstay Detectors (PODS) in car parks with lower demand
- Install real time digital signage showing the supply of car parking available, well situated to direct motorist to available parking.

8.3.4 Investigate options to increase parking at new locations

When all other steps have been exhausted, Council should investigate options to develop new off-street carparks. As this step will be the costliest and most difficult, a business case should be built, considering the options for:

- Private market to fulfill the demand
- Other levels of government to deliver more car parking.

8.4 Accessible Car Parking

Accessible parking in San Remo is inadequate to meet the needs of a growing, and ageing population. The design of the parking bays limit accessibility. Figure 43 offers an example; the markings and size of the bay suggests two vehicles may be parked there, yet both kerb ramps are easily obstructed by the parked cars. A DDA audit of all accessible parking bays in San Remo is recommended. The audit should also include taxi zones to ensure the inclusion of residents who do not drive.

Figure 43 Kerb ramps are obstructed by vehicle in accessible parking bays

Source: Google Street View

As San Remo ages, there will be greater demand for accessible bays. To be sensitive to this demographic change, rather than adopting the standard recommended minimum rates specified

in the Australian Standards[8], Council should increase the rates. In activity centres such Marine Parade, a proportion of 3% accessible parking to land use would be more appropriate than the standard 2%.

Residents who want to park in an accessible bay will have to apply for:

- an Australian Disability Parking (ADP) Permit for individuals)
- a Victorian Double Time Permit (for individuals).

Designing a wholistic network of footpaths and parking bays will be essential for aiding people with disabilities to access shops and services. While it is important for these designs to be compliant with DDA standards, Council should also seek people with lived experience to co-design this network of infrastructure.

8.5 Electric Vehicle Charging

Electric vehicles (EVs) play an important role in helping Council and other levels of government achieve its net zero targets. Public EV charging facilities are an essential part of supporting visitors in particular, to use EVs. Local residents will generally find it cheaper and more convenient to charge at home.

Figure 44 shows the dwelling structure in San Remo at the 2021 Census. It reveals that most residents in San Remo (83%) live in separate houses, which will likely have access to off-street parking at their residence. Those living in semi-detached (7%), and apartment style housing (10%) could face challenges charging EVs on or near their dwelling, and may need to rely on public chargers.

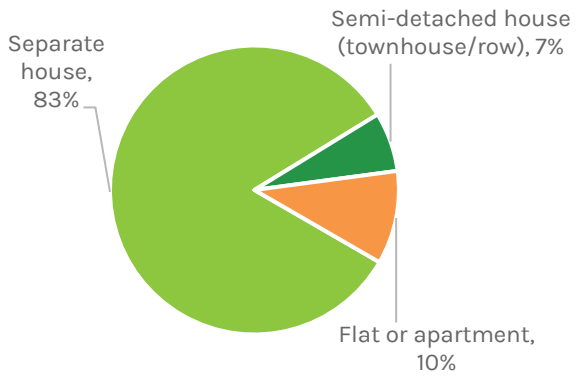


Figure 44 Dwelling structure in San Remo

Source: ABS Census

Those living in semi-detached and apartment style housing could face challenges charging EVs on or near their dwelling.

A public EV charging network is currently under development in Bass Coast.[9] A public EV charging network is an important way in which Council can encourage visitors to dwell in a township. San Remo currently has no publicly accessible EV chargers, yet is it an excellent candidate for public charging.

The three typical users of EV charging facilities are shown in Figure 45. As the gateway to Phillip Island, and an important destination within itself, San Remo's place within the overall EV charging spectrum sits as both *passing through motorist* and the *opportunistic charger.*

Two suitable locations for EV charging facilities have been identified and are shown in Figure 46. A fast charger near the Fishermen's Co-Op will best serve the *opportunistic* visitor. It will also allow someone day tripping from Melbourne to charge for a return trip in a short period of time. Residents spending time at the town centre or San Remo Recreation Reserve will also be able to charge their EVs.

Council should engage with the commercial EV charging sector to assess their level of interest in supplying and managing an EV charging station in

[8] AS 2890.5 for on-street parking, and AS 2890.6 for off-street parking

[9] https://engage.basscoast.vic.gov.au/electric-vehicle-charging-stations

San Remo. It is expected that if a suitable site is found, an operator may be willing to implement and manage the charger at no cost to Council, if the site can be leased for a period of 10 or more years. Private operators may also be willing to install a higher speed charger (50 – 75kW).

It is not recommended to install chargers above 100kW, as there will be more benefit to encourage people stay longer and walk away from their EV while it is charging.

