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Pyrmont Peninsula Place-Based Transport Strategy

Strategy Report

Prepared for NSW Department of Planning Industry and Environment

Revision 3

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Pyrmont Peninsula Place-Based Transport Strategy

Strategy Report

NSW Department of Planning Industry and Environment

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Executive summary

This Place-Based Transport Strategy (PBTS) provides a high-level analysis of the strategic transport planning inputs intended to inform the Department of Planning, Infrastructure and Environment's (the Department) preparation of a draft Pymont Peninsula Place Strategy. The Draft PBTS describes the critical policy, movement and place-based outcomes required to ensure the draft Pymont Peninsula Place Strategy is supported by transport infrastructure serving both Pymont Peninsula and its surrounding context. The Draft PBTS is underpinned by Movement and Place Framework (MPF) principles and describes an integrated approach to the planning of movement networks and successful places.

The transport strategy detailed in this report is intended to respond to development within the Pymont Peninsula over the next 20 years and reflects a defined vision for the peninsula (as outlined in the draft Pymont Place Strategy). It is designed to accommodate a robust range of possible development outcomes in terms of population and employment forecasts and transport infrastructure interventions that could support these planning outcomes (such as Sydney Metro West).

In order to facilitate the successful implementation of the vision for Pymont Peninsula, the NSW Department of Planning, Industry and Environment (the Department) have identified the following study objectives of the Pymont Peninsula PBTS are to:

- Understand the existing limitations and constraints of the study area
- Support the development of the draft Place Strategy and identify opportunities for supporting changes as a result of development and other infrastructure delivery
- Identify potential options for streets into the future and associated cross-sections that cater for a variety of modes over time.
- Consider the implications of a Sydney Metro Station at Pymont
- Develop strategies for all modes that deliver an integrated, connected, efficient and safe transport network that addresses existing challenges and opportunities, and supports new development
- Support a mobility network that accommodates and promotes new and emerging technologies, identifies potential technologies and future-proofs the draft Pymont Peninsula Place Strategy
- Provide strategic direction and context together with the necessary evidence-base and technical assessment components to inform and deliver changes in land use planning controls at the sub-precinct and major site-scale
- Contribute to the development of indicative street layouts aligned with Movement and Place.

Regional and metropolitan context

Review of the currently planned transport and land use initiatives surrounding the Pymont Peninsula shows that while there are numerous projects that will affect transport in the Pymont Peninsula, there are conflicting priorities between these initiatives and strategic alignment of these priorities is required to resolve the following:

- Completion of the WestConnex program through M4-M5 Link and Rozelle interchange, along with the proposed Western Harbour Tunnel provides alternative routes for regional traffic that travels through the Pymont Peninsula, potentially freeing up space on surface streets.
- Road network planning for key state roads through the Pymont Peninsula has identified Harris Street and Wattle Street as corridors that could be modified to a lower traffic function

and higher active or public transport function in concert with increased regional traffic capacity offered by surrounding motorway projects.

- A new metro station at Pymont would substantially increase the 30-minute travel catchment of the Pymont Peninsula for both workers and residents, allowing for public transport access to the Pymont Peninsula from as far west as Parramatta. This would support the key industries in the Pymont Peninsula including media, communications and technology that benefit from access to large labour markets, strengthening the Harbour City Innovation Corridor between Bays precinct and Redfern.
- The City of Sydney City Plan 2036 identifies three distinct centres along Harris Street at Union Square, William Henry Street and Broadway that are currently not well-connected. These centres would benefit from better transport connections along Harris Street that would link these centres and provide better access to other centres along the Harbour City Innovation Corridor.
- There are gaps in the existing active transport network that are limiting active transport access to the south and the west that could be resolved through a combination of new active transport connections at Glebe Island Bridge and the Goods Line at Central and the Museum of Applied Arts and Sciences.

Future transport demands

There are numerous notable land-uses and activity hubs that will influence the future transport demand that the Pymont Peninsula would need to serve. These include:

- **Urban centres** – The Sydney CBD and Redfern provide major trip generating ‘anchors’ to the south and east of the Pymont Peninsula. Along with new employment in the planned Bays precinct to the west, Pymont Peninsula sits in the middle of the Harbour City Innovation Corridor.
- **Education precincts** – UTS and, Sydney TAFE and numerous language colleges and their associated activities will result in a significant and diverse customer market for Pymont Peninsula residents, particularly at the southern end.
- **Emerging creative, technology and innovation economy sector** – The area encompassing parts of Eveleigh, Alexandria, Australian Technology Park and Surry Hills is the focus of Sydney’s emerging creative, technology and innovation economy sector. This sector is bringing a range of opportunities that are yet to be fully understood. Based on precedents in other global cities, these opportunities will rely on excellent public transport access to facilitate connectivity to engage in collaboration in economic, social and cultural activities.
- **Major multimodal transport hubs** – Central station, Railway Square, Town Hall Station (and their associated public transport interchanges) offer strong opportunities for customers to transfer onto transport services in order to access the catchments it would serve, however all these major hubs are outside of easy walking distance of the Pymont Peninsula, highlighting the need for Pymont Peninsula to develop as a transport hub in its own right. A new heavy rail station at Pymont as part of Sydney Metro West would provide the catalyst for this transport hub, allowing for further development of the public and active transport network around this station, improving access to and from Pymont by these modes.
- **Tourist attractions** – Pymont hosts tourist attractions of global significance including The Star Casino and International Convention Centre along with attractions of state significance including Darling Harbour, Australian National Maritime Museum, Museum of Applied Arts and Sciences and Sydney Fish Market. Public transport access to these attractions is critical to the growth of the tourism and entertainment sector in the Pymont Peninsula.

The features of the transport market within, along and around the Pymont Peninsula will result in a travel demand that can be characterised as:

- **Rich and complex** – involving many trip types and purposes and different customers (including commuters, visitors, tourists) – much more diverse than the basic commuter task between outlying ‘dormitory suburbs’ and employment centres.
- **All day, all week** – serving a stronger, more consistent demand over a longer day (and into the night), all week (including weekends), rather than serving a demand only focussed on the AM and PM commuter peaks on week days.
- **Strong potential for higher public transport and active transport mode share** – the intensity and diversity of a mix of land uses use, coupled with short trip distances and constrained parking supply all lead to strong potential for public transport use. It is the highly constrained parking supply along the proposed route that will result in elevated trip densities throughout the day and evening.

Overall, the travel demand associated with the Pymont Peninsula indicates a very strong potential for a well-used, highly-valued, and a high value public transport and active transport infrastructure with a low reliance on private vehicles. Gross residential densities of **150–200 persons per hectare** are considered sufficient to support viable high-order public transport services such as Sydney Metro West. Current residential densities in the Pymont Peninsula are around 110 persons per hectare, and forecast to increase to 180–210 persons per hectare in the future; when combined with even higher employment population, this puts Pymont Peninsula at the higher end of the envelope of densities that would justify investment in high-quality public transport.

Current constraints

Review of the transport network including road, public transport and active transport network identified the following key constraints in the transport network that represent significant challenges to overcome in planning for future development within the Pymont Peninsula:

- **Reduction of traffic lanes through the Pymont Peninsula** will discourage through traffic, however it may also result in more difficult access to the Pymont Peninsula for local residents and workers.
- **Direct access to local roads from the Western Distributor** means that congestion and delays on local streets such as Pymont Bridge Road, Allen Street and Harris Street can result in substantial queues on the motorway network, compromising its function as a high-mobility corridor.
- **Access to the regional road network for trucks and service vehicles** is limited, with load limits on most local streets and some motorway ramps constrained by geometry for truck access.
- **Traffic congestion** is currently an issue for other modes that use the road network, in particular buses. While downgrading roads through the Pymont Peninsula may discourage through trips due to increased travel times, increased delays may also further affect the reliability of buses and constrain the use of other intermediate public transport modes in the future.
- **Expansion and redevelopment of the Sydney Fish Market** is likely to generate substantial additional traffic demand during peak periods and weekends, putting more pressure on the intersection of Pymont Bridge Road and Western Distributor.
- **Limited access to heavy rail**, particularly north of the Western Distributor. Only the southern half of the Pymont Peninsula is within walking distance of Central station, while the northern

half is over one kilometre from either Central station or Town Hall station, limiting the capacity for travel to and from the Pymont Peninsula by public transport.

- **Power supply and rolling stock constrains the existing Inner West Light Rail** services to the current peak service frequency as existing the existing fleet would need to be expanded with additional rolling stick and electricity substations upgraded to power additional light rail vehicles during peak periods.
- **Existing bus services experience high delays** at a number of key locations in the Pymont Peninsula including the intersection of Pymont Bridge Road and Western Distributor and Harris Street at Fig Street. Similarly, constraints exist further afield of the Pymont Peninsula, along Pymont Bridge Road and within the Sydney CBD on Druiitt Street that affect the travel time reliability of existing or potential bus services.
- **Challenging local topography** with a steep ridge-line running north-south along the peninsula that creates barriers for walking east-west across Harris Street.
- **Busy high-traffic intersections** on Harris Street at Fig Street, Ultimo Road and Broadway that create barriers for walking north-south along the peninsula to key light rail and heavy rail stops. Long wait times and high traffic volumes significantly increase walk times along this corridor.
- **Circuitous access to the Bays Precinct** via Anzac Bridge directs pedestrians and cyclists across primarily vehicular corridor that is not well-suited to active transport due to poor amenity and proximity to traffic.
- **Lack of access to Blackwattle Bay foreshore** due to Sydney Fish Market and other industrial foreshore development limits access to the rest of the Pymont foreshore from Wentworth Park and the inner west.
- **Limited access from Harbourside** due to level differences and light rail alignment along Darling Drive
- **Limited heavy vehicle routes** within the Pymont Peninsula restrict the access for heavy vehicles including coaches. Any changes to access to and from Western Distributor or downgrading and closing of roads will need to consider the impacts of these network changes on heavy vehicle routes.
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- **Minimal capacity for additional parking** within the Pymont Peninsula on-street and off-street means that that as development and travel demand increases in the Pymont Peninsula, even at the existing low rates of private vehicle travel, parking demand will continue to increase.

The key challenges and outcomes that have been identified through the process of developing this strategy are shown below. These challenges and outcomes have been developed in conjunction with the land-use and built-form analysis undertaken as part of the draft Pymont Peninsula Place Strategy and informs the infrastructure needs identified within it.

Key Challenges

1. Improving poor access to high-quality public transport
2. Maintaining and protecting unique character of Pymont Peninsula
3. Supporting strong demand for employment growth
4. Improving safety and connectivity for cycling
5. Improving access to public spaces and public transport for pedestrians
6. Reducing through-traffic, parking and reliance of private vehicles

Initiatives

Outcomes

- A. Provide a metro station to access regional transport network and intermediate transit corridor to connect Innovation Corridor
- B. Strengthen interface between open space and foreshore by improving public domain and active transport network and focus new development around heavy rail
- C. Increase 30-minute catchment for workers and residents of Pymont Peninsula
- D. Deliver missing links in regional and local cycle infrastructure
- E. Reallocate existing road space away from private vehicle use and towards open space and pedestrian infrastructure
- F. Leverage improved public transport and surrounding higher-order road network projects to reduce parking provision and provide alternative routes for through traffic

Pymont Peninsula transport initiatives

Consideration of the transport opportunities and constraints surrounding the Pymont Peninsula, along with the forecast land use and surrounding major projects has facilitated in the identification of a series of transport initiatives that can support further growth in population and employment in the Pymont Peninsula. These initiatives and their relationship to the key challenges and outcomes are shown below.

Key Challenges	Initiatives			Outcomes
	Short term (0-5 years)	Medium term (5-10 years)	Long term (10 years +)	
2, 4, 5, 6	Investigate reallocation of road space on Pymont Street between Edward Lane and Allen Street			B, D, E
2, 4, 5, 6	Investigate converting local streets around UTS and TAFE Ultimo to shared zones	Contra-flow bus lane northbound on Harris Street and Regent Street (Thomas Street to Lee Street)		B, D, E
2, 4, 5, 6	Investigate closure of Jones Street between Thomas Street and Broadway			B, D, E
2, 4, 5, 6	New signalised crossing on Harris Street			
1, 3, 5, 6	New bus route from Parramatta Road corridor	New intermediate transit corridor from the Bays to Australian Technology Park via Harris Street	New metro station at Pymont	A, B, C, F
1, 3, 5, 6	Rationalisation and relocation of bus stops			A, B, C, F
1, 3, 5, 6	Investigate new ferry wharf at Cadi Bay Wharf			A, B, C, F
1, 2, 4, 5	Investigate active transport crossing of Pymont Bridge Road	Extend Good Line south through existing tunnel to Central station	Extend Good Line north to Pymont Street and Murray Street	B, D, E, F
1, 2, 4, 5	Extend Union Street cycleway to Bank Street	Extend Jones Street cycleway north to Pymont Bridge Road		B, D, E, F
1, 2, 4, 5	Investigate underground active transport link to Sydney Fish Market	New commuter cycleway through Blackwattle Bay development		B, D, E, F
1, 2, 4, 5	Investigate Glebe Island Bridge link for public and active transport	Extend Foreshore active transport link through Blackwattle Bay development		B, D, E, F
1, 2, 4, 5		Localised widening of footpaths along key pedestrian routes		B, D, E, F
2, 6	Investigate parking pricing	Pursue shared-parking across land uses		E, F
2, 6	Investigate alternative freight arrangements	Encourage transport management associations		E, F
2, 6	Encourage more car-sharing and ride-sharing		Prepare for autonomous vehicles	E, F

Next steps

Further investigation of the interventions proposed in this strategy will need to be undertaken to determine feasibility and to confirm the additional capacity that can be added to the transport network to accommodate travel demand as population and employment increases in the Pymont Peninsula. Key steps that will need to be undertaken following this strategy will include:

- Continuing consultation with Sydney Metro West to understand the implications of a potential Sydney Metro West station at Pymont.
- Analysis of strategic transport modelling undertaken by Transport for NSW to understand in greater detail the impacts of increased public transport provision within the Pymont Peninsula including heavy rail, new bus routes and intermediate transit corridors to understand more clearly how these interventions will address the transport task associated with the draft Pymont Peninsula Place Strategy forecast land use.
- More detailed traffic modelling of the proposed road network interventions identified in this strategy to understand more clearly the impacts of changes to the road network including access to the redeveloped Sydney Fish Market and Blackwattle Bay Precinct.
- A feasibility study of the Glebe Island Bridge to understand more clearly the feasibility of providing a public transport and active transport connection at the site of the existing Glebe Island Bridge.
- More detailed analysis and consultation of water-based commerce and recreation to examine the impacts of the draft Pymont Peninsula Place Strategy on the users of Sydney Harbour, Cockle Bay, Jones Bay and Blackwattle Bay.
- Ongoing community and stakeholder consultation as part of sub-precinct master planning and subsequent development proposals.

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1. Introduction

1.1. Purpose of this strategy

This Draft Place-Based Transport Strategy (PBTS) provides a high-level analysis of the strategic transport planning inputs that inform the Department of Planning, Infrastructure and Environment's (the Department) preparation of a Draft Pyrmont Peninsula Place Strategy. The Draft PBTS describes the critical policy, movement and place-based outcomes required to ensure the Draft Pyrmont Peninsula Place Strategy is supported by transport infrastructure serving both Pyrmont Peninsula and its surrounding context. The Draft PBTS is underpinned by the Transport for NSW Movement and Place Framework (MPF) principles and describes an integrated approach to the planning of movement networks and successful places.

The Draft PBTS adopts a holistic approach that considers the needs of all land-based transport modes (walking, cycling, public transport, road traffic and freight) serving a wide variety of trip purposes at local, regional and metropolitan scales. The key movement and place priorities informing the Draft PBTS include:

- **Future-focused** to consider how the Pyrmont Peninsula will evolve.
- **Integrates and connects** the study area within and beyond its boundaries.
- **Identifies transport solutions** that improve the quality and accessibility of place.
- **Leverages off innovation and technology** to improve connectivity and place.
- **Explores opportunities to promote smart technology**, drive innovation and connect locally and globally.

The Transport initiatives detailed in this report are intended to respond to development within the Pyrmont Peninsula over the next 20 years and while it responds to a defined vision for the peninsula (as outlined in the draft Pyrmont Peninsula Place Strategy), it accommodates a robust range of possible development outcomes in terms of population and employment forecasts and transport infrastructure interventions that could support these planning outcomes.

This draft strategy has been prepared in consultation with the following (primarily government) stakeholders:

- NSW Treasury
- NSW Department of Premier and Cabinet
- Department of Planning, Industry and Environment
- Transport for NSW
- City of Sydney
- A select group of community, business and industry representatives selected through a public consultation process (Bounce Group)

In addition to the stakeholder documentation identified above, further consultation outside of that undertaken as part of this strategy will be required to address the following issues that could not be fully explored during the preparation of this strategy:

- The impacts of coaches and private tour groups that frequent key attractions within the Pyrmont Peninsula.
- The impacts of proposed initiatives on water-based commerce and recreation.

1.2. About the Place: Pymont Peninsula

The Pymont Peninsula serves as the western gateway to the Harbour City CBD and encompasses Australia's most successful example of contemporary urban revitalisation. It has transformed from a declining industrial precinct to a destination locality with a diverse mix of jobs and housing, tourism, and recreation as well as an education precinct centred around University of Technology, Sydney. Significant residential growth, primarily to the northern end of the peninsula has occurred over the last three decades with upwards of 10,000 residential dwelling within the peninsula. Many of the residents living in the Pymont Peninsula work in adjacent employment centres in Sydney's CBD core, as well as an emerging technology and Innovation Corridor within the Pymont Peninsula itself.

The Pymont Peninsula's proximity to Sydney CBD, offering sustainable transport alternatives to nearby employment centres along with a diverse range of "place" offerings including tourism and entertainment to the east, education to the south, Sydney Fish Markets to the west and recreational public lands to the north connected by a central "Innovation Corridor" that has evolved into an intensive knowledge cluster make the Pymont Peninsula an attractive place to live and work. It presents a hallmark opportunity to exemplify the Eastern Harbour City vision of urban renewal with increased infrastructure and services, open spaces and public places, with infill development focused on improving local connections. The rich history and diverse place offerings within the Pymont Peninsula demand a place-based planning approach that facilitates productivity and liveability while retaining much of the character that is fundamental to its appeal as a place to live and work.

The study area for the Pymont Peninsula Draft Place-Based Transport Strategy is shown in Figure 1, along with the planned and committed transport network surrounding it.

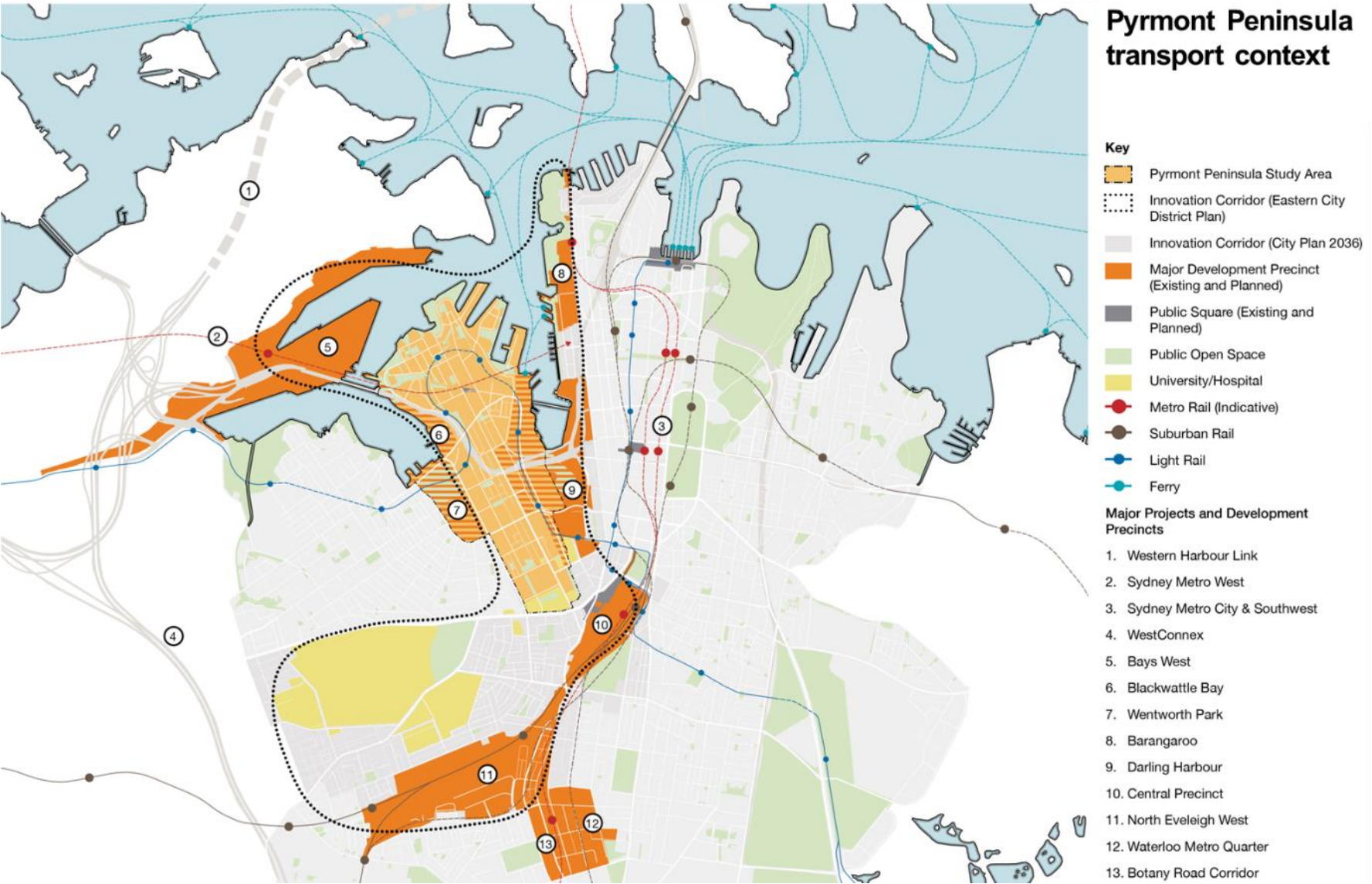


Figure 1 – Planned and committed transport network surrounding the Pymont Peninsula

Sub-precincts have been defined as part of the draft Pyrmont Peninsula Place Strategy developed by Hassell and are shown in Figure 2. These sub-precincts are:

- Darling Island
- Pirrama
- Blackwattle Bay
- Pyrmont Village
- Wentworth Park
- Tumbalong Park
- Ultimo

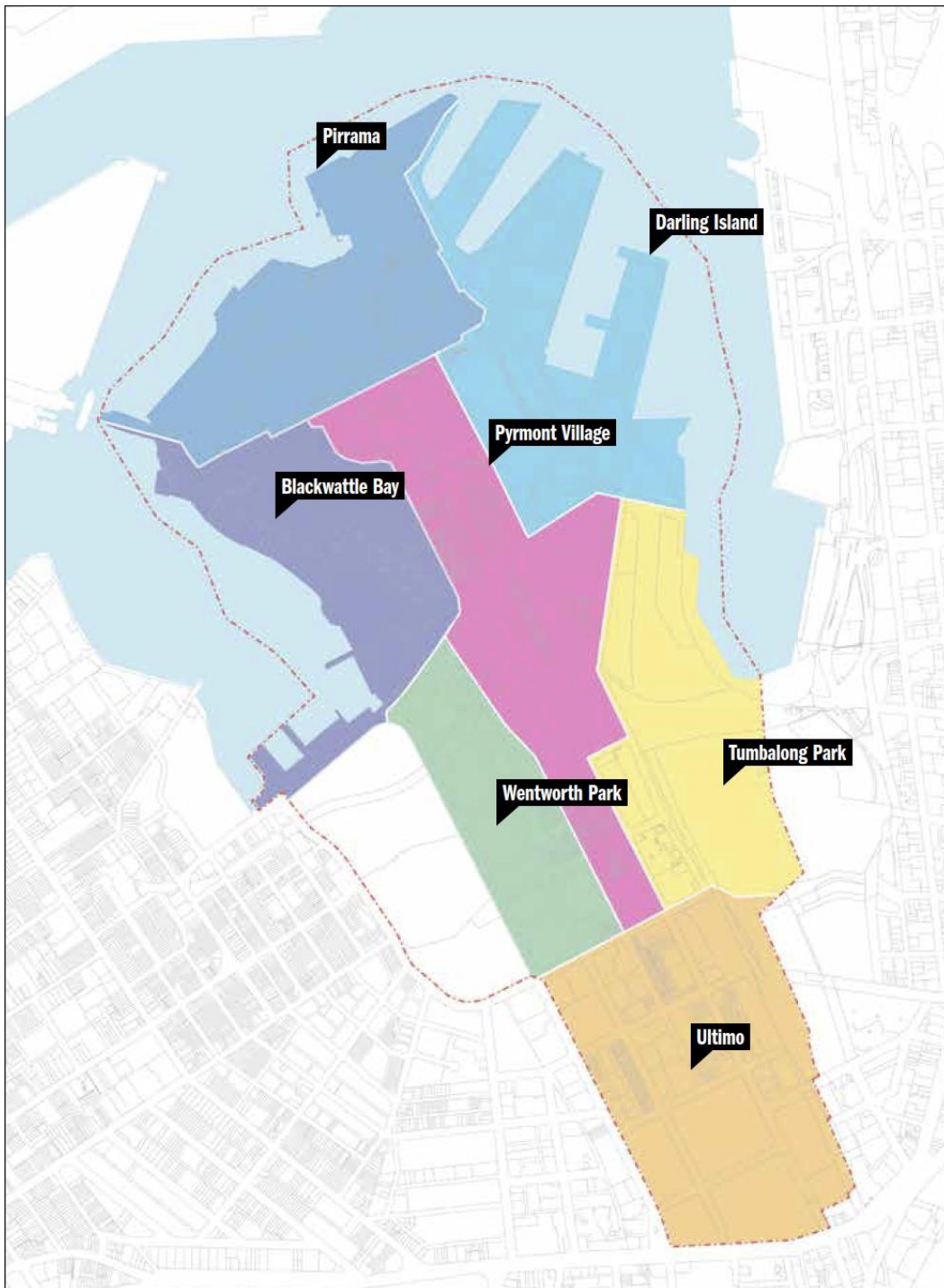


Figure 2 – Pyrmont Peninsula sub-precincts

1.3. Western Harbour Precinct planning review

In August 2019, the Greater Sydney Commission undertook a review of the planning framework of the Western Harbour Precinct including the Pyrmont Peninsula. This review was completed in September 2019 and reported 10 findings making three recommendations to the Minister for Planning and Public Spaces:

1. **Alignment with the Greater Sydney Region Plan and Eastern City District Plan** – In the Western Harbour Precinct, including the Pyrmont Peninsula, actively support the consistent delivery of objectives of the Greater Sydney Region Plan – A Metropolis of Three Cities and the planning priorities and actions of the Eastern City District Plan across infrastructure and collaboration, liveability, productivity and sustainability. This particularly includes the Innovation Corridor role of the Review Area set out in Planning Priority E7, Growing a Stronger and More Competitive Harbour CBD
2. **Develop a Place Strategy (planning framework, master plan, economic strategy and governance)** – A Place Strategy should be developed for the Western Harbour Precinct, including the Pyrmont Peninsula, encompassing:
 - A simplified planning framework that co-ordinates the delivery of the Western Harbour Precinct and Pyrmont Peninsula Place Strategy.
 - The development of a place-based master plan that addresses the planning priorities and actions of the Eastern City District Plan, including.
 - Identification and characterisation of the sub-precincts, including: Ultimo, Darling Harbour, Blackwattle Bay/Wentworth Park and Pyrmont and Harris Street Village.
 - Development of principles to respond to the individual character and potential of the sub-precincts.
 - The development of an economic strategy and industry attraction program that recognises the potential of the Western Harbour Precinct and Pyrmont Peninsula in growing a stronger and more competitive Harbour CBD.
 - The establishment of collaborative and inclusive governance arrangements that include State Government, industry, Council and community representation. These arrangements should focus on master planning and land use controls in the short term and on the transition to ongoing collaborative curation-of-place in the medium to long term.
3. **Implementation of a Place Strategy** – Once a Western Harbour Precinct Place Strategy (Recommendation 2) has been prepared, the following actions are to be undertaken:
 - Finalise Terms of Reference and the 9-12 month program for delivery of a Place Strategy that addresses the requirements of the Greater Sydney Region Plan and Eastern City District Plan across the themes of infrastructure, liveability, productivity and sustainability.
 - Confirm the most effective and efficient collaborative governance model to manage development of the Place Strategy and its implementation. Options include:
 - a Commission-led Collaboration Area.
 - a Department of Planning, Industry and Environment planned or collaborative precinct.
 - the Sydney Innovation and Technology Precinct Advisory Board, or,
 - a bespoke arrangement specific to the Place Strategy area.
 - Establish the collaborative governance arrangements.
 - Confirm the required resources and sources of funding.

1.4. Vision and objectives

1.4.1. Pyrmont Peninsula: Vision

The overall vision for the Pyrmont Peninsula is provided by the draft Pyrmont Peninsula Place Strategy. This document identifies Pyrmont Peninsula's role in the Harbour City is to connect, with a focus on the following:

- Connect people to create relationships and expand community.
- Connect businesses to create opportunity and expand innovation.
- Connect community and innovation to place to ensure uniqueness.

A connected Pyrmont Peninsula will extend the success of central Sydney and enable the future success of Bays West and the Ultimo–Camperdown collaboration area. This can be delivered through a range of metropolitan, regional and local investments that provide for private sector development in a positive, place-based manner.

The Pyrmont Peninsula Place Strategy seeks to address the ten directions identified for the strategy in March 2020; these directions are:

1. **Development that complements or enhances the area:** New or upgraded buildings fit with the Peninsula's evolving character.
2. **Jobs and industries of the future:** Investment and innovation to boost jobs, creativity, tourism and nightlife.
3. **Centres for residents, workers and visitors:** New, lively and attractive centres for everyone to enjoy.
4. **A unified planning framework:** Clearer rules delivering greater certainty and investment.
5. **A tapestry of greener public spaces and experience:** Better spaces, streets and parks, a rich canopy of trees and access to the foreshore.
6. **Creativity, culture and heritage:** Celebrating Pyrmont Peninsula's culture, heritage and connections to Country.
7. **Making it easier to move around:** Safer, greener streets integrating with new public transport.
8. **Building now for a sustainable future:** An adaptive, sustainable and resilient built environment.
9. **Great homes that can suit the needs of more people:** A diversity of housing types, tenure and price points.
10. **A collaborative voice:** A cohesive, agreed approach to bring about the best outcomes for Pyrmont Peninsula.

While the Pyrmont Place-Based Transport Strategy will seek to uphold each of these key direction, key emphasis has been placed in this study on directions 2, 5 and 7.

1.4.2. Place-Based Transport Strategy: Study Objectives

In order to facilitate the successful implementation of the vision for Pyrmont Peninsula, the NSW Department of Planning, Industry and Environment (the Department) have identified the following study objectives of the Pyrmont Peninsula PBTs are to:

- Understand the existing limitations and constraints of the study area.
- Support the development of the Place Strategy and identify opportunities for supporting changes as a result of development and other infrastructure delivery.
- Identify potential options for streets into the future and associated cross-sections that cater for a variety of modes over time.
- Consider the implications of a Sydney Metro station at Pyrmont.
- Develop strategies for all modes that deliver an integrated, connected, efficient and safe transport network that addresses existing challenges and opportunities, and supports new development.

- Support a mobility network that accommodates and promotes new and emerging technologies, identifies potential technologies and future-proofs the Place Strategy.
- Provide strategic direction and context together with the necessary evidence-base and technical assessment components to inform and deliver changes in land use planning controls at the sub-precinct and major site-scale.
- Contribute to the development of indicative street layouts aligned with Movement and Place.

1.5. Methodology and limitations

While the PBTS does not include detailed transport modelling assessment of the strategic directions identified, it does provide high level guidance intended to assist in prioritising more detailed analysis and planning for the draft Pyrmont Peninsula Place Strategy. In particular, the opportunities and strategic directions described in the PBTS are intended to inform the development of this process in a way that prioritises the integration of the movement and place networks, transport and urban structure and public realm planning. A summary of the steps undertaken in developing this strategy, and the chapters that document the outcomes of each stage in this process is illustrated Figure 3.

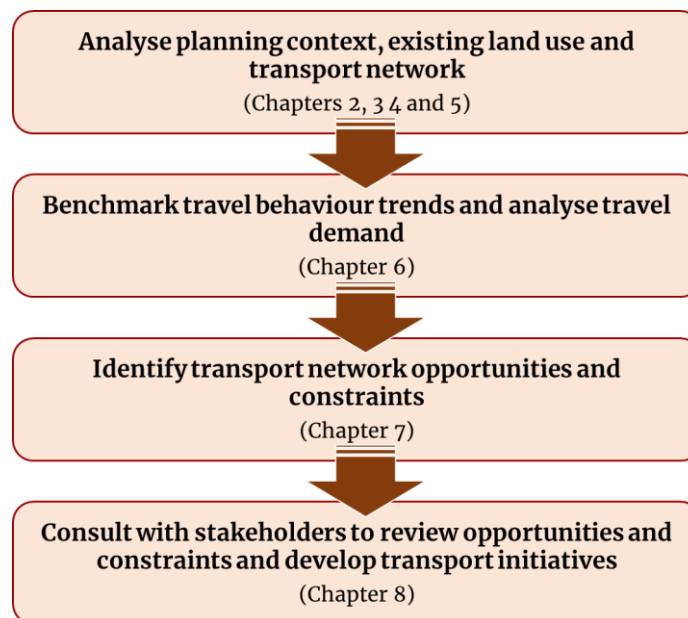


Figure 3 – Summary of Place-Based Transport Strategy methodology

Many of the strategic directions described in the PBTS are preliminary in nature and illustrate at high level the spatial and policy implications for the Pyrmont Peninsula. The planned and proposed transport infrastructure projects have been identified from NSW Government and City of Sydney publications and are still subjected to more detailed planning and confirmation. The figures depicting spatial implications, transport networks, transport corridors and road network changes are indicative and for illustrative purposes only; further analysis will be required to develop the level of precision required for a final strategy and costing. Critical gaps in information and data that were available to prepare this draft strategy are identified in Table 1.

Table 1 – Pyrmont Place-Based Transport Strategy outstanding risks

Issue	Risk	Proposed Action
Limits to certainty of key transport interventions planned for the study area (e.g. Sydney Metro station, Blackwattle Bay Redevelopment, Glebe Island Bridge rehabilitation and Goods Line tunnel).	Proposed projects are not approved or the form and location of planned infrastructure changes following the preparation of this strategy, affecting the functional elements of the strategy.	Where possible, care has been taken to progress planning of the transport network on the understanding that elements could not be delivered or change substantially change in the course of further planning, Some key interventions, including a Sydney Metro station or the Glebe Island Bridge rehabilitation may necessitate revisiting this strategy and modifying it to respond to changes in the status of these key projects.
Lack of detailed transport modelling to underpin service and infrastructure provisions.	More detailed analysis and modelling of the interventions proposed in the strategy, including road network changes and public transport services shows that these interventions may not be feasible or would not deliver substantial benefit upon closer examination.	Further more detailed transport modelling and analysis is required to determine the feasibility, costs and benefits of infrastructure and service interventions identified in this strategy.
Uncertainty in land use, population and employment forecasts.	Land use forecasts used in the development of this strategy are not feasible or development is planned and progresses in a manner that differs substantially to the forecasts examined as part of this study.	As part of further investigation of transport network requirements, the interaction of land use changes with the proposed transport network should be re-examined from a more detailed quantitative perspective to ensure that the proposed transport network structure still aligns with the emerging land use context.

1.6. Document structure

This Draft Place-Based Transport Strategy contains the following chapters:

- **Chapter 2 – Pyrmont Peninsula place-based transport principles** outlines the transport and planning principles that underpin the development of the place-based transport strategy.
- **Chapter 3 – Policy context** describes the existing planning and transport policy that governs the development of the Pyrmont Peninsula and its surroundings, outlining key documents and plans that influence development and transport investment in the Harbour City.
- **Chapter 4 – Population and land use context.** describes the demographic drivers of population and employment that creating the demand for travel. This section examines land use forecasts for the Pyrmont Peninsula and examines the current trends in land use characteristics that affect transport including spatial distribution density, industry clustering.
- **Chapter 5 – Pyrmont Peninsula transport network context** describes in detail the transport context of the Pyrmont Peninsula itself, providing a summary of the existing transport networks within the Pyrmont Peninsula and their performance during peak periods.
- **Chapter 6 – Pyrmont Peninsula travel task context** describes the existing a future travel demand across private vehicle, public and active transport and compares these against other localities within the Harbour City.
- **Chapter 7 – Opportunities and constraints for Pyrmont Peninsula** describes the key opportunities and constraints to improving transport outcomes in the Pyrmont Peninsula, in line with the study objectives and following the Movement and Place framework across infrastructure, services and policy.
- **Chapter 8 – Strategic transport initiatives** describes the key transport interventions recommended for investigation or implementation to support the proposed land use and achieve the study outcomes.
- **Chapter 9 – Place-based transport strategy conclusions** summarises the key findings of this study, identifies any gaps in data or analysis and makes recommendations for further work to refine the interventions outlines in Section 8.

2. Pyrmont Peninsula place-based transport principles and approach

2.1. Introduction

In order to develop a place-based transport strategy for the Pyrmont Peninsula, the description and analysis of the transport network has been informed by two primary transport planning documents:

- *Future Transport 2056 (Transport for NSW, March 2018)* which sets the 40-year vision, directions and outcomes framework for customer mobility in NSW and guides transport investment over the longer term.
- *The Practitioner's Guide to Movement and Place (Transport for NSW, March 2020)* which sets out the Movement and Place framework for the classification, analysis and planning of road-based transport.

This chapter describes the key transport planning principles and approach that has been adopted for the place-based transport strategy.

2.2. Pyrmont Peninsula place-based transport principles

The vision and transport outcomes for the Pyrmont Peninsula are supported by six guiding transport principles which inform the approach to analysing and developing transport opportunities and constraints for the Peninsula. These guiding transport principles have been mapped against the *Future Transport 2056 (Transport for NSW, March 2018)* outcomes to ensure alignment with this key document and its directions for the transport network:

- **Improve walking networks within the Peninsula:** Prioritise walking as the dominant mode of transport and strengthen connections within the Peninsula and to surrounding major destinations e.g. Sydney CBD, Broadway / Central, Bays Precinct.
- **Improve cycling connectivity to the Peninsula:** Provide high quality, dedicated and safe cycling infrastructure connecting the Peninsula to key local and regional destinations.
- **Protect place outcomes within the Peninsula:** Support the delivery of high quality, vibrant streets and spaces that prioritise people over vehicles within the Peninsula and ensure movement corridors do not create severance effects.
- **Expand public transport capacity to support growth:** Expand public transport capacity and provide access to heavy rail to support growth in jobs, population and tourism within the Peninsula and reduce existing crowding.
- **Constrain non-essential car travel:** Constrain non-essential car travel to, from and within the Peninsula through travel demand measures including restrictive parking controls that recognise the high level of public and active transport accessibility.
- **Refocus the local transport network around a potential SMW station:** Refocus local walking, cycling and bus connections to create an integrated interchange at a potential new station as part of Sydney Metro West.

2.3. Alignment with strategic plans and objectives

Future Transport 2056 outlines six pillars of key outcomes for the plan; these pillars underpin the transport principles for Pyrmont-Ultimo and the transport objectives developed for this Place Based Transport Strategy are aligned with these pillars. A summary of the transport objectives that have been developed for the Pyrmont Peninsula to align to these pillars are shown in Figure 4.

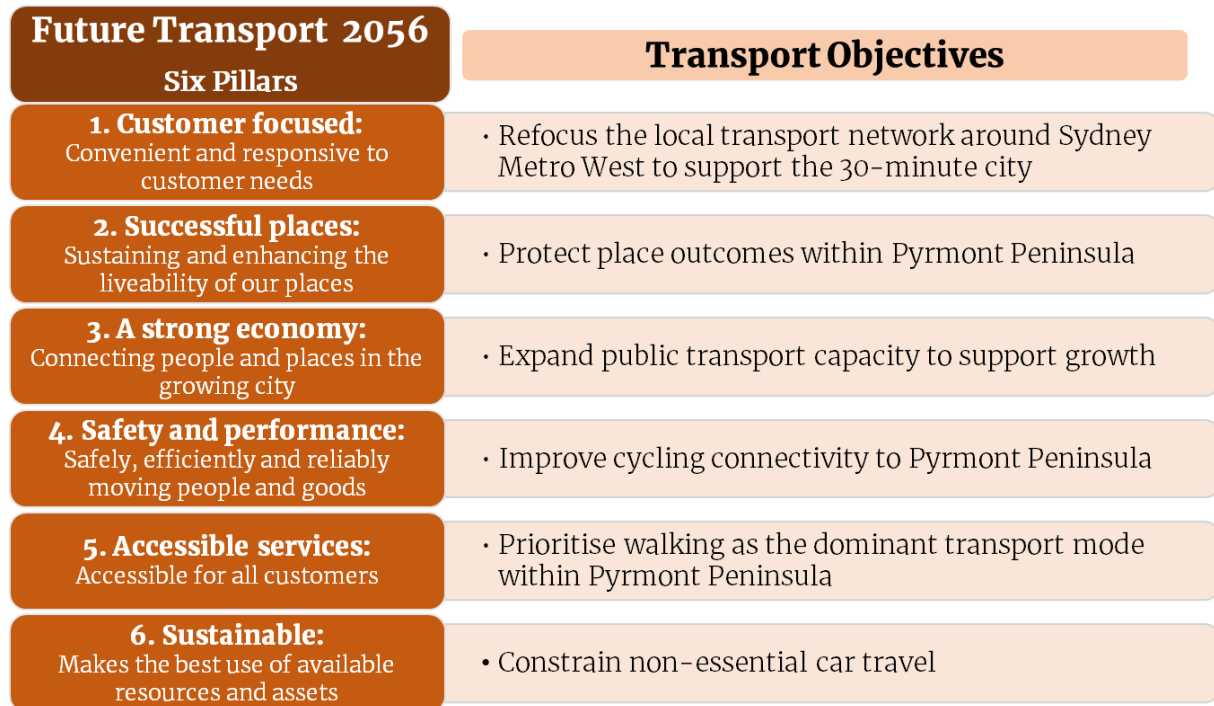


Figure 4 – Alignment with Future Transport 2056 pillars

2.4. Understanding Movement and Place in Pyrmont Peninsula

For this Place-Based Transport Strategy for Pyrmont Peninsula, analysis and planning of road-based transport infrastructure has been undertaken within Transport for NSW’s Movement and Place Framework. *The Practitioner’s Guide to Movement and Place (Transport for NSW, March 2020)* outlines the movement and place framework and its application to roads within NSW. The guide describes classification of roads into four street environments to help to provide a quick understanding of where movement and place interact. Roads and streets are divided into segments and then each segment categorised as one of four different types of street environment.

1. **Civic spaces** are streets at the heart of communities and have a significant meaning, activity function, or built environment. They are often in major centres, tourist and leisure destinations, and community hubs. These streets are often pedestrian priority, shared spaces.
2. **Local streets** are most streets within the transport networks and often have important local place qualities. Activity levels are less intense; however, these streets can have significant meaning for local people.
3. **Main streets** have both significant movement functions and place qualities. Balancing the functions of these streets is a common challenge.
4. **Main roads** are routes central to the efficient movement of people and freight. They include motorways, primary freight corridors, major public transport routes, the principal bicycle network, and key urban pedestrian corridors. Place activity levels are less intense; however, these roads and routes can have significant meaning to local people.

Figure 5 describes the application of the Movement and Place Framework which has been used to categorise roads and streets within the Pymont Peninsula based on an integrated interpretation of their transport and social space functions. Figure 6 provides the application of the Movement and Place Framework to the Pymont Peninsula and is further discussed in 5.1.

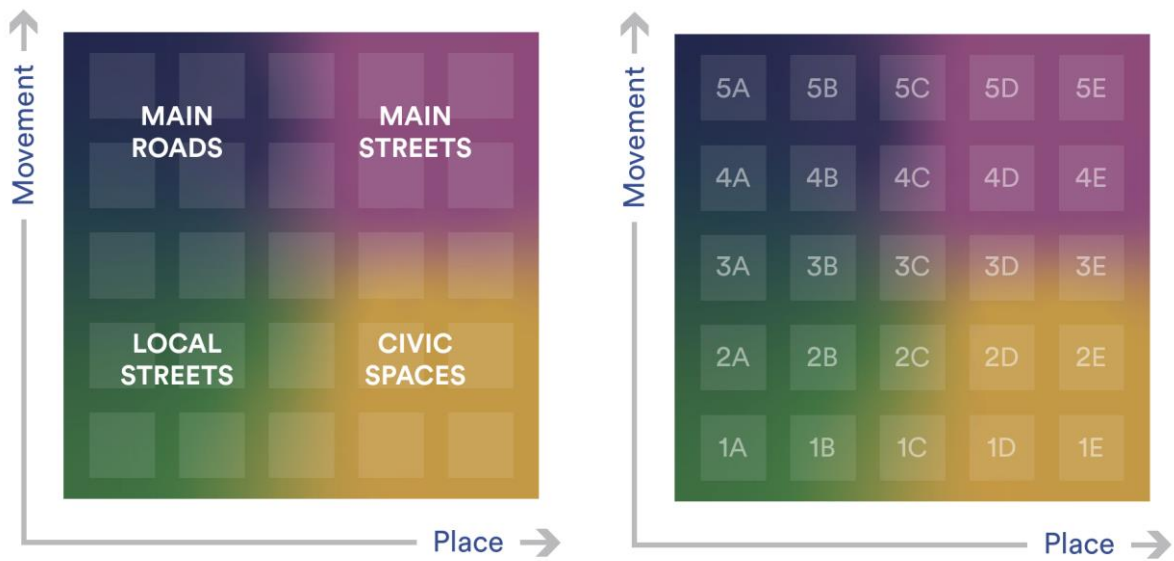


Figure 5 – Movement and Place Classification

Movement and Place Framework (existing)

- Key**
-  Pyrmont Peninsula Study Area
 -  Public Square (Existing and Planned)
 -  Public Open Space

Movement and Place Categories

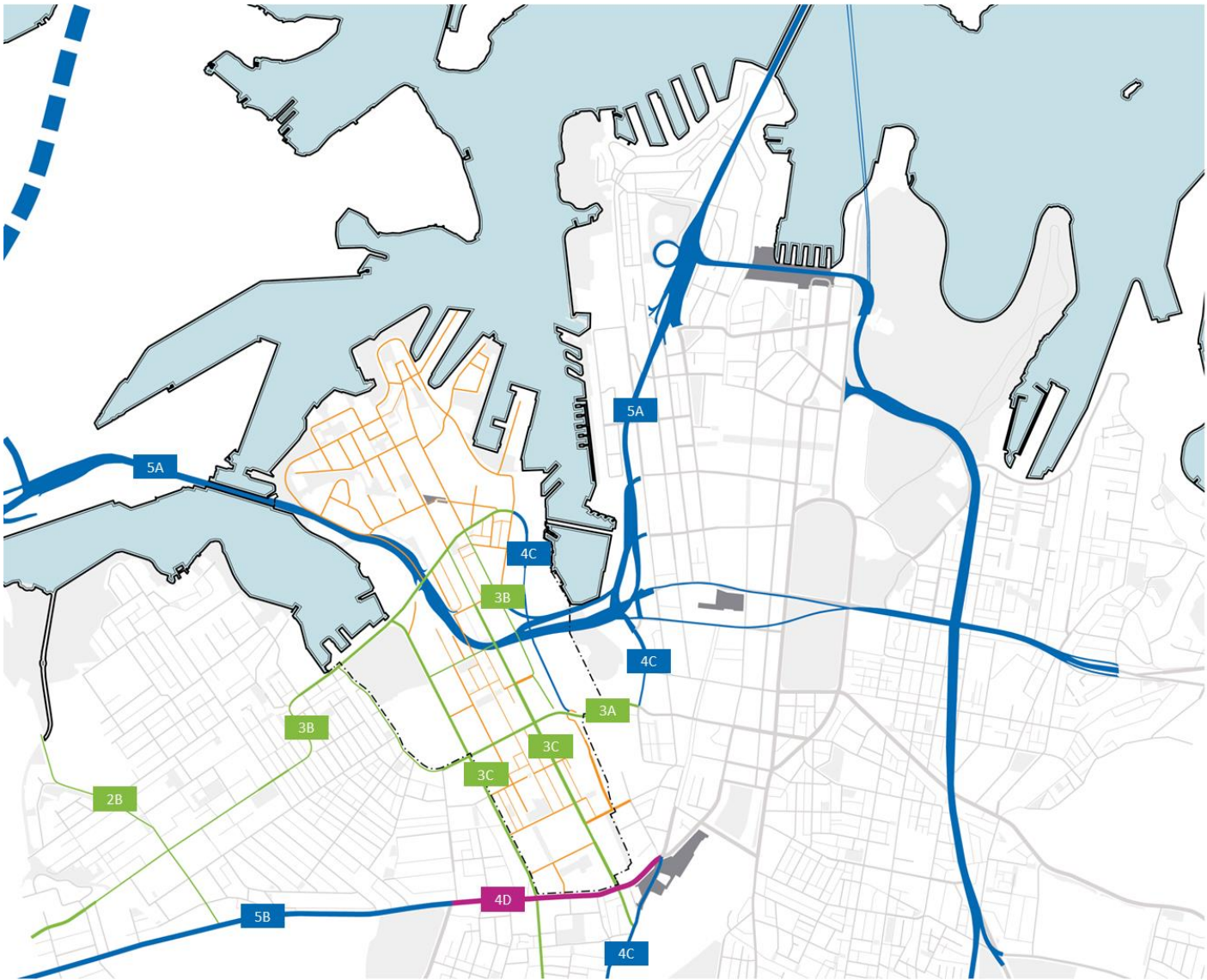
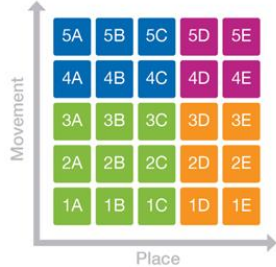


Figure 6 – Existing Movement and Place Classification

2.5. Transport planning – considerations

This sub-section defines the key drivers and planning parameters that have guided the Draft PBTS process.

