Attachment E

Precinct transport study

ARUP

Department of Planning, Housing and Infrastructure

Pyrmont-Ultimo Planning Proposal Stage 2

Precinct Transport Study

Reference: 315228-00

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Executive summary

This precinct transport study has been prepared by Arup on behalf of the Department of Planning, Housing and Infrastructure to support Stage 2 of the Ultimo-Pyrmont Planning Proposal, which enables approximately 1,300 additional dwellings across seven sites.

The study builds on existing plans developed by local and state government. The City of Sydney's *Community Strategic Plan*, the then Department of Planning, Industry, and Environment's *Pyrmont Peninsula Place Strategy*, and Transport for NSW's *Pyrmont-Ultimo Transport Plan* set a consistent direction for the precinct: increased housing supported by increased canopy cover and better walking, cycling, and public transport infrastructure, without a corresponding increase in private vehicle use.

The Pyrmont-Ultimo peninsula already accommodates high residential densities, mixed land uses, low car ownership, and high levels of walking. These are impressive outcomes given the historical prioritisation of motor vehicle through-traffic in the area and the peninsula's circuitous public transport routes.

Several committed changes will further shift the movement and place context over the study horizon: the new Sydney Fish Market has reinvented a major cultural destination with spectacular public access to Sydney Harbour; the return of land at Wentworth Park to the public domain will breathe new life into major green space on the edge of the city; a transformed precinct at Blackwattle Bay (site of the old Sydney Fish Markets) and Sydney Metro West will massively uplift the level of access to diverse opportunities from the Pyrmont peninsula.

The existing network presents several barriers to realising government visions for the precinct. Insufficient walking space, long distances between crossings, and long delay at crossings appear to be suppressing walking demand on Harris Street south of Pyrmont Bridge Road. A lack of safe connected cycleways along the peninsula's north-south streets makes cycling impossible for the majority "interested but concerned" demographic moving along that axis. Throughout the peninsula, vehicle speed limits do not match the place context of the streets that they apply to, make cycling unattractive, and increase the risk of road trauma for people walking and cycling.

The study recommends 21 actions across the precinct, summarised in the action plan in Section 9. Given the site-specific nature of the planning proposal across seven sites, the recommendations focus on sub-precincts and corridors encompassing Harris Street, Bulwara Road, Bank Street, Jones Street, and Wentworth Park. Given future constraints on parking supply, recent cycleway construction, and future uplift in public transport service via the metro, a benchmarking approach to trip generation suggests a very small private vehicle mode share for future development facilitated by the planning proposal. As such, the recommendations focus on improving access by other modes. Recommendations include speed limit reductions, footpath widening, new mid-block wombat crossings, completion of crossings on all legs of signalised intersections, signal cycle redesign to minimise delay for people walking and cycling, separated cycleways on Harris Street and Wattle Street, and a Category 2 shared zone on Bulwara Road.

Pyrmont–Ultimo is at a critical inflection point. With major investments underway and further growth proposed, there is a unique opportunity to reshape the transport network to support a high-quality, sustainable urban environment. If the recommended changes are implemented, population growth in Pyrmont-Ultimo can be translated into livelier, safer streets that support a vibrant public life.

1. Introduction

1.1 Background

In the coming decades, Sydney's population is expected to keep growing, increasing demand for housing and creating an opportunity to make better use of well-located land. Existing transport infrastructure and land use patterns in inner Sydney can support a high residential density—higher than is currently supplied. This presents a valuable opportunity to supply more housing where people want it most.

In 2016, the NSW Government announced plans for Sydney Metro West, a new metro line connecting the Harbour CBD in the east to Parramatta in the west, with Pyrmont identified as a station location in 2018. In response, the then Department of Planning, Industry, and Environment released the *Pyrmont Peninsula Place Strategy* in 2020, outlining 5 big moves and 10 directions for the area, including great homes that can suit the needs of more people.

In 2022, the Minister for Planning and Public Spaces issued a ministerial direction requiring any planning proposals for the Pyrmont peninsula to align with the *Pyrmont Peninsula Place Strategy*. In 2025, the City of Sydney (the City) endorsed the *Ultimo Pyrmont Planning Proposal PP-2024-376* (stage one) that will facilitate approximately 1,269 new dwellings and 5,756 new jobs.

During consultation on the stage one planning proposal, several landholders suggested other properties that were not included but could be rezoned. Stage two responds to these suggestions and allows for up to 1,300 new dwellings on the peninsula. A further stage (stage three), to be led either by council or state government, may allow for a further 1,200 new dwellings on the peninsula and surrounds.

The sites included within the stage 2 proposal are mapped in Figure 1 below and detailed in Table 1.

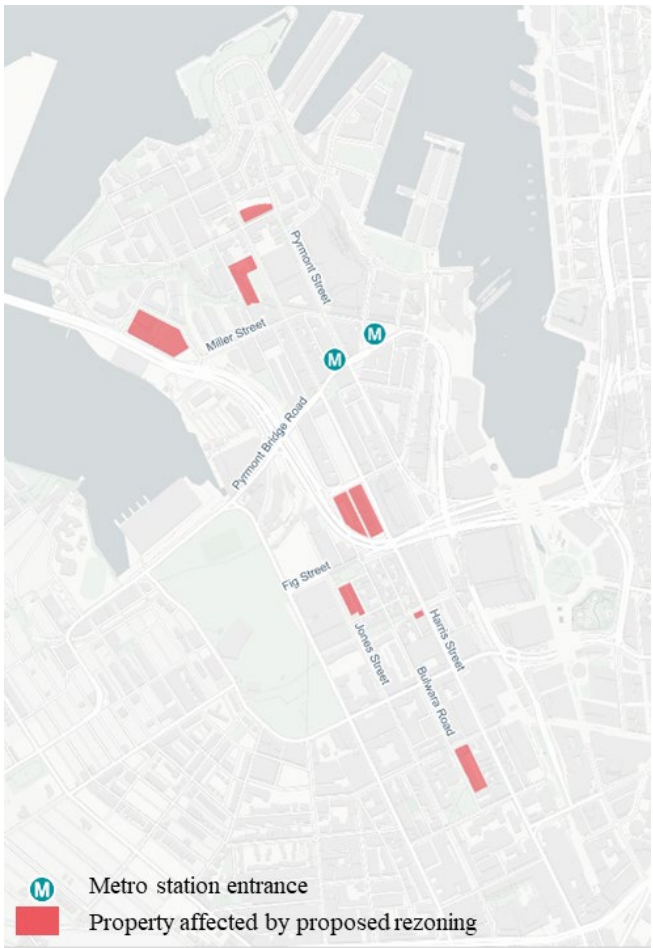


Figure 1 Properties proposed for rezoning under stage two

Table 1 Details of proposed rezonings

Street address	Existing development	Proposed change
56 Harris Street Pyrmont	Five to seven-storey residential flat building operated as affordable housing by City West	Increase the permitted building height up to 8-12 storeys on the southwestern end of the site fronting Harris Street.
52 Mount Street Pyrmont	Two-storey attached dwellings operated as social housing by Homes NSW	Permission for five-seven storey forms with consideration given to impact on existing heritage building on site and neighbouring properties. Through-site link to be provided.
1-33 Saunders Street Pyrmont	Multi-storey commercial development	Permission for mixed use. Planning for two residential towers fronting Saunders Street, plus three hotel forms fronting Bank Street and the Western Distributor. Several through-site links to be provided.
313 Harris Street Pyrmont	Strata-titled shop-top housing development adjoining 1-19 Allen Street	Retain shop-top housing typology on Harris Street but increase land use intensity. Higher forms planned for property boundary fronting the Western Distributor and lower forms fronting Harris Street.
1-19 Allen Street Pyrmont	Strata-titled residential flat building adjoining 313 Harris Street	
1-7 Henry Avenue Ultimo	Three-storey residential flat building and 13 terraces operated as social housing by Homes NSW	Reallocate existing parkland south of the terrace to north of the terrace. Permit six storeys in place of existing three-storey form. Extend terrace at rear and convert into single-storey apartments.
463-467 Harris Street Ultimo	Multi-storey development in mixed use zone	Seven-storey form to Harris Street. Two-three storey form to Kirk Street, enveloping a courtyard in the middle.
344 Bulwara Road Ultimo	Multi-storey residential flat building	Mixed uses permitted. Potential for ground-floor commercial use. Residential development expected above. Built form ranges from four storeys closer to the park to 12 storeys on the northern half. Three-metre setback from Bulwara Road in order to increase space for walking and place activity.

1.2 Report purpose

Arup has been engaged by the Department of Planning, Housing and Infrastructure to deliver this precinct transport study to support the City of Sydney's second stage of proposed rezoning in Pyrmont-Ultimo.

The study will:

- Introduce the proposed rezoning and previous bodies of work
- Establish the current transport context and identify key opportunities and challenges
- Set out the transport vision and the transport needs to support new homes and jobs
- Develop multimodal transport recommendations that enable all areas of the transport vision
- Provide an action plan to put the recommendations into practice

This precinct transport study will provide directions for future transport investment in the area. It should be reviewed in conjunction with other technical documentation relating to the proposed rezoning. This document is for public exhibition and stakeholder consultation. A confirmed outcome will be agreed post engagement.

All information in this study is based on publicly available sources or material provided by stakeholders during the consultation process.

1.3 Report structure

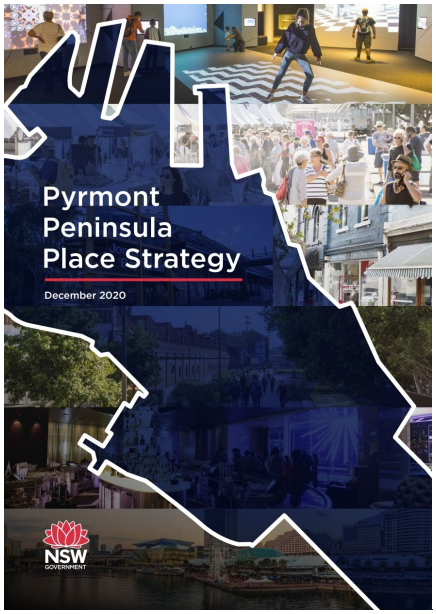
The structure of this document is summarised in Table 2.

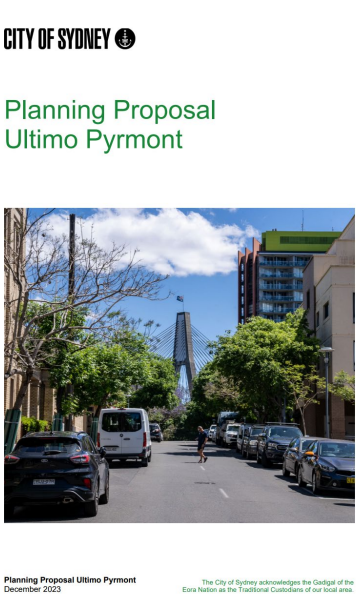
Table 2 Report structure

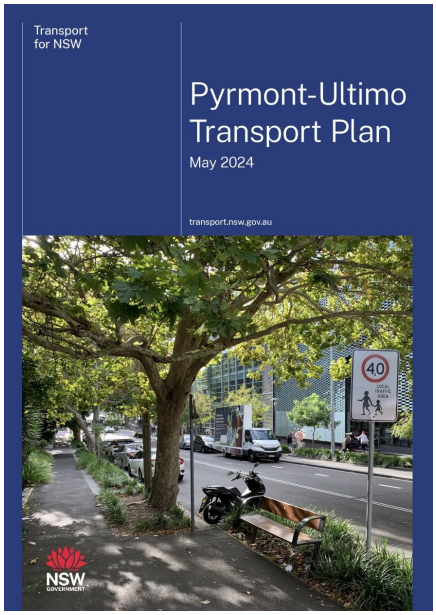
Section	Description
1: Introduction	Provide background to the stage rezoning as well as this study
2: Strategic context	Situate the proposed rezoning within the broader land use and transport planning contexts
3: Existing movement and place	Introduce the existing character of movement and place in the area
4: Vision, objectives, and validation framework	Set out the vision for the area and propose objectives to support that vision
5: Rezoning proposal	Detail the proposed land use changes in response to the vision
6: Transport response	Propose transport changes in response to the vision
7: Response validation	Validate the transport response against the objectives
8: Action plan	Elaborate actions to realise the transport response and identify the relevant authorities for the affected infrastructure

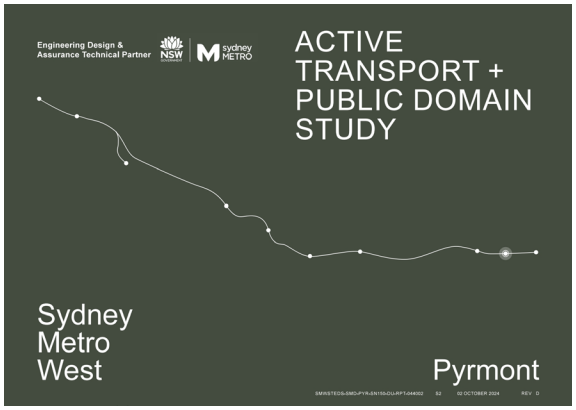
2. Strategic context

2.1 Policy and planning















The stage-two rezoning takes place amidst a backdrop of strategies, plans, and studies made in response to Sydney Metro West and transformation of Sydney Harbour.

The City of Sydney's strategic plans document the local community's wants and translate them into urban and transport planning visions for the area. The *Community Strategic Plan* covers all aspects of the city's development including transport. A city for walking, cycling, and public transport forms Strategic Direction 5, and outcomes for 2050 include more tree canopy cover, road space reallocation to walking and cycling, reduced vehicle speed limits, and more frequent opportunities to cross at traffic signals. The walking and cycling plans elaborate the City's strategy in those domains.

The *Pyrmont Peninsula Place Strategy* represents the first place-based response to Sydney Metro West for the Pyrmont-Ultimo area. While the strategy mostly concerns land use and built form, it establishes a sustainable transport vision for the peninsula where people walk, cycle, and use public transport to get to, from, and around the peninsula. The strategy recommends that this vision is supported by reallocating road space to people walking and staying (including on classified roads like Harris Street), creating new walking links in the network through the development of through-site links and the restoration of the Glebe Island Bridge, installing new crossings for people walking, building separated cycleways, fostering broader tree canopy, creating new on-street transport routes, reallocating road space to public transport (for example a contra-flow bus lane on the southern end of Harris Street), filtering vehicles out of certain streets, lowering vehicle parking rates, and decoupling parking from developments.

The City of Sydney's *Ultimo Pyrmont Planning Proposal* (referred to here as the stage one proposal) responds to the *Pyrmont Peninsula Place Strategy* in allowing for more homes on the peninsula.

The *Pyrmont-Ultimo Transport Plan* builds on the *Pyrmont Peninsula Place Strategy* and enumerates more actions specific to the transport domain. The plan envisions safe, convenient, and legible access by walking, cycling, and public transport, appropriate access for freight, and reduced private vehicle traffic and associated parking. The plan recommends that this vision is achieved by reallocating road space to walking and cycling (including on classified roads like Harris Street and Broadway, and on streets adjoining classified roads like Bay Street), installing new crossings, reducing waiting time at signalised intersections for people walking, increasing tree canopy, removing an on-ramp to the Western Distributor, reducing vehicle speed limits, reducing vehicle traffic on local streets, and reducing private vehicle parking rates.

The *Sydney Metro West Active Transport + Public Domain Study* develops concrete design options for the public domain surrounding the Metro East site, in response to the *Pyrmont Peninsula Design Guidelines*, which themselves build on the *Pyrmont Peninsula Place Strategy*. The study identifies an existing unacceptable level of walking space surrounding the station and proposes scenarios for the future. All scenarios include significantly increased space for walking and staying, and some scenarios include the potential to close Union Street fully to vehicles and to provide a separated cycleway on Pyrmont Bridge Road.

One of the actions of the *Pyrmont-Ultimo Transport Plan* is to improve safe walking access to primary and secondary schools. In response, the City of Sydney commissioned WSP to deliver a *Walking and Place Study* for Ultimo Public School. The study recommends reallocating space to people walking via a shared zone treatment on Bulwara Road, installing new crossings, upgrading existing crossings, reducing pedestrian delay at signalised intersections, and reducing vehicle speed limits.

2.2 Local planned and committed projects

Numerous significant land use and transport changes in Pyrmont-Ultimo have either recently been delivered or are currently underway.

2.2.1 New Sydney Fish Market

The New Sydney Fish Market opened in January 2026. As a major hospitality and retail development, the market attracts a high number of trips and provides a high level of local access to recreation opportunities.

2.2.2 New public open space in Wentworth Park

The NSW Government has announced that the lease on the greyhound precinct will not be renewed and when it expires in 2027 the affected land will be transferred to the City of Sydney. The City has previously established a vision for Wentworth Park as a green place connected to nature that supports sport, exercise, play, and social activities. The redevelopment of the former greyhound precinct will improve local access to open space and recreation opportunities.

2.2.3 Increased light rail frequency

The frequency of light rail service on the L1 line has increased to once every six minutes in 2026.

2.2.4 Ferry service at New Sydney Fish Market

The NSW Government has committed to providing a ferry service to the New Sydney Fish Market from Barangaroo. Vessel type and timetable are yet to be indicated by government, but the service will inform the design of Glebe Island Bridge.

2.2.5 Bridge Road cycleway

Transport for NSW has upgraded and made permanent the previously temporary separated cycleway installed on parts of Bridge Road between Lyons Road in Camperdown and Taylor Street in Glebe. The Bridge Road cycleway and shared path in front of the New Sydney Fish Market form part of the City of Sydney's Regional Bike Network and Transport for NSW's Strategic Cycleway Corridor between Camperdown and Pyrmont, but full separation is only provided intermittently along some blocks; people cycling must merge with vehicles at many intersections and must merge either with people walking or with people driving at the New Sydney Fish Market.

2.2.6 Blackwattle Bay cycleways

The redevelopment of the Blackwattle Bay Precinct, encompassing the old Sydney Fish Market site, will deliver new active transport links in the area. Voluntary planning agreement SVPA2024-33 commits Infrastructure NSW to deliver a cycleway on Pyrmont Bridge Road between the new Sydney Fish Market and Bank Street, and on Bank Street to connect to Miller Street and Glebe Island Bridge.

2.2.7 Sydney Metro West

A new metro station on Pyrmont Bridge Road will provide a direct, high-speed, high-frequency service between Parramatta in the west and Hunter Street in the city in the east. Public transport journeys from Pyrmont to the CBD currently take about the same time as walking owing to circuitous routes. As such, the direct metro service will radically transform public transport access to and from Pyrmont.

3. Existing movement and place

This section describes existing movement and place in the precinct. It provides a concise view of Country and supporting infrastructure for place, such as canopy cover and built forms. The movement analysis focuses on mode share and vehicle ownership and the potential for change. Following this, key aspects of specific modal networks (walking, cycling, public transport, and private vehicle) are presented, culminating in a movement and place classification of all roads and streets in the network. Further supporting analysis of land use and land use-transport integration is supplied in the appendices.

3.1 Understanding place

3.1.1 Country

The Pyrmont-Ultimo area extends from the Pyrmont peninsula in the north through to Broadway in the south. The peninsula itself is Wan.gal Country, separated from Gadigal Country to the east by Tumbalong, also known as Darling Harbour.



Figure 2 Pyrmont-Ultimo in the context of Aboriginal estates (SMALL CAPITALS) and known Aboriginal placenames

3.1.2 Tree canopy cover

Figure 3 below overlays the tree canopy captured for the Department of Planning, Housing and Infrastructure over the NSW government's road corridor geometry to calculate the proportion of each road or street corridor that is left uncovered without tree canopy in 2022.

Pyrmont Bridge Road stands out for long stretches of exposed street, particularly where the road is classified by Transport for NSW, and more so on the northern than the southern side.

William Henry Street also stands out for poor canopy cover, despite a reasonable density of plantings. Burying overhead electrical wires, expanding planting zones, and choosing species with broader crowns may help increase canopy cover on this important east-west link.

Sections of Wattle Street perform poorly for canopy cover. On northern sections, there appears to be a reliance on plantings in Wentworth Park rather than within the road reserve. While some species in the park successfully cover the footpath with expansive crowns, other species, particularly eucalyptus, develop height without such extensive or dense crowns, offering little amenity for people walking within the road reserve. On the eastern side of the street, small natives with limited crowns appear to struggle in constrained beds. On

southern sections of Wattle Street, many trees appear to have been aggressively pruned to accommodate overhead electrical supply.

Broadway currently performs very poorly for canopy cover. Despite some recent plantings, existing trees remain young and provide limited cover. Additionally, the road reserve is so wide that even at full maturity the existing plantings are unlikely to fully cover the road reserve.

It should be noted that some streets on the map that display limited current canopy cover above three metres in height (e.g. Bowman Street) have recently been planted extensively with young street trees that should provide decent cover in due course.



Figure 3 proportion of road corridor left uncovered without tree canopy, 2022

Legend

- < 20% canopy cover
- < 40% canopy cover
- < 60% canopy cover
- < 80% canopy cover
- < 100% canopy cover
- Rezoning



Photograph 1 Pyrmont Bridge Road looking west

A lack of shade leaves people walking and cycling exposed to full sun for the half kilometre between Pyrmont and the city along Pyrmont Bridge

3.1.3 Built form

Most streetscapes in the area provide a high level of visual interest, either from a fine grain in historical terrace subdivisions, or on larger lots from highly articulated historical warehouse facades. Both historical typologies tend to be attached building styles that enclose the street with a well-defined street wall.

While this historical urban form provides the foundations for high place quality, Photograph 2 shows an example streetscape where place performance lags behind potential because of land use changes (e.g. nearby shopping centre development) and transport changes (e.g. high motor vehicle volumes) over the last half-century.



Photograph 2 high-quality historical shopfronts no longer host public-facing uses on Harris Street where narrow footpaths and high vehicle volumes negatively impact place value

3.1.4 Businesses that interact with place activity

Cafes, bars, and restaurants are good indicators of place performance as they both rely on, and themselves contribute to, high place quality. The same is true of street-facing shops and stores, albeit to a lesser degree, as they rely on foot traffic which is attracted by high amenity street environments.

The maps of cafes, bars, and restaurants in Figure 4, and shops and stores in Figure 5, paint a striking picture of place performance in the area. Nearby Glebe Point Road is evidently performing strongly as a high street. Harris Street, by contrast, does not emerge as a high street in terms of its place performance—at least not south of Pyrmont Bridge Road. This stretch of Harris Street has been classified by Transport for NSW and the treatments to prioritise vehicle throughput have clearly damaged the place performance of Harris Street as a high street.

It should be noted that place performance does not determine place function. Harris Street may currently perform poorly in terms of place outcomes, but this does not change its place function.

