



Draft Integrated Transport Strategy

2018 – 2028

Contents

Executive Summary	3
1. Key Issues	6
2. Council's Better Place Strategic Planning Framework.....	8
3. Scope	9
4. Goals	11
5. Vision statement	12
7. Goals and strategic objectives.....	13
8. Action Plan	23
9. Methodology.....	35
10. Key findings	37
11. Background	38
History.....	38
Previous strategy	39
12. Legislative and policy and context	40
13. Financial analysis	43
14. Implementation and reporting	44
15. Program of capital works	45

Executive Summary

Introduction

Bayside City Council has prepared a new draft Integrated Transport Strategy (ITS) 2018 – 2028 to establish strategic direction and guidance for transport planning decision making within Council over the next 10 years. It identifies a range of actions that Council can implement to make Bayside a better place and overcome some of the challenges facing the City of Bayside.

Purpose

Transport is a vital component of our lives. It connects us with jobs, education, healthcare, shopping, recreation opportunities and goods and services. Our transport choices can have positive and negative consequences for us, both as individuals and as part of the wider community. Through the type of transport we favour, we shape our neighbourhoods.

Council's Better Place Approach focuses Council's performance across four key result areas (KRA's) to achieve its purpose of making Bayside a Better Place. The KRA's – Liveability, Service, Efficiency and People align Council's strategies towards achieving this purpose. The Community Plan 2025 identifies transport as one of seven domains of liveability and outlines the community aspiration that:

By 2025, it will be safe and convenient for the Bayside community to choose their preferred mode of transport. Bayside will be more easily accessed on foot and bike, and road users will consider the safety of others.

In support of this aspiration and as a commitment to meeting community expectations, Transport is addressed by Goal 2 of the Council Plan 2017 – 2021:

Sustainable transport is the mode of choice, facilitated through the creation of a well-connected, safe, accessible and convenient transport system that positively contributes to a strong economy, the health and wellbeing of the community and a low-carbon future within Bayside.

Bayside faces a number of challenges, both now and in the future. Population growth, an ageing population, climate change and the health and wellbeing of the community will all impact the way we move around Bayside.

Furthermore, a steady increase in population and affluence has led to an annual growth in private vehicle ownership in Bayside of 1.9% (on average) over recent years. If this trend continues, there will be an additional 20,000 private vehicles competing for road and parking space in Bayside over the next 10 years (ABS, 2017).

Providing additional capacity through more road space and parking is not a sustainable solution to this dilemma as the increase in trips arising from a growing population and increasing vehicle ownership will continue to outpace road capacity. Similarly, the provision of additional car parking will also be utilised by the growth in vehicle ownership, potentially leading to a repeat of the dilemma once again.

The emergence of fully autonomous vehicles may have a minor influence on parking congestion for owners of new autonomous vehicles in years 5 to 10 of the strategy. However, there is uncertainty around the scale of adoption of this technology during this timeframe.

How these challenges our managed may ultimately affect the look and liveability of cities in dramatic ways.

A focus on integrated transport is also a demonstration of the value of the Bayside Better Place Approach. With an ongoing focus on liveability efficiency and services, change can be managed in a strategic way which seeks to minimise negative impacts and pursue benefits.

Goals and Strategic Objectives

The draft ITS covers all forms of mobility, including public transport, walking, cycling, freight, private vehicles and the street network. It does this through a set of six complimentary goals which reflect the aspirations of the community and will assist Council to achieve an integrated and sustainable transport system and improved liveability within the municipality:

Each goal is supported by a number of strategic directions and actions and explored further within the main document. Collectively, the goals, strategic directions and actions contribute to Council's vision for transport:

"The transport system will meet the needs of the community through the provision of a sustainable, well-connected, safe, accessible and convenient transport options that positively contribute to a strong economy, the health and wellbeing of the community and a low carbon future."

Goal	Strategic Objective
Enabling Sustainable Transport Choices	Council will raise awareness of sustainable transport options as more convenient alternatives to vehicle trips in the community and support initiatives that increase transport choice and reduce transport emissions
Improving Local Accessibility	Council will prioritise walking and cycling as the preferred modes of transport for short trips in Bayside
Better Public Transport	Council will advocate to the State government for improved public transport access to, within and from Bayside
User Friendly Streets	Council will treat streets as places where people live, work and play and provide access for a range of users in order to deliver a safe, accessible and efficient transport system
Integrated Transport and Land Use	Council will work to ensure that land use and development supports sustainable transport use
Optimising Parking Opportunities	Council will maximise the utilisation of existing parking space and balance the needs of drivers to ensure sufficient parking opportunities are available for those who need it

Council's Role

The responsibility for the provision of transport planning in Bayside is shared between Council and the State government. The shared responsibility for transport means that in delivering the draft ITS Council has direct responsibility for some transport actions and policies, whilst in other instances it contains advocacy actions for issues beyond Council's jurisdiction. Council's influencing role in delivering such actions will require advocating to a

number of State government agencies for improvements to the transport system within the municipality over the lifespan of the ITS.

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1. Key Issues

The movement and mobility of the community is a core service of local government and the safety and convenience of Bayside's transport options were identified by our community as the second most valued aspect of Bayside during the development of the Community Plan 2025. The updated draft Bayside ITS 2018 – 2028 builds on the work already undertaken since the adoption of the inaugural Bayside ITS in 2013, to ensure that the community can access its needs safely and conveniently in a sustainable way. However, Council's role in keeping all members of the community mobile over the next ten years faces several significant challenges.

Addressing Demographic Changes

Population Growth

The current population forecast of 104,290 (2017) is projected to grow by approximately 9% to 113,712 people with an additional 4,894 households by 2028. This equates to 71 new people in Bayside per month. Growth will also continue in the neighbouring municipalities of Kingston and Glen Eira with a combined increase of over 36,000 people over the same period. This growth will result in increased travel demand as more people access the many services and amenities that Bayside has to offer.

Ageing Population

Bayside will see increasing growth in all age groups, but most notably the 70-84 age group which is expected to increase by approximately 38% by 2026. The municipality faces a common challenge with an ageing population as many older residents may experience reduced mobility and social isolation when they are no longer able to drive. This will mean greater reliance on modes such as walking and public transport. As a result, the needs of older residents will need to be prioritised to ensure that the pedestrian environment in Bayside is safe and accessible.

Managing Congestion

A steady increase in population and affluence has led to an annual growth in private vehicle ownership in Bayside of 1.9% (on average) over recent years. Assuming, this trend continues, there will be an additional 20,000 private vehicles competing for road and parking space in Bayside over the next 10 years (2,000 per year, 40 per week). Building additional capacity through with more road and parking space is not a sustainable solution to this dilemma.

Increasing Parking Pressure

Providing car parking to satisfy the demands of all road users is one of the biggest challenges faced by Council as the demand for on-street parking often outweighs supply, particularly in shopping precincts and around schools. This is due to the fact that there is not enough room on our streets to provide everyone with a parking space. Local congestion can also be generated by parking demand as drivers continue to 'hunt' for a vacant space.

Improving Safety

Safety of all users is an important factor in planning and managing our transport network. Unless our transport network becomes safer, the safety of our transport users will be a barrier to an uptake in more environmentally sustainable transport modes such as walking and cycling. Encouraging safer driving and road user behaviour, reducing the number of vehicle trips and length and reducing vehicle speeds will result in safer travel within Bayside.

Shortage of public transport

Whilst some parts of Bayside are well served by public transport, access to efficient public transport services is not well catered for across the municipality. The southern suburbs, including Beaumaris and Black Rock, along with some other areas to the west of the Frankston line are heavily reliant on infrequent buses that travel circuitous routes as their only form of public transport.

Responding to Climate Change

The transport sector is the second largest producer of greenhouse gases in Victoria with private vehicles accounting for approximately 80% of Victoria's transport-related greenhouse gas emissions. There is a need to respond to climate change by reducing transport related emissions.

Improving Health and Wellbeing

Approximately 42% of Bayside residents are considered overweight or obese. Females in Bayside were less likely to be considered overweight or obese. However, Bayside males are ranked number one for being overweight among local government areas in Victoria with approximately 57% being classed as overweight. A shift in community thinking associated with the convenience of active modes of travel and the establishment of a built environment that is conducive to walking and cycling will make it easier for active transport modes to be incorporated as part of routine trips.

Emerging Technologies

The most significant change in the vehicle industry is currently underway with a number of companies developing autonomous vehicles (self-driving cars). Whilst it is too early to determine the potential impacts of autonomous vehicles in Bayside, their emergence is expected to have an influence in years 5 to 10 of the strategy and will need to be considered.

2. Council's Better Place Strategic Planning Framework

The draft ITS is an integral part of Council's Better Place Strategic Planning Framework and is aligned with both the Community Plan 2025, which identifies transport as one of seven domains of liveability, and the Council Plan 2017 – 2021. The draft ITS also supports three major strategic plans; the Environmental Sustainability Framework 2016 – 2025, the Municipal Strategic Statement and the Wellbeing for All Ages and Abilities Strategy 2017 – 2021. The relationship between Council's Better Place Strategic Planning Framework and the draft ITS is illustrated in Figure 1 below.