2.5.1. Transport network focused on people and places

A key objective of the public transport network serving the Pymont Peninsula is to provide access for more people more efficiently on the available transport corridors, thus reducing impacts on the traffic network, which is far less efficient in carrying high volumes of people within a constrained corridor. The most efficient public transport links and systems are those that serve the needs of many different users and demand demographics.

The key to achieving the required mode share to public transport is to understand and respond to the needs and expectations of the people that will (potentially) choose to use the public transport network. This is a critical shift in thinking about transport planning; every decision and consideration needs to focus on the aim of attracting people to using public transport and active transport modes (walking and cycling) as alternatives to private vehicles.

By understanding how movement can better support the desired place outcomes, this strategy will aim to transition the Pymont Peninsula towards a place-based transport vision that puts the movement of people at its core.

2.5.2. Integration with land use and understanding densities

For transport planning (and public transport in particular), residential and employment densities are the fundamental planning inputs. Trip generation is largely dependent on land use and the intensity of development, which is measured by density of population or employment. Density is the critical ‘third dimension’ of spatial and place-based planning. The current public transport system’s utility, efficiency and potential to achieve the mode share targets for Pymont Peninsula is dependent on the degree to which it is integrated with the land use it serves at both regional and local levels.

2.5.3. Network capacity

Transport demand modelling was not undertaken as part of the PBTS to provide an indication of network capacity (road and public transport) within the Pymont Peninsula under the land use projections as part of the draft Pymont Peninsula Place Strategy.

It is noted, however, that land use projections of this planning process for Pymont Peninsula contemplate scenarios that are lower in residential population than the TPZ/LU16 forecasts, but employment forecasts are 10 percent higher than the TPZ/LU16 forecasts. On this basis, it is likely that there would be some reduction in traffic along on the surrounding higher-order roads, with a greater reduction in traffic along lower-order roads within the Pymont Peninsula when compared to travel zone projects based on TZP16.

2.5.4. Planning for a Sydney Metro Station at Pymont

Planning of the Sydney Metro West line through Pymont Peninsula is at a very early stage. As a result, while no firm commitment has been made to the staging of the metro and the provision of a metro station within the Pymont Peninsula is currently under investigation, the place-based strategy nevertheless accounts for the possibility that a heavy rail public transport route (i.e. metro) is provided. Provisions for potential improvements to intermediate (i.e. light rail and rapid bus services) and local public transport services to accommodate expected future growth have been considered to address this possibility.

3. Policy context

This section provides an overview of the spatial and policy context that surround the Pyrmont Peninsula, with a focus on the drivers of this study, current government policy, and the underlying population and employment demands that drive growth and transport demand.

3.1. Metropolitan and district planning

3.1.1. Greater Sydney Regional Plan

The Greater Sydney Region Plan, A Metropolis of Three Cities, is the primary document setting the planning policy for Sydney at the Metropolitan scale. This document:

- Sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters.
- Informs district and local plans and the assessment of planning proposals.
- Assists infrastructure agencies to plan and deliver for growth and change and to align their infrastructure plans to place-based outcomes.
- Informs the private sector and the wider community of the growth management and infrastructure investment intentions of government.

The Greater Sydney Region Plan is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, services and great places. To meet the needs of a growing and changing population the vision seeks to transform Greater Sydney into a metropolis of three cities:

- The Western Parkland City.
- The Central River City.
- The Eastern Harbour City.

Pyrmont-Ultimo is identified as part of the Harbour CBD metropolitan centre within the well-connected Eastern Economic Corridor from Macquarie Park to Sydney Airport. The plan identifies this corridor as being of national significance as it currently contains approximately 775,000 jobs.

A number of committed and potential transport infrastructure projects will improve accessibility between the well-established economic agglomerations along and near the corridor and significantly increase the size of the labour market which can access the corridor by public transport, boosting productivity, shown in Figure 7. Pyrmont-Ultimo will need to be better connected as part of the Eastern Economic Corridor as it is currently one of the largest job centres within the corridor not connected by rail.

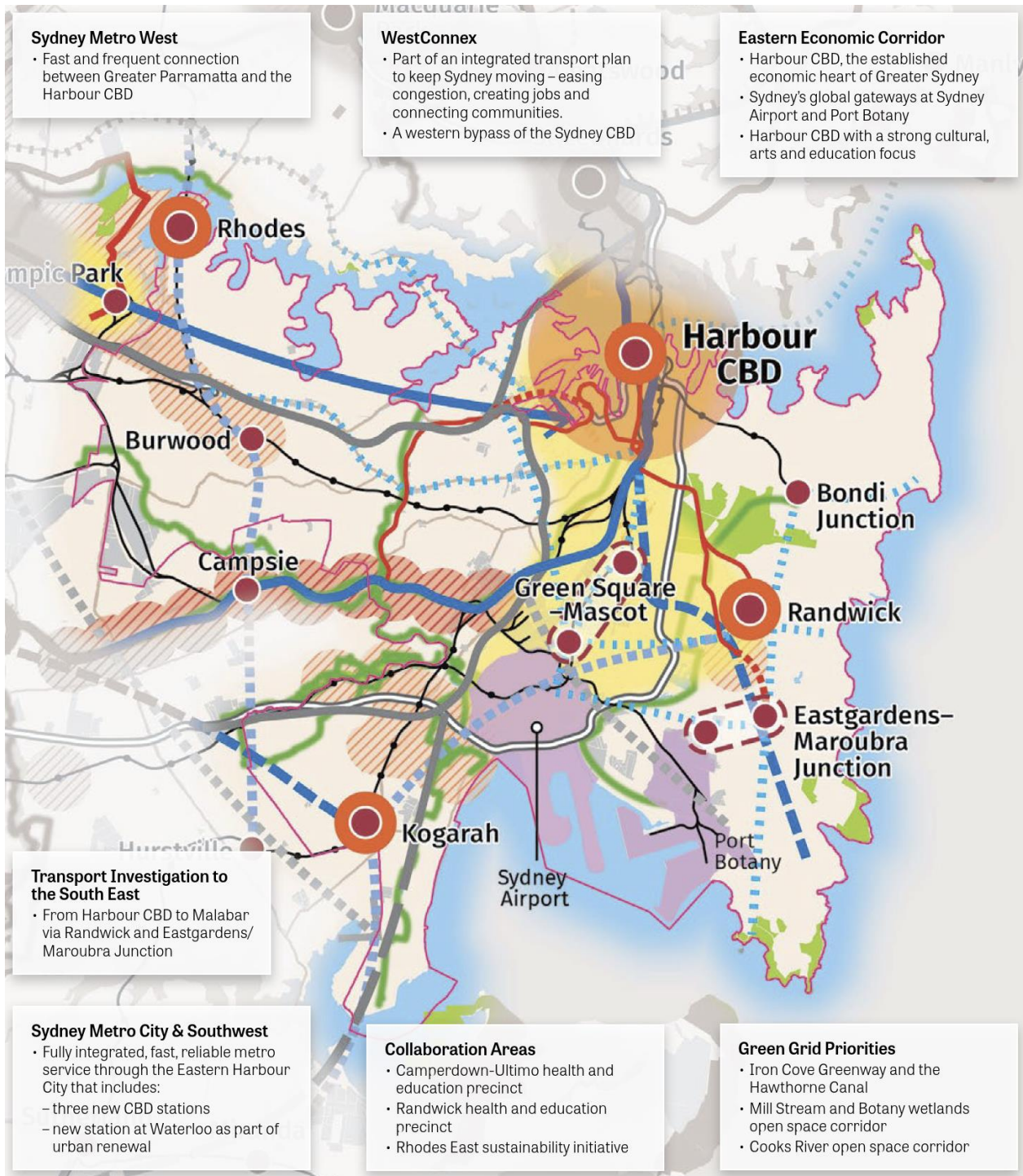


Figure 7 – Eastern Economic Corridor and proposed projects

3.1.2. Eastern City District Plan

At a district scale, Pymont-Ultimo is identified as part of an Innovation Corridor that is emerging along the western edge of the Harbour CBD, shown in Figure 8. It extends from The Bays Precinct, to high-tech and start-up hubs in Pymont and Ultimo, to the health and education institutions of the University of Technology Sydney, University of Notre Dame, University of Sydney, Royal Prince Alfred Hospital, and on to the Australian Technology Park.

The Eastern City District Plan identifies that competitive innovation precincts depend on high levels of amenity and walkability, with good transport connections spurring the rapid exchange of ideas and the establishment of networks. To realise the Innovation Corridor and broader investment in the Harbour CBD, the Eastern City District Plan identifies priorities for the transport network which are relevant to Pymont-Ultimo, shown in Table 2.

Table 2 – Eastern District Plan Transport Network Priorities

Planning Priority E7 Growing a stronger and more competitive Harbour CBD	
Objective 15 The Eastern, GPOP and Western Economic Corridors are better connected and more competitive.	23. Prioritise: <ol style="list-style-type: none"> a. public transport projects to the Harbour CBD to improve business-to-business connections and support the 30-minute city. b. infrastructure investments, particularly those focused on access to the transport network, which enhances walkability within 2 kilometres of metropolitan or strategic centres or 10 minutes walking distance of a local centre. c. infrastructure investments, particularly those focused on access to the transport network, which enhance cycling connectivity within 5 kilometres of strategic centres or 10 kilometres of the Harbour CBD.
Objective 18 Harbour CBD is stronger and more competitive.	

The Eastern City District Plan also identifies specific actions for the Innovation Corridor, namely to facilitate an Innovation Corridor that:

- a. Provides access to a sufficient supply of affordable and scalable spaces
- b. Promotes co-location and increased business-to-business interaction
- c. Connects with events spaces
- d. Delivers a high amenity, highly walkable and safe corridor
- e. Has access to affordable, diverse and multi-purpose housing options
- f. Supports a strong night time economy

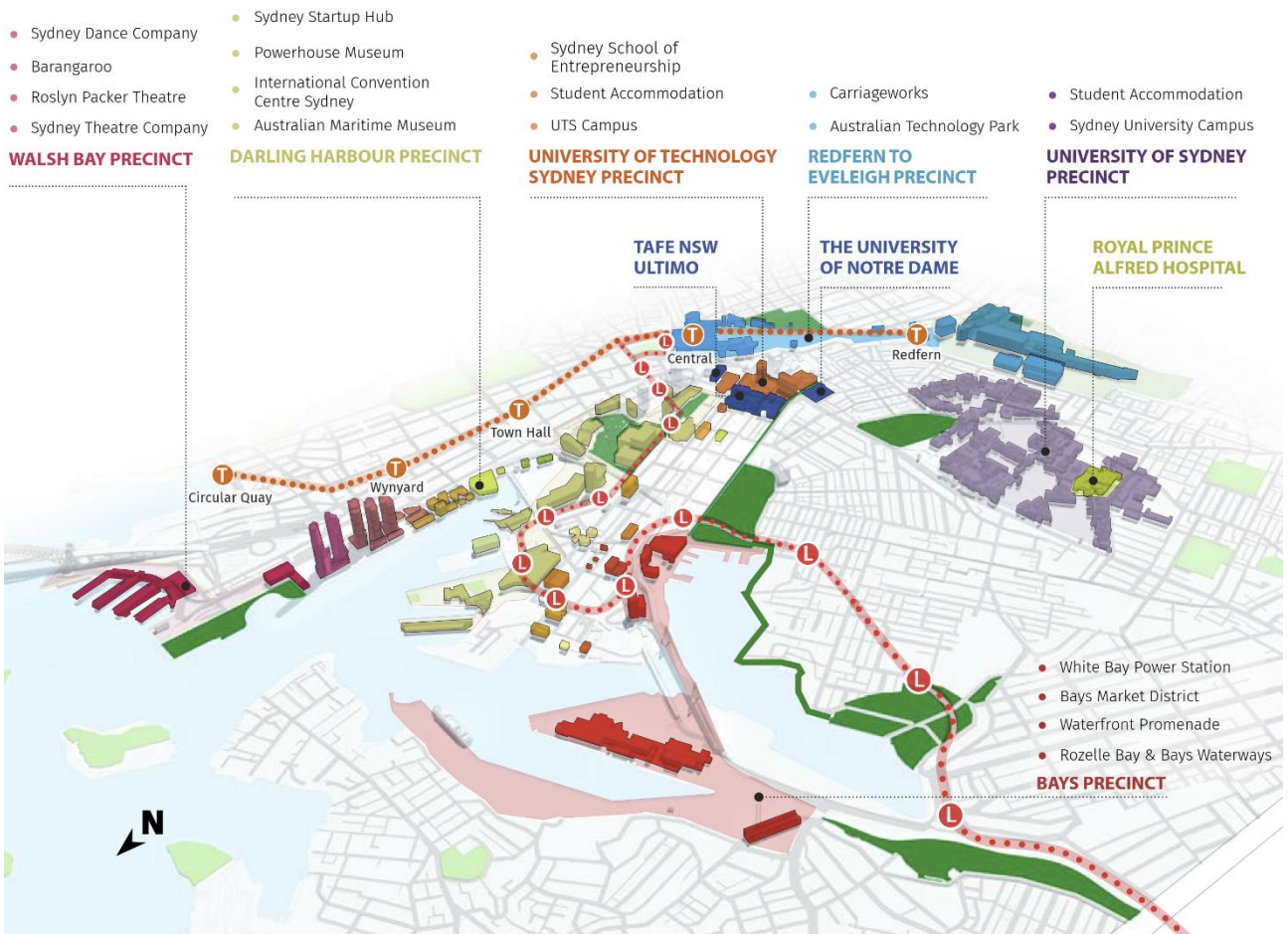


Figure 8 – Harbour CBD Innovation Corridor

3.1.3. Future Transport 2056

Future Transport 2056 sets the 40-year vision, directions and outcomes framework for customer mobility in NSW, which will guide transport investment over the longer term. It will be delivered through a series of supporting plans, and provides more place-based and multi-modal approach delivered in partnership with stakeholders, especially the owners of places that transport networks run through and serve.

City-shaping initiatives

Future Transport 2056 identifies the following city-shaping initiatives that will have a major influence on the Pyrmont Peninsula, shown in Figure 9:

- **WestConnex:** Currently under construction, the M4-M5 link and associated Rozelle interchange will provide access to the Sydney CBD from the west providing a motorway alternative to Parramatta Road and City West Link.
- **Western Harbour Tunnel:** Currently planned and subject to environmental approval, Western Harbour Tunnel will provide a new link across Sydney Harbour from Rozelle to North Sydney, providing relief for traffic currently using Anzac Bridge, Western Distributor and Sydney Harbour Bridge.
- **Sydney Metro West:** Currently planned and subject to environmental approval, Sydney Metro West will connect Sydney CBD and Parramatta in under 30 minutes. With seven confirmed stations, investigations are currently under way to determine the location of a new metro station in Sydney CBD and the possibility of a station at Pyrmont.

District initiatives

Future Transport 2056 identifies the following district-level initiatives that will have a major influence on the Pyrmont Peninsula, also shown in Figure 9:

- **Harbour CBD to Green Square rapid bus link on Botany Road:** Boost the liveability and vibrancy of centres along Botany Road corridor by improving the attractiveness of public transport use on the corridor.
- **Eastern Suburbs to Inner West rapid bus links:** This includes connections between Randwick, Sydney University and potentially Green Square.
- **Light Rail to Bays Precinct:** Proposed loop from the existing Inner West Light Rail connecting the existing line at North Leichhardt and at Pyrmont via The Bays Precinct and Old Glebe Island Bridge to support urban renewal of the Bays Precinct, alleviate potential long-term capacity constraints on the Inner West light rail line by spreading inbound demand from west of Lilyfield via two branches – either via Glebe or via the Bays Precinct, and enable interchange between Inner West Light Rail and Sydney Metro West at Bays Precinct, improving access to jobs and services for Inner West customers.
- **Parramatta Road public transport improvements:** Investment in improved on-road public transport between Strathfield and the Harbour CBD. Options will be considered to integrate with, and complement other committed and proposed initiatives within the corridor such as Sydney Metro West, Parramatta Light Rail and WestConnex.
- **Victoria Road public transport improvements:** Improvements will include upgrading bus services and infrastructure on the Victoria Road corridor, through the Bus Priority Infrastructure Program. This initiative is to support planned growth in the Bays Precinct, and to integrate with committed and proposed initiatives within the corridor such as Sydney Metro West and WestConnex
- **Inner Sydney Regional Bike Network within 10km of the Harbour CBD:** Support walking and cycling being the most convenient option for short trips around centres by improving access both around centres and between them.

Investigation projects (Future Transport 2056)

- Key**
- Pyrmont Peninsula Study Area
 - Innovation Corridor (City Plan 2036)
 - Public Square (Existing and Planned)
 - Public Open Space
 - University/Hospital
 - Initiatives for Investigation (0-10 Years)
 - Initiatives for Investigation (10-20 Years)

- Projects Committed (0-10 Years)**
1. Western Harbour Link
 2. Sydney Metro West
 3. WestConnex
- Projects for Investigation (0-10 Years)**
4. Eastern Suburbs to Inner West Rapid Bus Links
 5. Harbour CBD to Green Square Mass Transit Link
 6. Green Square to La Perouse Rapid Bus Link
- Projects for Investigation (10-20 Years)**
7. Light Rail to Bays Precinct
 8. Mass Transit/Train Link to South East

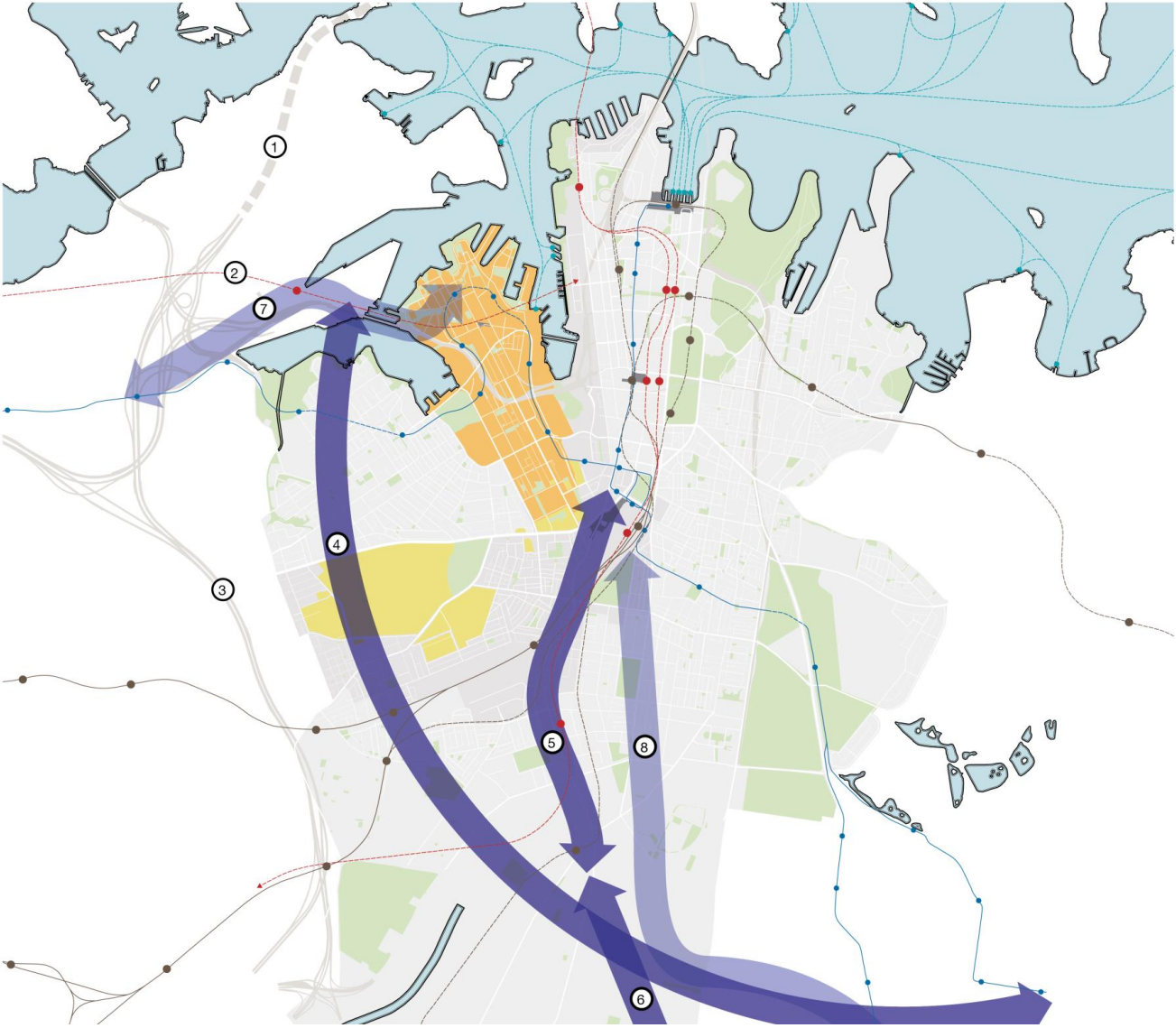


Figure 9 – Future Transport 2025 projects for investigation

3.1.4. Camperdown-Ultimo Collaboration Area Place Strategy

Released by the Greater Sydney Commission in February 2019, the Camperdown–Ultimo Collaboration Area Place Strategy informs public and private policy and investment decisions by identifying and recognising the complex, place-specific issues that inhibit growth and change in the area. In planning for the future of the Collaboration Area it:

- Establishes a vision and narrative for the Camperdown–Ultimo Collaboration Area.
- Identifies impediments and opportunities.
- Sets priorities for the Collaboration area.
- Identifies actions to deliver the vision.

As shown in Figure 10, the Camperdown–Ultimo Collaboration Area overlaps with the Pymont Peninsula study area, specifically around University of Technology, Sydney and TAFE Ultimo. The Place Strategy identifies three priorities for connectivity within the collaboration area along with accompanying actions, as shown in Table 3.

Table 3 – Camperdown Ultimo Collaboration Area connectivity priorities and actions

Priority 1: Integrate and connect the Collaboration Area within and beyond its edges	Priority 2: Improve local transport options and amenity within the Collaboration Area	Priority 3: Promote smart technology, drive innovation and connect locally and globally
Action 1: Develop a strategy for transport investigations and initiatives, underpinned by the principles of movement and place, to enhance safety, accessibility and permeability within and surrounding the Collaboration Area by prioritising pedestrian safety and amenity, encouraging cycling, and planning for public transport, freight movements and parking.	Action 7: Improve public transport, pedestrian and cycling connectivity between the three activity nodes: <ul style="list-style-type: none"> • Haymarket to Camperdown along the Ultimo axis • Camperdown to Eveleigh along the Darlington axis (particularly Redfern Station to University of Sydney) • Haymarket to Eveleigh along the Surry Hills axis. 	Action 11: Consider piloting a Smart Places program in the Collaboration Area.
Action 2: Advocate for better connections between Greater Sydney’s collaboration areas, innovation clusters and health and education precincts, including transport, technology, utility and digital networks, and information sharing.	Action 8: Implement a pilot project along Broadway and Parramatta Road to reallocate road space and prioritise pedestrians between Central Station and key land uses on the Ultimo axis, while achieving an acceptable level of service for vehicles at the gateway to the Harbour CBD.	Action 12: Investigate a partnership to digitally connect local communities, including hospital visitors, people on lower incomes, people experiencing homelessness or marginalised social groups.
Action 3: Advocate for a mass transit system that strengthens connections between the Collaboration Area and Greater Sydney’s economic corridors.	Action 9: Identify shared partnership transport solutions to optimise connectivity within the Collaboration Area.	Action 13: Explore opportunities to share knowledge and intellectual property across key institutions, including a dedicated high-performance managed network (such as Science DMZ) for the Collaboration Area and standardised data management and open source access.
Action 4: Advocate for a Sydney Metro West station in Camperdown activity node.	Action 10: Explore improved pedestrian and cycling connections between ATP, North Eveleigh/ Carriageworks, and Waterloo Station.	
Action 5: Facilitate the renewal of Central Station and surrounding lands to improve pedestrian and cycling connectivity within and surrounding the Collaboration Area and integrate the transport interchange with the surrounding area.		
Action 6: Prioritise and deliver Redfern Station improvements and accessibility.		

Actions 1, 2, 3, 4, 5 and 8 are of particular relevance to The Pyrmont Peninsula. A Sydney Metro West Station at Camperdown would be likely to preclude a station at Pyrmont, however the improvement of public transport, pedestrian and cycling connectivity along the Ultimo axis would benefit the Pyrmont Peninsula by improving connectivity along the Eastern Harbour City Innovation Corridor.

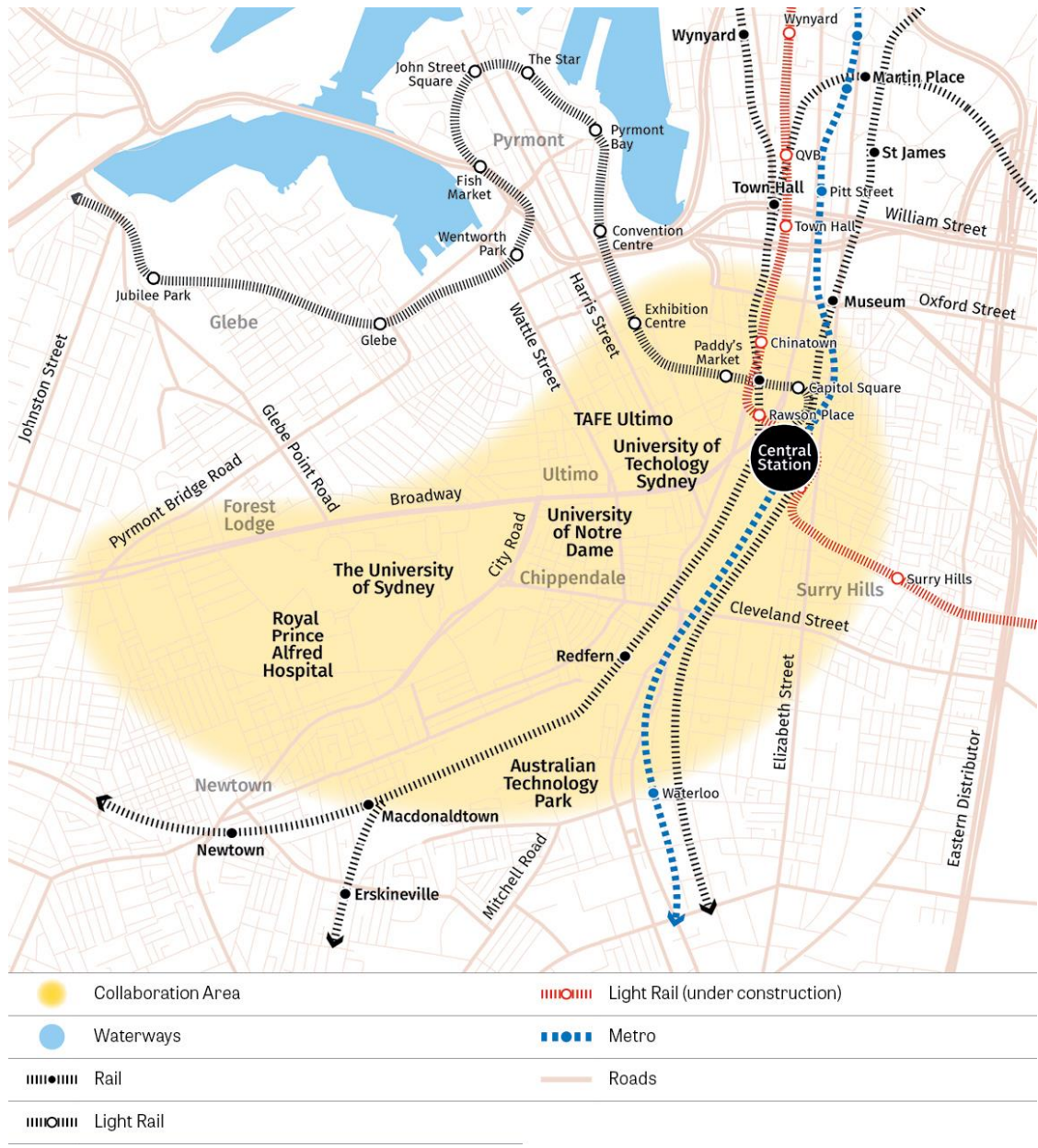


Figure 10 - Camperdown-Ultimo Collaboration Area

3.2. Local policies

3.2.1. Sydney City Access Strategy

The Sydney City Centre Access Strategy (Transport for NSW, 2013) is the NSW Government’s plan to deliver a fully integrated transport network in Sydney’s city centre that puts the customer first and meets the city’s growing transport task. The strategy outlines how people will enter, exit and move in and around the Sydney CBD over the next 20 years and demonstrates how light rail, buses, trains, ferries, cars, point-to-point transport services, pedestrians and cyclists will interact in the heart of Sydney. The strategy also provides a clear direction for how all the different transport modes will work together in the city centre to reduce congestion; provide for future growth; and improve the customer experience.

The strategy identifies that cars dominate the space on streets across the city centre, including in Pyrmont-Ultimo. Between 8.00am and 9.00am, 87 per cent of traffic movements through city centre intersections are made by cars and taxis, eight per cent are by buses and the remaining five per cent are made by trucks and cyclists. Despite the large number of cars, they move only 35 per cent of all people who come into the city centre on the street network.

The Strategy identifies a city centre street network structure for managing access, shown in Figure 11. The Strategy makes the following point in relation to major traffic routes impacting Pyrmont-Ultimo:

“As the land use adjacent to priority traffic routes within or bordering the southern part of the city centre and Pyrmont change, we will review how the street network operates to ensure that it responds to the future needs of customers in this area. Future changes could include reconfiguration of street configurations and traffic management, intersection redesign, modifications to signal operations and improvements to the public domain and pedestrian arrangements”.

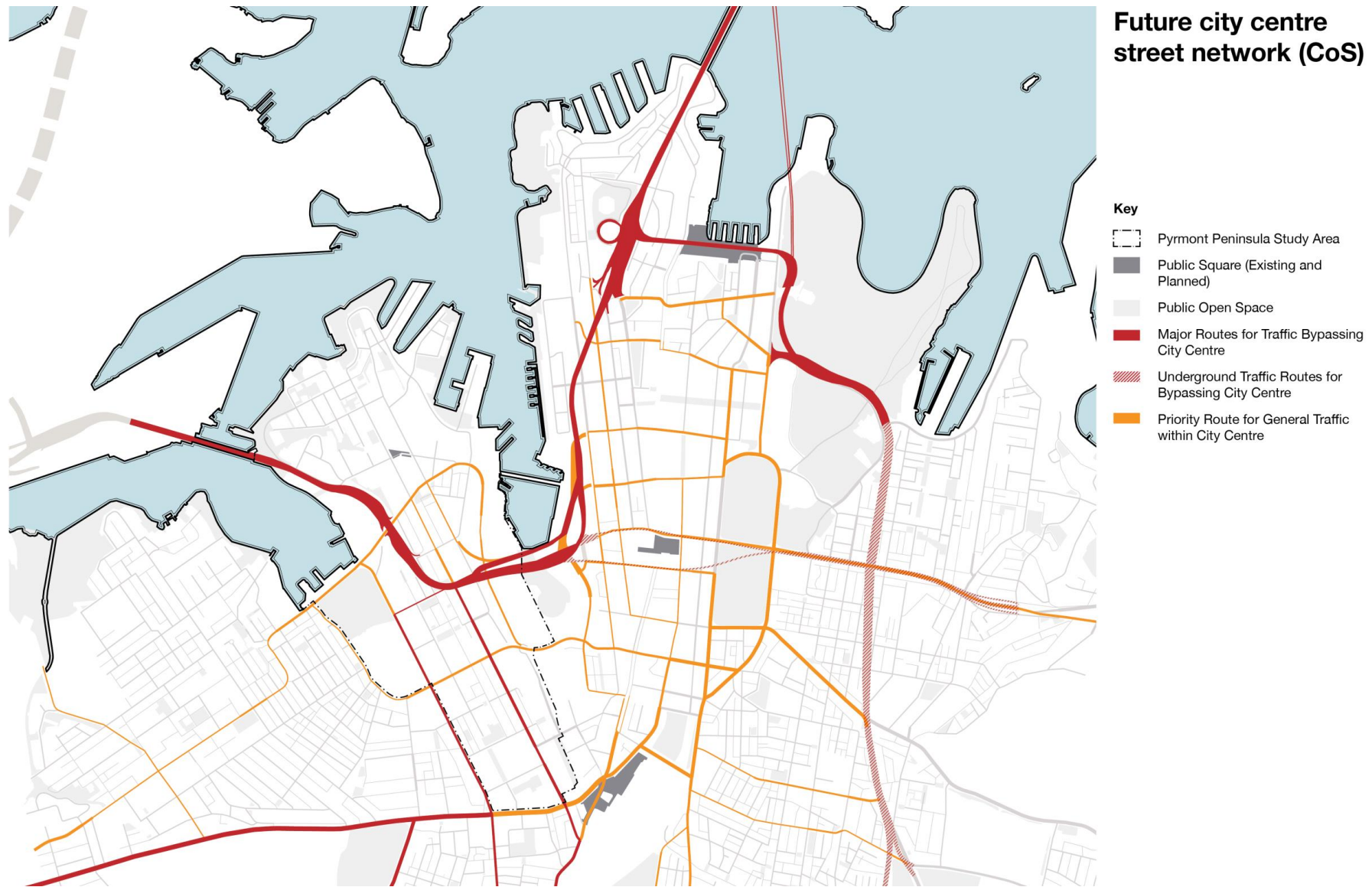


Figure 11 – Future city centre street network

3.2.2. City Plan 2036 – Draft Local Strategic Planning Statement

City Plan 2036, released in 2019 by the City of Sydney is the draft Local Strategic Planning Statement that sets out a 20-year land use planning vision that balances the need for housing and economic activities while protecting and enhancing local character, heritage, public places and spaces. This document links state and local strategic plans with planning controls to guide development within the City of Sydney, and identifies a hierarchy of centres across the City of Sydney, shown in Figure 12.

City Plan 2036 sets out 3 priorities for the City of Sydney, for which the following relate directly to transport within the Pyrmont Peninsula:

1. **Movement for walkable neighbourhoods and a connected city:** To plan local neighbourhoods so people have access to daily needs within a 5–10 minute walk, advocate for mass transit and transport services, ensure land uses match mobility investment and managing roads to reduce impacts and create great places.
2. **Align development and growth with supporting infrastructure:** To use the necessary planning, funding and delivery mechanisms to provide local infrastructure, and collaborate with NSW Government on state infrastructure.
5. **Creating great places:** To plan for accessible local centres and high streets to be the heart of local communities, protect the character of our distinctive heritage neighbourhoods and iconic places, and deliver design excellence and high amenity in the built environment.
8. **Developing innovative and diverse business clusters in the City Fringe:** To grow knowledge-intensive business clusters with health, education, innovation, technology and creative industries in the Harbour CBD and prioritise those strategic land uses, and improve connections between business and institutions.

City Plan 2036 also identifies infrastructure priorities for connecting the Pyrmont Peninsula, with a focus on the need for a rail station based on the density of population and employment within the suburb. A station at Pyrmont as part of Sydney Metro West is identified as a catalyst for economic and employment growth in the area as well as creating off-peak and contra-peak patronage for the Sydney Metro West line by increasing public transport access to visitor destinations including Sydney Fish Markets, the Maritime Museum, Sydney Convention and Exhibition Centre, the Museum of Arts and Applied Sciences and The Star Casino.

This increased transport access would also be beneficial to the information media employment clusters in the Pyrmont Peninsula, which is one of the largest and fastest growing concentrations of information media jobs along the Sydney Metro West corridor, allowing media firms to increase their access to talent and clients along the corridor.

An overview of the transit corridors identified in City Plan 2036 in and around the Pyrmont Peninsula is shown in Figure 13.



Figure 12 – City Plan 2036 Centre Hierarchy



**Cos transit corridors
(City Plan 2036,
Figure 23)**

- Key**
- Pyrmont Peninsula Study Area
 - Innovation Corridor (City Plan 2036)
 - Public Square (Existing and Planned)
 - Public Open Space
 - University/Hospital
 - Proposed Sydney Metro West Alignment (City Plan 2036)
 - East-West Transit Corridor (Bays Precinct to Randwick via Green Square)
 - Centre Interchange

Figure 13 – City of Sydney proposed transport corridors

3.2.3. Sustainable Sydney 2030 Community Strategic Plan

The City of Sydney's Community Strategic Plan describes the overall strategic objectives and priorities for the LGA.

The Community Strategic Plan sets out the following targets that are relevant to the transport planning context for Pymont Peninsula:

- A 70 per cent reduction in greenhouse gas emissions based on 2006 levels by 2030, and the achievement of net zero emissions for the city by 2050.
- A net increase of 48,000 dwellings in the city by 2030 compared to the 2006 baseline.
- A net increase of 97,000 jobs in the city by 2030 compared to the 2006 baseline.
- An 80 per cent increase in trips to work using public transport by 2030.
- At least 10 per cent of all trips in the city to be made by bicycle and 50 per cent by pedestrians by 2030.

These targets support a number of strategic directions for the city. Those directions of most relevance to the transport planning context for Pymont Peninsula include:

Strategic Direction 3 – Integrated transport for a connected city.

Strategic Direction 4 – A city for walking and cycling.

Strategic Direction 5 – A lively and engaging city centre.

Each of these incorporates a number of “supporting strategies” that, collectively, aim to drive the continued development of the city in a way that integrates increasing intensities of transit, pedestrian and cycling networks while promoting the further evolution of the city's public realm as a social space. Both aspects are considered essential to maintaining the city's dominant role as a global economic agglomeration for the greater metropolitan region.

3.2.4. City of Sydney Walking Strategy and Action Plan

The City of Sydney supports walking as a mode of transport to meet the environmental, economic and social objectives set in Sustainable Sydney 2030 and Connecting Our City.

The overarching priorities for walking are to:

1. Make walking quick, convenient and easy.
2. Make walking inviting and interesting.
3. Make walking safe and comfortable.
4. Create a strong walking culture.

This strategy includes ambitious but achievable targets to meet these priorities. These targets are based on a review of trends and forecasts and will allow us to clearly track progress towards our achievements. The plan also identifies key walking routes that should be prioritised for fast and convenient walking; and activity streets that should be prioritised for footpath capacity upgrades and amenity improvements. As Figure 14 to Figure 16 show, there are several routes / streets identified in Pymont-Ultimo. The key walking routes identified by City of Sydney that are relevant to the Pymont Peninsula include:

- **Pymont Bridge** – the key pedestrian and cycle route from Pymont into Sydney CBD, this route is critical to providing active transport to the Sydney CBD, especially for residents that live in Pymont and work in Sydney CBD, who make up 40 per cent of Pymont residents.
- **Broadway and Parramatta Road** – a significant walking connection for the education cluster around University of Technology Sydney providing access to Central station, but also forms a barrier for active transport trips travelling from the Pymont Peninsula.

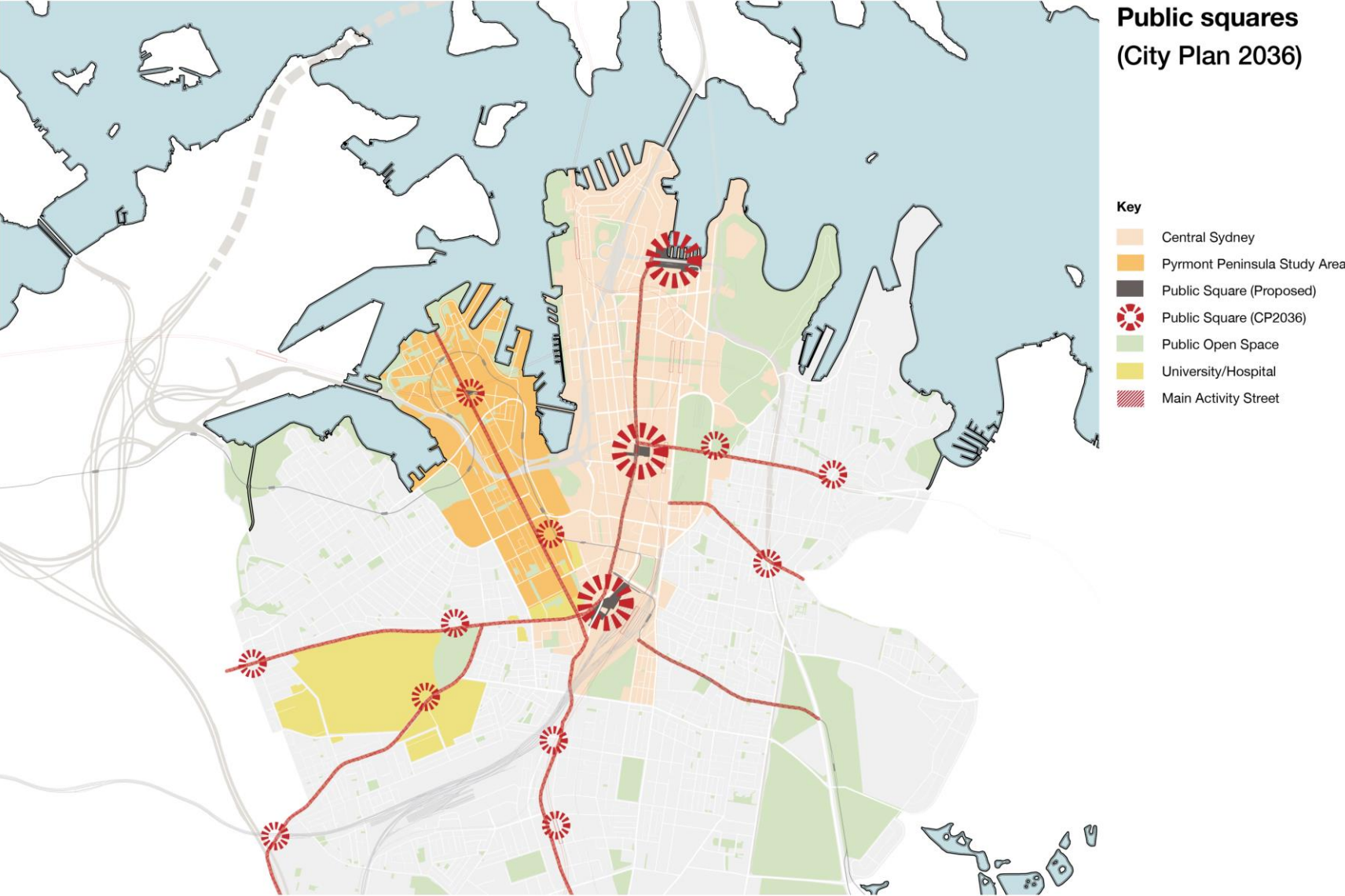


Figure 14 – Pedestrian connections between public squares

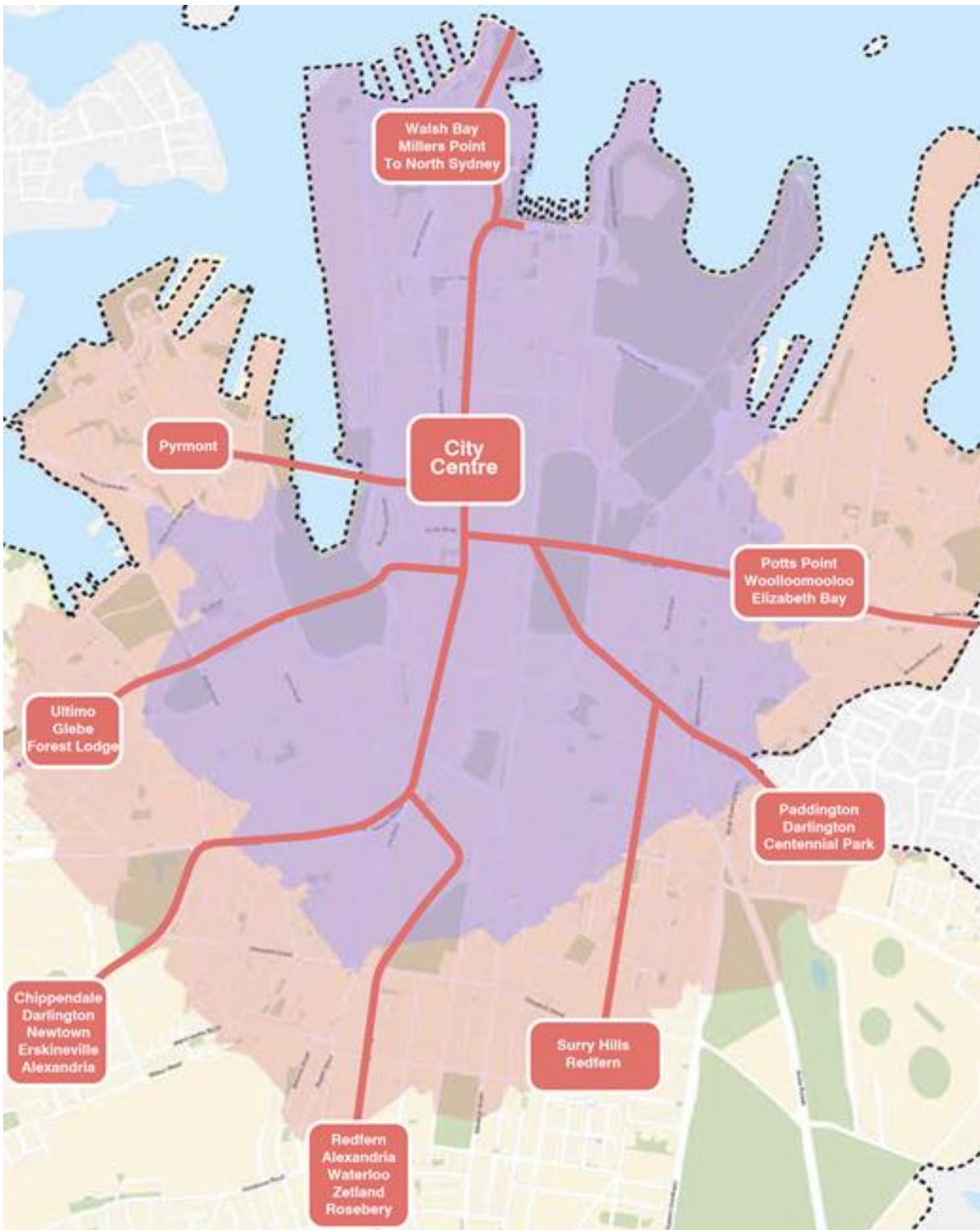


Figure 15 – Key walking routes within City of Sydney

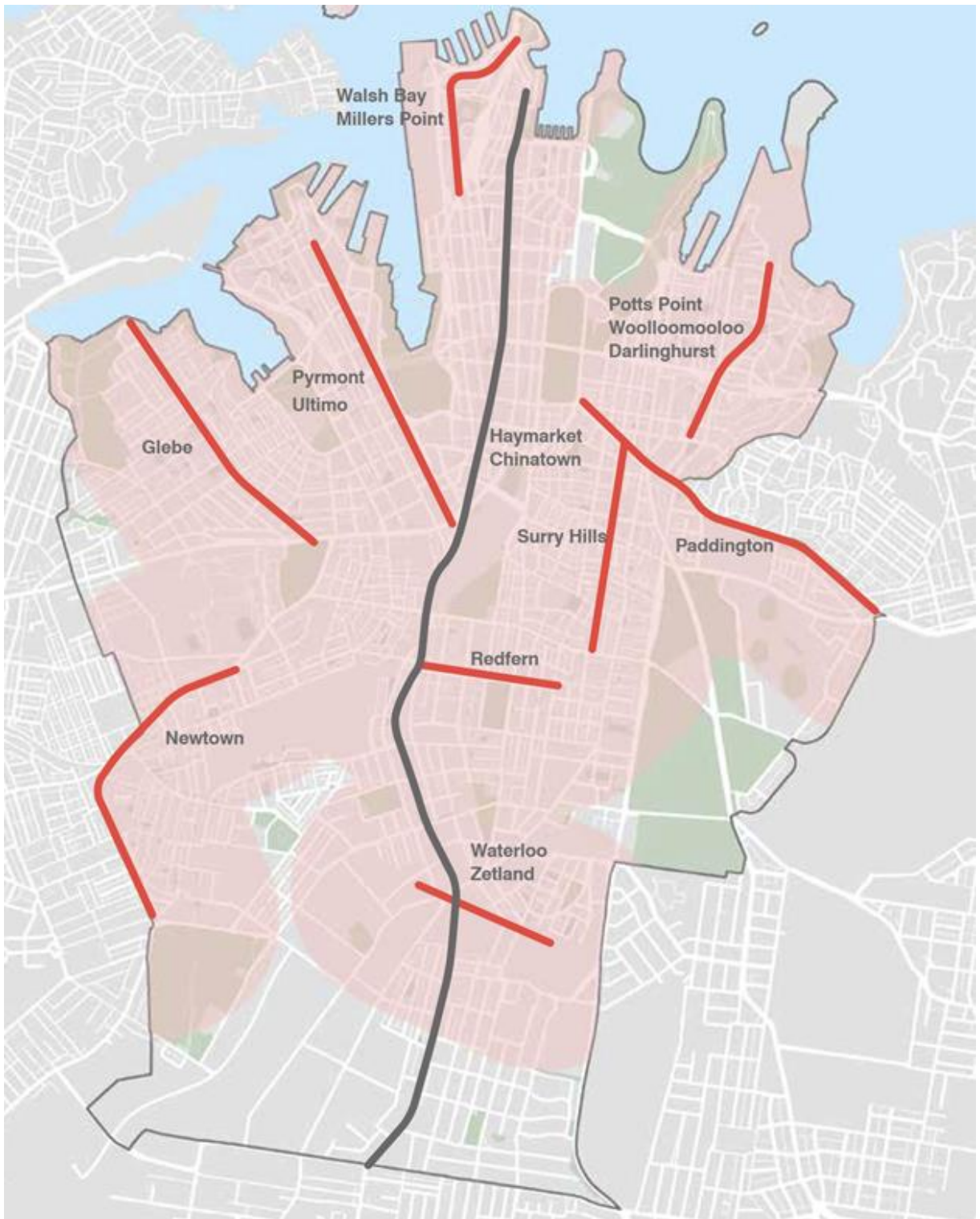


Figure 16 – Key activity streets within City of Sydney

3.2.5. City of Sydney Cycling Strategy and Action Plan

The City of Sydney has outlined key priorities to support more cycling to, from and within the City of Sydney as part of the Cycling Strategy and Action Plan:

- **Connect the network:** build a bike network to make it safer for people to ride in Sydney.
- **Support people to ride:** understand and address barriers and help people to start, and continue riding.
- **Support business:** partner with employers to encourage staff to ride.
- **Lead by example:** share our expertise and be a positive influence for improvements for cycling within and beyond our boundaries.

