



Cremorne Streets and Movement Strategy

Consultation Document - DRAFT

- Existing Conditions
- Strategic Approach
- Guiding Principles and Response

- Attachment 1 - Proposed Street Network Classification
- Attachment 2 – Issues and Opportunities Analysis

Contents

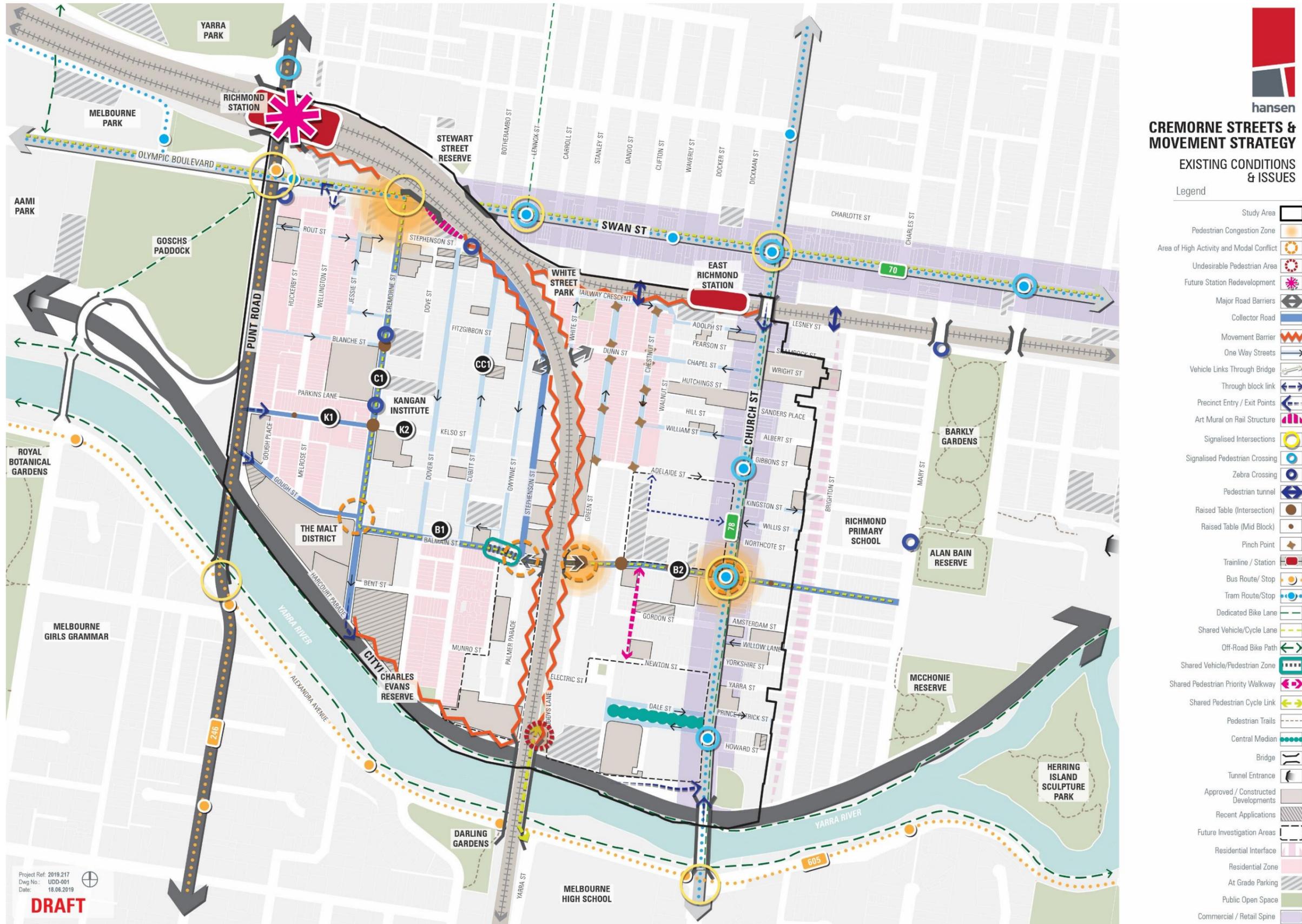
1. Existing Conditions and Issues	1
2. Strategic Approach	3
2.1. Foundations of the Approach.....	3
2.2. Recognising Key Challenges.....	3
2.2.1. Managing the change in land use and development intensity	3
2.2.2. Promoting sustainable and efficient access.....	3
2.2.3. Recognising streets as people places.....	4
2.2.4. Understanding the impact of technology	4
2.2.5. Telling the story and seeking buy-in from the broader community	4
2.3. Applying Best Practice.....	5
2.3.1. Movement and Place.....	5
2.3.2. Planning for Complete Streets.....	6
2.3.3. Pedestrian Oriented Design.....	6
2.3.4. 8-80 design	7
3. Guiding Principles.....	8
4. Proposed Response.....	9
4.1. Key Themes.....	9
4.2. Street Network Classification	11

1. Existing Conditions and Issues

The range of issues and opportunities identified in relation to Access and Movement in Cremorne have been well documented through extensive background reporting and analysis. The existing conditions and issues are illustrated in Figure 1, and can essentially be summarised in the following set of statements:

1. Cremorne is experiencing rapid land use change and intensification both within the precinct and in the surrounding inner urban area. This intensification is driven primarily by investment in commercial (office) and residential development.
2. Cremorne is in close proximity to Melbourne CBD and forms part of a busy inner-metropolitan urban environment, but in many ways effectively operates as an island due to the range of existing precinct access constraints and barriers to permeability
3. The precinct is well located in relation to public transport but is experiencing increasing and competing demands for space on a restricted and often congested street network. This demand is not spread evenly across all streets but focussed on 2-3 key links and gateways to the precinct, which constitute areas of very high activity, demand and conflict.
4. The barriers to movement and constrained street network make orientation and wayfinding through the precinct difficult for all transport users and visitors to the area.
5. Due to forecast growth in trip demand and minimal capacity for the network to accommodate more car movements, there is a need to improve and promote sustainable transport modes, focussing on pedestrian safety and level of service on the network.
6. While planning for sustainable transport priority on key corridors, provision also needs to be made to retain vehicle access throughout the precinct to support the needs and requirements of existing residents and businesses operating in the precinct.
7. There is limited access to open space and the existing public realm offers much potential for improvement. Due to a lack of large sites in public sector ownership, when considering planning permits for large privately held sites, built form controls that contribute to increased pedestrian or public space or precinct permeability through linkages through large sites can play an important role in realising access and movement objectives.
8. There are a range of possible measures to address car parking supply and demand within the precinct. Although changes to car parking are often contentious, there exists an opportunity within Cremorne to trial different approaches to off-street parking provision and management, and on-street use of space that can be more fully developed in the next stage of the study.
9. Careful consideration needs to be given to ensuring the liveability of Cremorne is protected for the existing community, while understanding how to influence the travel behaviour and provide a high quality and functional urban environment for future workers, residents and visitors to the precinct.

Figure 1- Cremorne Existing Conditions and Issues



2. Strategic Approach

The Streets and Movement Strategy is based on recognising the challenges and opportunities identified, and determining a streetspace allocation response guided by the following:

2.1. Foundations of the Approach

1. The challenges identified in relation to the access and movement network in Cremorne are typical of many inner urban precincts.
2. There will be a large number of new workers, visitors and residents in Cremorne in future.
3. The major barriers to access and movement (Yarra River, Punt Road, rail corridors) are likely to remain unchanged.
4. The existing street and movement network and available area of public space within the precinct will remain largely unchanged.
5. Do nothing is not an option - will result in increasing congestion and adverse impacts on all workers, residents and visitors to the precinct.
6. The existing pedestrian network is not able to provide the required standard of safety, comfort and access for all users.
7. Cyclist safety, connectivity and access both within, and to/from the precinct could be improved.
8. On-street car parking is at capacity in many parts of Cremorne.
9. Introduction of more cars in new developments will increase congestion and demand for car travel.
10. Any approach to change must consider both the impact on the existing community, as well as seeking to influence the travel behaviour for new workers, residents and visitors.

2.2. Recognising Key Challenges

2.2.1. Managing the change in land use and development intensity

A key challenge of this project is understanding the implications of the scale of land use change both within and surrounding the precinct. As experienced throughout Melbourne, this shift in land use intensity and type places greater pressure on the public realm to deliver more beyond just catering for vehicle movement.

Careful consideration needs to be given to ensuring the liveability of Cremorne is protected for the existing community, while understanding how to influence the travel behaviour and provide a high quality and functional urban environment for future workers, residents and visitors to the precinct.

2.2.2. Promoting sustainable and efficient access.

Cremorne is in close proximity to Melbourne CBD and forms part of a busy inner-metropolitan urban environment, but in many ways effectively operates as an island due to the range of existing precinct access constraints and barriers to permeability. These barriers to movement and constrained street network make orientation and wayfinding through the precinct difficult for all transport users and visitors to the area.

The precinct is well located in relation to public transport but is experiencing increasing and competing demands for space on a restricted and often congested street network. This demand is not spread evenly across all streets but focussed on 2-3 key links and gateways to the precinct, which constitute areas of very high activity, demand and conflict.

Due to forecast growth in trip demand and minimal capacity for the network to accommodate more car movements, there is a need to improve and promote sustainable transport modes, focussing on pedestrian safety and level of service on the network.

Private vehicle travel is not considered a priority or mass transit mode in this area, and future planning must recognise the limitations of car access into and through Cremorne, while protecting the ability of the network to support existing and future economic activity.

Within inner city urban areas such as Cremorne where development densification is occurring and access limitation exists, it is important that internal traffic is limited to vehicles which have an origin or destination within the precinct. This provides a level of amenity to those living and working within the area and retains the available network capacity to facilitate development within the area, rather than accommodating traffic which should otherwise be travelling along a more appropriate route.

2.2.3. Recognising streets as people places

There is increased expectation for streets to serve as social, convenient and interactive spaces for individuals and families to engage with the environment and each other, as an extension of their homes.

Acknowledging the widespread phenomenon of 'public space for people' and the challenges of decades of priority planning for the automobile. Spaces around Cremorne are designated for movement, but this role can be complemented by remarkable places to stop, spend and settle.

There is limited access to open space and the existing public realm offers much potential for improvement. Due to a lack of large sites in public sector ownership, when considering planning permits for large privately held sites, built form controls that contribute to increased pedestrian or public space or precinct permeability through linkages through large sites can play an important role in realising access and movement objectives.

2.2.4. Understanding the impact of technology

Appreciation of how emerging technologies such as car share, Uber and food delivery services (vehicle, scooter and bicycle modes) and eventually driverless vehicles will transform the role of our streets and ability to prioritise local pedestrian movement. While this technology is highly convenient and popular in urban areas throughout the world, consideration into the implications for parking, pedestrian and cycle connectivity is critical.