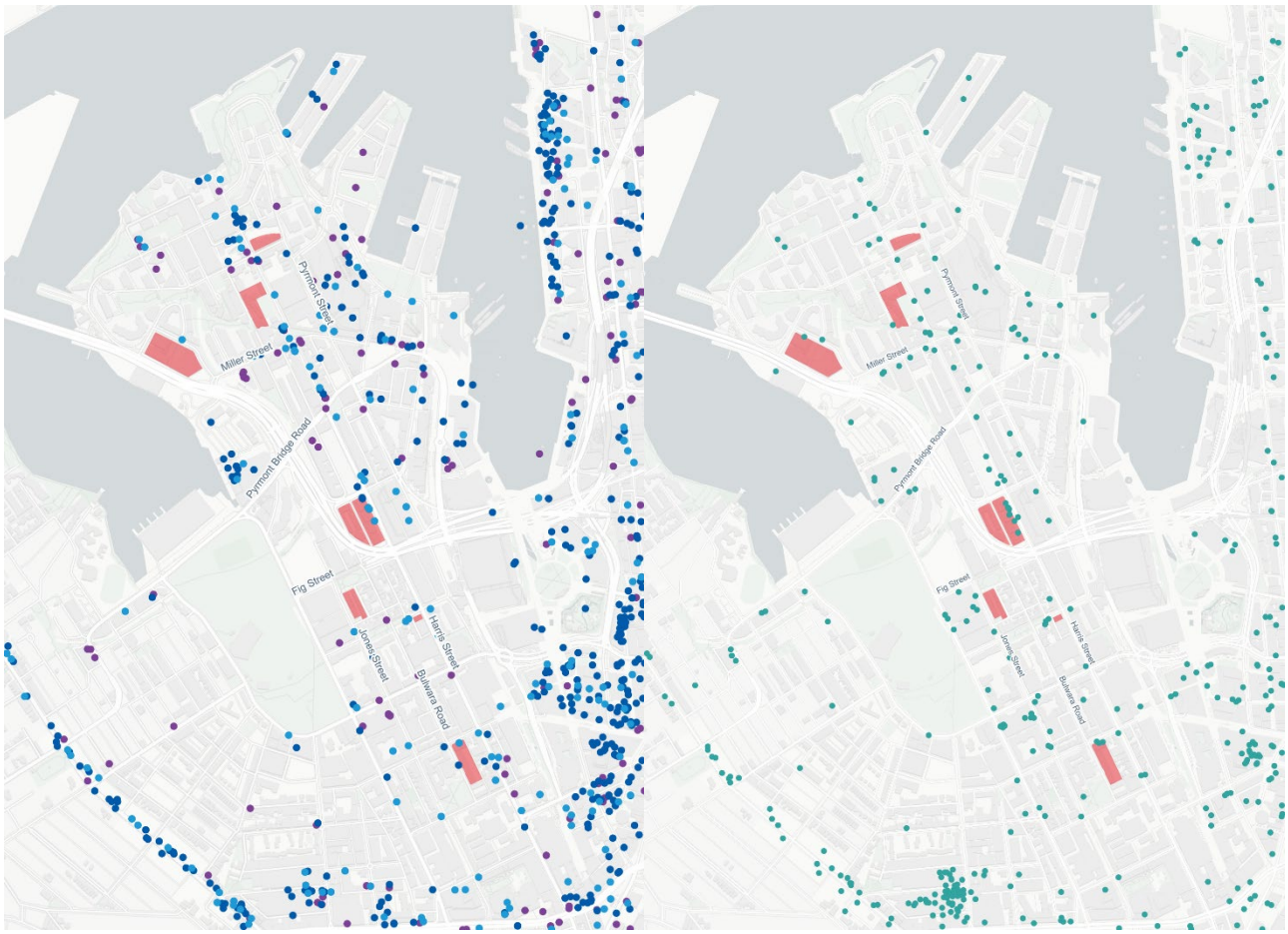


Figure 4 (left) businesses that support outdoor dining. **Figure 5 (right) shops and stores**

Café
Bar
Restaurant
Shop/store

Data source: Overture Maps Foundation

3.2 Understanding movement

3.2.1 Journey to work analysis

Table 3 below shows that private vehicle mode share for commuting to Pyrmont-Ultimo is lower than Greater Sydney as a whole, but still twice the rate of the adjacent Harbour CBD. The higher private vehicle mode share compared to the CBD is likely attributable to the poorer level of public transport accessibility to Pyrmont than to the Sydney CBD and may change with the introduction of metro services.

Table 3 private vehicle commuting mode share to Pyrmont-Ultimo, Greater Sydney, and the Harbour CBD

Measure	Pyrmont-Ultimo	Greater Sydney	Harbour CBD
Private vehicle mode share for commuting to area	40.3%	66.4%	23.7%

Source: ABS census 2016

By contrast, Table 4 below shows that private vehicle mode share for commuting from the area is more than half as low in Pyrmont-Ultimo as in the rest of Greater Sydney. This reflects the high level of access to employment from the peninsula, including walkable access to the Harbour CBD.

Table 4 private vehicle commuting mode share from Pyrmont-Ultimo and Greater Sydney, 2016

Measure	Pyrmont-Ultimo	Greater Sydney
Private vehicle mode share for commuting from area	25.1%	70.6%

Source: ABS census 2016

Figure 6 below shows that most residents in Pyrmont-Ultimo work within a short distance from the peninsula, either on the peninsula itself or in the adjacent CBD.

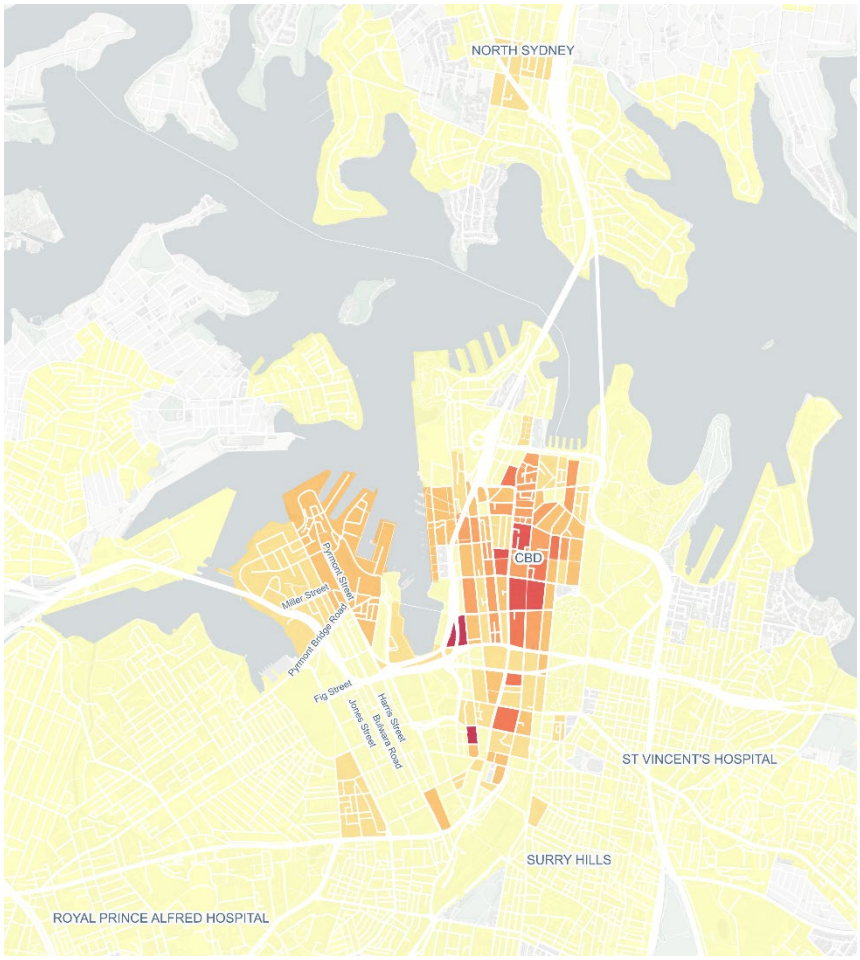
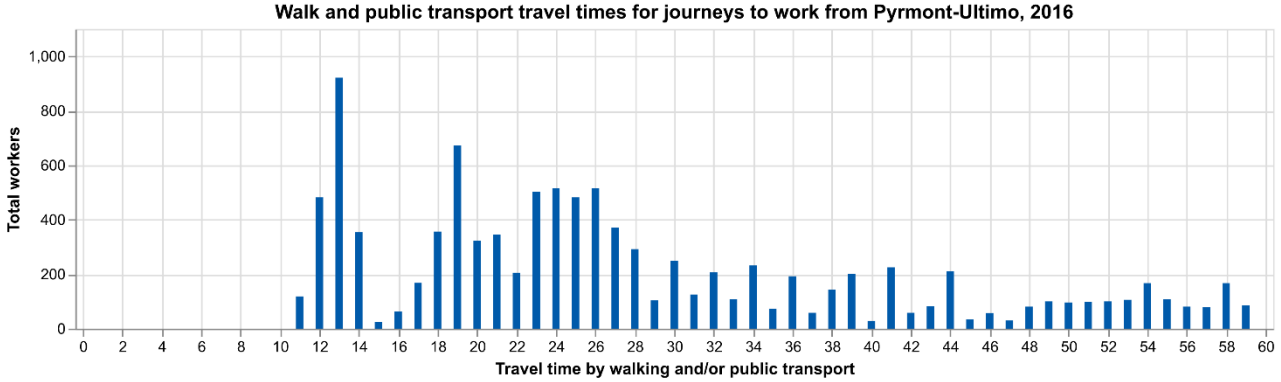


Figure 6 density of work locations of residents of Pyrmont-Ultimo

Source: ABS census 2016

To better quantify the pattern suggested visually on Figure 6 above, Figure 7 below charts the distribution of different travel times required to reach existing work locations by walking and/or public transport (note that 5% of locations more than 60 minutes away are not charted).

Figure 7 walk and public transport travel times for journeys to work from Pyrmont-Ultimo



Source: ABS census 2016 (work locations), Arup analysis of TfNSW 2026 GTFS (travel times)

Summarising the distribution yields the following statistics:

- roughly 64% of residents in 2016 worked in locations that in 2026 are no more than 30 minutes away by walking or public transport
- roughly 83% worked in locations that are no more than 45 minutes away by walking or public transport
- roughly 95% worked in locations that are no more than 60 minutes away by walking or public transport

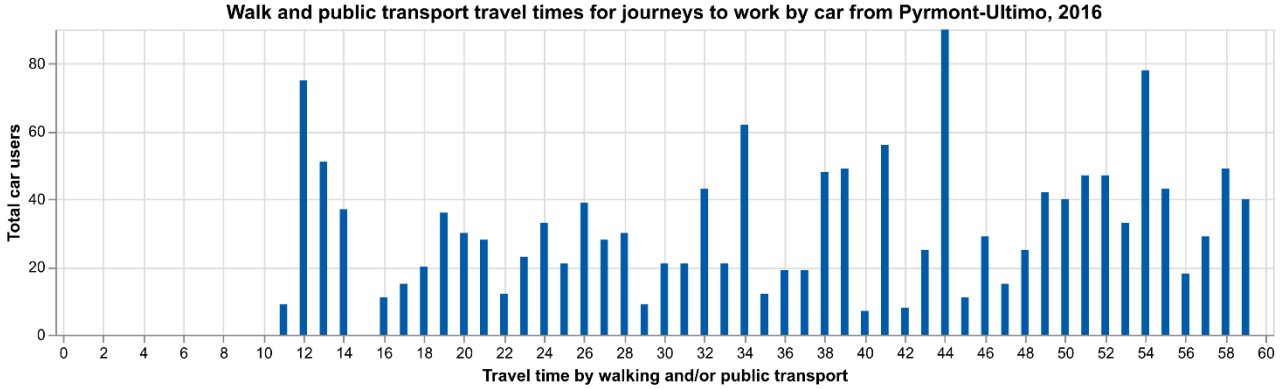
This represents an excellent level of access in Sydney, where the average commute by public transport is 65 minutes (BITRE 2016: 140). That is, almost all residents of Pyrmont-Ultimo can commute by walking or public transport in less time than the average Sydney public transport commuter currently does. This also suggests that the already high walking mode share could increase further if the at-times hostile existing walking environment were ameliorated by appropriate interventions.

This analysis of existing travel times suggests that the historical private vehicle commuting mode share (25%, see Table 4) is elevated, and likely induced by the overprovision of public and private infrastructure (parking, physical road space, temporal road space, etc.) for private vehicles. This is confirmed by Figure 8 below, which shows that in 2016:

- roughly 28% of car commuters drove to workplaces that in 2026 are no more than 30 minutes away by walking or public transport
- roughly 55% of car commuters drove to workplaces that are no more than 45 minutes away by walking or public transport
- roughly 84% of car commuters drove to workplaces that are no more than 60 minutes away by walking or public transport

Figure 8 walk and public transport travel times for journeys to work from Pyrmont-Ultimo by car

Source: ABS census 2016 (work locations), Arup analysis of TfNSW 2026 GTFS (travel times)



Given that 45 minutes is considered a threshold for "lengthy" commuting (BITRE 2016), this analysis suggests that by 2032, car-based trips to work from Pyrmont-Ultimo could be reduced by at least 55% without adversely impacting residents' quality of life. Once metro services are operational, and if improvements are also made to the cycling network, car-based commuting could be reduced even further.

3.2.2 All-purpose mode share (residents)

Private vehicle mode share for all purposes in the Inner City Sydney SA3 (the closest geographical match to Pyrmont-Ultimo reported in TfNSW's *Household Travel Survey*) is also half as low as in Greater Sydney.

Table 5 mode share for all trip purposes in Inner City Sydney and Greater Sydney

Mode	Sydney Inner City SA3 share	Greater Sydney share
Private vehicle	27.1%	67.9%
Walking	51.8%	18.8%

Source: TfNSW Household Travel Survey 2024-2025

Conversely, walking mode share for all purposes is twice as high, accounting for the majority of all trips in the inner city. This is a remarkably high walking mode share for Sydney as a whole and suggests that any interventions designed to reduce walking delay may not just align with the established vision for the area but may also reduce total person delay for people already moving through the area on foot.

3.2.3 Vehicle ownership

Table 6 shows that households in Pyrmont-Ultimo own half as many vehicles on average compared to Greater Sydney.

Table 6 average vehicles per dwelling in Pyrmont-Ultimo and Greater Sydney

Measure	Pyrmont-Ultimo	Greater Sydney
Average vehicles per dwelling	0.8	1.6

Source: ABS census 2021

Table 7 below shows that high proportions of dwellings in Pyrmont and Ultimo do not own a vehicle: two to four times the rate of Greater Sydney, reaching almost half of all dwellings in Ultimo.

Table 7 share of dwellings with no vehicle in Pyrmont-Ultimo and Greater Sydney, 2021

Vehicles per dwelling	Pyrmont	Ultimo	Greater Sydney
No vehicle	28.3%	45.0%	11.1%

Source: ABS census 2021

While this is in part mediated by the area's demographics—namely fewer families—Table 8 below shows that car-free living is still very popular amongst families in the area, with three to six times the rate of families in the area choosing to live car free compared to the rate in Greater Sydney as a whole, and a third of all families in Ultimo living car free.

Table 8 share of single-family households with no vehicle in Pyrmont, Ultimo, and Greater Sydney, 2021

Vehicles per dwelling	Pyrmont	Ultimo	Greater Sydney
No vehicle	17.6%	33.5%	5.2%

Source: ABS census 2021

These low vehicle ownership rates bear on road space allocation considerations in the area, given that large amounts of public space are currently dedicated exclusively to use by a transport mode that more than a third of all households do not use.

3.3 Existing transport networks

3.3.1 Cadastral development

Pyrmont-Ultimo was laid out on a highly regular rectangular grid, as shown in Figure 9 below. The historical grid largely survives, although with extensive disruption of Jones Street and Allen Street, and minor disruption of Gipps Street and John Street.

Jones Street between Allen Street and Miller Street has largely been consumed by Bank Street and the old fish market. Allen Street between Bulwara Road and Wattle Street has been consumed by the Western Distributor motorway and the L1 light rail corridor. Gipps Street has been consumed by Bank Street and the old fish market, although the network topology remains similar owing to the close alignment of Pyrmont Bridge Road. John Street has been lost east of Pyrmont Street, although a similar topological function is provided by Jones Bay Road.

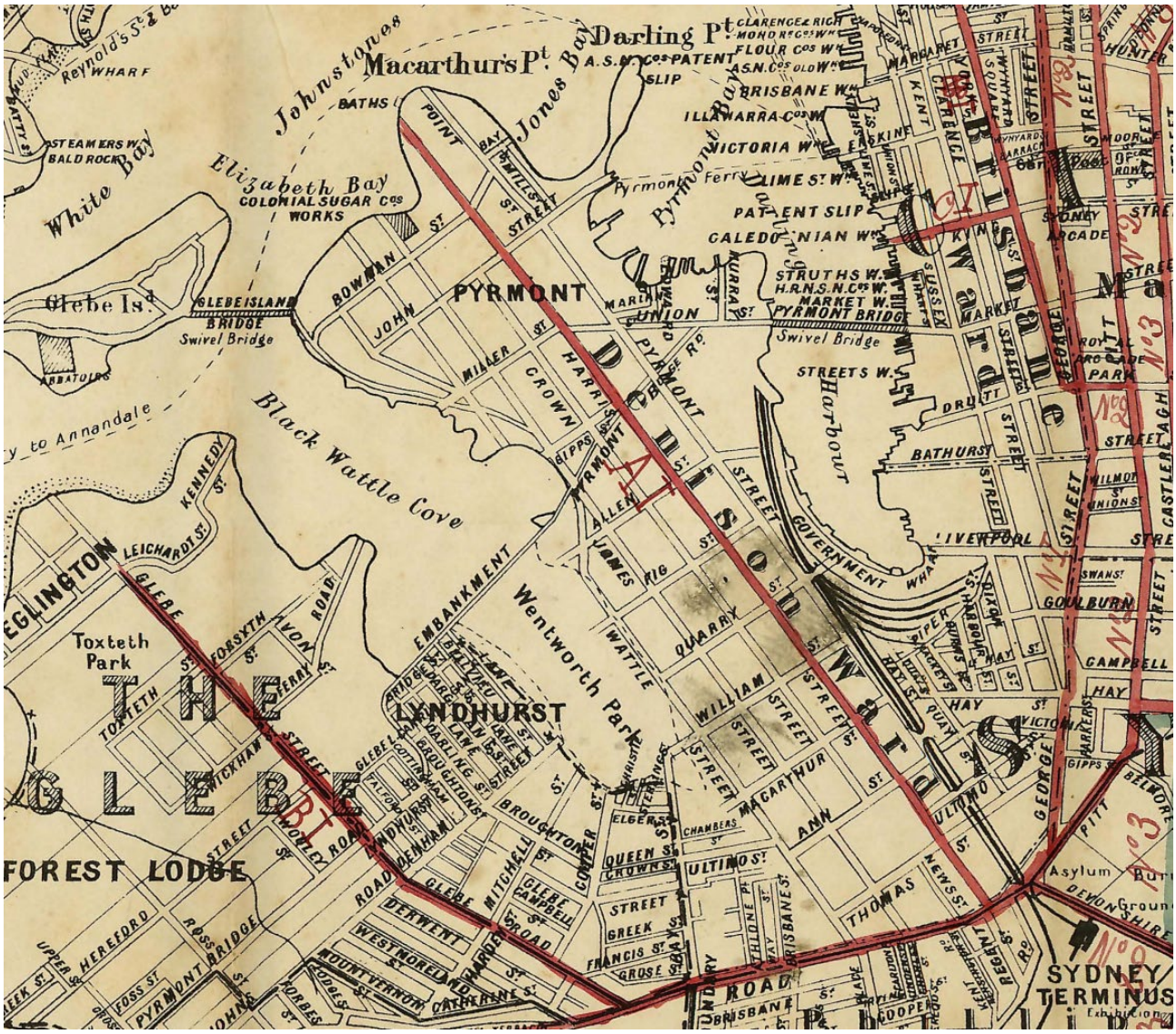


Figure 9 street network 1887

Source: John Sands & Company, *City of Sydney & Suburbs, 1887: Single sheet* (1887), [A-00880474]. City of Sydney Archives

3.3.2 Walking network

Figure 10 below shows controlled crossings in the area: signalised pedestrian crossings, pedestrian crossings (i.e. crossings marked with a zebra pattern), and continuous footpath treatments. Signalised crossings are annotated with recorded maximum cycle durations. Zebra crossings are extremely rare in the area, with only three zebra crossings on the regular street network (others only bridge slip lanes or service lanes).

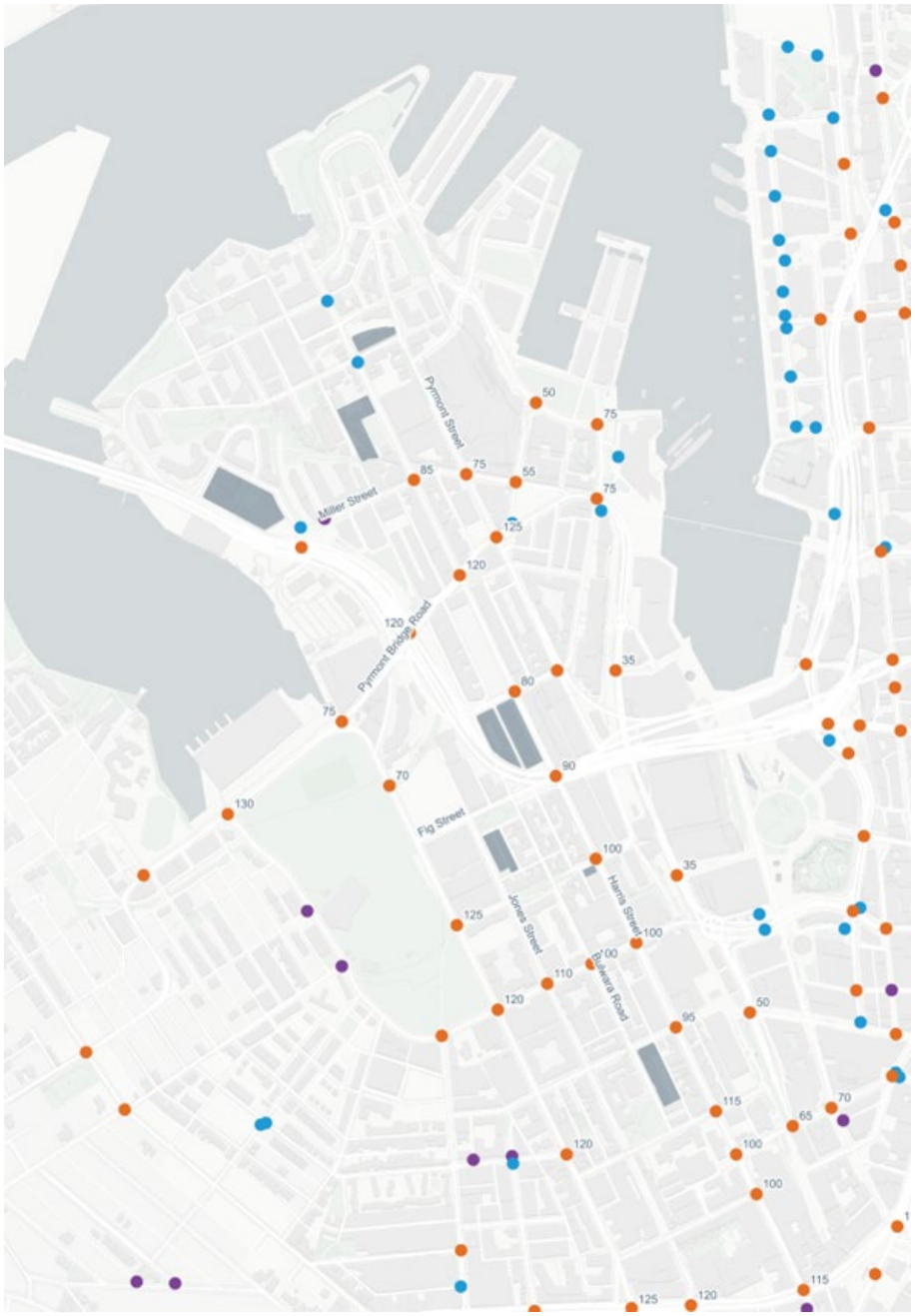


Figure 10 controlled crossings

Legend

- Signalised crossing
- Zebra crossing
- Continuous footpath

3.3.3 Cycling network

While all streets on the peninsula can be ridden on, the network that is available to the majority "interested but concerned" demographic is limited and fragmented.

The most amenable mixed-traffic environments are to be found on Jones Street and Bulwara Road, although a wide carriageway on Jones Street facilitates fast driving and the one-way vehicle flow on Bulwara Road may intimidate concerned cyclists riding contra flow. Both streets are disconnected from the street network north of Allen Street.

Figure 11 below maps the existing cycling infrastructure on the peninsula that provides protection from vehicles. There are only two separated cycleway corridors on the peninsula, and both connect east-west movements: the Saunders Street-Miller Street-Union Street corridor in the northern half of the peninsula, and the Mary Ann Street corridor in the southern half of the peninsula. Additional east-west connections are provided by shared paths on Bridge Road and Quarry Street.

There are no separated cycleways on the north-south axis along the peninsula, severely limiting the ability to travel north south through the area by bike.



Figure 11 existing cycling infrastructure separated from vehicles

Legend

- Shared path
- Separated cycleway

In Figure 12 below, Ride Report data shows significant share bike movements throughout the area.

Pyrmont Bridge is the third-busiest corridor for share bike traffic in Sydney, behind Oxford Street and Taylor Square. Connecting to this corridor are both Pyrmont Bridge Road and Miller Street.

Remarkably, Pyrmont Bridge Road sees about 30% more share bike trips than the parallel corridor on Miller Street despite having no safe separated cycling infrastructure, while Miller Street provides a two-way separated cycleway. This highlights the importance of providing safe separated cycling infrastructure on the most central links in the network.