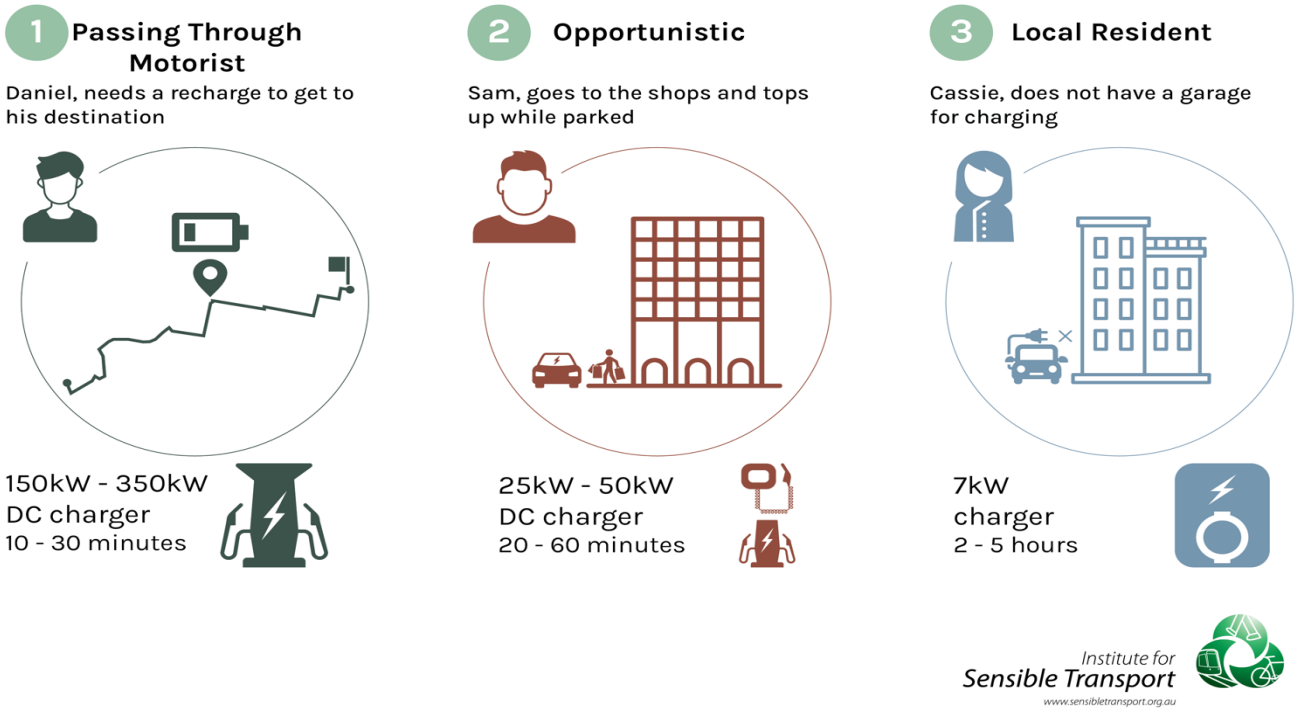


Figure 45 People who want a charge

Source: Institute for Sensible Transport

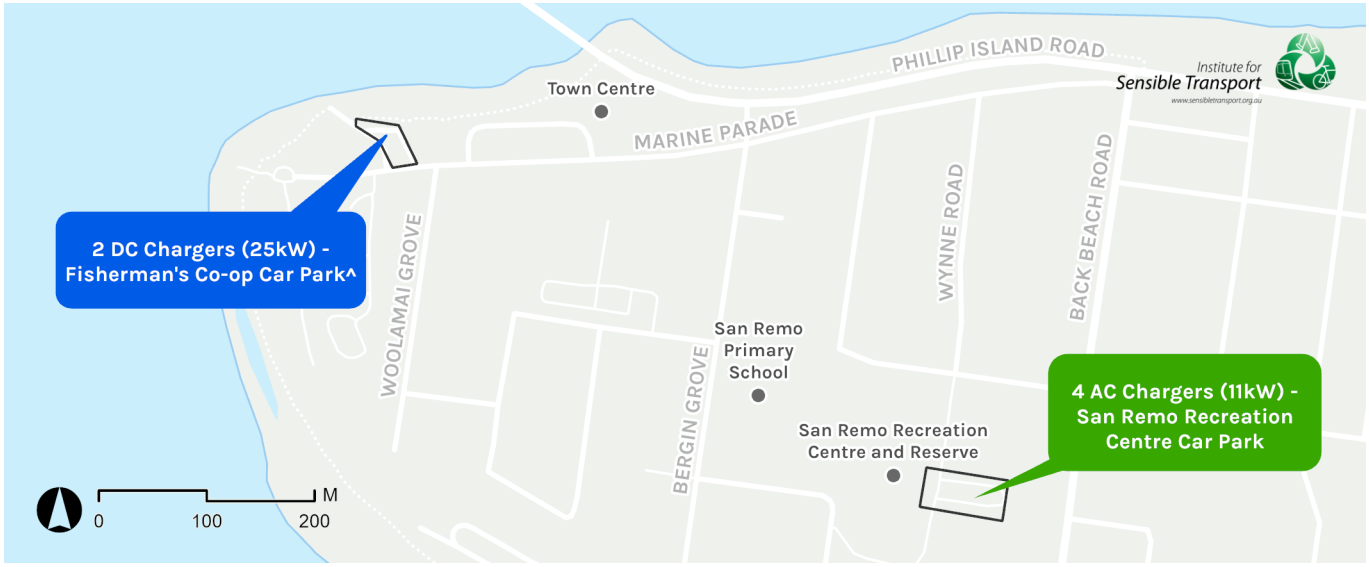


Figure 46 Proposed EV charging locations, San Remo

Source: Institute for Sensible Transport. Note: ^ One dual port 25kW proposed at the power pole in the car park.

9. Implementation Plan

This section details the implementation plan for the recommendations included this *Access and Movement Study and Car Parking Plan.*

9.1 Introduction

The recommended actions broadly fall into one for the six categories, as shown in Figure 47. The vibrancy and amenity of San Remo's public space is considered in all the recommended actions. A key, overarching priority is the creation of a pedestrian-oriented township. While there are some streets in San Remo that are essential for motor vehicle movement, others could be transformed into places that are more *people orientated*.

The recommended actions in this section have been designed to support Council's *vision*, *guiding principles*, and *strategic objectives* described in Section 4. These actions should be read alongside those found in the *San Remo Urban Design Framework*.

Each category of action has its own table. Each action identifies the *strategic objective* it relates to, the implementation timeframe and high level cost to Council.

The implementation timeframes are:

- Ongoing: continually
- Between 5 to 10 years
- Between 10 to 15 years
- More than 15 years.

Three categories are considered for the cost to council:

- Low – Negligible: less than $100,000
- Medium: more than $100,000 and less than $1,000,00
- High: more than $1,000,000.

The cost estimates shown in the action tables are high-level only and detailed costings and designs should be conducted prior to implementation.

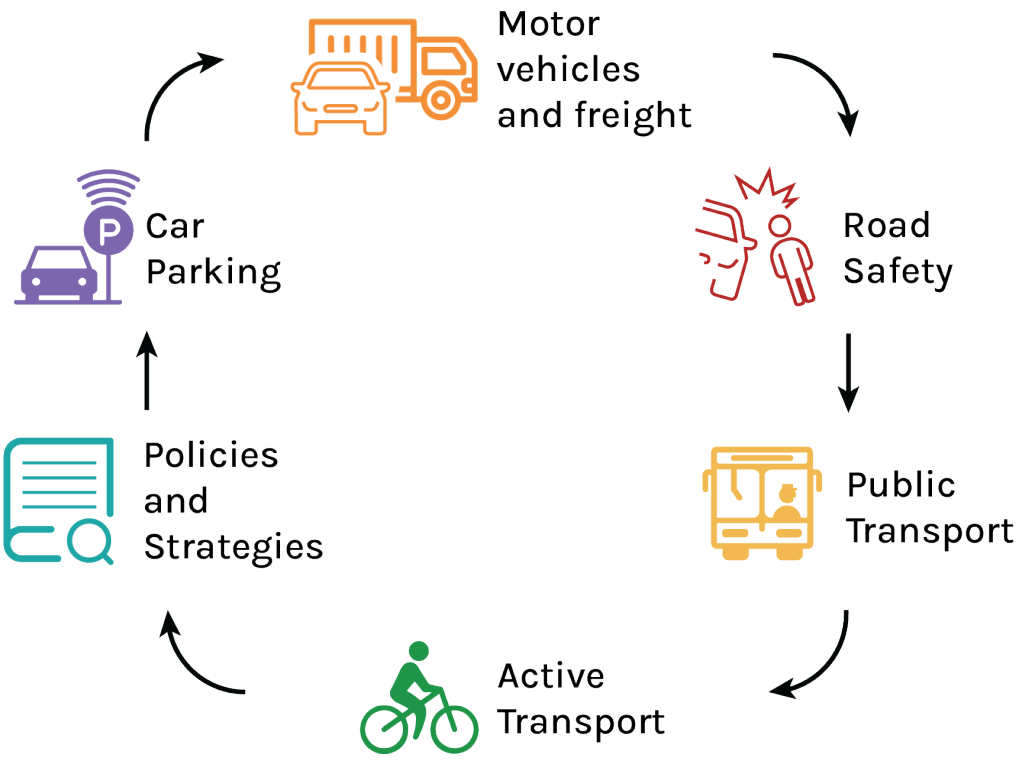


Figure 47 Categories of actions

Source: Institute for Sensible Transport

9.2 Actions

9.2.1 Motor vehicle and freight

Table 5 Motor vehicle and freight actions

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
MF1	Lower transport emission	Heavy traffic	Create and implement a Circulation Plan for San Remo consistent with Movement and Place principles as show in Figure 21.	5 - 10 years	Low - Negligible
MF2	Lower transport emission	Heavy traffic	Deliver a new low-speed, one-way *Foreshore Lane* heading south, subject to community consultation, from Marine Parade to connect with Mary Grove.	10 - 15 years	High
MF3	Lower transport emission	Heavy traffic	Investigate installation of new roads in the growth area to support access and movement. This includes: • Two east-west roads between Potters Hill Road to Punch Bowl Road. • A north-south road heading south from Phillip Island Road, ideally at or around 425 Phillip Island Road. • The use of modal filters to limit access from Punch Bowl Road into the growth area.	>15 years	High

9.2.2 Road safety

Table 6 Road safety actions

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
RS1	Reduce injuries and fatalities from crashes	Poor pedestrian amenity and safety	Apply speed zones consistent with Figure 24 unless otherwise specified. Speed zone changes include: • A 30km/h speed zone along Marine Parade that involves traffic calming designs focused on the pedestrian experience. • A consistent 30km/h speed zone in other activity centres, on all residential streets, pedestrianised streets and shopping strips unless otherwise specified. • A limit of 15km/h speed zone should be applied to enhance the walking experience on new low speed streets. On roads not managed by Council, advocate and seek approval from the relevant authority (e.g., DTP or RRV) to implement these changes.	5 - 10 years	Low - Negligible
RS2	Reduce injuries and fatalities from crashes	Poor pedestrian amenity and safety	Advocate to, and work with DTP for intersection upgrades in San Remo along Phillip Island Road. Intersections should prioritise safe pedestrian movement and active transport accessibility to unlock the potential for housing growth.	5 - 10 years	Medium
RS3	Reduce injuries and fatalities from crashes	Poor pedestrian amenity and safety	Upgrade Punch Bowl Road to support urban development in the surrounding area. This upgrade should provide a high-quality of service to motorists, cyclists, and pedestrians alike.	Ongoing	High

9.2.3 Public transport

Table 7 Public transport actions

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
PT1	Increase public transport access	Public transport not meeting needs	Advocate for Phillip Island and San Remo on-demand public transport.	Ongoing	Low - Negligible
PT2	Increase public transport access	Public transport not meeting needs	Advocate for: • A timetable review to ensure coordinated timetabling between town buses and V/Line coaches. • Increased service frequency and longer hours of operation for: • V/line coach services to and from San Remo. • PTV town bus services to and within San Remo. At a minimum, the Cowes to Wonthaggi service should run: • Between 7am to 9pm every day. • One service per hour. • One additional service during weekday peak hours.	Ongoing	Low - Negligible
PT5	Increase public transport access	Public transport not meeting needs	Develop and implement a bus stop upgrade program that ensures all bus stops are Disability Discrimination Act (DDA) compliant and meet the needs of people of all abilities.	5 - 10 years	Medium
PT6	Increase public transport access	Public transport not meeting needs	Relocate existing PTV bus and tourist coach stop the southern side of the street on Marine Parade, outside of the IGA.	5 - 10 years	Low - Negligible
PT7	Increase public transport access	Public transport not meeting needs	Advocate for installation of bike racks on all V/Line coach and town bus services stopping in San Remo	Ongoing	Low - Negligible