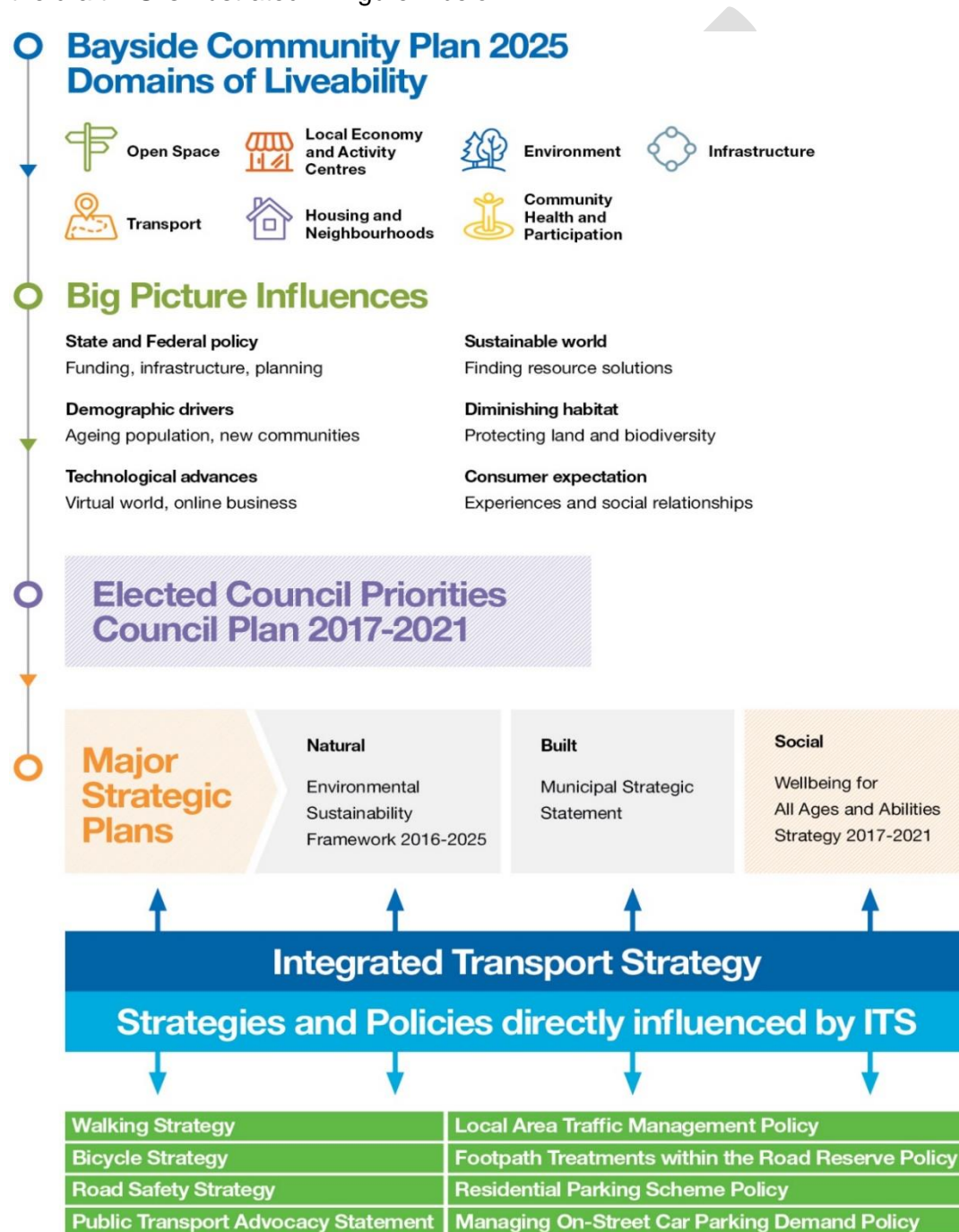


Figure 1: Relationship between Council's Better Place Strategic Planning Framework and the draft ITS

3. Scope

The responsibility for the provision of transport planning in Bayside is shared between Council and the State government. The shared responsibility for transport means that in delivering the draft ITS Council has direct responsibility for some transport actions and policies, whilst in other instances it will need to work in partnership with or seek to influence the State government to improve the transport system.

Council manages the local road network, the pedestrian network and most of the bicycle network within the municipality. The draft ITS provides the overarching approach to managing these aspects of the transport system, with further detailed direction provided in specific Council transport strategies, e.g. the Bayside Bicycle Strategy, the Bayside Walking Strategy, the Bayside Road Safety Strategy and the Public Transport Advisory Statement.

The State government, through VicRoads, manages the arterial road network within Bayside, including the bicycle network on arterial roads. The coordination of public transport is managed by Transport for Victoria whilst the actual delivery of public transport services is managed by Public Transport Victoria. High-level land use policy is also the responsibility of the State government.

Elements of the draft ITS that are within Council's control include;

- Capital works projects, including works relating to footpaths and bicycle paths and the local road network;
- The development of more detailed strategies and policies, including pedestrian and bicycle strategies and parking policies; and
- Behaviour change programs to encourage and influence personal travel behaviour to utilise more sustainable modes such as walking and cycling.

Council's influencing role in delivering the draft ITS will require advocating to a number of State government agencies for improvements to the transport system within the municipality. With regards to public transport in Bayside, Council will advocate to Public Transport Victoria and Transport for Victoria for public transport infrastructure and service improvements to address identified gaps in the public transport system.

Finally, some draft ITS initiatives will require agreement with or buy-in from other stakeholders. For example, VicRoads is the road and traffic authority within Victoria. This means that Council has to seek approval from VicRoads to implement major traffic control devices on the local road network, this includes seeking approval for the introduction of pedestrian crossings and the adjustment of speed limits on Council managed roads.

Sphere of Influence

The 'Sphere of Influence' below shows Council's extent of control and influence in relation to transport.

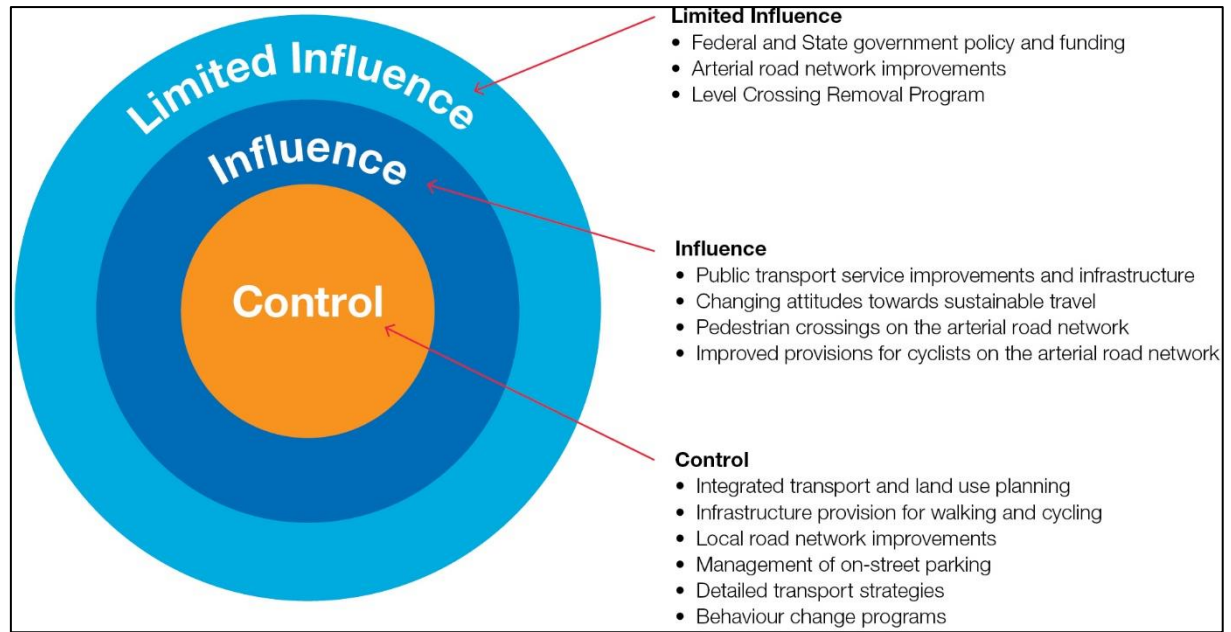


Figure 2: Council's sphere of influence in relation to transport

4. Goals

The draft ITS covers all forms of public transport, walking, cycling, freight, private vehicles and the street network. It does this through a set of six complimentary goals which have been derived through research and analysis of data and feedback from the community. The goals have been developed to keep the Bayside community mobile by supporting a shift towards more environmentally sustainable travel modes in a way that supports economic activity whilst contributing to the health and wellbeing of the community.

Goal 1	Enabling Sustainable Transport Choices	Council will raise awareness of sustainable transport options as more convenient alternatives to vehicle trips amongst the community and support initiatives that increase transport choice and reduce transport emissions
Goal 2	Improving Local Accessibility	Council will prioritise walking and cycling as the preferred modes of transport for short trips in Bayside
Goal 3	Better Public Transport	Council will advocate to the State government for improved public transport access to, within and from Bayside
Goal 4	User Friendly Streets	Council will treat streets as places where people live, work and play and provide access for a range of users in order to deliver a safe, accessible and efficient transport system
Goal 5	Integrated Transport and Land Use	Council will work to ensure that land use and development supports sustainable transport use
Goal 6	Optimising Parking Opportunities	Council will maximise the utilisation of existing parking space and balance the needs of drivers to ensure sufficient parking opportunities are available for those who need it

Each goal is supported by associated strategic directions and a series of actions.

5. Vision statement

To achieve an integrated and sustainable transport system within Bayside, Council has established a vision to guide transport planning policy and action over the lifetime (10 years) of the draft ITS. This vision is supported by the six complementary guiding principles, each of which addresses a different aspect of transport within Bayside.

Each guiding principle is supported by relevant strategic directions and actions that will deliver the community benefits associated with a more integrated and sustainable transport system. This policy framework is shown in Figure 3.