2.2.5. Telling the story and seeking buy-in from the broader community

It is critical to clearly communicate the key outcomes of the project in an understandable way. Clearly showing the community what can be *gained* from changes to the transport environment will be crucial to generating support.

While planning for sustainable transport priority on key corridors, provision also needs to be made to retain vehicle access to support the needs and requirements of existing residents and businesses operating in the precinct.

There are a range of possible measures to address car parking supply and demand within the precinct. Although changes to car parking are often contentious, there exists an opportunity within Cremorne to trial different approaches to off-street parking provision and management, and on-street use of space that can be more fully developed in the next stage of the study.

2.3. Applying Best Practice

The proposed Street and Movement Strategy is guided by an industry best practice approach which incorporates the following components:

2.3.1. Movement and Place

The concepts of 'Movement' and 'Place' provide the basis for developing a comprehensive street classification to assist in determining the priority and design of any part of the street network. This is done through defining Movement and Place categories, which reflect the relative importance of each function.

For example, the Movement categories may make use of an existing road classification system (e.g. from principal routes down to local access roads); while Place categories may reflect the size of the catchment area for activities associated with that street (e.g. for shops and services) or the cultural or heritage significance of the buildings fronting that section of street.

It is important to consider that not all traffic and transport-related activities observed on urban streets are part of that street's Movement function. There are also some types of Place-related activities that are directly connected with traffic and transport and occur within and adjacent to the carriageway. For example: loading/unloading; parking by employees, customers, residents, etc.; and buses, trams and taxis stopping to drop off/pick up passengers.

The Movement and Place network planning principles have been adopted by VicRoads to enable the Smart Roads Network Planning to consider the role streets play as a destination, not just as a means to move traffic.

Movement and Place principles can assist Council through providing a framework to identify the function and role of any part of the local street network, enabling Council to then determine the appropriate street treatment and priority. For example, an area considered to have a high Place and low Movement function may be considered suitable as a public space for the community to gather, where private vehicle movement and parking may be prioritised below other uses. By contrast, an area of low Place and high Movement score (ie Hoddle Street) would be considered for clearways and other measures to prioritise traffic movement.

2.3.2. Planning for Complete Streets

A complete street is one that provides a high level of service to multiple modes of transport, with an emphasis on a high-quality pedestrian environment. The concept is based on reallocating road space to prioritise access and safety for pedestrians, cyclists and public transport users.

Complete Streets represents a response to heavily trafficked arterial road networks that fail to produce vibrant, safe streetscapes that serve a multitude of roles (e.g. transport, commercial, social, environmental).

Identification of an access network hierarchy for all modes that, where possible, provides the most efficient use of street space by matching cross-section design with movement demand and provides improved safety, access and amenity.

In addition to increasing the level of service offered for public transport, walking and cycling, complete streets also recognise the social and retail dimensions of streets and seek to build in features that encourage people to linger, such as shade trees, active street frontages, wider footpaths, textured pavements, street furniture and street designs that reduce traffic speeds.

The US National Association of City and Transport Officials (NACTO) recognises that cities are leading the movement to redesign and reinvest in streets as cherished public spaces for people, as well as critical arteries for traffic. The NACTO The Urban Street Design Guide provides a blueprint for designing 21st century streets, including a toolbox and the tactics cities use to make streets safer, more liveable, and more economically vibrant. This document is considered as a key reference of industry best practice.

2.3.3. Pedestrian Oriented Design

Pedestrian Oriented Design is an approach to providing a street network that encourages and promotes walking, through considering and prioritising:

- Amenities near transport interchanges - Locating local convenience services around transport hubs establishes a strong connection and opportunities for integration between the transport network and other land uses
- Alternative street connections with active and vibrant street frontages - Street connections between transport modes provide scope for active frontages to capture the commercial opportunities, help to create on-street activity and enhance property values
- Frequent and safe pedestrian crossings – Establishing pedestrian priority through well designed ground level pedestrian crossings along pedestrian desire lines allowing access from all directions
- Information boards and wayfinding - Providing good wayfinding signage and other directional signals, such as pavement markings, assists interchange users in seeking out the simplest and most direct route between modes
- Landscaping and street lighting - The pedestrian network must incorporate safe design measures such as clear sight lines, well-lit pathways, surveillance by surrounding land uses and provision for mobility and vision impaired users
- Waiting and seating areas - Informal meeting and resting points, gathering places and landmarks all play an important role in providing a comfortable, usable pedestrian network

- Indoor connection through buildings - Indoor pedestrian links to provide protection from the elements, increased user safety and amenity and commercial opportunities. Such pathways can also increase permeability through urban block structures and offer greater route choice

2.3.4. 8-80 design

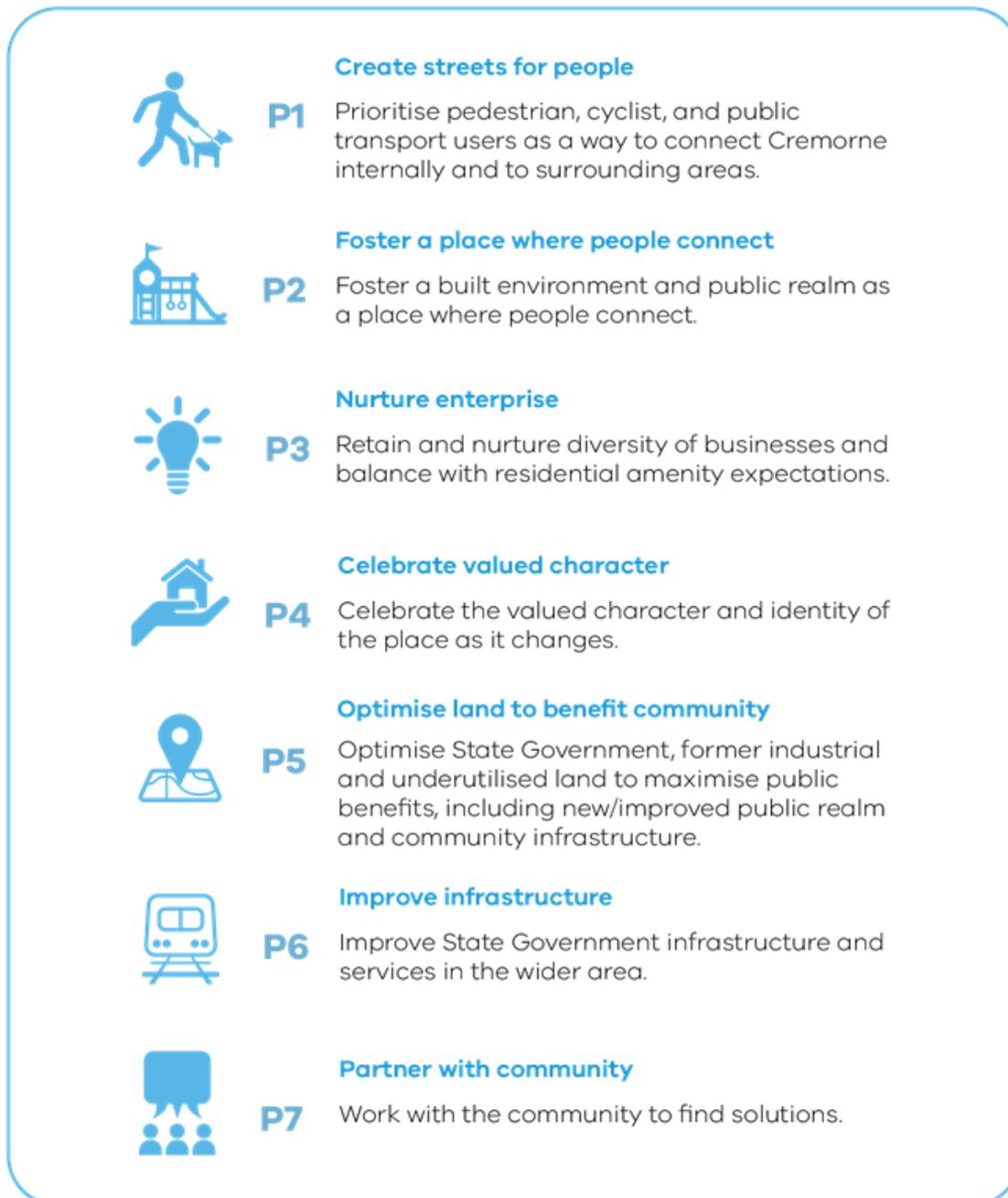
8-80 is an international design movement which recognises that we need to design cities to accommodate a society with changing needs from young children to the elderly. Important challenges are facing our society as the population globally ages thanks to higher life expectancy, better housing and living conditions and improved healthcare. This will place pressure on services to support the ageing population as it becomes more dependent.

Accessibility planning needs to consider designing cities, neighbourhoods, places and spaces that can adapt to these changing needs. Cities need to be inclusive, accommodating people with disabilities but also limited mobility. This means we need to design transport systems that can accommodate a society with changing needs across a lifetime.

3. Guiding Principles

The Cremorne Draft Issues and Opportunities Paper prepared by VPA in July 2019 proposes a set of draft principles to guide precinct actions, as set out in Figure 1 below:

Figure 2 – Draft Principles proposed by VPA



The Draft Principles most relevant to the Streets and Movement Strategy are:

- P1 – Create Streets for People
- P2 - Foster a place where people connect
- P5 – Optimise land to benefit community
- P6 – Improve infrastructure

4. Proposed Response

4.1. Key Themes

In order to achieve these precinct principles, the Streets and Movement Strategy response is structured around five themes:

1. **Prioritise safety for all users of the transport network.**

- Minimise conflict between pedestrians, cyclists and vehicles
- Address perceived threats to safety on the network – ie related to lack of space, speeding vehicles, crossing points, lighting and sightlines
- Encourage lower traffic speed through design intervention
- Identify areas of movement priority

2. **Recognise the limitations of private vehicle access, and prioritise sustainable transport modes (walking, cycling and public transport) when planning for future travel demand.**

- Provide a safe, attractive and connected walking and cycling network that provides a range of access pathways and route choices for users, based around a desired level of service and associated infrastructure requirements
- Identify safe, attractive and connected walking and cycling networks and a level of service based around safest and most direct routes between key origins and destinations such as open space, public transport services and external pathways.
- Recognise Public Transport hubs as key drivers of pedestrian activity – identify opportunities for surrounding land uses to complement these areas of high activity, ie through provision of extra space, surveillance, complimentary adjacent land uses and services.
- Provide high improved amenity in streetscapes, public space and where opportunities exist in redevelopment sites through the provision of on-street seating, shade, meeting points, lighting and tree planting.
- Recognise key drivers of pedestrian activity (public transport hubs, major land uses, retail and recreational areas) and identify opportunities for surrounding land uses to complement areas of high movement activity, ie through provision of extra space, surveillance, active frontages and complimentary services.
- Integrate movement network planning with land use form through ground level links through new development sites and identification of opportunities to improve and provide new sustainable transport infrastructure.
- Access to/from Church St from the eastern part of precinct is well provided, consider how the pathway network can be enhanced through new links through development site to accommodate future demand.
- Recognise the role of pedestrian pathways through barriers and into/out of the precinct
- Identify and promote the most appropriate and efficient use of street space for movement of people and goods.