9.2.4 Active transport

Table 8 Active transport actions

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
AT1	Access to cycling infrastructure	Barriers to cycling	Installing more end-of-trip facilities in high demand areas following an audit of existing facilities.	5 - 10 years	Medium
AT2	Increase people-oriented places	Poor pedestrian amenity and safety	Improve walking and cycling in San Remo by developing a *Walking and Cycling Infrastructure Report*. The report should include: • An audit of existing infrastructure, including crossings, identifying gaps in the active transport network. • Prioritisation of the proposed infrastructure (new and upgraded). • An implementation plan. • A maintenance program that ensures shared paths are signed appropriately. The active transport network should include an internal shared path network through the residential area as shown in Figure 31. The implementation should be prioritised by the distance from the activity centre. Ensure walking and cycling infrastructure is compliant with the Disability Discrimination Act (DDA), and installed with adequate street lighting to improve the perception of safety.	5 - 10 years	Medium
AT3	Access to cycling infrastructure	Barriers to cycling	Work with DTP to update bicycle parking requirements in the Planning Scheme: • Residential uses to include one bicycle storage per bedroom for new multi-dwelling developments • Increase bicycle parking rates for non-residential uses	5 - 10 years	Low - Negligible
AT4	Increase sustainable transport mode share	Barriers to safe cycling	Consult with community and tourism industry for a shared e-micromobility service and call for Expressions of Interest if there is strong support.	10 - 15 years	Medium
AT5	Increase sustainable transport mode share	Barriers to safe cycling	Improve connections to and from the activity centre. • Formalise the unsealed sections of the path along the northern side of	10 - 15 years	Medium

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
			Phillip Island Road, between the bridge and Back Beach Road. • Install a shared path on the northern side of Marine Parade that connects with the existing shared path on Phillip Island Road and bridge to Phillip Island.		
AT6	Increase sustainable transport mode share	Barriers to safe cycling	Deliver active transport connections in the growth area. These include: • A new north-south shared path heading south from Phillip Island Road, ideally at or around 425 Phillip Island Road. • Two new east-west shared paths between Potters Hill Road and Punch Bowl Road.	>15 years	High
AT7	Increase sustainable transport mode share	Barriers to safe cycling	Install a shared path extending from Thomas Grove Lane to connect Back Beach Road through the Recreational Centre.	10 - 15 years	High
AT8	Increase sustainable transport mode share	Barriers to safe cycling	Install bike parking at a minimum of: • Four bike parking hoops every 100m along Marine Parade, on either side of the street, west of Bergin Grove. • Two bike parking hoops every 100m along Marine Parade, where the shops are, east of Bergin Grove. • Two bike parking hoops outside community facilities. These should be located with the convenience of the user and the security of the bicycle in mind. • Four bike parking hoops at popular foreshore carparks (i.e. Lions Park) with the convenience of the user and the security of the bicycle in mind. • 10% bike parking to car parking supply at the Recreational Centre	5 - 10 years	Low - Negligible

9.2.5 Policy and strategy

Table 9 Policy and strategy actions

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
PS1	Increase sustainable transport modal share	Poor pedestrian amenity and safety	Use the mode hierarchy to plan for the road network in the growth area. Road space allocation should ensure improving active transport connectivity, where: • To support active travel cul-de-sacs will only be permitted where full pedestrian and cyclist permeability (minimum 6m width, with 3m path) is provided. • New residential streets prioritise safe access for active transport, with footpaths or shared paths where appropriate, integrated into the wider network.	5 - 10 years	Low - Negligible
PS2	Increase sustainable transport modal share	Poor pedestrian amenity and safety	Ensure that all new walking and cycling infrastructure is designed with safety and accessibility as priorities. This should include considerations such as visibility, security, and direct sightlines to enhance user experience and safety.	5 - 10 years	Low - Negligible

9.2.6 Car parking

Table 10 Car parking actions

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
CP1	Better use of parking spaces	Frustration with car parking	Adopt the Car Parking Management Framework to monitor, evaluate and adjusting car parking restriction in response to demand.	Ongoing	Low - Negligible
CP2	Better use of parking spaces	Frustration with car parking	Adopt the Car Parking Plan to support the implementation of the *San Remo Urban Design Framework.* This includes: • Upgrading the Jetty car park to allow for place making initiatives and bus/coach circulation • Implementing time-restrictions and formalise parking bays as identified in Figure 40. • Maintaining loading zone for large vehicles and delivery vans for supermarkets, pubs, etc. along Marine Parade. • Installing electronic signage along with a Parking Overstay Detector Systems in lower use parking bays. • Working with other stakeholders to further investigate and support proposed options for improved car parking infrastructure. • Formalising the gravel section of Davis Point for car parking. • Install accompanying signage and directional wayfinding.	Ongoing	Medium
CP3	Better use of parking spaces	Frustration with car parking	Develop and implement a shire-wide Car Parking Strategy consistent with recommendations in Section 8. Key components of this strategy include: • A parking permit system for residential and commercial uses. • An accessible parking upgrade program that ensures all accessible parking bays (including taxi zones) are functional, Disability Discrimination Act (DDA) compliant, suitably located, and	Ongoing	Low - Negligible

ID	Strategic objective	Issue	Action	Timeframe	Cost to Council
			meets the needs of people of all abilities. Key actions of the strategy include: • Increasing the supply of accessible car parking bays in activity centres to a minimum of 3% if not greater. • Monitoring and adjusting time restrictions, particularly in areas of high demand.		
CP4	Lower transport emission	High greenhouse gas emissions	Engage with the commercial charge point operators to gauge interest in supplying and managing EV charging stations suitable for San Remo.	5 - 10 years	Low - Negligible