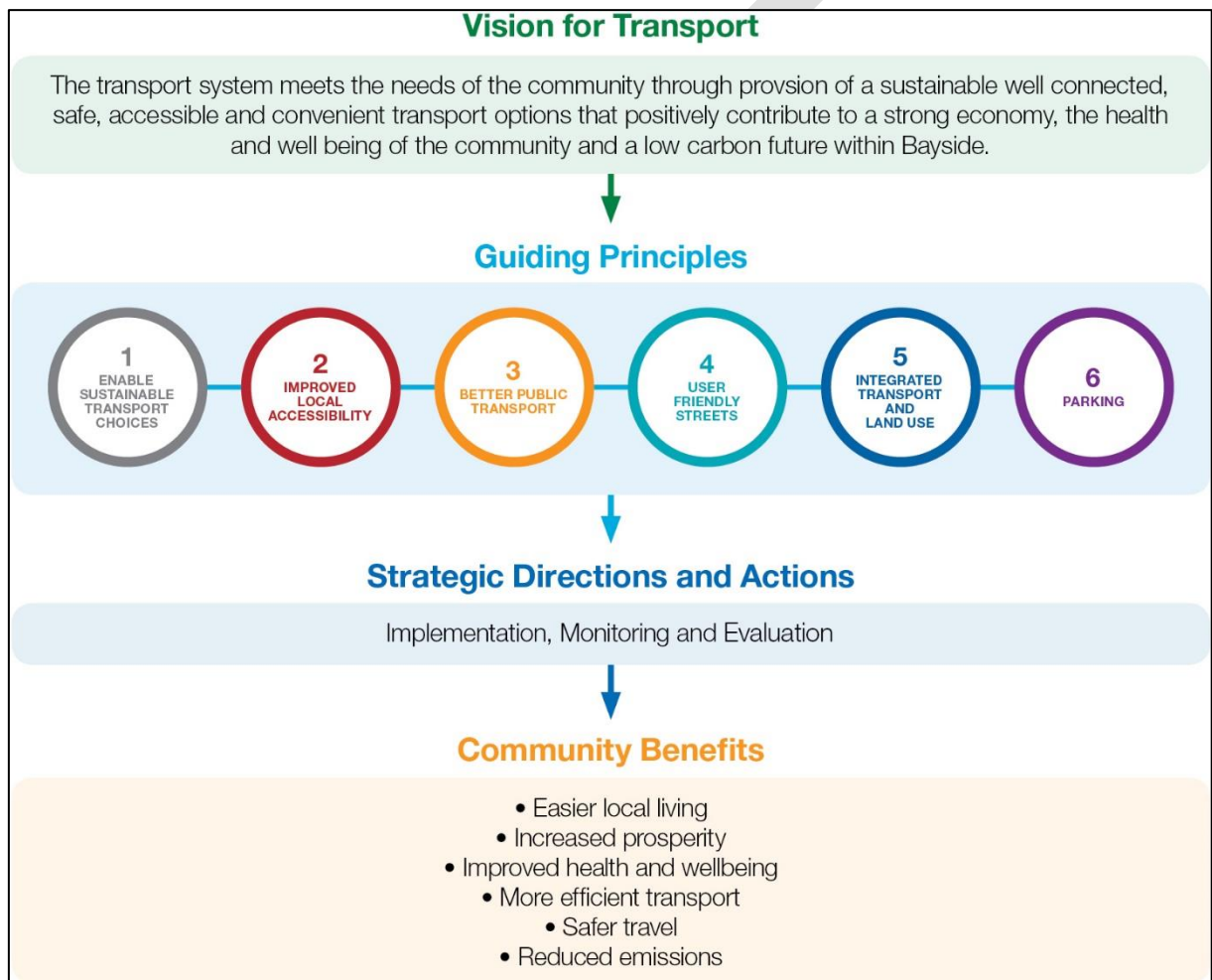


Figure 3: Integrated Transport Strategy Framework

6. Strategic directions

The draft ITS covers all forms of public transport, walking, cycling, freight, private vehicles and the street network. It does this through a set of six complimentary guiding principles which have been derived through research and analysis and feedback from the community. The transport directions have been developed to encourage a shift towards more environmentally sustainable travel modes in a way that supports economic activity whilst contributing to the health and wellbeing of the community. Each guiding principle is supported by associated strategic directions and a series of actions.

Goal 1 – Enabling Sustainable Transport Choices

Council will raise awareness of sustainable transport options amongst the community and support initiatives that increase transport choice and reduce transport emissions

It is important for people to take ownership of their personal transport choices if travel behaviour change is to be brought about. Behavioural change will occur when community attitudes shift towards walking, cycling and public transport being more convenient alternatives to traffic and parking congestion. To facilitate a change in community attitudes Council will need to ensure that the community understands the dilemma it faces in terms of the continued growth in vehicle ownership and associated increases in traffic and parking congestion and also increase awareness of the transport options available that will maintain mobility and assist in reducing transport related emissions.

A range of communication methods will be used by Council to raise community awareness around transport choices. This will involve the development and implementation of a series of promotion campaigns by exploring options to utilise social media, website development, provision of regular information in Council's bi-monthly resident newsletter, promoting sustainable transport to events in Bayside and leading by example within the organisation.

Melbourne has seen a steady growth in alternative transport options over a relatively short period of time. The popularity of car sharing schemes such as Flexicar and GoGet which allow registered members to book and rent a 'pool car' for generally short term usage has increased significantly across Melbourne in recent years. Whilst the recent emergence of dockless bicycle sharing offers an alternative way of hiring a bicycle never been seen before in Australia, however it has not been without its problems.

Transport innovation has also advanced rapidly over recent years and continues to do so. Ride sourcing services, such as Uber, which enable passengers to request a ride through a mobile phone app and pay for the service direct from their bank account or credit card without the physical exchange of money are increasing in popularity. A recent development in America has seen the emergence of shared ride sourcing where passengers can choose to share their ride with other people travelling a similar route in return for a reduced fare.

Increasingly, governments are seeking to reduce local emissions from cars through technologies such as electric vehicles. The Victorian Government has adopted a zero net emissions target by 2050 as part of its commitment to be a leader in climate change action. The potential benefits of the widespread uptake of electric vehicles, including reduced greenhouse gas emissions, provide a significant opportunity to contribute to more environmentally friendly modes of transport. Whilst private vehicles are likely to play a prominent role in Bayside's transport system into the future, Council has a responsibility to

raise awareness of all transport choices and suitable initiatives aimed at reducing transport related emissions.

Strategic Directions for Enabling Sustainable Transport Choices

SD 1 Promote and encourage sustainable transport choices to Council employees

It is important that Council leads by example in promoting and enabling sustainable transport choices if it is to encourage the community to adopt similar behaviours.

SD 2 Promote and encourage sustainable transport choices to the community

The community needs to be aware of all available transport options, including the pros and cons associated with each mode in order for them to make an informed decision when planning their journey. Whilst building new infrastructure provides an opportunity to facilitate travel behaviour change, it is important that Council is able to increase community awareness and actively promote the benefits of sustainable travel to encourage an uptake in more sustainable modes.

SD 3 Investigate opportunities to introduce new initiatives that will improve transport choices and reduce transport emissions

Council will investigate opportunities to enable the introduction of new initiatives aimed at reducing transport emissions and improving transport choices.

Goal 2 – Improving Local Accessibility

Council will prioritise walking and cycling as the preferred modes of transport for short trips in Bayside.

Walking and cycling are the most sustainable forms of transport and have a significant part to play in the transport system. Walking and cycling are already very popular recreational activities across the municipality and the potential exists to tap-in to this popularity for other trip purposes. For example, many short trips to work, school, activity centres and train stations within Melbourne are undertaken by car (approximately 39% for trips less than 1 kilometre) and an opportunity exists to replace some of these trips by modes such as walking and cycling.

To enable walking and cycling to become a real choice in Bayside, future planning needs to take into consideration the needs of a range of users. Bayside has a higher number of older persons than the metropolitan average and forecasts suggest that this number will increase. There is also a high proportion of residents with a disability. Residents and visitors to Bayside have different mobility needs depending on their life stage (children learning to cycle on the road, parents with prams and people using mobility scooters and other mobility aids). Consideration of how transport and street environments are designed and maintained to meet these needs, is important. Simple measures to reduce the existence of current physical barriers to access and movement for these users will also benefit the wider community in Bayside.

The draft ITS identifies key strategic directions and compliments the initiatives outlined in the Bayside Walking and Bicycle Strategies. Both of these strategies identify a set of comprehensive actions to facilitate an uptake in walking and cycling in the municipality. These include network improvements and educational programs to overcome barriers often

associated with these modes of transport. Moving forward, Council does not intend to refresh the Walking and Bicycle Strategies once these reach the end of their respective lifespans. Rather, individual four-year action plans will be developed for each of these modes. These action plans will be aligned with both the goals and strategic directions of the draft ITS.

Strategic Directions for Walking

SD 4 Promote, encourage and support walking to establish a walking culture

The provision of improved pedestrian infrastructure and facilities will assist in removing some of the physical barriers that can prevent an uptake in walking. These improvements alone will be unlikely to facilitate a significant uptake in walking. It will also take a willingness from individuals to change the way in which they move around the municipality for some journeys. A complimentary program of promotion and behaviour change initiatives will be necessary to encourage and support more walking across the municipality.

SD 5 Improve the pedestrian environment that serves key destinations within Bayside

For walking to be perceived as a more convenient mode of transport for short trips in Bayside, it will require the provision of a safe walking environment supportive of all ages, including those with disabilities. This includes the provision of regular formal crossing opportunities, particularly on roads with high traffic volumes and improved supporting facilities such as regular seating.

SD 6 Prioritise walking in areas of high pedestrian activity

In areas of high pedestrian activity, including activity centres, the foreshore and other key trip generators, facilities that both assist and prioritise the safe movement of people need to be provided to create streetscapes that invite people to walk. This can require removing road space currently available to cars.

SD 7 Maximise provisions for walking in new developments and streetscape upgrades

When planning for new developments or streetscape upgrades, high quality pedestrian environments that are accessible, safe and attractive need to be provided to create opportunities for walking trips to be encouraged. Existing pedestrian routes and access to public transport should not be removed or significantly lengthened by new developments or by improvements or maintenance to the street.

Strategic Directions for Cycling

SD 8 Develop a culture of cycling within Bayside that encourages people to ride a bicycle

The provision of high quality bicycle infrastructure and facilities alone will be unlikely to facilitate a significant increase in riding without a complimentary investment in a program of promotion and behaviour change initiatives. Informing the community about the benefits of cycling, the location of the bicycle network and the places it can take you through a range of promotional activities will be integral in attracting new people of all ages and abilities to ride a bicycle.

SD 9 Improve and expand the bicycle network to support both utility cycling and recreational cycling to key destinations in Bayside

The development of a bicycle network is the core feature of any proposal aimed at increasing cycling. Cyclists should be provided with routes that are safe, well connected, convenient and attractive which are also characterised by high standards of design and maintenance. Actions associated with this strategic direction will ensure that bicycle routes connect to local destinations and amenities, provide links between existing bicycle routes both within and outside of Bayside and meet the needs of current and future cyclists.

SD 10 Improve the integration of cycling with land use development, public transport and other key amenities

The way we plan for land use and transport can increase the proportion of cycling trips. Establishing an environment conducive to cycling will assist in facilitating an increase in transport choice within the community. The provision of end of trip facilities for cyclists and how well cycling is integrated with other modes of transport will be a major factor in ensuring that cycling is considered as a transport option for local trips within Bayside.

Goal 3 – Better Public Transport

Council will advocate to the State government for improved public transport access to, within and from Bayside

Public transport connects people to places and covers a range of transport modes, including, bus, train, tram, taxis and community transport. It provides an alternative travel choice for those people who do not have access to a car either because they are too young, too old, disabled or belong to one of the 5% of households in Bayside that do not have access to a car.

Within Victoria, Public Transport Victoria is the State government agency responsible for the coordination of public transport. While Council can improve access, connectivity and amenity around public transport stops, improving public transport connectivity and service frequencies is the responsibility of the State government. However, in trying to secure improvements to the public transport system within Bayside, Council has an important role in advocating to the State government for public transport improvements on behalf of the Bayside community.

Whilst some parts of Bayside are well served by public transport, access to efficient public transport services is not well catered for across the municipality. The southern suburbs, including Beaumaris and Black Rock, and some areas to the west of the Frankston line are reliant on infrequent buses that travel circuitous routes as their only form of public transport.

Whilst a high proportion of people drive to work (57% Census 2016), only 15% of people use public transport to get to work in those suburbs well served by public transport. As a whole, 14% of Bayside residents use the train to get to work.