3. Recognise and provide for the needs of the existing community and businesses, while planning for future change.

- Identify high/med/low (or no) change components of the street network.
- Recognise the role of the street network in providing site access and servicing requirements for existing business operations.
- Identify areas of highest change or land use intensification that can act as catalysts for access network improvements.
- Consider impact of all initiatives on existing residents and employees, continue to provide vehicle access and on-street parking for residents and visitors to the precinct with limited travel options.
- Consider future demand for car parking space and identify ways of fully utilising both new and existing off-street supply in meeting this demand.

4. Identify opportunities to increase access to and provision of public open space.

- Recognise the role of the street network in contributing to high quality public space, and identify opportunities for the same space to perform different functions across the day/week
- Investigate opportunities to improve links to open space to the east, west and south, through wayfinding, street design, and potential new crossing of Punt Rd at Kelso St signals.
- Consider opportunities presented by land use change and new development proposals to provide street level setbacks, effectively providing a public benefit from private space, improved sustainable transport infrastructure, improved streetscape amenity, shared servicing areas and removal of street clutter, undergrounding of power to remove infrastructure obstructions from the street.
- Identify and promote links to existing areas of significant green open space to the east, west and south of the precinct.

5. Promote the most efficient management and use of car parking supply

- Reduce the car parking rate in the Yarra Planning Scheme to reduce the amount of traffic generated by new development. Mandate Green Travel plans for new office development.
- Consider the role of emerging technology to promote the most efficient 24hr/7-day use of off-street car parking supply. It may be possible to share spaces between employee and visitor use, or to utilise on-demand management of on-street spaces to accurately reflect times of highest public space or movement network requirements.
- Identify opportunities to convert on-street car parking to public open space and provide additional space and capacity on priority walking and cycling routes.
- In considering reduced off-street car parking, it is important to understand on-street/off-street public parking inventories nearby and ensure that existing residential areas are protected from overspill parking. This will avoid adversely impacting on the existing parking allocation and usage by residents and their visitors, particularly in streets which have historically been developed with single or attached dwellings without on-site parking.
- Consider impact of all initiatives on existing residents, continue to provide vehicle access and level of on-street parking for residents. There are also a limited number of newer residential elements within mixed use development.
- Encourage greater use of car share schemes, through allocation of on-street spaces, or spaces in off-street Council parking facilities.

4.2. Street Network Classification

The increasing demands on street space driven by land use intensity within Cremorne requires greater priority to be allocated to more space-efficient travel modes (train, tram, bus, cycling and walking) whilst still recognising the importance of providing space for essential services, deliveries, residents and those with special needs. Private vehicle travel is not considered a priority or mass transit mode in this area, and future planning must recognise the limitations of car access into and through Cremorne, while protecting the ability of the network to support existing and future economic activity.

In order to provide a clear network hierarchy that more effectively improves safety and network efficiency for all modes within Cremorne, Movement and Place principles have been applied to identify opportunities to match street design and road space use with future aspirations of the place and activities that the streets need to support.

The Cremorne Streets and Movement Strategy network classification is based on a range of factors that determine the role of each street in supporting the future success of Cremorne, including:

- Existing land use and zoning – including block sizes
- Areas and sites of proposed land use change – including future development sites
- Existing street network function and role – including current traffic volumes (map p72 of VPA report) and pedestrian/cycle data
- Identified pathways to key origins and destinations, including public transport stops and gateway sites
- External (regional) connectors and internal (local) connectors
- Existing network street space and cross sections to determine potential for change (VPA Issues and Opps paper map p39)

The classification recognises the diverse character of the network and seeks to enable identification and assessment of a range of potential treatment options. Five network classification categories have been identified to form the basis of the Street and Movement Strategy:

1. *Movement*
2. *Gateway – point and link*
3. *Local Streets*
4. *Walking and Cycling Network*
5. *Places for People.*

The proposed street network classification is addressed further in Attachment 1.

ATTACHMENT 1 – Proposed Street Network Classification

1 - Movement

<p>Function and Priority</p>	<p>The intent of the Movement Network is to:</p> <ul style="list-style-type: none"> ▪ Prioritise and enable the safe and efficient movement of people and goods into and out of Cremorne ▪ Promote the most efficient use of street space by matching cross -section design with movement demand and provide improved safety, access and amenity. ▪ Identify 'local arteries' that keep goods and people flowing and connect key origins and destinations, including employment, public transport and areas of major open space (ie Goschs Paddock to west, Barkly Gardens, Alan Bain Res, McChonie Res to east) ▪ Encourage streets as places where people can connect and interact ▪ Provide precinct servicing and site access
<p>Description and Characteristics</p>	<p>The identified Movement Network includes streets that:</p> <ul style="list-style-type: none"> ▪ Experience average traffic volumes of over 1000vpd (VPA Issues and Opps – volume map p72) ▪ Provide links between gateways and key origins/destinations/places within Cremorne ▪ Support areas of highest pedestrian demand leading to public transport services ▪ Experience high levels of congestion, conflict and competing demands for space. <p>Cremorne and Balmain Streets have been identified as the basis of a key movement network with a modal hierarchy focussed on safe pedestrian movement, while still retaining some traffic and site servicing capacity with on-street car parking lowest in the hierarchy.</p>
<p>Design Treatment</p>	<p>These streets will be subject to the highest levels of change and management to protect and enhance future role.</p> <p>Potential design treatments include:</p> <ul style="list-style-type: none"> ▪ Lowered traffic speed limits– 30kph ▪ Limit through traffic ▪ Time-based access priority or restrictions ▪ Reallocation of street space away from on-street parking to other uses – movement or public space. ▪ Potentially retain parking one-side only or removal for sections. ▪ Provide street space for essential vehicle access via disabled bays, car share spaces, or short-term parking for drop-off and deliveries ▪ New site development to provide street level setback – adding more space to public realm ▪ Increased lighting levels, footpath width, high quality surface materials or treatments ▪ Consolidation of street furniture and poles, or underground power supply to allow for more capacity on existing footpaths.

2 – Gateway

Gateway Point

Function and Priority	<p>Gateways Points are intended to:</p> <ul style="list-style-type: none">▪ Identify, prioritise and improve key sites of access to and within Cremorne▪ Address barriers or blockages to movement through providing for the highest levels of demand across all travel modes.▪ Provide pedestrians, cyclists and public transport users greater priority at these key entry points, potentially at the expense of easy vehicle access.▪ Provide recognised entry points to the Cremorne precinct through consistent wayfinding elements and street treatments <p>The alternative to this space allocation may result in increased localised traffic congestion, pedestrian safety risks and poor access outcomes for all residents, workers and visitors to Cremorne.</p>
Description and Characteristics	<p>These are sites that:</p> <ul style="list-style-type: none">▪ provide for highest movement volumes, with significant peak demand (ie AM and PM ‘rush hour’) profiles.▪ act as a transition point to major regional connectors – public transport stations and stops, Church St, Swan St, Punt Road.▪ Are located at intersections or pathways through movement barriers, and experience high levels of conflict within a restricted space
Design Treatment	<p>The Gateway sites will be designed to:</p> <ul style="list-style-type: none">▪ incorporate wide, clear pedestrian movement areas, with opportunities to also act as meeting and congregation points▪ recognise the value generated by high flow pedestrian areas and provide opportunities for complimentary land use▪ act as wayfinding points and as front doors to the Cremorne precinct▪ Provide increased priority at signalised intersections to highest demand movements.▪ Redesign intersections to more accurately accommodate the actual movement demand by each mode. Provide a dedicated full movement ped crossing phases with crossing from both sides <p>At signalised intersections priority will be given to:</p> <ul style="list-style-type: none">▪ separate the left turn traffic phases from pedestrian phases▪ investigate greater tram priority and separation▪ identify ways to create more pedestrian space through built form setbacks and a contribution to public space. <p>Other measures to be incorporated may include one-way access streets, turn bans and other access restrictions through Local Area Traffic Management to provide safer access and greater crossing priority for pedestrians.</p>



Gateway Link

Function and Priority

A Gateway Link is a component of the network that:

- Complements the Movement Network and acts as secondary pathway to Gateway Points
- Performs an interface role between the regional access and movement network, and local streets
- Holds a higher local place function and potential for treatments to discourage through traffic in residential interface areas.
- Takes some traffic demand from parallel routes or enables through traffic closures on other Local Streets
- Retains and provides access to support movement and servicing functions and property access

It is recognised that these streets will increasingly come under pressure to accommodate higher levels of on-street parking due to surrounding land use change and parking management practices must prioritise protection from overspill parking

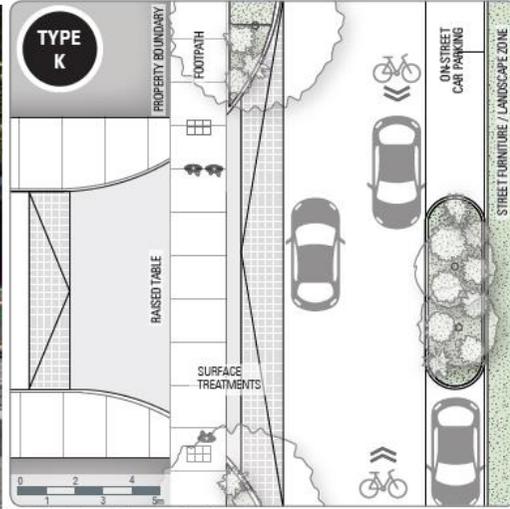
Description and Characteristics

The identified Gateway Links currently:

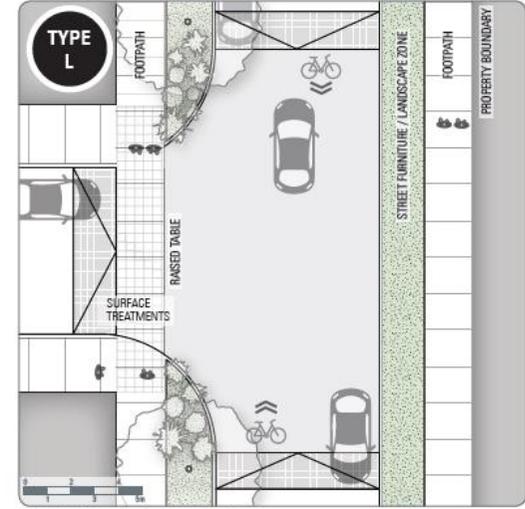
- Experience a volume of through traffic while retaining an important place role.
- Have a mix of adjacent land uses – from residential to retail and commercial.
- Link the wider regional road and public transport network with Cremorne (via Church and Swan St) and have potential to accommodate more intensive land use where they meet public transport corridors.
- In general, provide 2-way vehicle access (in particular streets east of Church linking to Brighton St)
- Provide access to future major development sites (ie Bryant and May) and larger lots (map p38 VPA Issues and Opps paper) and key development sites (map p48 VPA paper)