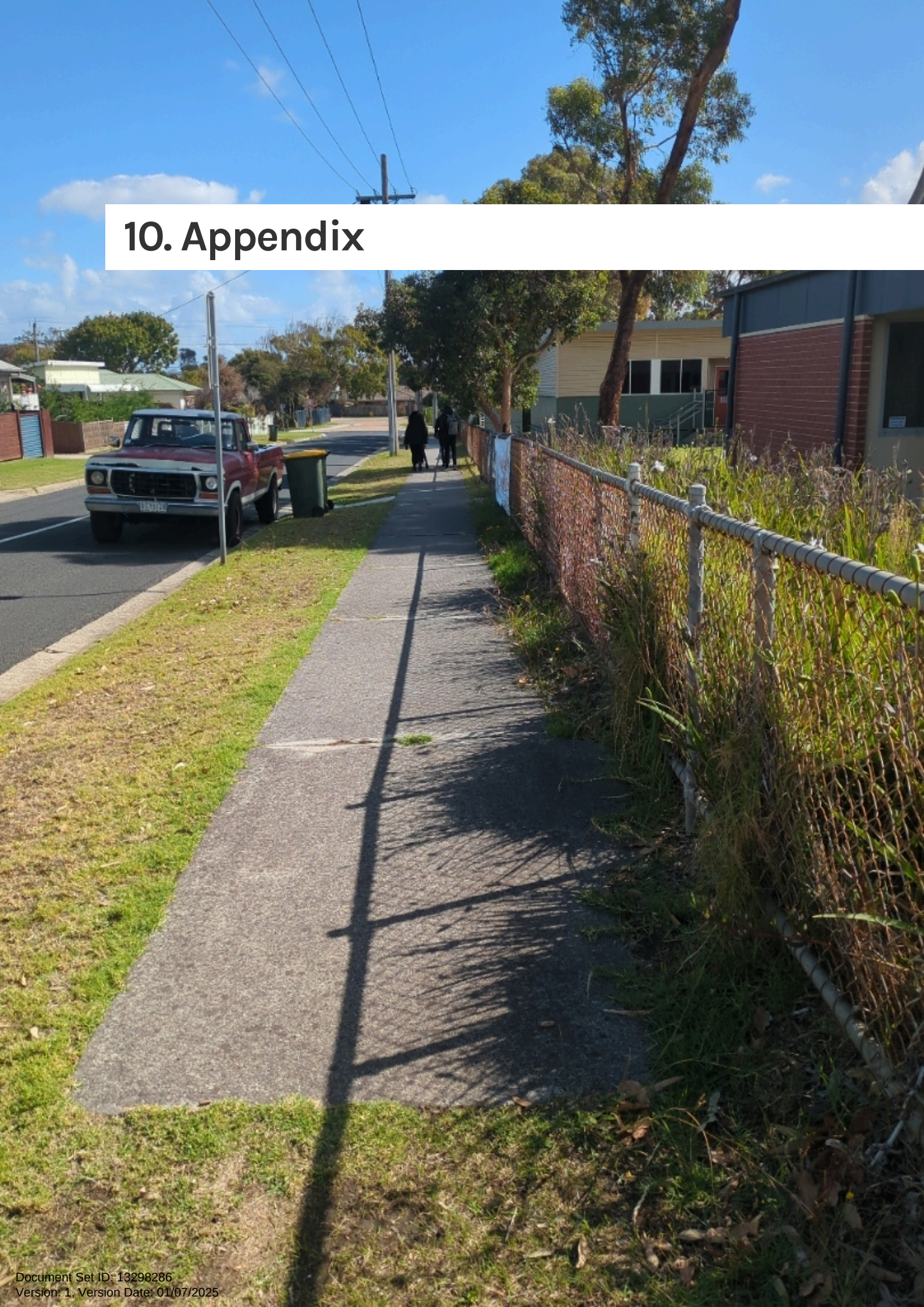
9.3 Monitoring and Evaluation

A plan for continued monitoring and evaluation of the Access and Movement Study should be implemented. The eight strategic objectives listed in Section 4.3 can be used to measure the success of the actions implemented. This should be performed every five years.

The Car Parking Plan can be evaluated more frequently by:

- Monitoring occupancy in the town centre.
- Supporting a municipal-wide Transport Satisfaction Survey every 2 years.

10. Appendix



This Appendix contains supplementary materials pertinent to the *Access and Movement Study and Car Parking Plan*. It is designed to offer deeper insight into the key concepts employed in this project and provides readers with a detailed report of the data analyses undertaken throughout the development of the Plan. These components underpin and inform the recommendations put forth in this Plan.

The components of this Appendix include:

- An introduction to the Movement and Place Framework and its application in San Remo (Section 0)
- An analysis of crashes in San Remo (Section A.2)
- Proposed parking regulations (Section A.3)
- An introduction to cycling design principles (Section A.4)
- Further information on shared micromobility (Section A.5)
- A review of the AusTraffic Parking Survey conducted in 2019 (Section A.6).

Additional information on San Remo's policy position, stakeholder engagement and a site assessment of the study area can be found in the *Access and Movement Study and Car Parking Plan Background Report*, and the *Access and Movement Study and Car Parking Plan Site Assessment Report*.

A.1 Movement and Place

The M&P Framework consists of four broad modules, of which the first two modules are on a strategic level and the third and fourth module on a project or local level. This project has included a high-level assessment of the M&P Network Classifications and Aspirations, the first module. Subsequent work will need to be completed by Council and Transport for Victoria, including the three other modules:

- Module 2: Performance Assessment
- Module 3: Toolbox & Design Guides
- Module 4: Options Assessment.

The core of the M&P Framework is shown in Figure 48. This highlights that instead of only viewing roads through a prism of movement, we can consider a matrix of twenty-five cells, each one with a specific movement designation and a specific place designation. We can use this matrix to compare and contrast the way streets are performing today to how we would like them to perform in the future.

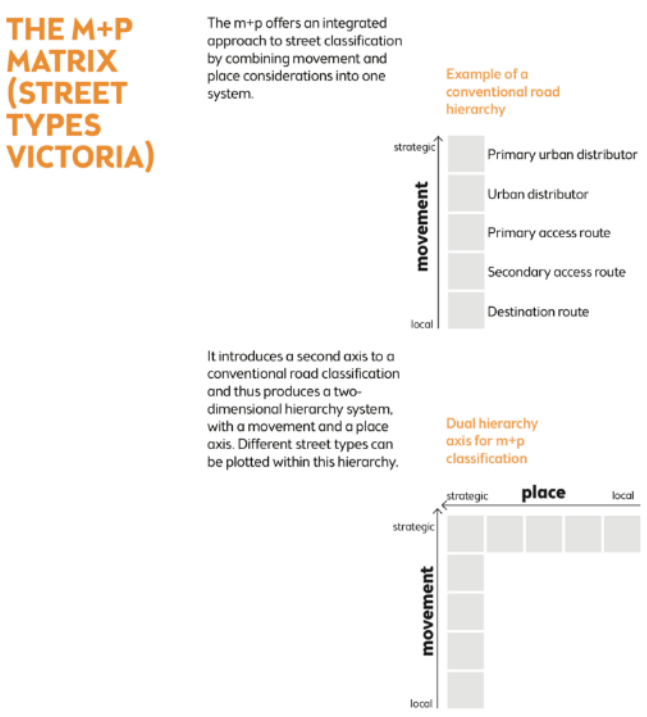


Figure 48 Understanding Movement and Place

Source: Department of Transport

Figure 49 shows the street type relevant to each Movement and Place rating.

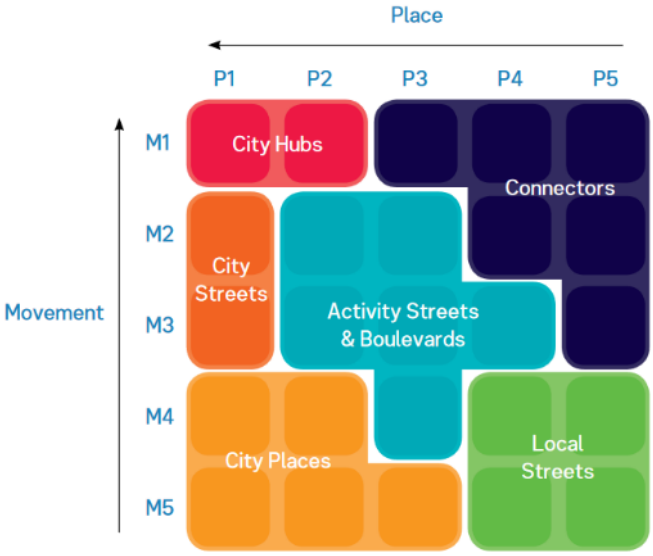


Figure 49 Movement and Place Framework

Source: Department of Transport

Figure 50 is from Module 2 of the Movement and Place Framework. It outlines the acceptable Level of Service for traffic for each of the ratings. This is important when determining potential delay on the road network within the City Centre and surrounding streets.

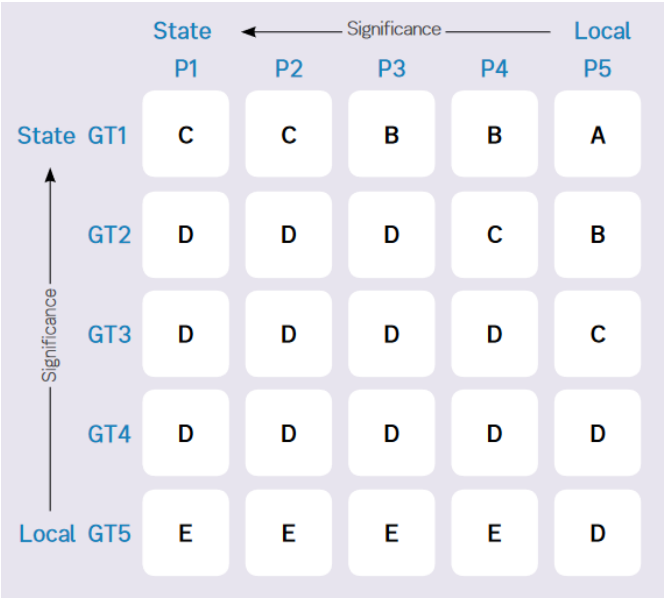


Figure 50 Acceptable traffic level of service

Source: Department of Transport

A.1.1 Movement and Place for San Remo

The *Movement and Place* classifications for San Remo are shown in Figure 51. The highest *movement* classification is on Phillip Island Road, Shetland Heights Road, and Potters Hill Road which can be classified as *Connectors*. Phillip Island Road serves as the main connection to the activity centre of San Remo, whilst Shetland Heights Road connects to the established residential areas in the south. There are very few shops and services along these roads to increase the place value, likely exacerbated by the dominance of vehicles.