There is a need to further improve the public transport system within Bayside, particularly the frequency and directness of bus services across the municipality, including the role that buses could play in providing improved access to/from train stations to alleviate the high demand for commuter parking in the State government owned station car parks and those residential streets close to train stations. Whilst Council has continued to vigorously advocate to the State government for increased commuter parking provision at train stations across

Bayside, the State government has advised Council that there are limited opportunities to increase parking capacity at stations. Despite this, Council will continue to advocate for improved commuter parking provision on behalf of the community whilst bus services as rail feeders remain inadequate. However, it is acknowledged that improving bus services would reduce the demand for more commuter parking at stations.

The frequency of train services on the Sandringham line also needs to be improved during weekday inter-peak periods and at weekends to provide passengers with a 10 minute 'turn up and go' frequency, to match the level of service already provided to passengers using the Frankston line.

Council's Public Transport Advocacy Statement (PTAS) identifies the advocacy actions that Council will advocate for on behalf of the Bayside community for public transport improvements within the municipality. As part of the development of this draft ITS, the advocacy actions from the PTAS have been integrated within the draft ITS action plan associated with improved public transport access to, within and from Bayside. Moving forward, it is proposed that the PTAS will not be reviewed or updated. Rather, all public transport advocacy actions will now be included within the draft ITS.

Strategic Directions for Better Public Transport

SD 11 Advocate to the State government for an improved public transport system based on the needs of residents

Council will advocate for improved public transport services and associated infrastructure in order to improve the attractiveness of public transport services as a real transport option for the Bayside community.

SD 12 The public transport system will be fully accessible and integrated

Ensuring universal access to the public transport system will provide people of all abilities with the opportunity to use the public transport system within the municipality. Similarly, providing improved integration between public transport and modes such as walking and cycling will ensure that the community has a choice of transport options when travelling to a train station or a bus stop as part of an onward journey.

Goal 4 – User Friendly Streets

Council will treat streets as places where people live, work and play and provide access for a range of users in order to deliver a safe, accessible and efficient transport system

Bayside's streets are a significant part of our community and provide access for a range of users for a variety of purposes. Our streets need to be actively managed to provide a safe, accessible and efficient transport system. User friendly streets are those which incorporate measures such as low vehicle speeds, low traffic volumes, enable greater sharing between users of streets and public spaces, and provide the various transport modes and users with a balanced and appropriate level of priority.

Ensuring the safety of road users through the reduction of traffic conflicts is the most important aspect of any user friendly street and Council is committed to improving the safety of all users of the transport system within the municipality. The Road Safety Strategy will be a tool for sharing knowledge with the wider community and encouraging the development of

a culture of responsibility and shared beliefs to establish safer roads and road user behaviour in Bayside.

The safety of any road user on a street is critically dependant on the management of vehicle speeds. The relationship of vehicle speed and impact on potential injury outcomes has been the subject of many studies, particularly with the application of lower urban speed limits including 40km/h and 50km/h. Archer et al highlighted a number of studies that attempted to estimate the probability of a vulnerable road user being fatally injured given the impact speed of the collisions. Most studies concluded that the probability of fatality rapidly increases for accidents with vehicles travelling above 30km/h. Figure 4 demonstrates the correlation between vehicle speed and the risk of fatality for vulnerable road users.

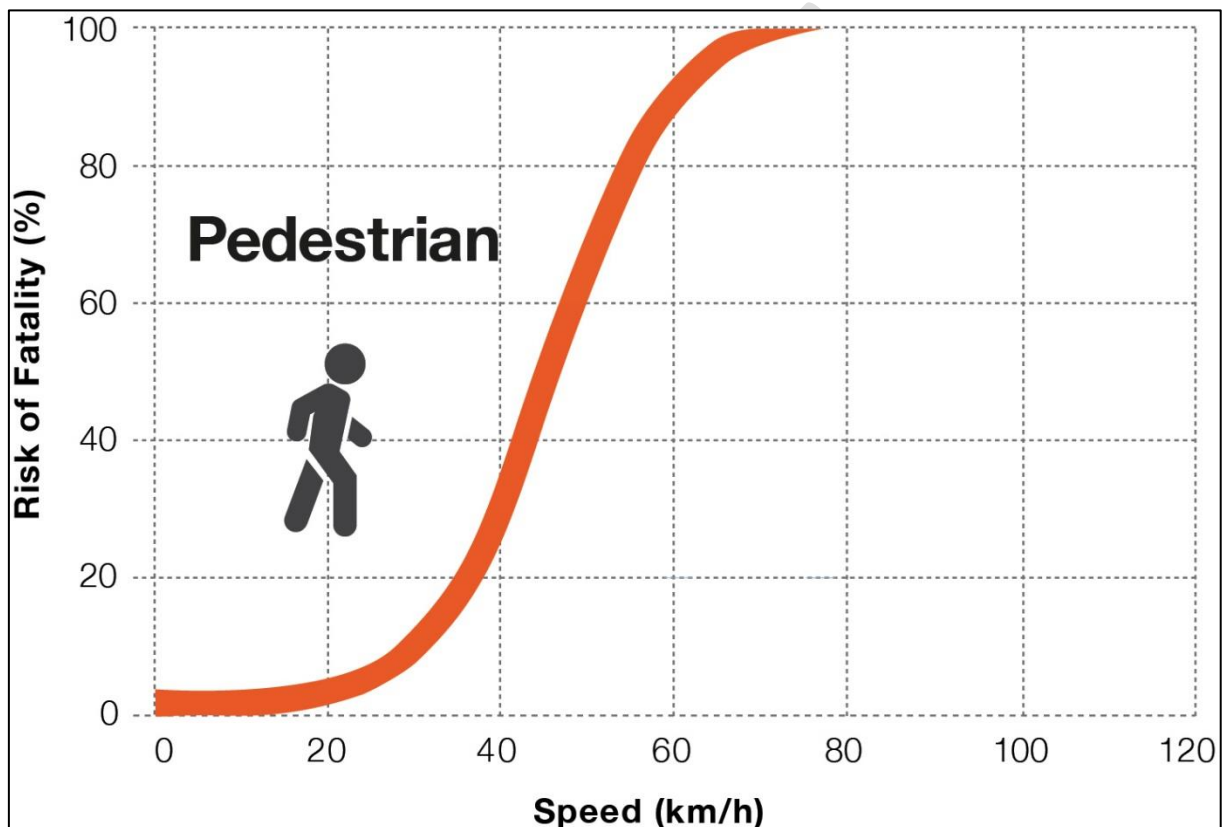


Figure 4: Correlation between vehicle speed and risk of fatality for pedestrians (Source: South Australia Road Safety Strategy 2020)

As part of the engagement program associated with the development of the draft ITS residents were asked if they would support the introduction of lower speed limits in some Bayside streets to help make roads safer for pedestrians, cyclists and other road users. Approximately 74% of residents expressed support for such an approach. However, the safety benefits of small speed reductions as well as their impact on journey times are not always obvious and more information needs to be provided to ensure an understanding amongst the community in relation to the safety benefits associated with lower vehicle speeds and the impact of lower vehicle speeds on journey times. For example, approximately 90 seconds would be added to a 5km trip when travelling at 40km/h, rather than 50km/h.

Traditional transport planning approaches have placed an almost exclusive emphasis on the movement of private vehicles when considering the wider road network. While private vehicles provide unmatched mobility and will continue to play an important role in the

transport system, the limited available street space must be used more efficiently given that modes such as walking, cycling and public transport all require less space than cars to move the same number of people.

The carrying capacity of each mode of road based transport using a 3.5m wide traffic lane during a one hour period is highlighted in Figure 5. Walking and cycling are the most efficient modes in terms of the amount of space they require to transport people, followed by a regular bus and private vehicles.

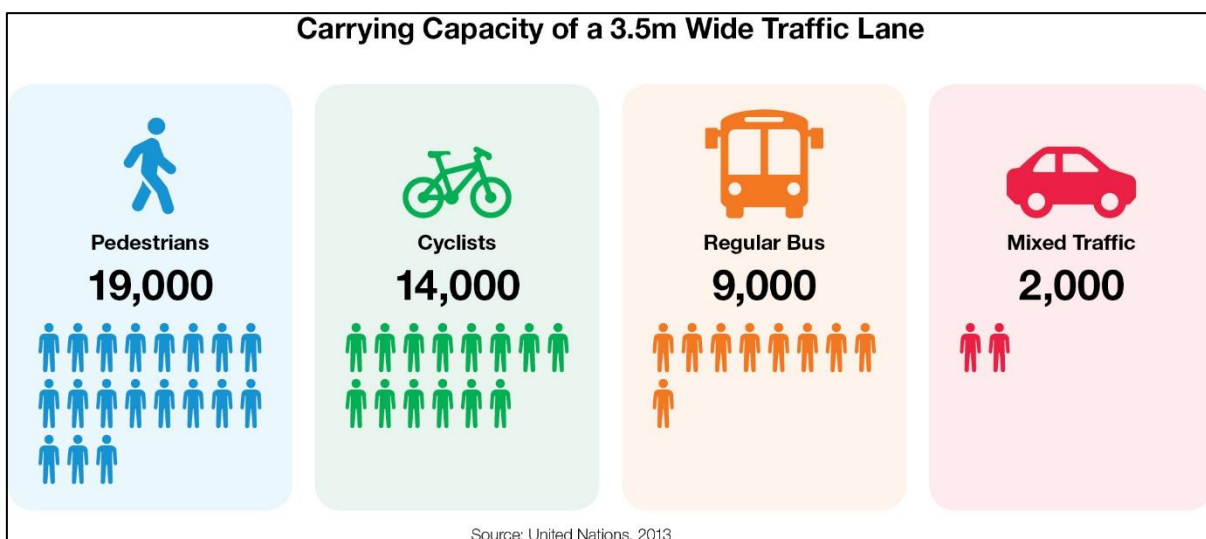


Figure 5: The carrying capacity of a typical 3.5 metre wide traffic lane during a one hour period

Bayside's approach is aligned with VicRoads in seeking to achieve a more sustainable transport system through improved management of its streets. Council will assign greater priority in Council strategies and plans to sustainable transport modes on Bayside streets, through a street user hierarchy that gives priority to transport users on different streets with certain roads managed to work better for cars while others will be managed for pedestrians, cyclists and public transport.

Strategic Directions for User Friendly Streets

SD 13 The transport system in Bayside will be safe for all users

Council is committed to improving the safety of all users of the transport system within Bayside and is well placed to assist in improving road trauma given its strong community links. Improved safety can be achieved through the delivery of lower vehicle speeds and lower traffic volumes. Collision speed is critical in road safety, particularly for vulnerable road users such as pedestrians and cyclists. The delivery of initiatives that effectively lower vehicle speeds and contribute to less cars being on streets will significantly reduce the chance of vulnerable road users being involved in crashes, as well as the severity of those that do occur.