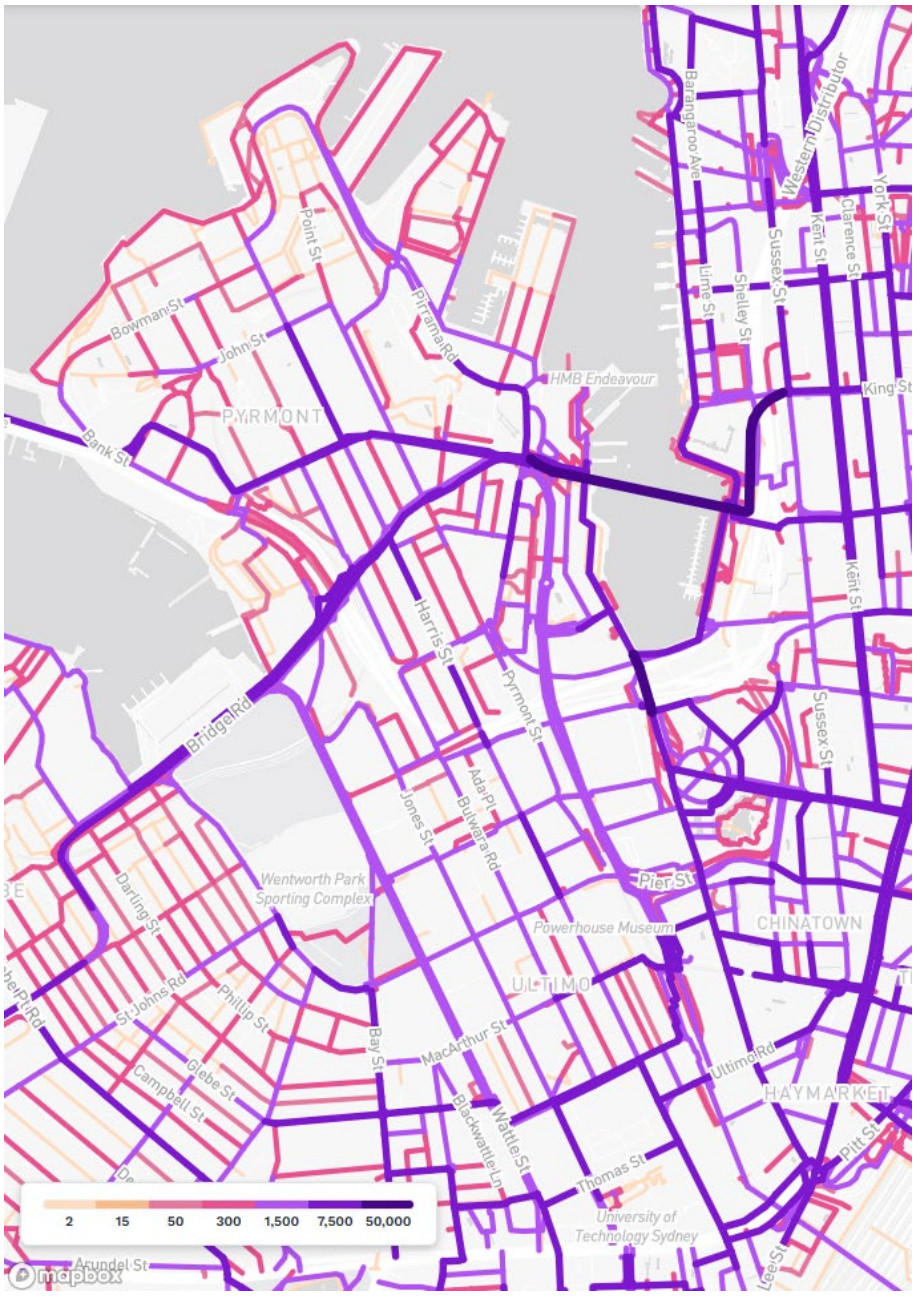


Figure 12 share bike movements Q1 2026

Source: Ride Report

City of Sydney bike counts during weekday peak hours present a slightly different picture: on average twice as many cyclists move through the Miller Street cycleway than Pyrmont Bridge Road. However, these counts only capture six hours on a weekday and are more likely to include habituated commuters.

3.3.4 Public transport network

Figure 13 below maps the existing public transport network in the area.

Notable is the circuity of numerous routes. The light rail is highly circuitous as it follows a repurposed freight line that was aligned close to harbourfront development. The 389 bus, which services the northern- and easternmost parts of the peninsula, forms almost a perfect circle between the western and eastern sides of Tumbalong/Darling Harbour. The 501 bus, which travels along Harris Street to Central Station, doubles back on itself between Broadway and Thomas Street in the northbound direction as Harris Street has no northbound lanes between Broadway and Thomas Street.



Figure 13 existing public transport network

3.3.5 Motor vehicle network

Pyrmont-Ultimo is notable for its high level of connectivity to the motorway network. Motorways, on/off-ramps, and collector/distributor streets are mapped in Figure 14 below. This map shows:

- A total of 4 onramps are found within 400 metres of each other
- A total of 4 offramps are found within 400 metres of each other
- 3 onramps within 400 metres of each other provide access to the same eastbound motorway
- 2 offramps within 400 metres of each other provide egress for the same westbound motorway

Between Miller Street and Fig Street, the motorway consumes about five blocks of urban land.



Figure 14 motorways, on/off-ramps, and collectors/distributors

In addition to and complementing the motorway network, Transport for NSW has classified Pyrmont Bridge Road, Fig Street, Harris Street, and Wattle Street as state roads, as shown in Figure 15 below.

The Department of Main Roads, a predecessor of Transport for NSW, converted Harris Street and Wattle Street to a modified one-way pair in 1987 (Harris Street is only truly one-way south of Thomas Street, but north of Thomas Street Transport for NSW allocates more lanes to southbound than northbound travel).

Both streets form part of the Southern Arterial Route, which extends south through Abercrombie Street and Regent Street and further south towards Waterloo. The Southern Arterial Route reimagined several key streets in Sydney's inner city from streets with multiple functions into roads designed primarily for the through-movement of vehicles.



Figure 15 classified roads

3.4 Classifying the existing movement and place network

Figure 16 below shows the existing movement and place typologies of links in the peninsula's network. Broadway, Harris Street, and Miller Street form the main streets of the precinct. Union Street and Tumbalong Boulevard are important civic spaces that connect to these main streets. The bulk of the remaining links in the network are local streets.



Figure 16 existing functional typologies in movement and place framework

Functional typology

- Local streets – higher movement
- Local streets – lower movement
- Main roads
- Main streets – arterial
- Main streets
- Civic spaces

3.5 Understanding land use-transport integration

3.5.1 Employment

Figure 17 below displays a gravity measure of access to employment by walking and/or public transport (whichever is faster). This map is insightful as the level of access to jobs is not patterned by proximity to existing public transport infrastructure. Instead, the level of access is patterned by walking network distance to the CBD. This highlights that existing public transport routes into the CBD are circuitous, and once wait time is taken into consideration, are slower than walking in some parts (see Figure 27 for more detail).

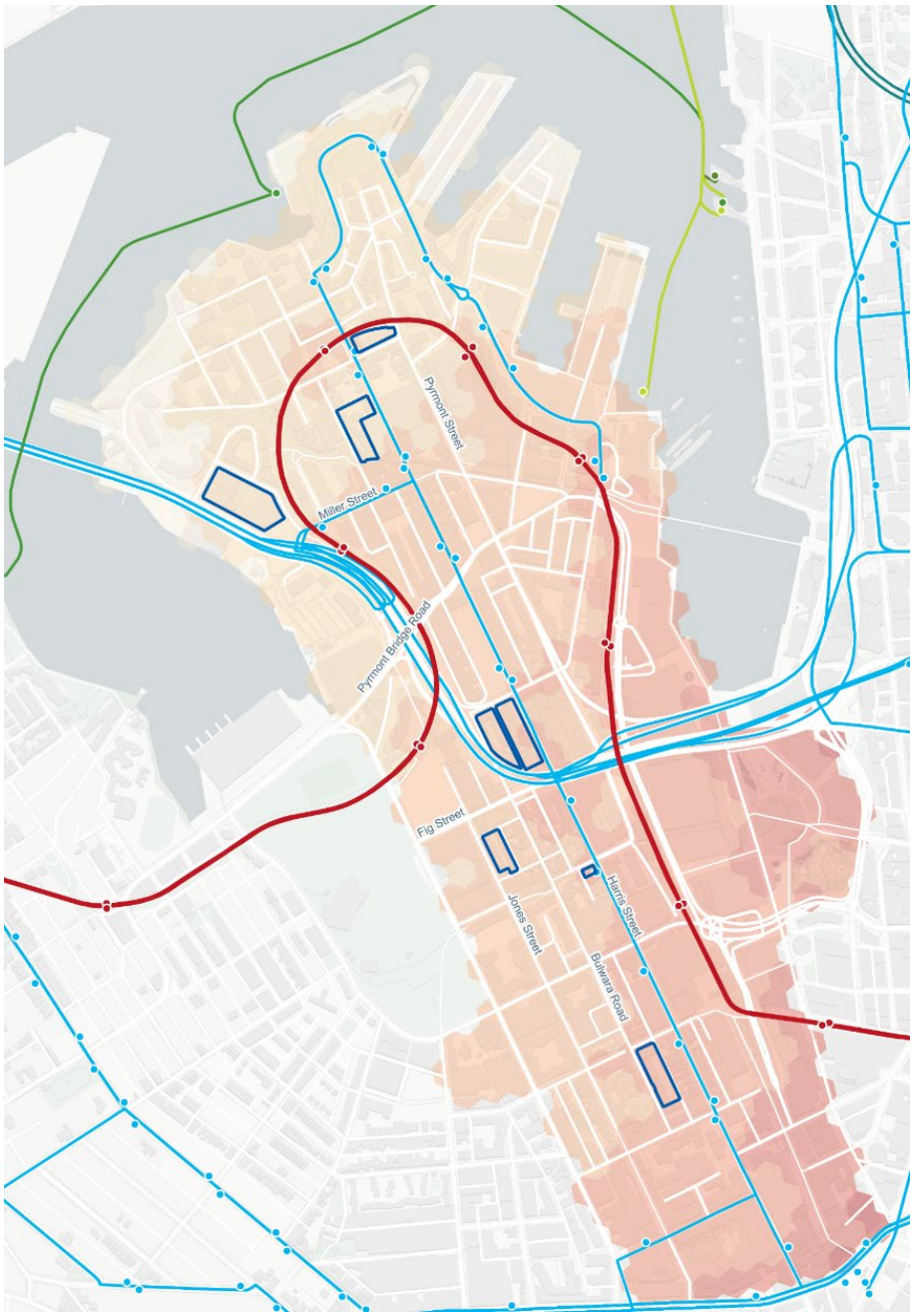


Figure 17 gravity measure of access to jobs by walking and/or public transport 08:00-08:59 weekday March 2026

Legend

Rezoning

Higher access

Lower access

These patterns of access in the northern half of the peninsula are expected to change significantly with the opening of Sydney Metro West, as described in Figure 18 below which recalculates the same gravity measure of access as above but including a metro service based on publicly announced travel times, station locations, and a 4-minute headway in the AM peak.

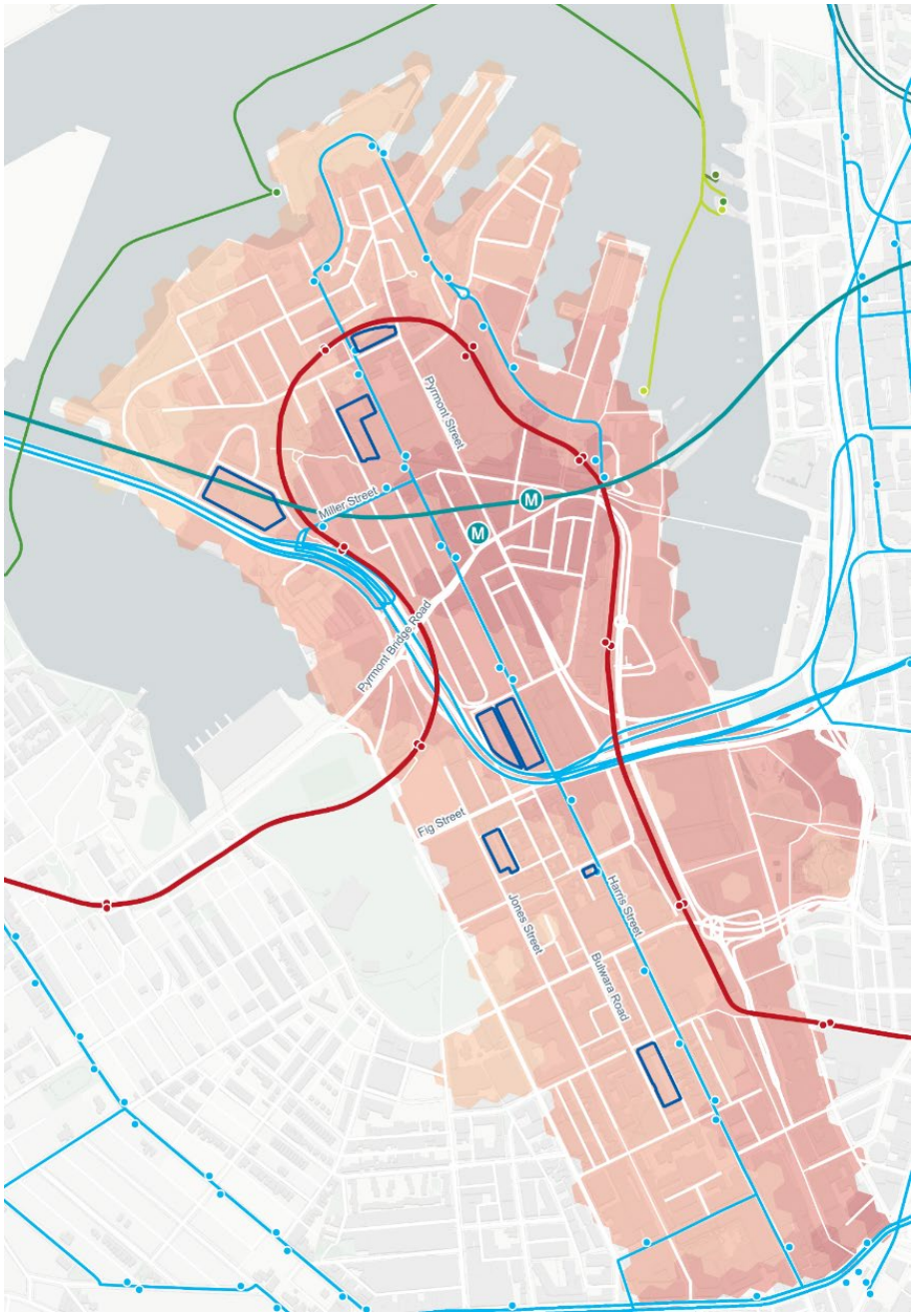


Figure 18 gravity measure of access to employment by walk and/or public transport including indicative metro service 08:00-08:59 weekday

Legend

Rezoning

Higher access

Lower access

This gravity measure of access to employment after the opening of Sydney Metro West shows a radically different pattern of access, with the northern half of the peninsula moving from the lowest to the highest level of access to employment. The introduction of metro services will allow residents to reach about 40% more doorstep-equivalent jobs. This will provide Pyrmont with one of the highest levels of access to employment by public transport in the state and facilitate ambitious moves towards a healthy and sustainable transport future.

4. Challenges

Transport challenges on the peninsula generally relate to physical topography, infrastructure barriers, and road space allocation decisions that have prioritised private vehicle capacity over safe and comfortable infrastructure for people walking and cycling. Prominent amongst these challenges is physical severance by motorway and light rail corridors, legibility issues on walking links crossing motorway and rail corridors, and vehicle speed limits that are dangerously high and inconsistent with existing movement and place typologies.

In review of the existing movement and place baseline data, onsite observations and stakeholder engagement with the City of Sydney, several critical challenges have been identified below including:

- Insufficient walking space
- Infrequent crossing opportunities
- Missing crossings at signalised intersections
- Multiple-stage crossings at signalised intersections
- Excessive crossing delay for people walking and cycling
- Poor walking network legibility
- Lack of protected cycling infrastructure
- Dangerous vehicle speed limits
- Unattractive east-west public transport connectivity

In responding to these challenges, the peninsula presents significant opportunity to improve walking and cycling outcomes to realise established government visions for the precinct. The road reserves for the main roads and streets on the peninsula are wide enough to accommodate more space for people walking and cycling and maintain private vehicle access throughout. Network operations present an opportunity for quick wins that do not require expensive physical interventions but greatly improve walking and cycling outcomes.

Opportunities to address these challenges are presented as transport responses and recommendations later in this report. Not all challenges can be mitigated as part of this stage two rezoning, a focus has been placed on walking, cycling and public transport improvements at a local level.

4.1 Insufficient walking space

Walking space is poorly balanced on several important streets on the peninsula, with much of the space given to private vehicles on Harris Street, Bulwara Road, Wattle Street, and Pyrmont Bridge Road.

The Transport for NSW *Walking Space Guide* (TS 01589) provides a process for evaluating the amount of unobstructed space available for people walking on footpaths, with the aim of ensuring comfortable walking environments. The guide rates footpath performance using a Level of Service (LOS) framework from A (best) to F (worst), tied to comfort percentiles during the peak hour:

- LOS A (85th percentile) represents the most comfortable conditions
- LOS B (66th percentile) is still highly comfortable
- LOS C (50th percentile) is the minimum design target for new works, upgrades, or footpath resurfacing projects
- LOS D (33rd percentile) is tolerated for existing footpaths: it does not trigger intervention but is not a desirable state
- LOS E (15th percentile) is classified as "at risk", requiring annual monitoring and the commencement of project planning

- LOS F (below 15th percentile) is an "intervention trigger", indicating very poor conditions that demand urgent action to increase walking space

The walking space on different streets throughout the peninsula is tabulated below and illustrated in Figure 19. LOS was calculated using on-site measurements taken by Arup and walking counts undertaken by the City of Sydney. The walking space level of service on many footpaths varies even within the space of one block. Most of this variation can be attributed to tree plantings in the footpath and changing kerbside uses. For example, a footpath which rates LOS E for walking space at its widest point and outside of clearway operation may rate LOS F where trees are planted in the footpath and/or when the clearway is in operation and the kerbside use is a vehicle traffic lane.



Figure 19 walking space level of service at key sites: best LOS on left; worst recurring LOS (e.g. because of trees) on right

Source: Arup, except east of Harris Street (Mott MacDonald)

Legend



4.1.1 Harris Street

The results for Harris Street, provided in Table 9 below, show that walking space on Harris Street only reaches an acceptable level (LOS C-D) in three contexts:

- Where new road space has been added to the corridor from adjacent properties that have been recently developed
- Where the City of Sydney has widened footpaths on the unclassified sections of Harris Street
- On the western footpath of Harris Street between Allen Street and Pyrmont Bridge Road when the clearway is not in operation (the historical reason for the narrower carriageway on this block is unclear)

Even where the City of Sydney has widened footpaths on the unclassified sections of Harris Street, walking space still frequently and regularly achieves LOS F where tree plantings consume footpath space.

Elsewhere on Harris Street, walking space level of service never reaches the minimum standard C, instead varying between D and F. Most footpaths rate at best LOS E, which the *Walking Space Guide* states "coincides with most people expressing a desire to avoid the area". This is borne out in the surveyed walking flows on Harris Street, which are low on the classified sections with little walking space, but which double on the unclassified sections of the street which have ample walking space. A lack of walking space is evidently stopping people from choosing to walk along Harris Street.

Table 9 walking space along Harris Street

Max. people per hour	Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
#185	Broadway Thomas Street	Western	(middle) 2.75 (northernmost) 3.95	1.40	Traffic	E-F
		Eastern	(southernmost) 2.65	1.60	Timed clearway	F
	Thomas Street Ultimo Road	Western	7.30	1.30	Traffic	A
	Ultimo Road Mary Ann Street	Western	2.70	1.20	Traffic	F
		Eastern	2.90	1.05	Traffic	F
185	Mary Ann Street MacArthur Street	Western	2.70	1.25	Timed clearway	E-F
		Eastern	3.05	1.25	Timed clearway	D-F
#195	MacArthur Street William Henry Street	Western	2.75	1.20	Timed clearway	E-F
		Eastern	(currently closed)		Timed clearway	
205	William Henry Street Quarry Street	Western	(historical) 2.95 (new development) 4.00	^1.45	Timed clearway	D-F
		Eastern	(pool) 6.20 (middle) 3.70 (northernmost) 2.75	1.40	Traffic	A-F
#175	Quarry Street Fig Street	Western	2.75	^1.25	Timed clearway	E-F
		Eastern	2.70	0.90	Timed clearway	E-F
145	Fig Street Allen Street	Western	2.75	1.10	Timed clearway	E-F
		Eastern	2.80	0.95	Traffic	D-F
#200	Allen Street Pyrmont Bridge Road	Western	4.10	^1.50	Timed clearway	B-E

Max. people per hour	Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
		Eastern	*4.00	*1.20	Parking	F
260	Pyrmont Bridge Road Miller Street	Western	4.10	^1.35	Parking	B-E
		Eastern	3.95	1.70	Parking	B-F
415	Miller Street John Street	Western	3.95	1.80	Parking	C-F
		Eastern	4.10	1.20	Parking	C-F

*On the eastern footpath of Harris Street between Allen Street and Pyrmont Bridge Road, a rain garden has been planted in the middle of the footpath, yielding walking space of 1.20 and 1.60 metres on either side
^kerb stone is 0.3 metres at this location
#interpolated from neighbouring survey sites

4.1.2 Bulwara Road

The City of Sydney has not surveyed walking flows on Bulwara Road. Footpaths on Bulwara Road are assumed to qualify as Type 2 footpaths[1] according to the land use guidelines given in Transport for NSW's *Walking Space Guide*.

The results for Bulwara Road, provided in Table 10, are even worse than for Harris Street. LOS F is the norm along Bulwara Road, with only some stretches reaching E. This level of service represents an urgent intervention trigger according to the *Walking Space Guide*.

Table 10 walking space along Bulwara Road

Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
Mary Ann Street MacArthur Street	Western	1.50	0.40	Cycling	F
	Eastern	1.50	0.40	Parking	F
MacArthur Street William Henry Street	Western	3.05	1.15	Parking	A-D
	Eastern	1.50	0.60	Parking	F
William Henry Street Quarry Street	Western	1.80	0.50	Parking	E-F
	Eastern	1.80	0.50	Traffic	F
Quarry Street Fig Street	Western	1.80	0.50	Parking	E-F
	Eastern	1.80	0.50	Traffic	F
Fig Street Allen Street	Western	(southernmost) 1.45 (middle) 4.35 (northernmost) 0.00	N/A	Parking	A-F
	Eastern	(southernmost) 2.35 (middle) 0.00 (northernmost) 1.40	N/A	Traffic	F
	Western	1.60	0.95	Traffic	F

[1] Footpath types range from 1-5 and classify footpaths according to maximum walking volumes measured over five-minute intervals and expressed in people per hour

Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
Allen Street Pyrmont Bridge Road	Eastern	1.50	N/A	Parking	F
Pyrmont Bridge Road Miller Street	Western	1.85	N/A	Parking	E
	Eastern	1.55	1.00	Parking	F

4.1.3 Jones Street

The City of Sydney has not surveyed walking flows on Jones Street. Footpaths on Jones Street are assumed to qualify as Type 2 footpaths according to the land use guidelines given in Transport for NSW's *Walking Space Guide*. On the section of street measured for this report, trees are planted in a continuous verge rather than in discrete pits. As reported in Table 11 below, walking space is currently sufficient on the eastern side of Jones Street between Fig Street and Quarry Street.

Table 11 walking space on Jones Street

Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
Fig Street Quarry Street	Eastern	2.30	N/A	Planting; parking	C

4.1.4 Wattle Street

The City of Sydney has not surveyed walking flows on Wattle Street. Footpath types are given below according to the land use guidelines given in Transport for NSW's *Walking Space Guide*.

As reported in Table 12 below, there is too little walking space on the western side of Wattle Street near Bridge Road and this must be urgently addressed. The level of walking space on the eastern side does not currently qualify as an intervention trigger, but this should be monitored closely in case walking volumes change in future: should the footpath move from Type 2 to Type 3, the same walking space would rate as LOS F and qualify as an urgent intervention trigger.

Table 12 walking space on Wattle Street

Assumed footpath type	Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
Type 3	Fig Street Bridge Road and Pyrmont Bridge Road	Western	(southernmost) 2.15 (northernmost) 2.90	N/A	Traffic	F
Type 2		Eastern	3.65	1.35	Traffic	D

4.1.5 Pyrmont Bridge Road

The City of Sydney has not surveyed walking flows on Pyrmont Bridge Road. Footpath types are given below according to the land use guidelines given in Transport for NSW's *Walking Space Guide*. As reported in Table 13 below, walking space on both sides of Pyrmont Bridge Road west of Harris Street currently rates LOS F and represents an urgent intervention trigger.

Table 13 walking space on Pyrmont Bridge Road

Assumed footpath type	Bounded by	Street side	Width of road-related area (metres)	Indicative tree pit width (metres)	Kerbside use	Walking space LOS
Type 3	Wattle Street Bank Street	Northern	3.65	N/A	Traffic	F
Type 2	Wattle Street Bulwara road	Southern	3.10	N/A	Traffic	F

Mott MacDonald has surveyed walking space on Pyrmont Bridge Road east of Harris Street as part of the Sydney Metro West Active Transport and Public Domain Study and found LOS E or F on all footpaths.