Figure 17 shows the proposed cycling network including 11 regional routes that are prioritised for separated cycleways. The key connections that are identified as being gaps in the regional cycle network relevant to the Pyrmont Peninsula include:

- Extension of Union Street cycleway to Bank Street.
- Active transport link across Blackwattle Bay at Glebe Island Bridge.
- Cycleway along Pyrmont Bridge Road and Bridge Road.
- Extension of the Goods Line link to Central Station.

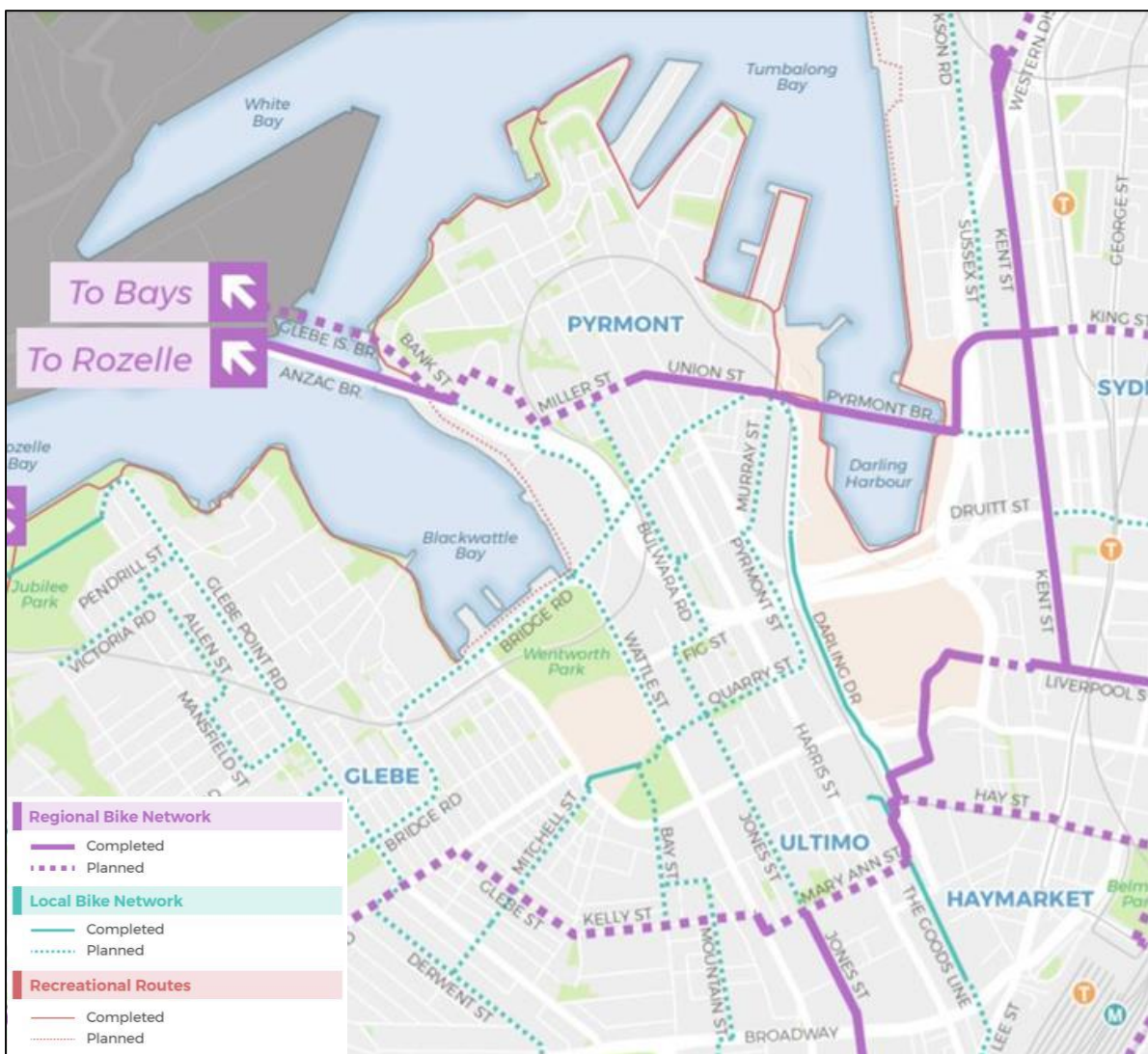


Figure 17 – City of Sydney proposed cycle network through Pyrmont

3.2.6. Rozelle to Ultimo Precinct Road Network Plan

The Rozelle to Ultimo Precinct Road Network Plan was prepared by Transport for NSW in 2018 to provide a framework for improving the operation and management of 10 key road corridors within the Rozelle to Ultimo precinct shown in Figure 18, with the vision for those corridors relevant to the Pyrmont Peninsula being:

- **Harris Street:** a “Place for People” to become a valued environment for the Pyrmont community and visitors.
- **Wattle Street, Pyrmont Bridge Road and Bridge Road:** to become “Local Streets” that support the urban fabric of Ultimo and Pyrmont.
- **Broadway:** to become a “Vibrant Street” that successfully combines the demand for public transport movement and high pedestrian activity.

Key opportunities that were identified as part of the road network plan that are relevant to the Pyrmont Peninsula include:

- Reviewing road space allocations resulting from major developments such as WestConnex, Western Harbour Tunnel and Sydney Metro West.
- Improving active transport connections for key destinations including Sydney Fish Markets, Wentworth Park and Inner West Light Rail stops.
- Review of traffic functions along Bridge Road and Pyrmont Bridge Road to provide higher priority to public transport.
- Investigate the feasibility of converting Wattle Street, Abercrombie Street and Harris Street to two-way operation.
- Review the balance of parking restrictions and clearways as future traffic movements and land uses change.
- Undertake a review and implement safety measures at the intersections of Broadway and Wattle Street, Harris Street and Broadway, Harris Street and Fig Street and Harris Street and Ultimo Road.

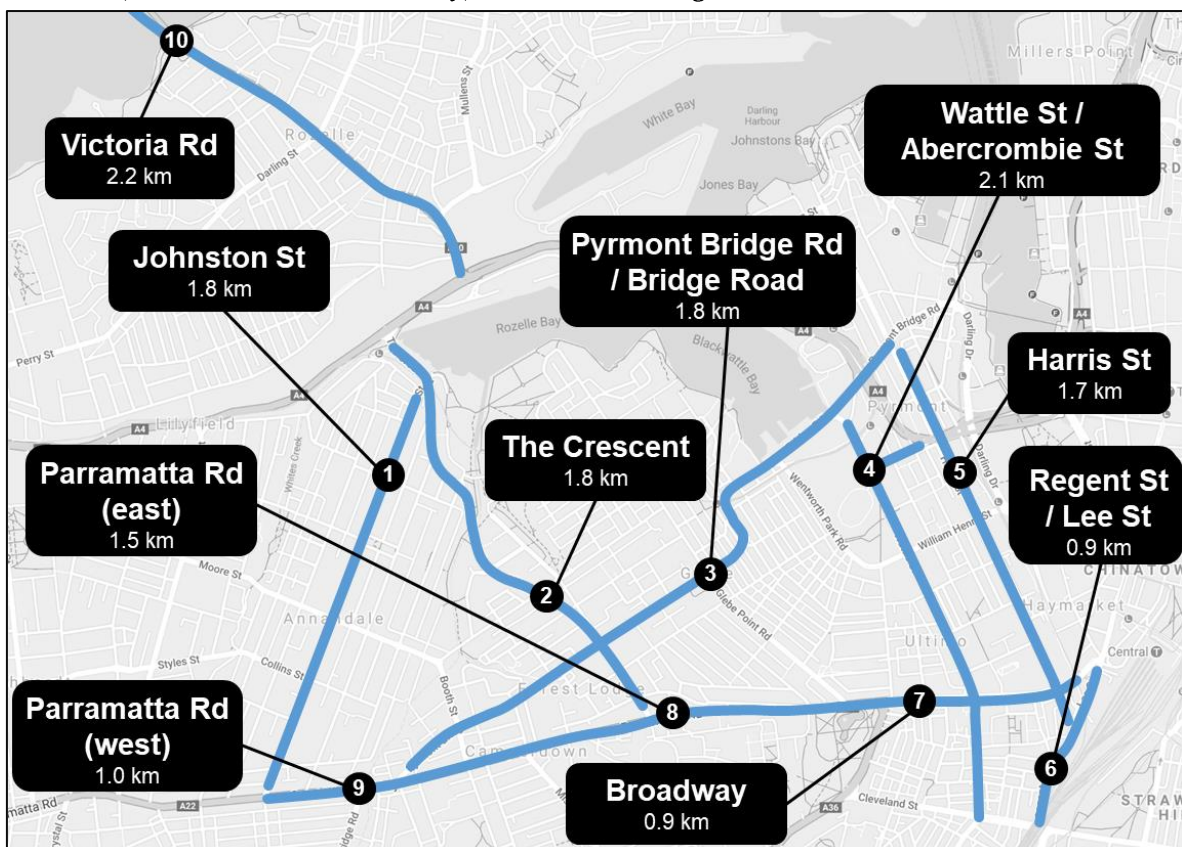


Figure 18 – Pyrmont Ultimo Road Network Plan study area

3.3. Key implications

The urban and policy context for Pymont Peninsula entails the following strategic implications:

- The Pymont Peninsula needs to be better connected as part of the Eastern Economic Corridor in order to continue to support high value knowledge-based jobs.
- Opportunities should be explored to improve connectivity to support the realisation of the Innovation Corridor to encourage employment and innovation economy roles.
- Regional scale projects influencing the Pymont Peninsula need to be leveraged to rationalise connectivity and reduce through-traffic impacts on local areas.
- District level initiatives should be built on to provide the best local connectivity outcomes for Pymont-Ultimo and the Innovation Corridor.
- The street network structure needs to reflect the lower priority of cars in the expanded city centre and reduce through-traffic movements by taking advantage of new western-CBD bypass created by WestConnex and Western Harbour Tunnel.
- Walking and cycling need to be prioritised consistent with City of Sydney policy and their existing modal dominance within the CBD and the Pymont Peninsula.

4. Population and land use context

This chapter provides a summary of the current Transport for NSW population and employment forecasts for the Pyrmont Peninsula along with an analysis of the existing employment and floorspace data collected by City of Sydney. Major projects that are currently proposed and under assessment around the Pyrmont Peninsula are also examined as part of this context.

4.1. Transport for NSW population and employment forecasts

Transport for NSW government employment and residential population forecasts (TZP/LU16) and densities for the Pyrmont Peninsula and surrounding areas are shown in Table 4 and Table 5, with a comparison of forecast employment to residential population for the same areas shown in Table 6. The key observations of these forecasts are:

- **Total employment** across Pyrmont Peninsula is forecast to grow by **34 per cent by 2036 and 69 per cent by 2056**, while **total residential** population is forecast to increase by **56 per cent by 2036 and 83 per cent by 2056**. While this shows that there is a higher growth rate forecast for residential population than employment population, the forecasts still indicate the Pyrmont Peninsula will be predominantly an employment area into the future.
- Both employment and residential densities are forecast to increase for Pyrmont Peninsula by **70 per cent and 83 per cent respectively**. These densities will be higher than the average for the City of Sydney LGA, but still be substantially lower than those within the CBD core.
- **Employment and residential population densities** are forecast to be substantially higher than the forecast average for the Eastern City, supporting the case for increased public transport capacity, particularly heavy rail in the form of a metro station.
- The overall **potential for containment** of journey-to-work trips is low as there are **nearly two jobs for every resident in the Pyrmont Peninsula**, a trend that is likely to continue into the future. This further highlights the need for additional public transport capacity for workers to travel to and from the Pyrmont Peninsula in the future.

A further breakdown of the Pyrmont Peninsula employment and residential population forecasts are shown in Table 7 and Table 8. Further breakdown of these forecasts indicates:

- The majority of growth in employment is forecast to occur at Harbourside, Exhibition Centre and Darling Island along the eastern foreshore, with some secondary employment growth in Ultimo. When comparing both population and employment forecasts, most of the growth potential in employment is within the Pyrmont area.
- The majority of growth in residential population is also forecast to occur along the eastern foreshore and in Ultimo, indicating that this residential growth is forecast to be delivered as part of mixed-use development in areas of highest development potential. There is much more forecast growth in residential population within Ultimo in the short term, which is then forecast to shift to Pyrmont in the longer term.

Table 4 – Transport for NSW employment forecasts (TZP/LU16)

Location	Area (ha)	EMP 2016	EMP 2036	EMP 2056	EMP/ha 2016	EMP/ha 2036	EMP/ha 2056
Pymont-Ultimo	172.0	39,396	52,791	66,761	229.0	306.9	388.1
CBD and Harbour	300.4	274,928	358,761	451,789	915.1	1,194.2	1,503.8
Chinatown and CBD South	119.9	74,347	97,135	119,870	619.9	809.9	999.5
City of Sydney LGA	2,669.3	545,353	717,172	896,784	204.3	268.7	336.0
Eastern City District	20,971.3	904,410	1,182,973	1,469,286	43.1	56.4	70.1

Table 5 – Transport for NSW residential population forecasts (TZP/LU16)

Location	Area (ha)	ERP 2016	ERP 2036	ERP 2056	ERP/ha 2016	ERP/ha 2036	ERP/ha 2056
Pymont-Ultimo	172.0	20,245	31,509	36,969	117.7	183.1	214.9
CBD and Harbour	300.4	10,372	19,853	24,922	34.5	66.1	83.0
Chinatown and CBD South	119.9	20,831	32,818	42,346	173.7	273.6	353.1
City of Sydney LGA	2,669.3	211,397	312,910	398,503	79.2	117.2	149.3
Eastern City District	20,971.3	1,012,388	1,337,460	1,706,476	48.3	63.8	81.4

Table 6 – Transport for NSW forecast employment to population ratios (TZP/LU16)

Location	EMP/ERP2016	EMP/ERP2036	EMP/ERP2056
Pymont-Ultimo	1.9	1.7	1.8
CBD and Harbour	26.5	18.1	18.1
Chinatown and CBD South	3.6	3.0	2.8
City of Sydney LGA	2.6	2.3	2.3
Eastern City District	0.9	0.9	0.9

Table 7 – Transport for NSW employment population forecasts by travel zone (TZP/LU16)

ID	Travel zone	2016	2036	2056
78	Star City, Pymont Bay Ferry Wharf	240	285	360
88	Darling Harbour, Novotel, Grand Mercure, Ibis	256	292	331
89	Harbourside, Darling Harbour	1,160	2,540	3,674
151	Pymont, Darling Island	15,508	19,020	24,227
152	John St Square MLR	3,639	4,438	5,589
153	Fish Markets MLR	2,074	3,679	4,576
154	Hardwood St	707	878	1,119
155	Experiment St	196	252	329
156	Wentworth Park MLR	1,439	1,683	2,068
	<i>Pymont sub-total</i>	<i>25,219</i>	<i>33,068</i>	<i>42,273</i>
108	Exhibition Centre, Darling Harbour	1,670	2,224	2,772
125	Entertainment Centre	300	2,483	3,141
157	Powerhouse Museum Ultimo	4,025	4,904	6,157
159	UTS, Ultimo West	5,206	6,857	8,646
160	ABC Ultimo Centre	2,975	3,255	3,772
	<i>Ultimo sub-total</i>	<i>14,176</i>	<i>19,723</i>	<i>24,488</i>
	Total	39,396	52,791	66,761

Table 8 – Transport for NSW residential population forecasts by travel zone

ID	Travel zone	2016	2036	2056
78	Star City, Pyrmont Bay Ferry Wharf	-	-	-
88	Darling Harbour, Novotel, Grand Mercure, Ibis	471	631	811
89	Harbourside, Darling Harbour	-	-	-
151	Pyrmont, Darling Island	2,504	3,153	3,358
152	John St Square MLR	3,667	4,075	5,472
153	Fish Markets MLR	1,454	2,369	4,269
154	Hardwood St	1,451	1,654	1,669
155	Experiment St	938	952	979
156	Wentworth Park MLR	4,157	5,552	5,720
	<i>Pyrmont sub-total</i>	<i>14,641</i>	<i>18,385</i>	<i>22,279</i>
108	Exhibition Centre, Darling Harbour	-	-	-
125	Entertainment Centre	-	2,648	3,410
157	Powerhouse Museum Ultimo	3,637	4,420	4,593
159	UTS, Ultimo West	1,588	3,424	3,616
160	ABC Ultimo Centre	380	2,631	2,663
	<i>Ultimo sub-total</i>	<i>5,604</i>	<i>13,124</i>	<i>14,689</i>
	Total	20,245	31,509	36,969

Figure 19 to Figure 22 shows the same employment and population growth forecasts in terms of employment and population density. Key observations from the forecast employment and population density shows the following:

- While much of the existing high-density employment in Ultimo is within the walking catchment of Central station, there is also a large cluster of high-density employment in the north of the Pyrmont Peninsula that is over 1km from heavy rail.
- By 2056, future forecast employment density is likely to be much more consistent across the peninsula, with employment density increasing in areas adjacent to the Western Distributor, indicating a need to provide better access to public transport for these areas that are outside of the Central station catchment and not within short walking distance of Pyrmont Bridge.
- Existing residential population density is currently clustered around developments to the north in Jacksons Landing and in Ultimo between the Western Distributor and William Henry Street. Jacksons Landing is primarily populated by professional workers working in Sydney CBD, while Ultimo is primarily populated by students studying at University of Technology Sydney and other educational institutions in Ultimo.
- Future forecasts of population density show that increased population density is forecast for the western foreshore around Sydney Fish Market and southern Ultimo. While residential development in southern Ultimo will be within walking distance of heavy rail, the area surrounding the western foreshore has poor access to heavy rail and is not well-served by active transport infrastructure.

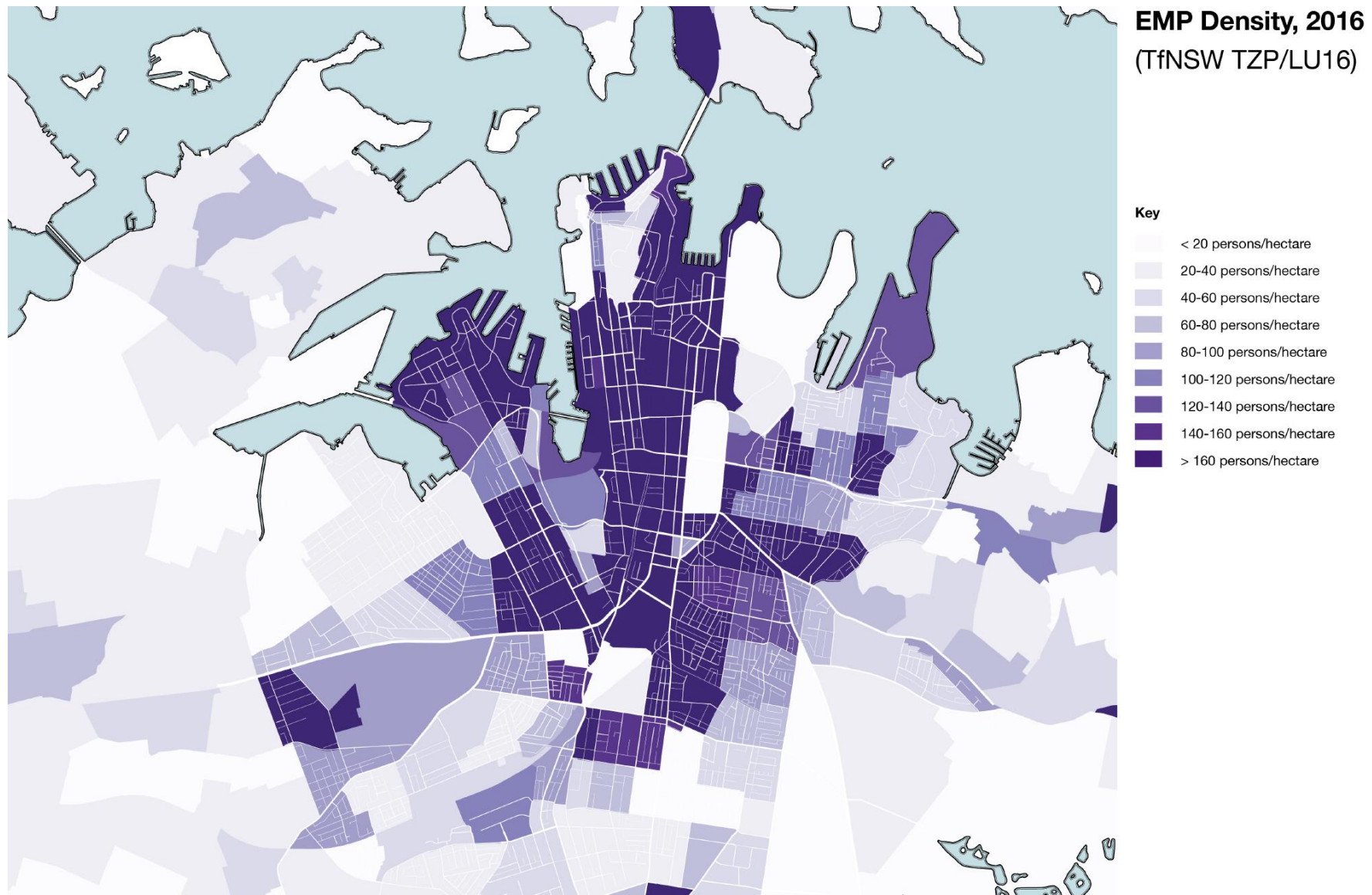


Figure 19 – Existing 2016 employment density (TfNSW)

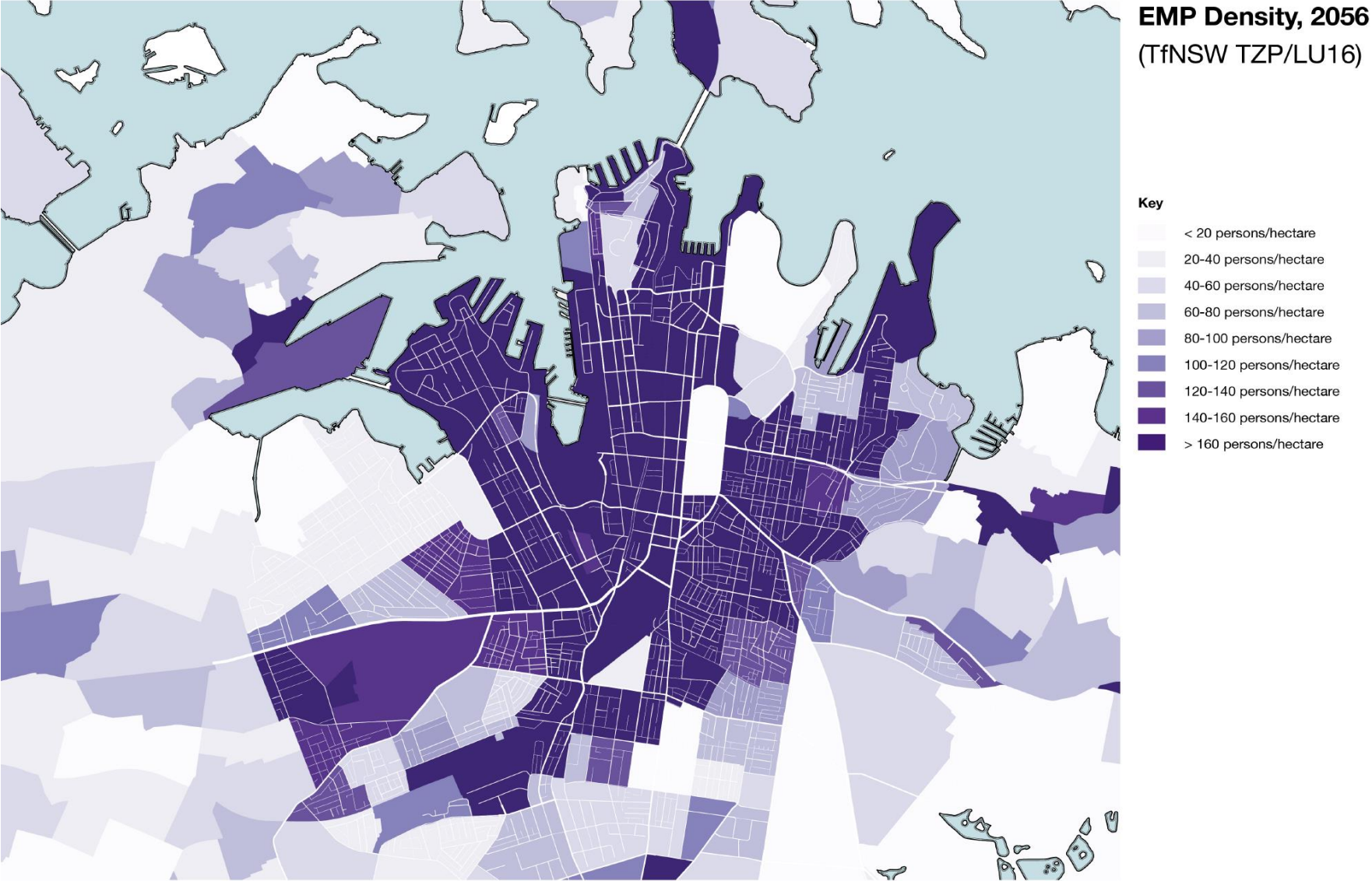


Figure 20 –Forecast 2056 employment density (TfNSW)

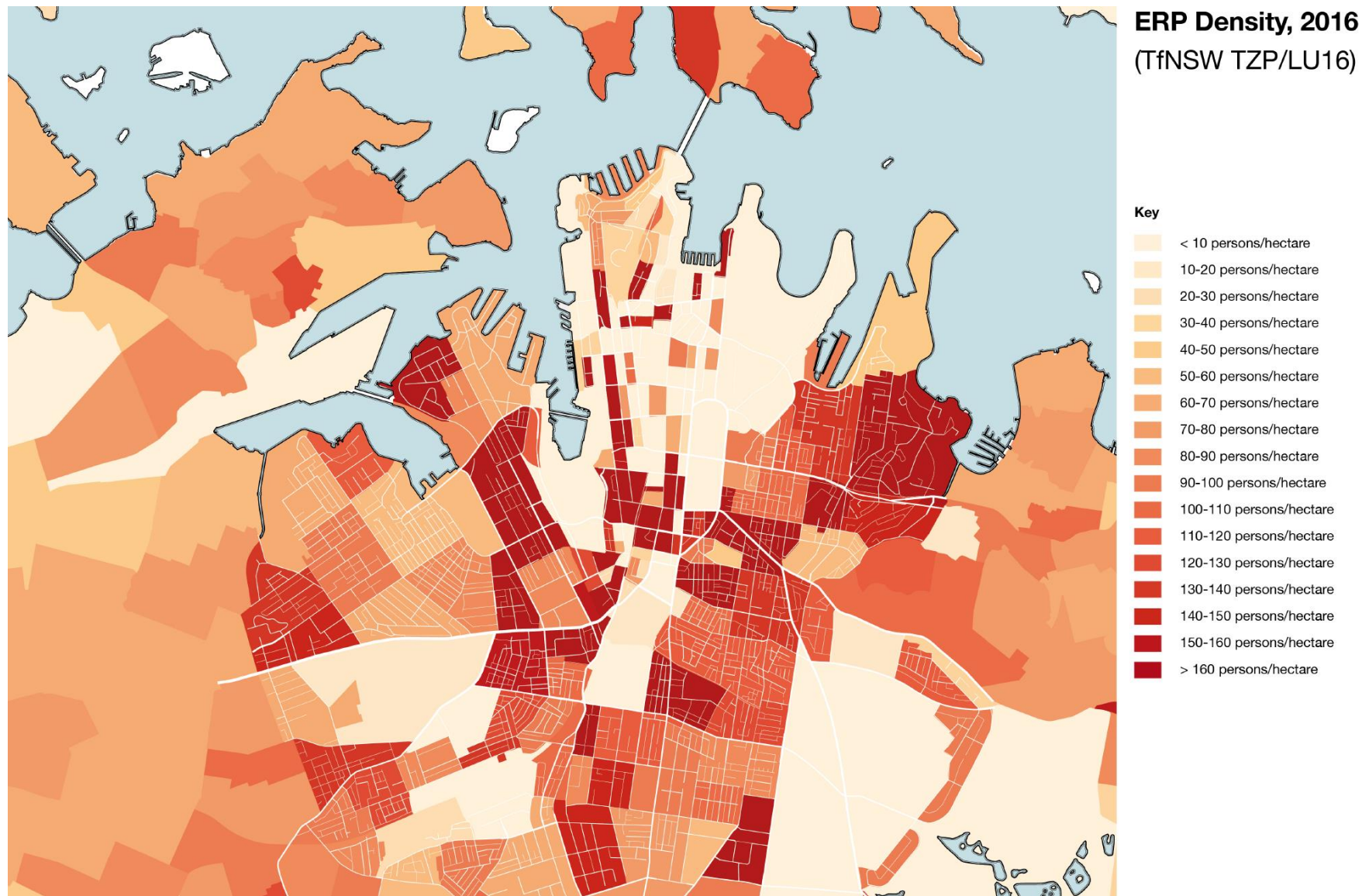


Figure 21 – Existing population density (TfNSW)

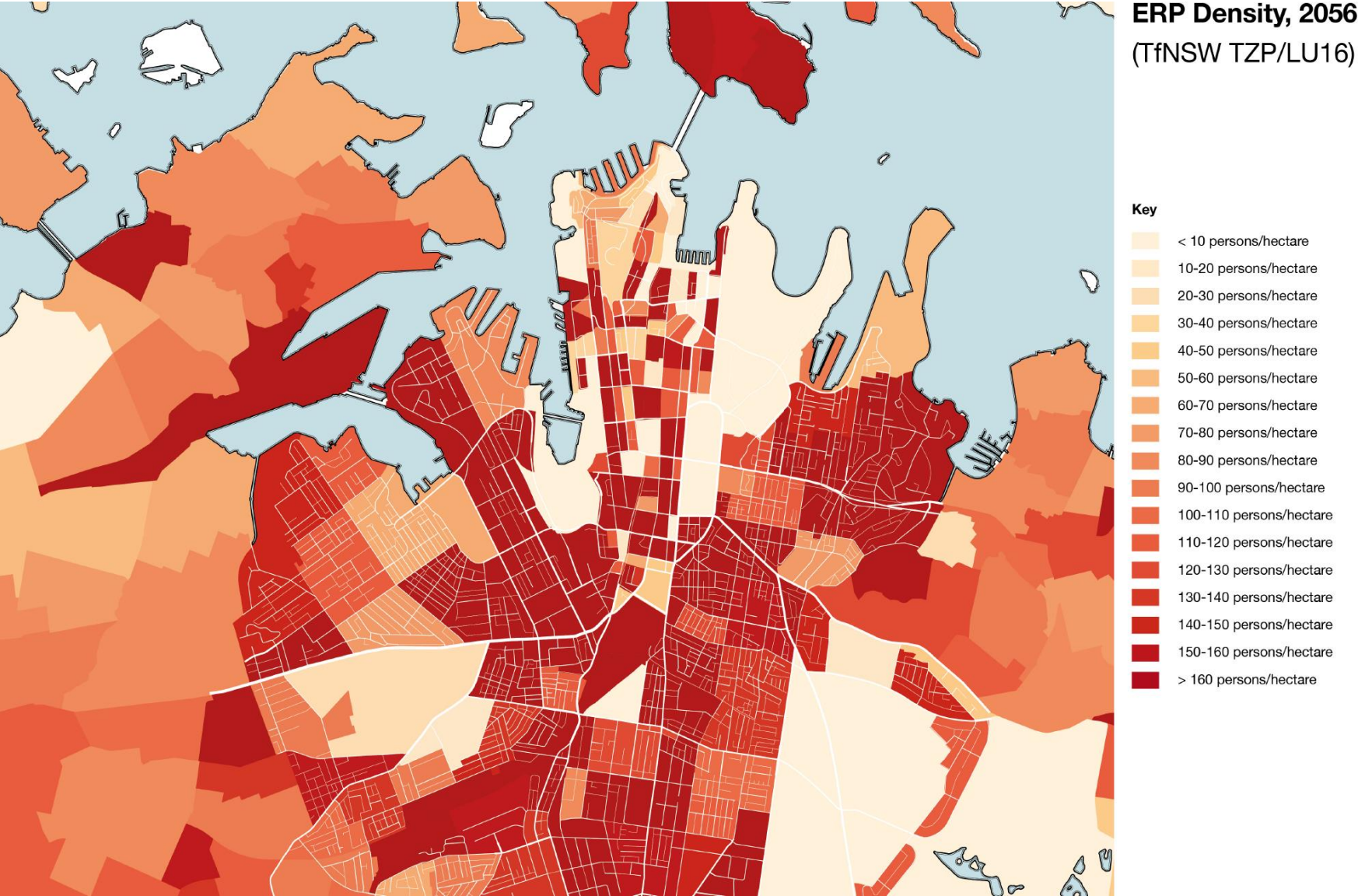


Figure 22 –Forecast 2056 population density (TfNSW)

4.2. City of Sydney employment and floor space data

The City of Sydney undertook its most recent floorspace and employment survey in 2017, collecting data on all businesses, floor space uses and employment numbers for every building and property within the City of Sydney local government area. This survey provides a snapshot of the built form, land use and economic activity within the City of Sydney at the time of the survey. The Pyrmont Peninsula study area corresponds broadly with the Harris Street village grouping (noting that this area is smaller than the Pyrmont SA2 region). The floorspace and employment survey provides more detailed information about residential and employment land use within the Pyrmont Peninsula.

Table 9 shows the top six industry sectors in the Harris Street village by number of workers; this data shows that the majority of employment within Harris Street village is office-based professional employment with a secondary cluster around tourism and entertainment.

Table 9 – Top 6 employment sectors in Harris Street village by workers

City-based industry sector	Workers
Creative industries	6,587
Higher education and research	6,451
ICT	6,317
Professional and business services	5,324
Tourist, cultural and leisure	4,894
Food and drink	2,035

The distribution of employment clusters by industry sector are shown in Figure 23 to Figure 26, indicating the following employment clusters:

- Financial services and property services: located primarily in Pyrmont, with the majority clustered around Harris Street north of Pyrmont Bridge Road and a secondary cluster around the intersection of Wattle Street and William Henry Street.
- Creative industries, information media and professional services: located throughout the Pyrmont Peninsula with a primary cluster around Jones Bay Wharf and secondary clusters around Blackwattle Bay and University of Technology, Sydney.
- Health services: located primarily in Pyrmont with a cluster around Harris Street north of Pyrmont Bridge Road.
- Education: located in Ultimo with a primary cluster around University of Technology, Sydney
- Transport and logistics and manufacturing: located around Harris Street north of Pyrmont Bridge Road and around the intersection of Wattle Street and William Henry Street.

Analysis of the 2017 floorspace and employment survey data shows the following:

- The average floorspace allocation per employee in the Harris Street village is 38.4m² per employee; based on the NSW government forecast, an additional 490,000m² of floorspace would be required to meet employment population forecasts by 2036.
- The average floorspace allocation per resident across the City of Sydney local area is 55m² per resident; based on the NSW government forecast an additional 680,000m² of floorspace would be required to meet residential population forecasts by 2036.
- Based on the NSW government forecasts and average employment and residential densities across Pyrmont Peninsula, approximately 1,200,000m² of additional floorspace would be required across the whole of the Pyrmont Peninsula.
- The 2017 floorspace and employment survey indicates significant centres in the north of Pyrmont (centred around Union Square), in northern Ultimo (centred around Harris Street and William Henry Street) and southern Ultimo (centred around University of Technology Sydney).

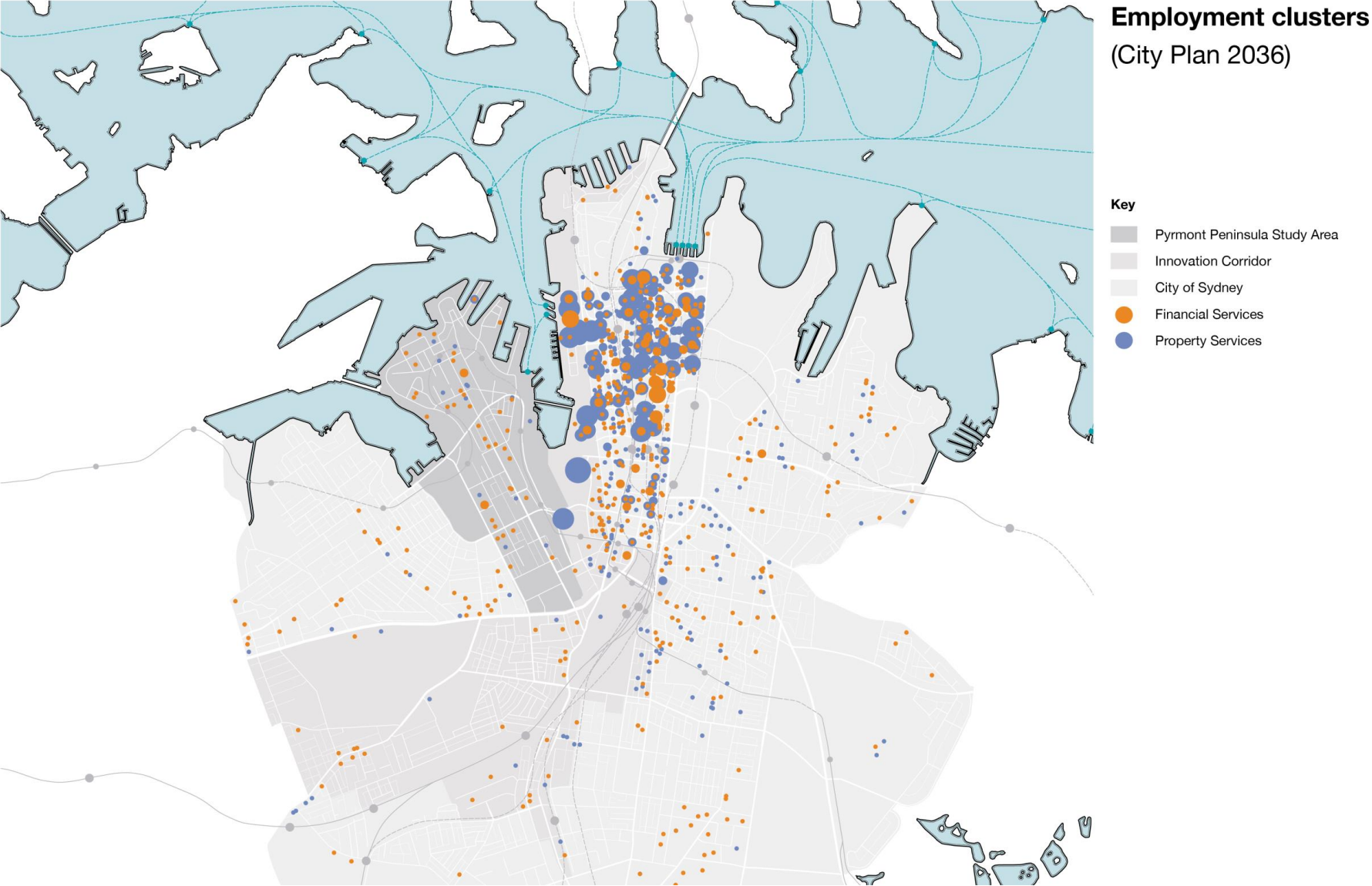


Figure 23 – Distribution of financial services and property services employment clusters

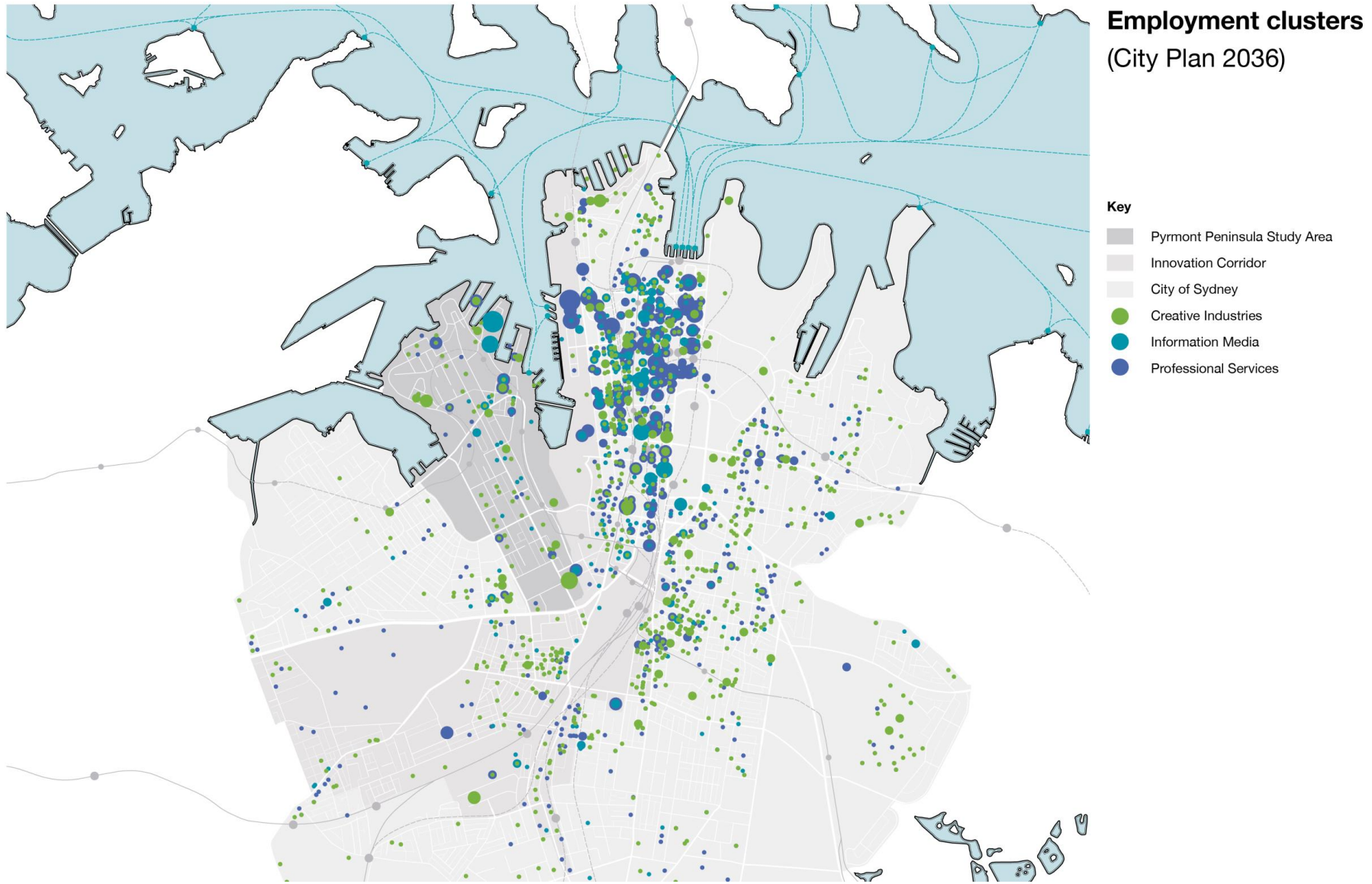


Figure 24 – Distribution of creative industries, information media and professional services employment clusters

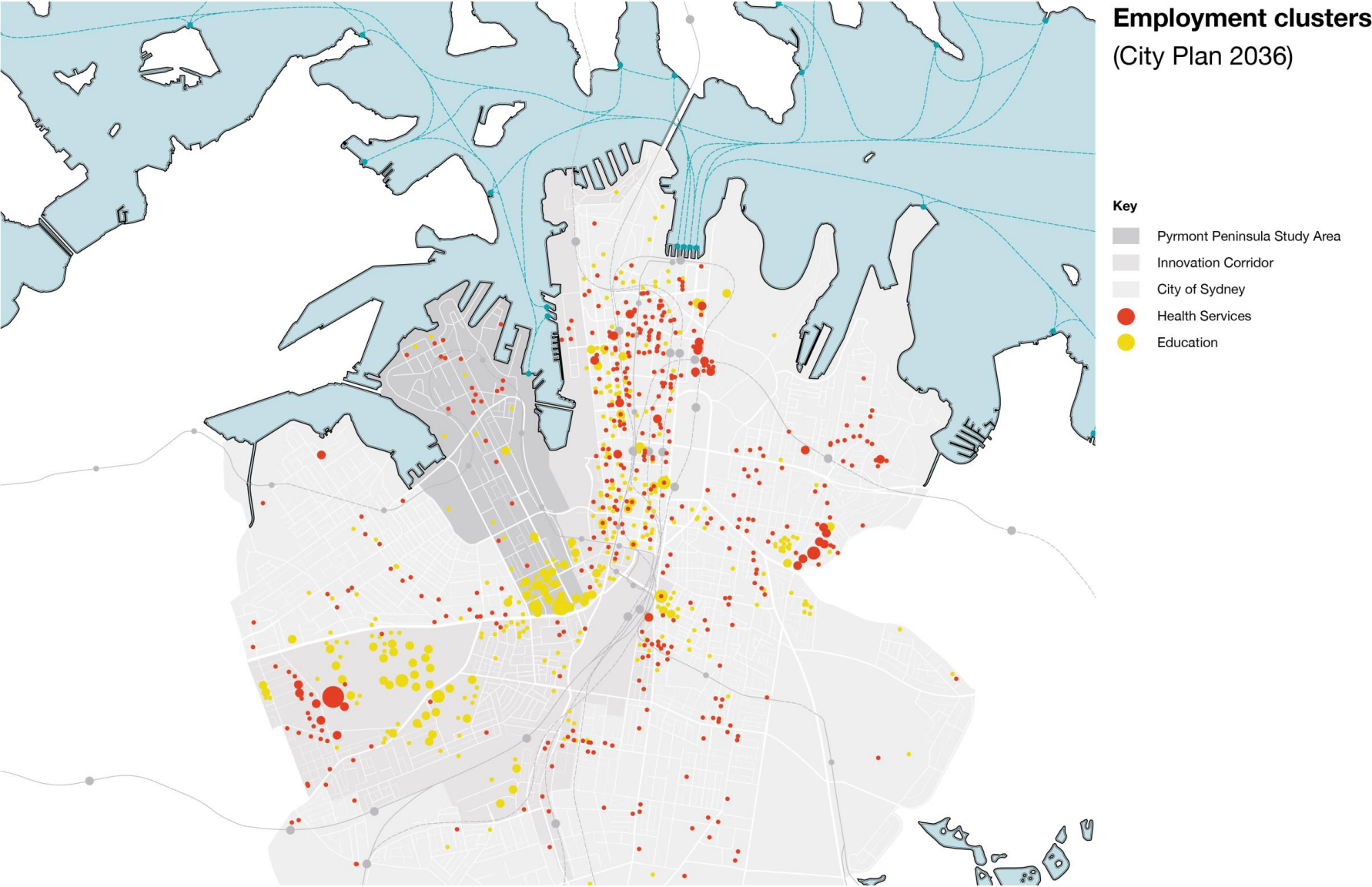


Figure 25 – Distribution of health services and education employment clusters

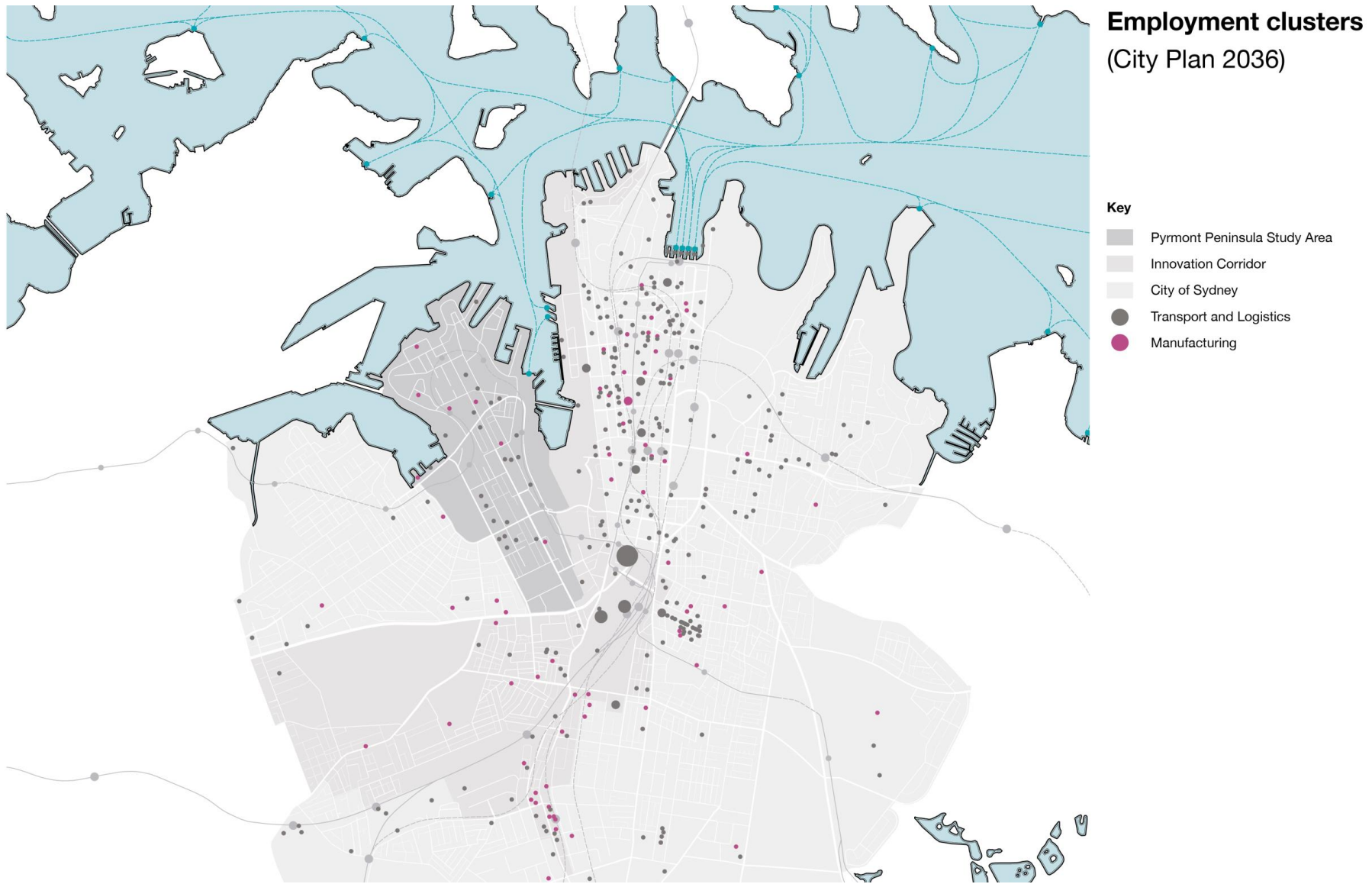


Figure 26 – Distribution of transport & logistics and manufacturing employment clusters

4.3. Key destinations and attractors

In addition to key employment and residential population clusters, travel to and from the Pymont Peninsula is influenced by a number of key destinations and attractors that contribute to travel demand and are significant places in their own right, as shown in Figure 27. These destinations and attractors generate travel demand that may be outside of the typical commuter peak and have their own distinct transport needs separate from commuter travel. The key destinations and attractors that have been considered in this strategy include:

1. **The Star Casino** – significantly redeveloped in 2011, The Star Casino is a global visitor attraction and currently Sydney’s only casino. As a central component of Pymont nightlife, typically trading late into the night, light rail services run a truncated route between The Star and Central Station to provide late-night public transport access to The Star.
2. **Sydney Fish Market** – Sydney Fish Market incorporates a working fishing port, wholesale fish market along with retail, food and beverage offerings. Access to Sydney Fish Market is via Bank Street in close proximity to the Western Distributor interchange at Pymont Bridge Road. In 2016, NSW Government announced that the Sydney Fish Market would be redeveloped as part of a revitalised Blackwattle Bay, which would also include returning public access to Blackwattle Bay foreshore. Planning approval for this redevelopment was granted in June 2020.
3. **International Convention Centre Sydney (ICC Sydney)**– Redeveloped in 2016 and replacing the Sydney Convention Centre and Exhibition Centre, ICC Sydney is the largest exhibition and convention centre in Australia, incorporating convention spaces for up to 2500 people. In 2019, ICC Sydney hosted over 700 events and catered for more than 1.3 million visitors. ICC Sydney generates substantial travel demand during large events and is primarily served by light rail access at Convention Centre and Exhibition Centre light rail stops along with significant private coach and car demand during events.
4. **Museum of Applied Arts and Sciences (Powerhouse)** – The Powerhouse Museum houses a diverse technology collection encompassing decorative arts, science, communication, transport, costume, furniture, media, computer technology, space technology and steam engines. Although in 2019, the NSW Government announced that the Powerhouse Museum would occupy a new site in Parramatta by 2021, in 2020 it was confirmed in a media release of 4 July 2020 that the existing Ultimo site would remain as a centre for fashion and design.
5. **Australian National Maritime Museum (ANMM)** – ANMM houses seven galleries that document the maritime history of Australia and attracts over 750,000 visitors a year and also houses venues for private events. Travel to ANMM via public transport is generally by bus or from Pymont Bay light rail stop. Prior to 2019, the ANMM forecourt was used by Sydney buses for layovers, however following the redevelopment of the ANMM forecourt, these layover spaces have been permanently relocated to The Star Casino.
6. **University of Technology, Sydney (UTS)** – As the primary education institution in the Pymont Peninsula, UTS along with TAFE NSW Ultimo dominates the education cluster in southern Ultimo. Unlike other Universities in Sydney, the UTS and TAFE campuses are spread across numerous building on public roads of Harris Street, Broadway, Jones Street, Harris Street, Mary Anne Street and Thomas Street. These buildings generate significant pedestrian and cycle demand across Broadway and Harris Street due to their proximity to Central station and Railway Square.
7. **Wentworth Park** – As the largest open space site in close proximity to Pymont Peninsula, Wentworth Park is of regional significance to Pymont, Ultimo and Glebe. In addition to public football and soccer fields, Wentworth Park is currently the site of an existing greyhound racing track and the temporary Ultimo Public School. The NSW Government will investigate the return of the Wentworth Park greyhound track land, and the temporary pop up school, as newly activated, publicly accessible open space as part of a larger and enhanced parkland once their terms expire.