SD 14 Greater priority will be given to sustainable modes of transport in terms of allocating time, space and facilities on local streets

Council will adopt an approach to the way it manages streets in Bayside that will make them safer and more efficient whilst providing a greater balance for sustainable transport modes, such as walking, cycling and public transport. A Street Space Management Framework will be developed to identify how different roads will be treated. By way of example, greater

priority will be given to pedestrians, cyclists and public transport within some residential streets and shopping areas, whilst cars would have priority on limited arterial roads such as Park Road and Durrant Street given the primary function of these streets is to move vehicles efficiently. The hierarchy of road users on Bayside streets is identified in Figure 6 and demonstrates that costs associated with providing for single and multiple occupancy vehicles is significant and does little to improve the benefits of movement efficiency.

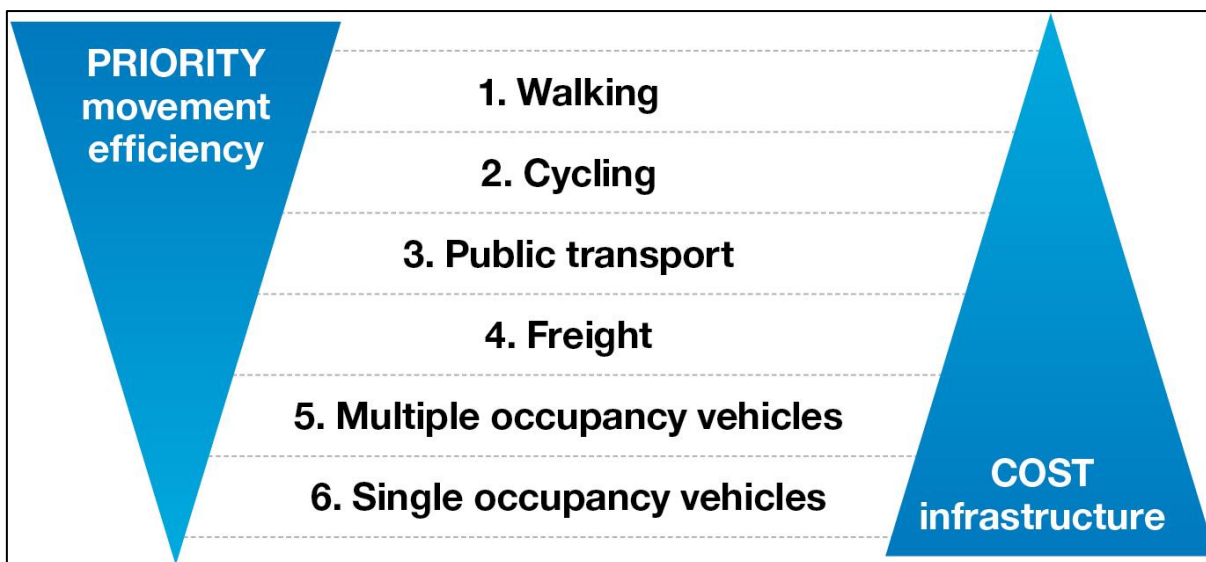


Figure 6: Proposed street user hierarchy

Goal 5 – Integrated Transport and Land Use

Council will work to ensure that land use and development supports sustainable transport use

Land use plays a major contributing role in how the community chooses to travel as the location of new developments influences people's travel choices through the provision of parking, access to public transport and the presence of safe and pleasant places to walk or cycle. Council can shape and influence the development of the municipality by applying zones, overlays and policies. The provisions for the use, development and protection of land in the municipality are set out in the Bayside Planning Scheme.

A key theme of *Plan Melbourne* is the development of '20 minute neighbourhoods' which provide people with the ability to meet most of their everyday needs within a 20 minute walk, cycle or local public transport trip of their home. Neighbourhood activity centres are crucial to the creation of 20 minute neighbourhoods which serve the surrounding community. Concentrating land use within and close to these centres maintains the idea of living locally by reducing the need to travel long distances and can also improve liveability and economic vitality, but only where there has been sufficient planning to increase the use of sustainable modes.

The integrated transport and land use framework established through the structure planning process identifies locations for growth and development within Bayside's activity centres as well as the infrastructure required to meet the current and future needs of residents. Future growth will be located in the activity centres which are supported by public transport.

Strategic Directions for Integrated Transport and Land Use

SD 15 New land uses and development will be located in accessible locations that provide the greatest access to public transport and facilitate walking and cycling

The integration and coordination of land use and transport in Bayside can play a crucial role in creating connected communities and promoting sustainable travel behaviour. Effective land use and transport integration will promote sustainability through an urban environment that reduces the need for travel and distances travelled, enhances access to goods, employment and services, provides a variety of equitable and affordable travel alternatives and promotes the use of sustainable modes of transport.

SD 16 Development will support and encourage walking, cycling and public transport use

In order to reduce parking demand and traffic in our streets new developments will need to support and encourage sustainable modes of transport. Requiring developers to provide adequate end of trip facilities for pedestrians and cyclists, and good connections to the public transport network will assist in making these sustainable travel modes more desirable.

SD 17 Improvements to transport infrastructure and facilities will compliment and support the local economy

Increased prosperity for businesses can be aided through increased street activity as more people walk and cycle and spend a longer time at local shops. In addition, improving access to employment and retail within Bayside for those in surrounding areas will result in a better connected local economy.

Goal 6 – Optimising Parking Opportunities

Council will maximise the utilisation of existing parking space and balance the needs of drivers to ensure sufficient parking opportunities are available for those who need it

Providing car parking to satisfy the demands of all road users is one of the biggest challenges faced by Council as the demand for on-street parking often outweighs the supply, particularly in activity centres and around schools, meaning that there is not enough room on our streets to provide everyone with a parking space.

Competition for on-street car parking is increasing throughout the municipality. A steady increase in population and affluence has led to an annual growth in private motor vehicle registrations in Bayside of approximately 1.9% since 2013. If this trend continues, it means that there will be an additional 20,000 private vehicles competing for road and parking space in Bayside over the next 10 years.

Providing additional capacity through more road space and parking is not a sustainable solution to this dilemma as the increase in trips arising from a growing population and increasing vehicle ownership will continue to outpace road capacity. Similarly, the provision of additional car parking will also be utilised by the growth in vehicle ownership, potentially leading to a repeat of the dilemma once again.

The availability of parking greatly influences what travel mode is considered 'most convenient' and can actually generate car travel demand causing congestion within streets as drivers continue to drive around looking for a vacant parking space. Parking can also

affect the overall viability of our activity and neighbourhood centres if the turnover of parking spaces is not managed correctly, it has a significant impact on the environment and local amenity and comes at direct financial cost to the community. The management of car parking is therefore critical to achieving high levels of amenity, good accessibility and long term sustainability to ensure that parking opportunities are available for those who need it.

Strategic Directions for Optimising Parking Opportunities

SD 18 Manage parking for the benefit of the whole community through the use of policy tools

Appropriate car parking is essential for encouraging access to residential, commercial, recreational and industrial activities, and promoting connections with public transport. To manage parking demands across the municipality, policy tools will be developed to assist Council to manage parking across the municipality in a strategic way for the benefit of the whole community.

SD 19 Maximise the utilisation of parking through the use of new technology

In those streets where demand for parking is very high, new technology is available to improve the management of these spaces to deliver greater public benefit. Higher rates of turnover will enable more intensive use by short stay drivers. This will mean that parking spaces are regularly vacated, it will reduce the number of drivers circling in search of a vacant space and assist in reducing local congestion.

An opportunity also exists to use parking data to develop user interfaces to share information in relation to parking with the community and visitors. This may lead to greater compliance through a better public understanding of parking restrictions in different areas. To encourage innovation in this area, Council will be open with parking information and support the development of user interfaces and tools.

The availability of 'flexible private parking' for casual use with a potential fee paid to the property owner to park in a driveway is an emerging practice with a number of mobile apps now available to connect a property owner with a car driver. It is uncertain at this time if this approach would be suitable to Bayside. However the merits and drawbacks associated with this practice will be investigated further to determine if it could assist in providing additional parking capacity.

7. Action Plan

Strategic directions have been used to inform a set of actions that Council will implement over a ten year period to better integrate transport and land use and encourage a shift towards more environmentally sustainable travel modes in a way that supports economic activity whilst contributing to the health and wellbeing of the community. These actions are presented on pages 24 to 34.

The action plans will be reviewed every four years to ensure that they remain relevant. This will allow the identification of any new actions that maybe required to address emerging transport issues and provide an opportunity to incorporate any actions arising from future Council Plans.

Funding of Actions

A number of options exist to source funding for the proposed actions contained within the draft ITS:

Deliver as part of future capital works programs

A number of the actions identified within the draft ITS are already foreshadowed in Council's four-year capital works program. These and other actions requiring a funding allocation from Council's annual capital works program will be considered through Council's annual budget planning process. A focus on strong business cases will ensure economic, environmental, social and financial considerations are assessed

Federal and State government grants

There will be an opportunities to apply for funding from the Federal and State governments for the implementation of some actions contained within the draft ITS. For example, the delivery of the New Street/Wellington Street Roundabout in 2017/18 will be funded from the Federal Black Spot Program to improve road safety.

Deliver within other proposed infrastructure projects

Opportunities will be taken to implement new facilities when other road construction projects are being delivered to reduce costs and increase the reach of each budget allocation.

New Initiatives

New initiatives are identified programs that are not incurred on an annual basis. Actions seeking new initiative funding are considered on an annual basis as part of Council's budget planning process.