Photograph 3 (left) narrow footpaths and footpath clutter on Harris Street make it uncomfortable even for couples to navigate together, let alone two strangers passing each other in opposite directions

Photograph 4 (right) pedestrians (including a mother with a pram, in the background) walk on the carriageway down Bulwara Road, where bin day has made the footpath impassable; meanwhile a homemade sign attached to a street tree implores drivers to slow down

The road reserves on Harris Street, Wattle Street, and Pyrmont Bridge Road present a good opportunity to reallocate space to people walking. The narrow road corridor on Bulwara Road may at first seem like a constraint, but the sense of enclosure helps to signal to drivers to slow down, creating good preconditions for a shared zone, and the existing vehicle traffic lane is surprisingly generous, allowing for potential footpath widening in future.

4.2 Infrequent crossing opportunities

Transport for NSW's *Network Planning in Precincts Guide* recommends that crossing opportunities are provided at least every 130 metres. Most blocks south of Allen Street are approximately 180 metres long and blocks north of Allen Street extend up to 260 metres long. As such, the block pattern on the peninsula does not provide sufficient crossing opportunities. On streets with limited vehicular traffic, crossing can be made informally at any point. On streets with higher vehicular traffic, uncontrolled crossing becomes slow and unsafe and/or requires long detours. In these locations, formal interventions are required to improve crossing safety and maintain a walkable network structure.

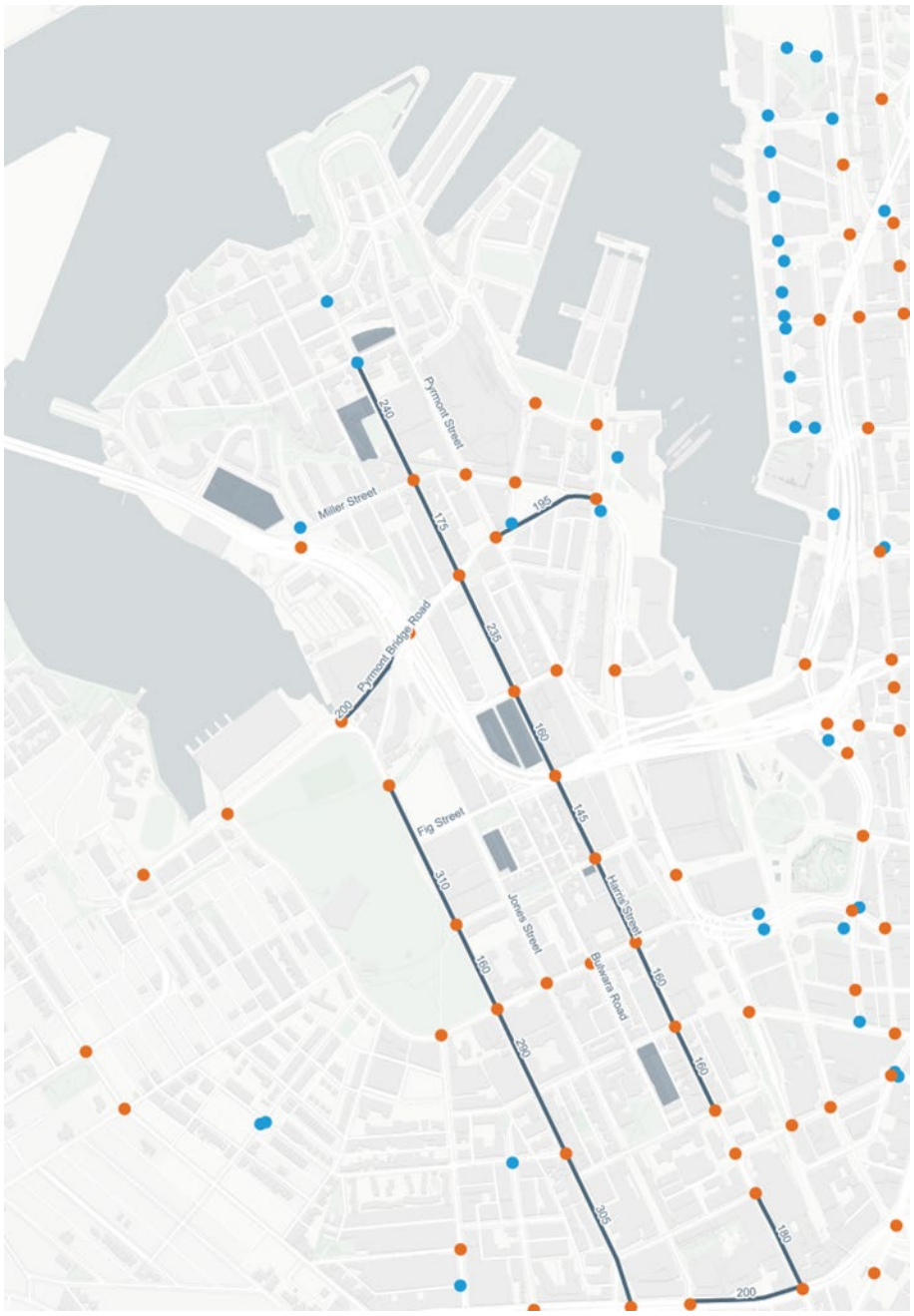


Figure 20 overly long distances between controlled crossings on streets with higher vehicle volumes

Legend

- Signalised crossing
- Zebra crossing
- > 130m between crossings
- Property for rezoning

4.3 Missing crossings at signalised intersections

Several signalised intersections on the peninsula are missing pedestrian crossings on all legs. These are mapped in Figure 21 below. Missing crossings can severely increase delay for people walking and increase the risk of unsafe behaviour, especially at signals with long cycle durations.



Photograph 5 intersection of Harris Street and Allen Street

In 2023, Transport for NSW removed the signalised pedestrian crossing of Harris Street south of Allen Street and erected fencing to obstruct people crossing in order to increase the capacity of the intersection. This design no longer complies with the objectives and priorities of the *Traffic Signal Design Standard (TS 02670.2)*

On Wattle Street, this includes the intersections with:

- Quarry Street
- Pyrmont Bridge Road

On Harris Street, this includes the intersections with:

- Quarry Street
- Fig Street
- Allen Street

On Miller Street, this includes the intersection with:

- Bank Street

On Pyrmont Street, this includes the intersection with:

- Murray Street and Allen Street



Figure 21 signalised intersections where pedestrian crossings are not provided on all legs

Legend

- Signalised intersection missing a pedestrian crossing
- Property for rezoning

4.4 Multiple-stage crossings at signalised intersections

Several signalised intersections on the peninsula include corner islands and slip lanes. This intersection layout is designed to reduce delay for people driving at the expense of people walking (and, where crossings align with shared paths, people cycling too). People walking and cycling must cross one street in two stages, potentially waiting on corner islands that are too small to safely store them between stages, putting them at increased risk of road trauma. This physical and temporal allocation of road space to people driving in preference to people walking conflicts with government visions for the area as a highly walkable precinct.

Multiple-stage crossings can be found at the intersection of:

- Wattle Street and Bridge Road
- Wattle Street and Broadway
- Harris Street and Ultimo Road
- Darling Drive and Murray Street

- Pyrmont Bridge Road and Western Distributor on- and off-ramps

Multiple-stage crossing is also required when pedestrian crossings are missing on legs of signalised intersections, as detailed in section 4.3 above.



Figure 22 signalised intersections with multi-stage crossings (slip lanes and corner islands)

Legend

- Signalised intersection incorporating a two-stage crossing
- Property for rezoning

4.5 Excessive crossing delay for people walking and cycling

Figure 23 below shows that delay at signalised intersections in the area is generally high for people walking during the peak. The data is collected from manual signal observations which may underestimate the real maximum signal cycle duration because the signalling system used in NSW, SCATS, is adaptive and can change from cycle to cycle, so the results reported below should be considered a conservative appraisal of barriers to walking in the area during peak times.



Figure 23 maximum observed traffic signal cycle durations

Legend

Maximum observed cycle duration (seconds)

- < 45
- 50-70
- 70-90
- 90-110
- 110-130

In *'A City for Walking' Strategy and Action Plan* the City of Sydney recommends that people walking wait at most 45 seconds to cross at traffic signals and ideally wait no longer than 30 seconds. As illustrated in Figure 23 above, only 2 out of 36 signals in the area currently satisfy this recommendation.

Austroads provides a level of service framework[2] for evaluating the frequency of crossing opportunities for people walking. This framework encompasses both the spatial and temporal dimensions of frequency: the spacing between crossing opportunities, and the time you must wait before using a crossing opportunity. The levels of service correspond to:

- A: opportunities to cross align with key desire lines; no wait time
- B: opportunities to cross close to key desire lines; small to moderate wait times
- C: opportunities to cross within reasonable distance of key desire lines; moderate wait times
- D: Opportunities to cross not close to key desire lines; moderate to long wait times
- E: Opportunities to cross are an unreasonable distance from key desire lines; long wait times
- F: No opportunities to cross; excessive wait times

Along Harris Street, maximum recorded signal cycle durations vary between 80 and 120 seconds. Given distances of around 180 metres between crossing points, this results in an Austroads LOS rating of D- for pedestrian crossing delay and detour (with two short blocks towards the southern end achieving D+). In the 1.75km stretch of street along which intersections are signalised, 24% of total walking travel time would be spent waiting at traffic lights during peak hours.

Along Wattle Street, controlled crossings are located extremely far apart, with three 300-metre stretches and two 150-metre stretches. These stretches rate between Austroads LOS D- and E- for pedestrian crossing delay and detour.

On Pyrmont Bridge Road, cycle times vary between 75 and 125 seconds, and distances between crossing points vary between 100 and 215 metres. This results in Austroads LOS ratings between D+ and E- for pedestrian crossing delay and detour. In total, 30% of walking time along Pyrmont Bridge Road would be spent waiting at traffic lights during peak hours.

On William Henry Street, distances between crossings are shorter (75-95 metres) but cycle durations are long (100-120 seconds), resulting in Austroads LOS between D+ and D- for pedestrian crossing delay and detour.

This presents a significant barrier to people currently walking in the precinct, but it also represents a significant opportunity for improvement. Halving signal cycle times and introducing pedestrian countdown timers could increase the distance people can walk by 12-15% within the same amount of time, increasing access to employment, education, shops, and cafes without any expenditure on physical infrastructure.

Nevertheless, on Harris Street the distances between crossing points must also be reduced if LOS above D is to be achieved. Mid-block crossings aligned with desire lines must be provided to achieve LOS C or higher.

[2] David Green and Ian Espada. 2015. *Level of service metrics for network operations planning*. Research report AP-R475-15. Austroads.

Figure 24 below shows that people walking in the area are most likely to be hit by a car at a signalised intersection. While the exact causes of each crash are not recorded in the publicly available data, it reinforces the need to do everything possible to make signalised intersections safer for people walking. Long wait times are one of the biggest motivators for people walking to cross signalised intersections during the pedestrian red interval when there are conflicts with vehicles.



Figure 24 crashes injuring or killing people walking, 2020-2024

Legend

- Crash degree
- Fatality
- Serious injury
- Moderate-minor injury
- Classified road

4.6 Poor walking network legibility

The topography and development of the peninsula over time have led to disjunctions and legibility issues for east-west walking connections. Figure 25 provides a high-level overview of these connections. These impacted walking corridors intersect with motorway or light rail infrastructure, which block through-sightlines, require changes in grade, and cause circuitous routes. Additionally, when walkways are available, they lack formal names and wayfinding, further complicating navigation and usage.



Figure 25 street network legibility issues

Legend

— Walking link with poor legibility

The links mapped in Figure 25 above are detailed in Table 14 below.

Table 14 illegible walking links

Map identifier	From	To	Issues
1	Jones Street	Pyrmont Bridge Road	Obscured sight lines Change in grade Circuitous route
2	Bulwara Road south of Allen Street	Bulwara Road north of Allen Street	Obscured sight lines Circuitous route
3	Pyrmont Street	Iron Wharf Place	Obscured sight lines Multiple changes in grade Circuitous route Connects to mid-block, not intersection Travels through private property
4	Harris Street at Fig Street	Tumbalong Boulevard	Obscured sight lines Change in grade Access via lift that may read as private property
5	Quarry Street	Tumbalong Park	Obscured sight lines Multiple changes in grade Circuitous route Travels through private property Closed during nighttime and for special events
6	Through-site link of Ian Thorpe Aquatic Centre	Moriarty Walk	Highly circuitous route
7	William Henry Street at Harris Street	Pier Street at Zollner Circuit	Obscured sight lines Colocation of private property (used for storage by Placemaking NSW) adjacent to stairs reduces legibility of public domain
8	Tumbalong Boulevard at Pier Street	Harbour Street at Pier Street	Obscured sight lines
9	Tumbalong Park	Liverpool Street	Obscured sight lines over pedestrian bridges due to curvature of bridges Misleading sight line to Liverpool Street as crossing is not supported at grade (although technically legal) Circuitous to access south-eastern side of Harbour Street
10	Tumbalong Boulevard underneath Western Distributor	Bathurst Street at Day Street	Obscured sightlines Changes in grade Circuitous route Access via stars and lift that may read as private property
11	Druitt Landing, Darling Harbour	Druitt Street	Obscured sightlines Changes in grade

Map identifier	From	To	Issues
			Lift access obscured from main thoroughfare Integration with Darling Park development reduces legibility of public domain
12	Pyrmont Bridge	Market Street	Obscured sightlines Change in grade Multiple changes in alignment
13	Pyrmont Bridge	King Street	Obscured sightlines Long curved link



Photograph 6 (left) the walking link to Pyrmont Street (through the pictured carpark) is entirely illegible from Iron Wharf Place

Photograph 7 (right) obscured sight lines and access away from clear paths of travel makes the walking link to Pier Street highly illegible, despite tidy wayfinding signage with small type

4.7 Lack of protected cycling infrastructure

The City of Sydney has made good progress in recent years building east-west cycling links across the peninsula. Separated cycleways on the Saunders Street-Miller Street-Union-Street corridor and on Mary Ann Street provide ample space for people cycling and provide good protection from vehicle traffic, making cycling an attractive option for "interested but concerned" adults.

However, there remains no separated north-south cycleway. To move along the major north-south axis throughout the peninsula, people cycling must either share footpaths with people walking (e.g. Wattle Street shared path) or vehicle traffic lanes with people driving. The best-connected streets in the network (Harris Street and Wattle Street) have ordinary speed limits of 50km/h, which create extremely dangerous conditions for vulnerable road users like cyclists. Other long streets on the north-south axis either end halfway along the peninsula (Jones Street), are severed from the parallel street network by the light rail corridor (Darling Drive) or make multiple crossings of motorway ramps and arterial roads (Bulwara Road, Pyrmont Street).

Highly connected streets like Harris Street, Wattle Street, and Pyrmont Bridge Road present an excellent opportunity for a well-connected cycling network that could achieve government visions for a cyclable precinct. They simply require safe, separated cycleways.



Photograph 8 (left) existing shared path infrastructure on Pyrmont Bridge Road is inappropriately narrow even for pedestrians to navigate, let alone pedestrians and cyclists in mixed traffic

Photograph 9 (right) lawn turned to dust by foot traffic indicates that the shared path adjacent to the signalised mid-block crossing of Wattle Street at the light rail stop is currently over capacity

4.8 Dangerous vehicle speed limits

The most important transport connections in the peninsula's street network also have the highest vehicle speed limits. High vehicle speeds prevent cycling, make uncontrolled crossing difficult and dangerous, conflict with the NSW Government's vision for zero road trauma, and conflict with the place contexts set out in the *NSW Speed Zoning Standard 2.0*.

Figure 26 shows that only four streets in the precinct (Paternoster Row, one block of Union Street, one block of Ada Place, and one block of Quarry Lane) have posted speed limits at 30km/h or lower: speeds at which a person walking is likely to survive a motor vehicle crash. On all other streets in the area, are above this threshold. Walking is the most common mode of transport for residents in the area (see section 3.2.2), and this level of risk is inconsistent with Transport for NSW's *2026 Road Safety Action Plan* which sets a goal of zero trauma on NSW roads.



Figure 26 probability of a person walking surviving a collision with a motor vehicle travelling at the posted speed limit

Probability of survival

Improbable

Probable

Property for rezoning

The issuance of the *NSW Speed Zoning Standard 2.0* presents an opportunity to reduce existing speed limits in line with the standard. Evidence[3] from Australia and Europe suggests that reducing urban speed limits from 50 to 40km/h as well as from 40 to 30km/h may reduce fatalities and serious injuries by as much as 40%.

[3] Austraods. 2025. *Keeping people safe when walking – stream 1: recommended pedestrian safety interventions*.

4.9 Unattractive east-west public transport connectivity

As illustrated in Figure 27 below, travelling between Pyrmont and the city centre to the east is in many cases just as fast (or faster) on foot as it is by public transport. This reflects filtered permeability (Pyrmont Bridge), circuitous public transport routes, and frequent stopping patterns.

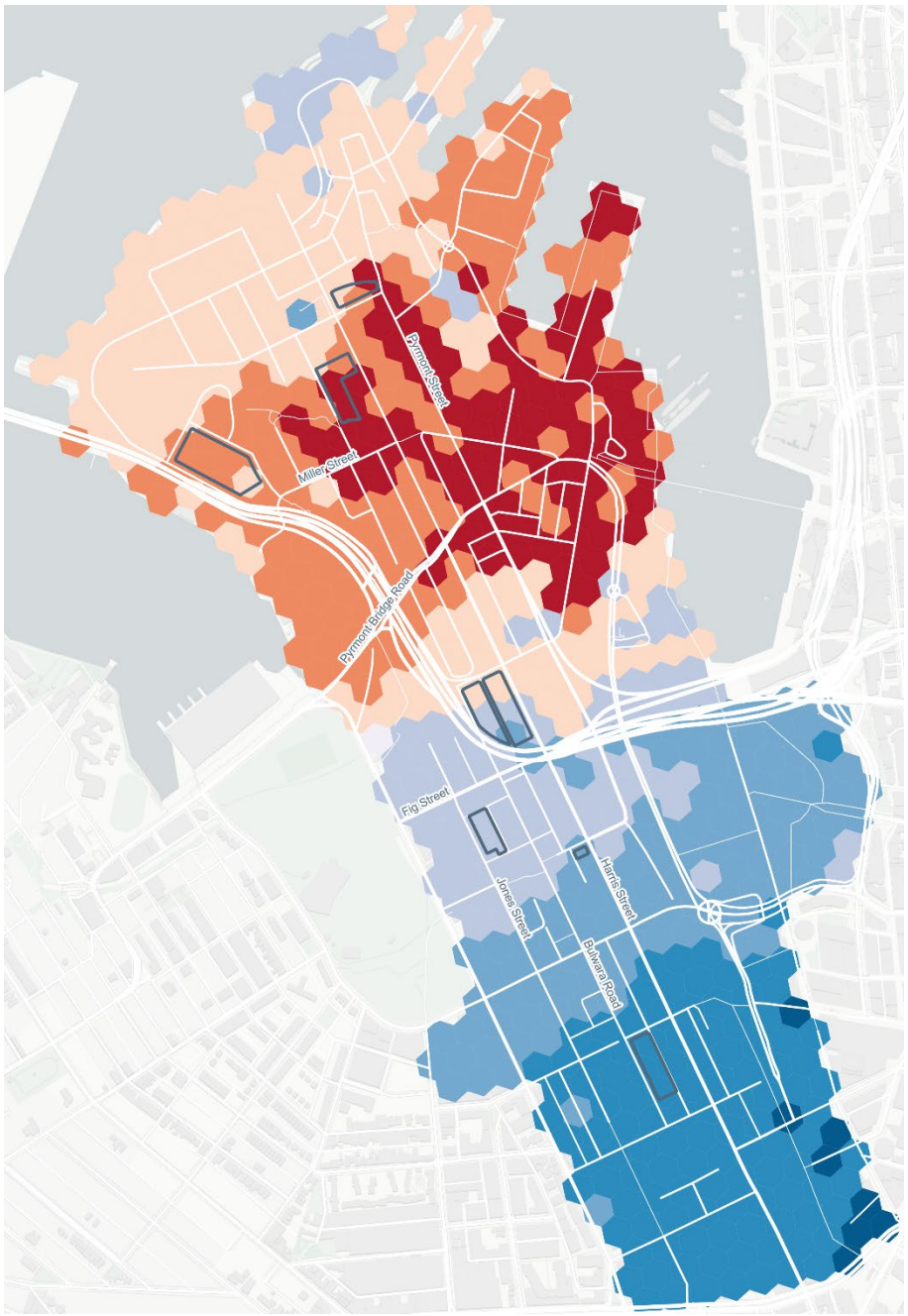


Figure 27 public transport journey times to Hunter Street compared to walking journey times

Legend

Walking faster than public transport

50-100% of the time

25-50% of the time

1-25% of the time

PT journey time as % of walk journey time

80%

70%

60%

50%

As illustrated in Figure 18 further above, this is expected to change significantly with the introduction of Sydney Metro West services from Pyrmont Station. The redevelopment of the sites as part of the stage 2 rezoning, are unlikely to trigger the need for public transport service changes beyond the metro under construction and the bus route connecting to The Bays proposed in the *Pyrmont Peninsula Place Strategy*.

5. Vision, objectives, and validation framework

5.1 Established vision and objectives

Both state and local government have established visions for their jurisdictions as a whole as well as the Pyrmont-Ultimo peninsula specifically. A consensus is evident in these visions for a reduction in driving and space for driving, an increase in walking and cycling and space for walking and cycling, and a reduction in all kinds of road trauma.

5.1.1 Established vision

State government

Transport for NSW's strategy *Connecting NSW* establishes the access and transport vision for NSW. The vision includes the following key transport outcomes:

- Net zero growth in vehicle kilometres travelled (p. 28), including a reduction in vehicle kilometres travelled in areas with good public transport access in order to offset expected growth in greenfield areas (p. 29)
- Reallocation of existing road space to active transport (p. 27)
- Zero trauma (p. 11), supported by safer vehicle speeds to encourage walking (p. 13)

Pyrmont Peninsula Place Strategy

The *Pyrmont Peninsula Place Strategy* describes an all-encompassing vision for the area that is centred on land use and built form characteristics. Several elements of the vision pertain to movement and its interaction with place:

- The precinct will be sustainable (p. 21)
- Vehicle parking will be decentralised in the precinct (p. 21)
- People will use public transport, walk or cycle to get to and from the peninsula (p. 22)
- The precinct will host a "richer, broader tree canopy" (p. 21)

Pyrmont-Ultimo Transport Plan

The *Pyrmont-Ultimo Transport Plan* does not set out a transport vision for the area; rather it sets out several transport objectives to support the directions in the *Pyrmont Peninsula Place Strategy*. These are detailed in section 5.1.2

Local government: City of Sydney

A city for walking, cycling and public transport is one of the City of Sydney's 10 strategic directions laid out in its *Community Strategic Plan*. The plan envisions a walkable city where walking is safer, more convenient, and enjoyable; a city where walking and cycling are the first choice for short trips.

The *Community Strategic Plan* envisions street capacity upgrades not through expansion, but through densification. The plan sees the width of existing road corridors as fixed, and envisions change by reallocating space to place activity, walking, and cycling and away from vehicle traffic and parking lanes.

The *Community Strategic Plan* acknowledges that no city has built its way out of congestion. It departs from a mobility paradigm and adopts an access paradigm, envisioning a future where slow movement is acceptable—desirable, even—as long as access remains sufficient.

5.1.2 Established objectives

Supporting the broad visions established by the state and local government planning documents described above are a suite of more specific objectives that describe specific transport outcomes to be achieved.

Local planning direction 5.1 integrating land use and transport

In February 2023, the NSW Minister for Planning issued local planning direction 5.1 *integrating land use and transport*. The objectives of this direction are:

- improving access to housing, jobs and services by walking, cycling and public transport, and
- increasing the choice of available transport and reducing dependence on cars, and
- reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and
- supporting the efficient and viable operation of public transport services, and
- providing for the efficient movement of freight

Pyrmont Peninsula Place Strategy

The *Pyrmont Peninsula Place Strategy* includes several directions that pertain to movement and its interaction with place:

- Deliver through-site links within new developments (pp. 24, 31)
- Transform the southern end of Harris Street into a high amenity pedestrian environment (p. 27)
- New crossings, ramps, and lifts at existing barriers to walking movement (p. 31)
- Achieve 25% canopy cover to improve walkability (p. 32)
- Prioritise walking and cycling for local trips by increasing connectivity and making it easier to cross busy roads (pp. 31, 32)
- Deliver separated cycleways on Jones Street, Pyrmont Street, Union Street, Bridge Road, Quarry Street, and Maryann Street (p. 31), as per the City of Sydney's bike network plan
- Create a new street-based transport route on Harris Street connecting The Bays with Central (pp. 27, 31)
- Adopt lower maximum parking rates for residential and commercial land uses (p. 31)
- Decouple parking from development (p. 31)

Additional objectives are identified in Appendix 1: previously recommended actions.