Pymont Peninsula key destinations

- 1. The Star Casino
- 2. Sydney Fish Market
- 3. International Convention Centre Sydney
- 4. Museum of Applied Arts and Sciences
- 5. Australian National Maritime Museum
- 6. University of Technology Sydney
- 7. Wentworth Park

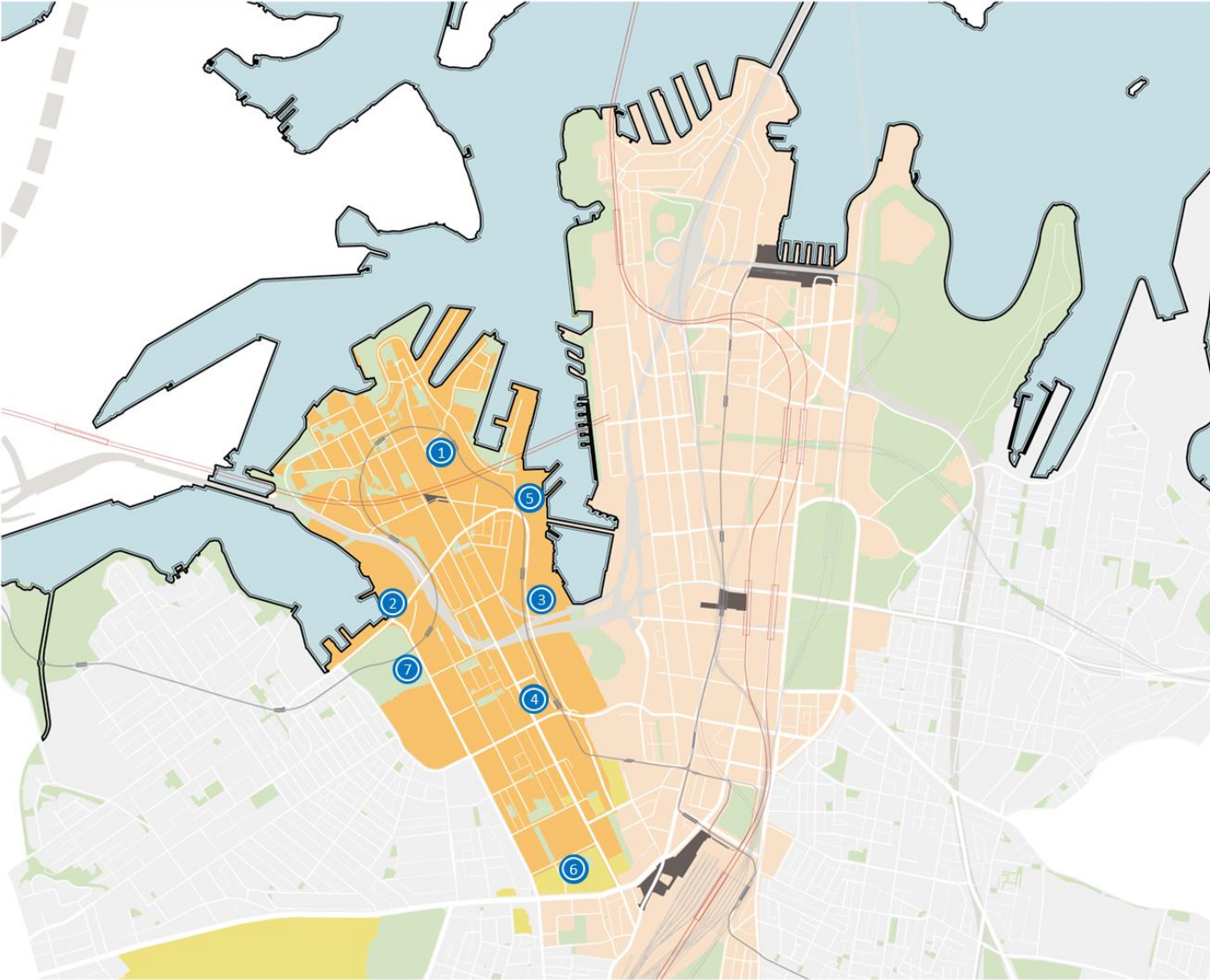


Figure 27 – Key visitor attractions in the Pymont Peninsula

4.4. Major projects

The Pyrmont Peninsula and its surrounding context are subject to a number of city-shaping transport infrastructure projects that are currently in planning or identified in Future Transport 2056 for investigation. This section outlines the key projects that are currently subject to environmental planning and approval or under construction, including:

- WestConnex M4–M5 Link
- Western Harbour Tunnel
- Sydney Metro West

4.4.1. WestConnex – M4-M5 Link

The M4–M5 Link, part of WestConnex as shown in Figure 28, is being delivered in two stages:

- Stage one – construction of the M4–M5 Link Tunnels between the New M4 at Haberfield and the New M5 at St Peters and stub tunnels to the Rozelle Interchange.
- Stage two – construction of the Rozelle Interchange and Iron Cove Link.

The M4–M5 Link Tunnels project is the final component of WestConnex, featuring twin tunnels between the New M4 at Haberfield and the New M5 at St Peters. Each tunnel will be approximately 7.5 kilometres long and able to accommodate up to four lanes of traffic in each direction.

When complete, the M4–M5 link will enable WestConnex to perform the role of Western CBD Bypass. This role is currently performed by a number of connecting arterials comprising Botany Rd/Regent St/Gibbons St/Abercrombie St/Wattle St/Harris St that bypass the CBD and connect Sydney Airport and Port Botany to the Western Distributor. The reduction of this role will allow the current western CBD bypass to be repurposed to prioritise more place-based uses and activities.



Figure 28 – M4-M5 Link overview

4.4.2. Western Harbour Tunnel

The Western Harbour Tunnel and Warringah Freeway upgrade consists of:

- Western Harbour Tunnel which stretches from the Warringah Freeway at Cammeray, across Sydney Harbour, to the WestConnex interchange at Rozelle.
- An upgrade of the Warringah Freeway where the Western Harbour Tunnel will connect along with potential connections to a Beaches Link Tunnel that will connect Western Harbour Tunnel to the Northern Beaches.

Western Harbour Tunnel will provide a third crossing of Sydney Harbour connecting to the M4-M5 Link at Rozelle and Warringah Freeway at Cammeray, continuing the western bypass of the CBD and providing an alternative for trips that currently use the Sydney Harbour Bridge and Western Distributor through Pyrmont. An overview of the Western Harbour Tunnel and its connections is shown in Figure 29.

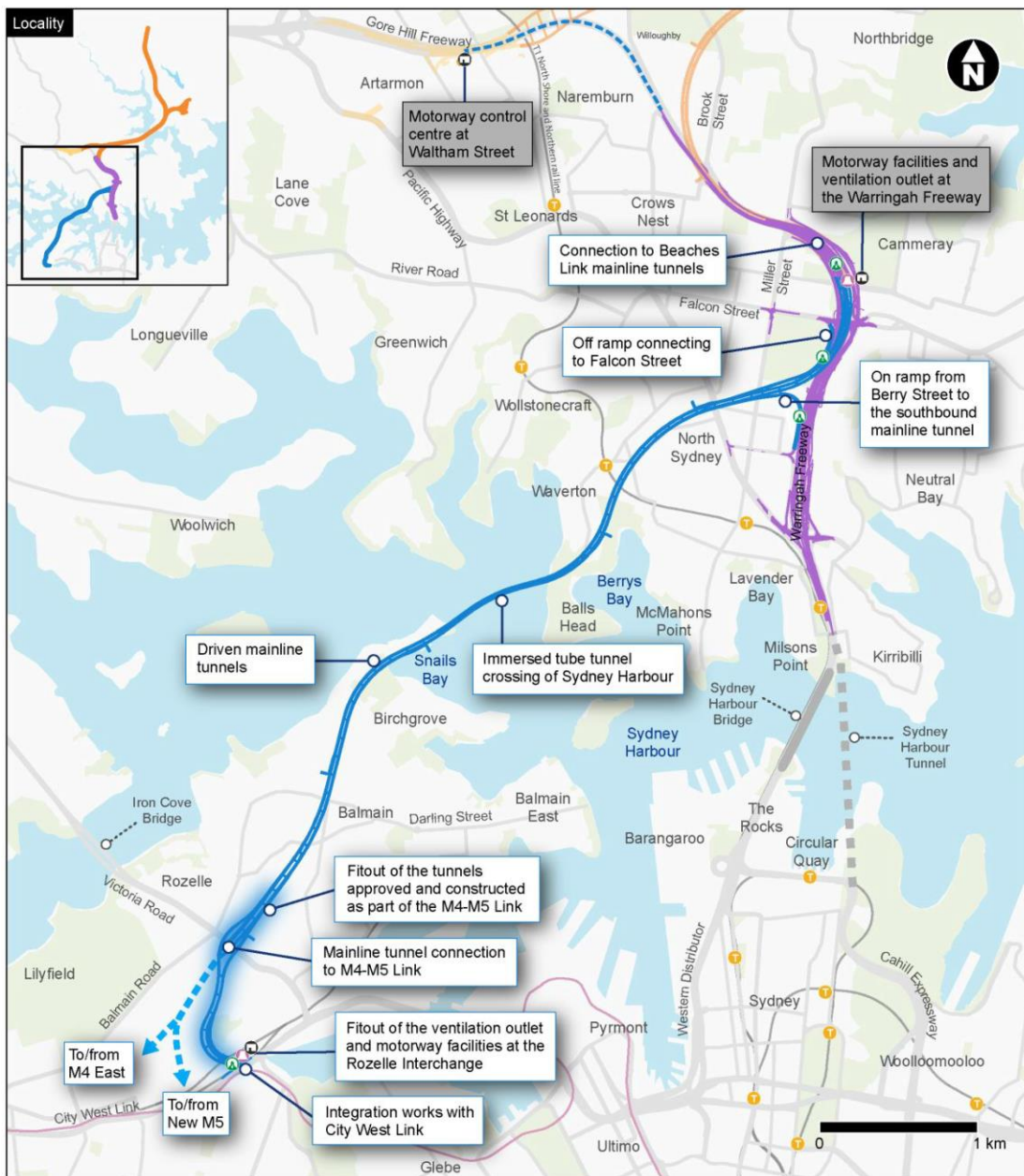


Figure 29 – Western Harbour Tunnel overview

4.4.3. Sydney Metro West

The Sydney Metro West project will support a growing city and deliver world-class metro services to more communities. This new underground railway will connect Greater Parramatta and the Sydney CBD as shown in Figure 30. The locations of seven proposed metro stations have been confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock and The Bays. Further planning and design work is underway to determine the location of a new metro station in the Sydney CBD.

The first Environmental Impact Statement for Sydney Metro West (Westmead to The Bays) was released in April 2020. This document covered assessment of the project at a concept level as well as Stage 1 covering all major civil construction between Westmead and The Bays including station excavation and tunnelling. At the time of public display, no decision had been made on the number and location of stations to the east of The Bays and a decision was made by NSW government to exclude a station at Rydalmere.

Planning for a potential metro station at Pymont is currently underway. Sydney Metro will continue to work closely with Government stakeholders to ensure that any plans for Pymont are consistent with the planning work being undertaken to revitalise the Pymont Peninsula, including the Western Harbour Precinct, into the next jobs hub and economic driver of Sydney.



Figure 30 – Sydney Metro West overview

4.5. Emerging transport and urban context

A summary of the major land use and transport initiatives surrounding the Pymont Peninsula is shown in Figure 31. Review of these transport and land use initiatives shows that while there are numerous projects that will affect transport in the Pymont Peninsula, there are conflicting priorities between these initiatives and strategic alignment of these priorities is required to resolve the following:

- Completion of the WestConnex program through M4-M5 Link and Rozelle interchange, along with the proposed Western Harbour Tunnel provides alternative routes for regional traffic that travels through the Pymont Peninsula, potentially freeing up space on surface streets.
- Road network planning for key state roads through the Pymont Peninsula has identified Harris Street and Wattle Street as corridors that could be modified to a lower traffic function and higher active or public transport function in concert with increased regional traffic capacity offered by surrounding motorway projects.
- A new metro station at Pymont would substantially increase the 30-minute travel catchment of the Pymont Peninsula for both workers and residents, allowing for public transport access to the Pymont Peninsula from as far west as Parramatta. This would support the key industries in the Pymont Peninsula including media, communications and technology that benefit from access to large labour markets, strengthening the Harbour City Innovation Corridor between Bays precinct and Redfern.
- City Plan 2036 identifies three distinct centres along Harris Street at Union Square, William Henry Street and Broadway that are currently not well-connected. These centres would benefit from better transport connections along Harris Street that would link these centres and provide better access to other centres along the Harbour City Innovation Corridor.
- There are gaps in the existing active transport network that are limiting active transport access to the south and the west that could be resolved through a combination of new active transport connections at Glebe Island Bridge and the Goods Line at Central and the Museum of Applied Arts and Sciences.

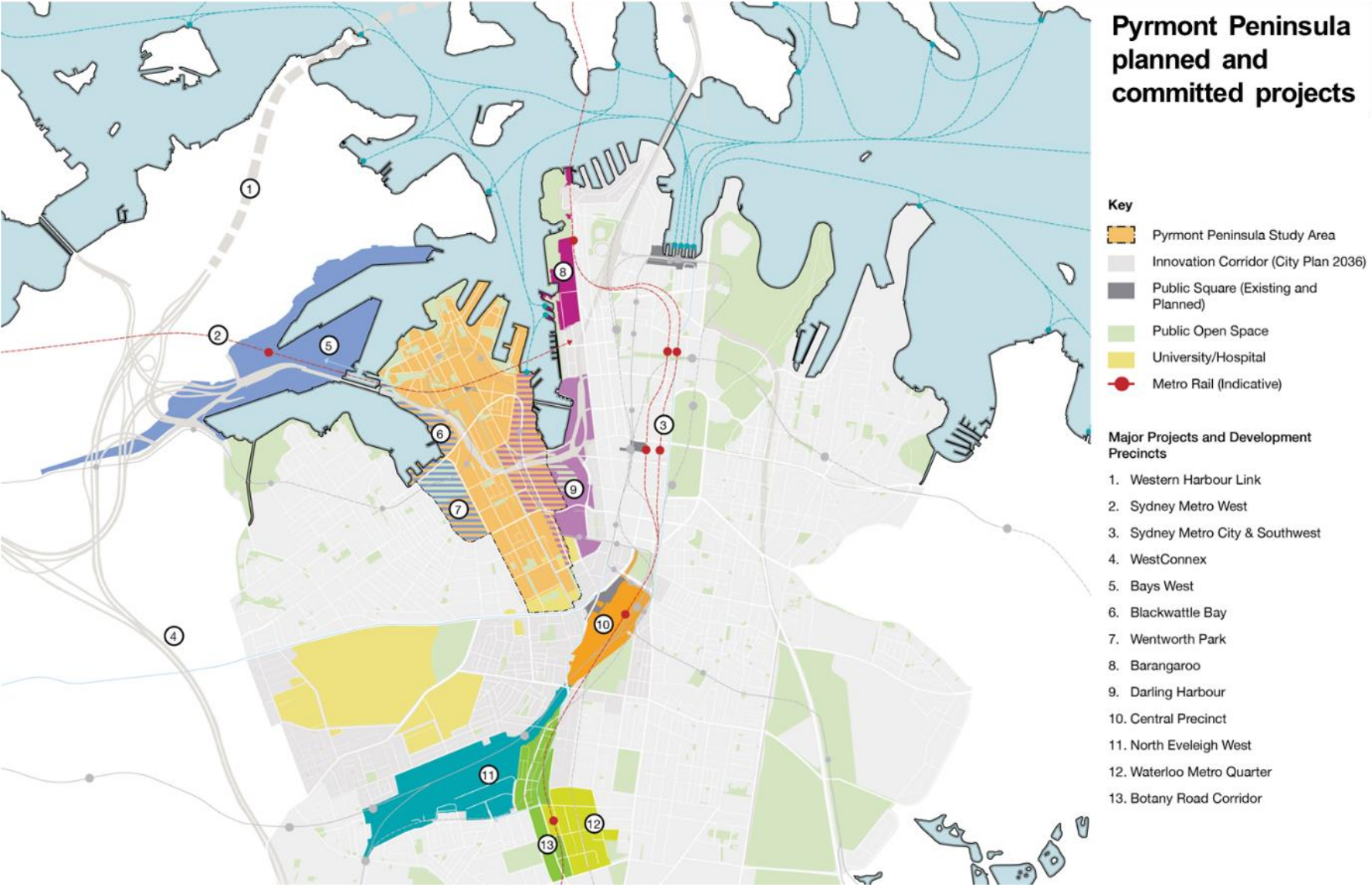


Figure 31 – Planned and committed transport network surrounding Pymont Peninsula

5. Pyrmont Peninsula transport network context

This chapter describes the broad spatial and behavioural parameters of the existing transport network within the Pyrmont Peninsula. Elements summarised in this section include:

- The transport network including roads, public transport and active transport.
- Existing travel behaviour and trends.
- The current and forecast future transport task based on land use growth forecasts.
- Benchmarking of existing and future travel task against other centres in Sydney.

5.1. Road network

Transport for NSW uses a Movement and Place framework to classify streets based on their relationship to both movement and place functions. The *Rozelle to Ultimo Precinct Road Network Plan (2018)* identifies the movement and place classifications for state roads within the Pyrmont Peninsula:

- **Segment 3 – Pyrmont Bridge Road/Bridge Road from Parramatta Road to Harris Street:** Designated as a Local Street (3B). It is a key local east–west connection, particularly for pedestrians and cyclists. Provides access to the Fish Markets and Anzac Bridge at the eastern end.
- **Segment 4 – Abercrombie Street/Wattle Street from Cleveland Street to Pyrmont Bridge Road:** Designated as a Local Street (3C). Provides north–south access in Pyrmont for traffic, freight, cyclists and pedestrians. Connections via Fig Street and William Henry Street to the Western Distributor.
- **Segment 5 – Harris Street from Lee Street to Bridge Road:** Designated as a Local Street (3C). Provides access to multiple national and city–wide destinations including the Powerhouse Museum and multiple universities. Connection from Western Distributor to Parramatta Road.

This movement and place classification, including other local roads in the Pyrmont Peninsula is shown in Figure 32. Streets not marked in this figure perform place functions and would be classified between 3D and 1E (Places for People). Examination of the road network through the movement and place framework shows that the majority of roads within the study area are primarily of lower movement function and higher place function, either Local Streets or Places for People. This is consistent with Pyrmont being a peninsula with limited through traffic to the north and through–traffic in the south concentrated on access to and from Western Distributor via Wattle Street and Harris Street.

A number of key roads pass through the Pyrmont Peninsula and these higher–order roads have a severance effect on the surrounding land use, forming barriers to active and public transport through the Pyrmont Peninsula. Figure 33 shows the lane capacity of streets within the Pyrmont Peninsula, showing that these key corridors are:

- **Anzac Bridge and Western Distributor:** A movement corridor, this motorway links Victoria Road and City West Link with Sydney Harbour Bridge and also provides access to Sydney CBD from the west. The Western Distributor has no direct property access and connects to the local road network in Pyrmont at Pyrmont Bridge Road, Allen Street, Pyrmont Street and Harris Street.
- **Pyrmont Bridge Road and Bridge Road:** Primarily a movement corridor, Pyrmont Bridge Road provides access to the Western Distributor from Glebe and the inner west. Through the Pyrmont Peninsula, it connects to Darling Drive and has limited property access and on–street parking.
- **Wattle Street:** Primarily a movement corridor, Wattle Street has historically been a high–capacity bypass corridor allowing traffic from the inner west to bypass Sydney CBD and access Western Distributor via Fig Street. Wattle Street is one–way northbound between Broadway and Fig Street forming a one–way pair with Harris Street. Parking is allowed on Wattle Street outside of peak periods with frequent property access along its length.

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- **Harris Street:** North of the Western Distributor, Harris Street is primarily a local street with a single lane in each direction and parking allowed on both sides. South of Western Distributor, Harris Street is primarily a movement corridor that provides access from Western Distributor to Broadway and Sydney CBD south. South of Ultimo Road, Harris Street is one way southbound, with no on-street parking allowed during peak periods.
- **William Henry Street:** Primarily a movement corridor, William Henry Street provides a connection between Harbour Street and the inner west through Wentworth Park and Glebe. William Henry Street has limited property access and no on-street parking allowed during peak periods.

The Western Distributor is a critical component of the road network in the Pymont Peninsula; although it is only directly accessible at four locations, the corridor nevertheless forms a substantial barrier across the centre of the Pymont Peninsula, effectively forming the boundary between Pymont and Ultimo.

The Western Distributor performs both a movement and access function in the regional motorway network, providing access to the western edge of Sydney CBD and to the CBD fringe of the Pymont Peninsula, and Ultimo while also performing a bypass function that connects City West Link and Victoria Road with Sydney Harbour Bridge. Figure 34 shows the balance of access and bypass functions along the length of Western Distributor, demonstrating that traffic travelling along the Western Distributor through the Pymont Peninsula are accessing Sydney CBD particularly via Harris Street as well as travelling past the Sydney CBD to the north and west.

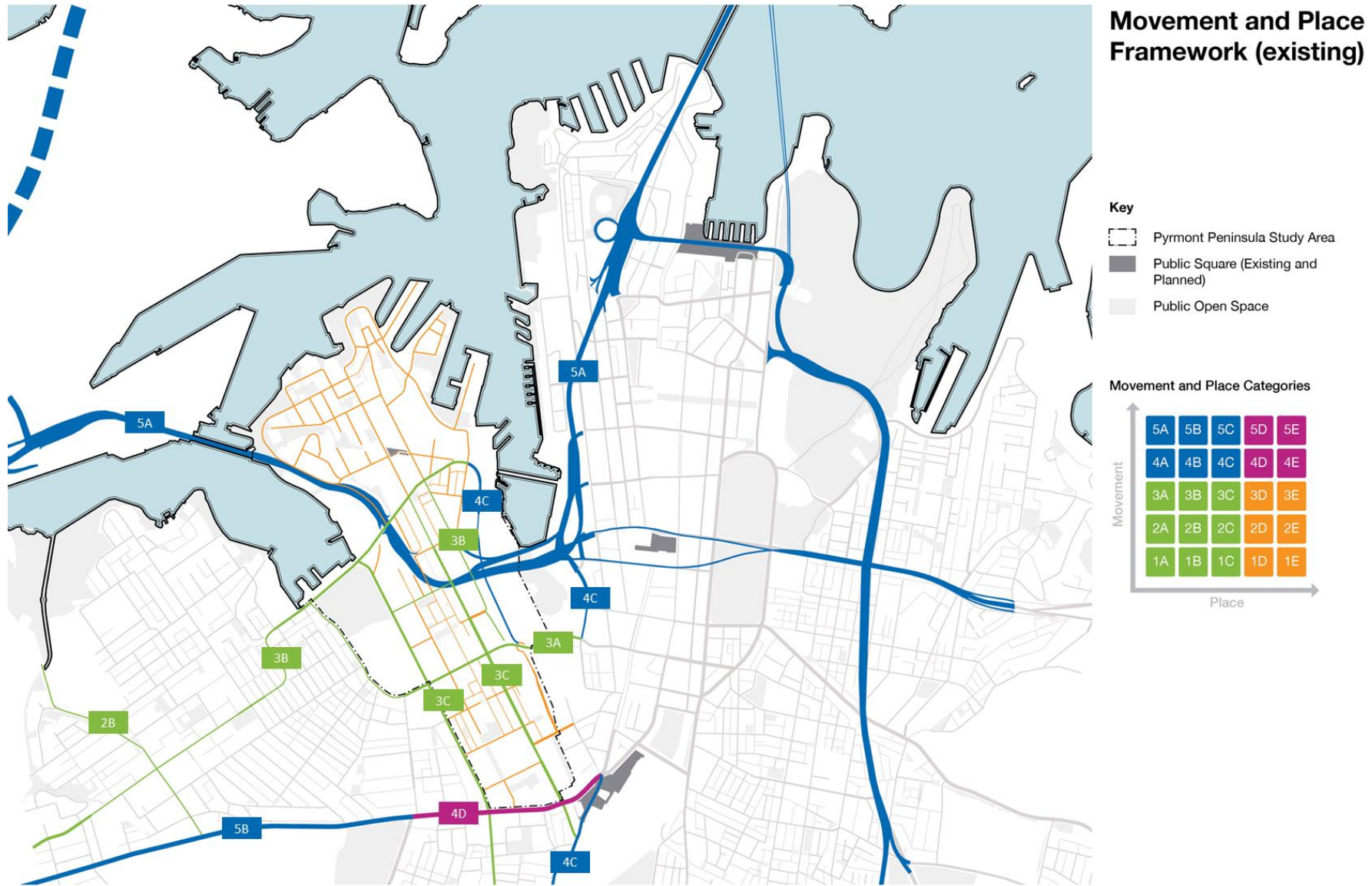


Figure 32 – Existing Movement and Place classification

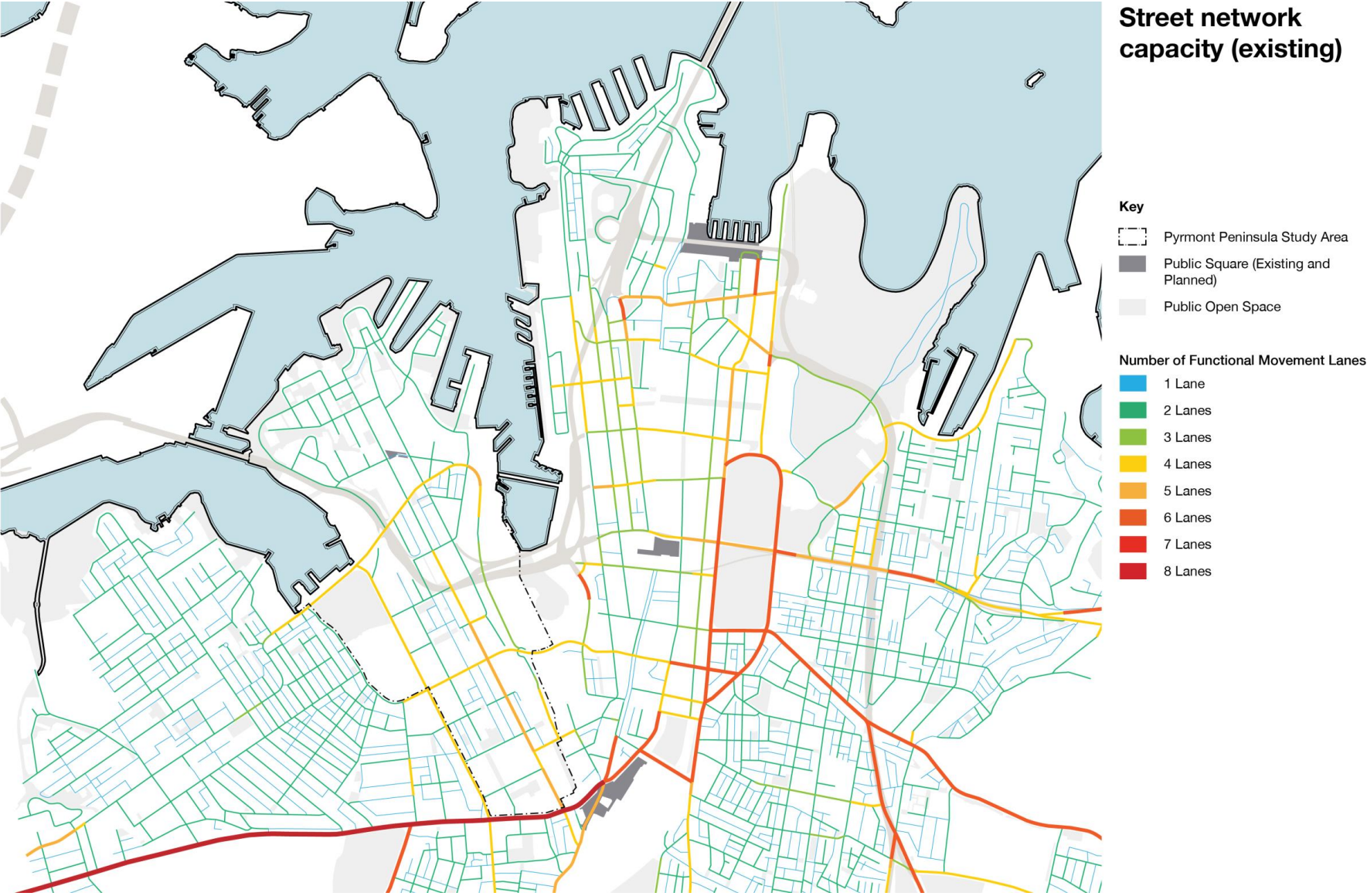


Figure 33 – Existing street network capacity

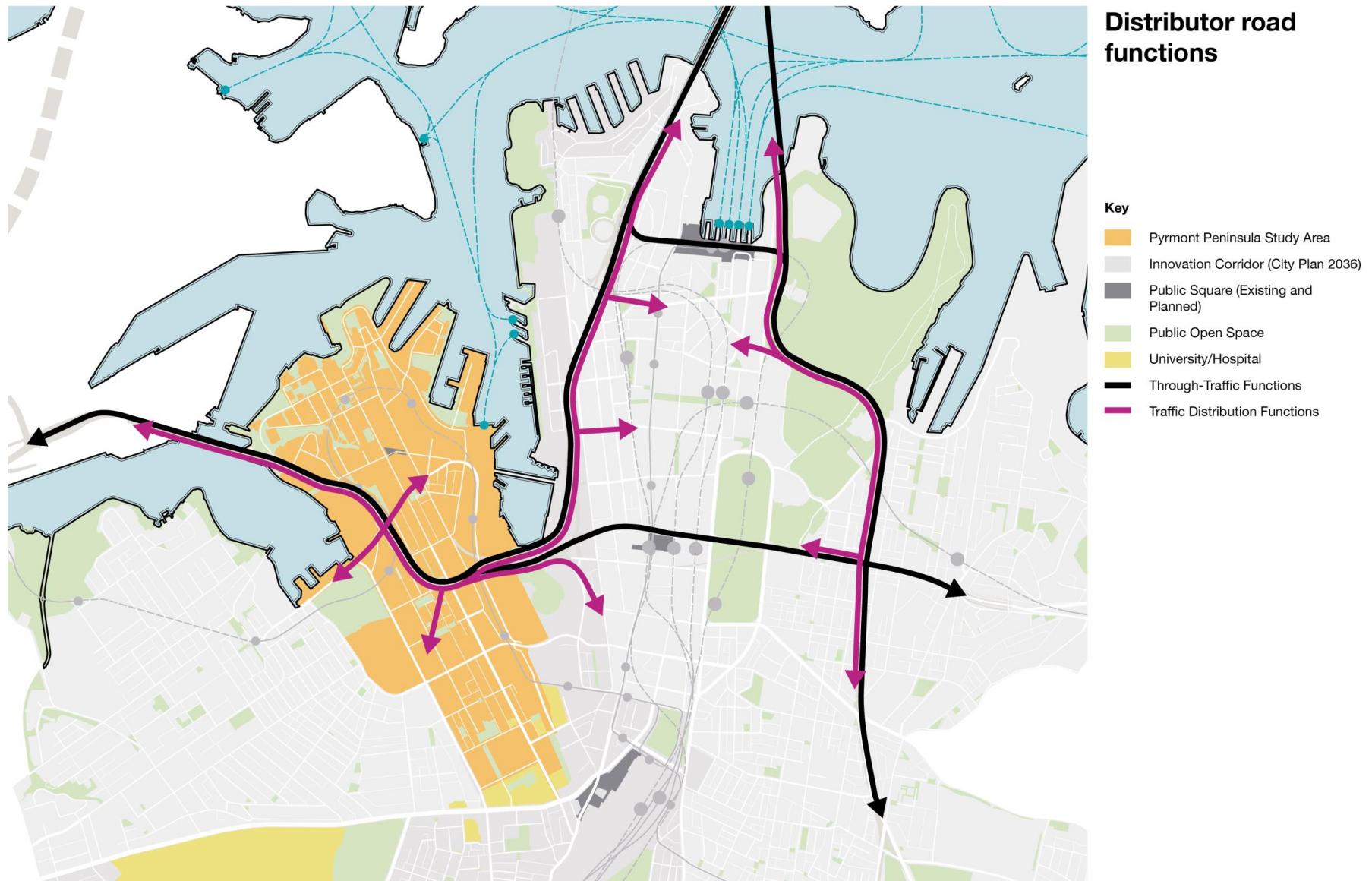


Figure 34 – Motorway bypass and access function surrounding Pymont Peninsula

Figure 35 and Figure 36 show the morning and evening traffic volumes through key intersections through the Pymont Peninsula surveyed in 2017. These traffic volumes show that the busiest intersections within the Pymont Peninsula are:

- Pymont Bridge Road, Bank Street and Western Distributor
- Harris Street and William Henry Street
- Harris Street and Fig Street
- Wattle Street and William Henry Street
- Bridge Road and Wattle Street

These intersections are located at or along routes that provide access to the Western Distributor and Cross City Tunnel. This is indicative of significant volumes of through-traffic using these routes to bypass Sydney CBD to reach other areas of the CBD fringe.

In addition to these key locations where through traffic volumes are high during peak periods, the following intersections within the core of the Pymont Peninsula also carry higher traffic volumes than would be appropriate for streets with such a high place value as Local Streets or Places for People:

- Pymont Bridge Road and Harris Street
- Pymont Bridge Road and Pymont Street
- Allen Street and Harris Street

These streets have higher than desirable traffic volumes due to the existing road network arrangements that allow for through-traffic movements to permeate through the Pymont Peninsula via the Allen Street and Pymont Street ramps, which provide alternatives to entering the Western Distributor at Pymont Bridge Road. Pymont Street is also a key emergency services and freight access route from Pymont to Sydney CBD and the regional motorway network.

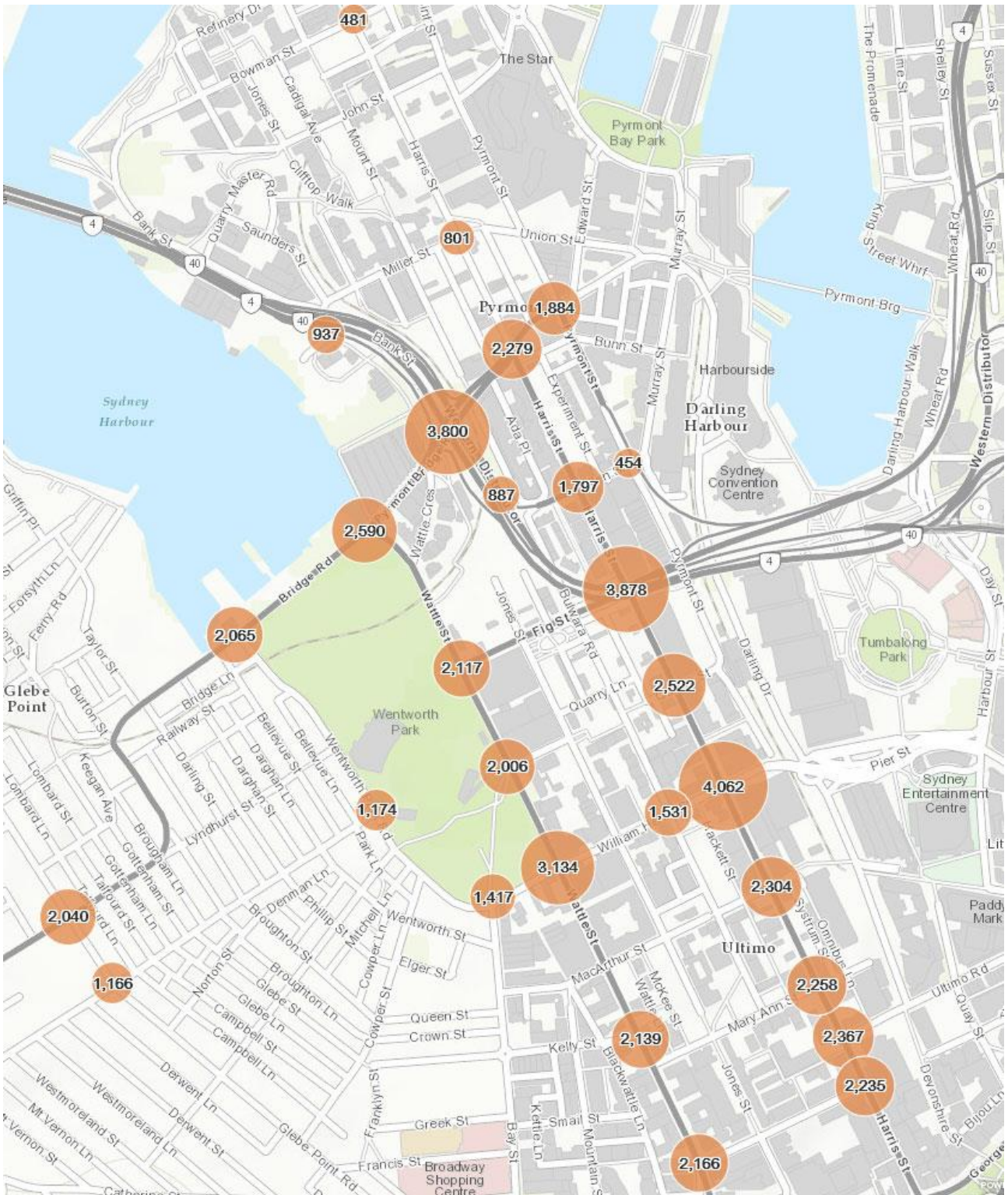


Figure 35 – Morning peak hour traffic volumes through intersections in Pymont

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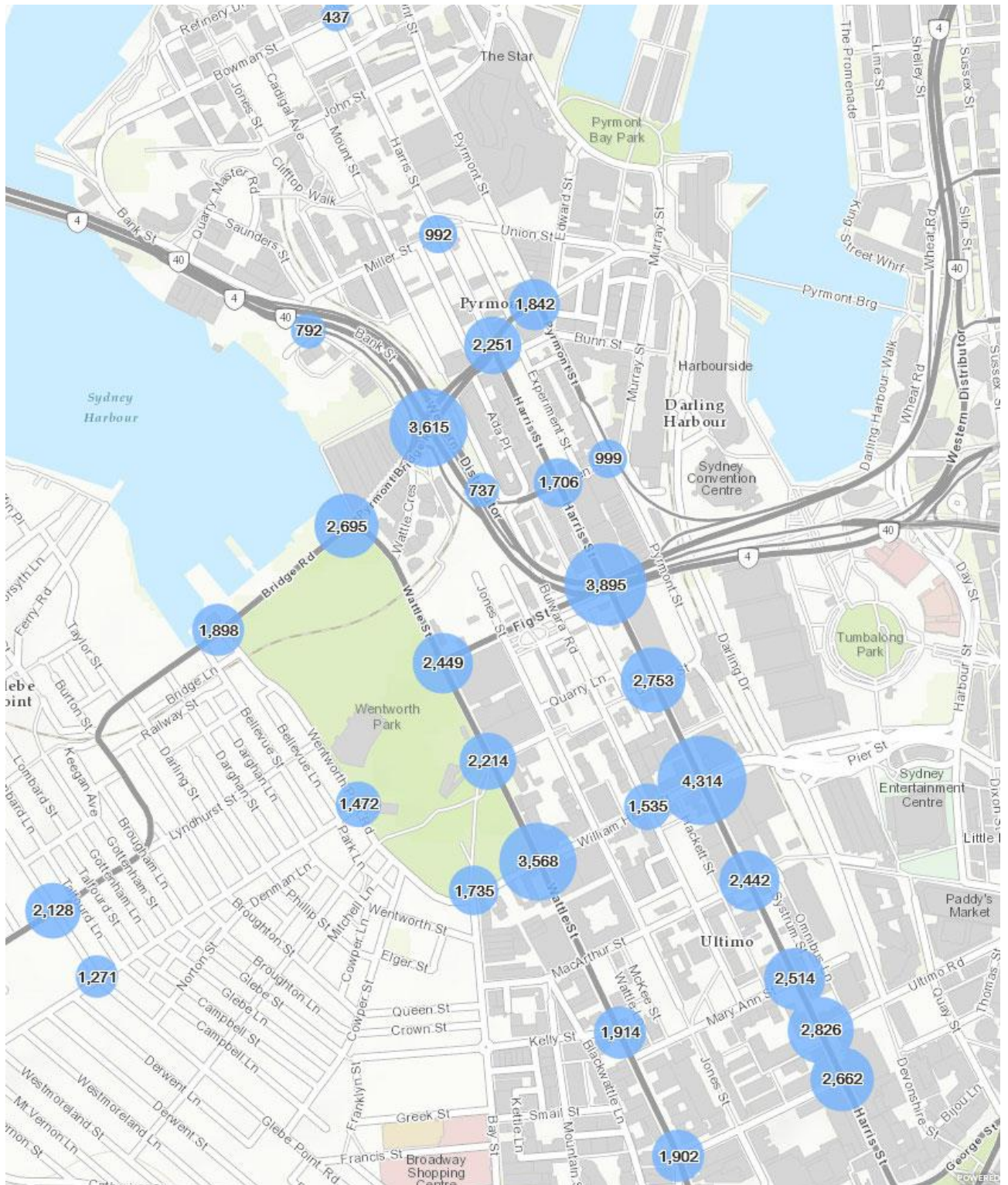


Figure 36 – Evening peak hour traffic volumes through intersections in Pymont

5.2. Servicing and freight

5.2.1. Road-based freight

As a constrained and densely populated area, the Pyrmont Peninsula has unique challenges in balancing the requirements for servicing and freight with the amenity of local streets kerbside activity. The proximity of the Western Distributor provides close access to the regional motorway network for freight and servicing of sites in and around Pyrmont. Harbourside, ICC Sydney and The Star Casino are heavily dependent on Darling Drive and Pyrmont Street for access to and from the Western Distributor, as the Pyrmont Street ramp allows fast and efficient egress from Pyrmont without needing to use the congested corridors of Pier Street and Harbour Street.

Sydney Fish Market and adjacent industrial land on Blackwattle Bay have access to the Western Distributor via Pyrmont Bridge Road and Bank Street, which will remain critical points of access for freight vehicles as the Blackwattle Bay site is redeveloped and land use is intensified in this area.

Service access to businesses in Ultimo is far more constrained due to a combination of load limits on local roads and constrained access arrangements created by one-way roads that interface with Broadway, the primary arterial route into and out of Ultimo. Figure 37 shows the permitted B-Double routes through Pyrmont Peninsula, indicating that Western Distributor West of Pyrmont Bridge Road), Wattle Street and Harris Street are all used by B-Doubles to travel between the Broadway, City West Link, Victoria Road and Botany Road corridors. The opening of WestConnex M4-M5 link and Rozelle interchange will provide alternatives to these corridors for heavy vehicles currently using these routes, however vehicles carrying dangerous goods will be restricted from using these new tunnel and will continue to use these corridors into the future.

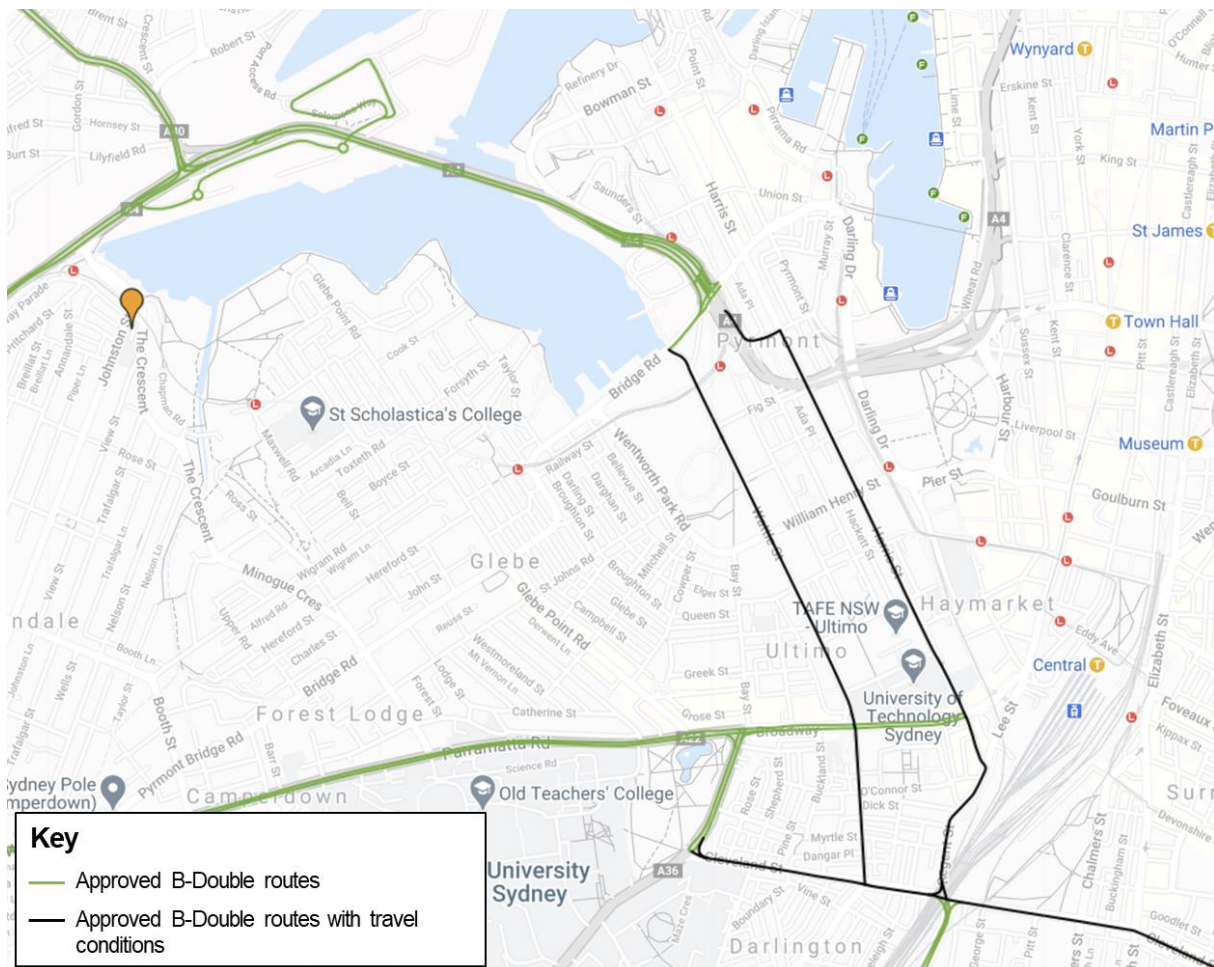


Figure 37 – B-Double routes through Pyrmont Peninsula (Transport for NSW)

While Blackwattle Bay, The Star Casino, ICC Sydney and Harbourside will continue to be the primary generators of freight travel in the Pyrmont Peninsula, the increasing prevalence of e-commerce and home-delivery goods through internet shopping will increase the “last-mile” freight demands within the Pyrmont Peninsula, primarily due to the high population density and relative affluence of residents.