There is potential for greater activation to occur on Back Beach Road and Bergin Grove to allow for a stronger connection between the main activity area on Marine Parade and the residential areas to the south of San Remo. Back Beach Road and Bergin Grove connect significant community facilities to Marine Parade. This includes Lions Park, San Remo Preschool and San Remo Recreation Reserve and Centre. Back Beach Road is the only council managed road in San Remo with a posted speed of 60 km/h. There is potential to reduce the speed limit on this road, reducing its *movement* priority while supporting an increase in *place* function. Potters Hill Road is also a potential location for the second activity centre in San Remo, which will improve the *place* function of the area.

The western section of Marine Parade has the highest *place* rating being classified as a *City Place*. This area serves as the primary hub of activity and tourism for San Remo and is likely one of the busiest locations in the study area, especially during times of high tourist activity.

The eastern section of Marine Parade has a lower *Place* rating, being classified as an *Activity Street or Boulevard*. Potentially, Back Beach Road or Bergin Grove could have an increased *place* function, enabling them to act as an active spine that connects the shops, tourism attractions and services on the adjacent streets. The internal streets are also mostly *Local Streets* with low *Movement* and *Place* functions.

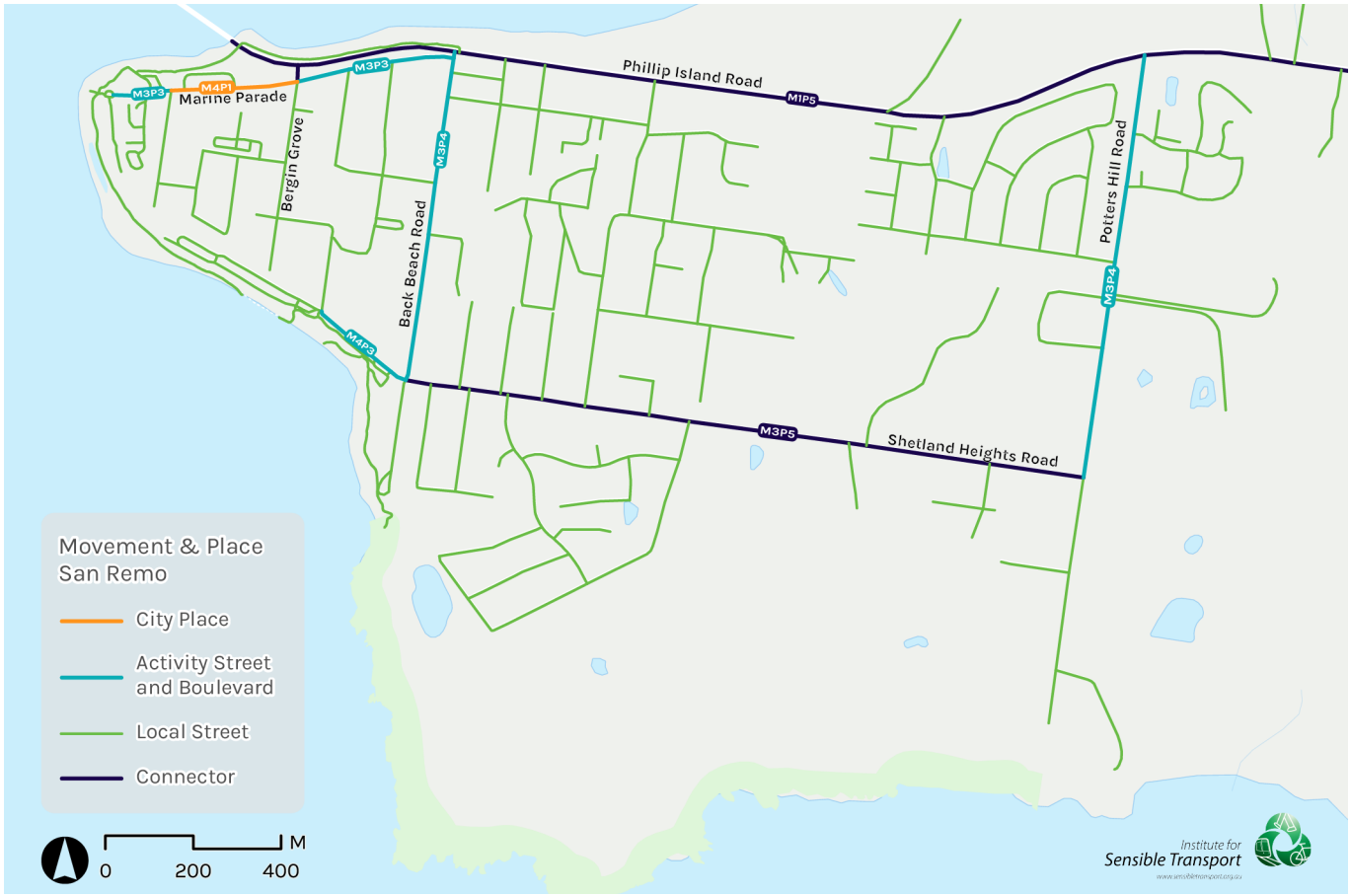


Figure 51 Movement and Place Classification

Source: Institute for Sensible Transport

A.2 Crash analysis

This section examines the Victorian government crash data between 2019 and 2023. GIS has been used to pinpoint crash clusters and hotspots, categorising data by mode and severity. Wherever possible, data has been disaggregated by gender.

A.2.1 Crashes by location

Table 11 shows the number of crashes by their location within the road network. It shows that the majority (69%) of crashes across the township occurred mid-block, while 31% occurred at an intersection. All crashes in San Remo occurred in 60km/h or 100km/h speed zones, at 54% and 46%, respectively.

Table 11 Crashes by location

Crash location	Number of crashes
Intersection	4
Mid-block	9

Source: VicRoads

Figure 52 illustrates almost all crashes (85%) in San Remo occurred on Phillip Island Road, with two other crashes recorded on Back Beach Road. For crashes near the town centre on Back Beach Road, and Phillip Island Road between Potters Hill Road and Back Beach Road, the majority of crash sites had no recorded traffic controls.

There was one crash recorded involving a pedestrian on Phillip Island Road near the roundabout connecting to Bass Hwy. The crash occurred as a result of the pedestrian walking against traffic, on the road shoulder.

Of all crashes, seven crashes (54%) occurred head-on (not overtaking) or were rear ends in the same vehicle lane. With the exception of one crash recorded in poor light conditions on Phillip Island Road, all crashes occurred during the day with good light conditions. These factors indicate the existing road environment may encourage motorists to drive at high speeds, or that motorists are practicing unsafe road behaviours.