Pyrmont-Ultimo Transport Plan

Key objectives in the *Pyrmont-Ultimo Transport Plan* include:

- "Ensure safe, convenient and legible access to local destinations…by public transport, walking and cycling" (p. 21)
- "Discourage private vehicles and car parking, where appropriate, while enabling freight and servicing access supporting local centres" (p. 21)
- "Reduce through [vehicle] traffic on local streets and improve walkability of key links to create quality dwelling places for creativity, culture and heritage" (p. 21)
- "Improve the safety and attractiveness of active transport by reallocating road space and prioritising walking and cycling as the preferred mode for trips to, from and within the precinct" (p. 21)
- "Reallocate space to facilitate Green Streets, increased tree canopy to create cooler urban environments and water sensitive urban design" (p. 21)

Additional objectives are identified in Appendix 1: previously recommended actions.

City of Sydney Community Strategic Plan

The City of Sydney's Community Strategic Plan outlines several transport objectives for the City:

- All residents should be able to access their daily needs within a 10-minute walk by 2030
- All footpaths will provide sufficient space for people to walk; where necessary, this may be achieved by reallocating road space from vehicles to walking space
- People will have frequent, universally accessible opportunities to cross the street
- People walking will have to wait no more than 45 seconds to cross a signalised crossing
- Waiting time will make up 15% or less of total walking journey time
- 9 out of 10 workers in the city centre will walk, cycle, or take public transport to work by 2050
- 2 out of 3 workers in the rest of the City will walk, cycle, or take public transport to work by 2050
- Tree canopy cover will reach 27% by 2050

5.2 Study vision, objectives, and validation metrics

5.2.1 Study vision

The transport vision for Pyrmont stage 2 rezoning, prioritises sustainable, transited-oriented developed leveraging on existing and improved walking and cycling connections and new metro station. A precinct where all residents and visitors easy access to their daily needs, responding to its land use character and intensification, utilisation existing space to move more people with a reduction in the need to travel by private vehicle.

5.2.2 Study objectives and validation metrics

In Table 15 below we translate the study vision above into discrete objectives and propose metrics that can be used to test our recommendations against these objectives.

Table 15 study objectives and corresponding validation metrics

Study objective	Study validation metric
Accommodate growth in trip generation by increasing the space efficiency of the existing street network	Vehicle trip generation estimates of proposed change Capacity of each street in people per hour
Enable shorter trips by creating street environments with high place quality that support local businesses	Space available for outdoor dining Walking space level of service
Induce walking trips and increase walking mode share by increasing walking space	Walking space level of service
Improve walking access within existing land use patterns by making crossing quicker	Austroads crossing delay and detour level of service
Improve access to Wentworth Park by walking and cycling	Austroads crossing delay and detour level of service
Maintain access by public transport	Consider likely impacts of recommendations on public transport journey travel times
Eliminate fatalities and serious injuries on roads and streets	Alignment with safe systems pillars and/or evidence that proposed interventions reduce the risk of fatalities and serious injuries

.

6. Rezoning proposal

In 2022, the Minister for Planning and Public Spaces issued a ministerial direction requiring any planning proposals for the Pyrmont peninsula to align with the *Pyrmont Peninsula Place Strategy*. In 2025, the City of Sydney endorsed the *Ultimo Pyrmont Planning Proposal PP-2024-376* (stage one) that will facilitate approximately 1,269 new dwellings on the peninsula.

During consultation on stage one of the proposal, several landholders suggested other properties that were not included but could be rezoned. The stage two Planning Proposal responds to this feedback, considering seven sites and allows for up to 1,300 further dwellings on the peninsula, with almost half of that gain concentrated in the Saunders Street site and another three sites contributing most of the remaining gain.

The City of Sydney has prepared proposed options for each site; these plans have been used to support the development of this precinct transport study. The following section describes the proposed controls and provides estimates of net dwelling gain for each site.

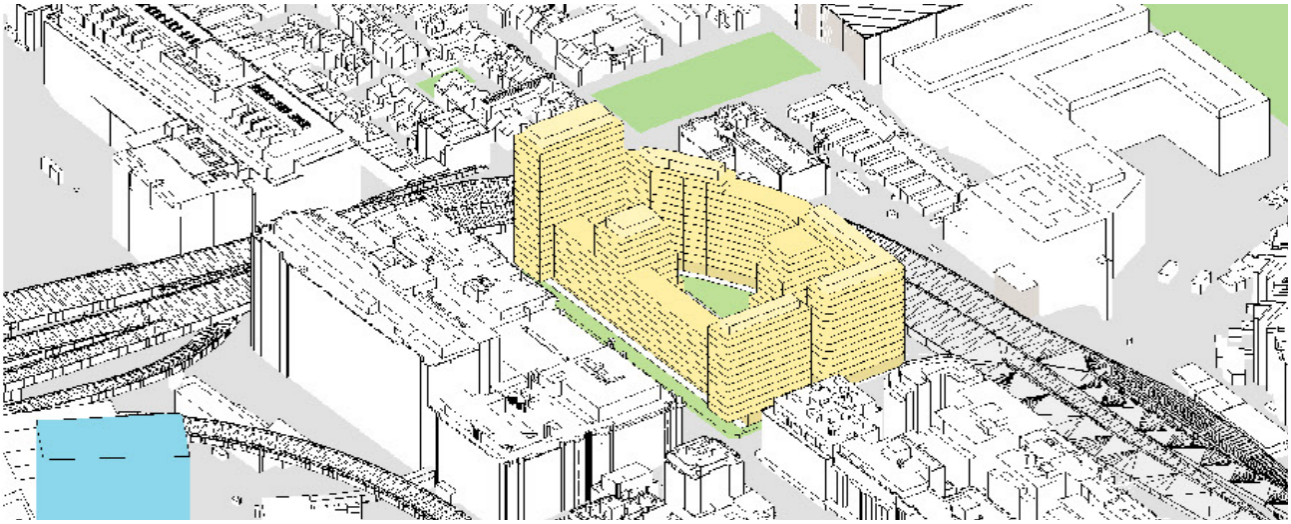
1-33 Saunders Street Pyrmont



Drawing 1 view of proposed controls at 1-33 Saunders Street (forms in orange)

Existing development	Proposed change	Estimated net dwelling gain
Multi-storey commercial development	Permission for mixed use. Planning for two residential towers fronting Saunders Street, plus three hotel forms fronting Bank Street and the Western Distributor. Several through-site links to be provided.	520

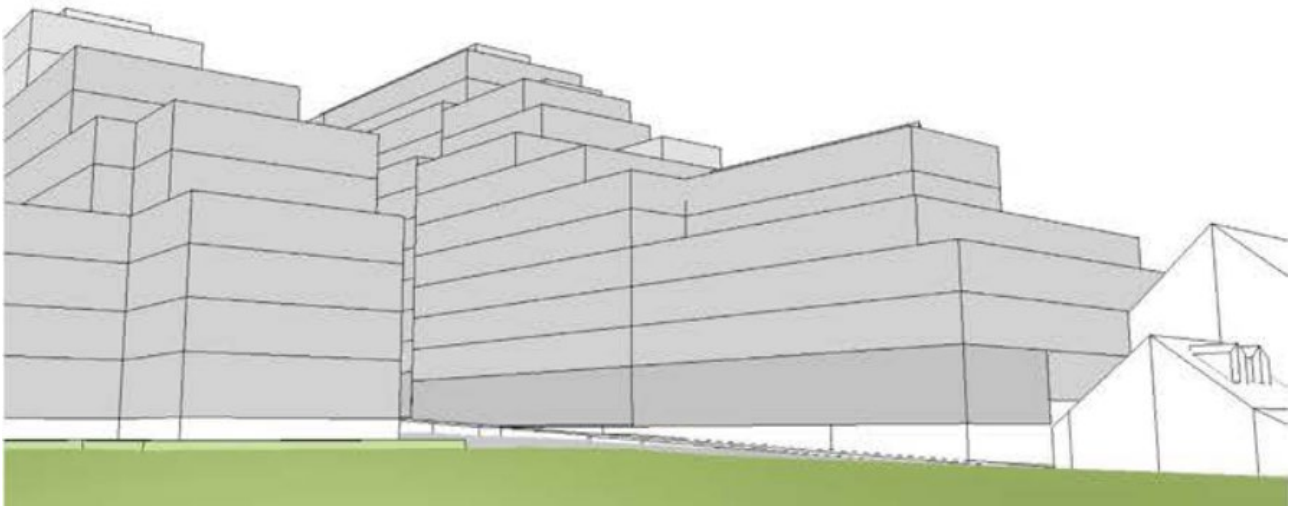
313 Harris Street Pyrmont and 1-19 Allen Street Pyrmont



Drawing 2 view of proposed controls at 1-19 Allen Street and 313 Harris Street (form in yellow)

Existing development	Proposed change	Estimated net dwelling gain
One strata-titled shop-top housing development fronting Harris Street and one strata-titled residential flat building on Bulwara Road	Retain shop-top housing typology on Harris Street but increase land use intensity. Higher forms planned for property boundary fronting the Western Distributor and lower forms fronting Harris Street.	245

344 Bulwara Road Ultimo

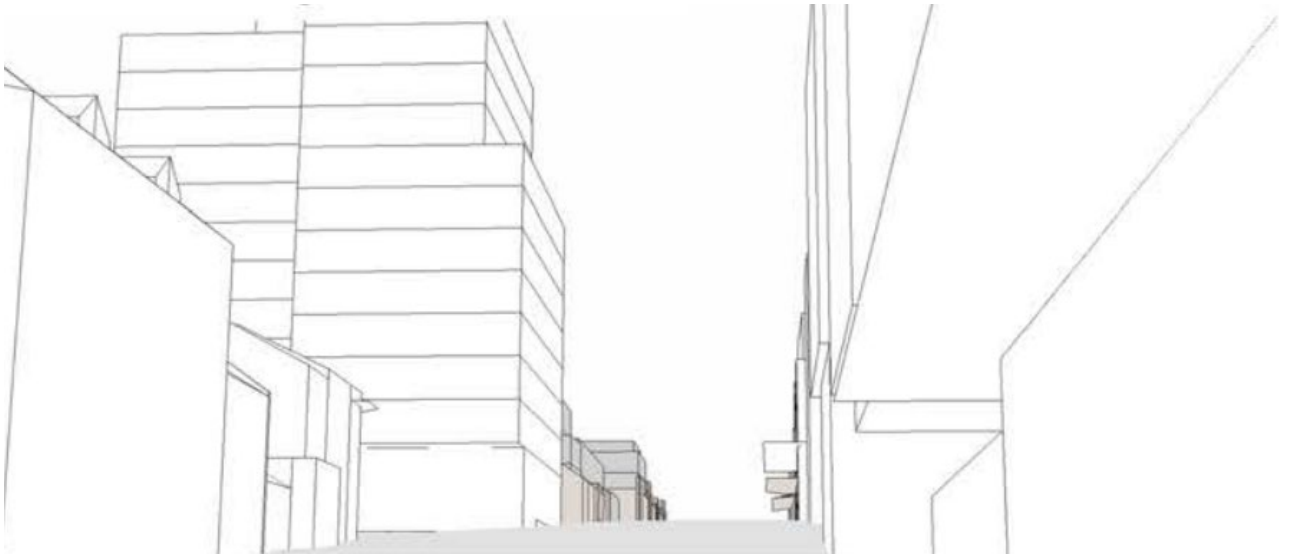


Drawing 3 view of proposed controls at 344 Bulwara Road (form on right) looking north-east across Mary Ann Street Park

Existing development	Proposed change	Estimated net dwelling gain
Multi-storey residential flat building	Mixed uses permitted. Potential for ground-floor commercial use. Residential development expected above. Built form ranges from four storeys closer to the park to 12 storeys	95

Existing development	Proposed change	Estimated net dwelling gain
	on the northern half. Three-metre setback from Bulwara Road in order to increase space for walking and place activity.	

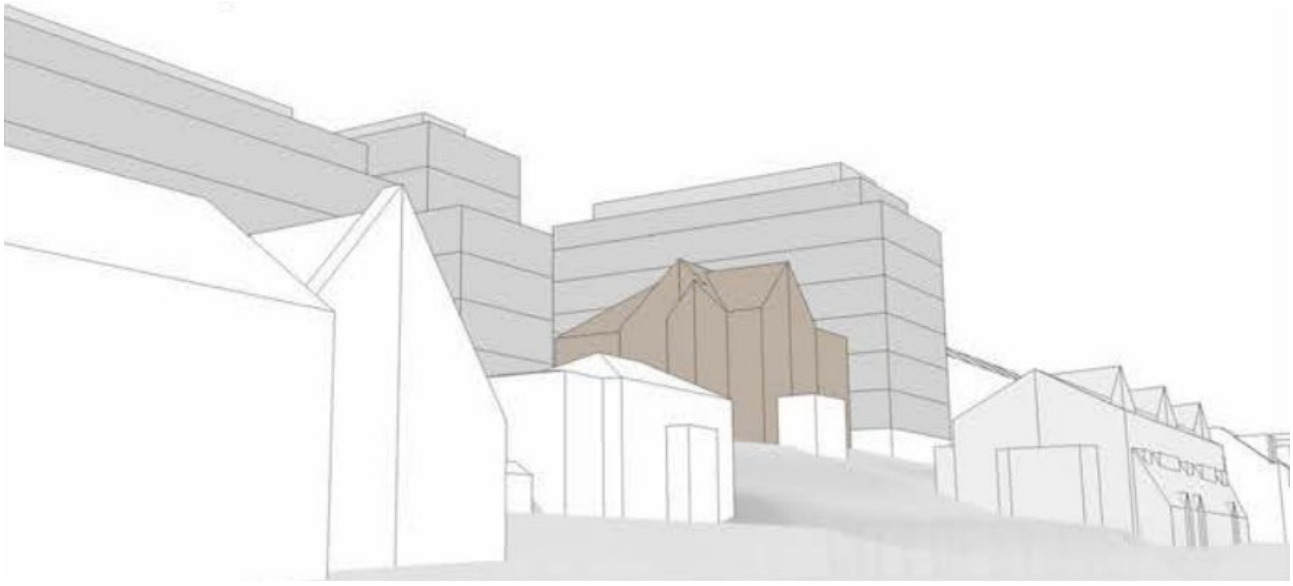
56 Harris Street Pyrmont



Drawing 4 view of proposed controls at 56 Harris Street, looking south along Harris Street

Existing development	Proposed change	Estimated net dwelling gain
Five to seven-storey residential flat building operated as affordable housing by City West	Increase the permitted building height up to 8-12 storeys on the southwestern end of the site fronting Harris Street.	75

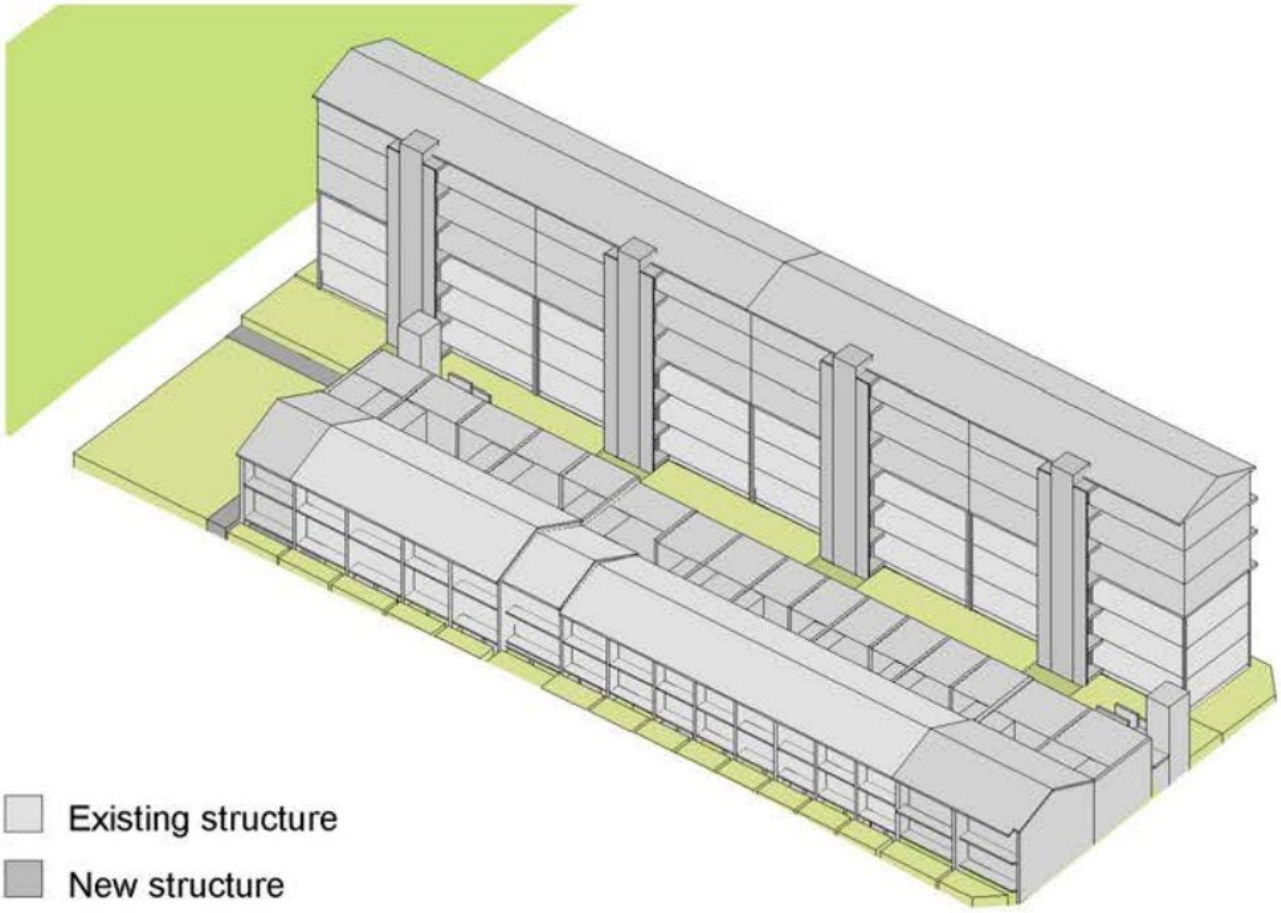
26-52 Mount Street Pyrmont



Drawing 5 view of proposed controls at 26-52 Mount Street looking north-west from Harris Street

Existing development	Proposed change	Estimated net dwelling gain
Two-storey attached dwellings operated as social housing by Homes NSW	Permission for five-seven storey forms with consideration given to impact on existing heritage building on site and neighbouring properties. Through-site link to be provided.	70

1-7 Henry Avenue Ultimo



Existing development	Proposed change	Estimated net dwelling gain
Three-storey residential flat building and 13 terraces operated as social housing by Homes NSW	Reallocate existing parkland south of the terrace to north of the terrace. Permit six storeys in place of existing three-storey form. Extend terrace at rear and convert into single-storey apartments.	35

463-467 Harris Street Ultimo



Drawing 6 view of proposed controls for 463-467 Harris Street looking south along Harris Street

Existing development	Proposed change	Estimated net dwelling gain
Multi-storey building in mixed-use zone	Seven-storey form to Harris Street. Two-three storey form to Kirk Street, enveloping a courtyard in the middle.	10

7. Transport response

In this section we propose 21 transport interventions that respond to the proposed stage two rezoning, identified challenges, and support the established vision for the peninsula.

We focus our transport responses in this precinct transport study on placed-based responses centred around each site. However, sites cannot be assessed in isolation from surrounding transport networks, so wider precinct-level responses are proposed for the following areas:

- Harris Street corridor
- Bulwara Road corridor
- Bank Street precinct
- Jones Street
- Wentworth Park

The extent of these areas is mapped below in Figure 28.

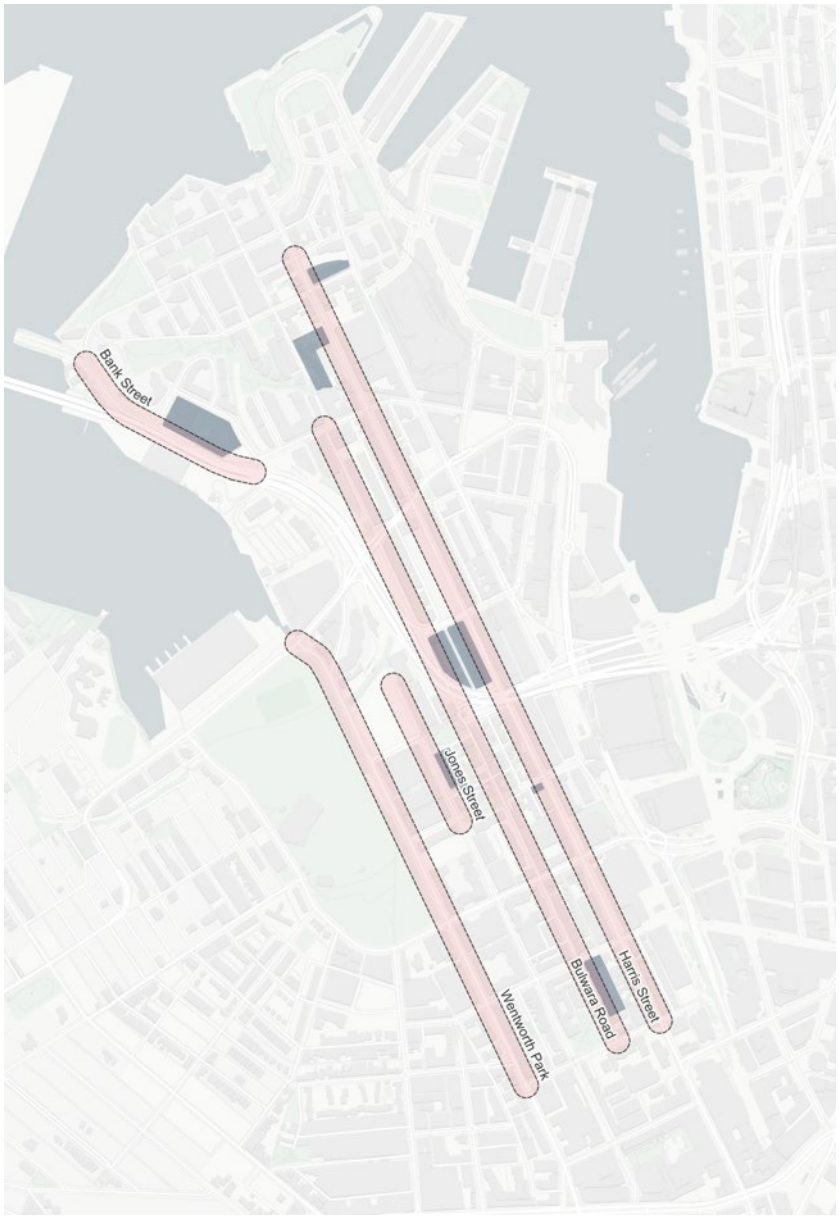


Figure 28 response precincts

The proposed responses are mapped in Figure 29 below and detailed in the following sections. The numbering corresponds to the action numbers tabulated in Table 24. Note that precinct-wide responses such as speed zone review, signal phasing redesign, and footpath extensions are not included on the map below. Additionally, action no. 19 (install a new signalised crossing of Wattle Street between the light rail viaduct and Quarry Street) has not been mapped as the exact location is contingent on the final design for the Wentworth Park redevelopment.