Increased home-delivery presents a unique challenge for managing an increasing number of shorter freight and servicing trips with comparatively smaller loads and requirements for more flexible and localised access. Estimates of increased freight demand by Transport for NSW as a result of increased economic activity and higher population within the Pyrmont Peninsula could generate up to 2,000 additional commercial vehicle movements per day within the study area. These additional movements will place greater demand on available loading space either at the kerbside or within buildings and these increased demands will need to be accommodated through more efficient use of kerbside space or through building designs that can accommodate higher volumes of deliveries.

An alternative approach to managing increased freight may be to centralise local and household freight deliveries through a centralised logistics hub. This concept is currently being trialled in Sydney CBD in the Goulburn Street parking station, where courier deliveries by van are consolidated and broken down for final delivery by walk or bike, reducing the demand for kerbside space in loading areas. This concept could be employed with the Pyrmont Peninsula, particularly in the areas of more dense employment as part of multi-use community hubs, but could also function as a parcel pickup location for home deliveries that would allow residents to pick up parcel deliveries on their commute that could further reduce demand for kerbside loading space.

5.2.2. Maritime freight and the working harbour

In addition to the demand for freight and servicing on the road network, the working harbour at Glebe Island is also a critical component of the Sydney freight network as one of the busiest waterways in Australia. Glebe Island provides critical port infrastructure and marine logistics support and these functions have been identified in the Eastern City District Plan as needing to be retained and expanded primarily to meet the needs of construction supply chains within the inner city. In addition to its importance for maritime operations, the working harbour also takes pressure of arterial roads and motorways by allowing bulk materials, particularly for the construction industry, to be shipped directly to Sydney CBD rather than transported by road from other ports such as Newcastle or Port Kembla.

The working harbor is in tension with other demands on the water in Blackwattle and White Bay, including recreation and residential amenity as well as its role in facilitating passenger vessels at White Bay. Increased population and employment in the Pyrmont Peninsula will need to balance the desires of residents and visitors for access to and across the harbour against the needs of freight and maritime operations, particularly around key maritime interfaces such as White Bay, Glebe Island and Glebe Island Bridge.

5.3. Public transport network

Figure 38 shows an overview of the public transport network in the Pyrmont Peninsula. The defining features of the existing public network are:

- **Limited access to heavy rail:** the nearest stations to Pyrmont are Central Station (2.2km from Union Square) and Town Hall Station (1.4km from Union Square), meaning that half of the peninsula is outside of the 800m walking catchments of the nearest heavy rail stations.
- **Inner West Light Rail:** seven stops along the Inner West Light Rail line are within the Pyrmont Peninsula. These stops are either underground (John Street Square, The Star and Pyrmont Bay) or difficult to access from street level (Wentworth Park, Fish Market, Convention Centre and Exhibition Centre). Due to high demands from stops to the east of the Pyrmont Peninsula, the Inner West Light Rail is typically at capacity when traveling through stops in the Pyrmont Peninsula during peak periods. The Inner West Light Rail is also relatively slow for travelling between the Pyrmont Peninsula and Central station, particularly from the western stops due to intersection constraints through Haymarket and Central.
- **Bus services:** Two routes serve the majority of the Pyrmont Peninsula; 389, which provides local access between the north of the Pyrmont Peninsula and Town Hall station and on to Bondi Junction via Harris Street and the 501 which provides access between Central and Harris Street and on to Ryde. Both these services are characterised by poor reliability and slow speeds during peak periods as a result of a number of constraints on Harris Street at Fig Street and at Pyrmont Bridge Road.
- **Ferry services:** Currently only the F4 cross-harbour ferry service serves the Pyrmont Peninsula from Pyrmont Bay wharf. This service provides access to Barangaroo, Balmain East, McMahons Point, Milsons Point and Circular Quay. An on-demand ferry trial was conducted in 2019 that provided on-demand ferry services from Blackwattle Bay, Fish Market or Pirrama Park wharves directly to Barangaroo. This trial is currently on hold, but is likely to resume service in late 2020.

The public transport catchments across the Pyrmont Peninsula are shown in Figure 39. This figure shows that Pyrmont Peninsula is well-covered by local and intermediate public transport (shown in blue), but lacks access to heavy rail catchments (shown in red) when compared to nearby areas of the City of Sydney. This shows that Pyrmont Peninsula residents and workers have a 15 to 20-minute walk to access a heavy rail station such as Town Hall or Central. The construction of a metro station as part of Sydney Metro West project for Pyrmont would improve accessibility by public transport as well as connecting it directly to the regional public transport network and substantially increase its 30-minute catchment.

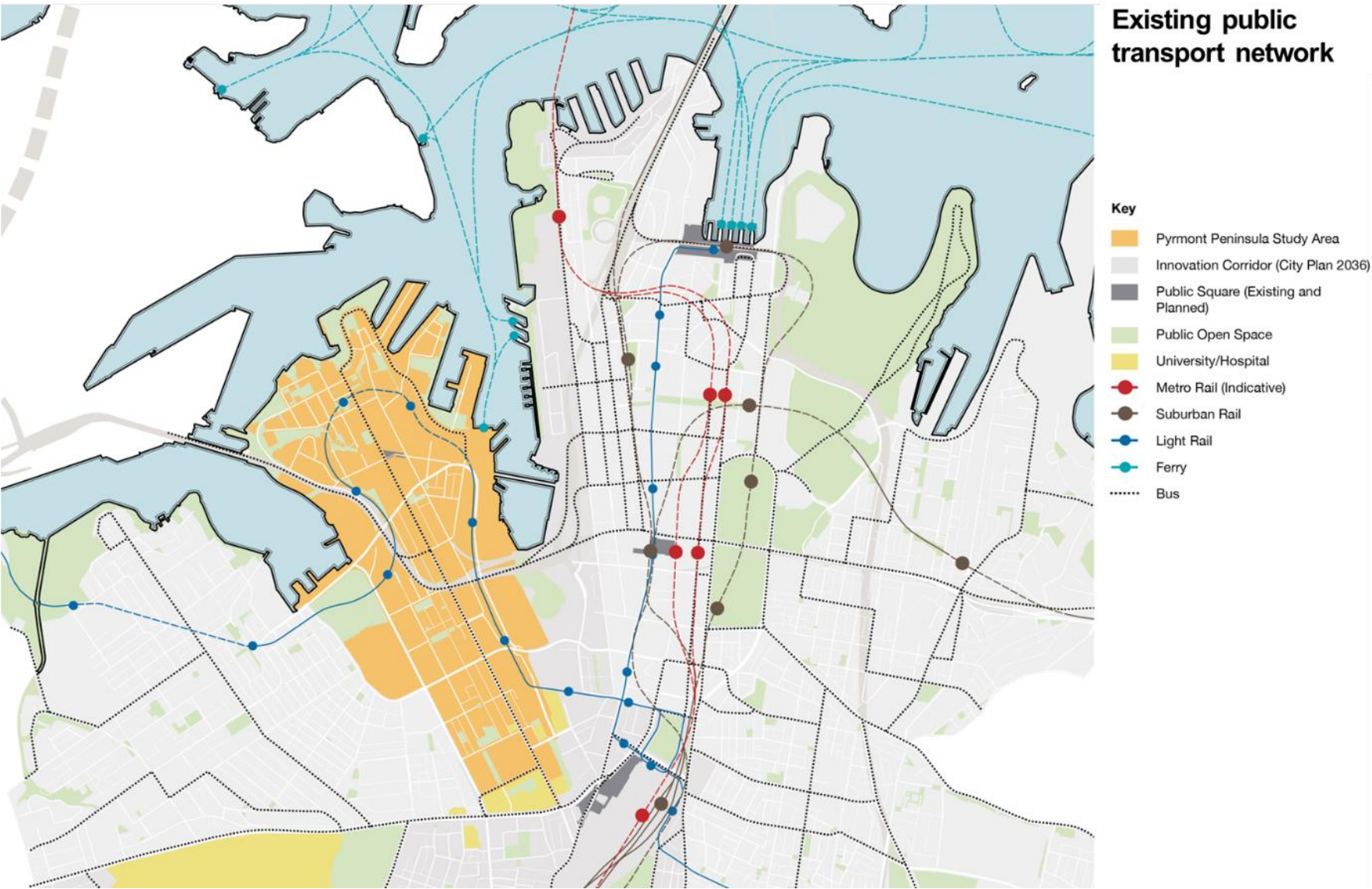


Figure 38 – Existing public transport network

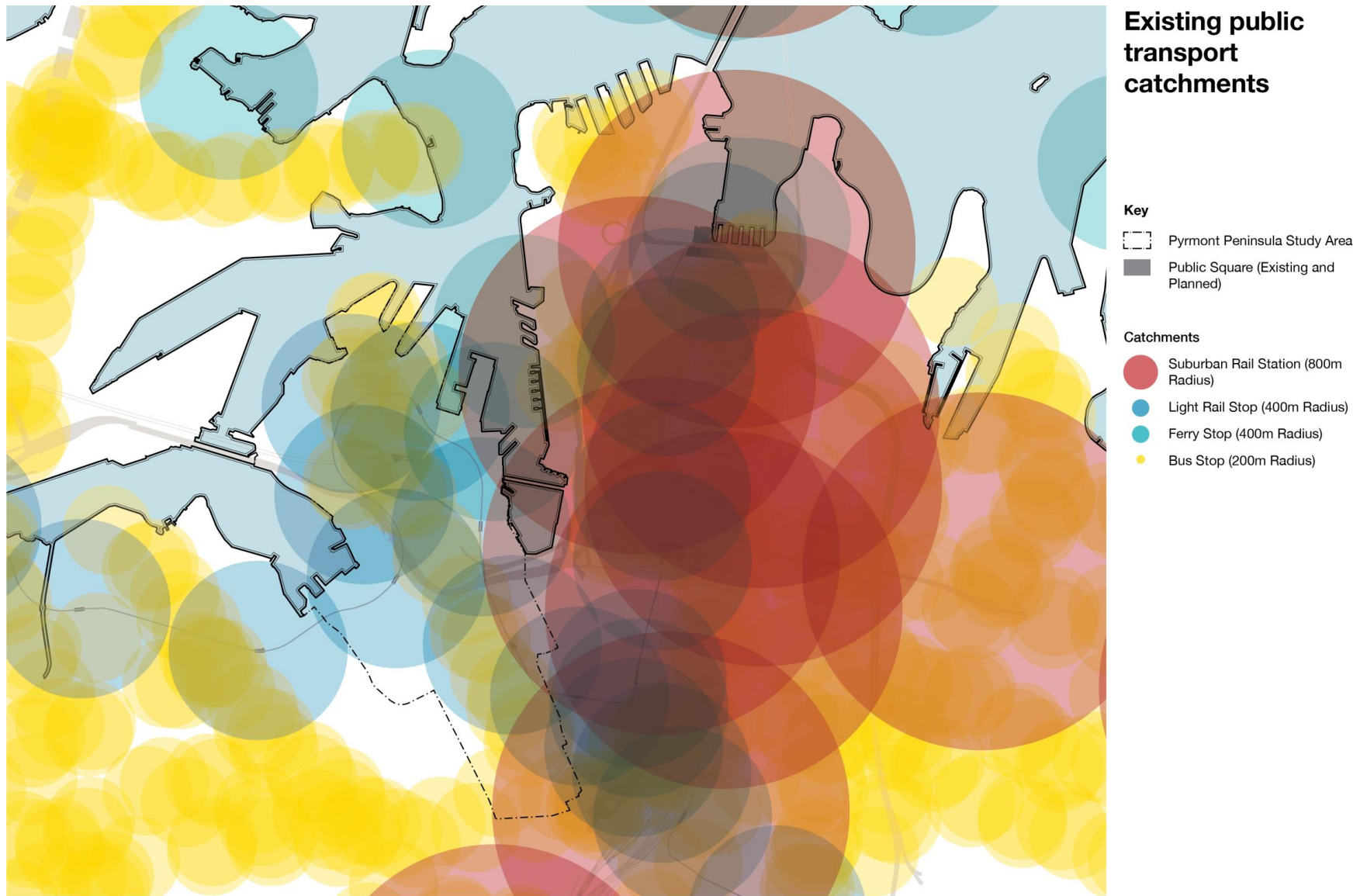


Figure 39 – Public transport catchments across Pyrmont Peninsula

5.3.1. Light rail network performance

Figure 40 shows light rail station demand based on OPAL tap-on and tap-off volumes from 2019 at each light rail stop in the Pyrmont Peninsula during the morning and evening weekday peak hour. Figure 41 shows the typical light rail loading along the Inner West Light Rail for the morning peak inbound service and evening peak outbound service.

These OPAL data indicate the following:

- During the morning peak, light rail tap-offs exceed tap-ons by a factor of more than 10 times. This indicates that the light rail service is primarily used by people working in the Pyrmont Peninsula, with resident demand to Central in the morning being comparatively low.
- During the evening peak, tap-ons exceed tap-offs by a similar proportion, also indicating the light rail is used primarily by workers in the Pyrmont Peninsula travelling home in the evening.
- Morning tap-ons through the Pyrmont Peninsula are relatively consistent across all stops (around 50 passengers per stop per hour), with a similar pattern in the evening peak, indicating a consistent resident demand for light rail across Pyrmont Peninsula.
- The Star casino has substantially more tap-offs in the evening peak, indicating that there is also a significant demand for visitors to the Star casino taking light rail in the evening peak.
- The busiest stops within Pyrmont Peninsula are located at the Pyrmont Bay and The Star Casino, where the majority of employment is located along the light rail line through Pyrmont, further supporting the use of the light rail for workers commuting to the Pyrmont Peninsula.

Typical light rail loading data also supports these observations indicating that the majority of passengers on the Inner West Light Rail originate from west of the Pyrmont Peninsula and use the light rail to commute to jobs in the northern end of the peninsula. Morning peak loading typically peaks at Glebe where the light rail reaches comfortable capacity during the morning peak.

During the evening peak, outbound loading also peaks at Glebe, however evening peak loading doesn't typically reach comfortable capacity, indicating there is some spare capacity for outbound services in the evening peak.

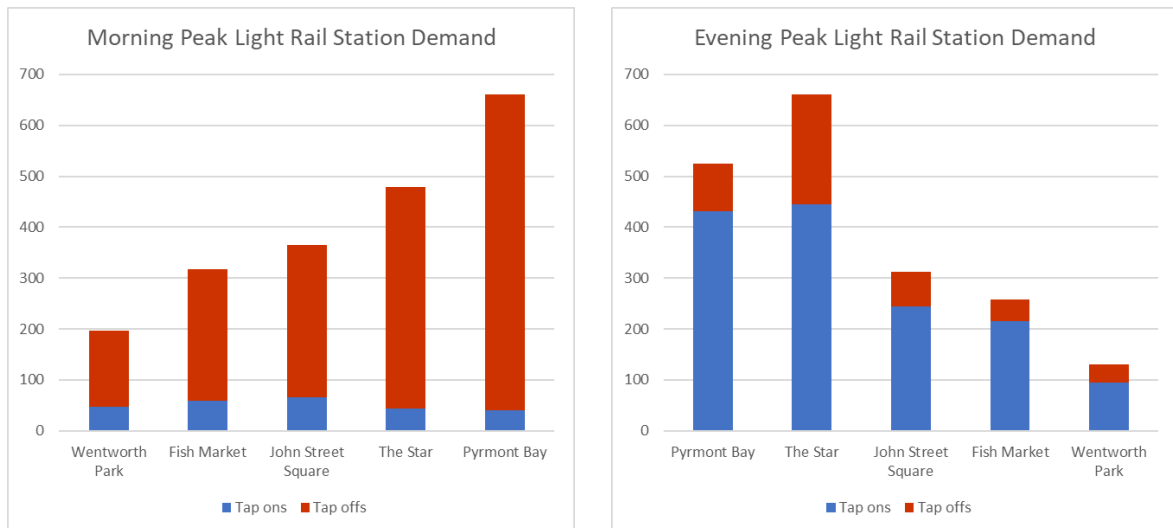


Figure 40 – Inner West Light Rail peak period station demand

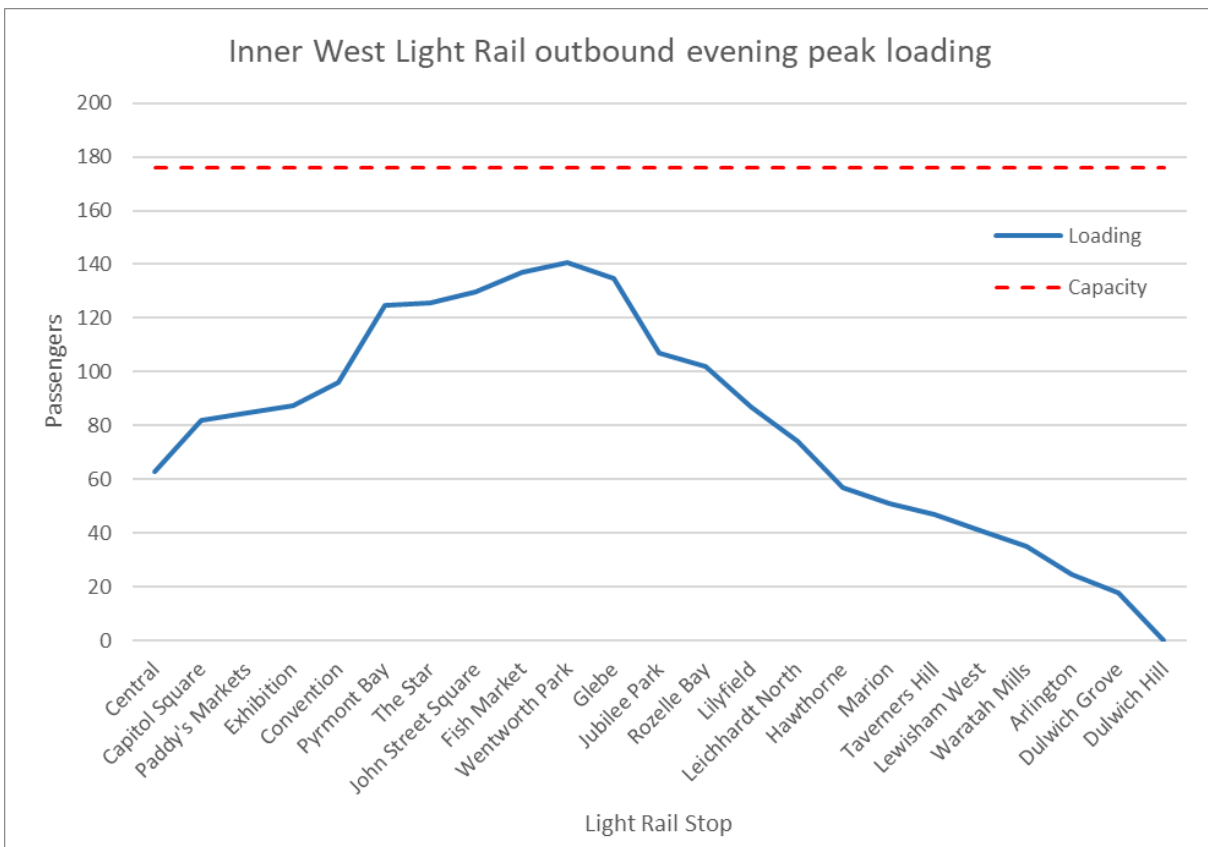
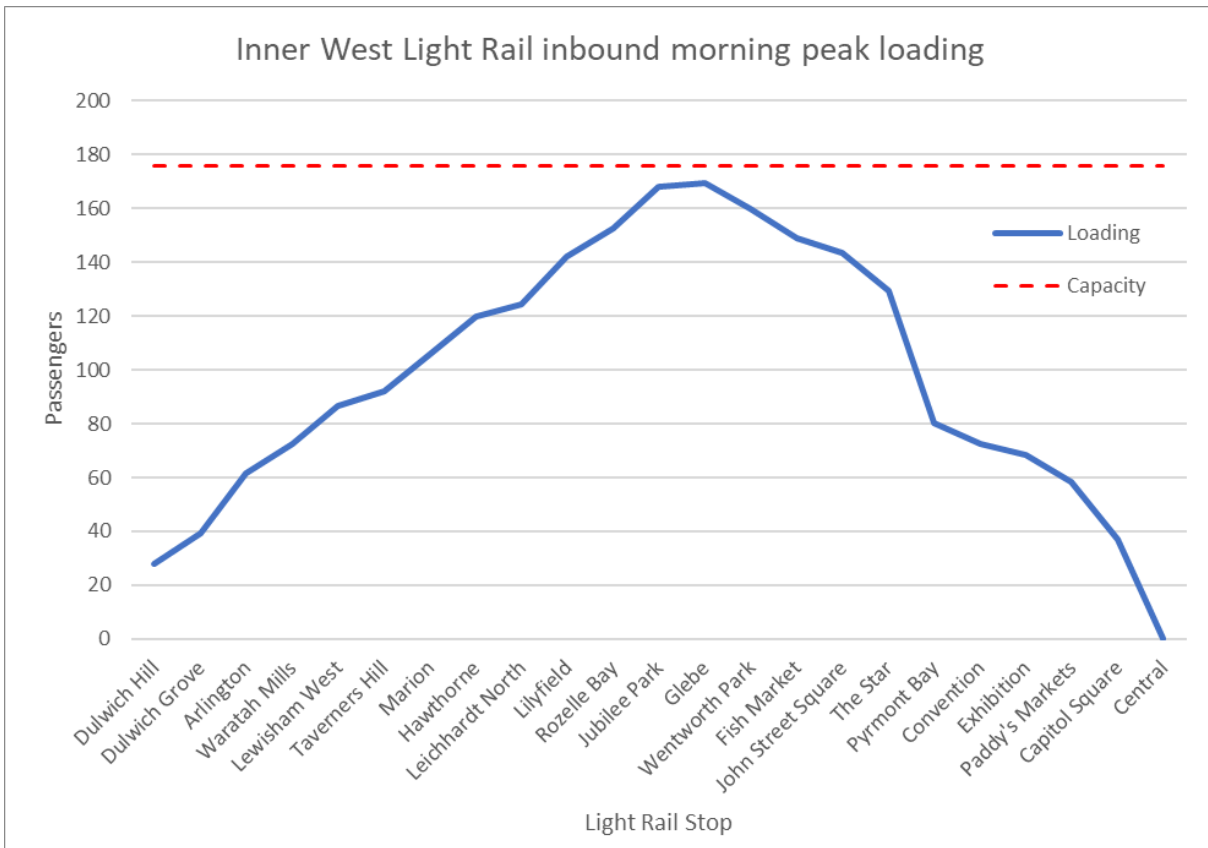


Figure 41 – Inner West Light Rail typical peak service loading

5.3.2. Bus network performance

The key bus routes that serve the Pyrmont Peninsula are:

- 389 Pyrmont to Bondi Junction – timetabled to run every 8 minutes in the peak period
- 501 West Ryde to Central station – timetabled to run every 10 minutes during the peak period

Maps of these routes through the Pyrmont Peninsula are shown in Figure 42.

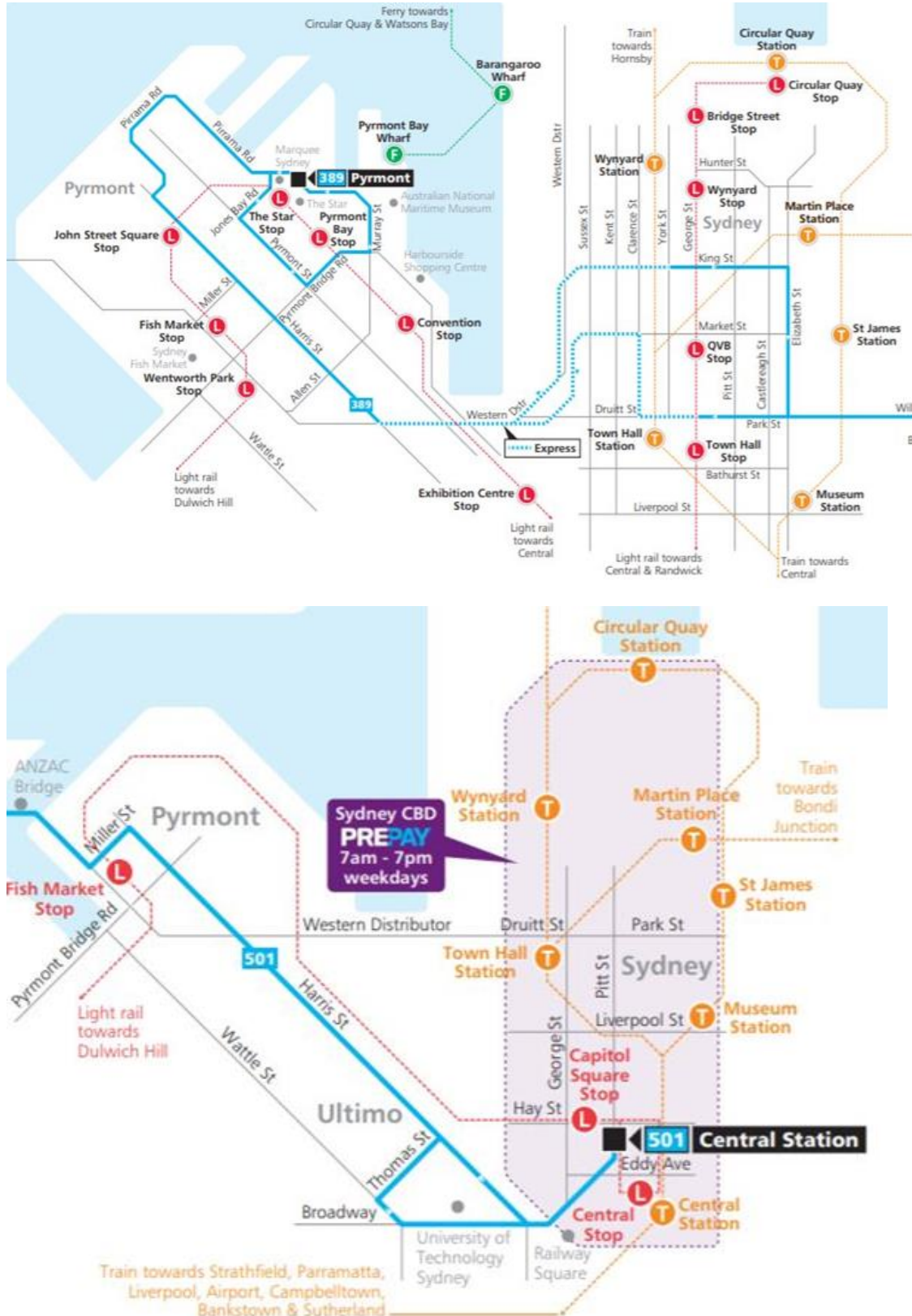


Figure 42 – Route maps for 389 and 501 services through the Pyrmont Peninsula.

Figure 43 illustrates bus stop demand based on OPAL tap-on and tap-off volumes from 2019 for each bus stop in the Pymont Peninsula during the morning peak, evening peak and across the average weekday. Figure 44 shows the typical peak direction loading for the 389 and 501 services during the morning and evening peaks, with Figure 45 and Figure 46 showing average section speeds and on-time running performance respectively

These OPAL data indicate the following:

- The busiest bus stops in the Pymont Peninsula are along Harris Street in Pymont between Union Square and Fig Street. This corresponds with the key employment centres in Pymont; with most passengers tapping off in the morning and tapping on in the evening, indicating that these stops and services are primarily used for passengers commuting to Pymont.
- For the peak directions, the 389 service reaches its loading peak at Pymont; this service operates at less than 50 per cent of capacity during peak periods, reflecting its high frequency (8 services per hour).
- For the peak directions, the 501 service also reaches its loading peak at Pymont; this service operates at less than 70% of capacity during peak periods, indicating that at 6 services per hour, this route may need additional services to meet the increasing demand in the future.
- The 389 service is generally a slower local service and maintains a consistently low speed along its route. Through Pymont, it runs close to the overall average route speed and generally runs on-time during the weekday peak. This indicates that the 389 is a generally reliable, high frequency but low-speed route suited to shorter trips along its length.
- The 501 service is a faster service to the west of Pymont, but slows down significantly through the Pymont Peninsula. This corresponds with higher delays between Rozelle and Pymont where the 501 service frequently experiences delays in exiting the Western Distributor and entering Pymont. This service has reliability issues between Rozelle and Pymont and on average runs between 6 and 8 minutes late in this section, which is very close to its average peak headway of 10 minutes.

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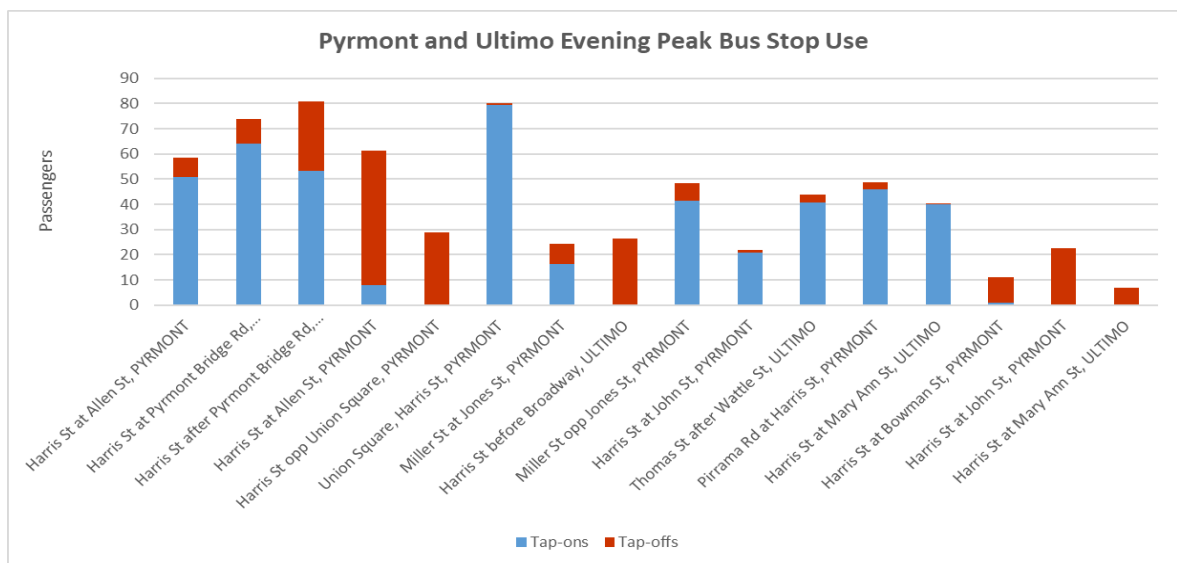
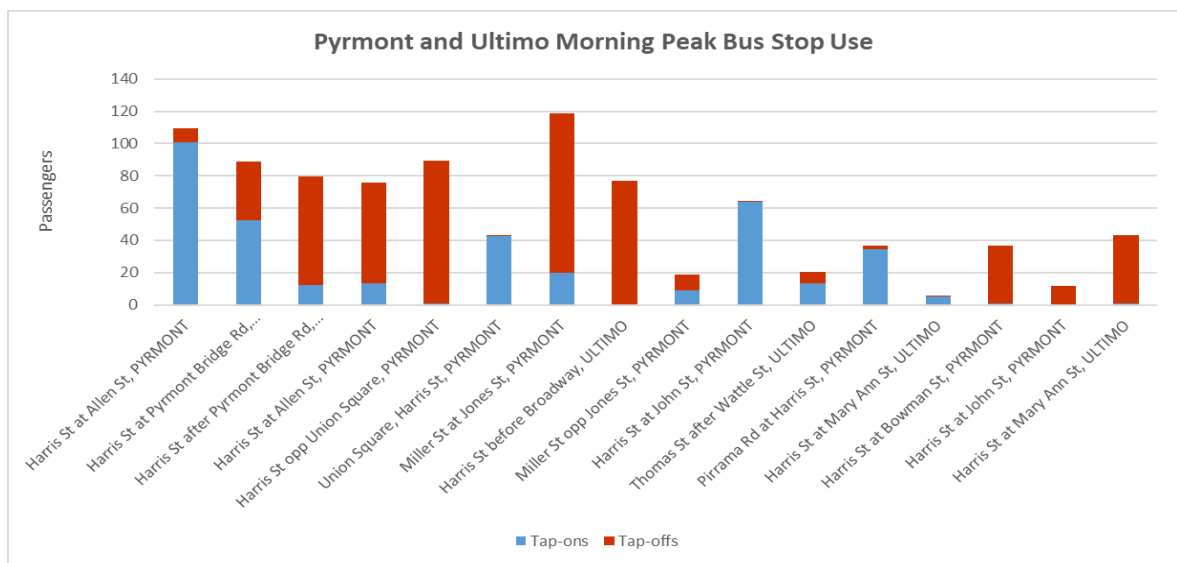
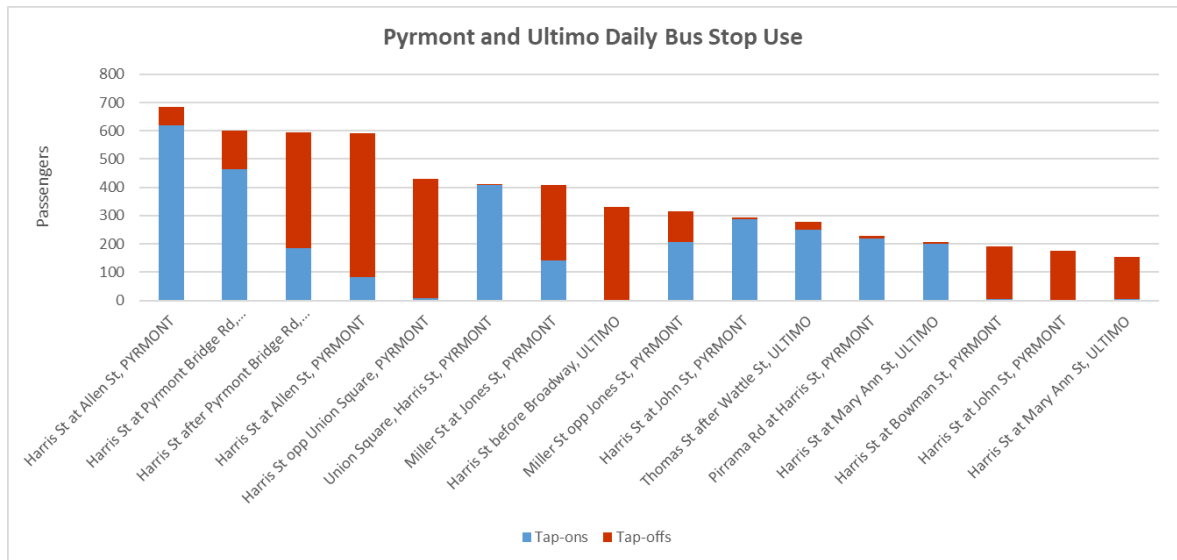


Figure 43 – Pyrmont Peninsula bus stop usage

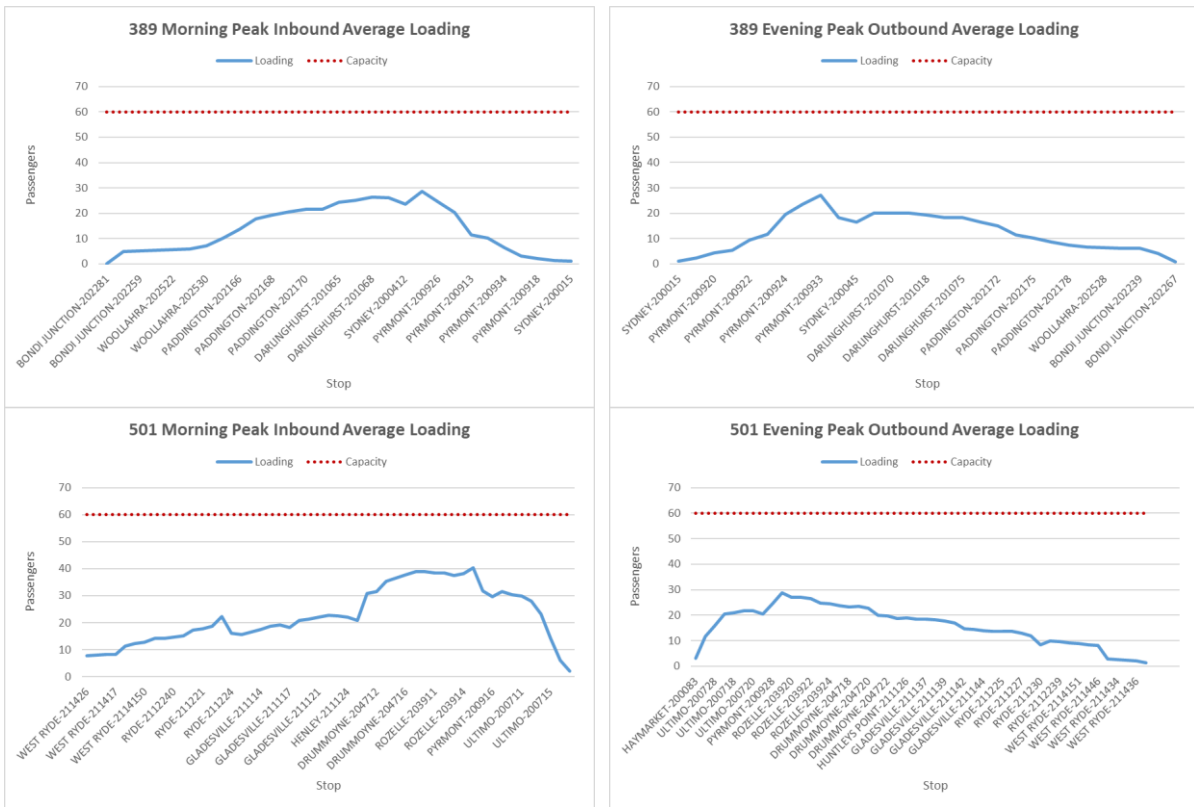


Figure 44 – 389 and 501 service peak period bus loading

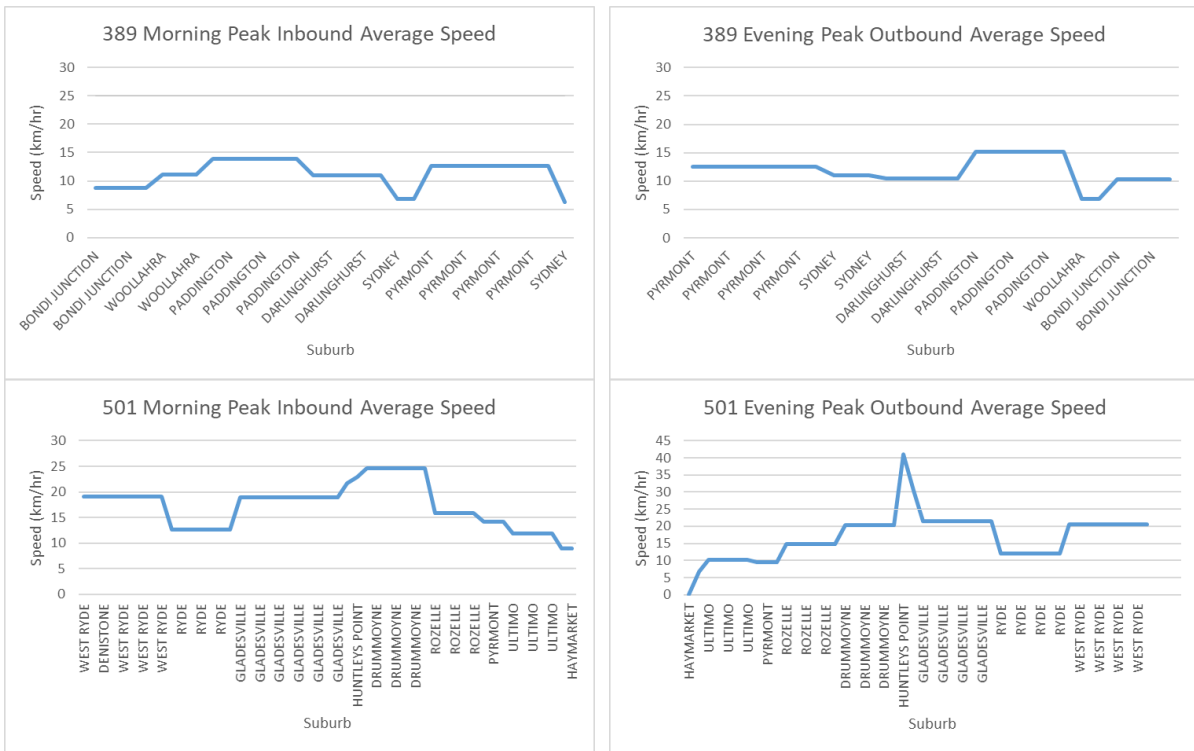


Figure 45 – 389 and 501 service peak period average section speeds

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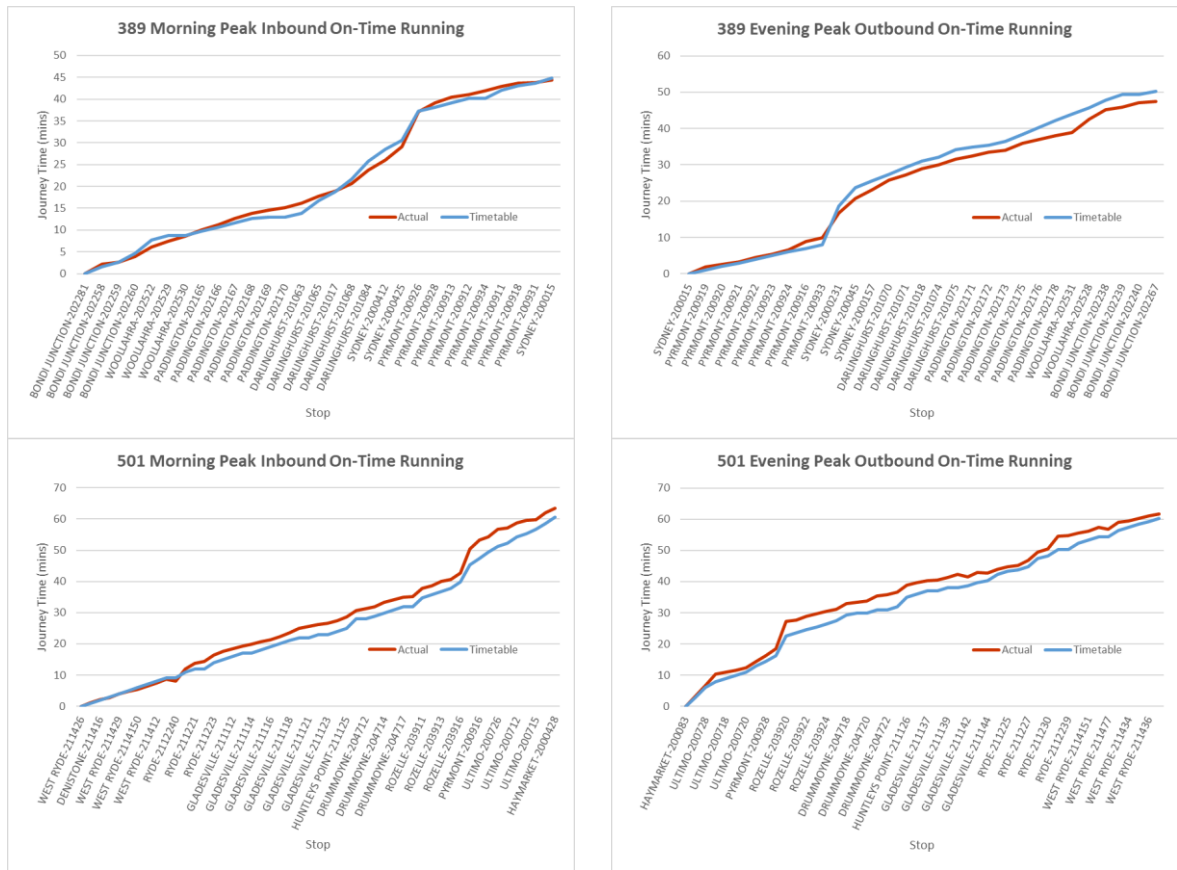


Figure 46 – 389 and 501 service peak period on-time running

5.4. Active transport network

Figure 47 shows the existing cycling network across the Pyrmont Peninsula. Key features of the existing cycling network include:

- **Pyrmont Bridge:** provides access to Sydney CBD from Pyrmont and is a high-quality high-traffic route for both pedestrians and cyclists. Pyrmont Bridge is the primary active transport connection to and from the Pyrmont Peninsula.
- **Union Street cycleway:** a separated cycleway that continues the cycle route from Pyrmont Bridge to Union Square.
- **Darling Drive cycleway:** a separated, but narrow cycleway along the western edge of Darling Drive, this cycleway has poor connectivity to the Goods Line at the southern end (via Hay Street) and becomes an on-road path north of Harbourside.
- **The Goods Line:** a high-quality off-road path with limited access at the northern and southern ends.
- **Anzac Bridge:** a low-quality route that is adjacent to a motorway and has challenging access at Quarry Master Drive.
- **Jones Street:** a shared path that connects to Broadway.

There are still a number of critical gaps in the cycle network through the Pyrmont Peninsula, including:

- **Union Street to Anzac Bridge:** The existing Union Street cycleway ends at Union Square and continues on-road to Bank Street.
- **Goods Line to Union Street:** The northern end of the existing Goods Line link ends at the Museum of Applied Arts and Sciences where it connects to the Darling Drive cycleway.
- **Goods Line to Central:** The southern end of the existing Goods Line link ends at Ultimo on approach to Railway Square.
- **Darling Drive north:** the existing separated cycleway ends north of the Harbourside access on Darling Drive.
- **Harbour foreshore:** the existing harbour foreshore recreational cycle link ends at the western edge of Waterfront Park, with no foreshore access from Waterfront Park to Wentworth Park.