Treatments

- Improve street and public realm, incorporate traffic calming to address areas of perceived high speed or safety concerns, implement pedestrian standards and recognise range of users and role of access to public open space
- Provide entry treatments at intersections with local streets to identify link streets as higher movement priority, and discourage through traffic movement on local streets
- Incorporate opportunities to improve links to open space to the east, west and south, through wayfinding, street design, and potential new crossing of Punt Rd at Kelso St signals.
- Potential for shared spaces which retain access function but also improve pedestrian and place environment
- Incorporate wayfinding and street planting into a modified cross section



Typical Plan of perpendicular intersection treatment



Typical Plan of alternative raised intersection treatment

3 - Local Streets

<p>Function and Priority</p>	<p>The Local Streets network is the lowest priority for change. The intent is to minimise disruption to the existing community within the Cremorne precinct while recognising that these streets:</p> <ul style="list-style-type: none"> ▪ perform an important role for local community in terms of access, on-street parking, street activity and social interaction ▪ often incorporate some green areas and tree cover ▪ have an important role in accommodating safe cycle access and movement into Cremorne through encouraging cycling activity on lower order access streets to minimise conflict with vehicle movement. <p>It is recognised that these streets will increasingly come under pressure to accommodate higher levels of on-street parking due to surrounding land use change and parking management practices must prioritise protection from overspill parking.</p>
<p>Description and Characteristics</p>	<p>This classification recognises the pockets of existing residential dwellings in the Cremorne Precinct, often in the form of low scale traditional workers cottages, which are recognised as having a higher place and local community focus. These streets:</p> <ul style="list-style-type: none"> ▪ Are local residential and mixed-use streets away from retail frontages ▪ Include the Neighbourhood Residential Zone and Heritage Overlay Areas ▪ Generally provide a road reserve of around 12 metres wide that incorporates on-street parking with narrow footpaths on both sides and in some cases including tree planting and narrow nature strips. ▪ Include the laneway networks which hold an important local pedestrian and property access role – often providing an alternate rear access.
<p>Design Treatment</p>	<p>Any treatment will need to enhance the local role, discourages through traffic and redistributes this traffic onto the movement network through:</p> <ul style="list-style-type: none"> ▪ Application of Streets for People principles to areas of lower change to encourage local streets that provide more than just an access or car-storage role. ▪ Incorporating 8-80 design principles that make streets accessible for all. ▪ Retaining existing cross sections and on-street parking with improved/upgraded entry point treatments to slow traffic, discourage through movement and create an awareness of a changed priority environment at intersections with the movement network. ▪ Extending Local Area Traffic Management measures to minimise through traffic and slow vehicle speeds. ▪ Providing for safer cycle access through addressing other road user behaviour.

4 – Walking and Cycling Network

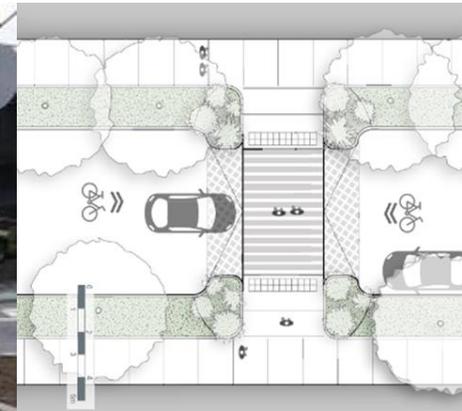
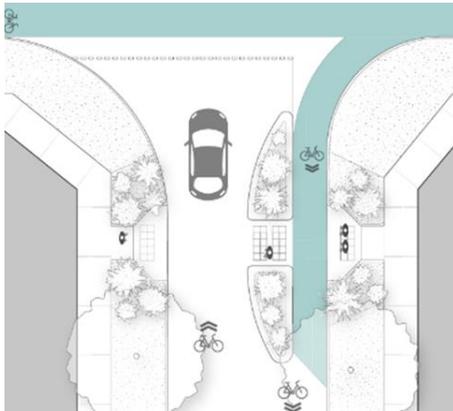
<p>Function</p>	<p>The Walking and Cycling network will provide a network of safe access routes for active transport users to/from and through Cremorne.</p> <p>Thee Walking and Cycling priority streets seek to identify a safe travel network and approach to delivering a range of community benefits, through:</p> <ul style="list-style-type: none"> ▪ separating key vehicle routes from walking, cycling and place functions - there is an opportunity to improve safety, efficiency and access for all road users. ▪ provide an all-ages, all-abilities cycling access through a nominated network of bicycle paths to Cremorne which connect to existing key routes, nodes and arterial roads. ▪ providing a range of options for pedestrian access and opportunities for improved permeability – ie through private development sites. <p>There is some crossover in the classification of these streets with other classifications (ie Movement). The network includes streets with limited rear access that still require street front access for servicing etc, which may generate some conflict with a pedestrian priority role.</p>
<p>Description and Characteristics</p>	<p>These are the streets that will be required to (and are capable of) accommodating a large proportion of the increase in pedestrian trip demand. The identified network:</p> <ul style="list-style-type: none"> ▪ Provides a range of pathways for safe, direct pedestrian and cycle access, incorporating routes of lower traffic volumes and speeds to act as alternates to movement priority streets. ▪ Recognises pathways that provide regional connectivity and cycle catchment access to/from Cremorne – N/S and E/W linkages including the Capital City Trail and Main Yarra Trail, the proposed Strategic Cycle Corridor network and open space areas (such as Goschs Paddock) to the east and west. ▪ Does not necessarily prioritise or accommodate cyclists without an origin or destination in the precinct (through traffic) but focuses on access within Cremorne and providing route choice and permeability for walking and cycling. ▪ Forms the basis of a recreational walking network for employees and residents for use at any time of the day or night. ▪ Provides priority to walking and cycling within the road user hierarchy, while recognising other roles played by streets on this network – such as servicing and residential access. ▪ Overlaps with the Movement network and key precinct Gateways.
<p>Design Treatment</p>	<p>A high standard walking or cycling network is dependent on both the physical quality and connectivity of pathways.</p> <p>The identified areas have varying standards of walking and cycling infrastructure, and the intention of designating as a priority network is to guide Council investment and ensure a consistent high standard of infrastructure is provided where it is needed most.</p>

An important consideration is avoiding conflict between vehicles travelling through and to/from the precinct and pedestrians and cyclists. This includes discouraging vehicles from circulating in areas of high pedestrian activity, while providing for precinct function and recognising vehicle access and local servicing requirements.

It is recommended that the design of pedestrian priority streets is guided by industry best practice included in the NACTO Urban Street Design Guide and Pedestrian Oriented Design guidance (as set out in Section 2).

The intent of these priority treatments is providing the highest level of service for walking and cycling, which will include consideration of design factors such as:

- Sufficient footpath width to avoid overcrowding
- Safe street crossings and avoiding conflict with other travel modes
- High quality cycle infrastructure providing separation on key movement corridors and safe access paths to/from and through the precinct
- Direct paths located on pedestrian desire lines
- Pedestrian paths free of obstacles (such as advertising signage, street furniture, rubbish bins)
- Pathways which meet DDA (1992) standards incorporating 8-80 design principles
- Measures to address perceptions of safety, including clear sightlines, lighting, active surveillance and active frontages
- Incorporating wayfinding and placemaking initiatives and areas of interest on the network.
- Consolidation of street furniture and poles to allow for more capacity on existing footpaths and strategic conversion of carparking/road space at key pinch points and nodes.
- Provision of on-street seating, shade, meeting points, lighting and tree planting.
- Expansion of shared spaces and initiatives such as Walnut St



5 – People Places

<p>Function and Priority</p>	<p>People Places are parts of the Cremorne street network that hold a higher place role and potential to function as gathering points, meeting areas, rest points and provide a sense of identity and place throughout Cremorne.</p> <p>The identification of people places in Cremorne can provide focal points for trial interventions or pilots for different approaches to delivering pedestrian and public space while still providing for vehicle access (as/when required). These sites may function in different ways across the day or evening to provide a high level of public amenity while still allowing access for servicing.</p> <p>People places should incorporate accessibility planning that considers how to design cities, neighbourhoods, places and spaces that can adapt to changing needs. Cities need to be inclusive, accommodating people with disabilities but also limited mobility.</p>
<p>Description and Characteristics</p>	<p>People Places are sites that:</p> <ul style="list-style-type: none"> ▪ are located at key pedestrian movement junctions ▪ experience a high pedestrian demand across all times of the day/evening ▪ often overlap with internal gateways – have a role to play in creating sense of place and entry point ▪ may be considered as meeting points, areas of higher value interface with private development, that have higher perception of safety through encouraging activity and DDA compliant access for all ▪ are adjacent to land uses that attract high pedestrian movement at all times of day and into the evening – such as public transport facilities, entertainment areas ▪ may have been subject to investment by Council to provide attractive existing open space and greening ▪ have often been subject to community engagement and input around future use and design. <p>It is noted that 0.8% of the Cremorne Precinct is zoned for public open space (Public Park and Recreation Zone) and 11.4% is zoned for and community use (Public Use Zone), which is the Kangan Institute.</p>
<p>Treatments</p>	<p>Design treatment will focus on streetscape improvement through:</p> <ul style="list-style-type: none"> ▪ providing street seating, shade, meeting points, lighting and tree planting around high change areas and redevelopment sites. ▪ promoting and encouraging ground level links through new development sites and opportunities for seamless integration of the public and private realms ▪ designing spaces to be inclusive, accessible and provide a range of experiences and attractors for all members of the community. ▪ advocate for developments to provide public realm benefits along building edge (e.g. setback, integrated seating, landscaping), to take pressure off the streets to perform this role



Figure 4 – Treatment Options - example images



ATTACHMENT 2 – Issues and Opportunities Analysis



Cremorne Streets and Movement Strategy

Issues and Opportunities Analysis - DRAFT

Martyn Group and Hansen Partnership

Contents

1. Study Context.....	1
2. Existing Studies and Policy Guidance	3
3. Issues and Opportunities	6
3.1. Integrated Transport and Land Use Planning	6
3.2. Access and Movement.....	6
3.3. Walking and Cycling.....	13
3.4. Public transport.....	15
3.5. Parking.....	17
3.6. Streets and Public Realm	19
4. Summary	21
5. Next Steps	23

1. Study Context

What is the Cremorne Streets and Movement Strategy?

This paper summarises issues and opportunities with the aim of informing and guiding a joint State Government and Council strategy of integrated actions that will ensure the Cremorne Precinct continues to be an employment location of choice into the future.

Following a snapshot of the Cremorne Precinct, the paper outlines the issues and opportunities for Cremorne covering Access and Movement.

What is the Cremorne Precinct?