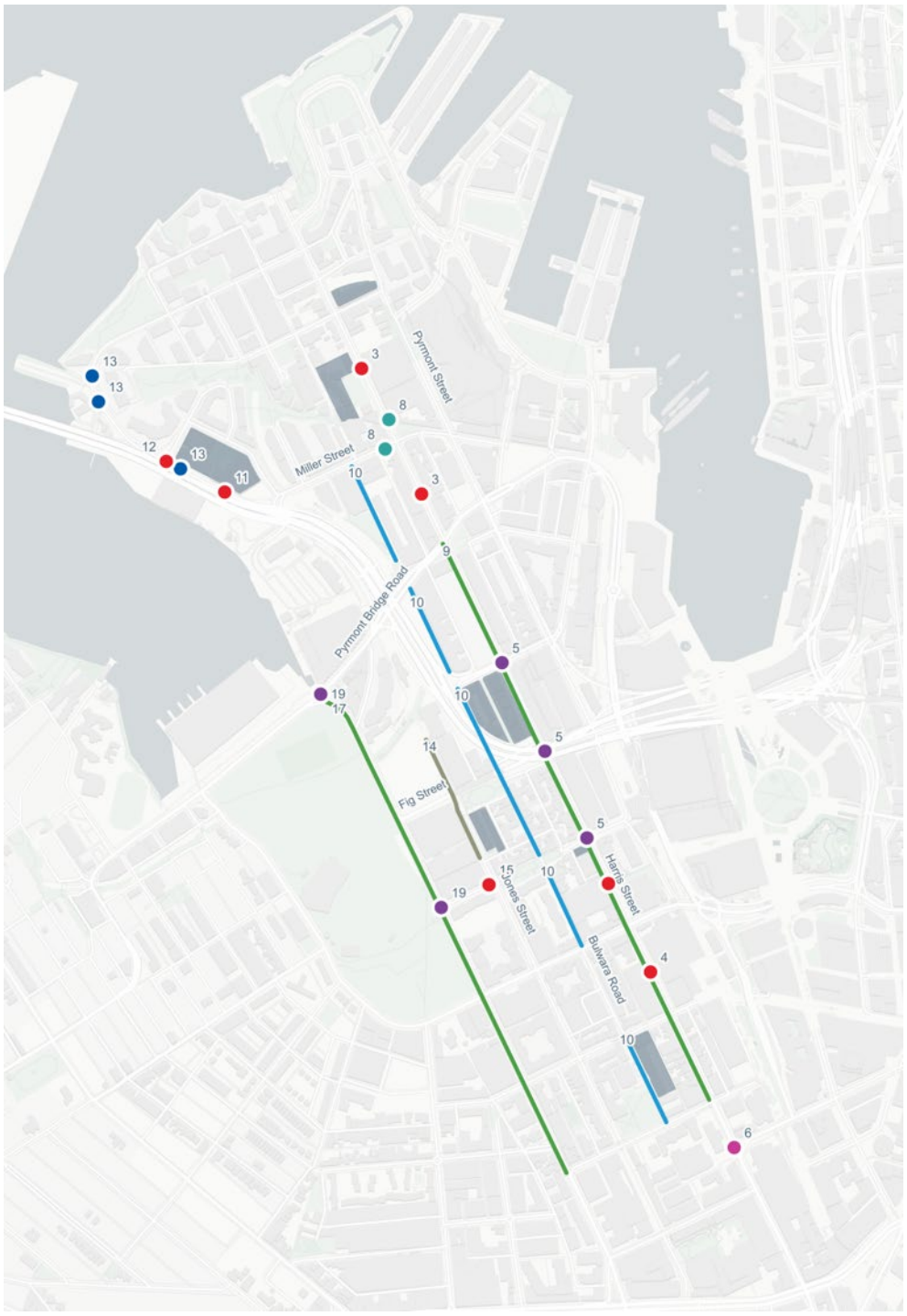


Figure 29 recommended transport responses

Legend

- Shared zone
- Footpath
- Cycleway
- Wombat crossing
- Missing signalised crossing
- Single-stage crossing
- Kerb extension
- Slow point

Additional recommendations not mapped include speed zone reductions, signal phasing redesign, footpath extensions, and a new crossing of Wattle Street between the light rail viaduct and Quarry Street

These recommendations should be read in conjunction with recommendations made by previous studies, namely the Pyrmont Peninsula Place Strategy and the Pyrmont-Ultimo Transport Plan. Those recommendations are summarised in Appendix 1 of this study.

7.1 Harris Street corridor

Four of the seven sites proposed for the stage 2 rezoning front Harris Street, and the site at 344 Bulwara Road is situated one block behind it. Moreover, Harris Street is relevant to all sites proposed for rezoning, and across the peninsula, as it is the only street that runs the length of the peninsula, connecting Broadway and George Street to the harbour and serving a critical central role in the network topology of all transport modes. It also functions as the primary high street on the peninsula. For these reasons, we propose responses along the length of the corridor.

We classify Harris Street as it currently exists as a high street with a consistently high place function and varying levels of movement function. Specifically, we classify Harris Street as:

- A destination high street north of Pyrmont Bridge Road
- An arterial high street south of Pyrmont Bridge Road

We note that both classifications have a high place function regardless of their different movement functions, and walking, cycling, and public transport movement functions must be prioritised to realise established government visions for the peninsula.

The City of Sydney envisions Harris Street south of Pyrmont Bridge Road as a destination high street in future. Our recommendations are designed to better align Harris Street's performance with its existing typology. These recommendations also lay a foundation necessary to achieve a future destination high street vision throughout.

Responses proposed on Harris Street to respond to the rezoning are detailed below.

7.1.1 Reduce speed limits to 30-40km/h

We recommend reducing the speed limits on Harris Street to 30km/h where the street is classified as a destination high street and to 40km/h where the street is currently classified as an arterial high street, in line with Transport for NSW's *Speed Zoning Standard 2.0*.

In the long term, we recommend the speed limit is reduced to 30km/h throughout Harris Street in line with the City of Sydney's vision for Harris Street as a destination high street.

To comply with section 10.3.5 of the *Speed Zoning Standard*, we recommend that the necessary speed zone review extends to the entire precinct. Outside of the motorway network that cuts through the peninsula, all streets in the area have a place function equivalent to Harris Street and/or a lower movement function than Harris Street (see Figure 16). Reducing the speed limit on these streets to 30km/h would create a consistent, self-explaining driving environment across the peninsula that protects vulnerable road users and encourages walking and cycling.

7.1.2 Achieve LOS C for walking space between Allen Street and Broadway

All footpaths in NSW should achieve at least LOS C for walking space, as per Transport for NSW's *Walking Space Guide*. The current street layout south of Allen Street does not provide the minimum standard of walking space. We recommend that footpaths on Harris Street between Allen Street and Broadway are extended to provide sufficient space for people walking.

Provide enough walking space for the desired future state

While these footpaths currently rate as Type 3, have mostly inactive edges and no outdoor dining, this configuration does not reflect the vision for an arterial high street in the movement and place framework. Planning should accommodate for a Type 4 footpath with active edges and outdoor dining, which is how the footpaths north of Pyrmont Bridge Road currently operate.

Provide enough footpath space for both movement and place

As Harris Street has a high place function, space on the footpath should also be provided for place activity, in particular outdoor dining. Transport for NSW's *Walking Space Guide* allows for LOS D adjacent to outdoor dining. As illustrated in Table 16 below, these sections of highly activated footpath will determine the minimum width of the entire footpath, even at LOS D.

Table 16 minimum footpath width on Harris Street between Allen Street and Ultimo Road

Footpath type	Minimum LOS	Edge	Outdoor dining	Total minimum
4	C + 3.7m	Inactive + 0.0m	Absent + 0.0m	3.7m
4	D + 3.2m	Active + 0.2m	Present + 0.8m	4.2m

The ultimate footpath width will depend on the kerbside use: if the dominant use is vehicle parking (no clearway operation), and space is provided between parking bays for future tree plantings, then no extra footpath width is required to achieve the minimum walking space level of service. If an adjacent vehicle traffic lane is provided at the minimum allowable speed of 40km/h, then a further 1.2m of footpath width (5.4m in total) is required to achieve the minimum walking space level of service.

Given that the road reserve is constrained, we reason that it provides a higher level of access and a more efficient use of space to allocate a vehicle parking lane adjacent to one footpath as there is not enough space to provide another vehicle traffic lane in its place. Indicative cross-sections are provided further below in Figure 30 and propose to locate a separated cycleway adjacent to the other footpath. This design would not necessitate footpath extensions beyond 4.2 metres as no kerbside traffic buffer is required.

7.1.3 Provide crossing opportunities at least every 130 metres

Transport for NSW's *Network Planning in Precincts Guide* recommends providing crossing facilities every 130 metres. We recommend the installation of new pedestrian crossings on four of the nine blocks where this threshold is surpassed. At other locations land use configurations and the transport network have been assessed to negate the need for crossings as part of this rezoning proposal.

Table 17 identifies all locations where the distance between controlled crossings exceeds 130 metres and provides our recommended response.

Table 17 recommended responses to long blocks on Harris Street

Between	Distance (metres)	Recommended infrastructure	Notes
John Street - Miller Street/Union Street	240	Wombat crossing	Should be installed to align with proposed through-site link through 26-52 Mount Street Pyrmont and entrance to 100 Harris Street
Miller Street/Union Street - Pyrmont Bridge Road	175	Wombat crossing	Kerb extensions already exist at the midpoint of this block, but the crossing point is uncontrolled and does not slow vehicles
Pyrmont Bridge Road - Allen Street	235	None	Eastern side of Harris Street is almost exclusively low-density residential development
Allen Street - Fig Street	160*	None	*160 metres once missing signalised pedestrian crossing installed at Allen Street intersection. Access/egress to/from apartment developments on the eastern side of Harris Street is only at two points, both of which are close to existing traffic signals.

Between	Distance (metres)	Recommended infrastructure	Notes
Fig Street - Quarry Street	145*	None	*145 metres once missing signalised pedestrian crossing installed at Fig Street intersection. Land use on eastern side of Harris Street is exclusively a data centre development.
Quarry Street - William Henry Street	160*	Wombat crossing	*160 metres once missing signalised pedestrian crossing installed at Quarry Street intersection. Should align primarily with through-site link to Pyrmont Street (eastern side, north of Ian Thorpe Aquatic Centre). A secondary consideration for alignment is the through-site link to Kirk Street on the western side.
William Henry Street - MacArthur Street	160	Wombat crossing	Redevelopment of the Powerhouse Museum site will present an active edge to Harris Street and the City of Sydney is introducing a Special Entertainment Precinct at this site
MacArthur Street - Mary Ann Street	160	None	Eastern side of Harris Street is mostly low-density residential development
Thomas Street - Broadway/George Street	180	None	Existing edges are largely inactive and a grade-separated crossing is available between university buildings on these blocks. Redevelopment of the adjacent properties may present a future opportunity to provide more active edges and an at-grade crossing on this section of Harris Street.

7.1.4 Install pedestrian crossings on all legs of signalised intersections

Currently, crossings of the southern leg of Harris Street are missing at the intersections with Quarry Street, Fig Street, and Allen Street. These layouts severely increase delay for people walking and are an inappropriate allocation of road space for a street with a high place function in an area with a high walking mode share target in government visions.

We recommend installing pedestrian crossings on all legs of the above signalised intersections. Transport for NSW's *Design of Roads and Streets Manual* identifies this as a desirable treatment for arterial high streets like Harris Street.

7.1.5 Provide a single-stage crossing of Ultimo Road along Harris Street

People walking must currently cross two separate signalised crossings in order to cross Ultimo Road when travelling along Harris Street. This intersection design prioritises the throughput of vehicles at the expense of people walking, contrary to government visions for a walkable precinct.

We recommend reconfiguring the intersection to remove the slip lane from Ultimo Road onto Harris Street and allow people walking to cross in one stage. Transport for NSW's *Design of Roads and Streets Manual* identifies single-stage crossings as a desirable treatment for arterial high streets like Harris Street.

7.1.6 Reduce delay at traffic signals for people walking and cycling

Currently, about 24% of walking journey time along Harris Street is spent waiting at traffic signals in the peak hour when most people are walking. The City of Sydney[4], the Department of Planning, Housing, and Infrastructure[5], and Transport for NSW[6] all recommend that waiting time should make up no more than 15% of walking journey time. Moreover, the Transport for NSW *Traffic Signal Design* standard (TS 02670.2:1.1 p. 86) identifies cycle time minimisation as an objective of traffic signal design and identifies active transport delay minimisation as an outcome that has priority over intersection capacity optimisation.

We recommend reducing maximum signal cycle durations such that waiting time makes up no more than 15% of walking journey time on Harris Street. Practically, this may mean reducing a 100-second cycle to a 60-second cycle. This would align with signal operation in Copenhagen, where cycle durations never exceed 70 seconds and range between 48 and 60 seconds in areas with high pedestrian activity. This could be investigated in detail between the City of Sydney and TfNSW.

7.1.7 Make better use of road space at the intersection of Harris Street and Miller Street

Excess road space on two approaches to the intersection of Harris Street and Miller Street provides an excellent opportunity for improved walking and place outcomes.

We recommend:

- Converting the southbound bus stop north of Miller Street (stop ID 200924) to in-lane stopping and correspondingly extending the adjacent footpath. Moving the bus stop away from the clear path of travel on the footpath will make more space for people walking and reduce the crossing distance on the desire line between the northern edge of Union Square and the western side of Harris Street.
- Extending the footpath on the southern footpath of Miller Street adjacent to the intersection with Harris Street. Extending the footpath will provide space for a tree planting which will provide important shade to people walking and waiting at the adjacent traffic signals. Extending the footpath will also provide more space for place activities like outdoor dining and for people walking.

7.1.8 Provide separation from vehicle traffic and pedestrian traffic for people cycling

To achieve local and state government visions for a cyclable peninsula, cycling must be prioritised on central and direct links in the peninsula's street network. The most critical links on the peninsula are Harris Street, Pyrmont Bridge Road, and Miller Street/Union Street.

Harris Street runs uninterrupted along the length of the peninsula, from Broadway and George Street in the south all the way to the harbour's edge in the north. As such, it provides the most direct link for north-south movements.

Harris Street also has a high street role with land uses that attract trips and support significant place activity. Transport for NSW's *Network Planning in Precincts Guide* recommends co-locating priority cycling corridors adjacent to key land uses with high place intensity i.e. on main streets.

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[4] City of Sydney, 2024, *People won't wait: relationship of crossing timing and safety for people walking* [Presentation to Transport for NSW Active Transport Community of Practice] https://www.transport.nsw.gov.au/system/files/media/documents/2025/Active-Transport-Community-of-Practice-City-of-Sydney-People-wont-wait-June-2024.pdf

[5] Department of Planning and Environment, 2022, *NSW Guide to Walkable Public Space*

[6] Transport for NSW, 2026, *Walkable NSW Discussion Paper* https://www.transport.nsw.gov.au/news-and-events/reports-and-publications/walkable-nsw-discussion-paper

As such, we recommend reallocating road space on Harris Street to a separated cycleway. The cycleway should run at least from Mary Ann Street in the south to the Transport for NSW Strategic Cycleway Corridor on Pyrmont Bridge Road in the north.

The cycleway should satisfy as a minimum the design guidance given in Transport for NSW's *Cycleway Design Toolbox*. While paired one-way cycleways represent best practice, we recommend initially installing one two-way cycleway as this is the most efficient reallocation of road space to begin with and leaves open the option of duplication and conversion to one-way operation in future if sufficient demand arises.

An exemplar cross section of the proposed changes to Harris Street is provided in Figure 30 below for the block between Allen Street and Fig Street.

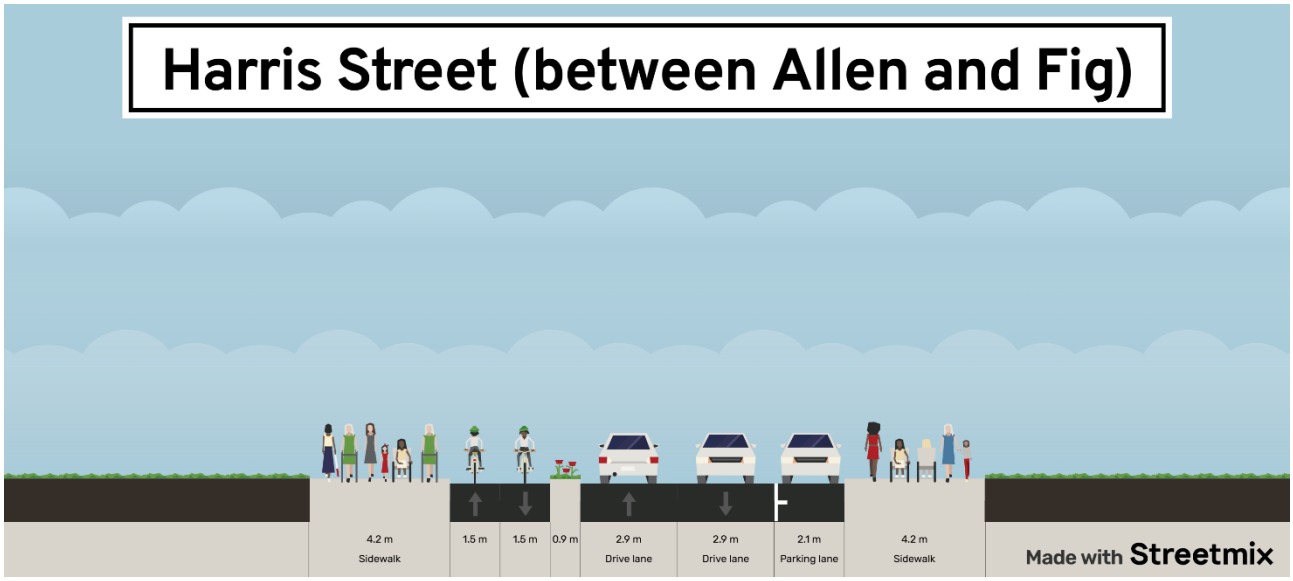


Figure 30 proposed cross-section of Harris Street between Allen Street and Fig Street

7.1.9 Convert bus stops north of Pyrmont Bridge Road to in-lane stopping

Bus stops on Harris Street north of Pyrmont Bridge Road are currently designed such that the bus pulls in and out of a bus zone and passengers wait for the bus in the path of travel of people walking on the footpath. This layout increases delay for bus passengers and encroaches on space for people walking, solely for the benefit of people driving. This allocation of road space conflicts with established government visions for a precinct where people walk and take public transport.

We recommend converting bus stops north of Pyrmont Bridge Road to in-lane stopping in order to reduce bus delay and increase walking space on Harris Street. This is an appropriate treatment for the destination high street typology north of Pyrmont Bridge Road where through-movement is slow. Similar treatments have been applied on other destination high streets in the local government area such as MacLeay Street, Potts Point and Crown Street, Surry Hills.

7.2 Bulwara Road corridor

Two of the seven sites proposed for rezoning in this stage front Harris Street, and the site at 1-7 Henry Avenue is situated one block behind it. Bulwara Road is the third-longest street on the peninsula and is made even more central in the network by the diagonal path that it connects to through Mary Ann Street Park, making it part of the shortest path of more walking journeys on the peninsula. It also provides access to several important local destinations in addition to that park, including the Ultimo Community Centre, the Lord Wolseley Hotel, and Woolworths Metro Pyrmont. For these reasons, we propose a response along the length of the corridor.

Responses proposed on Bulwara Road to support the rezoning are detailed below.

7.2.1 Allocate more space for people walking along the length of Bulwara Road

Existing footpaths on Bulwara Road vary between 1.5 and 1.8 metres, apart from two blocks (between MacArthur Street and William Henry Street, and between Fig Street and Allen Street), resulting in a walking space level of service between E and F along most of the corridor.

In these conditions, residents and visitors walk on the carriageway instead. While this is permissible under Road Rule 238(1) which permits use of the carriageway where the footpath is impassable, it also exposes people walking to punitive fines of up to $2,200 under Road Rule 238(2) which prohibits walking in the centre of the carriageway or walking in groups of three or more. Moreover, it is not a safe system to mix people walking with vehicle traffic at 40km/h.

For these reasons, we recommend reallocating space for people walking on all blocks except the block between MacArthur Street and William Henry Street. We recommend the immediate implementation of a Category 2 shared zone treatment as per *NSW Speed Zoning Standard 2.0*. We recommend that kerbs are retained as the scope of this rezoning constrains the costs that should be incurred by the recommended transport responses. Photograph 10 shows some potential treatments that could be used to highlight the change in the road environment to drivers on a cost-effective basis: treating the carriageway with decorative paint and/or installing small, movable sculptures and plantings.



Photograph 10 potential low-cost carriageway treatment to clearly highlight to drivers that there is a change in the road environment and traffic conditions, Brisbane

In future, as funds become available, we recommend the investigation of two potential options for one-way sections of Bulwara Road:

1. Retain the Category 2 shared zone, reduce the parking lane to 2.1 metres and the traffic lane to 2.7 metres and allocate the resulting difference to the western footpath adjacent to the parking lane
2. Convert the street to a Category 1 shared zone

There are positive and negative consequences of each option that should be explored in further design stages.

7.3 Bank Street precinct

The Saunders Street site is bounded by strategically significant links for walking and cycling. Saunders Street itself already performs strongly for walking and cycling, providing short crossing distances, calm traffic, and a separated cycleway. Quarry Master Drive accommodates an overly wide carriageway at the southern end, but this presents few barriers to walking and cycling given low vehicle volumes. Bank Street will in future provide walking access to a significant foreshore landscape and accommodate a Transport for NSW Strategic Cycleway Corridor between Pyrmont and The Bays but currently provides little amenity for either walking or cycling.

Responses proposed on Bank Street to respond to the rezoning are detailed below.

7.3.1 Install wombat crossing on Bank Street

The signalised intersection of Bank Street and Miller Street currently provides no controlled crossing of the western leg of Bank Street. While crossing the western leg of Bank Street on foot is legal, being more than 20 metres from the signalised crossing of the eastern leg, it is not universally accessible and is dangerous as vehicles, especially the heavy vehicles accessing the concrete facility, are unlikely to expect a person crossing at that point.

We understand that this intersection may be upgraded in conjunction with redevelopment of adjacent properties. Given uncertainties around the timing of these redevelopments we recommend that a wombat crossing be installed nearby on Bank Street to align with the eastern through-site link to be provided in the redevelopment of the Saunders Street site, as this should provide similar if not the same connectivity that a signalised pedestrian crossing at the intersection would.

7.3.2 Give right of way to people walking and cycling at the intersection of Bank Street and Quarry Master Drive

Quarry Master Drive will in future accommodate a desire line to a significant foreshore landscape on Blackwattle Bay. As the nearest crossing will be ~ 130 metres to the east (as recommended above), we recommend installing wombat crossings to give right of way to people walking and cycling on all movements. This will also provide an appropriate gateway treatment to Quarry Master Drive, signalling to drivers that they are entering a quieter street environment.

We note that there are currently driveways adjoining the southern side of Bank Street opposite Quarry Master Drive. The location of vehicle access and egress to and from these properties should be considered in future if they are redeveloped.

7.3.3 Slow vehicle traffic on Bank Street to make cycling more comfortable

Ultimately, a separated cycleway should be provided for the Strategic Cycleway Corridor on Bank Street once Glebe Island Bridge is reopened. However, in the interim, to make cycling more attractive on the carriageway of Bank Street, we recommend reducing the posted speed limit to 30km/h, consistent with other local streets across the peninsula, and installing supporting treatments as per the NSW Speed Zoning Standard 2.0. We recommend installing slow points at three locations, as indicated on Figure 31 below, to introduce the yielding behaviour required by the *Speed Zoning Standard*. Wombat crossings (under construction and as recommended above) will provide the vertical deflection required by the standard.



Photograph 11 exemplar slow point treatment with horizontal deflection, vertical deflection, and a yielding requirement
Source: Transport for NSW

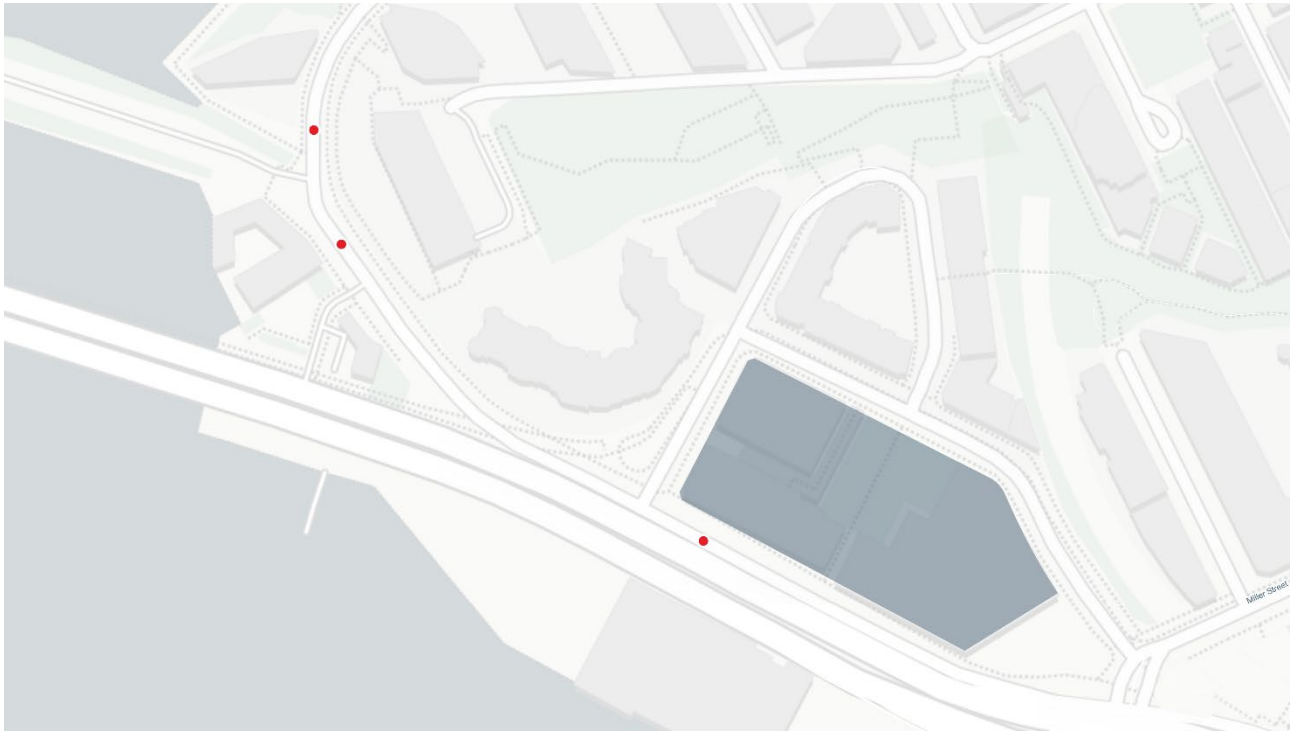


Figure 31 proposed slow points on Bank Street

7.4 Jones Street



Photograph 12 eastern footpath of Jones Street, looking north from Quarry Lane

Jones Street already provides a suitable footpath and excellent canopy cover outside the site proposed for rezoning. Recommendations for the surrounding area are minor and are detailed below.