The key pedestrian spines that link the City of Sydney's active streets is shown in Figure 48. The key pedestrian links in the Pyrmont Peninsula are:

- Pyrmont Bridge
- Union Street and Union Square
- Harris Street
- The Goods Line
- Pirrama Road

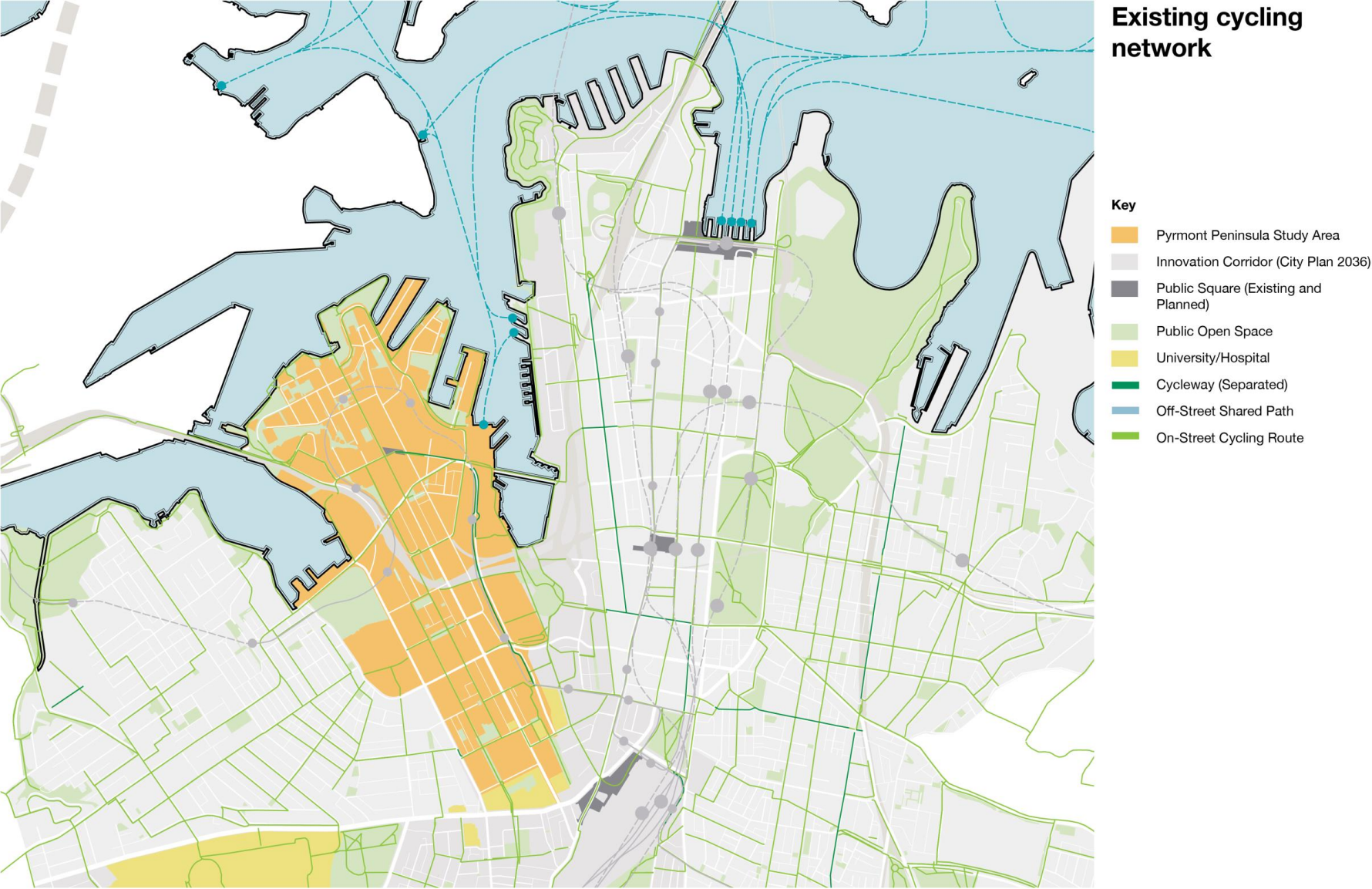


Figure 47 – Existing cycling network across Pyrmont Peninsula

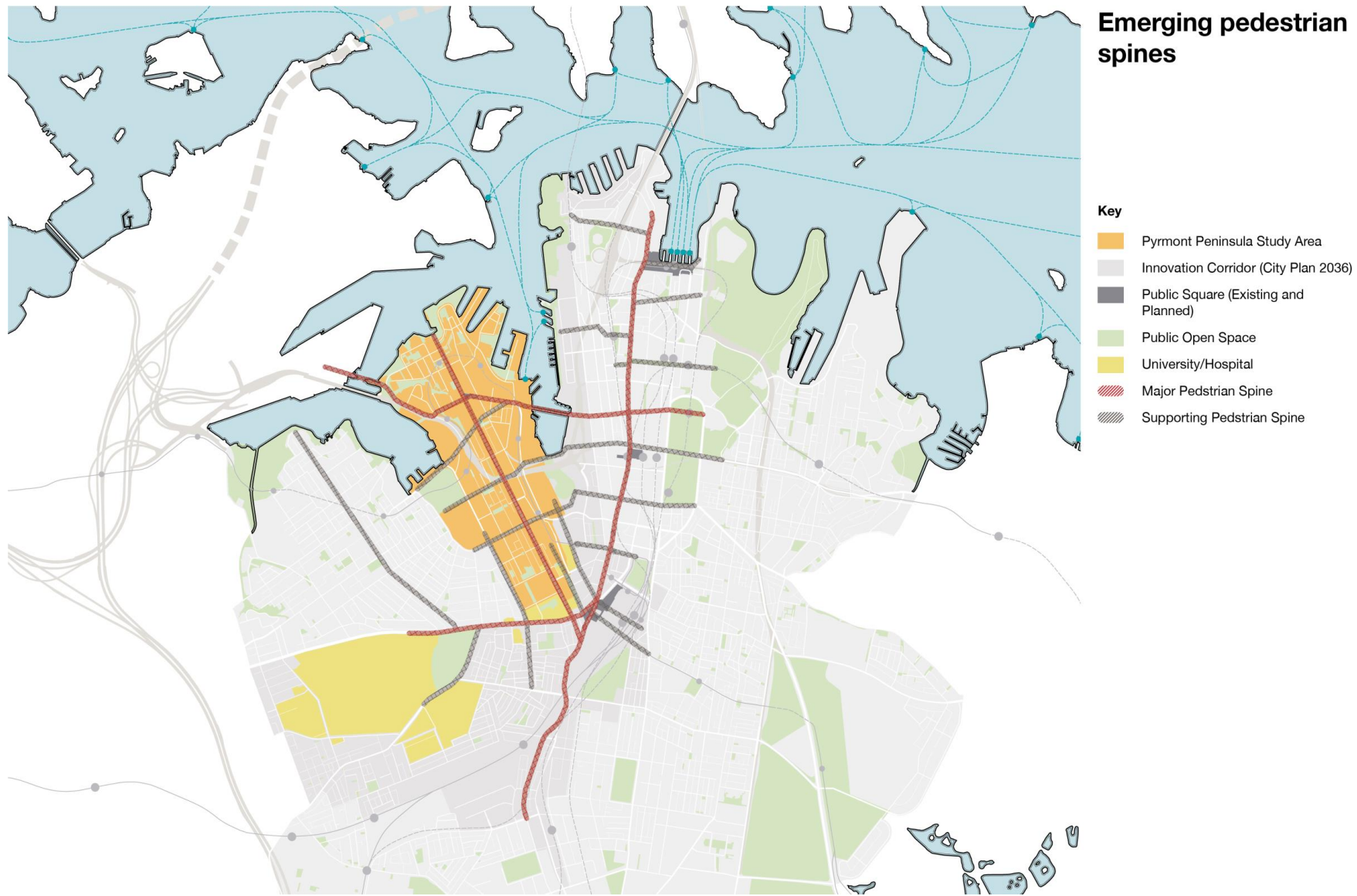


Figure 48 – Pedestrian spines connecting City of Sydney public squares

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The walking environment in the Pyrmont Peninsula is limited by the topography, particularly for east-west trips that traverse steep gradients across the peninsula. For north-south trips, walking trips along Harris Street and Wattle Street are affected by long wait times and crossing distances at key intersections of Fig Street and Pyrmont Bridge Road as well as poor footpath conditions, particularly south of Western Distributor where footpaths are narrower and obstructed by trees and street furniture.

City of Sydney undertakes pedestrian and cycle counts twice per year across the local area, including the Pyrmont Peninsula, with the most recent cycle and pedestrian count data for the Pyrmont Peninsula from 2019 shown in Figure 49 and Figure 50 respectively.

Review of these cycle counts shows that cycle volumes at Pyrmont Bridge are among the highest in the City of Sydney, highlighting the importance of Pyrmont Bridge to the accessibility of the Pyrmont Peninsula for active transport. Although not as high as Pyrmont Bridge, Anzac Bridge also carries significant volumes of cycle traffic, likely driven by good cycle connections through Rozelle and Lilyfield that facilitate cycling from the inner west into the Pyrmont Peninsula. Cycle volumes on The Goods Line, Wattle Street and Jones Street are much lower, indicating that these routes are less attractive for cyclists, likely due to the barriers created by Fig Street, William Henry Street and Broadway.

Review of the pedestrian volumes shows similar patterns to the cycle data, with Pyrmont Bridge, Harris Street north of Pyrmont Bridge Road and Mitchell Street carrying relatively high volumes of pedestrians when compared with Harris Street south of Allen Street. This confirms that Harris Street is less desirable as a pedestrian route to the south of Pyrmont Bridge, due in part to the barriers created by Western Distributor and William Henry Street, but also likely due to the relatively poorer walking environment to the south of Pyrmont Bridge Road, where footpaths are narrower and vehicle speeds are higher.

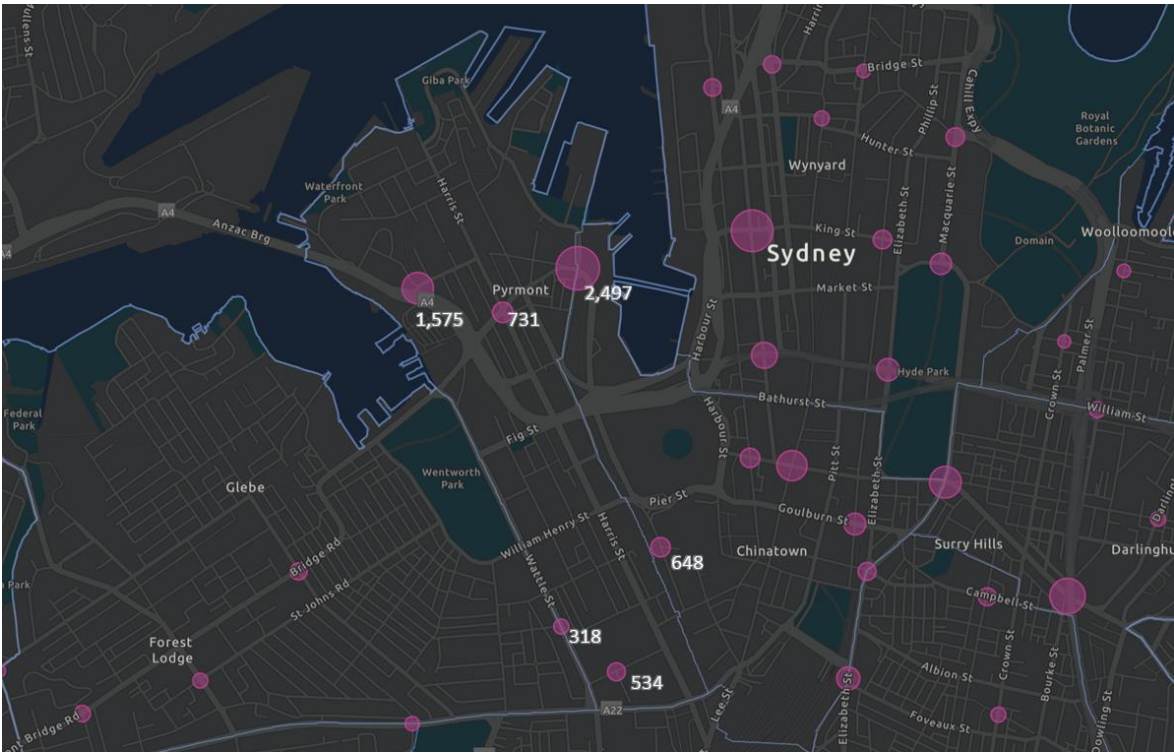


Figure 49 – City of Sydney daily cycle counts at key locations in the Pyrmont Peninsula

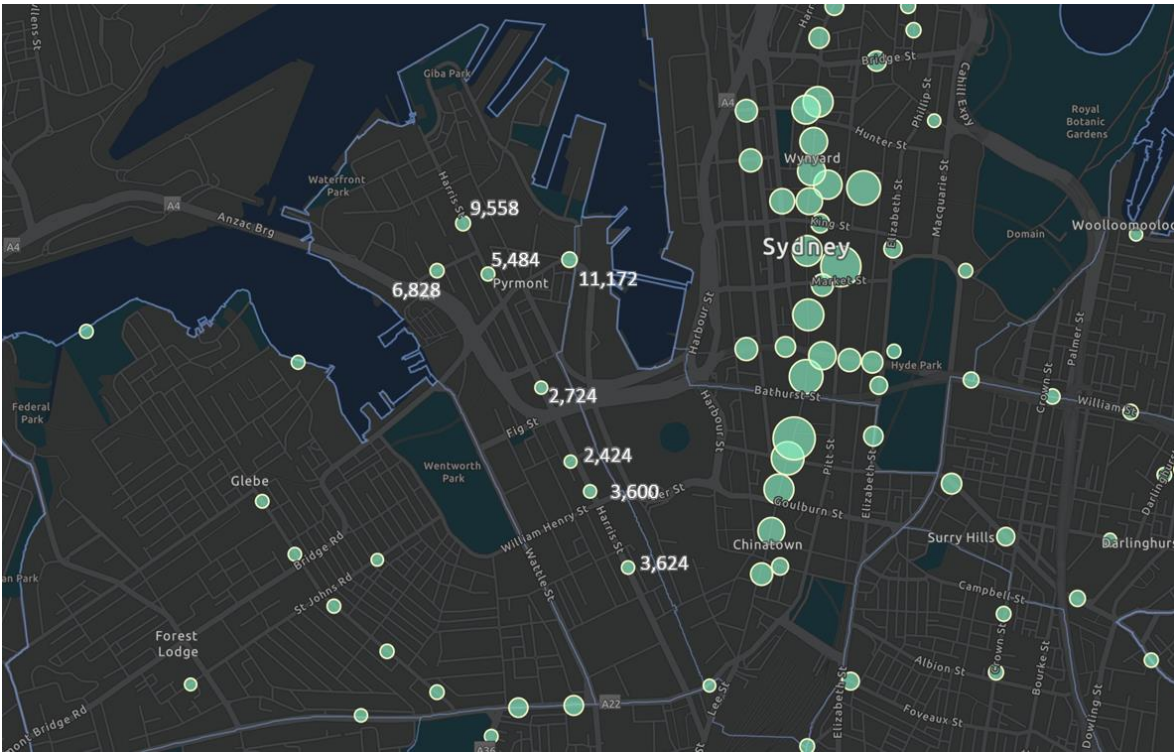


Figure 50 – City of Sydney daily pedestrian counts at key locations in the Pyrmont Peninsula

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The locations of public bicycle parking across the Pymont Peninsula are shown in Figure 51. Existing public cycle parking is concentrated around Union Square, Pymont Bridge and University of Technology Sydney. Additional cycle parking is also located in close proximity to light rail stops.

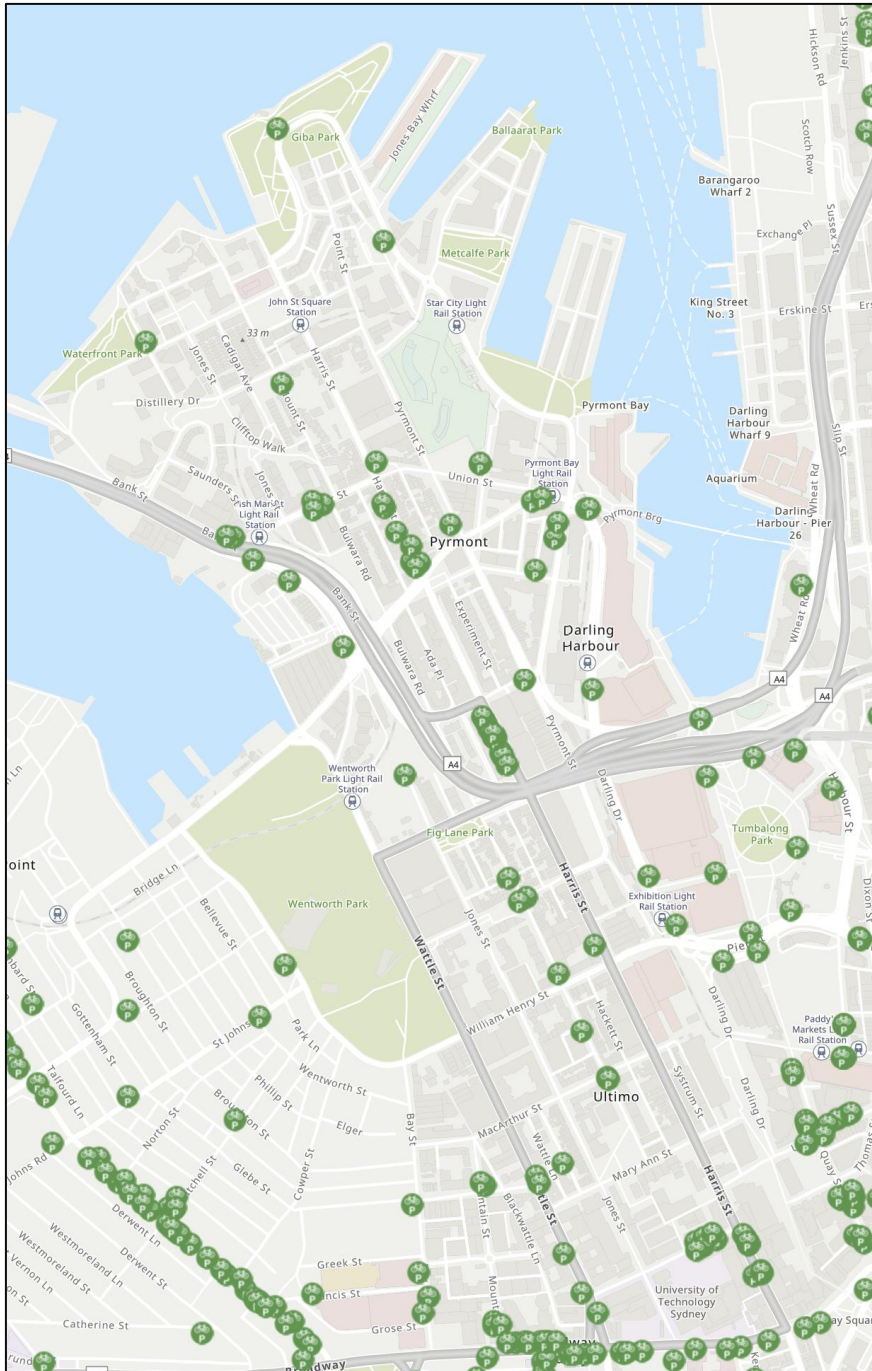


Figure 51 – Locations of public bicycle parking

5.5. Car parking

5.5.1. Off-Street parking

Parking within the Pymont Peninsula serves a variety of different customers, resulting in parking capacity across off-street, on-street and car-sharing.

Under the City of Sydney LEP 2012 the Pymont Peninsula is currently subject to varying off-street residential parking provisions depending on the level of land use and transport integration, as shown in Figure 52. Some areas along the foreshore to the north of the peninsula are categorised as C, the majority as B, and areas closer to Central Station as A. As the predominant parking provision category across the Pymont Peninsula, Category B allows for the following maximum residential parking rates per dwelling (based on residential flat buildings):

- Studios: 0.2 spaces
- 1 bedroom: 0.4 spaces
- 2 bedrooms: 0.8 spaces
- 3 or more bedrooms: 1.1 spaces
- for each dwelling up to 30 dwellings-0.167 spaces, and
- for each dwelling more than 30 and up to 70 dwellings-0.1 spaces, and
- for each dwelling more than 70 dwellings-0.05 spaces

Based on these rates, residential parking provision across the Pymont Peninsula allows for substantially less than 1 space per dwelling, indicating that car ownership is restricted by residential parking provision, contributing to high active and public transport mode shares.

Similarly, commercial development parking provision rates are based on public transport accessibility level categorisation as shown in Figure 53. In this case, category D represents the most restrictive rate, however for the businesses with floor space ratio greater than 3.5:1 (or total floor area more than 175m²), the maximum number of car parking spaces for a building used for the purposes of office premises or business is as follows:

$$(M=(G \times A) \div (50 \times T))$$

where:

M is the maximum number of parking spaces, and

G is the gross floor area of all office premises and business premises in the building in square metres, and

A is the site area in square metres, and

T is the total gross floor area of all buildings on the site in square metres.

This is a similarly restrictive maximum parking rate that limits the available parking space for businesses far below the number of employees for the same floor area. Availability of parking at workplaces is the primary driver for journey-to-work trips via private vehicle, hence these low parking rates are critical for keeping private vehicle mode share low for workers.

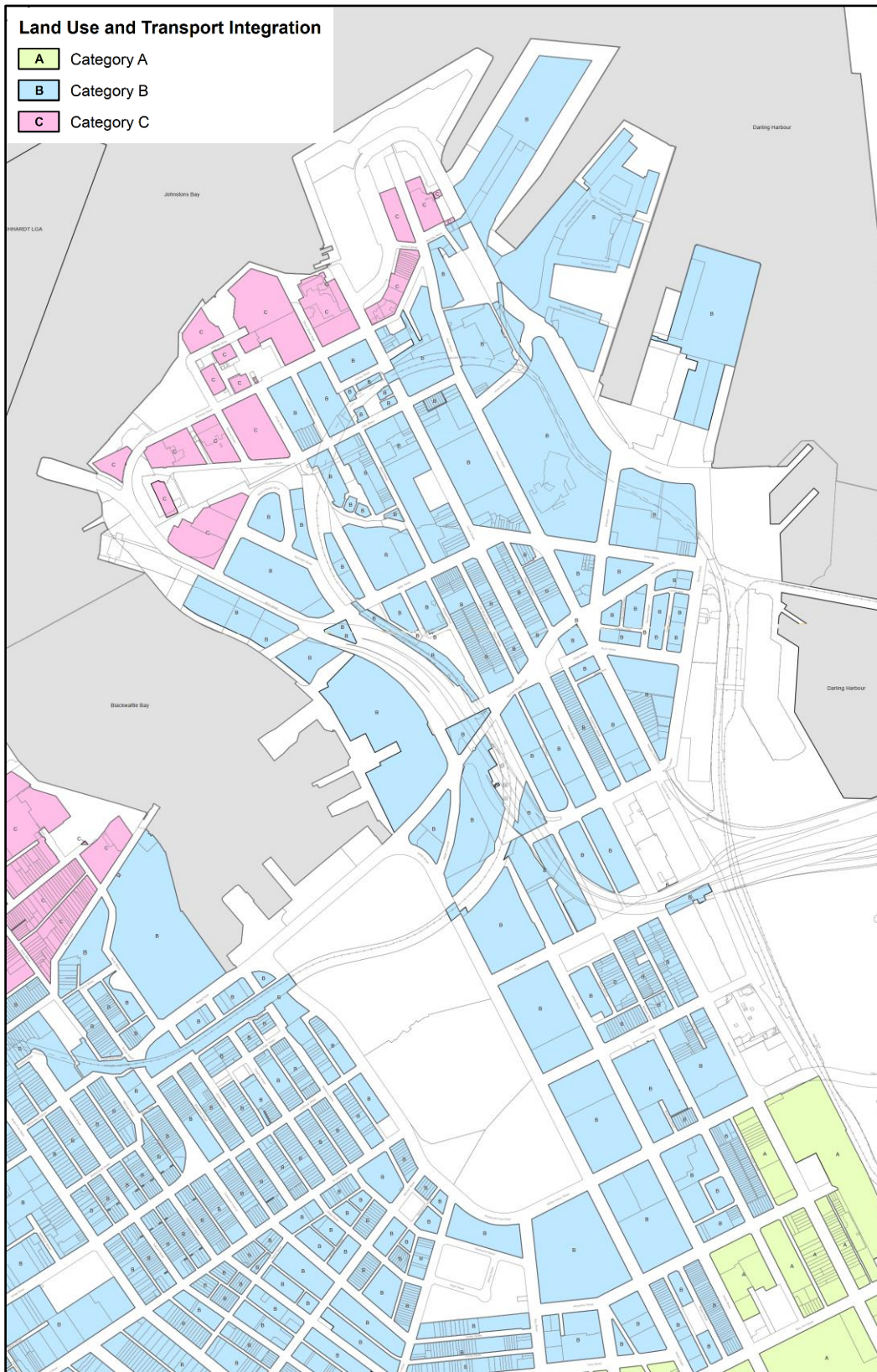


Figure 52 – City of Sydney LEP 2012 residential parking categories

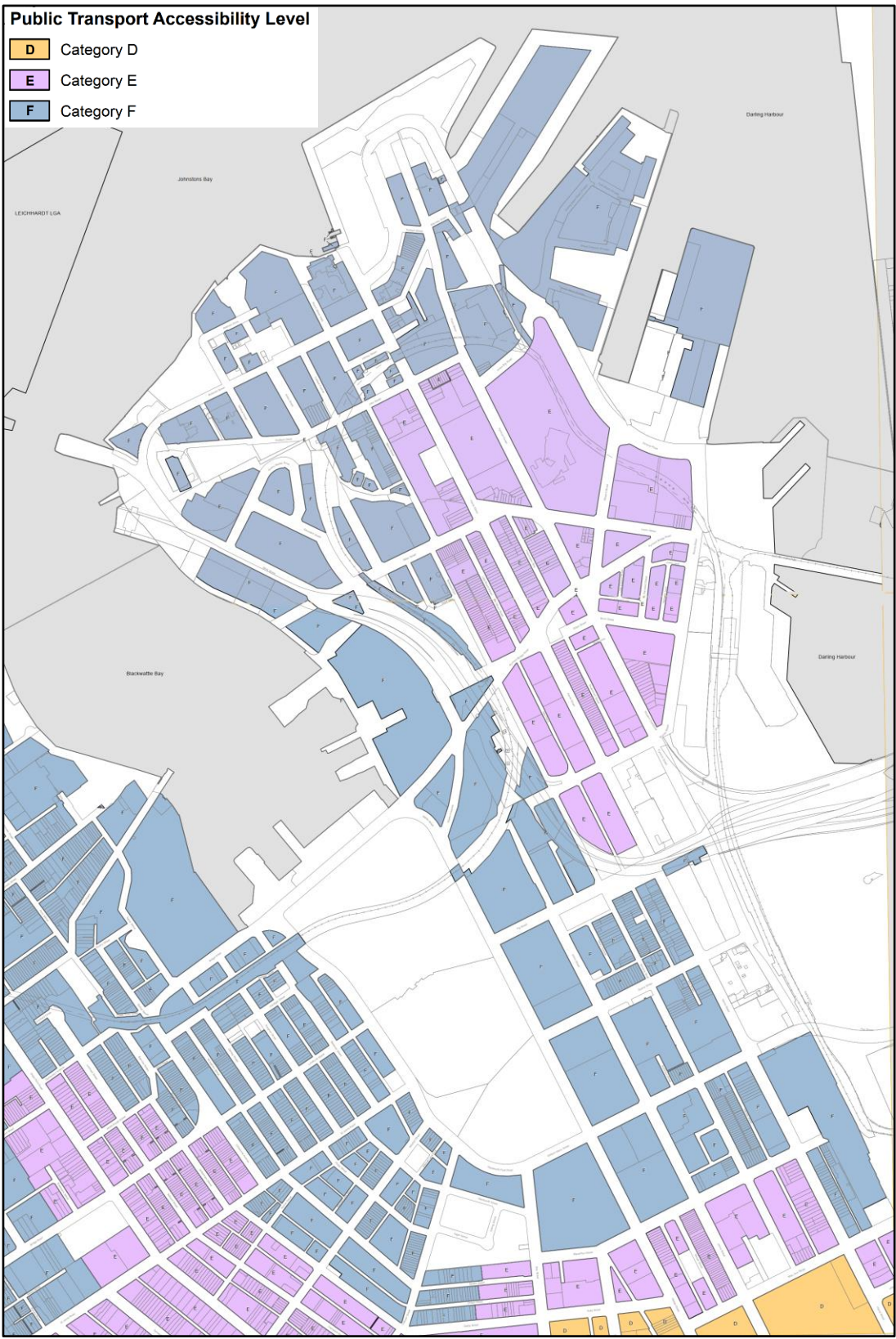


Figure 53 - City of Sydney LEP 2012 commercial parking categories

5.5.2. On-Street parking

City of Sydney's Neighbourhood Parking Policy manages on-street parking supply and demand using a range of parking controls and a parking permit scheme that applies throughout City of Sydney Local Government Area. Pymont Peninsula currently falls within parking area 20 and parking zone B. While this indicates that resident parking permits in the Pymont Peninsula currently do not exceed the number of spaces within this parking zone, the majority of residents in the Pymont Peninsula would be ineligible for a resident parking permit as their dwelling is too new or was approved on the condition that no parking permits are to be issued.

Almost all on-street parking in the Pymont Peninsula is controlled, with the majority subject to paid-parking limits between 6 hours and 1 hours; paid parking generally applies 24 hour a day, including Saturdays, Sundays and public holidays. Control of on-street parking in the Pymont Peninsula supports the restrictive off-street parking provisions by ensuring that on-street parking without a parking permit is not financially feasible for most residents and workers, further encouraging travel by public or active transport.

5.5.3. Car sharing

There are over 50 on-street car-sharing spaces throughout the Pymont Peninsula, shown in Figure 54, with the majority of these are distributed in the northern part of Pymont and southern part of Ultimo, representing some 2 per cent of on-street parking spaces and occupied by a variety of car-sharing providers. Current City of Sydney Council policy will increase the number of car-sharing spaces provided in new commercial and residential developments, with over 50,000 car share memberships held across the whole of the City of Sydney. These car sharing spaces provide access to communal (although privately operated) car-sharing for residents and workers and reduce the reliance on private-car ownership for trips unsuited to public or active transport.

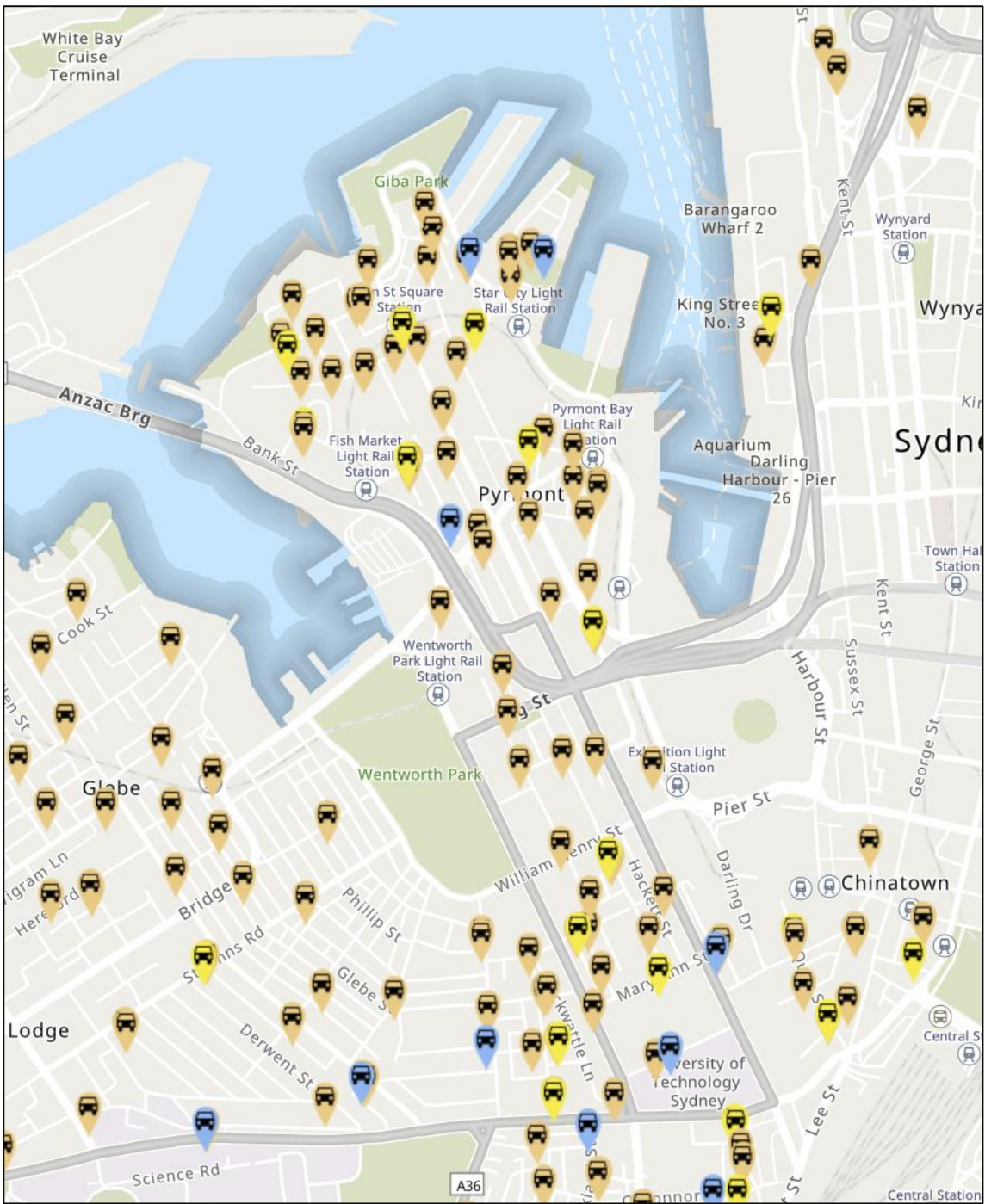


Figure 54 – Locations of on-street car-sharing spaces

6. Pyrmont Peninsula travel demand context

This chapter details the future travel demand that will be a consequence of increased employment and residential population within the Pyrmont Peninsula. Although detailed transport modelling has not been undertaken for this strategic review of the travel demand, benchmarking of the Pyrmont Peninsula against other centres within the City of Sydney LGA and the Eastern Harbour City more broadly has been used as the basis for developing these estimates of the future travel demand.

6.1. Existing travel behaviour and trends

Existing travel behaviour and trends in the Pyrmont Peninsula has been drawn from 2016 Journey to Work Census data for the Pyrmont SA2 region and Transport for NSW Household Travel Survey (HTS). These surveys provide a snapshot of travel behaviours including trip distribution, trip length, trip purposes and mode choice.

6.1.1. Journey to work travel mode

Figure 55 shows surveyed Journey to Work mode share for the Pyrmont Peninsula residents between 2011 and 2016. Analysis of resident Journey to Work mode share indicates the following:

- The dominant mode of travel or residents travelling to work from the Pyrmont Peninsula is by active transport. This reflects the proximity of the Pyrmont Peninsula residents to Sydney CBD, via Pyrmont Bridge, and has not changes significantly between 2011 and 2016.
- Public transport mode share is the next highest mode after active transport and has increased from **27 per cent to 31 per cent**. This likely reflects the extension of the Inner West Light Rail to Dulwich Hill and associated increase in service frequency on this line since 2014.
- Private vehicle mode share is the lowest of all modes for residents and has decreased from **28 per cent to 25 per cent**. This likely reflects increased congestion on the surrounding road network, particularly to and from the Western Distributor and Broadway.

Figure 56 shows surveyed Journey to Work mode share for the Pyrmont Peninsula workers between 2011 and 2016. Analysis of worker Journey to Work mode share shows the following:

- The dominant mode of travel to the Pyrmont Peninsula is via public transport, which has increased significantly from **48 per cent to 55 per cent**. This likely reflects the extension of the Inner West Light Rail line that substantially improved access to the Pyrmont Peninsula from the south and west.
- Private vehicle mode share has decreased from **40 per cent to 34 per cent**, likely reflecting increased congestion on the road network, particularly from the south-west, where access to public transport into the Pyrmont Peninsula has improved with the Inner West Light Rail extension.
- Active transport has the lowest mode share for workers, having decreased from **13 per cent to 12 per cent**. Lack of growth in active transport for workers commuting to the Pyrmont Peninsula is likely a reflection of local industries, which tend to draw workers from across the Sydney metropolitan area and for whom active transport is not a feasible mode of travel for longer commutes.

Overall, Journey to Work mode share trends show that there have been positive increases in public transport usage, likely related to the introduction of the Inner West Light Rail Extension in 2014 and broader trends observed in Sydney towards public transport during this period. Further increase in congestion on road corridors in and around the Pyrmont Peninsula may have contributed to a decrease in vehicle usage.

Lack of growth in active transport mode share for Journey to Work reflect the large differences in the resident and workforce populations, with a large proportion of residents working in the CBD and able to easily use public transport to commute, while workers are generally travelling from a broader metropolitan catchment. These longer commute trips are less amenable to active transport, and thus demonstrate a need to invest more heavily in public transport for worker access to the Pyrmont Peninsula as a major employment hub.

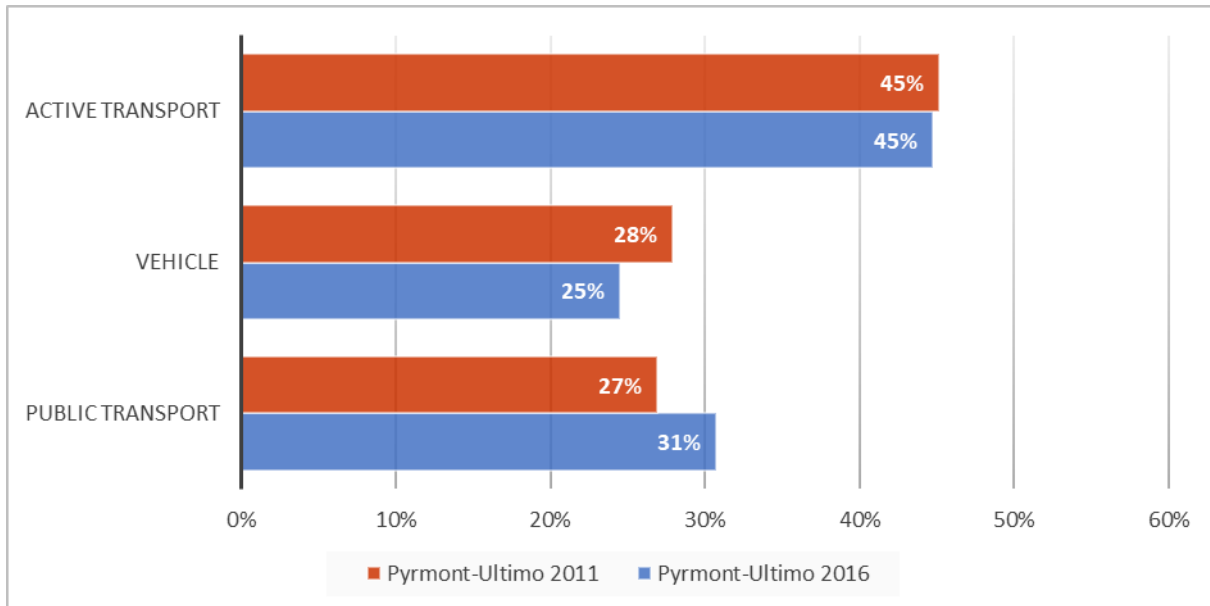


Figure 55 – Journey to work mode share for the Pyrmont Peninsula residents

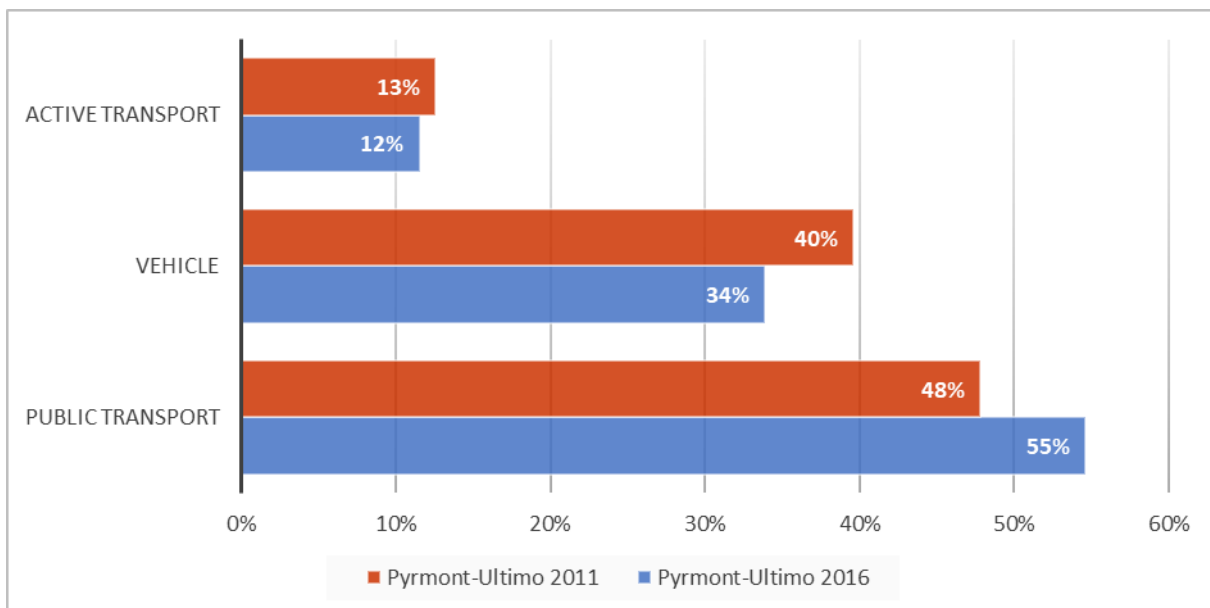


Figure 56 – Journey to work mode share for the Pyrmont Peninsula workers

6.1.2. Journey to work travel patterns and spatial distribution of trips

Figure 57 shows the distribution of Journey to Work trips for the Pymont Peninsula residents to the top destinations from the 2016 census. This figure shows an overwhelmingly large proportion of the Pymont Peninsula residents work within the Sydney CBD with 40 per cent travelling there for work. 18 per cent of residents work within the Pymont Peninsula, with North Sydney the next largest destination with 3 per cent. This large share proportion of residents working in the Sydney CBD is among the largest single destination shares of any SA2 region in Sydney and reflects a unique characteristic of the Pymont Peninsula, being within walking distance of Sydney CBD.

Figure 58 shows the distribution of Journey to Work trips for the Pymont Peninsula workers to the top destinations from the 2016 census. Less than 6 per cent of the Pymont Peninsula workers live within the Pymont Peninsula itself, with the other origins spread widely across Sydney. Newtown-Camperdown and Glebe are the only origins to exceed 2 per cent of origin workers. This demonstrates that the Pymont Peninsula as an employment centre serves a significant and widely dispersed workforce far in excess of its population, indicating that increased public transport access to the Pymont Peninsula via heavy rail would sustainably improve access for workers in the Pymont Peninsula and allow businesses to access a larger labour market.

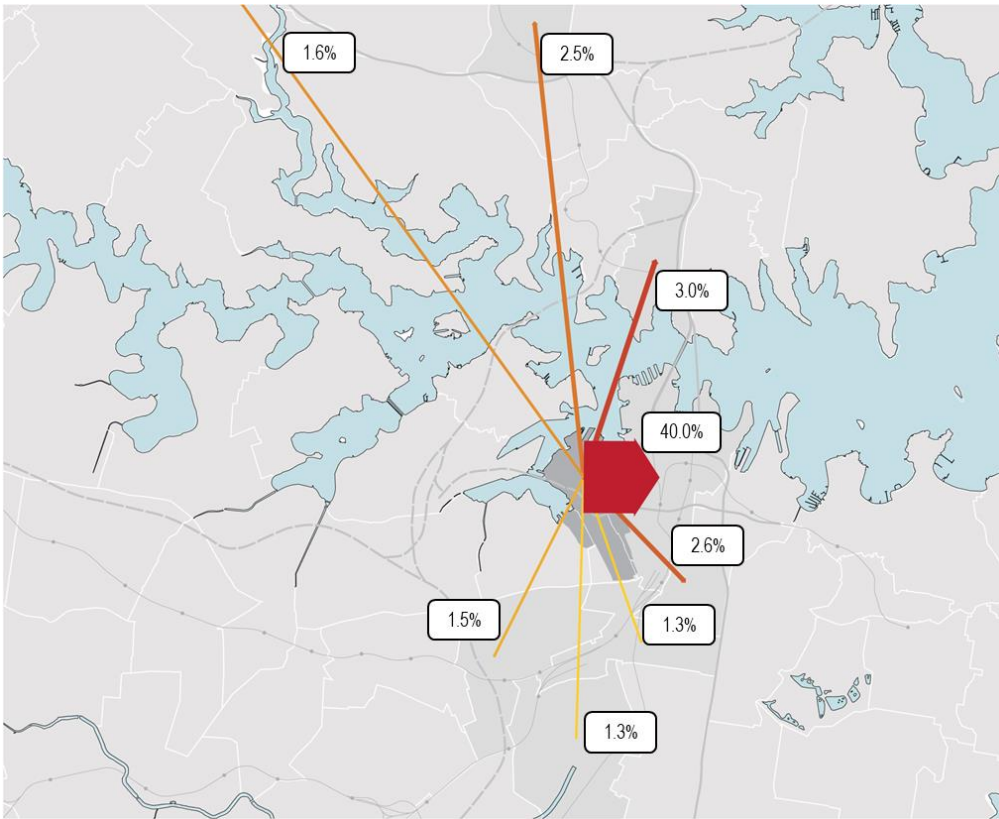


Figure 57 – Top work destinations for the Pymont Peninsula residents

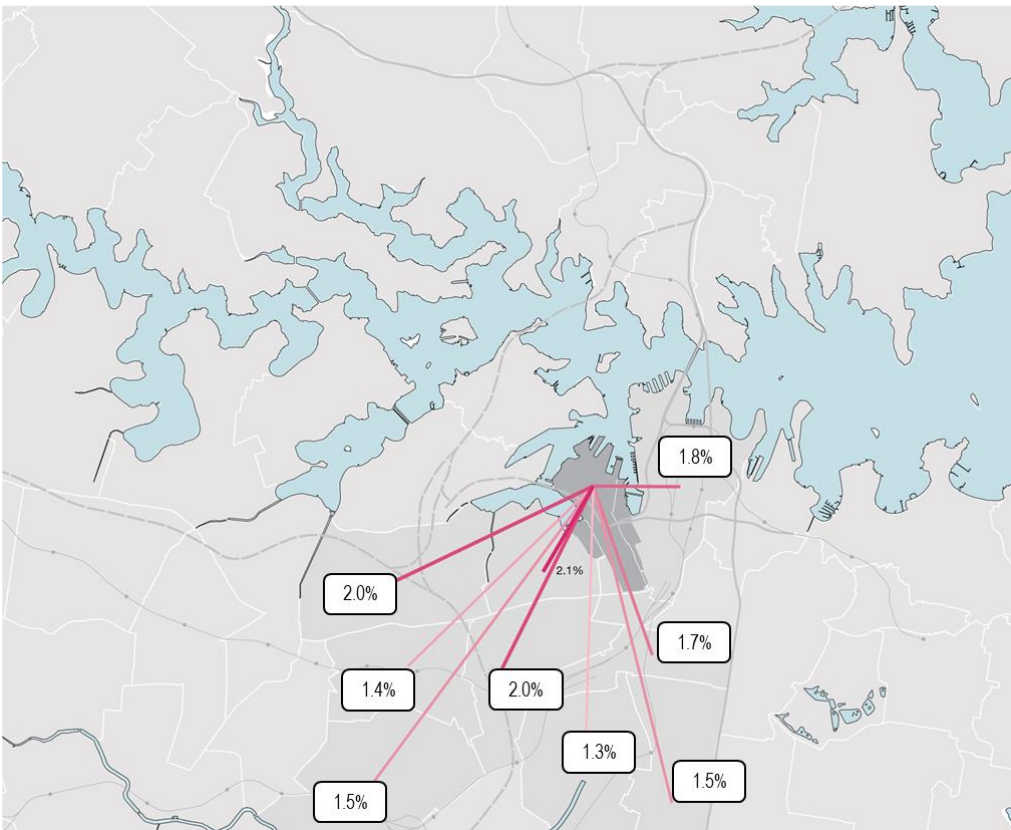


Figure 58 – Top home origins of the Pymont Peninsula workers

6.1.3. Household travel survey mode share and trip length distribution

NSW Household Travel Survey (HTS) is conducted by Transport for NSW and is the most comprehensive source of personal travel data for the Greater Sydney Metropolitan area. The HTS is conducted every day of the year, continuously collecting the travel data of approximately 4,000 randomly selected households across Sydney. This data covers the whole 24-hour day and includes all travel behaviour supplementing the census Journey to Work Data.

Due to small sample sizes at the SA2 level for Pyrmont, not all HTS data was suitable for analysis, however the following data have been analysed for the Pyrmont SA2 area:

- Trip purpose
- All-day mode share based on unlinked trips for 2008 and 2018
- Distribution of journeys by distance
- Distribution of journeys by time

Trip purpose

Table 10 shows a summary of the trip purpose distribution for HTS participants in the Pyrmont SA2 region in 2008 and 2018; this region includes the suburbs of Pyrmont and Ultimo. These data show that average total trips per household in the Pyrmont SA2 region has increased by 12 per cent, and this growth has primarily been for education and childcare, social/recreational travel. The growth in these trip purposes suggests along with the increase in average trip length suggests that residents of the Pyrmont Peninsula are travelling outside of the area to access services that they can't as easily access within the area. Commute trips have remained a consistent share of travel, while shopping trips have decreased, likely due to the increased availability of online shopping and delivery.

Table 10 – Household Travel Survey Pyrmont SA2 (Pyrmont and Ultimo) journeys by trip purpose

Purpose	2008 trips	2018 trips	2008 (%)	2018 (%)
Commute	14,668	16,946	35%	36%
Work related business	521	631	1%	1%
Education/childcare	1,673	3,318	4%	7%
Shopping	7,465	4,898	18%	10%
Personal business	2,146	1,963	5%	4%
Social/recreation	8,570	15,462	20%	33%
Serve passenger	2,691	2,994	6%	6%
Other	4,559	1,237	11%	3%
Total	42,293	47,449	100%	100%

Mode share

Figure 59 shows a summary of the modes share for HTS participants in the Pyrmont SA2 region for 2008 and 2018. These data show that walk has been the primary mode of travel for Pyrmont Peninsula residents, however there was a substantial decrease in the mode share of walk only trips with an accompanying increase in vehicle trips. This is in contrast to the Journey to Work data, which shows the opposite trend. This suggests that while accessibility for car during peak hours is constraining growth in journey to work trips, this may not be the case for all trips.

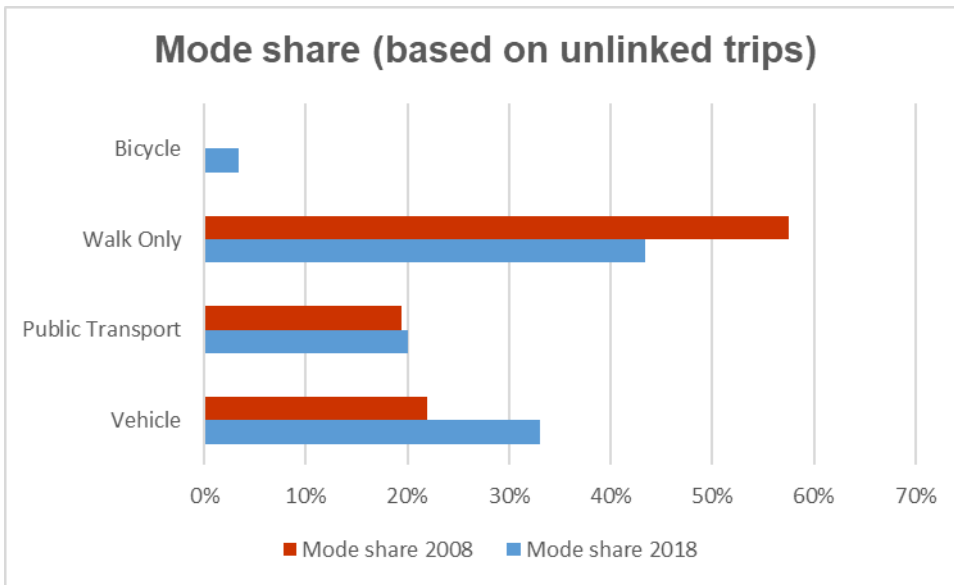


Figure 59 – Household Travel survey Pyrmont SA2 (Pyrmont and Ultimo) mode share

Trip length distribution

Figure 60 shows a summary of the trip length distribution for HTS participants in the Pyrmont SA2 region in 2008 and 2018. These data show that short trips of less than 2km and less than 15 minutes have historically made up the majority of trips taken by Pyrmont Peninsula residents, which is consistent with high walk mode share. This has been reducing over the last 10 years, however, with more longer trips taking place. This suggests that Pyrmont residents are now travelling further and for longer than they did 10 years ago and are likely doing so by car, which is in opposition to similar broader trends for trip length in the City of Sydney LGA as a whole. As car ownership has not significantly increased across Pyrmont Peninsula over the same time period, this suggests that current car owners are more likely to use their car to travel further for all purposes than they previously would have.