The Cremorne Precinct is principally an employment precinct with pockets of residential development. After being touted for urban renewal and redevelopment for major housing development less than 5 years ago, it is now of location of choice for highly creative and innovative businesses and edgy start-ups, particularly in tech, finance and creative sectors.

The Cremorne Precinct is generally considered to be bounded by Swan Street, Brighton Street, Punt Road and the Yarra River.

It comprises land zoned for commercial uses and occupied predominantly by a range of tech, finance and advanced manufacturing businesses. On the southern side of Swan Street and along Church Street the business mix is focussed on entertainment and retail with a strong furniture and homewares flavour along Church Street.

There are pockets of residential zoned land comprising largely heritage terraced housing immediately east of Punt Road, east of the train line and around Dover Street. In the south west and south east corners, adjoining the Yarra River, there are recently constructed and planned mixed use developments which are adding to the mix of employment, housing and entertainment offer in the precinct.

The precinct is close, though currently poorly connected, to major infrastructure and community assets that provide businesses and employees with ready access to a high-quality transport, retail and entertainment offer. To the north is Richmond train station, and an array of entertainment options and local services for employees in the Swan Street Activity Centre. To the west is the open space and the sporting precinct of Melbourne Park. To the south is the Yarra River and capital city trail with South Yarra Station, the Botanical Gardens and the entertainment and retail offering of Chapel Street beyond.

Within the precinct, there is a small but growing offer of cafes, bars and restaurants, and new businesses are bringing shared workspaces and communal spaces that are accessible to the broader business community.

The designation of Cremorne as an Enterprise Precinct acknowledges the areas emergence as Australia's premier destination for creative design, particularly in the tech and digital space. The Victorian State Government recognise that Cremorne is going through a profound period of

growth, reinforcing its industry specialisation and strategic potential, and supporting Melbourne’s economic development.

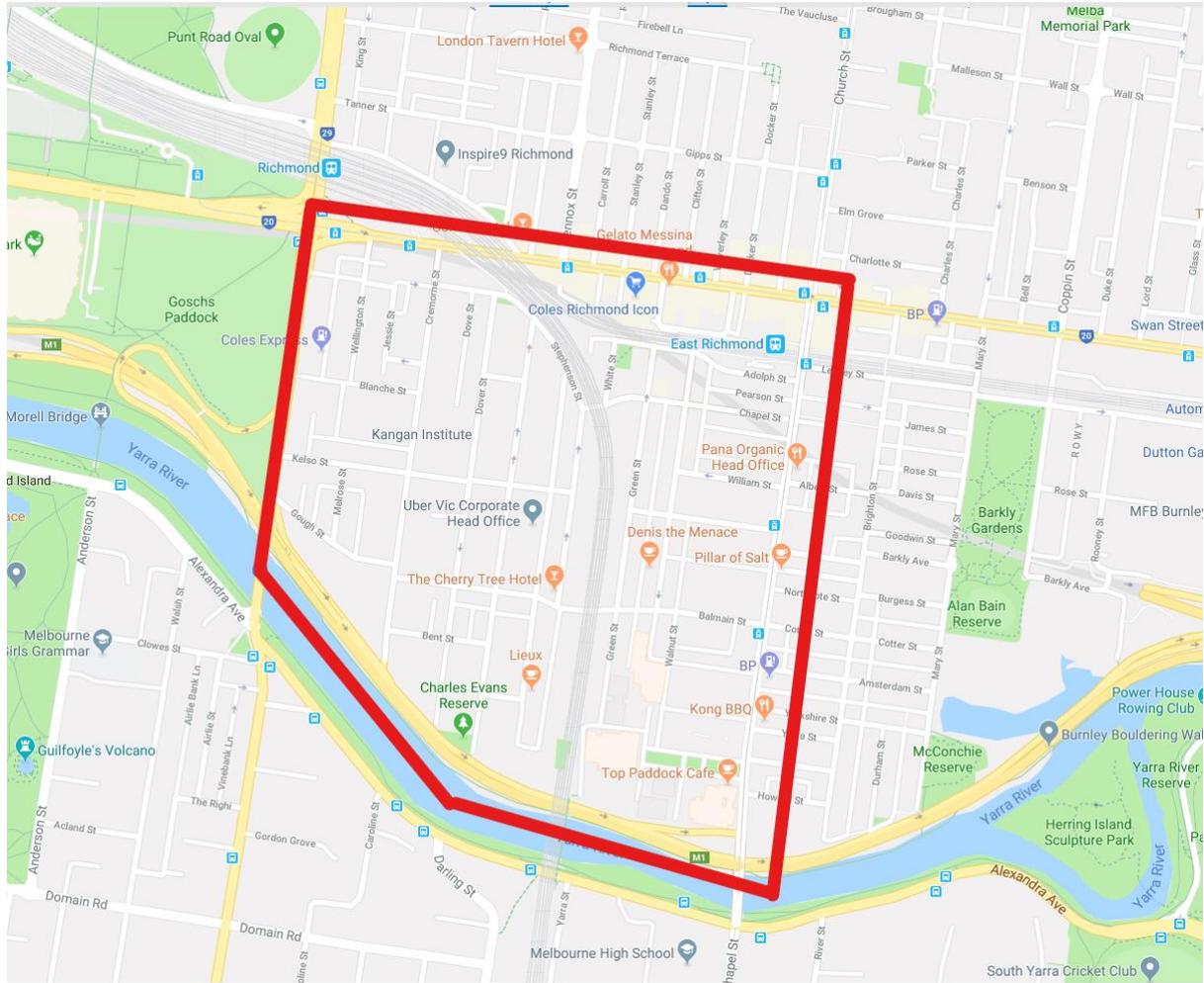


Figure 1 - Cremorne Precinct study area

2. Existing Studies and Policy Guidance

A range of investigations and planning documents have been prepared in recent years by Council and by others for differing purposes. These provide a sound and robust understanding of the issues and opportunities for the Cremorne Precinct. VCAT decisions and community consultation also provide vital insights to the issues and opportunities for the Cremorne Precinct.

Council Adopted Strategies

1. *Cremorne and Church Street Precinct Urban Design Framework, City of Yarra, 2007;*

This planning document adopted by Council was prepared to guide the future design and form of new buildings and public realm in the precinct.

2. *Spatial Economic and Employment Strategy, SGS Economics and Planning, 2018;*

This strategy outlines Council's strategic directions for delivering the employment projections for the City of Yarra over the next 15 years, focussing predominantly on future land and zoning requirements.

3. *Swan Street Structure Plan, David Lock Associates, 2014;*

This planning document provides a vision and a set of land use and built form directions for the Swan Street Activity Centre, the Cremorne Precinct and the Burnley Employment Precinct.

3. Issues and Opportunities

Presented below is a summary of the key issues and opportunities identified from background documentation review, investigations and analysis.

3.1. Integrated Transport and Land Use Planning

The ongoing intensification of land use and transition from lower density residential to mixed use commercial, office and higher density apartment living has a very strong impact on movement demand and travel behaviour. This transition and growth in demand on the transport and street network has implications on the level of accessibility for existing residents and those visiting for work or leisure, as well as standards of living for the future Cremorne community.

There are several large sites within Cremorne that are likely to be developed in the future. These sites could bring about significant change within their immediate vicinity and within the Cremorne Precinct more broadly, including provision of public open space, shared parking facilities and potentially other community infrastructure.

Cremorne has attributes and qualities that are proving to be highly appealing to a range of businesses of varying sizes with over 100,000sqm of development recently approved or under assessment (Office Study, 2018). This demand is anticipated to continue. The SEES (2018) identifies that there is potential for approximately 300,000 sqm of additional floorspace in Cremorne to 2031.

The Kangan Institute have a presence in Cremorne but there are no other public sector institutions present or contributing to the economic performance or diversity of the precinct.

It is anticipated that congestion will increase as development in and around Cremorne intensifies and traffic volumes on local roads increases. Investigations into the cumulative traffic impacts of development in Cremorne have found that traffic queuing and delays are likely at key intersections.

For Cremorne to develop in a sustainable way and successfully provide a transport network and public realm quality that can meet future travel demands and preferences, a greater emphasis must be placed on sustainable modes. As land uses intensify, the management of the movement network, including allocation of road space, must respond to keep pace with growing demand.

3.2. Access and Movement

Cremorne is well served by a range of transport options, including three train stations, two tram routes, pedestrian and cycling links, car share facilities and an extensive road network. Access to public transport is considered 'very good', and a high proportion of residents and workers in the study area use sustainable modes to travel to work. However, compared to other parts of

Yarra, there is marginally less walking and cycling, and more car use in the Cremorne suburb¹. Specific components of the road network experience congestion at peak times, and on-street car parking is generally fully occupied.

The most common mode of transport to work for people living in Cremorne is by private vehicle, as a driver. However, it is noted that the proportion of residents driving to work is significantly lower than for both Metropolitan Melbourne and City of Yarra (both 60%).

Mode of Transport	Trips from Cremorne	%
Car, as driver	452	46%
Train	214	22%
Walked only	173	17%
Bicycle	62	6%
Tram	10	1%
Other	82	8%

Figure 2 - ABS Journey to Work 2016 data - trips from Cremorne

The table below shows the statistics for employees travelling to Cremorne for work. Journey to work trips do not account for all trips but the measure is recognised as a reliable source for estimating trips during times of AM and PM peak demand.

Travel to work	Trips to Cremorne	%
Car, as driver	5,248	50%
Train	2,644	25%
Walked only	599	6%
Bicycle	400	4%
Tram	333	3%
Other	1369	13%

Figure 3 - ABS Journey to Work data 2016 - trips to Cremorne

The data indicates that while driving is the most popular mode of transport, alternate modes of transport make a substantial proportion of the travel to work trips (50%, employees coming into Cremorne and 54% of residents of Cremorne).

¹ ABS Travel to Work data identifies 39% of residents drive and 16% walk of residents in Cremorne compared to 34% drive and 18% walk

Walking is a component of all public transport journeys, and when these trips are combined with those in Walked only, 40% of all resident and 34% of all employee journeys to work involve walking within Cremorne.

The high percentage of non-car-based travel means that improvements to public and active transport connections within the precinct would benefit a high proportion of workers and residents and could support a greater mode shift away from cars.

Journey to Work Analysis

The ABS provide Journey to Work destination data at an SA2 level. For Cremorne, it is included in the Richmond SA2 area which also incorporates the suburbs of Richmond and Burnley. While there may be differences in travel behaviour between the areas that encompass Richmond SA2 (Burnley is likely to be more car oriented and Cremorne less so), it provides a high-level view of commuting patterns to the area. The Richmond SA2 area is shown in black, with Cremorne highlighted within it.

Figure 4 shows the location of car commuters to the Richmond SA2 area. The largest concentrations are found within the adjoining municipalities and within the City of Yarra itself. Boroondara had the highest number of car commuters with almost 2,000 vehicle trips into Richmond SA2 every day. This was followed by the City of Yarra with 1,429 car commutes.