7.4.1 Provide footpath on western side of Jones Street

The western footpath of Jones Street ends north of 45 Jones Street. We recommend that the footpath be continued at least to Upper Fig Street. These edges interface with the adjoining properties and we recommend that footpath provision is integrated in any redevelopment of those properties.

7.4.2 Install wombat crossing of Quarry Street at intersection with Jones Street

We support the recommendation by WSP's *Walking and Place Study – Ultimo Public School* to install a wombat crossing of Quarry Street at its intersection with Jones Street.

7.5 Wentworth Park

Housing requires appropriate supporting infrastructure, including green infrastructure, and increasing capacity for housing is a key motivation for the NSW Government to let the lease of the Wentworth Park greyhound track lapse and turn the site over to new public open space.

Wentworth Park's public open space is only valuable to those who can access it. As such, walkable access to the park is a key mediating factor between government investment in the park and the community benefit that is realised from the park: every delay and barrier that is removed in walking to the park translates to more residents who can access the park; every improvement in walkability translates to more capacity for housing on the land surrounding the park.

There are two key opportunities to improve local access to Wentworth Park: providing sufficient space for people to walk and cycle to and around the park; and providing safe, universally accessible crossing opportunities that impose limited delay on people walking and cycling.

Responses proposed to support improved integration with Wentworth Park to respond to the rezoning are detailed below.

7.5.1 Provide sufficient space for walking and cycling to and around the park

The existing shared path on the western side of Wattle Street between Bridge Road and the light rail viaduct is too narrow for people walking, and unsafe for people walking and cycling together. Onsite observations noted grass turned to dirt next to the concrete path, which is a sign of insufficient footpath width.

We recommend widening both footpaths on Wattle Street and separating people cycling both from people walking and people driving. We recommend reallocating this space from the easternmost lane on Wattle Street i.e. deleting that lane and moving the other three lanes across. As Wattle Street's vehicular capacity is limited to three lanes at the Fig Street intersection, this change should not affect the vehicular capacity of the street. An indicative cross section is provided below in Figure 32 for the stretch of Wattle Street between Fig Street and Quarry Street. This proposed road space allocation achieves LOS C for walking space, complete separation and protection for people cycling, and maintains vehicle through movement capacity.

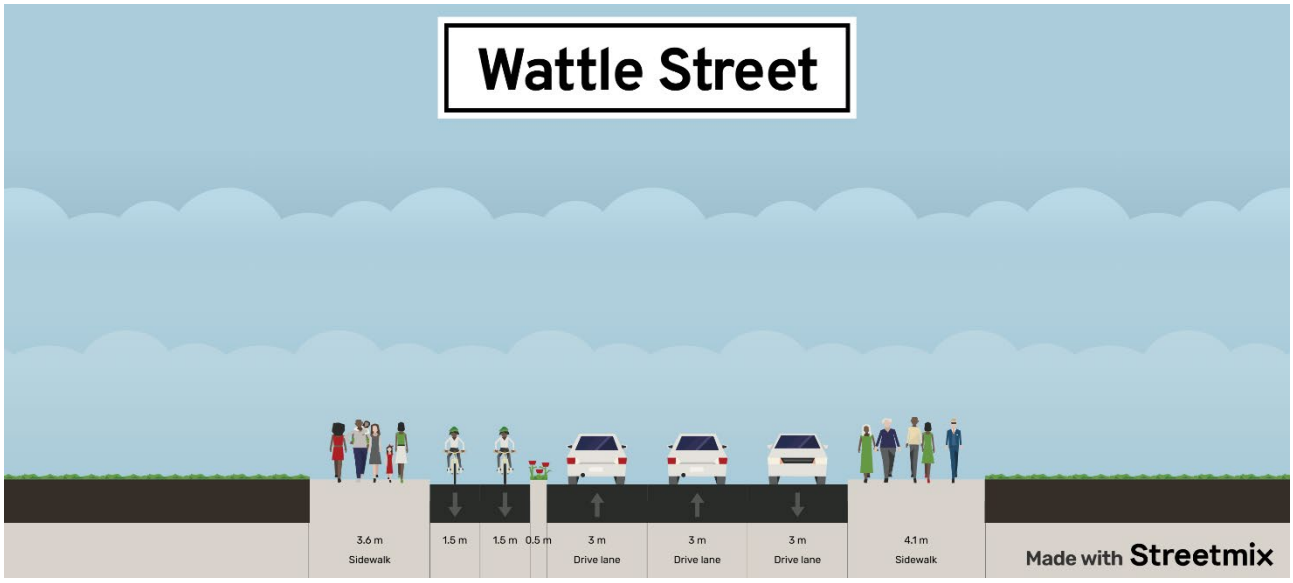


Figure 32 indicative cross section for Wattle Street

Note that the proposed eastern footpath illustrated above is wider than the proposed western footpath despite lower current pedestrian flows. The difference is necessitated by the kerbside traffic buffer on the eastern footpath created by the adjacent vehicle traffic lane.

We recommend continuing the separated cycleway down Wattle Street to connect to the Mary Ann Street cycleway.

7.5.2 Provide a safe, direct crossing of Wattle Street to access Wentworth Park

Wattle Street currently presents a major barrier to accessing Wentworth Park: for 310 metres between the signalised crossing of Wattle Street south of Quarry Street and the mid-block crossing of Wattle Street at the Wentworth Park light rail stop, there is no safe, universally accessible crossing opportunity for people walking. There are four possible options to respond to this situation:

- Do nothing
- Install a signalised mid-block crossing at the future through-site link located south of the existing light rail stop and north of Fig Street
- Install signals at the intersection of Fig Street and Wattle Street
- Install a signalised mid-block crossing at the future through-site link located south of Fig Street and north of Quarry Street

Some of the outcomes entailed by each of these options are laid out in Table 18 below.

Table 18 outcomes associated with potential responses to Wattle Street severance

Outcome	Crossing location			
	No crossing	North of Fig Street	At Fig Street	South of Fig Street
Crossing Fig Street universally accessible in north-south direction	False	False	True	False
Maximum distance between crossings on Wattle Street	310	240	190	250
Minimum distance between signals on Wattle Street	310	70	120	60

Business as usual is not an acceptable outcome at this location, and providing a crossing south of Fig Street would do the least to remedy the existing poor performance. However, there are trade-offs between the other two options (a crossing either at Fig Street or north of Fig Street) and uncertainty surrounding the exact location of a future east-west link that will be provided through Wentworth Park.

Further investigation of the preferred option should be developed in coordination with the design of Wentworth Park and in collaboration with Transport for NSW.

7.5.3 Install pedestrian crossings on all legs of signalised intersections on Wattle Street

Currently, crossings are not installed on the northern leg of Wattle Street at the intersection with Quarry Street, nor on the leg of Pyrmont Bridge Road at the intersection with Bridge Road and Wattle Street. These layouts increase danger and delay for people walking and are an inappropriate allocation of road space at the access points to major public open space. The missing crossing at the intersection with Quarry Street also has a disability inclusion element: in future, a through-site link will be provided north of Quarry Street as the Quarry Street grade is not universally accessible; for people with restricted mobility using this link, a signalised crossing of the northern leg of Wattle Street at the Quarry Street intersection would provide a similarly direct route to Wentworth Park as enjoyed by more mobile walkers.

We recommend installing pedestrian crossings on all legs of the above signalised intersections. Transport for NSW's *Design of Roads and Streets Manual* identifies this as a desirable treatment for secondary arterial roads like Wattle Street.

7.5.4 Provide a single-stage crossing between Wentworth Park and the new fish market

People walking must currently cross two separate signalised crossings in order to travel between Wentworth Park and the new fish market. The corner island is too small to safely store all people walking to and from the fish market. This intersection design prioritises the throughput of vehicles at the expense of people walking, contrary to the government's vision for a safe, walkable precinct with good access to major public open space and retail and hospitality destinations.

We recommend reconfiguring the intersection to remove the slip lane from Wattle Street onto Bridge Road and allow people walking to cross in one stage. Transport for NSW's *Design of Roads and Streets Manual* identifies single-stage crossings as a desirable treatment for secondary arterial roads like Wattle Street.

7.5.5 Reduce delay for people walking and cycling at signalised crossings to Wentworth Park

Maximum signal cycle durations at signalised intersections adjoining Wentworth Park currently appear to vary between 70 seconds for the mid-block crossing at the Wentworth Park light rail stop to 130 seconds for the new signalised intersection of Bridge Road and Wentworth Park Road.

These cycle durations are extremely long and do not satisfy the Transport for NSW *Traffic Signal Design Standard* objectives to minimise cycle times and minimise active transport delay as a priority over optimising intersection capacity. We recommend that these signal operations are redesigned to satisfy the *Traffic Signal Design Standard* objectives.

7.5.6 Reclassify Wattle Street to match its place context

Pyrmont-Ultimo has an urban place context, but Wattle Street currently functions as a secondary arterial road. Secondary arterial roads have an inappropriate balance of movement and place for an urban place context. This is reflected in the *NSW Speed Zoning Standard*, which does not prescribe speed limits for secondary arterial roads in urban place contexts: this combination of movement and place context is assumed not to exist, or at least to be so undesirable as to warrant omission from the standard. In order to better fit its urban place context, we recommend that Wattle Street is reclassified as a connector street.

7.5.7 Reduce the speed limit to match the place context and movement and place typology

Connector streets in urban place contexts are to have speed limits of 40km/h, according to the *NSW Speed Zoning Standard*, unless certain conditions are met, for example wide traffic lanes and raised safety platforms are present at intersections, which are not present on Wattle Street. As such, we recommend that the speed limit on Wattle Street is reduced to 40km/h.

8. Response validation

The vision and validate framework requires testing that the recommended actions support the desired vision for the study precinct. This section provides a quantitative assessment for the recommended actions using the validation metrics established in § 5.2.

8.1 Vehicle trip generation

Transport for NSW's *Guide to Transport Impact Assessment* sets out methods and data by which to estimate trip generation for new developments. We use the benchmarking method to estimate vehicle trip generation for the proposed rezonings. For the benchmarking below, we make use of the 2012 survey of trip generation rates conducted by GHD for high-density residential developments in areas with high public transport access. Ideally for our purposes, this survey includes a site on Harris Street, Pyrmont, as well as other metropolitan sites in Sydney.

8.1.1 Person trip rate

We believe it is appropriate to benchmark person trip rates against the Pyrmont site in the 2012 survey as we expect the future demographic composition to resemble the surveyed composition. The daily person trip rates for the Pyrmont site in the 2012 survey are 3.05 on a weekday and 4.86 on a weekend.

8.1.2 Mode share

In the 2012 trip generation survey, the Pyrmont site reported relatively low private vehicle mode share (40% on a weekday, compared to 27-68% for other metropolitan sites), but with a middling rank (fifth out of the eight metropolitan sites). Using the benchmarking method, it is important to look for transport conditions that are comparable to the desired future state for the peninsula, not to the state of the survey site in 2012.

Transport conditions have changed substantially since the 2012 survey and will change again in future. The full suite of changes between 2012 and the desired near-future state includes:

- 10+ per cent reduction in walking times along main streets and main roads (recommended in this study)
- Construction of the Union Street cycleway (completed)
- Construction of the Bridge Road cycleway (completed)
- Construction of a Harris Street cycleway (recommended in this study)
- Introduction of a ferry service from Blackwattle Bay (committed by government)
- Massive uplift in light rail service (completed)
- Delivery of the Pyrmont metro station (under construction)

Additionally, substantially less parking will be available in the future state. In the 2012 survey, 1.52 parking spaces were available for every dwelling at the Pyrmont site. For any future development on the sites proposed for rezoning, the maximum parking rate for any apartment type is 1.1 for a three-bedroom apartment in a Category B area; for some types, such as studios in Category A areas, the maximum parking rate is as low as 0.1. As such, there will be at least 33% less parking available in future developments compared to the 2012 survey site, and probably even less.

Together, these changes will result in a precinct where walking, cycling, and public transport offer far greater access to opportunities than they did at the time of the survey in 2012. For this reason, we benchmark private vehicle mode share against the lowest private vehicle mode share reported in the 2012 survey: 27% on weekdays and 31% on weekends.

8.1.3 Trip Generation

Using the person trip rates and mode share benchmarked above, we use a vehicle trip generation rate of 0.82 vehicle trips per unit per weekday and 1.5 vehicle trips per unit per weekend day.

If around 23% of these weekday trips are made during the AM peak, this translates to 0.19 vehicle trips per weekday AM peak per unit.

Given a proposed uplift of around 1,300 dwellings in this planning proposal, this would translate to an extra 247 vehicle trips at most in the AM peak across the peninsula. This is a negligible increase in volume given that the rezoning includes seven different sites spread throughout the Peninsula and unlikely to impact existing network operations.

Given the likelihood that private vehicles generation is minimal and existing networks would perform similarly as before, transport modelling and intersection levels of service have not been completed for this report.

8.2 Street capacity

An assessment of existing and recommended street capacity has been proposed and detailed in Table 19. The recommended configuration reduces private vehicle capacity in line with Transport for NSW's vision to reduce vehicle kilometres travelled in the area but increases total person capacity by providing sufficient space for walking and cycling, which provides an overall increase in capacity of 2,000 people.

Table 19 estimated capacity of Harris Street: existing vs. recommended

Mode	Existing peak capacity (PPH)	Recommended capacity (PPH)
Walking*	140-4,692	4,000-8,832
Cycling^	0	4,000
Private vehicles#	10,575	4,230
Total	10,715-15,267	12,230-17,062

*the lower bound represents Transport for NSW Walking Space Guide footpath volumes at LOS D, and the upper bound represents a maximum capacity estimate of 23 people per minute per metre of width footpath, using a bottleneck width on existing Harris Street footpaths of 1.7 metres

^calculated using a conservative estimate of 2,000 people per hour per direction

#calculated using a capacity of 1,500 vehicles per lane and 1.41 persons per vehicle

8.3 Walking space level of service

Our recommendation to increase walking space on Harris Street and Wattle Street will achieve the minimum standard level of service C on both streets and retain LOS D where outdoor dining is provided. The change in level of service is summarised in Table 20 below.

Table 20 recommended change in walking space level of service

Street	Existing LOS	Recommended LOS
Harris Street	A-F	A-C
Wattle Street	D-F	C

Shared zones do not fit within the framework of assessment provided by Transport for NSW's *Walking Space Guide*. As such, it is difficult to validate the kind of road space allocation to people walking that we recommend for Bulwara Road. This reinforces the desirability of investigating footpath widening on Bulwara Road after the shared zone has been installed and the community and practitioners are able to reflect on its performance.

8.4 Crossing detour and delay level of service

The Austroads LOS rating for pedestrian crossing delay or detour is calculated for existing and recommended conditions in Table 21 below.

Wait time is taken as the average of the wait times at the two nearest crossings: zero in the case of pedestrian crossings (zebra crossings), and half the cycle time in the case of traffic signals where pedestrian green intervals are not automatically introduced.

Future wait time assumes that cycle durations do not exceed 70 seconds. All recommended mid-block crossings are assumed to be pedestrian crossings (zebra/wombat crossings).

The calculations show an improvement of one alphabetic grade (i.e. from E to D, or D to C) at all sites.

Table 21 Austroads LOS rating for pedestrian crossing delay or detour

Current				Future			
Between	Spacing	Wait time	LOS	Between	Spacing	Wait time	LOS
John Street - Miller Street /Union Street	240	21	E-	Jones Street - Mid-block	120	0	D
				Mid-block - Miller Street /Union Street	120	18	D-
Miller Street /Union Street - Pyrmont Bridge Road	175	51	D-	Miller Street /Union Street - Mid-block	87.5	18	C-
				Mid-block - Pyrmont Bridge Road	87.5	18	C-
Quarry Street - William Henry Street	160	50	D-	Quarry Street - Mid-block	80	18	C-
				Mid-block - William Henry Street	80	18	C-
William Henry Street - MacArthur Street	160	50	D-	William Henry Street - Mid-block	80	18	C-
				Mid-block - MacArthur Street	80	18	C-

It is worth noting that the crossings between John Street-Miller Street as well as Quarry Street-William Henry Street will additionally connect to through-site links and will improve east-west connectivity across the peninsula.

8.5 Public transport journey times

Local Planning Direction 5.1 specifically identifies public transport efficiency as one of its objectives, and local and state government visions for the area position public transport as an attractive major transport mode.

The recommendations made in this study will most directly influence the efficiency of bus services, as metro, light rail, and ferry services in the area operate on separate rights of way.

The exact and total impact of our recommended changes on total person travel time for people using bus services would require detailed modelling, and even such modelling may not accurately represent proprietary SCATS algorithms, existing green wave design, and existing PTIPS (bus priority) operation.

Nonetheless, it is possible to identify likely influences in either direction (more travel time or less travel time) and consider whether the trade-offs implied in these influences support the vision for the area. This is set out in Table 22 below.

Table 22 potential impact of recommended actions on bus passenger journey time

Recommendation	Impact on bus	Trade-off	Supports vision
Install four new mid-block wombat crossings	Increased travel time for passengers on the bus. Reduced travel time for passenger access and egress to the bus.	Prioritises walking over public transport	Yes
Reduce signal cycle durations	Impact on bus ambiguous. TfNSW study on reducing CBD signal cycle durations in 2018 from 110 to 90 seconds found a small delay on one corridor, a small saving on another corridor, and large savings on two other corridors. Large travel time savings for passenger access and egress to the bus.	Prioritises walking. Likely to benefit bus passengers.	Yes
Convert all stops to in-lane	Small travel time savings	Prioritises public transport and walking over private vehicles	Yes

8.6 Safe systems alignment

The NSW government has a vision of zero trauma on road and street networks in future. Reducing the danger caused by vehicles not only yields the intrinsic public health benefits of increased safety but also improves place outcomes and makes walking and cycling more attractive.

In Table 23 below, we identify how different recommended actions align with the pillars of the safe systems approach. No recommended actions will decrease road user safety.

Table 23 safe systems alignment of study recommendations

Recommendation	Safe speeds	Safe roads	Safe users
Reduce speed limits	Proposed changes will bring vehicle speeds into the range of human survivability	-	-
Provide sufficient space for walking	Shared zone treatment includes speed reduction. Associated traffic lane narrowing may reduce vehicle speeds.	-	-
Install new wombat crossings at mid-block locations	Vertical deflection on wombat crossings reduces vehicle speeds	Well-lit crossing opportunities with vertical deflection will decrease risk of trauma	-
Install pedestrian crossings on all legs of signalised intersections	-	Facilitate crossing in expected locations	Reduced delay is known to reduce pedestrian crossing during vehicle conflicts

Recommendation	Safe speeds	Safe roads	Safe users
Provide a single-stage pedestrian crossing of all road/street legs at signalised intersections	Building a smaller kerb radius will reduce the speed at which pedestrian-vehicle conflicts occur	-	Reduced delay is known to reduce pedestrian crossing during vehicle conflicts
Redesign signal operations to reduce delay for people walking and cycling	-	-	Reduced delay is known to reduce pedestrian crossing during vehicle conflicts
Install separated cycleways	-	Physical separation protects people cycling from conflicts with vehicles	-
Install slow points	Horizontal deflection and yielding will reduce vehicle speeds	-	-
Provide new signalised crossing of Wattle Street between light rail viaduct and Quarry Street	-	Controlled crossings are safe for all people walking (e.g. children, less mobile adults)	-

9. Action plan

The proposed transport responses to the stage two rezoning have been validated against the key objectives and metrics. Twenty-one responses have been recommended to support the peninsula's overarching vision and objectives and enable the rezoning to provide additional housing, commercial and retail.

This section summarises the proposed responses, including temporal priority, and the relevant road authority for the infrastructure affected. The recommendations proposed are subject to further investigation and investment decisions in subsequent stages of work to determine feasibility and costing. A detailed staging plan is not available, and implementation has been categorised as short, medium and long term.

The action plan aligns with the transport response mapping provided in Figure 29.