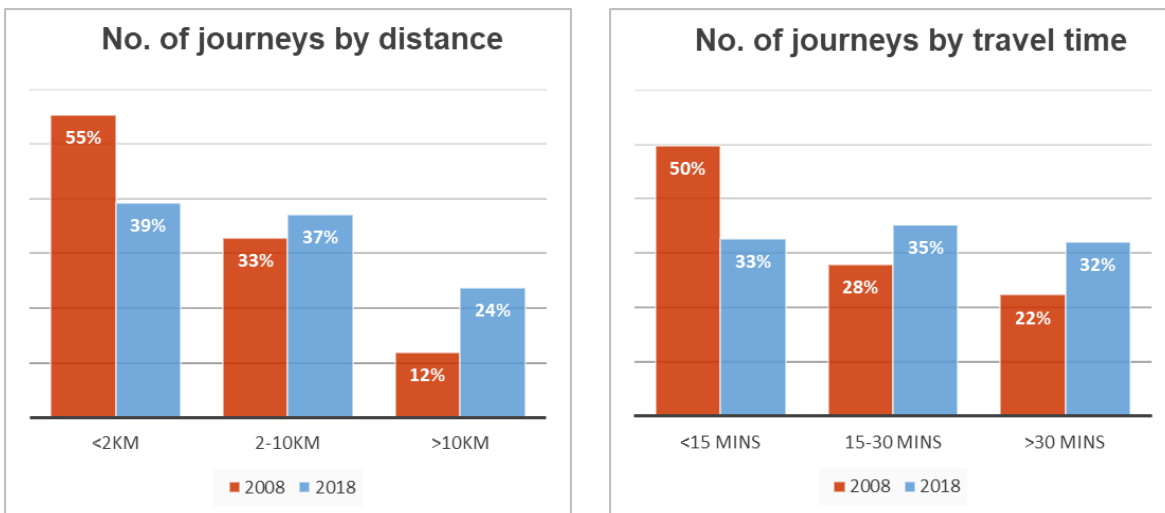


Figure 60 – Household Travel Survey Pyrmont SA2 (Pyrmont and Ultimo) trip length distribution

Overall, the HTS data suggests that there is an upward trend in longer distance car travel, and a downward trend in local active transport travel. This indicates that there is more potential for travel by active transport modes and that further investment to provide more walkable streets and better local access to recreation and community facilities could reverse this trend of increased longer distance car travel.

6.2. Benchmarking of transport indicators

In order to allow for a comparison of key travel characteristics of the Pyrmont Peninsula against other comparable centres across Sydney, benchmarking of transport indicators has been undertaken against the following data sets:

- Transport for NSW Household Travel Survey (HTS) at the LGA level:
 - Sydney metropolitan average
 - City of Sydney local area
 - North Sydney local area
 - Inner West local area
- ABS Journey-to-Work (JTW) 2016 census data
 - Surry Hills SA2 region
 - Redfern Chippendale SA2 region
 - North Sydney SA2 region.

These locations have been selected to allow a comparison of key travel characteristics of the Pyrmont Peninsula, and to inform the development of mode share targets (outlined further in Section 8.1). These locations have been selected for comparison against the Pyrmont Peninsula due to:

- Being similar as periphery areas of the Sydney CBD.
- Their role as major employment areas.
- Their substantial residential populations.
- Relevance for comparison as centres served by significant heavy rail investments.

Table 11 shows a comparison of the key characteristics of the benchmark areas. Unlike other major employment on the CBD periphery, the Pyrmont Peninsula does not currently have direct rail access.

Table 11 – Comparison of benchmark location characteristics

SA2	Population (2016)	Jobs (2016)	Jobs per resident	Car ownership (veh/dwelling)	Public Transport Provision	Major Rail Node	Rail Interventions
Pyrmont-Ultimo	219,79	40,518	1.8	0.8	Buses, light rail, ferries (and train)	Town Hall (15 min walk)	Potential SMW station
North Sydney	120,64	59,337	4.9	1.0	Train, buses	North Sydney	Victoria Cross station
Surry Hills	16,976	31,528	1.9	0.6	Train, buses, light rail	Central	Central upgrade
Redfern-Chippendale	20,506	15,395	0.8	0.7	Train, buses	Redfern	Redfern upgrade

6.2.1. Household travel survey

Figure 61 shows a comparison of household travel survey (HTS) mode share data for City of Sydney LGA to Inner West LGA, North Sydney LGA and the average for the Sydney Metropolitan Area. The HTS provides mode share data for all trip purposes over and above Journey-to-Work, which is critical to understanding travel patterns across the day. Although Journey-to-Work travel is important for morning and evening peak hours, commuter travel accounts for only 24 per cent of daily trips undertaken across Sydney.

Benchmarking of HTS against other LGAs shows that City of Sydney (encompassing the Pyrmont Peninsula) has the highest walk share of any LGA for all trip purposes (57 per cent) and is significantly higher than the Sydney metropolitan average of 17 per cent. City of Sydney LGA also has an exceptionally low vehicle mode share of 26 per cent, compared to the Sydney metropolitan average of 69 per cent.

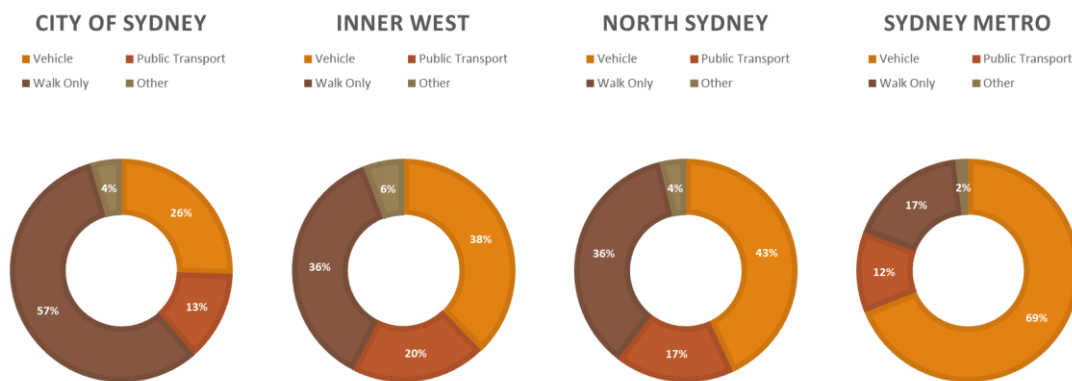


Figure 61 – Household travel survey mode share by local government area

6.2.2. Journey to work

Figure 62 shows a comparison of JTW resident mode share of the Pyrmont Peninsula against other centres within the Harbour City. The active transport share for the Pyrmont Peninsula is 45 per cent, notably higher than any of the benchmark locations. This likely relates to the high proportion of residents working in the Sydney CBD and the good pedestrian and cycle access provided by Pyrmont Bridge. Public transport share for the Pyrmont Peninsula is the lowest of the benchmark centres at 31 per cent, with vehicle mode share the second highest after North Sydney (24 per cent and 30 per cent respectively).

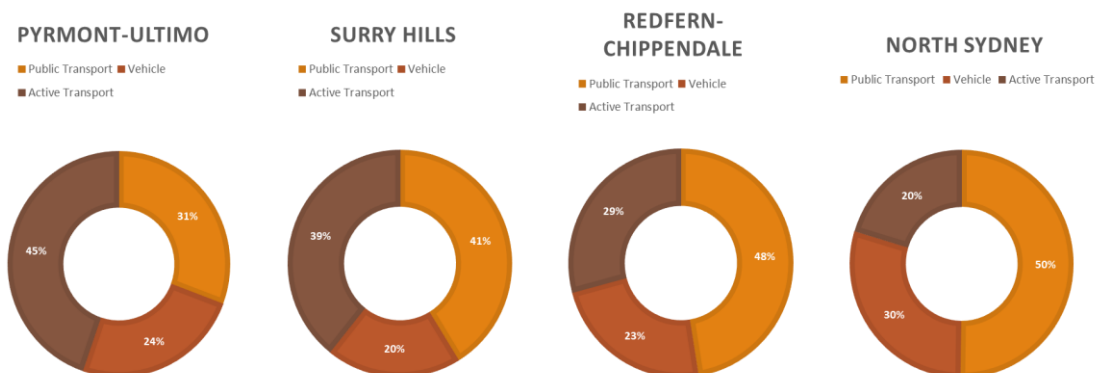


Figure 62 - Resident Journey to Work mode share by SA2 region

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Figure 63 shows a comparison of JTW worker mode share of the Pyrmont Peninsula against other centres in the Harbour City. Vehicle mode share for the Pyrmont Peninsula is 34 per cent which is the second highest after Redfern–Chippendale at 37 per cent. Public transport share is higher than expected at 55 per cent which likely reflects good light rail and bus access, but largely the access from Town Hall Station via Pyrmont Bridge. This contrasts with similar employment centres such as North Sydney, which has direct heavy rail access and a much higher public transport mode share, along with substantially lower on-street parking and off-street parking for employment floor-space.

Active transport share is relatively low for all the benchmarks, indicating that active transport is not a feasible mode of travel for the majority of employees who are distributed across a large and dispersed labour market.

Benchmarking of the Pyrmont Peninsula against other comparable LGAs and CBD fringe locations shows the following:

- Very high active transport use, likely driven by proximity and connectivity to Sydney CBD.
- High public transport mode share for workers, but not as high as it could likely be when compared with other employment centres that have access to heavy rail.
- Comparable levels of private vehicle use consistent with other centres at the CBD fringe with lower parking and surrounded by congested roads.

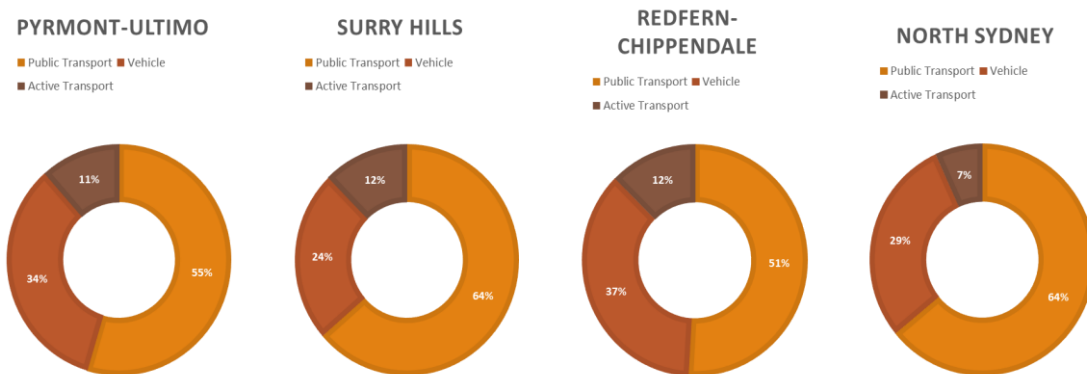


Figure 63 – Worker Journey to Work mode share by SA2 region

6.3. Draft Pyrmont Peninsula Place Strategy land use scenarios

The draft Pyrmont Peninsula Place Strategy has developed two land use scenarios for the Pyrmont Peninsula:

- **Low employment density:** developed through integrating existing master plan studies with additional sites for change identified through a development potential and constraints criteria set out within the Hassell Built Form Potential Report. This scenario has been developed based upon the high activation scenario provided by NSW Treasury and the Department of Planning, Industry and Environment Main Series population growth provided by CRED Consulting for growth to 2041, assuming a lower job density and higher floorspace yield.
- **High employment density:** as per the low employment density scenario, but assuming higher density and approximately 11% lower floor space yield.

In both scenarios the proposed yield for state identified projects has been assumed without modification and both scenarios achieve the same jobs target as identified by NSW Treasury. Table 12 shows the forecast population and employment growth (from existing) under both scenarios.

Table 12 – Scenario 1 population and employment growth forecasts by character area

Character area	GFA Growth (m ²)	Jobs growth	Population growth	Dwellings growth
With Metro – Low Employment Density				
Pirrama	22,500	358	188	88
Pyrmont Village	63,500	1,384	138	65
Darling Island	139,000	2,744	601	282
Blackwattle Bay	322,000	5,727	2,055	965
Tumbalong Park	202,000	2,864	2,055	965
Wentworth Park	97,500	1,265	1,115	524
Ultimo	456,000	8,638	2,356	1,106
Total	1,302,500	22,980	8,507	3,994
With Metro – High Employment Density				
Pirrama	19,500	335	188	88
Pyrmont Village	55,000	1,380	138	65
Darling Island	122,000	2,732	601	282
Blackwattle Bay	289,000	5,771	2,055	965
Tumbalong Park	185,000	2,871	2,055	965
Wentworth Park	87,500	1,199	1,115	524
Ultimo	406,000	8,698	2,356	1,106
Total	1,164,000	22,985	8,507	3,994

Table 13 provides a comparison of forecast population and employment growth in Pyrmont from Transport for NSW (TPZ/LU16) and the draft Pyrmont Peninsula Place Strategy forecasts. Analysis of these comparisons indicates the following:

- Both scenarios forecast 26 per cent lower growth in population than the Transport for NSW forecasts.
- Both scenarios forecasts 10 per cent higher jobs growth than the Transport for NSW forecasts, attributable to the additional demand for employment space that a metro station would generate

Table 13 – Comparison of scenario growth and Transport for NSW forecasts (TZP/LU16)

Location	EMP 2016	EMP 2041	ERP 2016	ERP 2041
Pyrmont-Ultimo	39,396	56,284	20,245	32,874
Scenario 1 (high growth)	-	62,376	-	24,239
Scenario 1 (low growth)	-	62,381	-	24,239

The transport opportunities and constraints outlined in this chapter have been identified to respond to the transport demand that will be generated by the development identified in these scenarios and determine initiatives that may be investigated to facilitate future growth.

6.4. Future transport demand

6.4.1. Transport customers

Due to its geography and demography, the travel characteristics and demand associated with the Pymont Peninsula are currently more consistent with Inner Sydney than middle and outer suburbs and this is likely to continue to be the case as resident and worker populations increase in the future. As noted in Section 4, there is a range of demographic drivers associated with the emerging population in and around Pymont Peninsula that will have an influence on the travel demand. These are outlined below:

- **Residential and employment densities** – residential densities are expected to increase from **145 to 237 residents per hectare** between 2016 and 2056. Similarly, employment density is expected to increase from 262 to 415 employees per hectare. These are consistent with existing densities in areas of the City of Sydney that have good access to the heavy rail network such as Chinatown and CBD south.
- **Age** – the Pymont Peninsula is characterised by a relatively younger age profile with a median age of 31 years (younger than the LGA median of 32 and greater Sydney at 36) with the most populous group being 18–49 years of age. This is generally skewed across the Pymont Peninsula, with Ultimo having a much lower median age than Pymont (26 years compared to 34 years).
- **Public transport usage** – Journey to Work data shows that public transport mode share has increased for both workers and residents from 2011 to 2016, indicating that demand for public transport has increased in response to the extension of Inner West Light Rail and that this demand is likely to increase as the resident and worker population increases in the future.
- **Car ownership** – average car ownership in the Pymont Peninsula in 2016 was **0.8 vehicles per dwelling**, which is less than half the Sydney average of 1.7 vehicles per dwelling. This has remained constant since 2011, indicating that private vehicle ownership will remain low for the area in the future.
- **Household type** – in 2016 99 per cent of households in Pymont Peninsula lived in apartments or semi-detached/terrace houses, more than double the Sydney average, indicating that access to off-street parking for the vast majority of Pymont Peninsula residents is low; consistent with low car ownership levels.

Demographic data are strong indicators of good potential for enhanced public transport and active transport networks and services. They are also strong indicators of major transport demand that could impact on efficiency and productivity if not suitably catered for with an adequate transport network aligned with the needs of its customers.

6.4.2. Land uses influencing the future transport task

There are numerous notable land-uses and activity hubs that will influence the future transport demand the Pyrmont Peninsula would need to serve. These include:

- **Urban centres** – The Sydney CBD and Redfern provide major trip generating “anchors” to the south and east of the Pyrmont Peninsula. Along with new employment in the planned Bays Precinct to the west, Pyrmont Peninsula sits in the middle of the Harbour City Innovation Corridor.
- **Education precincts** – UTS and TAFE Ultimo and numerous language colleges and their associated activities will result in a significant and diverse customer market for Pyrmont Peninsula residents, particularly at the southern end.
- **Emerging creative, technology and innovation economy sector** – The area encompassing parts of Eveleigh, Alexandria, Australian Technology Park and Surry Hills is the focus of the emerging creative, technology and innovation economy sector. This sector is bringing a range of opportunities that are yet to be fully understood. Based on precedents in other global cities, these opportunities will rely on excellent public transport access to facilitate connectivity to engage in collaboration in economic, social and cultural activities.
- **Major multimodal transport hubs** – Central Station, Railway Square, Town Hall Station (and their associated public transport interchanges) offer strong opportunities for customers to transfer onto transport services in order to access the catchments it would serve, however these major hubs are outside of easy walking distance of the Pyrmont Peninsula, highlighting the need for the area to develop as a transport hub in its own right.
- **Tourist attractions** – Pyrmont hosts tourist attractions of global significance including The Star Casino and International Convention Centre along with attractions of state significance including Darling Harbour, Australian National Maritime Museum, Museum of Applied Arts and Sciences and Sydney Fish Market. Public transport access to these attractions is critical to the growth of the tourism and entertainment sector in the Pyrmont Peninsula.

6.4.3. Key features of the travel demand

The features of the transport market within, along and around Pyrmont Peninsula will result in a travel demand that can be characterised as:

- **Rich and complex** – involving many trip types and purposes and different customers (including commuters, visitors, tourists) – much more diverse than the basic commuter task between outlying “dormitory suburbs” and employment centres.
- **All day, all week** – serving a stronger, more consistent demand over a longer day (and into the night), all week (including weekends), rather than serving a demand only focussed on the AM and PM commuter peaks on week days.
- **Strong potential for higher public transport and active transport mode share** – the intensity and diversity of a mix of land uses use, coupled with short trip distances and constrained parking supply all lead to strong potential for public transport use. It is the highly constrained parking supply along the proposed route that will result in elevated trip densities throughout the day and evening.

Overall, the travel demand associated with the Pyrmont Peninsula indicates a very strong potential for a well-used, highly-valued, and a high value public transport and active transport infrastructure with a low reliance on private vehicles. Gross residential densities of **150-200 persons per hectare** are considered sufficient to support viable high-order public transport services such as Sydney Metro West. Current residential densities in the Pyrmont Peninsula are around 110 persons per hectare, and forecast to increase to 180-210 persons per hectare in the future; when combined with even higher employment population, this puts Pyrmont Peninsula at the higher end of the envelope of densities that would justify investment in high-quality public transport.

6.5. Future trip growth – travel zone projections

Benchmarking of Journey-to-Work travel statistics for Pymont Peninsula, along with mode share targets (described in more detail in Section 8.1) have been used to provide a high-level estimate of the scale of growth in the travel demand task that would be associated with the land use projects for future employment and residential populations in the Pymont Peninsula by 2036 under the TPZ/LU16 forecasts.

A summary for the forecast daily total trip growth for the Pymont Peninsula is provided in Table 14. This forecast indicates the following:

- The Pymont Peninsula as a whole would see a substantial increase in daily travel demand, with the majority of this additional travel demand being for Ultimo south.
- The majority of the increased travel demand would be from the forecast increase in employment across the Pymont Peninsula, much of which is concentrated in Ultimo under the TPZ/LU16 land use forecasts.
- If land use intensity increases according to the spatial distributions expected under the TPZ/LU16 forecasts, increases travel demand at the northern and southern ends of the Pymont Peninsula underpin the need to provide better connections via public and active transport between these centres along Harris Street.

Table 14 – TPZ/LU16 land use daily trip forecast

Locality	Travel Zones	2016 daily trips	2036 daily trips	Trip growth (2016–2036)	Trip growth % (2016–2036)
Pymont (north)	151,152,153	15,312	19,225	3,914	25.6%
Pymont (south)	154,155,156	130,89	16,153	3,064	23.4%
Ultimo (north)	157	7,307	8,871	1,564	21.4%
Ultimo (south)	158,159,160	8,545	18,766	10,222	119.6%
Total		44,253	63,016	18,763	42.4%

A breakdown of morning peak hour forecast trips by commute and non-commute purposes into and out of Pymont Peninsula under the TPZ/LU16 land use is shown in Table 15. This forecast breakdown indicates:

- Under the existing public transport network, based on the mode share targets, the Pymont Peninsula would require additional public transport capacity for 1,500 new trips by public transport.
- With a metro station, a higher public transport mode share has been assumed to be possible, this demand would increase to an additional 1,900 trips new trips by public transport, although some of these trips would be able to travel via metro.

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As further detailed in Section 7, there are a number of existing constraints in the public transport network that would render provision of these additional services to serve the projected demand difficult. Bus corridors into Pyrmont are slow and unreliable and providing peak frequency to service this significant additional demand with buses alone is likely to be challenging; while buses will play an important role, the additional public transport demand cannot be serviced by buses alone. Similarly, Inner West Light Rail has physical constraints that limit its capacity and there will be other areas of demand along the light rail line that will limit the capacity available for growth in Pyrmont alone. With both Town Hall and Central stations in excess of 15 minutes' walk from most of the Pyrmont Peninsula, the provision of a Sydney Metro West Station at Pyrmont is critical to providing additional direct public transport capacity to service the projected growth in demand for public transport and also enables the opportunity to shift growth from cars to public transport.

Table 15 – 2036 forecast additional morning peak public transport demand

Locality	Travel Zones	1-hr additional PT demand (existing PT scenario)	1-hr additional PT demand (with metro scenario)
Commute Trips			
Pyrmont (north)	151,152,153	541	650
Pyrmont (south)	154,155,156	102	123
Ultimo (north)	157	101	122
Ultimo (south)	158,159,160	466	560
Total		1211	1454
Non-commute trips			
Pyrmont (north)	151,152,153	65	98
Pyrmont (south)	154,155,156	51	77
Ultimo (north)	157	26	39
Ultimo (south)	158,159,160	170	256
Total		313	469

7. Opportunities and constraints for Pymont Peninsula

Accommodating growth in the Pymont Peninsula for both jobs and residents while retaining the unique character of the area and supporting sustainable travel behaviour requires overcoming substantial challenges in the existing and future transport network surrounding the Pymont Peninsula. This chapter outlines the key opportunities and constraints that have been identified for each travel mode and how these may change over time as the context and function of the Pymont Peninsula changes over time. These opportunities and constraints have been identified based on a comprehensive review of the transport network to provide an exhaustive summary with the intention of consolidating these down through a process of analysis and stakeholder consultation before being refined into a list of transport initiatives. This analysis is a key step in informing both the refinement of the Pymont Peninsula vision and in determining appropriate structural planning and transport strategic responses for the Pymont Peninsula.

These opportunities and constraints have been identified in the context of supporting the existing and forecast travel behaviour trends; identifying the element of the existing and planned transport network that support or challenge the following key features of the future travel task:

- High commuter mode share to active transport.
- Increasing non-commuter mode share to private vehicle and increasing trip duration and distance for non-commuter trips.
- High proportion of residents working Sydney CBD.
- High proportion of workers originating from the west and south west of Pymont Peninsula.
- Limited access to high-capacity public transport and increasing residential density approaching levels that would support a heavy rail station.

7.1. Road network

The opportunities and constraints for the road network in the Pymont Peninsula are shown in Figure 64.

Road network opportunities

0.1 –WestConnex M4-M5 Link will significantly change the way that private vehicle travel to and around Sydney CBD from the west. The key changes in the motorway network that will affect the Pymont Peninsula will be the opening of Rozelle Interchange and part of the M4-M5 Link project which will provide an alternative to travelling to the west via Parramatta Road. This will allow traffic that currently travel to the M4 Motorway via Parramatta Road or City West Link to enter the motorway network directly from Rozelle Interchange.

0.2 –Western Harbour Tunnel would reduce traffic volumes along Western Distributor between Anzac Bridge and Sydney Harbour Bridge. This would offset increased traffic volumes that would be brought to the area by the opening of M4-M5 Link and allow Western Distributor to perform more of an access function.

0.3 – Increases in surrounding motorway capacity as a result of M4-M5 Link and Western Harbour Tunnel allow for roads within the Pymont Peninsula to shift from their current movement function towards a more place-focussed function that prioritises local access over through-traffic.

0.4 – Reconfiguration of road capacity to reduce traffic capacity and provide more capacity for other travel modes along the following corridors:

- Wattle Street: widening of footpaths between Broadway and Fig Street.

- Harris Street: reduction in traffic lanes and conversion to allow for a contra-flow bus lane between Thomas Street and Regent Street.
- Pymont Bridge Road: reduction in travel lanes between Wattle Street and Darling Drive.
- Pymont Street: reduction in travel lanes between William Henry Street and Murray Street, narrow lanes and convert western edge to rear-to-kerb angle parking between Edward Lane and Pymont Street ramp to facilitate a lower speed environment.

0.5 – Reduction of access to Western Distributor could be undertaken in response to reduced traffic volumes between Anzac Bridge and Sydney Harbour Bridge, with closures or changes to access arrangements considered at the following location:

- Pymont Street on-ramp to Western Distributor closed.
- Allen Street off-ramp from Western Distributor closed.
- Harris Street off-ramp from Western Distributor at Fig Street closed.
- Right turn from Pier Street to Harris Street reinstated.
- Right turn from Western Distributor (west) to Pymont Bridge Road (south) banned.

0.6 – Shared traffic zones for local streets surrounding UTS and TAFE Ultimo to improve accessibility between campus buildings and surrounding accommodation. Speeds within these shared zones would be limited to 10km/hr and marked with signage, threshold and surface treatments.

0.7 – Conversion of Jones Street to open space between Thomas Street and Broadway to provide more open space surrounding the UTS campus and facilitate east-west pedestrian movements through the campus. Service access to buildings along Jones Street could be maintained through managed access arrangements for service vehicles.

0.8 – Signalised pedestrian crossing on Harris Street north of Broadway to provide an at-grade pedestrian crossing between UTS buildings on either side of Harris Street. This crossing would be coordinated with adjacent intersections on Harris Street and would be linked to the redevelopment of these UTS buildings.

0.9 – Close Bank Street to local traffic between Pymont Bridge Road and Pymont Street to reallocate land under the Western Distributor viaduct that currently provides access to Sydney Fish Market. If access to Sydney Fish Market is moved to Wattle Street, this space could be used for coach parking or an integrated community, infrastructure and transport interchange hub allowing for decoupled parking, localised logistics other community-based sustainability functions.

0.10 – Close or realign Darling Drive between Union Street and Harbourside access to create extended public domain and improve pedestrian and cycle access to Pymont Bridge from a potential cycleway on Murray Street.

Road network constraints

C.1 – Reduction of traffic lanes through the Pymont Peninsula will discourage through traffic, however it may also result in more difficult access to the Pymont Peninsula for local residents and workers. Similarly, while removal of accesses from the Western Distributor into the Pymont Peninsula will discourage through traffic, it will also make access to the Pymont Peninsula more difficult by car. Reduction in access and capacity for cars will need to be targeted to reduce through traffic without adversely affecting local access, especially to the south and south west of the Pymont Peninsula where traffic access most affected by congestion.

C.2 – Direct access to local roads from the Western Distributor means that congestion and delays on local streets such as Pymont Bridge Road, Allen Street and Harris Street can result in substantial queues on the motorway network, compromising its function as a high-mobility corridor. Downgrading of local roads that can be accessed directly from the Western Distributor will need to be

coordinated with an access strategy to the motorway to avoid local delays affecting high-productivity regional trips.

C.3 – Access to the regional road network for trucks, coaches and service vehicles is limited, with load limits on most local streets and some motorway ramps constrained by geometry for truck and coach access. Downgrading of streets or changes in motorway access will need to ensure that trucks and coaches can still service some of the key commercial sites in the Peninsula such as Harbourside, Sydney Fish Markets and The Star.

C.4 – Traffic congestion is currently an issue for other modes that use the road network, in particular buses. While downgrading roads through the Pyrmont Peninsula may discourage through trips due to increased travel times, increased delays may also further affect the reliability of buses and constrain the use of other intermediate public transport modes in the future.

C.5 – Expansion and redevelopment of the Sydney Fish Market is likely to generate substantial additional traffic demand during peak periods and weekends, putting more pressure on the intersection of Pyrmont Bridge Road and Western Distributor.

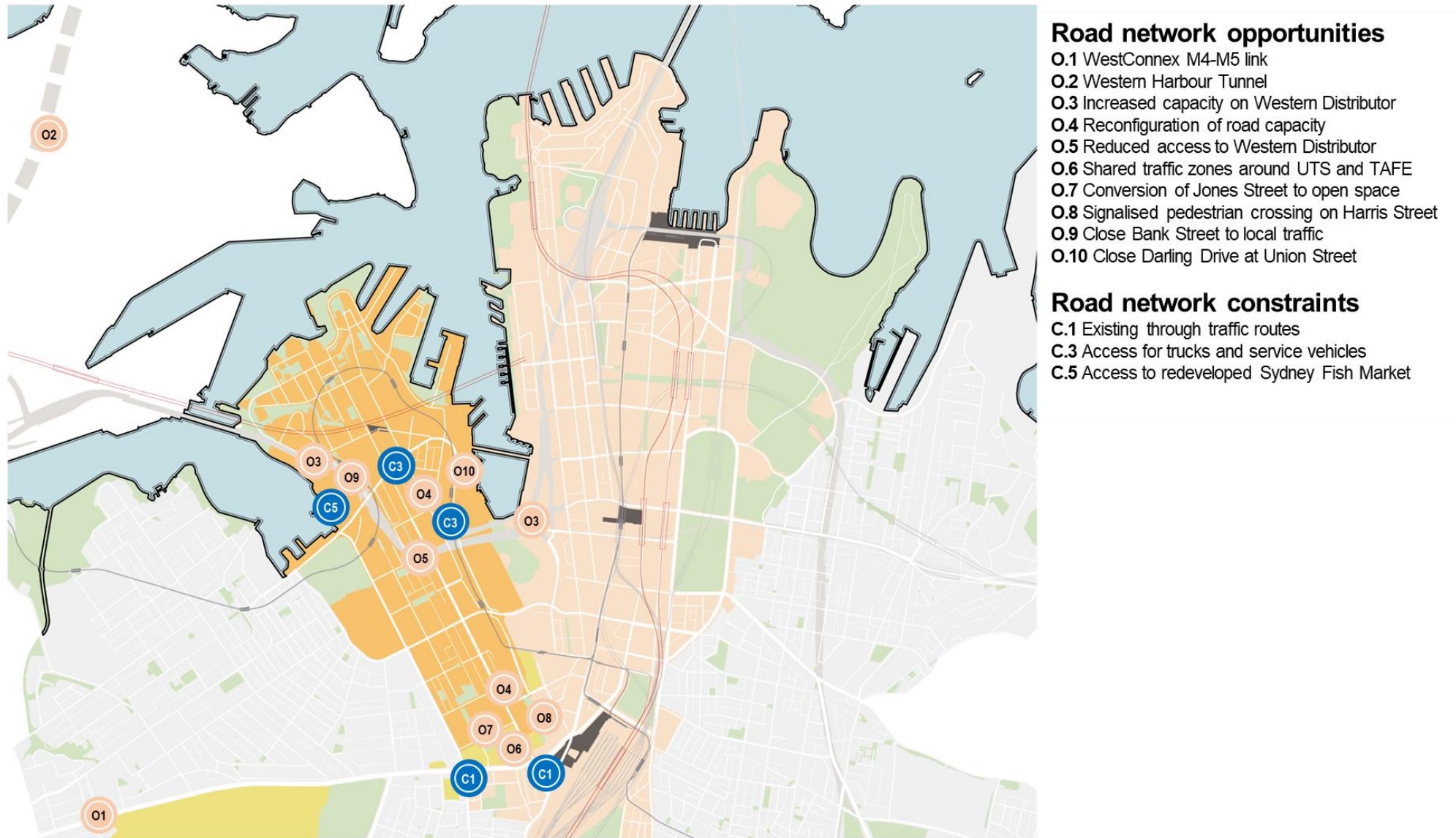


Figure 64 – Key Road network opportunities and constraints

7.2. Public transport

The opportunities and constraints for the public transport network in the Pymont Peninsula are shown in Figure 65.

Public transport network opportunities

O.11 – A metro station in Pymont on the Sydney Metro West line will substantially improve the access to heavy rail for a substantial proportion of the residential and employment land use in the Pymont Peninsula, particularly to the north of Western Distributor. Based on the proposed travel speeds and frequency of trains on the Sydney Metro West line, Parramatta CBD, Sydney Olympic Park and Martin Place would all fall within a 30-minute travel time catchment of the Pymont Peninsula, providing increased access by public transport for residents to work, live and play in the harbour city and beyond.

O.12 – A new bus route from the Parramatta Road corridor to the Pymont Peninsula via Pymont Bridge Road through Forest Lodge would connect a significant demand of existing workers from the inner west to Pymont, improving public transport access to the west and south west.

O.13 – A new bus route from the Pymont Peninsula to Australian Technology Park along Harris Street, across Broadway and down the Regent Street corridor. This route would support travel through the Innovation Corridor for both workers and residents and has the potential to be further upgraded to a higher-capacity intermediate mode such as trackless-tram. Reconfiguration of Regent Street and Harris Street would be required to provide two-way flow or a contra-flow bus lane between Ultimo Road and Lee Street. Following initial operations, the performance of this route would need to be monitored to determine whether patronage and reliability would warrant further investigation of continuous bus priority along Harris Street and potential signal priority at intersections on Harris Street including Pymont Bridge Road, Fig Street and Broadway.

O.14 – Bus priority measures to reduce delays and increase reliability for buses including opportunities for bus priority at key intersections and a potential public transport link at Glebe Island Bridge.

O.15 – Increase frequency of existing 501 bus service to at least 8 services per hour to provide stronger connection to Railway Square and Central Station, particularly during weekends.

O.16 – Rationalisation and relocation of existing bus stops along Harris Street would increase reliability and reduce travel times, particularly on approach to Pymont Bridge Road where buses have difficulty pulling out of the existing southbound bus stop to turn right from Harris Street to Pymont Bridge Road.

O.17 – Increased frequency for Inner West Light Rail to 10 services per hour to provide more frequent services during peak and off-peak periods and reduce existing crowding on this line between Central and Taverners Hill.

O.18 – Increased ferry wharves and services to Blackwattle Bay to increase the coverage of the existing ferry services that stops at Pymont Bay Wharf. The recent on-demand ferry trial would be extended to a permanent service stopping at Sydney Fish Markets, Pirrama Park and Barangaroo wharves. The opening of other wharves on the Pymont Peninsulas to private vessels could also be investigated to increase opportunities for connections across Blackwattle Bay and White Bay.

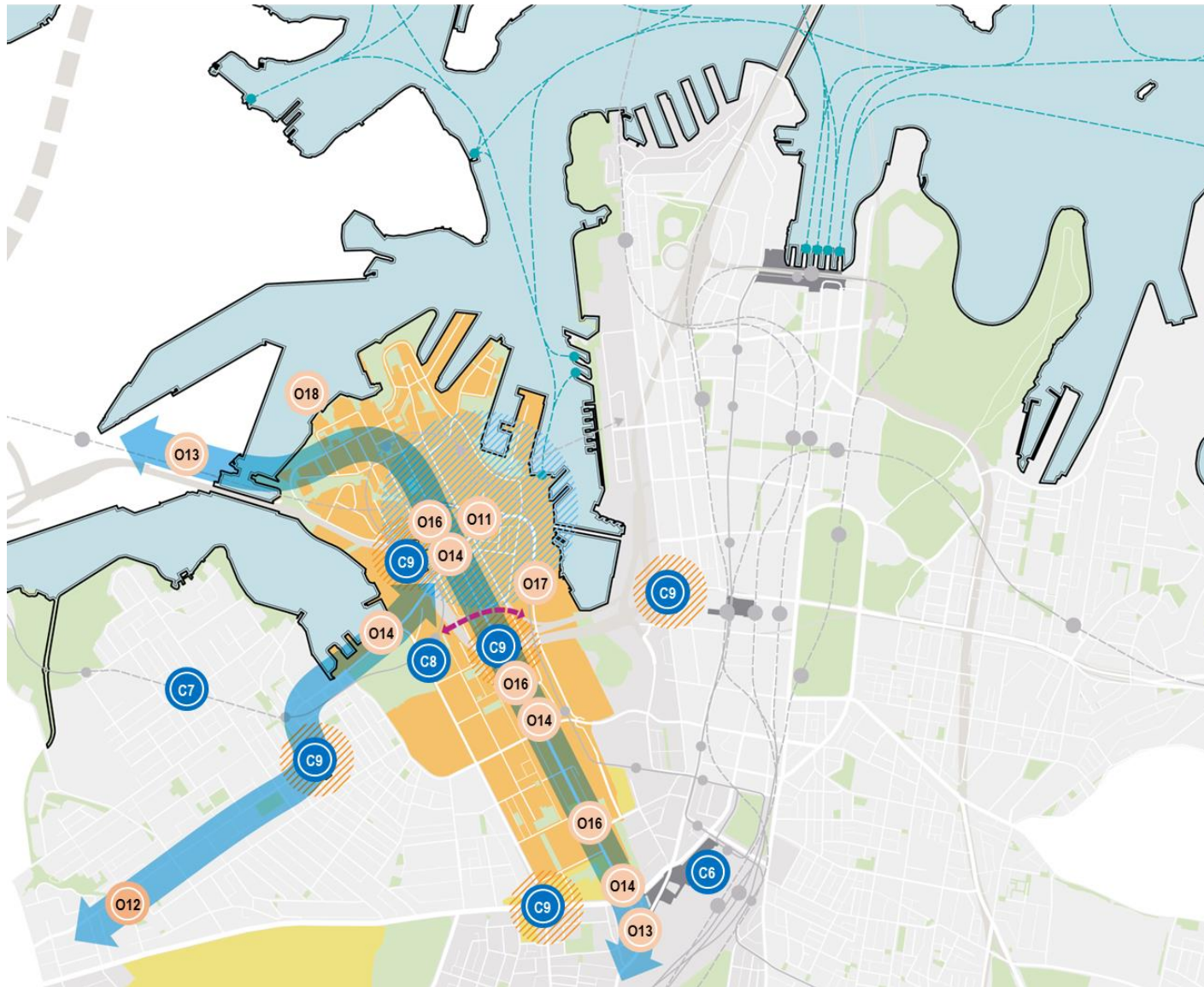
Public transport network constraints

C.6 – Limited access to heavy rail, particularly north of the Western Distributor. Only the southern half of the Pymont Peninsula is within walking distance of Central Station, while the northern half is over one kilometre from either Central Station or Town Hall Station, limiting the capacity for travel to and from the Pymont Peninsula by public transport.

C.7 – Infrastructure constrains the existing Inner West Light Rail services to the current peak service frequency due to limitations in the existing Inner West Light Rail, including available rolling stock, power supply and the single track terminus at Dulwich Hill.

C.8 – Grade and horizontal curves limit realignment of Inner West Light Rail to provide an express service to Central. A new light rail connection directly between Wentworth Park and Convention centre stops would be required to pass under the Pymont Peninsula and connect to the existing light rail line to the east of Darling Drive. Due to capacity constraints along the rest of the line, this would also require reducing services through the Pymont Peninsula for every express service to Central.

C.9 – Existing bus services experience high delays at a number of key locations in the Pymont Peninsula including the intersection of Pymont Bridge Road and Western Distributor and Harris Street at Fig Street. Similarly, constraints exist further afield of the Pymont Peninsula, along Pymont Bridge Road and within the Sydney CBD on Druiitt Street that affect the travel time reliability of existing or potential bus services.



Public transport opportunities

- O.11 Metro station (indicative location)
- O.12 New bus route to Parramatta Road Corridor
- O.13 New bus route to ATP
- O.14 Bus priority measures
- O.16 Rationalisation and relocation of bus stops
- O.17 Increase light rail frequency
- O.18 Increase ferry service frequency

Public transport constraints

- C.6 Limited access to heavy rail at Central
- C.7 Power supply and rolling stock limitations on light rail
- C.8 Grades and frequency limitations on express light rail alignment
- C.9 Locations of high delay for buses

Figure 65 – Public transport network opportunities and constraints

7.3. Active transport

The opportunities and constraints for the active transport network in the Pyrmont Peninsula are shown in Figure 66.

Active transport network opportunities

O.19 – Extension of the Goods Line south to Central Station via the Goods Line Tunnel to Central would provide a high-quality pedestrian and cycle connection through to Central station with the option to continue further south to Mortuary station and Redfern.

O.20 – Extension of the Goods line north integrated with the Powerhouse site, under Pier Street and north along Pyrmont Street and Murray Street to Union Street would connect the existing Unions Street cycleway to Central Station.

O.21 – Extension of Jones Street cycleway north to Pyrmont Bridge Road and Blackwattle Bay redevelopment to form an active transport loop along with Goods Line extension to provide “joining up” opportunities.

O.22 – Active transport crossing of Pyrmont Bridge Road to connect Blackwattle Bay development with active transport corridor along Jones Street as an alternative to the existing crossing at Bank Street. This crossing could be provided at-grade or through a pedestrian bridge/tunnel across Pyrmont Bridge Road and the Inner West Light Rail line and integrated into the redevelopment of the City of Sydney site at the corner of Fig Street and Jones Street.

O.23 – Extension of the Union Street cycleway west along Mitchell Street and Bank Street to allow for fully separated cycle lanes to the Glebe Island Bridge.

O.24 – A separated cycleway along Pyrmont Bridge Road connecting Union Street cycleway with Wentworth Park to accommodate growing commuter cycle demand along this route from Glebe and the inner west.

O.25 – Completion of the foreshore recreational cycle path to extend recreational cycle and walking paths at Waterfront Park around Blackwattle Bay through Sydney Fish Market to Wentworth Park would connect the foreshore open spaces and attractions along a continuous route.

O.26 – Pedestrian tunnel link from light rail to Sydney Fish Market to provide underground access from Fish Market light rail station. This could be integrated with a potential metro station access to Sydney Fish Market.

O.27 – More pedestrian links across Darling Drive: to be integrated with any redevelopment of Harbourside and the Novotel site, potentially bridging Darling Drive and the Inner West Light Rail in multiple locations or integrating the existing Convention Centre stop into any new development between Murray Street and Darling Drive. This may also include reinstating the walkway from Harris Street to Druiitt Street that currently only extends to ICC Sydney.

O.28 – Localised widening of footpaths along active streets including Wattle Street and Harris Street to improve pedestrian amenity and safety.

O.29 – Integrating public pedestrian access into new developments to improve pedestrian permeability between long north-south blocks. Any new developments within Pyrmont Peninsula should undertake a Walking Space Assessment (as detailed in Transport for NSW *Walking Space Guide, 2020*) to identify localised opportunities to improve the public domain for pedestrians that are key to the development of successful public spaces.

O.30 – Glebe Island Bridge active transport link to Bays Precinct to supplement the existing cycle and pedestrian path along Anzac Bridge providing separate access to The Bays Precinct.

Active transport network constraints

C.10 – Challenging local topography with a steep ridge-line running north-south along the peninsula that creates barriers for walking east-west across Harris Street.

C.11 – Busy high-traffic intersections on Harris Street at Fig Street, Ultimo Road and Broadway that create barriers for walking north-south along the peninsula to key light rail and heavy rail stops. Long wait times and high traffic volumes significantly increase walk times along this corridor.

C.12 – Circuitous access to the Bays Precinct via Anzac Bridge directs pedestrians and cyclists across primarily vehicular corridor that is not well-suited to active transport due to poor amenity and proximity to traffic.

C.13 – Lack of access to Blackwattle Bay foreshore due to Sydney Fish Market and other industrial foreshore development limits access to the rest of the Pyrmont foreshore from Wentworth Park and the inner west.

C.14 – Limited access from Harbourside due to level differences and light rail alignment along Darling Drive.

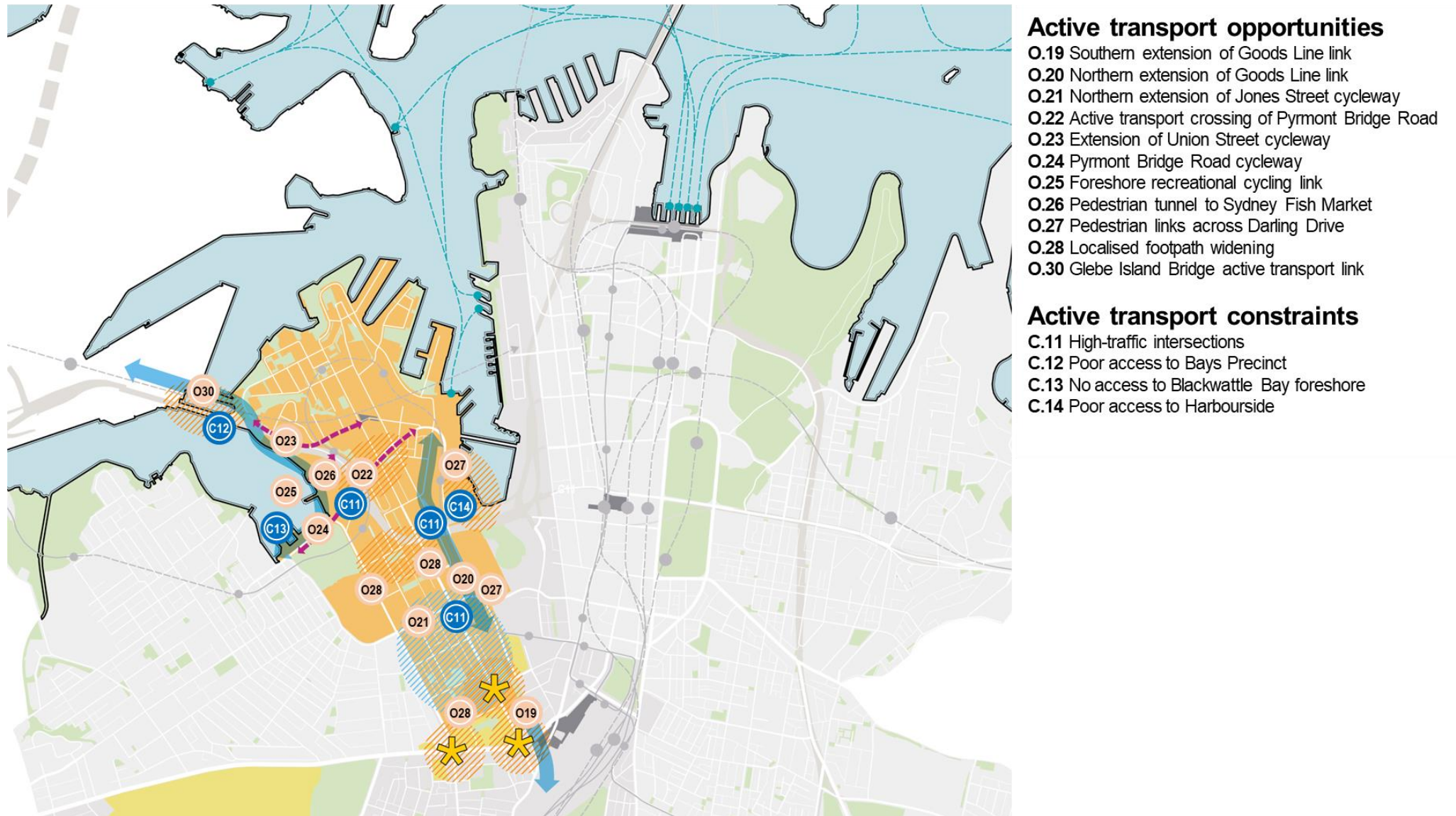


Figure 66 – Active transport network opportunities and constraints

7.4. Freight and servicing

Freight and servicing within the Pyrmont Peninsula are critical to supporting existing industries and key attractions including Sydney Fish Markets, The Star Casino and International Convention Centre. In addition to the freight and servicing needs of tourism and entertainment industries, there is also an increasing demand on short-distance freight to households due to the increase in e-commerce and online shopping. A significant portion of freight movements in urban areas are now comprised of e-commerce deliveries, with Australian shoppers receiving an average of 1.9 parcels per year in 2017 growing to 2.3 parcels per year in 2018, with year on year growth in online purchases of 19 per cent per annum for NSW.

Freight and servicing opportunities

O.31 – Alternative service access to Harbourside should be explored as part of any redevelopment proposal. This alternative access could help mitigate existing restrictions for heavy vehicles that currently exist and free up road space in other parts of the Pyrmont Peninsula.

O.32 – Direct access to Sydney Fish Market at Wattle Street and Pyrmont Bridge Road would reduce the impacts of heavy vehicle traffic on surrounding roads including Bank Street and Western Distributor.

O.33 – A local logistics hub within the Pyrmont Peninsula could assist in consolidating “last mile” delivery for couriers. A similar hub has been trialled in Sydney CBD using the Goulburn Street parking station to provide a staging facility that allows parcels to be transferred from vans to couriers on-foot and bicycles, reducing the volumes of delivery vehicles in the Pyrmont Peninsula. This hub could be co-located with a decoupled community parking hub or integrated with coach parking if located in an area with high demand for coaches and tour groups.

Freight and servicing constraints

C.15 – Limited heavy vehicle routes within the Pyrmont Peninsula restrict the access for heavy vehicles including coaches. Any changes to access to and from Western Distributor or downgrading and closing of roads will need to consider the impacts of these network changes on heavy vehicle routes.

7.5. Parking management

Due to the strong link between parking provision and travel behaviour, management of parking provision within the Pyrmont Peninsula is critical in supporting other transport opportunities. Current parking policy for the Pyrmont Peninsula is already strongly focused on minimising car reliance and limits the availability of both on-street and off-street parking for residents and workers. This, along with accessibility to public and active transport reduces the risks that are normally associated with low parking provision when other alternatives are not available.

Parking opportunities

O.34 – Reduce parking provision for new developments by extending City of Sydney LEP Category A classification to cover new residential development and Category D to cover new commercial development, reflecting its inner-city location, network upgrade opportunities and potential future access with Sydney Metro.

O.35 – Redevelop public off-street parking to further reduce the availability of off-street public parking and support travel to the Pyrmont Peninsula via active and public transport. Some of the existing public carparks are in close proximity to future metro stations and have potential for alternative land use more suited to meeting employment targets.

O.36 – Increase on-street car sharing spaces to further reduce reliance on private vehicle ownership and support lower off-street parking provision. As demand for car-sharing increases, on-street car sharing spaces can be increased to fill existing gaps or to increase the availability of car-sharing across the study area.

O.37 – Integrate cycling end-of-trip facilities into new development to support journey-to-work trips to the Pyrmont Peninsula via active transport. City of Sydney DCP already includes provisions for active transport end-of-trip facilities for new developments, new developments provide the opportunity to create a public cycle-hub to provide these facilities for commuters who work in existing buildings that do not have these facilities and can't be easily retrofitted.

O.38 – Unbundled and decoupled parking can be explored to maximise the efficiency of parking spaces across the day and reduce the overall footprint of public off-street parking. With land uses that have different parking demands over the day, such as employment, residential and entertainment, unbundled or decoupled parking would allow parking to be physically separated from other land uses allowing flexible use by different users over the day and retain the ability to convert these spaces permanently to other uses as parking demand changes.