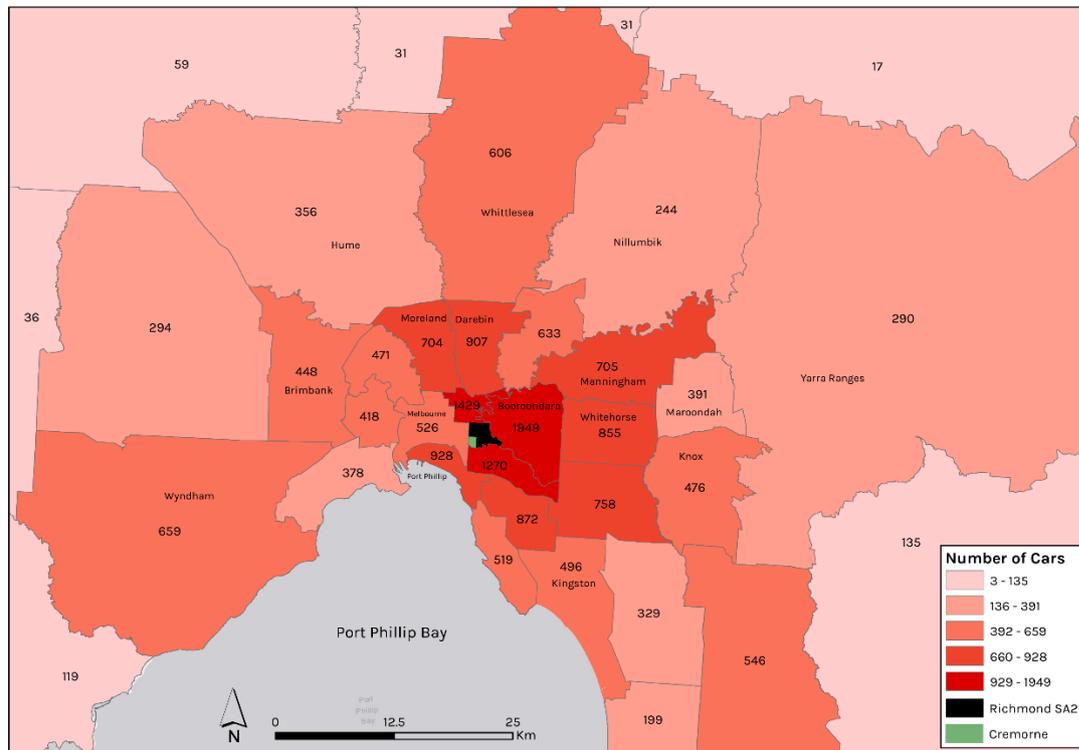


Figure 4 Richmond SA2 car commuters by LGA

Figure 5 shows the train commuting patterns for those who work in Richmond SA2. It shows that those who live along the Cranbourne, Pakenham, and Frankston corridors had high train commuting numbers, as does those coming from the City of Melbourne. Interestingly, Darebin

- All access to/from Punt Road is restricted to left-in / left-out only and there is only one exit on to the CityLink. There are multiple exits and entries to Church Street however access to Swan Street is limited to Cremorne Street because of the rail corridor. Access to Swan St from the north-western part of Cremorne has become further constrained with the addition of the tram super stop on Swan Street restricting access to left-in left-out only at Wellington Street.
- Congested and compromised pedestrian environments and high demand across all modes at constrained access points, including the intersection of Cremorne and Swan Streets, and the intersection of Balmain and Church Streets
- A relatively constrained street network that generally prioritises car traffic and parking, with limited space for pedestrians and dedicated cycle infrastructure;
- Low quality, limited public realm that affects the desirability of walking through perceptions of safety for pedestrians, particularly at night;

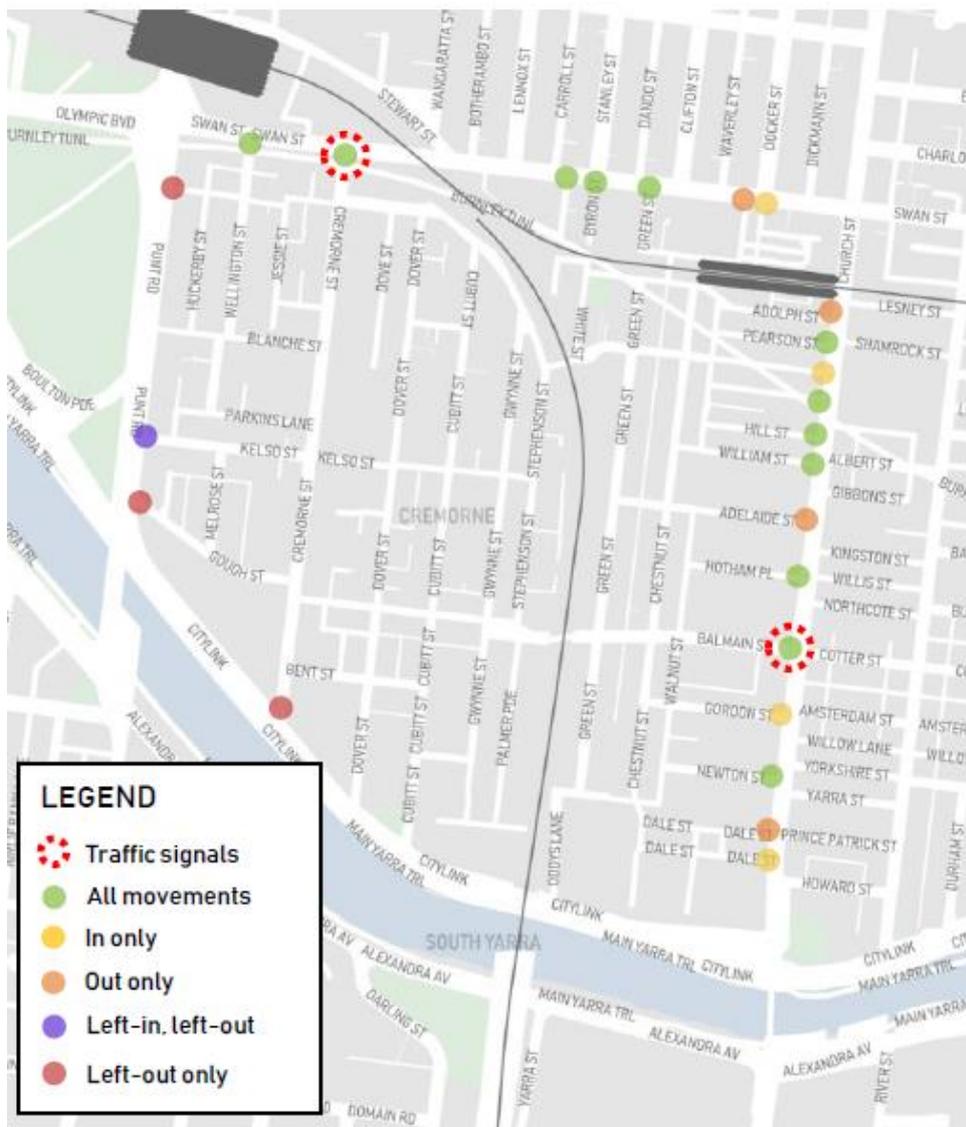


Figure 6 - Access to the arterial road network from Cremorne - GTA Consultants 2019

Internal traffic movement

The precinct is served by a relatively narrow and constrained street network. This street network must accommodate multiple, interacting functions including vehicle movements and servicing (including rubbish collection), cycle corridors, key pedestrian links and contribute to the public realm. Competition for space causes conflict between users, particularly at the intersections with major roads which form the gateways for precinct access.

Yarra City Council prepared a *Local Area Traffic Management (LATM) for Cremorne in 2013* and much of the works have now been completed, with the projects including traffic calming, one-way treatments, and changes to on-street car parking.

The current internal collector road route is Balmain Street and Cremorne Street. Daily traffic volumes on Cremorne Street and Balmain Street are in the order of 5,300 vehicles per day (vpd) and 4,500 vehicles per day respectively. These volumes are well below the typical two-way daily capacity of these roads which are in the order of 12,000 vehicles per day (based on Austroads Guide to Traffic management).

It is understood that delays exist to vehicles attempting to exit the precinct along Cremorne Street (to Swan Street), most specifically during the afternoon weekday peak hour. Travel time surveys have indicated a mix of results across the surveyed days with no delay being experienced at times and up to a maximum delay of 11 minutes at others. These delays could be the result of several factors:

- Capacity of the signalised intersection at Cremorne and Swan Streets
- Pedestrian volumes crossing Swan Street (walking to the Richmond Station) limiting the ability for vehicles to turn left out of Cremorne Street
- Queuing of traffic along Swan Street back from Punt Road, limiting ability for vehicles to turn left out of Cremorne Street.

Other streets, which exceed a traffic volume of 1,000 vpd are Gough Street (1700vpd) and Kelso Street (1,900vpd) to the west of Cremorne Street. These local streets provide access to Punt Road. The remainder of the streets were less than 1,000vpd. Due to the constrained nature of access from within the precinct, and lower demand driven by established residential land use, the streets north of Kelso St were found to have typically low volumes of traffic (<300vpd) in comparison to the remainder of the precinct.



Figure 7 - Average Vehicles Per Weekday - GTA Consultants 2019

Through traffic

There is a perception that rat running (where drivers use side streets or short cuts to avoid congestion on main roads) occurs through Cremorne. Origin-Destination analysis of traffic data suggests that the key access routes, such as Cremorne, Balmain, Kelso and Gough Streets, accommodate a level of through traffic which may affect the capacity and function of the network for local traffic. This has implications for the level of amenity for those living and working in Cremorne, particularly as it is an area where development is occurring and desired. The table below sets out surveyed data recorded by GTA Consultants on 23, 27, 28 March 2019.

Through Route	Survey period	Number of vehicles per hour	% of vehicles	Comment
Church St to Punt Road (via	Weekday AM	14	34	A majority of vehicles undertaking this movement did so using Balmain Street and Gough Street. Kelso Street was also used to
	Weekday PM	6	18	

Balmain St and Gough St)	Saturday	15	41	a minor extent to access Punt Road (from Church Street) in preference to Gough Street.
Church St to Swan St (via Balmain St and Cremorne St north)	Weekday AM	29	17	A majority of vehicles undertaking this movement (80%) did so using solely the collector roads Balmain Street and Cremorne Street. The main alternate route used is Stephenson Street (11%).
	Weekday PM	32	9	
	Saturday	66	25	
Church St to CityLink (via Balmain St and Cremorne St south)	Weekday AM	45	34	
	Weekday PM	10	6	
	Saturday	24	28	
Swan St to CityLink (via Cremorne St)	Weekday AM	26	18	
	Weekday PM	16	9	
	Saturday	22	25	

Vehicle Speed

Traffic speed data suggested that 85% of vehicles surveyed travel at or below the posted speed limit of 40km/hr. On this basis, vehicle speeds may not usually be considered an issue within the study area. However, the narrow street network and proximity of pedestrians and cyclists to moving traffic can create a perception that vehicle speed creates safety risks within the precinct and extensive work has been undertaken in the past to limit vehicle speed.