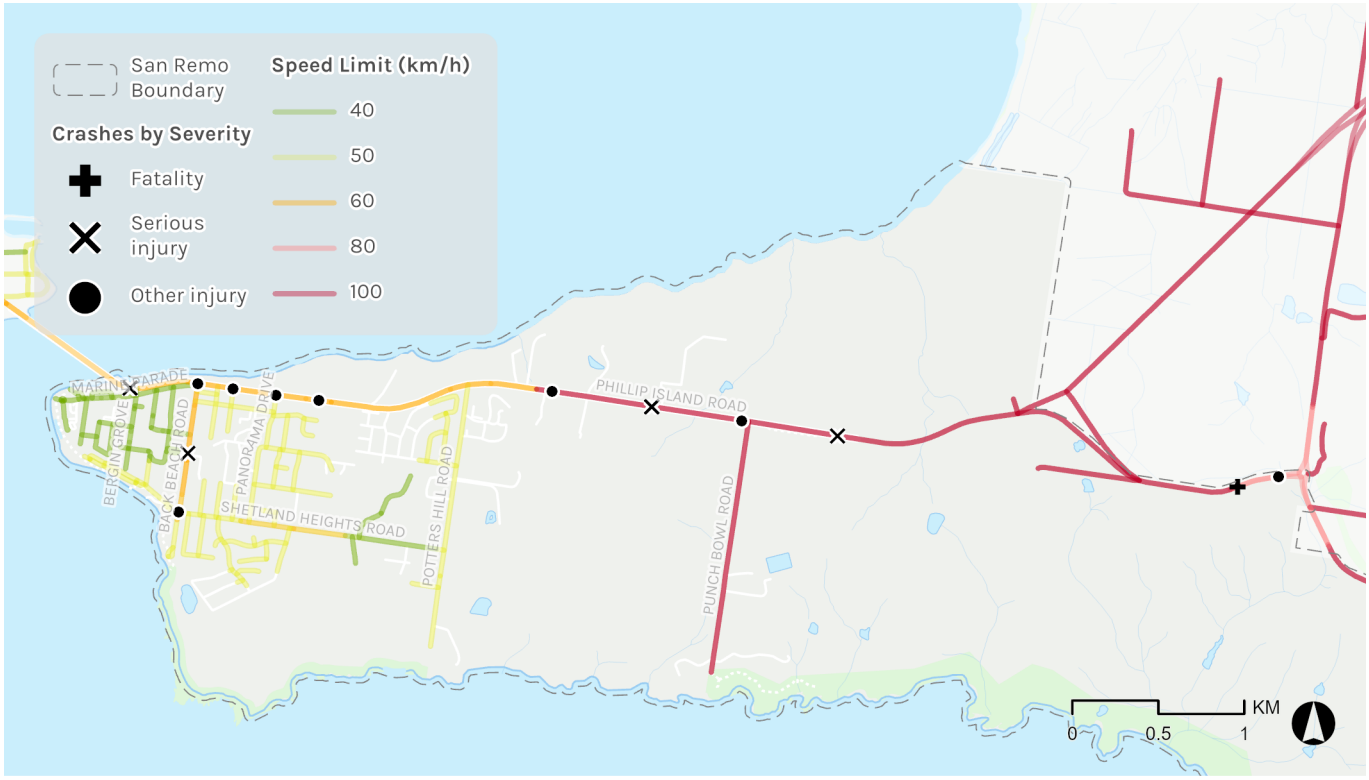


Figure 52 Crashes by severity, 2019-2023

Source: VicRoads

A.2.2 Crashes by severity

Table 12 shows the severity of recorded crashes in San Remo between 2019 and 2023. Of these crashes, one crash involving a pedestrian resulted in a fatality, 4 resulted in serious injuries, and 8 resulted in 'other' injuries.

Table 12 Crashes by severity

Crash severity	Crashes involving active modes	Total crashes
Fatal	1	1
Serious injury	0	4
Other injury	0	8
Total	1	13

Source: VicRoads

Figure 52 shows the location of crashes recorded in San Remo between 2019 and 2023, broken down by the severity of the crash. There is a relationship between the severity of injuries to the speed zone, where crashes occurring in higher speed zones above 60km/h, result in more serious injuries. The crash resulting in a pedestrian fatality occurred on Phillip Island Road in a 100km/h speed zone. Crashes on lower speed road environments were more likely to report 'other' injuries.

A.2.3 Crashes by sex and age

Crash data provides insight into disparities between the sex and age of crash victims. Analysis of this data helps to identify vulnerable groups with increased risk of crash, and increased risks of fatalities or serious injuries, in San Remo.

This analysis is based on crash data that categorises individuals into two gender categories: male and female. It is important to recognise that these are binary gender identities and acknowledge this limitation may not capture the full scope of gender-related factors.

Further, while this data looks only at the direct impacts on crash victims, women often bear the burden of crashes following a crash, regardless of their involvement in a crash (e.g., taking up additional housework and caregiver duties). These factors should be taken into consideration in addition to the following findings.

In this five-year period, Figure 53 shows that 25 crash victims (66%) for all crashes in San Remo were men.

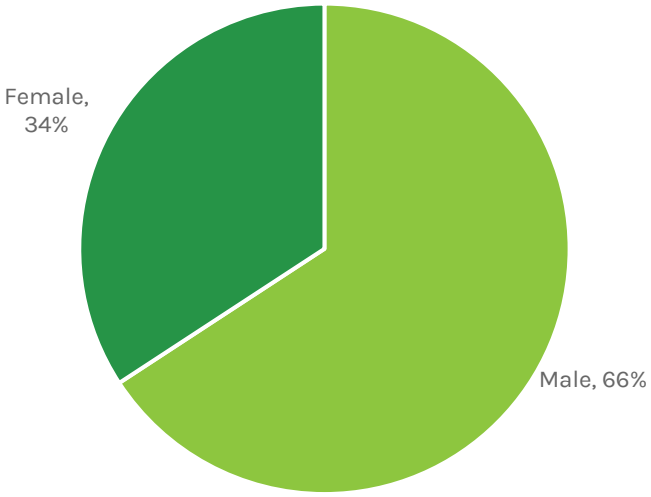


Figure 53 Sex of crash victims in San Remo, 2019-2023

Source: VicRoads

Figure 54 shows the severity of crash injuries by sex in San Remo. Males and females are almost equally as likely to report injuries, with approximately 60% of males and females incurring an injury. However, males are more likely to report more severe injuries or fatalities, compared to women. All fatalities and serious injuries were experienced by males.

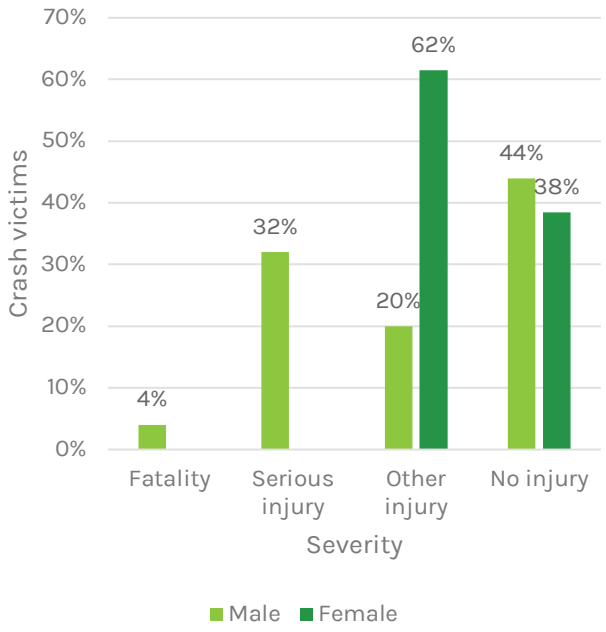


Figure 54 Crash severity by sex

Source: VicRoads

The implications of road crashes for different age groups are varied, as shown in Figure 55. Young adults and middle-aged adults are disproportionately impacted by crashes in San Remo.

Of all crashes in San Remo, 24% of crash victims were between the ages of 40-to-49-years old. People in the 20-to-29-year age group were the next most vulnerable to crashes, at 18%. Children aged 14 years old or under were among the most vulnerable groups to crashes, at 13%.

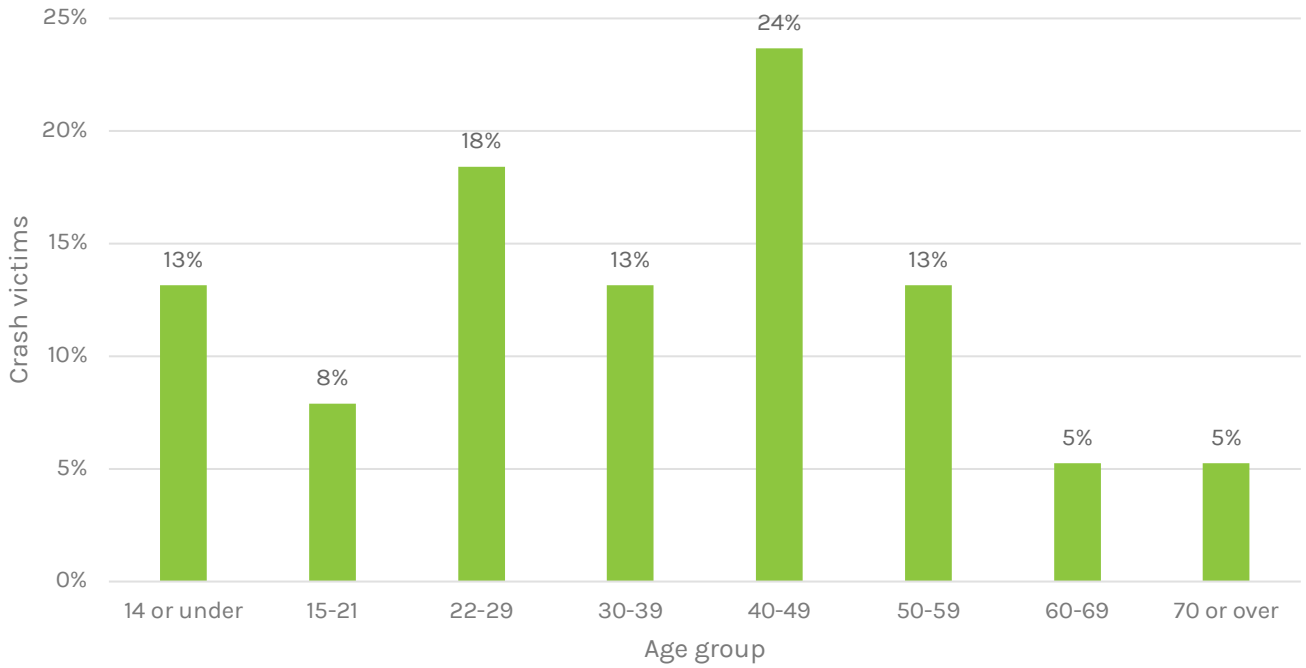


Figure 55 Age of crash victims in San Remo, 2019-2023

Source: VicRoads

A.3 Proposed parking restrictions

This section provides details of the proposed parking restrictions to regulate parking demand in San Remo.