Parking constraints

C.16 – Access to existing heavy rail is currently poor, limiting the proportion of work trips that can travel to the Pyrmont Peninsula from other regional centres. Access to heavy rail is critical component in supporting a low-parking environment by providing a good alternative to private vehicle use for longer distance trips.

C.17 – Minimal capacity for additional parking within the Pyrmont Peninsula on-street and off-street means that as development and travel demand increases in the Pyrmont Peninsula, even at the existing low rates of private vehicle travel, parking demand will continue to increase. This increase in overall travel means that a step-change in public transport provision, such as a metro station will be required to further reduce parking demand and keep in scale with existing parking policy and supply.

7.6. Travel demand management and technology

Travel Demand Management (TDM) is described in *Future Transport 2056* as capturing a wide range of actions to redistribute travel demand for various reasons including congestion, safety, environment, social and health which generates wider community benefits. In the case of the Pymont Peninsula, TDM initiatives will help support the management of private vehicle demand, particularly during peak periods, which contributes to congestion and impacts on place outcomes. Emerging technologies will also play a key role in facilitating travel demand management by providing increased flexibility in working and improving the efficiency and operation of transport networks.

Travel demand management and technological opportunities

0.39 – Flexible working allowing workers to work from home, flexible start times, compressed work weeks, staggered work hours.

0.40 – Shared parking that serves multiple users or destinations, including sharing rather than assigning reserved spaces to users, and sharing facilities among multiple destinations.

0.41 – Parking pricing to charge motorists directly for using parking facilities, with efficient prices that include lower rates during off-peak periods and higher rates during peak times and locations for both traffic activity and pedestrian activity. This includes the potential for variable pricing during congested times, such as lunchtime or early evening when more pedestrians are walking on streets and supplemented with smart-parking systems that allow for the dynamic management of on-street parking space to respond to fluctuations in demand for kerbside space.

0.42 – Movement and place design to create high value places with low speed, walking and cycling prioritised environments that discourage vehicle through traffic and allocate parking to the edges.

0.43 – Transportation management associations to establish member-controlled organisations that provide transport and parking management services in a particular area.

0.44 – Freight transport management within Pymont Peninsula could assist in “last mile” delivery into consolidated delivery centres (such as a logistics hub) or delivering from a central location via alternative modes such as autonomous drones.

0.45 – Financial incentives to shift mode, such as parking cash-out (allowing workers to give-up their car space for a one-off cash payment) and transit benefits (e.g. Opal subsidies), often as an alternative to parking subsidies.

0.46 – Travel plans put in place by employers before occupying a development that encourages staff to choose alternatives to driving to work. Travel plans need to be tailored to the specific needs of each organisation.

0.47 – Car-sharing and ride-sharing services such as GoGet and Uber can have a significant effect on reducing car-ownership in areas where dependence on private vehicle travel is low and access to good public and active transport is high. Shifting existing on-street parking over to car-sharing services can reduce the need for residents to own their own car to make trips that are not practical to make via active or public transport, supporting lower parking rates.

0.48 – Autonomous vehicles provide the opportunity to challenge the traditional models of car ownership and use in urban areas by merging ride-sharing with car-sharing by providing private vehicle mobility as an on-demand service. The benefits of autonomous vehicles would be more fully realised when the vehicle fleet reaches the point of majority autonomous use; at this point autonomous vehicles can increase road capacity and the need for permanent vehicles parking is reduced as individual vehicles are in constant use. Autonomous vehicles can also improve accessibility to public transport by filling the “last-mile” gap between public transport and destination. This may be of particular

importance in the Pyrmont Peninsula where existing heavy rail is currently out of easy walking distance.

8. Strategic transport initiatives

The initiatives outlined for investigation in this chapter have been informed by the transport principles established for the study that are in alignment with the outcomes identified in Future Transport 2056:

- Improve walking networks within the Peninsula.
- Improve cycling connectivity to the Peninsula.
- Protect place outcomes within the Peninsula.
- Expand public transport capacity to support growth.
- Constrain non-essential car travel.
- Refocus the local transport network around a potential Sydney Metro West station.

8.1. Enhancing public and active transport mode share

Table 16 below provides a comparison of relevant mode share data and targets that have been used to determine a mode share target for the Pyrmont Peninsula. The range of data, sourced from comparable benchmarks in the City of Sydney LGA demonstrates that a high public and active transport mode share target for the Pyrmont Peninsula is realistic and achievable. Based on this analysis, a base case mode share target for public and active transport share of 80 per cent for all trip purposes is proposed. Should a new metro station at Pyrmont be committed by the NSW Government, then a target of 90 per cent is considered achievable and warranted.

These mode share targets provide a breakdown of how future transport demand could be accommodated on the surrounding transport network and should guide decisions on the provision of additional transport capacity, indicating clearly that this capacity should be allocated to public and active transport.

Table 16 – Proposed Pyrmont Peninsula mode share targets

Precinct	Public and active transport mode share
Barangaroo – target	93%
Bays Precinct - target	80%
City of Sydney (all trips) - HTS	70-75%
Sydney CBD (residents) - JTW	87%
Sydney CBD (workers) - JTW	85%
Benchmark average (residents) - JTW	77%
Benchmark average (workers) - JTW	71%
Pyrmont (residents) - JTW	76%
Pyrmont (workers) - JTW	66%
<i>Pyrmont Peninsula target (all trips) – existing public transport network</i>	80%
<i>Pyrmont Peninsula target (all trips) - with SMW</i>	90%

8.2. Integration of transport and urban structure

Successful implementation of the mode share targets and accompanying place-based transport principles will rely on the augmentation of the Pymont Peninsula's existing transit-oriented urban structure. An integrated movement network and urban structure concept for the Pymont Peninsula is described below and has been used to assist in the identification and prioritisation of appropriate place-based transport initiatives. While reflecting the revised vision described in the draft Pymont Peninsula Place Strategy, these principles also build upon the Pymont Peninsula's existing transit-oriented urban structure as well as current planning for activity centres and movement networks. Key elements of this transit-oriented urban structure concept are:

- Roads and street grid initiatives.
- Existing and emerging activity centres.
- Existing and emerging transport spines (north-south and east-west).
- Active transport network and connections to open space.

Roads and street grid

Access to Pymont Peninsula by private vehicle will remain an important component of the transport network, however the current road network arrangements through the Pymont Peninsula prioritises through-traffic over local access with the study area dominated by the severance effect created by the Western Distributor. The roads in the Pymont Peninsula that currently serve primarily through traffic functions form significant barriers to active transport through the area restricting travel via public and active transport, as shown in Figure 67. Future initiatives should seek to reduce the severance effects of these roads by reducing traffic volumes and allowing for more permeability along and across these streets for active transport.

Existing and emerging activity centres

Locating centres along transport corridors along with using transport corridors to connect existing centres is key to facilitating connections along the Innovation Corridor, as shown in Figure 68. At a localised level, the Pymont Peninsula will benefit from locating new centres and expanding existing centres around transport nodes. At a regional level, this would be around a potential metro station, with a secondary neighbourhood centre in northern Ultimo.

Existing and emerging transport spines

The existing transport spine formed by Inner West Light Rail, Pymont Bridge and Union Street cycleway is currently focused around connecting centres along the foreshore and periphery of Pymont Peninsula. The strengthening of Harris Street as transit corridor that runs along the length of Pymont Peninsula along Harris Street will provide new connections between centres within Pymont and connect to other neighbourhood centres in adjacent localities of The Bays Precinct and Redfern, as shown in Figure 69.

Active transport network and connections to open space

Development within the Pymont Peninsula will need to capitalise on the existing high-rates of active transport use for both commute and non-commute trips. A critical component of supporting active transport within the Pymont Peninsula will be increasing connectivity of existing open space to make them more accessible and functional. This will require strengthening existing cycle routes through the Pymont Peninsula completing the regional connections across and along the peninsula, while also improving local connections through footpath improvements and creation and integration of new pedestrian links through development sites to improve permeability as shown in Figure 70.

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Key components of this emerging structure include:

- Reinforce the existing centre in northern Pyrmont around the location of a Sydney Metro West station
- Complete connections to the primary centre around Union Square via active transport connections across the Pyrmont Peninsula between Pyrmont Bridge and Glebe Island Bridge and by extending the Goods Line link north to Union Street and south to Central.
- Strengthen and extend the existing transit corridor along Harris Street by connecting to The Bays precinct to the north west and to Redfern in the south east by creating an intermediate public transport route along this alignment.
- Reconfigure existing streets to reduce the barriers created by the existing through-traffic function and improve local access reducing lane capacity, widening footpaths and converting one-way streets to two-way operation.

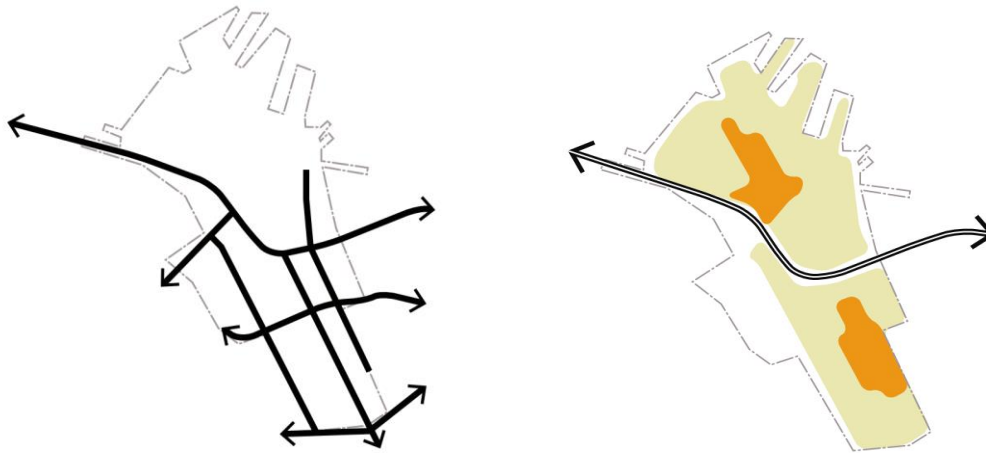


Figure 67 – Key road network barriers through the Pyrmont Peninsula

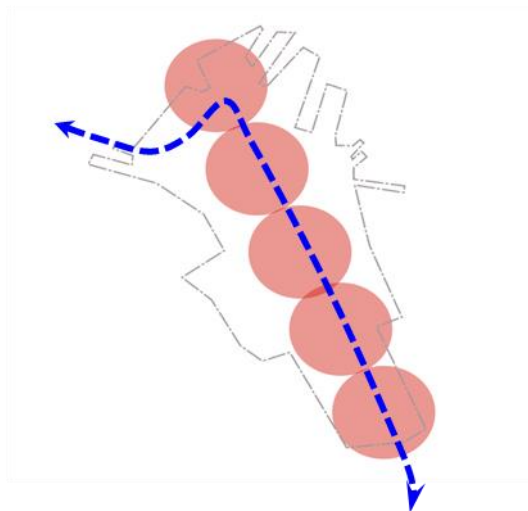


Figure 68 – Transport spine connecting centres along Harris St

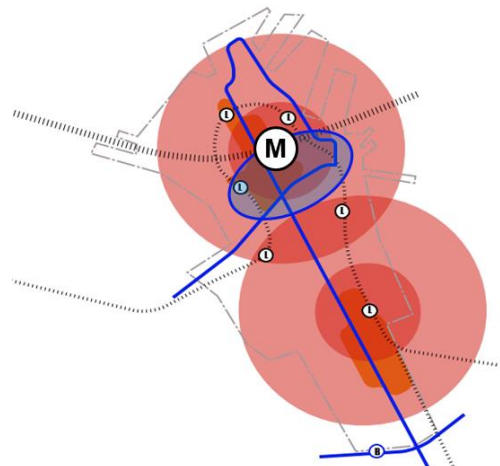


Figure 69 – Locations of activity centres around transport nodes

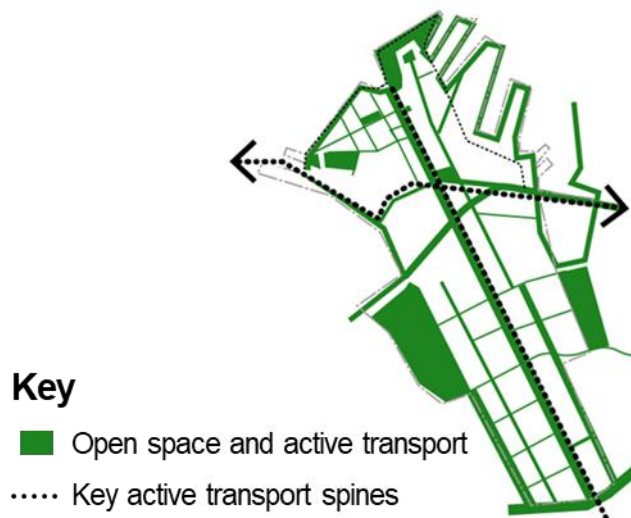


Figure 70 – Connecting open spaces with active transport link

Pymont Peninsula Place-based transport organisational concept

Combining these components of the urban structure and transport network defines the interrelation of centres, transport node and transport links to form the place-based transport concept as shown in Figure 71. The spatial arrangement of Pymont Peninsula’s centres at Union Square and Ultimo South will play a critical role in determining the successful realisation of a transit-oriented structure. This will require the integrated consideration of multiple factors, including:

- The positioning of key land uses and transport connections to complement the established urban structure with a focus on better linking Pymont and Ultimo.
- Strengthening the mixed-use centres of Pymont (near Union Square) and Ultimo South through an intermediate transit network along Harris Street (north-south spine) with high quality connections to Railway Square and Australian Technology Park.
- Focus of population and employment densities adjoining key transport nodes to align with and support principles of transit-oriented development.
- A connected fine-grained street grid to facilitate a variety of trip purposes and transport modes, while enabling the efficient dispersal of through-traffic around the Pymont Peninsula and not on the local road network.
- Together with the connected street grid, the open space and active transport network will form the building blocks for highly accessible, attractive and inclusive public realm.
- Ensuring a sufficient amount of open space is interconnected by active transport links to support high-density development and balance the different needs of residents, workers, tourists and visitors.
- Limit through-traffic infiltration by defining a well-structured local street network taking advantage of metropolitan enabling initiatives such as WestConnex (M4-M5 link), Western Harbour Tunnel and Sydney Metro West.
- If a metro station is provided within Pymont Peninsula then it needs to:
 - occupy an accessible and prominent position enabling effective integration of city-shaping, city-serving and local transit services.
 - be supported by a permeable and socially-inclusive urban form incorporating a variety of built-form typologies and facilitating a diverse range of fine-grained accessible networks for pedestrians and cyclists.

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- have land-use within a 200m radius of the station prioritised for employment-generating uses in order to support long term viability of a heavy rail service and maximise the potential for transit-based journeys to and from the area..



Figure 71 – Pyrmont Peninsula Place-based transport organisational concept

8.3. Road network – minimise through-traffic on local roads

An overview of the key road network strategic initiatives that are proposed for further investigation to support the draft Pyrmont Peninsula Place Strategy is shown in Figure 72. These include:

I.1 – Reallocate road space on Jones Street between Broadway and Fig Street to active transport corridor.

I.2 – Introduce a contra-flow bus lane northbound on Harris Street and Regent Street between Ultimo Road and Lee Street to facilitate an intermediate transit corridor between The Bays Precinct and Australian Technology Park.

I.3 – Investigate reallocation of road space on Pyrmont Street including narrowing existing travel lanes between Edward Lane and Pyrmont Street Ramp and converting parking on the western edge to rear-to-kerb angled parking to facilitate a lower-speed environment.

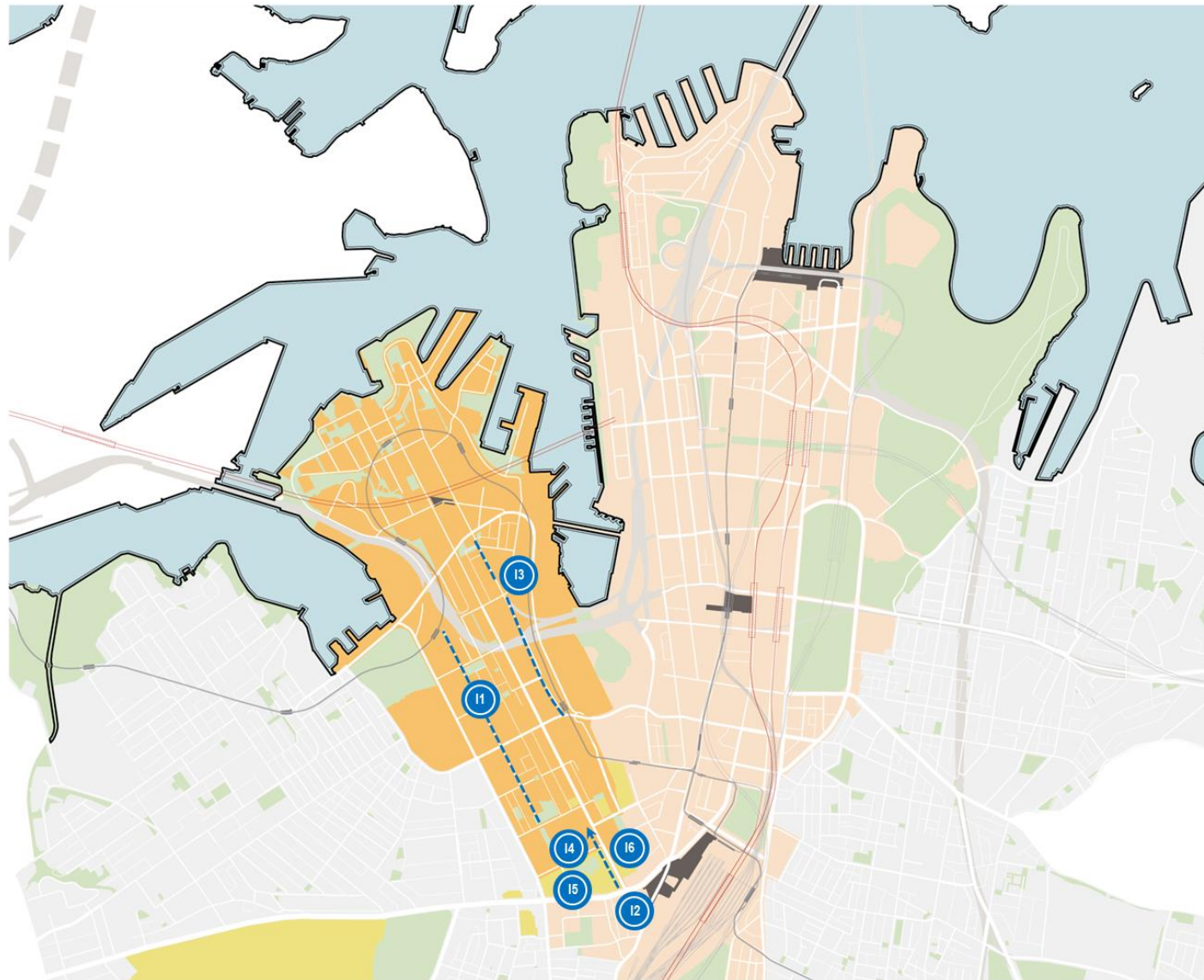
I.4 – Investigate converting local streets around UTS and TAFE Ultimo to shared zones between Wattle and Harris Street and Broadway and Mary Ann Street.

I.5 – Investigate closure of Jones Street between Thomas Street and Broadway to create open space.

I.6 – New signalised pedestrian crossing on Harris Street between Thomas Street and Broadway.

In addition to these specific road network interventions, the movement and place classifications of roads within the Pyrmont Peninsula should also be modified as shown in Figure 73 based on the following:

- **Harris Street:** change from Local Street 3C to Local Street 3D to reflect increased place significance and proposed intermediate public transit corridor.
- **Pyrmont Bridge Road (east of Bank Street):** change from Local Street 3B to Local Street 2C to reduce movement function and recognise important local place character.
- **Allen Street:** change from Local Street 3B to Local Street 2C to reduce movement function and recognise important local place character.
- **Pyrmont Street (south of Pyrmont Bridge Road):** change from Local Street 3B to Civic Space 2C to reduce movement function and recognise important local place character.
- **Pier Street and William Henry Street:** change from Local Street 3C to Local Street 2C to reduce movement function.



Road network initiatives

- I.1 Reallocate road space on Jones Street for cycleway
- I.2 Contra-flow NB bus lane on Harris Street/Regent Street
- I.3 Reallocate road space on Pymont Street
- I.4 Shared zones for local streets
- I.5 Closure of Jones Street
- I.6 Harris Street signalised pedestrian crossing

Figure 72 – Proposed road network initiatives

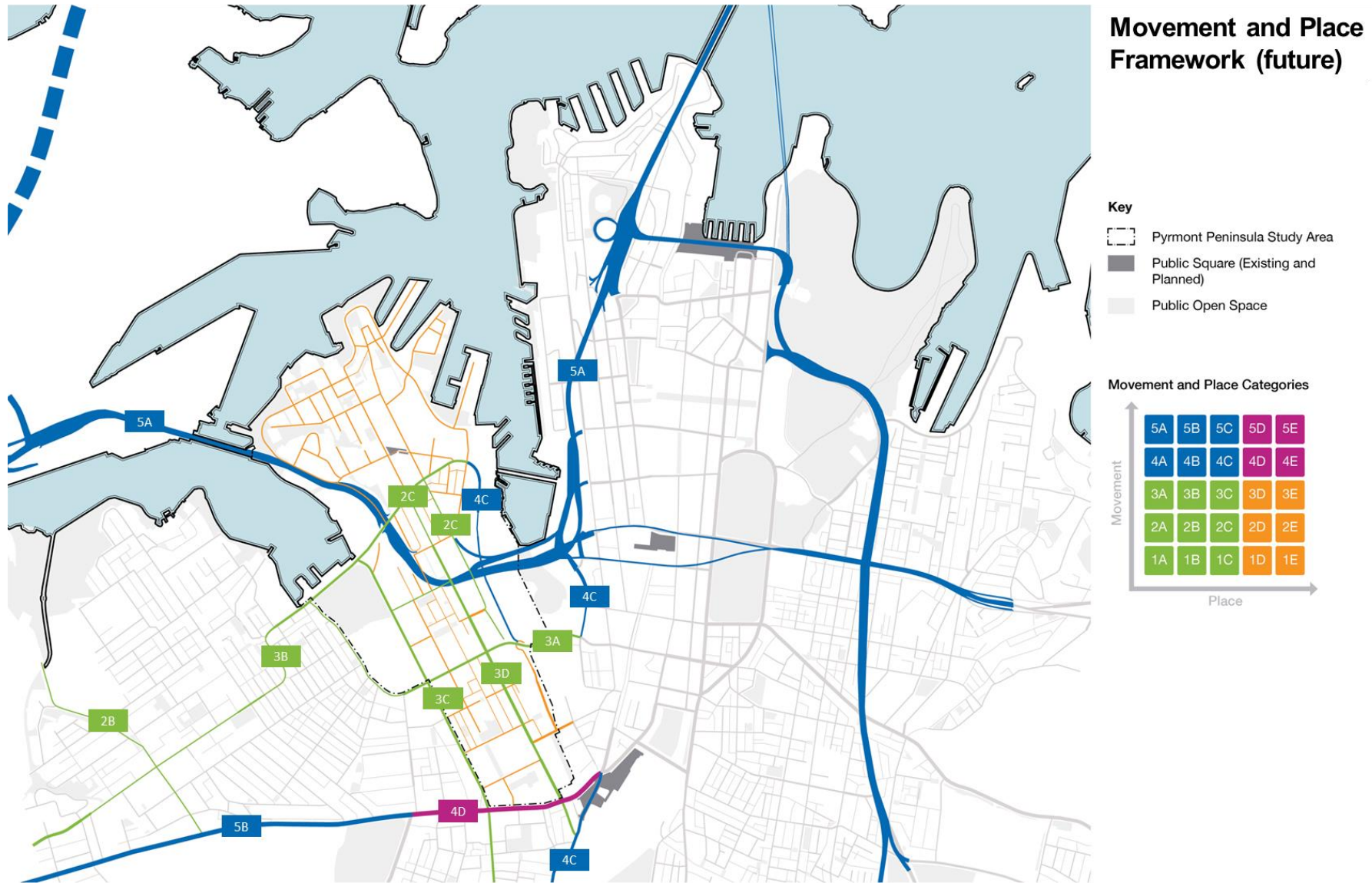


Figure 73 – Proposed movement and place classification

8.4. Public transport – connecting people and places

The proposed public transport strategic initiatives have been based around a public transport concept that centres a potential Sydney Metro West station in Pymont. Shown in Figure 74, this public transport network is centred around the location of the proposed metro station and provides for a future connection to The Bays precinct, Redfern and Parramatta Road.

Initiatives to support this public transport network surrounding the Pymont Peninsula are shown in Figure 75 and include:

I.7 – A new metro station at Pymont as part of the Sydney Metro West project.

I.8 – A new bus route to the Parramatta Road corridor through Glebe and Forest Lodge along Bridge Road and Pymont Bridge Road to Leichhardt and Five Dock to serve catchments outside of the Sydney Metro West catchment.

I.9 – A new intermediate transit corridor connecting The Bays precinct to Redfern and Australian Technology Park through Pymont via Harris Street potentially supported by bus priority if warranted by route patronage and reliability.

I.10 – Rationalisation and relocation of bus stops along Harris Street to improve bus travel time reliability.

I.11 – Increase light rail frequency along Inner West Light Rail during peak period to increase peak capacity during weekdays and frequencies during weekends and public holidays.

I.12 – Investigate new ferry wharf at Cadi Bay Wharf to provide all-weather shelter for ferry passengers.

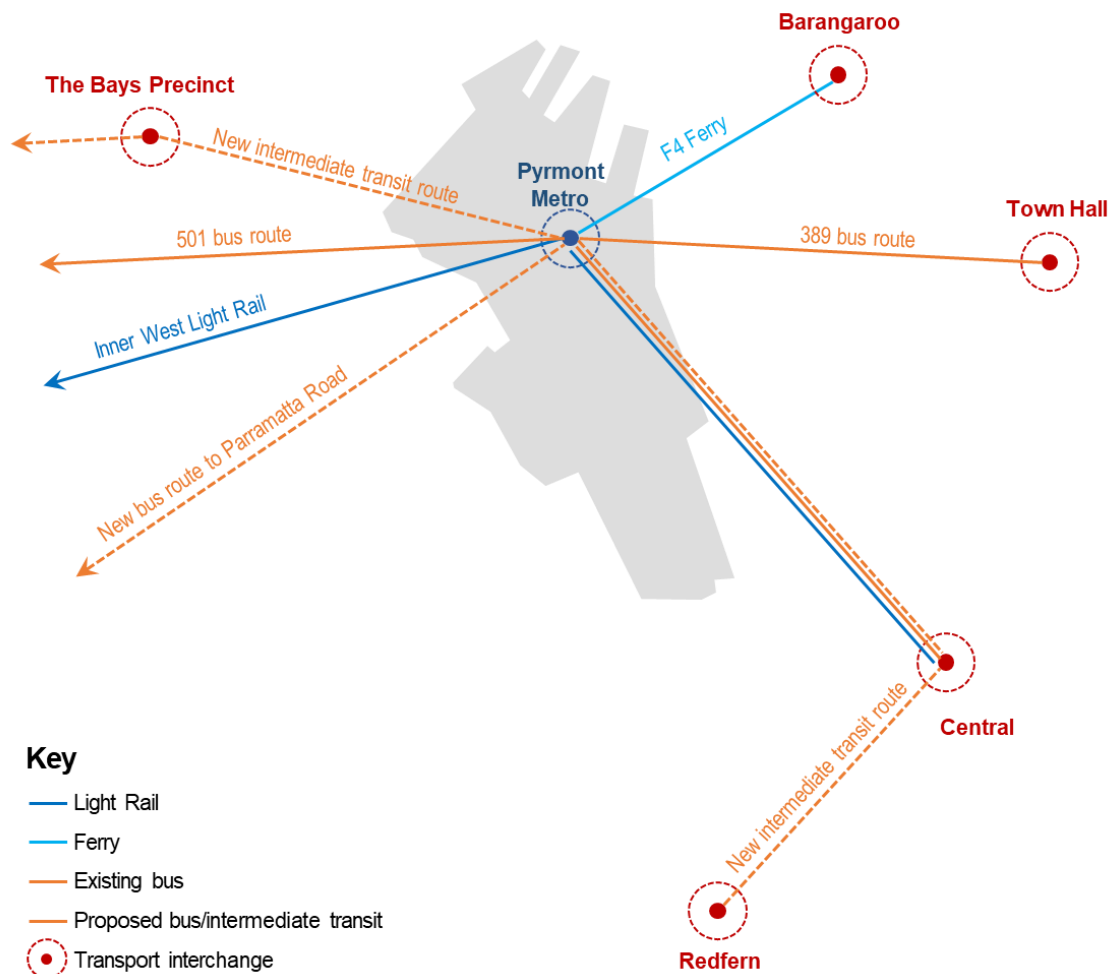
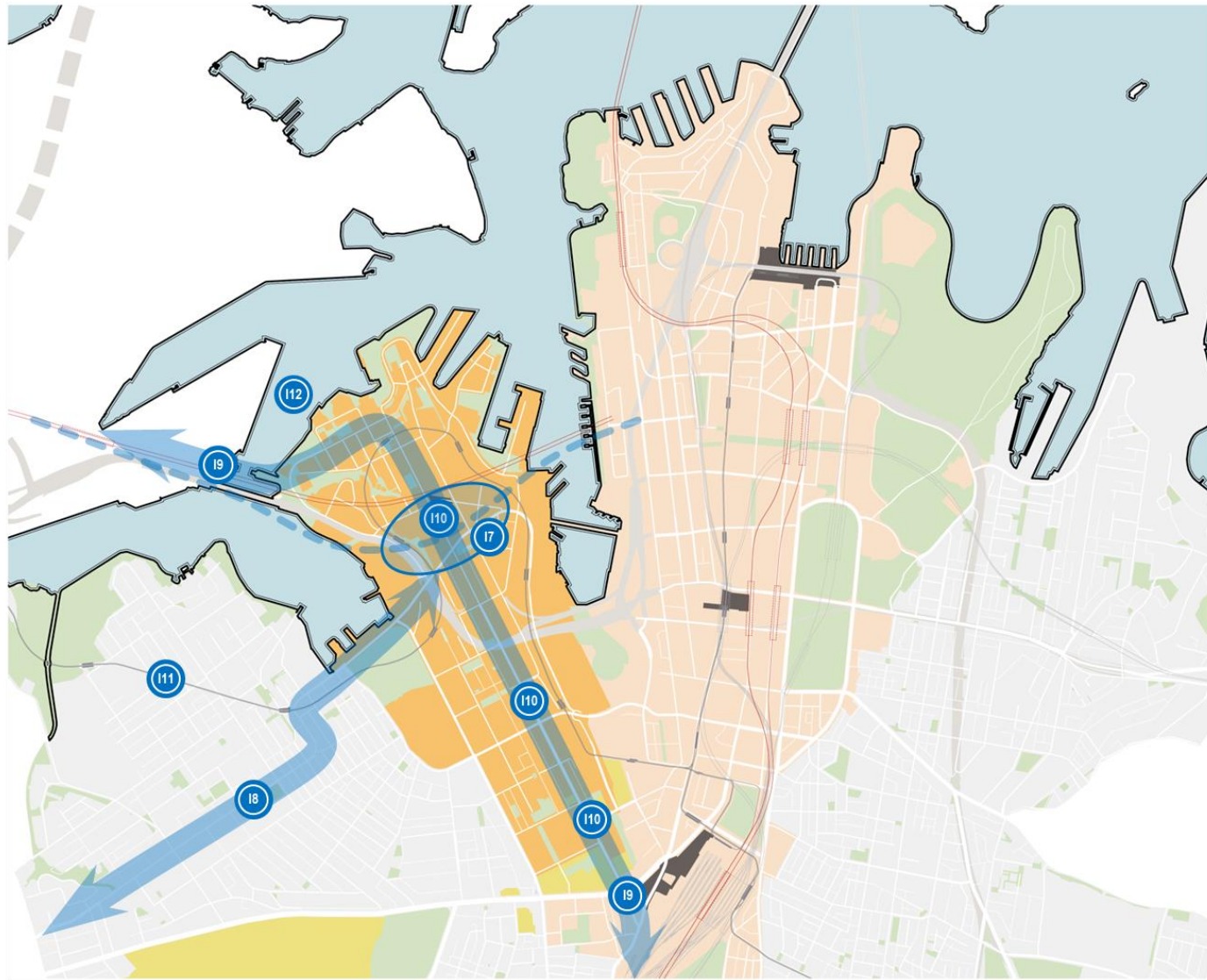


Figure 74 – Future public transport network concept



Public transport initiatives

- I.7 Metro station (location to be determined)
- I.8 New bus route to Parramatta Road corridor
- I.9 New intermediate transit corridor to ATP
- I.10 Rationalisation and relocation of bus stops
- I.11 Increase light rail frequency
- I.12 Investigate new ferry wharf

Figure 75 – Proposed public transport network interventions

8.5. Active transport – enhance walking and cycling

Initiatives to improve the active transport network within the Pyrmont Peninsula are primarily focused on closing existing gaps in the network and would be beneficial to connecting open spaces. In the event that a metro station is planned in Pyrmont, closing these gaps in the active transport network will improve access to the station and may present further opportunities to strengthen the active transport network, particularly around Union Square and Pyrmont Bridge.

The key initiatives proposed to support this public transport network surrounding the Pyrmont Peninsula are shown in Figure 76 and include:

I.13 – Extend the Goods line south through existing tunnel to Central Station and investigate further extension to Redfern Station.

I.14 – Extend the Goods line north to Pyrmont Street and Murray Street to connect with existing Union Street cycleway. This would require integration into key sites including Powerhouse and Novotel sites.

I.15 – Extend Jones Street cycleway north to Jones Lane.

I.16 – Connect Jones Street Cycleway to Pyrmont Bridge Road and investigate options for crossing Pyrmont Bridge Road.

I.17 – Extend Union Street cycleway along Miller Street, Bank Street and connecting with Glebe Island Bridge as a separated off-road path.

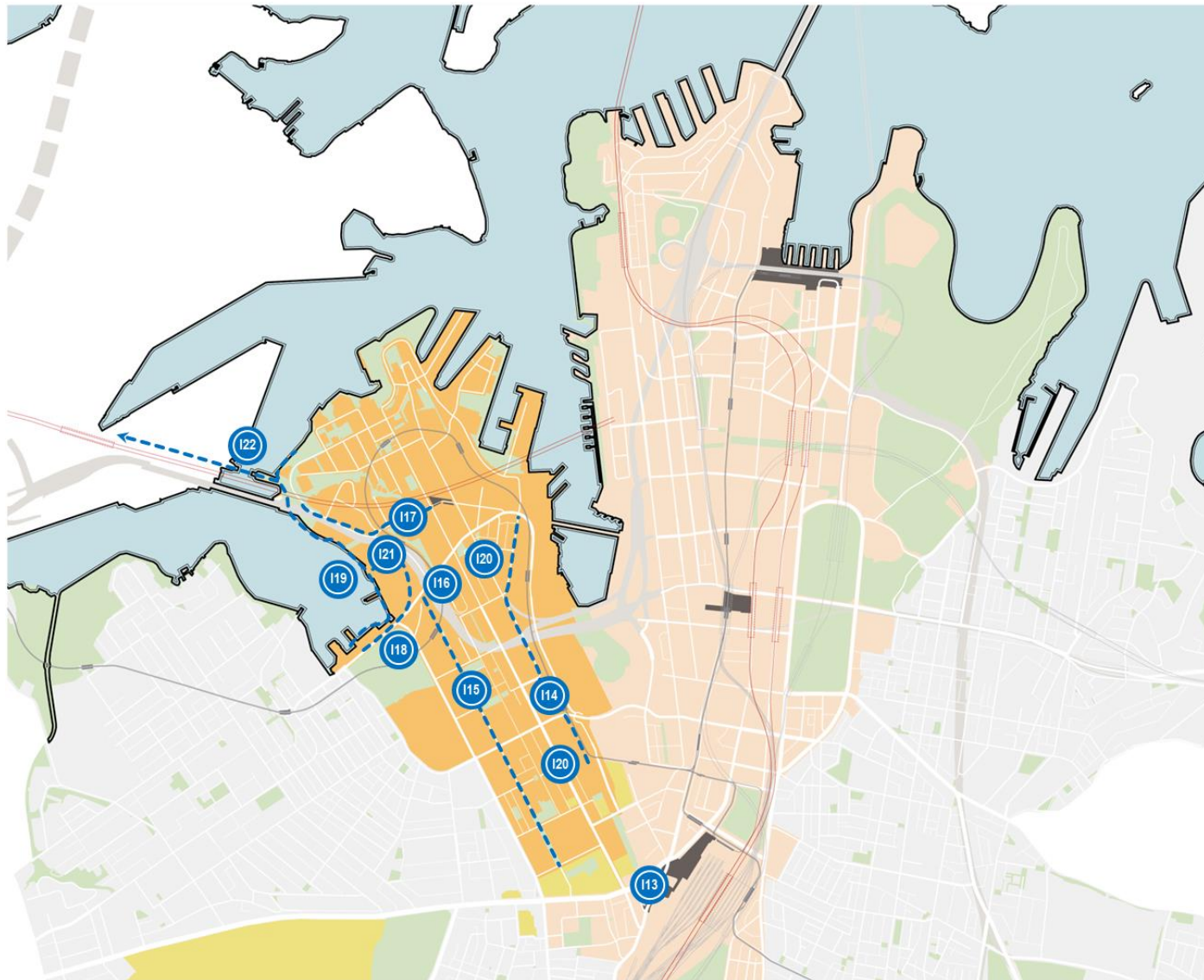
I.18 – New cycleway from Bridge Road to Miller Street connecting with existing Union Street cycleway through the proposed Blackwattle Bay development.

I.19 – Extend foreshore active transport link through Blackwattle Bay and Sydney Fish Market redevelopment to complete recreational foreshore link to Wentworth Park.

I.20 – Localised widening of footpaths along key streets in the Pyrmont Peninsula including Harris Street and Pyrmont Street.

I.21 – Investigate underground active transport link to Sydney Fish Market from existing Fish Market light rail stop.

I.22 – Investigate Glebe Island Bridge link to provide active transport and public transport connection from Pyrmont to The Bays precinct.



Active transport initiatives

- I.13 Southern extension of Goods Line link
- I.14 Northern extension of Goods Line link
- I.15 Northern extension of Jones Street cycleway
- I.16 Connect Jones Street cycleway to Pymont Bridge Road
- I.17 Extension of Union Street cycleway
- I.18 Bridge Road/Blackwattle Bay cycleway
- I.19 Foreshore recreational cycling link
- I.20 Localised footpath widening
- I.21 Investigate tunnel to Sydney Fish Market
- I.22 Investigate Glebe Island Bridge link

Figure 76 – Proposed active transport network interventions

8.6. Policy interventions – better manage parking and travel demand

Changes in policy regarding parking, land use and travel demand management will be required to support further growth in population and employment in the Pyrmont Peninsula and ensure that development occurs in line with the transport principles outlines in Section 2.2. Key policy initiatives that should be pursued include the following:

I.23 – Pursue shared parking across different land uses with a view to repurposing this space over time as parking demand decreases.

I.24 – Adopt lower off-street parking rates for new developments by extending City of Sydney LEP Category A classification to cover new residential development and Category D to cover new commercial development, reflecting its inner-city location, network upgrade opportunities and potential future access with Sydney Metro.

I.25 – Investigate parking pricing with efficient prices that include lower rates during off-peak periods and higher rates during peak times and locations for both traffic and pedestrians. This includes the potential for variable pricing during congested times such as lunchtime and early evening when there are more pedestrians walking on streets.

I.26 – Encourage transportation management associations for new developments to establish member-controlled organisations that provide transport and parking management services.

I.27 – Investigate alternative freight arrangements within the Pyrmont Peninsula for consolidating “last mile” delivery into delivery centres such as a logistics hub or through flexible management of kerbside space through smart-parking systems that can reallocate kerbside space in response to demand in real-time.

I.28 – Encourage more car-sharing and ride-sharing by shifting existing on-street parking over to car-sharing services can reduce the need for residents to own their own car to make trips that are not practical to make via active or public transport, supporting lower parking rates.

I.29 – Prepare for autonomous vehicles through flexible planning controls that can accommodate reduced or modified parking better suited to serving private vehicle travel demand through mobility as a service instead of personal ownership. This may include investing in dedicated facilities for charging and maintenance of autonomous vehicles as they become the dominant mode of road travel.

I.30 – Pursue more flexible parking arrangements through smart-parking technology to monitor on-street parking use, dynamically change parking restrictions and accompanying parking signs to allow parking space to be managed in real-time and respond to fluctuations in demand for kerbside parking space.

9. Place-Based Transport Strategy conclusions

The development of a Place-Based Transport Strategy for the Pymont Peninsula has identified a significant potential for transformative interventions in the urban structure and transport network that can support the growth of the area as a distinct centre with strong connections to Sydney CBD and the Harbour City Innovation Corridor. By understanding how movement can better support the desired place outcomes in the Pymont Peninsula, this strategy aims to transition the Pymont Peninsula towards a place-based transport vision that puts the movement of people at its core.

This strategy represents the first stage in a continuing process that will develop the interventions identified at this strategic level into more detailed proposals or projects in the future. Further investigation will be required to provide more detail on design, feasibility and costs for many of the elements identified in this strategy. This refinement and additional detail will be the subject of further planning and consultation with key stakeholders.

9.1. Strategic drivers for the Pymont Peninsula

The following strategic transport drivers are relevant to the consideration of transport options for the Pymont Peninsula:

- Composition of land uses and density distribution.
- Transport infrastructure investment to support connections to the Innovation Corridor.
- Investment in high quality heavy rail (metro station).
- Integration of active transport connections within the urban fabric to better connect and use open spaces.
- High quality active transport connections through both existing public domain and integrated with future development.
- Highly interconnected and transit-oriented urban form along key new transit spines and nodes
- Mitigation measures to protect the Pymont Peninsula local street network, including consideration of local road network access to/from Western Distributor etc.

Each of these strategic transport drivers have been considered when formulating a transport network that connects within and around the Pymont Peninsula to meet the challenges of increased population and employment in the area, as illustrated in Figure 77.

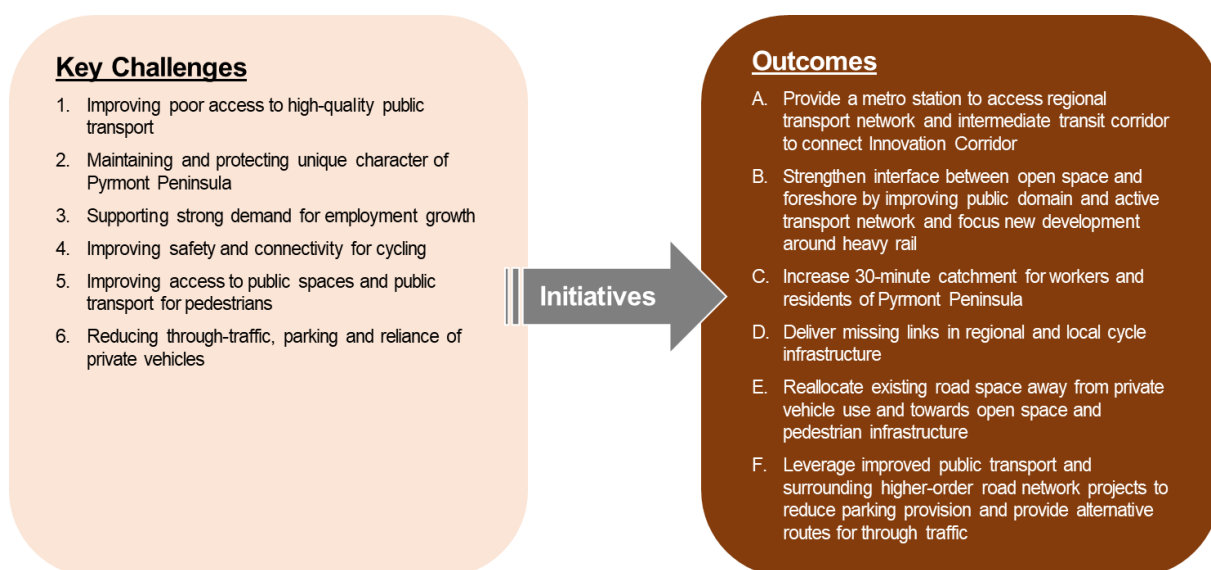


Figure 77 – Key challenges for Pymont Peninsula

9.2. Strategic transport initiatives for the Pyrmont Peninsula

Unlocking the potential of the Pyrmont Peninsula as an urban centre is fundamentally tied to the transport network and the options for travel that are afforded to people who live, work and visit in the Pyrmont Peninsula. The greatest opportunity to facilitate this change will be the inclusion of a new heavy rail station as part of Sydney Metro West. A heavy rail station at Pyrmont would substantially improve accessibility of the peninsula to a much wider market of workers, which is of critical importance to industries such as media, information and technology and would open the Pyrmont Peninsula up to more intense employment development. This station would also further increase mode shares for travel via public and active transport, greatly increasing the 30-minute catchment for the area and providing the missing connection to the Sydney strategic public transport network.

As the decision of whether to build a metro station at Pyrmont is still the subject of investigation, this strategy has focused on identifying interventions that can integrate with a metro station, but also deliver significant improvements to the public and active transport network. These interventions can also help bridge the gap until such time as a metro station is committed and can support the intermediate transport task of connecting centres within the Innovation Corridor.

A summary of the key transport intervention examined and proposed as part of this strategy and the relation to the key challenges and outcomes of the Pyrmont Peninsula Place-Based Transport Strategy are provided in Table 17. The initiatives identified in this strategy will require considerable collaboration across Government at the state and local level; the responsibilities across government for achieving the outcomes listed below will be the subject of further planning as the Pyrmont Peninsula Place Strategy is further refined at the granular sub-precinct level. While these initiatives have been based on an initial consideration of the opportunities and constraints identified in this study, this does not preclude opportunities from being revisited as planning for the Pyrmont Peninsula progresses at a more granular sub-precinct level.

While most of the initiatives identified in this Place-Based Transport Strategy will be the responsibility of individual government agencies (such as public transport and road network initiatives) some initiatives will require support across the broad spectrum of government stakeholders, particularly those relating to:

- Changing parking policy to reduce private vehicle dependence in a manner that is fair and equitable for workers, residents and visitors
- Preparing for autonomous vehicles and emerging transport technologies
- Integration of active transport corridors into existing and future development.

These elements require broader support within the Pyrmont Peninsula Place Strategy to integrate sustainable transport outcomes into planning policy.

Table 17 – Summary of proposed transport initiatives

Key Challenges	Initiatives			Outcomes
	Short term (0-5 years)	Medium term (5-10 years)	Long term (10 years +)	
2, 4, 5, 6	Investigate reallocation of road space on Pyrmont Street between Edward Lane and Allen Street			B, D, E
2, 4, 5, 6	Investigate converting local streets around UTS and TAFE Ultimo to shared zones	Contra-flow bus lane northbound on Harris Street and Regent Street (Thomas Street to Lee Street)		B, D, E
2, 4, 5, 6	Investigate closure of Jones Street between Thomas Street and Broadway			B, D, E
2, 4, 5, 6	New signalised crossing on Harris Street			
1, 3, 5, 6	New bus route from Parramatta Road corridor	New intermediate transit corridor from the Bays to Australian Technology Park via Harris Street	New metro station at Pyrmont	A, B, C, F
1, 3, 5, 6	Rationalisation and relocation of bus stops			A, B, C, F
1, 3, 5, 6	Investigate new ferry wharf at Cadi Bay Wharf			A, B, C, F
1, 2, 4, 5	Investigate active transport crossing of Pyrmont Bridge Road	Extend Good Line south through existing tunnel to Central station	Extend Good Line north to Pyrmont Street and Murray Street	B, D, E, F
1, 2, 4, 5	Extend Union Street cycleway to Bank Street	Extend Jones Street cycleway north to Pyrmont Bridge Road		B, D, E, F
1, 2, 4, 5	Investigate underground active transport link to Sydney Fish Market	New commuter cycleway through Blackwattle Bay development		B, D, E, F
1, 2, 4, 5	Investigate Glebe Island Bridge link for public and active transport	Extend Foreshore active transport link through Blackwattle Bay development		B, D, E, F
1, 2, 4, 5		Localised widening of footpaths along key pedestrian routes		B, D, E, F
2, 6	Investigate parking pricing	Pursue shared-parking across land uses		E, F
2, 6	Investigate alternative freight arrangements	Encourage transport management associations		E, F
2, 6	Encourage more car-sharing and ride-sharing		Prepare for autonomous vehicles	E, F

9.3. Next steps

This Place-Based Transport Strategy identifies a number of significant opportunities to increase the capacity of the existing transport network to accommodate the additional peak period trips that would be generated by the forecast development, particularly on the public transport network. A number of transport interventions have been identified that would increase the capacity of the public transport network, encourage lower use of private vehicles and improve the active transport network to incentivise higher use of walking and cycling to reduce demand for other modes of travel.

Further investigation of the interventions proposed in this strategy will need to be undertaken to determine feasibility and to confirm the additional capacity that can be added to the transport network to accommodate travel demand as population and employment increases in the Pyrmont Peninsula. Key steps that will need to be undertaken following this strategy will include:

- Continuing consultation with Sydney Metro West to understand the implications of a potential Sydney Metro West station at Pyrmont.
- Analysis of strategic transport modelling undertaken by Transport for NSW to understand in greater detail the impacts of increased public transport provision within the Pyrmont Peninsula including heavy rail, new bus routes and intermediate transit corridors to understand more clearly how these interventions will address the transport task associated with the Pyrmont Peninsula Place Strategy forecast land use.
- More detailed traffic modelling of the proposed road network interventions identified in this strategy to understand more clearly the impacts of changes to the road network including access to the redeveloped Sydney Fish Market and Blackwattle Bay Precinct.
- A feasibility study of the Glebe Island Bridge to understand more clearly the feasibility of providing a public transport and active transport connection at the site of the existing Glebe Island Bridge.
- More detailed analysis and consultation of water-based commerce and recreation to examine the impacts of the Pyrmont Peninsula Place Strategy on the users of Sydney Harbour, Cockle Bay, Jones Bay and Blackwattle Bay.
- Ongoing community and stakeholder consultation as part of sub-precinct master planning and subsequent development proposals.