Goal 1: Enabling Sustainable Transport Choices

Strategic Objective: Council will raise awareness of sustainable transport options as more convenient alternatives to vehicle trips in the community and support initiatives that increase transport choice and reduce transport emissions

Strategy	Action Item	Action	Time frame	Costs	Council Budget	Council Department
Promote and encourage sustainable transport choices for Council employees	1	Review, update and implement Council's Green Travel Plan to promote and encourage sustainable travel choices amongst staff	Years 1 to 6	Officer time	N/A	Sustainability & Transport
	2	Minimise the environmental impact of Council's vehicle fleet	Years 1 to 6	Officer time	N/A	Finance
Promote and encourage sustainable transport choices to the community	3	Develop a Green Travel Plan toolkit to encourage and assist schools and large employers to develop Green Travel Plans	Years 2 to 3	Up to \$20,000	Subject to budget consideration	Sustainability & Transport
	4	Develop a travel behaviour change program for the Bayside community that encourages an uptake in walking, cycling and public transport	Year 1 and ongoing	\$15,000 per year	Subject to budget consideration	Sustainability & Transport / Communications
	5	Ensure that the needs of pedestrians and cyclists are considered in all transport infrastructure upgrades and street maintenance programs	Immediate and ongoing	Officer time	N/A	Sustainability & Transport / City Assets & Projects
Investigate new opportunities to introduce new initiatives that will improve transport choices and reduce transport emissions	6	Facilitate the introduction of car share schemes through the development of policy tools to enable access to on-street parking for such schemes	Years 1 to 2	Up to \$20,000	Subject to budget consideration	Sustainability & Transport
	7	Develop an approach for dockless bike sharing to become operational in Bayside	Year 1	Officer time	N/A	Sustainability & Transport

Goal 2: Improving Local Accessibility

Strategic Objective: Council will prioritise walking and cycling as the preferred modes of transport for short trips in Bayside

Strategy	Action Item	Action	Time frame	Costs	Council Budget	Council Department
Improve the pedestrian environment that serves key destinations within Bayside	8	Continue to implement the Bayside Walking Strategy (2014) and evaluate its effectiveness with a review	Years 1 to 6	Officer time	Foreshadowed in Capital Works Program	Sustainability & Transport
	9	Develop a four-year action plan for 'Walking' in 2024 to identify those measures required to facilitate and uptake in walking for short trips within the municipality	Year 6	Officer time	N/A	Sustainability & Transport
	10	Develop a Principal Pedestrian Network for Bayside to identify and prioritise investment for existing parts of the street network (includes pedestrian priority over vehicles along these routes)	Year 2	Up to \$20,000	Subject to budget consideration	Sustainability & Transport
	11	Develop a policy position on the use of tactile paving for visually impaired people across the municipality	Year 2	Officer time	N/A	Sustainability & Transport / City Assets & Projects
	12	Develop a policy position, informed by the Open Space Strategy, site specific conditions and community input, on how footpaths in parks and reserves (excluding the foreshore) across the municipality should be treated	Years 1 to 2	Up to \$20,000	Subject to budget consideration	Open Space, Recreation & Wellbeing
	13	Progress the Footpath Connectivity Program to address missing links in the footpath network	Immediate and ongoing	\$400,000	Foreshadowed in Capital Works Program	Sustainability & Transport / City Assets & Projects
	14	Provide footpath connections between the pedestrian network and public transport stops	Immediate and ongoing	\$100,000	Foreshadowed in Capital Works Program	Sustainability & Transport / City Assets & Projects

Prioritise walking in areas of high pedestrian activity	15	Undertake a review of the Footpath Treatments in the Road Reserve Policy in 2019, and every four years thereafter	Year 2	Officer time	N/A	Sustainability & Transport
	16	Explore the feasibility of installing recharging facilities in Council buildings for mobility scooters	Year 1	Officer time	N/A	City Assets & Projects
	17	Progress the provision of zebra crossings at roundabouts within the Bay Street and Church Street Major Activity Centres	Years 1 to 4	\$900,000	Foreshadowed in Capital Works Program and external funding	Sustainability & Transport / City Assets & Projects
	18	Investigate the feasibility of providing zebra crossings at other roundabouts within the municipality where there are high numbers of pedestrians and develop a prioritised program of works	Years 4 to 10	\$900,000	Subject to budget consideration and external funding	Sustainability & Transport / City Assets & Projects
	19	Advocate to VicRoads for increased pedestrian priority at traffic signals	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	20	Advocate to VicRoads for pedestrian operated signals across Beach Road at key locations as identified within the Beach Road Corridor Strategy	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	21	Prioritise pedestrian access to the foreshore/Bay Trail	Years 4 to 6	\$100,000	Subject to budget consideration	Sustainability & Transport / City Assets & Projects
	22	Develop and implement a program of works to implement safe unsignalised crossing opportunities across Beach Road to improve access to/from the foreshore	Years 4 to 6	\$100,000	Subject to budget consideration and external funding	Sustainability & Transport / City Assets & Projects
	23	Enable walking through the CSIRO site, including potential links to and from the site	Years 1 to 3	Officer time	N/A	Sustainability & Transport / Urban Strategy
	24	Undertake a review of the Bayside bicycle network to identify any missing links and network improvement opportunities	Year 3	Officer time	N/A	Sustainability & Transport

support both utility cycling and recreational cycling to key destinations in Bayside

Improve the integration of cycling with land use development, public transport and other public amenities

25	Develop a four-year action plan for 'Cycling' to identify those measures required to facilitate an uptake in cycling for short trips within the municipality	Year 3	Officer time	N/A	Sustainability & Transport
26	Progress the delivery of Bay Trail safety improvement projects as part of the removal of high-risk sites along the trail	Years 1 to 10	\$2.5M	Foreshadowed in Capital Works Program	Sustainability & Transport / City Assets & Projects
27	Identify opportunities to support cycling through the CSIRO site, including potential links to and from the site	Years 1 to 3	Officer time	N/A	Sustainability & Transport / Urban Strategy
28	Provide bicycle parking in public locations where there is an identified need, such as shops, libraries and sports clubs	Immediate and ongoing	Up to \$40,000	Foreshadowed in Capital Works Program	Sustainability & Transport / City Assets & Projects
29	Provide bicycle parking as part of every foreshore car park upgrade project	Immediate and ongoing	Up to \$40,000	Subject to budget consideration	Open Space, Recreation & Wellbeing
30	Trial the installation of a bank of bicycle parking in place of an on-street car parking space within each Major Activity Centre within the municipality	Years 3 to 4	Up to \$30,000	Foreshadowed in Capital Works Program	Sustainability & Transport / Economic Development
31	Continue to improve cyclist navigation through the installation of bicycle route wayfinding signs	Years 1 to 2	\$15,000	Foreshadowed in Capital Works Program	Sustainability & Transport

Goal 3: Better Public Transport

Strategic Objective: Council will advocate to the State government for improved public transport access to, within and from Bayside

Strategy	Action Item	Action	Time frame	Costs	Council Budget	Council Department
Advocate to the State government for an improved public transport system based on the needs of residents	32	Advocate for a program to expand commuter parking at train stations within Bayside to meet the current and future demand for commuter parking	Years 1 to 2	Up to \$30,000	Subject to budget consideration	Sustainability & Transport / Communications
	33	Advocate for a 10 minute train frequency on the Sandringham line as outlined in the not yet implemented Network Development Plan for Rail (2012)				
	34	Advocate for the inclusion of the Highett Road level crossing within the State government Level Crossing Removal Project				
	35	Advocate for the introduction of minimum bus service frequencies for all bus services in Bayside to establish a 10 minute frequency during peak periods and a 20 minute frequency at all other times, including later service coverage				
	36	Advocate for a review of the bus network within Bayside to identify opportunities to provide more direct routes with connectivity improvements as well options for new routes				
	37	Advocate for the introduction of bike racks on all buses to integrate bicycle trips with bus trips				
	38	Advocate for the introduction of Parkiteer bicycle cages at all train stations serving Bayside				

The public transport system will be fully accessible and integrated	39	Ensure connections between the pedestrian network and public transport stops (bus, train and tram) are fully accessible	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	40	Advocate for more bus shelters at bus stops within Bayside to provide a safe and comfortable waiting area	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	41	Work with bus operators to investigate measures to improve bus service reliability on the local road network	Immediate and ongoing	Officer time	N/A	Sustainability & Transport

Goal 4: User Friendly Streets

Strategic Objective: Council will treat streets as places where people live, work and play and provide access for a range of users in order to deliver a safe, accessible and efficient transport system

Strategy	Action Item	Action	Time frame	Costs	Council Budget	Council Department
The transport system in Bayside will be safe for all users	42	Review and update the Bayside Road Safety Strategy	Year 3	Officer time	N/A	Sustainability & Transport
	43	Advocate to VicRoads for the lowering of speed limits to 40km/h on selected roads	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	44	Where feasible, seek to separate pedestrians and cyclists on the Bay Trail shared path	Years 1 to 10	\$2.5M	Foreshadowed in Capital Works Program	Sustainability & Transport / City Assets & Projects
Greater priority will be given to sustainable modes of transport in terms of allocating time, space and facilities on local streets	45	Use the road user hierarchy to manage the allocation of road space across Bayside	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	46	Develop a Street Space Management Framework that compliments the hierarchy of road users to guide the management and enhancement of the road network	Year 3	Up to \$20,000	Subject to budget consideration	Sustainability & Transport

Goal 5: Integrated Transport and Land Use

Strategic Objective: Council will work to ensure that land use and development supports sustainable transport use

Strategy	Action Item	Action	Time frame	Costs	Council Budget	Council Department
New land uses and developments will be located in accessible locations that provide the greatest access to public transport and facilitate walking and cycling	47	Ensure that proposed transport related measures identified as part of structure planning processes are assessed for feasibility and progressed for implementation	Immediate and ongoing	Officer time	N/A	Sustainability & Transport / Urban Strategy
	48	Ensure new or improved open spaces can be safely accessed by walking, cycling and public transport	Immediate and ongoing	Officer time	N/A	Sustainability & Transport / Urban Strategy
	49	Review the state provisions associated with secure bicycle parking and end of trip facilities in new developments to determine if an increase in the standards is required	Year 3	Officer time	N/A	Sustainability & Transport / Urban Strategy
	50	Develop a Transport Plan for the Bayside Business Employment Area to ensure ease of access for all methods of transport	Year 3	Officer time	N/A	Urban Strategy / Sustainability & Transport
	51	Address sustainable transport access as part of the scope of works for any new Council developments and community facility improvements	Immediate and ongoing	Officer time	N/A	Sustainability & Transport / City Assets & Projects
	52	Ensure streetscape improvements include facilities for pedestrians and cyclists and address public transport access	Immediate and ongoing	Officer time	N/A	Sustainability & Transport / City Assets & Projects / Urban Strategy

Improvements to transport infrastructure and facilities will compliment and support the local economy	53	Work with State Government agencies and transport providers to improve access, appearance and safety of modal interchanges	Immediate and ongoing	Officer time	N/A	Sustainability & Transport / Urban Strategy
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Goal 6: Optimising Parking Opportunities

Strategic Objective: Council will maximise the utilisation of existing parking space and balance the needs of drivers to ensure sufficient parking opportunities are available for those who need it