This perception of safety is an important consideration in encouraging more walking and cycling within Cremorne and may indicate an opportunity to identify key walking and cycling corridors where greater separation from through traffic is possible.

3.3. Walking and Cycling

Over 35% of workers in the precinct walk (as part of a public transport trip or by walking only) or cycle to work. Cremorne's compact urban form and proximity to regional attractors such as the CBD, Richmond, Collingwood and South Yarra enables shorter travel distances and is conducive to active modes of transport. Much of Cremorne's population can access day to-day goods and services, within a short walk or cycle. However, the increasing resident and worker population is putting pressure on the narrow, established road network in Cremorne and implementing physical measures to improve walking and cycling is difficult given the fine grain subdivision pattern and narrow road reserves.

The existing street space management approach prioritises the provision of on-street parking over wider footpaths and opportunities for public open space.

There are bike sharrows (pavement markings used to indicate a shared environment for bicycles and motor vehicles) along Cremorne Street and Balmain Street, however the existing on-road informal bicycle routes have little protection for cyclists. This is further compounded by volume of vehicles (light and heavy) and narrow street widths.

Pedestrian footpaths exist in all streets within the precinct however often in many cases they are provided for on one side of the street only, are non-DDA compliant, narrow and often obstructed by utilities infrastructure, landscaping or rubbish bins.

Opportunities

There is an opportunity to work to identify and implement a pedestrian priority network within Cremorne which incorporates an enhanced level of service for walking measures such as:

- updated street cross section providing more pedestrian space (potentially through development setbacks)
- high quality, DDA compliant footpaths with safe, dedicated crossing points on desire lines
- increasing perceptions of safety through lighting, opportunities for active and passive surveillance and minimising conflict between pedestrians and other transport users
- incorporation of '8-80 design' principles which ensure the pedestrian network is accessible to all
- improved public realm, including pause points incorporating facilities such as seating and shade
- Implement wayfinding strategies including directional signage to stations and 'real-time' travel information

A pedestrian priority network could potentially include Balmain Street and Cremorne Street, with Blanche Street, Church Street, Green Street, Gwynne Street, Hardcourt Parade, Kelso Street and Palmer Street included to supplement these north-south and east-west spines.

The designation of a pedestrian priority network provides further opportunity to:

- improve pedestrian and cycle connections to regional community infrastructure and open space such as the Yarra River corridor and Gosch's Paddock.
- enhanced pedestrian safety and access between Richmond station/Swan Street and the Melbourne Sports and Entertainment Precinct, Melbourne Cricket Ground, the CBD and elsewhere
- Identify opportunities to work with developers to establish publicly accessible links through sites, particularly larger strategic redevelopment sites

There is an opportunity to better connect Cremorne with the surrounding on and off-street cycle corridors as well as providing more effective links through the precinct. A similar approach to identifying and prioritising pedestrian pathways can be taken with cycle access planning, to provide safe, dedicated routes that, where possible minimise conflict between cyclists and other modes of transport (including pedestrian). Such a cycling network would be designed to:

- Improve access to the Capital City Trail and strategic cycle corridors including the Main Yarra Trail to both the east and west
- Recognise Church Street as an important North – South regional and local connector, consistent with the State Strategic Cycle Corridor planning
- Provide dedicated cycle facilities or infrastructure on key links, but provide safe cycle environments across the street network, particularly on low speed, one-way traffic streets which may provide a local access function
- Recognise that cycle uptake and growth in modeshare is driver by perceptions of safety, comfort and consistent facilities for cyclists. Cycle networks are only as good as the weakest link and are often let down by lack of priority or provision for cyclists at conflict points, such as intersections, around public transport hubs and on arterial road corridors.

3.4. Public transport

Like much of the inner urban area of Melbourne, Cremorne is well serviced by public transport. The entire study area meets generally accepted pedestrian catchment standards for good access to public transport, which are: 800m (or approximately 10mins) walk to a train station, 600m to a tram or light rail stop, and 400m (or 5 mins walk) to a bus stop. This is reflected in a SNAMUTS accessibility rating of average to very good for the precinct.

Train

The entire Cremorne precinct is within an 800m pedestrian catchment of four stations- Richmond, East Richmond, Burnley and South Yarra (via the pedestrian link across the existing Yarra rail bridge). The Richmond Station comprises the main gateway to the city from the east and south east, and is serviced by eight train lines:

- Lilydale Line
- Alamein Line
- Belgrave Line
- Glen Waverley Line
- Sandringham Line
- Frankston Line
- Cranbourne Line
- Pakenham Line

The East Richmond and Burnley Stations are serviced by the Lilydale – Glen Waverly group of services, and South Yarra Station by the Sandringham- Pakenham group.

These services provide excellent access to the Cremorne precinct for population catchments in Melbourne's east and south-east and into the CBD. It is noted that the proposed Melbourne Metro project will alter the number of train lines servicing Richmond Station from the south-east, with the Cranbourne and Pakenham lines being diverted through the new tunnel to run directly to the city via Domain. However, it is not expected that access into the city for Cremorne residents will be affected by the project.

VLine regional trains on the Traralgon Line stop at Richmond Station, providing a link to catchments beyond the Metropolitan Rail network.

Tram

The area is serviced by two tram lines:

- Route 70 – Waterfront City Docklands to Wattle Park which operates along Swan St at a 15min frequency in peak hour. Route 70 has 5.4m passenger boardings per annum which ranks it 18th busiest out of 23 Melbourne tram routes.
- Route 78 – North Richmond – Balaclava via Prahran which operates along Church Street at a 10min frequency in peak hour. Route 78 has 2.4m boardings pa which ranks it 21st busiest out of 23 Melbourne tram routes².

Bus

Two bus services operate in the area:

- Route 605 - Gardenville to City via Kooyong Road which travels along Alexandra Avenue and Punt Road
- Route 246 – Elsternwick to Clifton Hill via St Kilda which travels along Punt Road

Richmond Station, East Richmond Station and route 78 tram stops are not currently DDA (1992) compliant and hold potential for accessibility, amenity, urban design and reliability improvements. Richmond Station is of regional significance as a major transport interchange, and while the station has connecting bus and tram services, and basic customer facilities, it does not have lift to access to the platforms nor secure bicycle parking.

East Richmond station, located in the north eastern corner of the precinct, is not staffed and does not have secure bicycle parking. Alamein, Belgrave and Lilydale services generally do not stop at East Richmond Station, even for services that 'stop all stations'. Adding East Richmond to limited express Alamein, Belgrave and Lilydale services would improve public transport access to the eastern half of Cremorne for those who live in the eastern suburbs of Melbourne.

While the existing public transport infrastructure requires improvement to meet DDA standards and to ensure it is fit for purpose, the proximity to Richmond Station is a major drawcard for employers and driver of commercial land use development within Cremorne. Accessibility to the area from large residential populations to the South-East, East and from the CBD is very strong.

Linkages to the north by public transport are not as effective, although the existing 246 bus services along Punt Rd linking to Clifton Hill and St Kilda provide access options for residents and visitors to the area. Linking the public transport services that surround Cremorne more effectively with key land uses and activity areas is an important consideration for access planning.

² Add tram reference

Pedestrian connection to South Yarra Station across the Yarra River is poor. It is via a bridge crossing at Oddy's Lane which is hidden, not Disability Discrimination Act 1992 compliant and does not provide easy access for cyclists.

Public transport options in and around Cremorne are strong drivers of pedestrian activity and need to be connected to high quality, safe pedestrian pathways that provide access throughout the precinct. It is important to note that all public transport trips have a walking component, so improvements to pedestrian facilities can make both these modes of sustainable transport more attractive.

Opportunities

There are a range of opportunities to improve public transport infrastructure and services to/from and within the study area. However, it is also recognised that the focus of this study is on identifying actions or investment that can be led by Council and ensure the most efficient use of existing facilities to provide for current and future transport demand. The opportunities relating to Public Transport are therefore focussed on providing safe, high quality access routes to and from services and stations, and public realm improvements around these hubs to improve the travel experience and attractiveness of this key transport mode. As such the opportunities closely relate to, and are reliant on pedestrian network and public realm opportunities also recognised in this document, including:

- Improvements to the existing pedestrian underpass connections through rail corridors at Balmain Street, Dunn Street and Green Street
- Improvements to connectivity to Richmond and East Richmond station from the local street network, including opportunities to create more pedestrian space, increased user safety and public realm around these high pedestrian demand facilities
- Improvements to tram and bus services by introducing on-road priority measures and public realm improvements around stops
- Improve access routes to the pedestrian bridge attached to the rail structure across the Yarra River and investigate opportunities to better provide for cycle access

3.5. Parking

Off-street

The *Yarra Planning Scheme parking rates review* (Traffix 2017) found that the off-street car parking requirements in Clause 52.06 in the Yarra Planning Scheme for new developments do not reflect Cremorne's inner-city location well served by public transport or the market demand for parking in this location. The parking rates were considered to not reflect constraints and characteristics of Cremorne leading to a congested street environment, poor built form outcomes and lengthy planning approval processes as waivers are sought for parking rates. Many of the lots zoned C2Z within the precinct are not able to accommodate current parking demand or rates prescribed under the planning scheme, and imposition of these rates would result in poor outcomes for local amenity and the walking and cycling environment

There is significant policy support for moving away from a “predict and provide” approach to car parking and accordingly the rates set for residential parking provision can be “aspirational”, and therefore lower than the existing ownership rates. It is noted that several applications that have been the subject of appeal at VCAT have included a reduction in car parking rates. In their decisions VCAT were supportive of reduced parking requirements.

While residential car ownership does not necessarily correlate directly to peak hour vehicle trips (as residents may choose to own a vehicle but only use it off-peak/on weekends), Yarra is well placed to cater to a high proportion of resident commuter trips via sustainable modes, and cater for the occasional off-peak trip via car sharing.

A reduced car parking provision rate for new dwellings within Cremorne would allow for reduced space to be taken up by parked vehicles, which may potentially have a positive impact on housing affordability and encourage greater sustainable transport use in the area.

On-Street

On-street short-term parking is in relatively short supply with competing demands between residents, businesses and other visitors to Cremorne. Site observations and surveys indicate that most on-street parking spaces are subject to high levels of occupancy during the day.

Most streets are adequately protected from all-day (resident) parking on-street, and new developments are not eligible for resident permits to park on-street. Accordingly, a reduced car parking provision on-site would directly correlate to reduced car ownership, in line with Council policy.

Opportunities

There is a need to ensure car parking is supplied and managed whilst also continuing to promote more sustainable transport modes in a highly constrained area.