Figure 56 highlights areas of high and medium parking demand, residential conflict zones, and locations identified for further investigation in the Car Parking Plan.

The proposed changes to parking restrictions and parking supply shown in Figure 40 of the Car Parking Plan are outlined below:

- Marine Parade:
  - South side of street, west of Bergin Grove: 2P
  - North side of street, west of Bergin Grove (including parking at Fisherman's Co-op: 2P
  - South side of street, east of Bergin Grove: 2P
  - North side of street, east of Bergin Grove: 4P
  - Upgrade the Jetty car park to remove parking from the foreshore edge to allow for place making initiatives and vehicle turn spaces for buses
  - San Remo Recreational Centre: 8P
- Formalise parking by marking parking bays and introducing time restrictions on:
  - Woolamai Grove: 2P parallel on both sides
  - Banksia Road: No parking on either side
  - Park Road: 2P parallel on one side only
  - Mary Grove: 2P parallel on one side only; no parking near Bergin Grove
  - Bergin Grove: No parking remains between Marine Parade and Dickie Lane. South of Dickie Lane, 2P parallel on one side
  - Thomas Grove: No parking
  - Ocean Grove: No parking within 10m of solid white centreline
  - Davis Point: 4P parking.

All other parking restrictions not specified remain unchanged.

Figure 56 Parking pressures in San Remo

A.4 Cycling design principles and shared micromobility

An understanding of how different types of bicycle infrastructure impact rider confidence is crucial for developing an effective network. Figure 57 shows the level of confidence that people have riding on different types of bicycle infrastructure. Only when fully separated from traffic are most people confident enough to consider riding. In San Remo, only the existing off-road shared paths would be considered sufficient for all ages and abilities.

According to Figure 57, only 6% of people feel confident riding in mixed traffic, but 83% are confident riding when provided with protection from motor vehicles.

Only 6% of people feel confident riding in mixed traffic, but 83% are confident riding when provided with protection from motor vehicles.

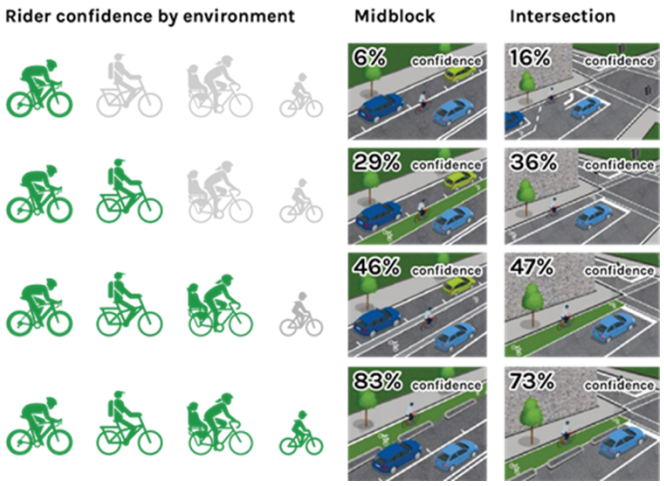


Figure 57 Riding confidence - different infrastructure

Source: CDM Research & ASDF Research (2017)

Box 3 outlines the five complementary principles taken from the Dutch *Design Manual for Bicycle Traffic*.

Five network design principles for bicycle planning

These universal principles for bicycle network development were developed in the Netherlands and are now used by governments around the world. By applying these principles, cycling comes a mainstream transport option for those aged 8 – 80, enjoyed equally, regardless of gender.

1. Cohesion
2. Directness
3. Safety
4. Comfort
5. Attractiveness.

Box 3 Bicycle network design principles

Source: CROW

There are a variety of different types of bicycle infrastructure, the active transport infrastructure considered for San Remo are shown in Figure 59. Each has a role to play in creating a coherent network. Figure 58 offers a guide to infrastructure selection, based on the speed and volume of motorised traffic. When roads carry large volumes of fast-moving traffic, separated infrastructure is recommended. Quiet streets with low-speed limits may not require any dedicated cycling infrastructure, other than some simple wayfinding signage and the filtered permeability to discourage motor vehicle through traffic.

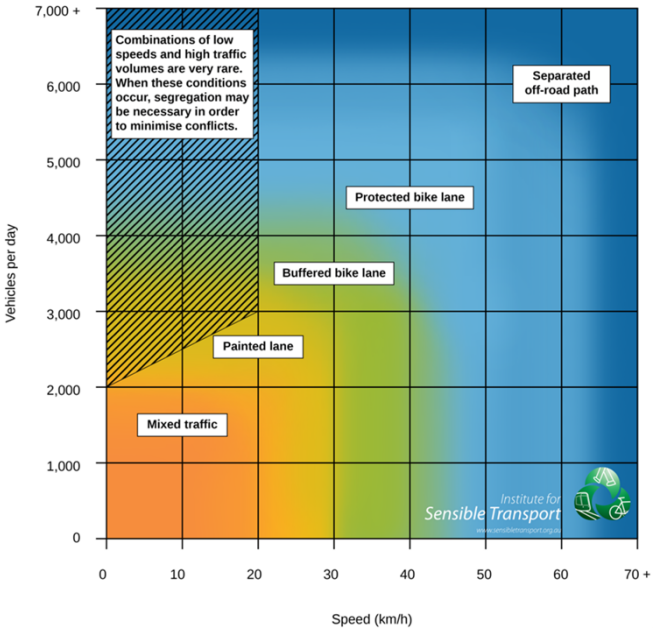
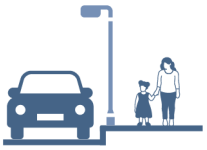
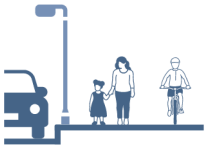
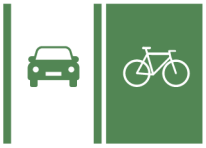
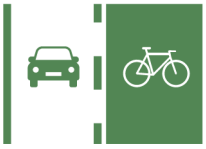
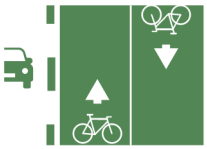
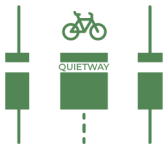


Figure 58 Bicycle infrastructure design based on the speed and volume of motor vehicle traffic

Source: Institute for Sensible Transport

Footpath Off-road		Footpaths provide a safe space for people to walk, away from motor vehicles.
Shared Path (Separated) Off-road		Shared paths provide space for walkers and people who ride to travel, physically separated from the roadway and motor vehicles.
Protected Bicycle Lane On-road		In most circumstances, we will use one-way on-road bicycle lanes, on either side of the road. Where space allows, these bicycle lanes should be 1.2 metres wide, with physical separation.
Painted Bicycle Lane On-road		In low speed streets, with 50km/h or below speed limits, we will aim to provide bicycle lanes on the shoulders of our roads. Where space allows, these should be 1.2 metres wide.
Painted Bicycle Lane Bi-directional On-road		Where there already is a bi-directional on-road bicycle lane on one side of the street, we will continue this infrastructure to reduce cost and impact, while still maximising safety benefits. Two-way on-road bicycle lanes should be at least 2.4 metres wide, with physical separation.
Quietway On-road		Quietways (also known as Quiet Streets) are mixed traffic roads, where cycling is prioritised. These streets have speed limits of 50km/h and less. Modal filters and visual cues will be used to remind drivers to travel at a safe speed and share the road.
Shared Zone On-road		Shared zones are mixed traffic roads, where pedestrians is prioritised. Visual cues and treatment will be used to ensure motorists and cyclists travel at speeds 20km/h or less and share the road.

Institute for Sensible Transport
www.sensibletransport.org.au

Figure 59 Types of active transport infrastructure

Source: Institute for Sensible Transport

A.5 Shared micromobility

Micromobility devices are typically either e-scooters or e-bikes, and for the purposes of this project, *shared* micro mobility will be the focus of this section. Of particular relevance to the San Remo, the commercial sector is often prepared to provide a service without a subsidy from government. Both e-bike and e-scooter share is legal in Victoria, but all bikes and scooters must adhere to the current regulations regarding power output.