Strategy	Action Item	Action	Time frame	Costs	Council Budget	Council Department
Manage parking for the benefit of the whole community through the use of policy tools	54	Develop a municipal wide Parking Strategy	Year 2 to 3	Up to \$100,000	Subject to budget consideration	Sustainability & Transport
	55	Ensure that parking in activity centres is managed so available spaces are used more efficiently to enable appropriate turnover	Immediate and ongoing	Officer time	N/A	Amenity Protection
	56	Develop precinct based parking plans for each of the Major Activity Centres	Years 3 to 6	Up to \$150,000	Subject to budget consideration	Urban Strategy
	57	Apply to the State government for a Parking Overlay which applies the Column B reduced activity centre car parking rates	Year 3	Officer time	N/A	Urban Strategy
	58	Review the provision of parking for drivers with disability permits in Major Activity Centres and Neighbourhood Activity Centres	Year 2 to 3	Officer time	N/A	Sustainability & Transport
	59	Review the Residential Parking Permit Scheme in 2019, then every four years thereafter	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
	60	Work with VicRoads and relevant stakeholders to investigate the appropriate use of clearways to improve	Immediate and ongoing	Officer time	N/A	Sustainability & Transport

Maximise the utilisation of parking through the use of new technology

	traffic flows, particularly to increase priority for public transport				
64	Encourage residents and all other property occupiers who have access to off-street parking to maximise its use	Immediate and ongoing	Officer time	N/A	Sustainability & Transport
65	Install parking sensors in Bay Street, Church Street, Hampton Street, Sandringham Village, Martin Street, Beaumaris Concourse and the Black Rock Activity Centres in both on and off-street parking spaces	Year 1	Officer time	N/A	Sustainability & Transport / Amenity Protection / Economic Development
66	Consider the installation of electronic signs in Bay Street, Church Street, Hampton Street, Sandringham Village, Martin Street, Beaumaris Concourse and the Black Rock Activity Centres to display information regarding parking availability	Years 2 to 3	Up to \$1.4M	Subject to budget consideration and external funding	Sustainability & Transport / Amenity Protection / Economic Development
67	Develop a mobile app to provide real-time information on parking availability within activity centres	Year 3	Up to \$20,000	Subject to budget consideration	Sustainability & Transport / Amenity Protection
68	Provide real time information on parking availability on Council's website (subject to Action No. 82 being implemented)	Year 3	Up to \$20,000	Subject to budget consideration and external funding	Sustainability & Transport / Amenity Protection
69	Investigate the feasibility of promoting flexible parking opportunities in private driveways via a booking system	Year 2	Officer time	N/A	Sustainability & Transport
70	Investigate the feasibility of installing recharging facilities in Council buildings for mobility scooters and vehicles	Year 1	Officer time	N/A	Sustainability & Transport

Supporting Actions

The action plans on pages 24 to 35 will also be supported by the following existing activities:

- Promote Council's role, priorities and achievements in transport in Bayside;
- Promote sustainable transport options to Bayside residents through communications;
- Provide temporary bike parking at Council run community events;
- Provide information on the available public transport options as part of the promotion of all Council run events;
- Promote participation amongst schools in walking and cycling initiatives, including the VicHealth Walk to School Program, Bicycle Network Ride2School Program and National Ride2School Day;
- Advocate to VicRoads for the completion of the Principal Bicycle Network within Bayside;
- Ensure the provision of secure bicycle parking and end of trip facilities as per the provision in the planning scheme;
- Ensure that the design of streets and new land use developments do not impede access for pedestrians, and where possible provide priority for pedestrian access;
- Keep abreast of emerging technologies and examine the merits and feasibility of their implementation within Bayside; and
- Work in partnership with VicRoads to review Network Operating Plans across Bayside.

8. Methodology

Council has developed the draft ITS in a way that incorporates and analyses relevant transport policies, strategies and data as well as community and stakeholder feedback to present a coherent view of transport in Bayside. Key inputs considered as part of the development of the draft ITS are outlined below.

Strategy and Policy Review

- A review of current policy and initiatives relating to transport, land use, environmental sustainability, health and wellbeing and economic development; and
- A review of State legislation and State government plans, policies and strategies.



Figure 7: Draft ITS development process

Community Engagement and Feedback

Community Plan 2025

In 2016, Council conducted a process to engage and listen to the needs and aspirations of the Bayside community, with the aim of understanding what the community believes is needed to make Bayside a better place. More than 1,200 people across a broad range of ages and backgrounds participated in developing the Community Plan through surveys, face-to-face engagement and online forums. This consultation provided valuable insights into what residents' value and what is needed to improve the liveability of Bayside. A total of 223 respondents provided feedback which related transport related themes. This feedback has been reviewed as part of the development of the draft ITS.

Have Your Say Bayside Website

As preferences for travel are individual in nature with vast differences across the community, Council undertook a number of community engagement activities to seek direct feedback from the community on specific elements of the transport system within Bayside. The Have Your Say Bayside website was used to seek feedback from different transport user groups through individual project pages dedicated to each of the following modes of transport:

- Walking
- Cycling
- Public Transport
- Private car travel

A total of 126 people provided direct feedback as part of this process. Additionally, 338 people were classed as informed participants who are those people that either clicked through and looked at various transport project pages or downloaded documents from them.

Listening Posts

Four listening posts were also organised across the municipality during November 2017 to seek face-to-face feedback from the community on what they felt were the most pressing transport issues within Bayside which need to be addressed by the draft ITS. Officers spoke with a total of 150 people at the listening posts which were held at:

- Beaumaris Concourse (40 people)
- Brighton Beach Station (21 people)
- Church Street, Brighton (37 people)
- Sandringham Station (52 people)

9. Key findings

Improvements to public transport in Bayside was the most prominent transport theme raised by respondents. This was followed by feedback relating to walking and cycling, general parking and commuter parking provision at train stations. The table below provides a summary of the transport related themes raised by respondents.

		Identified Transport Themes					
Feedback Mechanism		Walking & Cycling	Public Transport	Safety	General Parking	Commuter Parking	Congestion
No. of respondents	Community Plan Feedback (2016)	76	89	11	46	18	2
	Listening Posts	19	53	25	41	18	22
	Have Your Say Walking	18	1	0	0	0	0
	Have Your Say Cycling	45	0	0	0	0	0
	Have Your Say Public Transport	12	59	5	7	9	1
	Have Your Say Car Travel	2	3	3	5	3	7
	Total	172	205	44	99	48	32

Public Transport

Further analysis of the feedback received in relation to public transport identified limited bus service frequencies and circuitous routes with Bayside as the most pressing public transport issue that needs to be addressed by the draft ITS. This is understandable given that most bus services within the municipality are local bus services (not part of the Principal Public Transport Network) with reduced service frequencies running at 30 minute intervals during both peak hours and throughout the day and generally less frequently over weekends.

Improved coordination between buses and trains was identified as the next most pressing public transport issue. It is recognised that there is a need for better coordination between buses and trains to reduce travel times and mode connection delays in order to make public transport a more convenient option of in terms of accessing train stations within Bayside as

part of an onward journey. Improved bus-rail connectivity would also assist in reducing commuter parking pressure within the vicinity of train stations.

The third most pressing issue identified relating to public transport in Bayside was the provision of commuter car parking at train stations. The State government is responsible for the provision of commuter parking at train stations. Whilst some commuter car parking is provided at train stations, it is recognised that there is a deficiency in the level of parking available with most commuter car parks typically full before 8am on a weekday. This is compounded by the fact that the limited service frequencies of those buses that do serve train stations, makes catching a bus to the train station impractical for many people. Not only does this discourage many commuters from catching the train, but it forces many people to drive to the station and seek alternative parking in and around residential streets impacting on residential amenity. Improving bus services would mitigate the demand for more commuter parking.

Walking and Cycling

The majority of feedback received in relation to walking and cycling identified the need for specific infrastructure improvements aimed at creating a safer environment for pedestrians and cyclists. Some of the common themes that emerged from the feedback included the need to separate cyclists and pedestrian on the Bay Trail, the provision of more crossing opportunities for pedestrians, particularly on busy roads and the provision of more on-road and off-road bicycle infrastructure.

General Parking

Feedback received in relation to parking focused on a number topics. The availability of parking within activity centres and an increase in the number of multi-unit developments leading to an increased demand for on-street parking were the most cited issues. Other feedback focused on parked vehicles in narrow residential streets causing perceived safety issues and on-street parking space being occupied by tradespeople working at nearby developments.

Safety

Feedback relating to safety mainly focused on community concerns associated with excessive vehicle speeds. However, most respondents did not identify a specific location where they felt speeding traffic was an issue. Other feedback relating to safety included:

- Too many trucks using Beach Road;
- Drivers being distracted whilst driving;
- Buses operating along narrow residential streets; and
- Requests for more traffic signals at intersections.

10. Background

History

Transport is identified as one of the key domains of liveability within both the Community Plan 2025 and the Council Plan 2017 – 2021. The new draft ITS 2018 – 2028 has been developed to align Council's transport planning approach with these strategic documents and also provides an opportunity for Council to refresh its future transport priorities.

Previous strategy

In April 2013 Council adopted the inaugural Bayside Integrated Transport Strategy which established a new approach to transport planning in Bayside. The first ITS provided an overarching framework for the development of a number of other detailed transport strategies to deliver an integrated and sustainable transport system. During the lifespan of the first ITS the following transport strategies have been developed and adopted by Council:

- The Bayside Bicycle Strategy;
- The Bayside Walking Strategy;
- The Bayside Road Safety Strategy; and
- The Public Transport Advocacy Statement.

The first ITS also received a commendation for planning excellence from the Planning Institute of Australia in 2013 shortly after its adoption by Council in recognition of the approach.

Projects implemented to complement the Bayside Walking Strategy have included:

- Adoption of the Footpath Treatments Within the Road Reserve Policy to guide where new footpaths within the road reserve will be constructed;
- Filling gaps in the pedestrian network with the provision of new footpaths at high priority locations
- The installation of pedestrian refuges at a number of locations including:
 - Dendy Street/Church Street, Brighton;
 - Park Road/Tulip Grove, Cheltenham;
 - Reserve Road/Beach Road, Beaumaris; and
 - Reserve Road/Gramatan Avenue, Beaumaris.
- The installation of pedestrian operated signals at Highett Road/Spring Road, Highett;

Projects implemented to complement the Bayside Bicycle Strategy have included:

- Completion of the Bay Trail missing link between Cromer Road and Charman Road, Beaumaris;
- Installation of a dedicated bicycle path on the Bay Trail between Bay Street and Sandown Street, Brighton to separate pedestrians and cyclists;
- Installation of a new shared path through Little Brighton Reserve, Union Street to extend the Elster Creek Trail within Bayside;
- Installation of an exclusive bicycle lane along the full length of Dendy Street, Brighton;
- Installation of an exclusive bicycle lane along the full length of New Street, Brighton, including the provision of bicycle storage boxes at intersections on New Street; and
- Bicycle safety and priority treatments at the intersection of Rusden Street/New Street and the roundabout at New Street/Bent Avenue; and
- The development a new bicycle map to assist all cyclists with planning the best route for their journey. The map has also been made available as an app that can be downloaded to a mobile phone.