However, there is a general lack of consensus regarding the best approach to accommodating and managing car parking in Cremorne which makes any proposal to change the existing status quo contentious and challenging to implement. From consultation on other projects there appears to be a growing disparity between expectations regarding parking availability and traffic conditions amongst some members of the community and what is realistic given its a confined urban precinct that is subject to development intensification.

There are a range of measures that have the potential to achieve objectives in relation to car parking in Cremorne that have been identified in past studies and analysis. These measures need to be investigated and tested with the community further to determine their feasibility, with a view to implementing in the short-medium term, and include:

- Restricted on-street parking on key streets, at intersections, on the pedestrian priority network or in areas of high movement demand

- Development of a consolidated off-street car parking facility – or better utilisation of existing built off-street capacity. Such a facility could be operated by a commercial partner.
- Utilisation of new off-street parking capacity for more than one land use – for example potential for office spaces to be used as precinct visitor parking after hours/on wknds.
- Redevelopment of existing open-air car parks with replacement parking spaces in multi-level structures below or contained within buildings for other activities
- Prioritisation of short-term bays for servicing, drop off etc on-street in high change areas
- Where sites are yet to develop, incorporate mandatory set-back (through negotiation with developers), to provide short term on-street parking, and retain or enhance pedestrian capacity.
- Application of technology and industry developments to identify methods of utilising space currently used for car parking more efficiently across a 24hr period. For example, for pedestrian or traffic movement at times of AM/PM peak demand, public realm or open space at off-peak during the day (including weekend), and visitor car parking in the evening or overnight.
- Greater utilisation and provision for car-share for both on and off-street spaces to encourage take up from new business, employees, residents and visitors to Cremorne.

3.6. Streets and Public Realm

There is a deficit in the provision of public open space in the Cremorne Precinct for both residents and workers. It is particularly not meeting the demands of workers and is detracting from the profile of the precinct. Streetscapes in Cremorne have low amenity, and feature poor lighting, obstacles on footpaths and negligible landscaping. On-street and off-street car parking dominates streetscapes at ground level. The public realm provides a particularly low amenity environment for pedestrians and cyclists.

It is recognised that there are limited opportunities to provide new public open space due to a lack of publicly owned land, limited number of large sites and the high land values. There are also physical barriers to accessing existing open spaces in Melbourne Park (Punt Road), the Yarra River (CityLink) and the Botanical Gardens (Yarra River). The amenity, appearance and usability of laneways varies limiting their functionality and detracting from the profile of the precinct.

There is also limited public or civic space and the amenity and appearance of the public realm around transport interchanges (including Richmond station) and under the train line is particularly low and detracts from the profile of the precinct.

Opportunities

There are opportunities to provide improved access to existing areas of public open space bordering the precinct, as well as contribute to creation of new or improved public realm through reallocation of space or priorities, through:

- Designing and improving public space to include lighting, seating and the removal of signage, cabling, power lines, poles and other obstacles. Whilst this has been suggested for Cremorne as a whole, Cremorne and Balmain Streets are identified as priorities.
- Improvements to the public realm and environment of Richmond Station
- Improvements to the design and environment of laneways and amenity and safety of pedestrian areas underneath railways
- Identifying preferred interface treatments to residential development, streets and laneways, and public open space.
- Identifying opportunities to convert on-street car parking more appropriate uses in high demand and high change areas – potentially in tandem with site planning permit processes.

4. Summary

The range of issues and opportunities identified in relation to Access and Movement in Cremorne have been well documented through extensive background reporting and analysis. The existing conditions and issues are illustrated in Figure 8, and can essentially be summarised in the following set of statements:

1. Cremorne is experiencing rapid land use change and intensification both within the precinct and in the surrounding inner urban area. This intensification is driven primarily by investment in commercial (office) and residential development.
2. Cremorne is in close proximity to Melbourne CBD and forms part of a busy inner-metropolitan urban environment, but in many ways effectively operates as an island due to the range of existing precinct access constraints and barriers to permeability
3. The precinct is well located in relation to public transport but is experiencing increasing and competing demands for space on a restricted and often congested street network. This demand is not spread evenly across all streets but focussed on 2-3 key links and gateways to the precinct, which constitute areas of very high activity, demand and conflict.
4. The barriers to movement and constrained street network make orientation and wayfinding through the precinct difficult for all transport users and visitors to the area.
5. Due to forecast growth in trip demand and minimal capacity for the network to accommodate more car movements, there is a need to improve and promote sustainable transport modes, focussing on pedestrian safety and level of service on the network.
6. While planning for sustainable transport priority on key corridors, provision also needs to be made to retain vehicle access throughout the precinct to support the needs and requirements of existing residents and businesses operating in the precinct.
7. There is limited access to open space and the existing public realm offers much potential for improvement. Due to a lack of large sites in public sector ownership, when considering planning permits for large privately held sites, built form controls that contribute to increased pedestrian or public space or precinct permeability through linkages through large sites can play an important role in realising access and movement objectives.
8. There are a range of possible measures to address car parking supply and demand within the precinct. Although changes to car parking are often contentious, there exists an opportunity within Cremorne to trial different approaches to off-street parking provision and management, and on-street use of space that can be more fully developed in the next stage of the study.
9. Careful consideration needs to be given to ensuring the liveability of Cremorne is protected for the existing community, while understanding how to influence the travel behaviour and provide a high quality and functional urban environment for future workers, residents and visitors to the precinct.

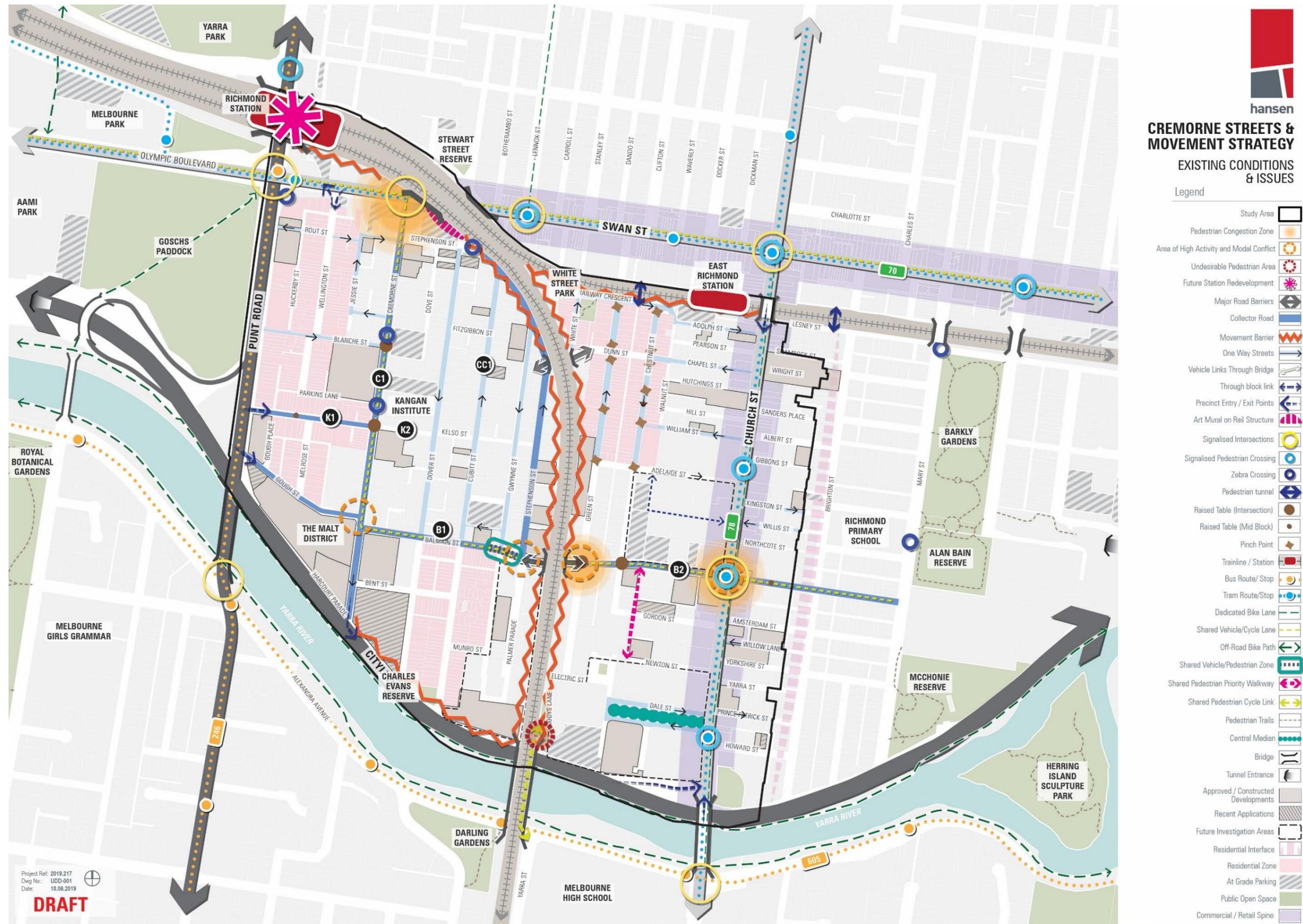


Figure 8 - Existing Condition and Issues Summary Map

5. Next Steps

Knowledge Gaps

A key challenge for transport planning any complex and changing precinct is in fully understanding and planning for future demand. What are the implications of different land use mixes, rates of development, on and off-street parking management and infrastructure priorities within, and beyond, the precinct? There is an understanding that the business mix of the Cremorne Precinct is evolving with a strong focus on tech and creative industries but there is limited accurate data on the business mix.

The design of a strong evidenced-based response to the issues and opportunities identified, which ensures all analysis and guidance provided to decision makers is well informed, would benefit from further investigations, data and analysis in the following areas:

- pedestrian analysis – volumes across the day/week on key routes, origin/destination data, observations on pedestrian safety, delay, conflict, and audits of network levels of service
- bicycle analysis – volumes across the day/week on key routes, propensity to cycle analysis
- land use change trip generation – post-occupancy travel demand and behaviour for large sites to gain an understanding of travel behaviour and actual trip patterns for new workers, residents and visitor travel behaviour
- relationship between car ownership and use for land use change within the precinct – and implications for off-street parking supply
- understanding PT usage, access and demand beyond just journey to work data set – origin to destination data, user profile and implications for Cremorne.
- Evidence or analysis of the most effective means of engaging with and balancing the needs of existing and future communities. Decisions made will affect and shape the experience of Cremorne for both existing and future residents and visitors.

Responding to Opportunities

The next steps in the Cremorne Streets and Movement Strategy will be identifying, justifying and testing the most appropriate response to the opportunities identified. This will include application of industry best practice and examples of approaches in similar urban environments to propose a set of principles to guide the response, and the approach that best suits the specific requirements of Cremorne.

This response will then be tested with the community and stakeholders through a consultation process to be led by the Victorian Planning Authority (VPA) in partnership with the City of Yarra.