A.5.1 E-scooter or e-bike share?

Many of the commercial providers of shared micro mobility offer both e-bike and e-scooters. E-scooters are often preferred for very short trips, while e-bikes provide a more comfortable ride for longer trips, allowing the rider to carry items in the front basket and more easily enable the user to indicate. Figure 60 and Figure 61 provide an example of both e-scooter share scooters and e-bike share bicycles, from an existing program in Melbourne (Lime). It is recommended that e-bikes are the more suitable choice for San Remo.

Figure 60 E-scooter share

Source: Institute for Sensible Transport

Figure 61 E-bike share

Source: Institute for Sensible Transport

A.6 AusTraffic Parking Survey, 2019

A review of previous parking studies was conducted as part of the development of the *San Remo Access and Movement Study and Car Parking Plan.* In 2019, AusTraffic conducted a parking survey in the San Remo town centre area over the Easter holidays, from Friday 19th April to Tuesday 23rd April. This survey period occurred before the COVID-19 outbreak and offers a strong understanding of peak parking demand in *normal* conditions. Figure 62 shows the study areas assessed within this survey.

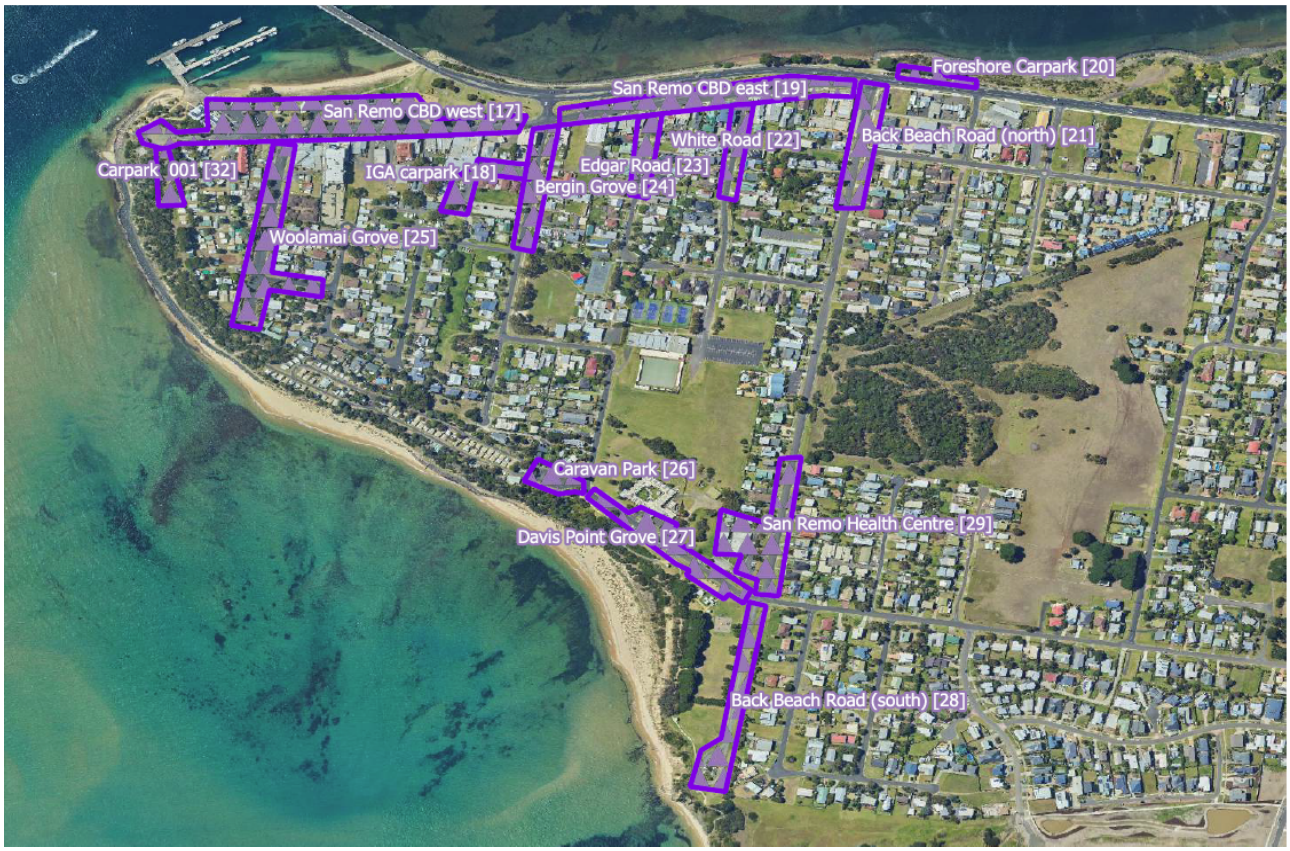


Figure 62 AusTraffic 2019 Car Parking Survey study area

Source: AusTraffic

The survey recorded utilisation of San Remo's existing car parking supply for parking locations within a short walk to key destinations in San Remo, including Lions Park, Marine Parade, and the San Remo Foreshore. Car parking counts were conducted at hourly intervals over a five-day period. These counts were used to determine the average and maximum car parking occupancy recorded for each car park area, as well as the average and maximum duration of stay recorded. Table 13 summarises the overall findings for the *total* study area.

Table 13 AusTraffic Car Parking Survey Summary – total study area

Survey date	Average Occupancy	Maximum Occupancy	Average Duration of Stay (minutes)	Maximum Duration of Stay (minutes)
Friday, 19th April	33%	44%	140	600
Saturday, 20th April	38%	47%	123	600
Sunday, 21st April	33%	47%	118	600
Monday, 22nd April	24%	34%	113	600
Tuesday, 23rd April	24%	35%	110	600

Source: AusTraffic 2019

This summary shows over half of car parking spaces within a short walking distance to key destinations in San Remo are unoccupied – even at maximum occupancy periods on a holiday weekend.

Over half of car parking space are unoccupied in San Remo at peak demand on an Easter holiday weekend.

It is important to note there are significant variations in car parking utilisation by the *location* of the car park area, and its *proximity* to key destinations such as the commercialised area at Marine Parade and Lions Park.

Parking on Marine Parade west of Bergin Grove accounted for more than a quarter of the total study area's parking supply and recorded the highest average and maximum car parking occupancy among the car park areas surveyed. The maximum car parking occupancy recorded during the week at this location was recorded at 70 to 80% on weekdays, and 85 – 95% over the weekend.

This is in stark contrast to parking on Marine Parade east of Bergin Grove, which is less than 50 metres away. More than half of existing parking spaces in this area were vacant at maximum occupancy across the five-day survey period. Further, average car parking occupancy ranged between 20 – 40% throughout the survey period. This reflects patterns identified in the car parking occupancy study conducted in January 2022 by the Institute for Sensible Transport (IST).

Other car park locations with an average and maximum car parking occupancy recorded above 50% include:

- Ocean Grove Caravan Park car park area
- Dickie Lane and IGA Car Park
- Davis Point Road and Woolamai Grove (on weekends only)

Higher car parking utilisation at these locations are to be expected as they provide direct access to shops, services, restaurants, and recreational areas. In contrast, there are several other parking locations within a short walk to these destinations that consistently recorded an average car parking occupancy of less than 15% throughout the survey period. These locations include:

- Bergin Grove
- Back Beach Road, north and south
- Edgar Road
- Foreshore Car Park
- Wynne Road

These findings are similarly reflected in the car parking occupancy study conducted by IST, where there are pockets of high car parking occupancy, there are several car parking bays unoccupied a street away.

This survey also provides insight into the average duration of stay. The average duration of stay is around two hours across the study area. The average duration of stay is higher for parking areas on Marine Parade west of Bergin Grove, and at the Dickie Lane and IGA Car Park. As these parking areas allow for all day parking, it is likely that workers are parking at their work destination. This has implications for parking availability in a high demand area, as parking turnover is lowered from longer stay parking.

A review of the AusTraffic car parking survey shows car parking occupancy patterns at peak times have remained relatively unchanged since 2019. Findings from this survey and the car parking occupancy study conducted in January 2022 informed the development of actions proposed in the *San Remo Access and Movement Study and Car Parking Plan*.

Institute for Sensible Transport
202/26 Rokeby Street, Collingwood
Melbourne, Australia VIC 3066
E: info@sensibletransport.org.au
www.sensibletransport.org.au

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Sensible Transport