Projects implemented to complement the Bayside Road Safety Strategy have included:

- The introduction of 40km/h speed limits at:
 - Bay Street, Brighton;
 - Church Street, Brighton;

- Hampton Street, Hampton;
- Martin Street, Brighton; and
- Highett Road, Highett.
- Provision of raised zebra crossings on each leg of the roundabout at St Kilda Street/Bent Avenue roundabout;
- The installation of traffic signals, including pedestrian operated signals and bicycle storage boxes at the intersection of Reserve Road/Weatherall Road, Cheltenham;
- The installation of a zebra crossing at Well Street, Brighton;
- Provision of raised zebra crossings on each leg of the roundabout at Martin Street/Asling Street, Brighton; and
- The installation of raised platform footpath crossings at:
 - Charles Street/Landcox Street, Brighton
 - Lansdown Street/ Landcox Street, Brighton
 - Allee Street, Brighton

Actions that have been implemented which complement the Bayside Public Transport Advocacy Statement, include:

- Successful advocacy to the State Government against the introduction of reduced bus services in Beaumaris and Cheltenham area;
- Successful advocacy to the State government for the inclusion of the Park Road level crossing within the State government's Level Crossing Removal Program;
- Successful advocacy to the State government for improved design outcomes associated with the new Southland Station, including the provision of public toilet facilities and bicycle parking; and
- Advocacy to the State government for bus stop upgrades across the municipality. A total of 46 bus stops have been upgraded since 2013. The upgraded bus stops are now fully accessible and provide passengers with shelter and seating provision.

11. Legislative and policy and context

Legislation

Transport Integration Act 2010

The draft ITS is informed by the Transport Integration Act 2010 which identifies decision making principles that are to be applied when undertaking transport planning activities. The Act requires all Victorian transport agencies, including Council, to work together towards a common goal of an integrated and sustainable transport system with regard given to the following transport system objectives in the planning, provision, management and use of the transport system:

- Social and economic inclusion;
- Economic prosperity;
- Environmental sustainability;
- Integration of transport and land use;
- Efficiency, coordination and reliability; and
- Safety, health and wellbeing.

Council has a specific requirement to have regard to the Act when developing transport plans.

State Government Policy

Council needs to consider State government policies relating to transport and land use when developing a framework for its transport planning activities. The draft ITS is informed by a number of State government strategies.

Plan Melbourne 2017 – 2050

Plan Melbourne is a long term planning strategy for Melbourne which outlines the State government's approach to managing growth to 2050. It seeks to integrate long-term land use, infrastructure and transport planning to meet the future of environmental, population, housing and employment needs.

Infrastructure Victoria – Managing Transport Demand 2017

Infrastructure Victoria's Managing Transport Demand research program is seeking to broaden community understanding of transport demand across Melbourne. In their 'Travel Demand and Movement Patterns' (2017) it is forecast that the amount of daily kilometres travelled by private vehicles will increase by 26.5% with lower vehicle speeds estimated along key corridors as a result of increased levels of congestion.

Towards Zero: 2016 – 2020 Road Safety Strategy

The Road Safety Strategy aims to create a safe system for all Victorians – this means safe roads and roadsides, safe speeds, safe vehicles and safe road use by all people using the road. The strategy is the most ambitious in Victoria's road safety history and outlines how Victorian road safety partners will work towards a 20% reduction in deaths and 15% reduction in serious injuries in five years.

Cycling into the Future 2013 – 2023

The Victorian Cycling Strategy outlines the State government's approach aimed at growing and supporting cycling in Victoria through the delivery of cycling projects and programs that focus on safety and increasing cycling participation across Victoria. At the time of writing, the State government is leading an update of Victoria's cycling strategy.

Victoria's Climate Change Framework

Victoria's Climate Change Framework identifies the State government's vision and approach for minimising the adverse impacts of climate change within Victoria. The framework recognises that transport is a major contributor to Victoria's greenhouse gas emissions and identifies a number of transport initiatives to transform the way we travel.

Council Strategies and Policies

Whilst the draft ITS will provide the strategic direction and guidance for transport planning and decision making within Council over the next 10 years, there are a number of other transport strategies and policies that will support its delivery.

Wellbeing For All Ages And Abilities Strategy 2017 – 2021

This strategy is a key strategic planning tool that aims to maintain and improve public health and wellbeing at a local community level. The draft ITS supports the aims and objectives of

the strategy, particularly through the delivery of actions that will assist in improving community safety and providing opportunities to facilitate a more active community.

Environmental Sustainability Framework 2016 – 2025

This framework sets direction and guidance for environmental planning and decision making to safeguard the environment for future generations. The draft ITS supports the aims and objectives of the framework through the delivery of initiatives aimed at facilitating an uptake in more environmentally sustainable modes of transport for short trips in Bayside.

Bayside Bicycle Strategy 2013 – 2019

The Bayside Bicycle Strategy presents directions aimed at addressing the needs of all cyclists and facilitating a culture of cycling in Bayside.

Bayside Road Safety Strategy 2014 – 2019

The Bayside Road Safety Strategy sets out Council's policy framework aimed at reducing the number of fatalities and injuries on the road and path network within Bayside so that people of all ages and abilities can travel safely, easily and confidently within Bayside.

Bayside Walking Strategy 2015 – 2025

The Bayside Walking Strategy sets out Council's vision for enabling and motivating greater participation in walking for the entire Bayside community with the aim of increasing the number of people who choose to walk more often for short local trips.

Public Transport Advocacy Statement 2016

The Public Transport Advocacy Statement (PTAS) outlines Council's position around what improvements are required to the public transport system in Bayside to achieve its vision for transport. The PTAS identifies the advocacy actions that Council will advocate to the State government for on behalf of the Bayside community.

Footpath Treatments Within the Road Reserve Policy (2016)

This policy establishes criteria to determine where new footpaths within the road reserve are to be provided throughout the municipality, the standards for design and construction and the prioritisation process that Council will apply to allocate funding to provide new footpaths.

Managing On-Street Car Parking Demand Policy (2016)

The policy provides consistent and transparent guidance for the introduction of new parking restrictions in areas where on-street car parking may be causing a road safety hazard or where on-street car parking spaces are in high demand and this has resulted in car parking congestion.

Residential Parking Scheme Policy (2016)

This Policy is to provide a mechanism by which residents and their visitors are exempt from some parking restrictions and so have a reasonable likelihood of finding car parking in close proximity to their homes, while still preserving opportunities for parking for other road users such as shoppers, traders, people with disabilities, workers and commuters.

12. Financial analysis

A number of options exist to source funding for the proposed actions contained within the draft ITS:

Deliver as part of future capital works programs

A number of the actions identified within the draft ITS are already foreshadowed in Council's four-year capital works program. Other actions requiring a funding allocation from Council's annual capital works program will be considered as part Council's annual budget planning process.

Federal and State government grants

There will be an opportunities to apply for funding from the Federal and State governments for the implementation of some actions contained within the draft ITS. For example, the delivery of the New Street/Wellington Street Roundabout in 2017/18 was funded from the Federal Black Spot Program to improve road safety.

Deliver within other proposed infrastructure projects

Maximise opportunities to implement new facilities when other road construction projects are being delivered to reduce costs and increase the reach of each annual budget.

New Initiatives

New initiatives are identified programs that are not incurred on an annual basis. Actions seeking new initiative funding are considered on an annual basis as part of Council's budget planning process.

Draft ITS Costs 2018 – 2028

	Draft ITS Actions	Foreshadowed	Future Consideration
Operating Budget	\$640,000	Nil	\$640,000 (Average \$64,000 per year)
Capital Budget Consideration	\$6,660,000	\$6,660,000 (Extrapolated)	Nil
Totals	\$7,300,000	\$6,600,000	\$640,000

Table 1: Draft ITS Costs

13. Implementation and reporting

It is essential to maintain a meaningful set of indicators to monitor progress and measure the success of the draft ITS. As there are many stakeholders involved in progressing improvements to the transport system within Bayside, the indicators have been developed to measure what Council can control.

Objective	Indicator	Baseline	Target				
			2019	2020	2021	2022	2023
Council will prioritise walking and cycling as the preferred modes of transport for short trips in Bayside	Increase the number of people travelling to work by bike	2016 Census Data	<i>To be determined</i>				
	Increase the number of cyclists using new or upgraded on-road bicycle lanes	Project dependent	<i>To be determined</i>				
	Increase the number of cyclists using the Bay Trail between 7am-9am on a weekday	2018	<i>To be determined</i>				
	Increase the number of cyclists using the Bay Trail on the weekend	2018	<i>To be determined</i>				
Improved public transport access to, within and from Bayside	Increase the number of new bus shelters across the municipality	15 (2016)	15	15	15	15	15
Deliver a safe transport system	Reduce the number of killed and serious injury (KSI) collisions to all road users by xx% compared to the 2012 – 2016 average by 2021	2016 Crash Stat Data	<i>To be determined</i>				
	Reduce the number of pedestrian KSI's by 25%, from xxx in 2016 to xx by 2023	2016 Crash Stat Data	<i>To be determined</i>				
	Achieve a 95% confidence level that it is safe to walk in Bayside by 2025	Community satisfaction survey?	<i>To be determined</i>				
	Reduce the number of cyclist KSI's on the local road network by xx%, from xxx in 2016 to xx by 2023	2016 Crash Stat Data	<i>To be determined</i>				
Raise awareness of sustainable transport options amongst the community	Number of schools participating in the VicHealth Walk to School Program	2018	<i>To be determined</i>				
	Number of schools participating in Ride to School Day	2018	<i>To be determined</i>				
	Number of Bayside Cycling Maps	2018/19	<i>To be determined</i>				

	distributed to schools, bike shops and libraries		
	Number of car share spaces available within Bayside	TBD	<i>To be determined</i>
	A survey targeting all community cohorts across the broader community to determine if awareness relating to sustainable transport choices is being raised and if community attitudes are changing will be undertaken on a bi-annual basis starting in 2018		

An ITS implementation progress report will be presented to Council every year to outline the progress made against the delivery of actions from the draft ITS and the progress made against each of the indicators.

Note: Performance measures are still under development

14. Program of capital works

The table below provides details of the capital works programs that are foreshadowed in Council's capital works program between 2018/19 and 2020/21 that will be used to deliver a number of the actions identified in the draft ITS.

Capital Program	Estimated Cost
Active Transport Facility Improvement Program	\$552,000
Bicycle Facility Improvement Program	\$228,00
Footpath Connectivity Program	\$393,00
Future Bike Paths/Upgrade Program	\$351,000
Neighbourhood Seating Program	\$60,000

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We acknowledge the Boonwurrung people of the Kulin Nation as the traditional owners of this land and we pay respect to their Elders past and present.

We acknowledge that together we share a