Table 24 recommended actions

No.	Action	Road authority	Timing
1	Reduce speed limits on Harris Street to 30-40km/h, on Wattle Street to 40km/h, and on all local streets to 30km/h	Transport for NSW	Immediate
2	Widen footpaths on Harris Street between Allen Street and Broadway	Transport for NSW / City of Sydney	Short term
3	Install mid-block wombat crossings of Harris Street (north of Pyrmont Bridge Road)	City of Sydney	Short term
4	Install mid-block wombat crossings of Harris Street (south of Pyrmont Bridge Road)	Transport for NSW	Short term
5	Install pedestrian crossings on all legs of signalised intersections on Harris Street	Transport for NSW	Short term
6	Provide a single-stage pedestrian crossing of Ultimo Road at Harris Street	Transport for NSW	Medium term
7	Redesign signal operations along Harris Street to minimise delay for people walking and cycling	Transport for NSW	Short term
8	Reallocate road space at intersection of Harris Street and Miller Street	City of Sydney/ Transport for NSW	Medium term
9	Install a separated cycleway on Harris Street between Pyrmont Bridge Road and Mary Ann Street	Transport for NSW	Short term
10	Install category 2 shared zones on one-way sections of Bulwara Road	City of Sydney / Transport for NSW	Short term
11	Install a wombat crossing on Bank Street to align with the easternmost through-site link of the Saunders Street site	City of Sydney	In conjunction with redevelopment of neighbouring sites
12	Install a three-way wombat crossing for people walking and cycling at the intersection of Bank Street and Quarry Master Drive	City of Sydney	In conjunction with redevelopment of neighbouring sites
13	Install slow points on Bank Street	City of Sydney	In conjunction with redevelopment of neighbouring sites
14	Construct footpath on western side of Jones Street	City of Sydney	In conjunction with redevelopment of neighbouring sites

No.	Action	Road authority	Timing
15	Install wombat crossing of Quarry Street at intersection with Jones Street	City of Sydney	Short term
16	Widen footpaths on Wattle Street	Transport for NSW / City of Sydney	Short term
17	Install a separated cycleway on Wattle Street	Transport for NSW	In conjunction with redevelopment of Wentworth Park
18	Provide new signalised crossing of Wattle Street between light rail viaduct and Quarry Street	Transport for NSW	In conjunction with redevelopment of Wentworth Park
19	Install pedestrian crossings on all legs of signalised intersections on Wattle Street	Transport for NSW	Short term
20	Provide a single-stage crossing between Wentworth Park and the new fish market	Transport for NSW	Short term
21	Redesign signal operations along Wattle Street to minimise delay for people walking and cycling	Transport for NSW	Short term

Appendix 1: previous recommendations

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont Peninsula Place Strategy	Walking, cycling, public transport	Investigate the repurposing of Glebe Island Bridge as an active and public transport link to link Pyrmont Peninsula with The Bays; restore/reinstate/interpret the historic Glebe Island Bridge structure to provide active transport access to Bays West	Transport for NSW	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Public transport	Build a Sydney Metro station in the Pyrmont Peninsula as an anchor for new development and connectivity	Sydney Metro	Funded, underway
Pyrmont Peninsula Place Strategy	Private vehicles	Investigate the delivery of multi-utility hubs and integrated models of car parking	Key site owners	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking and cycling	Investigate the ongoing trial of temporary COVID-19 active transport measures beyond current Government guidelines	Transport for NSW	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Public transport	Contra-flow bus lane northbound on Regent Street and Harris Street between Lee Street and Thomas Street	[Transport for NSW]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Widen footpaths on Harris Street	[Transport for NSW, City of Sydney]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Install new pedestrian crossings on Harris Street	[Transport for NSW, City of Sydney]	No new crossings installed
Pyrmont Peninsula Place Strategy	Public transport	Create an intermediate public transport corridor from the Bays Precinct along Harris Street to Tech Central and the Australian Technology Park	[Transport for NSW]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Public transport	Rationalise bus stops on Harris Street	[Transport for NSW]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling	Create active transport connections to Harris Street from surrounding areas	[City of Sydney]	Mary Ann Street cycleway installed

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont Peninsula Place Strategy	Walking, cycling	Increase canopy cover on Harris Street, Jones Street, Bulwara Road, and Quarry Street	?	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling	Investigate the extension of the Goods Line to facilitate an active transport loop around the peninsula		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling, private vehicles	Consider closing Jones Street between Broadway and Mary Ann Street to create a linear park	[City of Sydney]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling, private vehicles, freight	Provide shared accessways around UTS and TAFE NSW Ultimo Campus for pedestrians, cyclists, vehicles and deliveries, potentially through a pilot program on weekends and during events		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Consider how development can create pedestrian connections between Jones and Wattle streets	[City of Sydney]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Cycling	Extend the Jones Street cycleway north to Pyrmont Bridge Road and provide a crossing of Pyrmont Bridge Road	[City of Sydney, Transport for NSW]	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling, public transport, private vehicles	Reprioritise street and traffic flows to promote pedestrian, cycling and public transport and provide improved active transport connections from Blackwattle Bay to other parts of the peninsula	Transport for NSW, City of Sydney	Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Public transport	Investigate a new ferry wharf in Blackwattle Bay	Transport for NSW	planned for; funded
Pyrmont Peninsula Place Strategy	Walking	Improve pedestrian access to Bowman/Bank Street from Distillery Drive and John Street via stairs or a lift		Unknown at time of preparing this report

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont Peninsula Place Strategy	Walking, cycling	Enable streets as shared spaces with capacity for outdoor dining, walking and cycling and safe and accessible spaces for community to gather		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling	Upgrade walking and cycling access, particularly to the Pyrmont Metro station, and investigate a multimodal transport hub		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Private vehicles	Relocate bus and coach parking from streets to on-site at The Star		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Enhance and improve public domain interfaces and site permeability [through the Star site], including wayfinding and new 24-hour publicly accessible connections that are ideally open to the air, through the key site to break up its bulk and maximise permeability at the ground plane		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Connect and activate the public domain through new active transport connections through large sites (i.e. site permeability and wayfinding)		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling	Deliver a new active transport link from Blackwattle Bay master plan area to the Fish Market Light Rail Station		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Improve and enhance east-west connection from Harris Street to the waterfront through large sites [in the Harbourside sub-precinct]		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking	Deliver a safe, activated and inviting streetscape interface on all boundaries, including proposed ‘back of house’ or service areas on		Unknown at time of preparing this report

Document	Domain	Recommendation	Responsible actors	Status
		Darling Drive that promote east-west connectivity from Harris Street to the waterfront [in the Harbourside sub-precinct]		
Pyrmont Peninsula Place Strategy	Walking	Enhance east-west connections across Darling Drive		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling	Promote active transport (cycling and walking) along Pirrama Road between the entrance to The Star's car park and the roundabout on Jones Bay Road, including lower speed limits and prioritisation for pedestrians and cyclists		Unknown at time of preparing this report
Pyrmont Peninsula Place Strategy	Walking, cycling, public transport, private vehicles, freight	Prepare a Complete Streets Strategy using the NSW Government's Movement and Place principles to transition Pirrama road to a shared zone with shared access way for pedestrians, cyclists, buses, private and delivery vehicles; reduced servicing and access functions; reduced street parking with increased on-site provision; relocated tourist bus lay overs away from Pirrama Road and onto site; better integration with Pyrmont Bay Park		Unknown at time of preparing this report
				Unknown at time of preparing this report
Pyrmont-Ultimo Transport Plan	Cycling	Convert Bridge Road temporary cycleway to permanent cycleway	Transport for NSW	Committed and funded
Pyrmont-Ultimo Transport Plan	Cycling	Provide shared path along Bridge Road past the new Sydney Fish Market	Transport for NSW	Delivered
Pyrmont-Ultimo Transport Plan	Cycling	Improve cycling connectivity at Bridge Road / Gottenham Street intersection	Lead: Transport for NSW. Support: City of Sydney	Last was "for investigation"

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont-Ultimo Transport Plan	Cycling	Provide Kelly Street to Mary Ann Street cycle link	City of Sydney	Delivered
Pyrmont-Ultimo Transport Plan	Cycling	Provide cycling link on Darling Drive on approach to Murray Street intersection	Lead: Mirvac. Support: Placemaking NSW, City of Sydney, Transport for NSW	Current? Last was “in planning”.
Pyrmont-Ultimo Transport Plan	Cycling	Provide north-south cycle links between Mary Ann Street and Miller Street	Lead: City of Sydney. Support: Transport for NSW	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Cycling	Improve safe cycling access to primary and secondary schools, such as Ultimo Public School, Glebe Public School and Sydney Secondary College Blackwattle Bay Campus	Lead: City of Sydney. Support: Transport for NSW	Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Improve safe walking access to primary and secondary schools, such as Ultimo Public School, Glebe Public School and Sydney Secondary College Blackwattle Bay Campus	Lead: City of Sydney. Support: Transport for NSW	Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Upgrade non-DDA compliant kerb ramps throughout the Precinct	Lead: City of Sydney. Support: Transport for NSW	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking	Improve pedestrian connectivity and safety by reducing delays at signals, adding missing pedestrian crossing legs at intersections and increasing opportunities to cross in high pedestrian areas	Lead: Transport for NSW and City of Sydney	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking	Improve pedestrian connections to Wentworth Park by upgrading shared paths and increasing crossing opportunities along Wattle Street, Bridge Road and Wentworth Park Road (aligned with Wentworth Park Master Plan)	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking	Improve pedestrian connections for Wentworth Park Light Rail	Transport for NSW	Committed and funded? Last was “for investigation”

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont-Ultimo Transport Plan	Walking	Improve pedestrian safety, priority and amenity at Broadway / Wattle Street intersection	Transport for NSW	Current? Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking	Improve pedestrian safety, priority and amenity at City Road/Broadway intersection, including removal or redesign of the slip lane on the City Road approach	Transport for NSW	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Support pedestrian safety by increasing pedestrian protection at intersections and investigating opportunities to ban right turns where not necessary for local or regional movements	Lead: Transport for NSW and City of Sydney	Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, private vehicles	Reduce speed limit to 40km/h on all roads that meet the Speed Zone Requirements under the NSW Speed Zoning Standard to align with the existing 40km/h speed limit in the majority of the precinct. Review local roads with high pedestrian activity and place function in the precinct to consider implementation of 30km/h speed limit and traffic calming, in line with the NSW Speed Zoning Standard	Lead: Transport for NSW. Support: City of Sydney	Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Consider key through-site links through urban design and early development planning, particularly access to waterfront and the Foreshore Link	City of Sydney	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Cycling	Provide cycling link to Glebe Island Bridge via Bank Street	Lead: City of Sydney. Support: Transport for NSW	Current? Last: “for investigation”
Pyrmont-Ultimo Transport Plan	Cycling	Provide cycling link via Glebe Island Bridge	Transport for NSW	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Cycling	Provide new regional and local cycle links through Blackwattle Bay development	Lead: Infrastructure NSW. Support: City of Sydney, Transport for NSW	Current? Last was “for investigation”

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont-Ultimo Transport Plan	Walking, cycling	Review shared path operation along Bridge Road after the new Sydney Fish Market opens	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, cycling	Deliver Goods Line extension south to Central Station	Transport for NSW	Current? Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking, cycling	Investigate potential northern extension of the Goods Line and improve permeability for active transport users across the existing light rail line	Lead: Property and Development NSW. Support: transport for NSW, Powerhouse Museum, City of Sydney	Current? Last was “in planning”
Pyrmont-Ultimo Transport Plan	Public transport	Provide ramp/lift to improve station access, including at Glebe light rail stop	Transport for NSW	Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Public transport	Address lighting, safety/security and access issues at public transport stops and provide comfortable, accessible waiting spaces that comply with Australian disability access and safety standards	City of Sydney	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Public transport	Determine medium-term bus plan in the Precinct and investigate new bus routes within the Precinct, including services linking to the new Metro station	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Public transport	Investigate locations of new ferry stops, such as Cadi Park, Pirrama Park, Rozelle Bay and new Sydney Fish Market	Lead: Transport for NSW. Support: City of Sydney	Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Public transport	Investigate increase in light rail service frequency	Transport for NSW	Delivered? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, private vehicles	Pedestrianise Bay Street between Broadway and Grose Street	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, private vehicles	Allow dynamic use of eastbound kerbside lane on Broadway and/or footpath widening with buses	Transport for NSW	Current? Last was “in planning”

Document	Domain	Recommendation	Responsible actors	Status
		moved into the second eastbound lane		
Pyrmont-Ultimo Transport Plan	Walking, private vehicles	Pedestrianise Jones Street between Broadway and Thomas Street	Lead: City of Sydney. Support: UTS, TAFE	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, cycling, private vehicles	Develop a program of shared zone projects around UTS and TAFE	Lead: City of Sydney. Support: UTS, TAFE	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Widen footpaths and kerb buildouts [on Harris Street] north of Pyrmont Bridge Road	Lead: City of Sydney. Support: Transport for NSW	Current? Last was “in planning”
Pyrmont-Ultimo Transport Plan	Cycling	Investigate feasibility of cycleway connection along Broadway	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Widen footpaths and kerb buildouts [on Harris Street] between Pyrmont Bridge Road and Allen Street	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, private vehicles	Widen footpaths and transition to four traffic lanes [on Harris Street] in peak periods and two traffic lanes in off-peak periods south of Allen Street	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Private vehicles	Remove Pyrmont Street on-ramp to Western Distributor	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Private vehicles	Support local access by converting Pyrmont Street [south of Pyrmont Bridge Road] to two-way	Lead: City of Sydney. Support: Transport for NSW	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Provide priority for pedestrians at intersections along Harris Street and Pyrmont Street	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking, cycling	Increase shading and pedestrian comfort on streets through tree planting	Lead: City of Sydney	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking, cycling, private vehicles	Invest in travel demand management through non-build solutions, such as lower maximum parking rates, higher bike parking rates and higher quality end-of-trip facilities…	City of Sydney	Last was “ongoing”

Document	Domain	Recommendation	Responsible actors	Status
Pyrmont-Ultimo Transport Plan	Freight	Identify suitable locations for integrated freight facilities (including freight bicycle hubs) and sustainable last-mile deliveries and ensure new developments provide adequate delivery, loading and servicing facilities to support increase in future development and demand for delivers and servicing	Lead: City of Sydney. Support: Transport	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Freight	Consider deliveries and servicing requirements at different times of day, and investigate dynamic loading zones (variable kerbside lane use)	Lead: City of Sydney and Transport for NSW	Last was “in planning”
Pyrmont-Ultimo Transport Plan	Walking	Provide a safe and comfortable connection between Pyrmont Bridge and Blackwattle Bay by reallocating at least one lane of traffic to increase footpath width on Pyrmont Bridge Road	Transport for NSW	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Improve pedestrian comfort, safety and place amenity outside the Metro entrance by pedestrianising some or all of Union Street	Lead: City of Sydney. Support: Transport for NSW	Current? Last was “for investigation”
Pyrmont-Ultimo Transport Plan	Walking	Improve connection from Metro to foreshore along Edward Street by providing crossing of light rail	Lead: Transport for NSW. Support: City of Sydney	Current? Last was “for investigation”
WSP Walking and Place Study	Walking	Install pedestrian crossings at: intersection of John Street and Harris Street; intersection of MacArthur Street and Wattle Street		
WSP Walking and Place Study	Walking	Install shared zone treatment on Bulwara Road		
WSP Walking and Place Study	Walking	Implement 30km/h speed zone around school		

Document	Domain	Recommendation	Responsible actors	Status
WSP Walking and Place Study	Walking	Increase crossing time and/or reduce cycle time at signalised intersections along William Henry Street		
WSP Walking and Place Study	Walking	Align kerb ramps on Fig Street		
WSP Walking and Place Study	Walking	Introduce flexible uses of kerbside lane on Harris Street		
WSP Walking and Place Study	Walking	Install gateway treatment (kerb build outs) at entrance to Quarry Street from Harris Street		
WSP Walking and Place Study	Walking	Install missing signalised pedestrian crossings on Harris Street		
WSP Walking and Place Study	Walking	Install raised intersections (whole intersection at grade of footpath) at intersection of Bulwara Road and Upper Fig Street, as well as at MacArthur Street and Jones Street		

Appendix 2: further place, land use, and transport analysis

A.1.1 Understanding place

A.1.1.1 Public open space

Public open space is distributed unevenly throughout the area: *en masse* in Wentworth Park and prominently along the northern foreshore. Small pocket parks are distributed elsewhere. A few linear spaces (The Goods Line, Quarry Park, Union Street, and Elizabeth Healy Reserve) provide high-quality place amenity as well as important walking and cycling links. A handful of spaces are both created by and negatively impacted by the motorway network: under Anzac Bridge and between the Western Distributor and Bulwara Road.

Public space through Tumbalong Park and Darling Square, although negatively impacted by motorway overpasses, is generally high quality. Moriarty Walk is possibly unique in Sydney for hosting multiple dancers' groups at all times of day. Tumbalong Park plays an important role in walking access between Quarry Street and the CBD, but closures for events frequently cause significant detours for people walking.

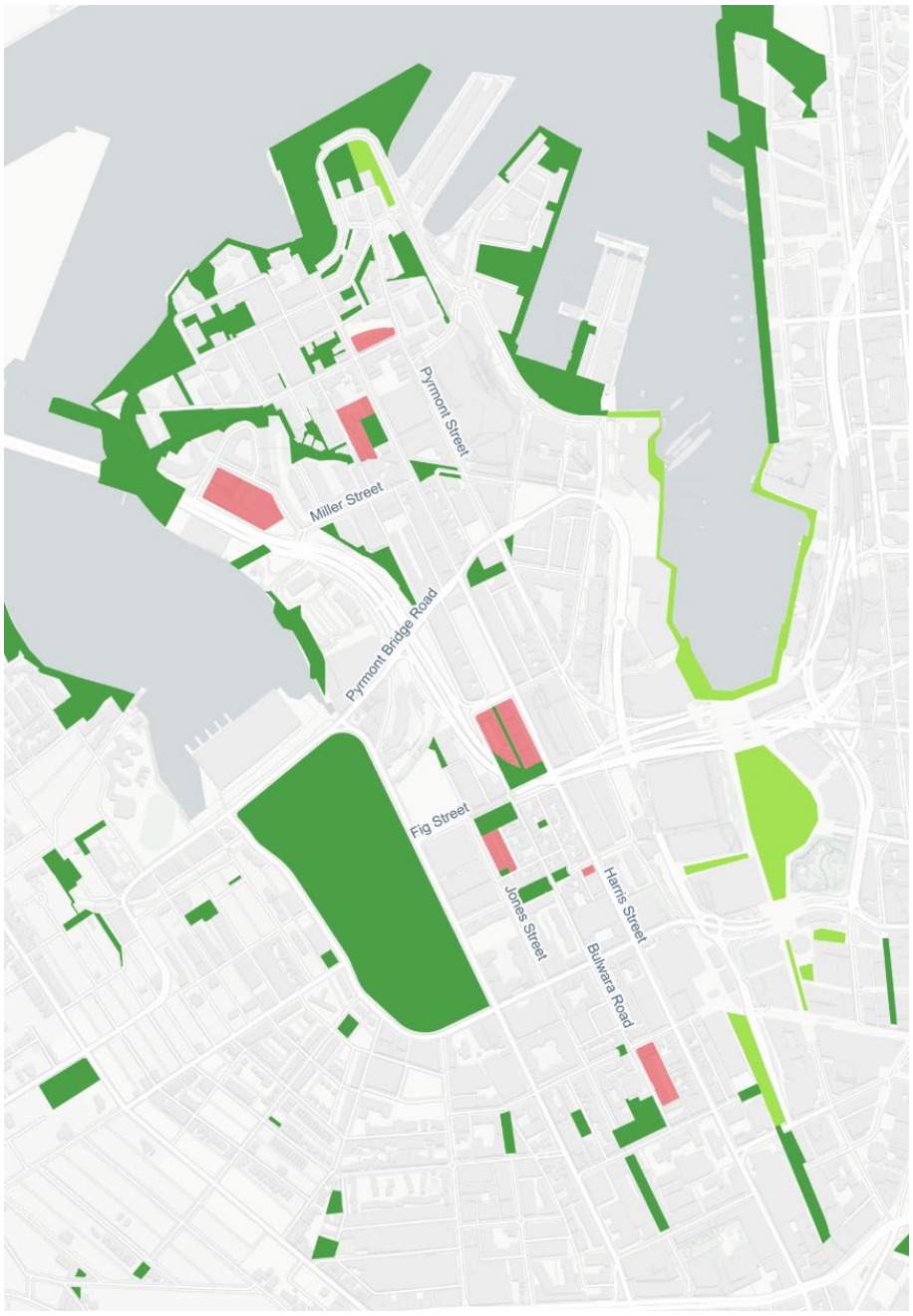


Figure 33 public open space

- Land zoned RE1
- Other important public open space
- Rezoning under this proposal

A.1.2 Understanding land use

Whereas place describes the function that the space between buildings performs in facilitating public life, land use describes the activity that occurs adjacent to public space, and while some activities are strongly influenced by place quality (for example, the businesses mapped above), land use more strongly influences the movement that occurs on roads and streets, because land use determines the location of the origins and destinations that people travel between.

Figure 34 below shows existing land use zoning on the peninsula. Apart from pockets of mostly historical dwellings zoned for residential use only, land is generally zoned for mixed uses, which allows for shorter, more walkable trips.

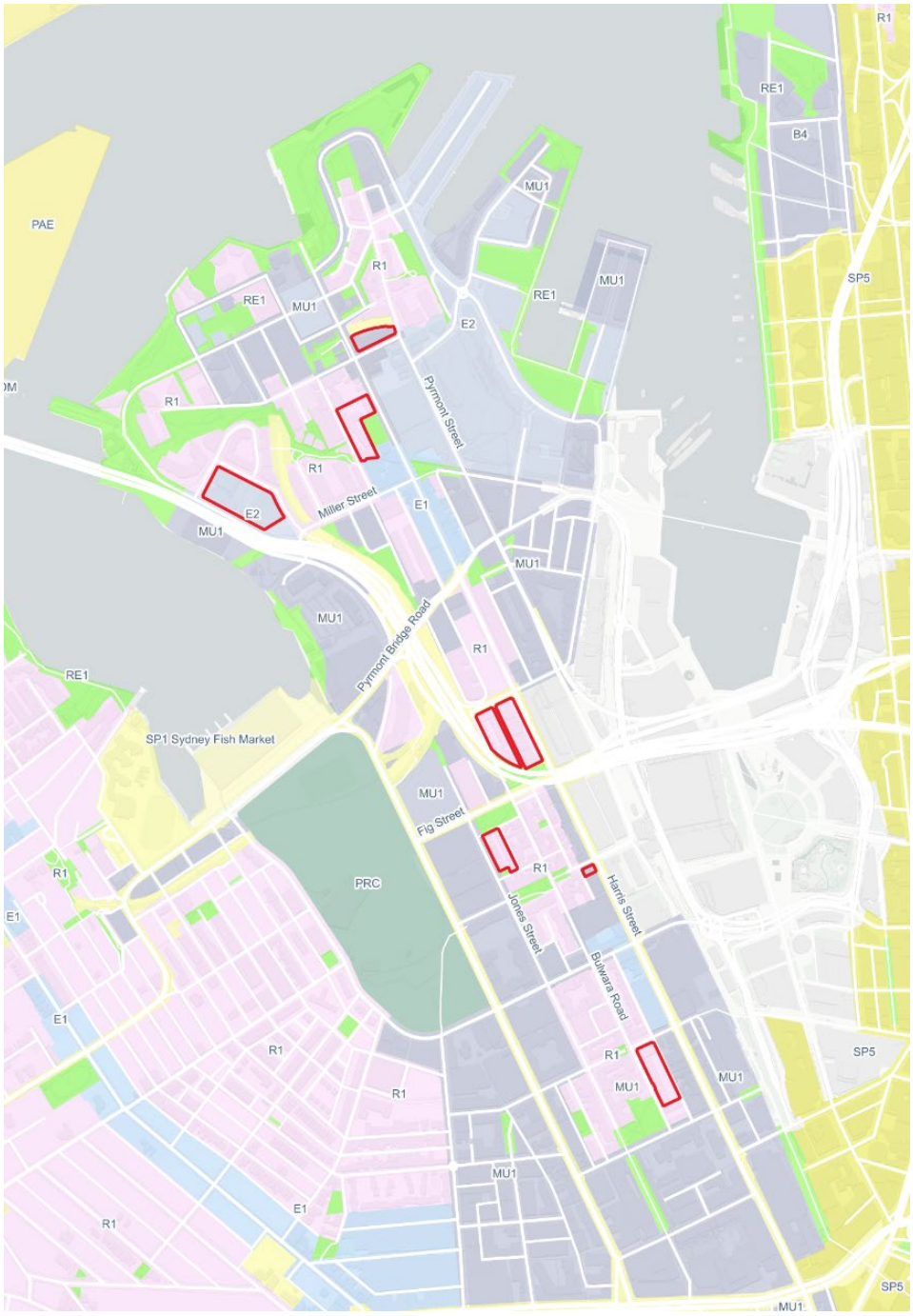


Figure 34 existing land use zoning

A.1.2.1 Population

Figure 35 below shows that residential population varies from block to block but is otherwise distributed fairly evenly throughout the peninsula.

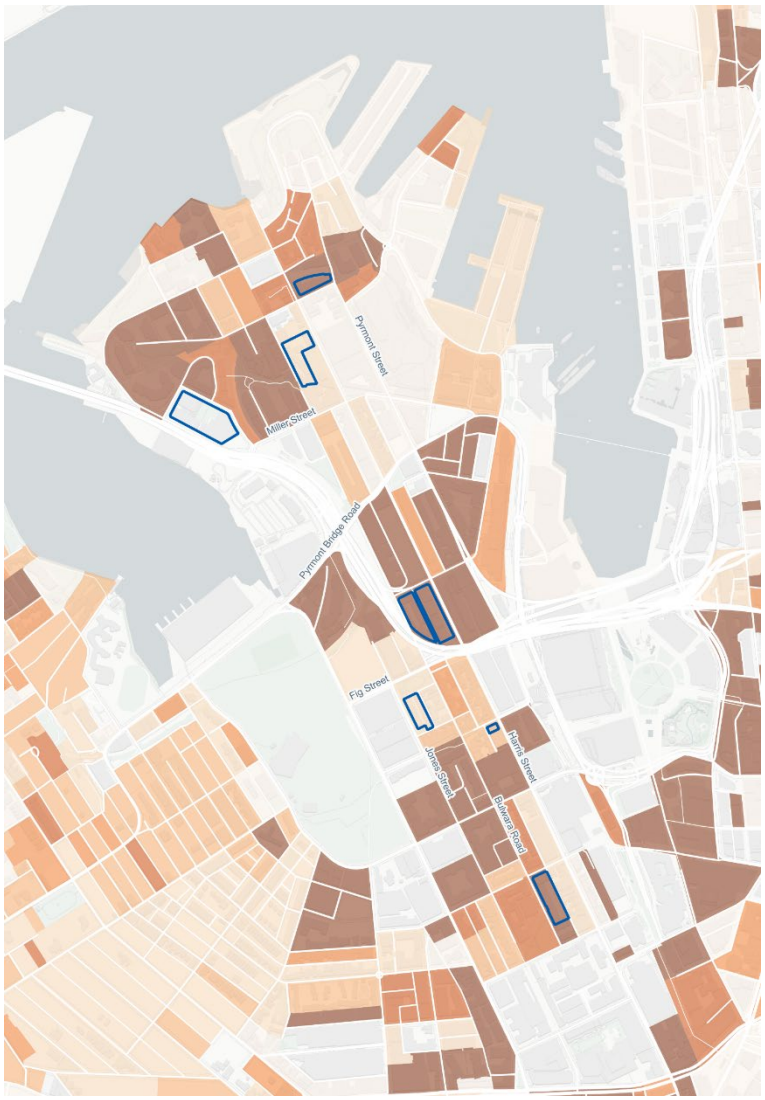


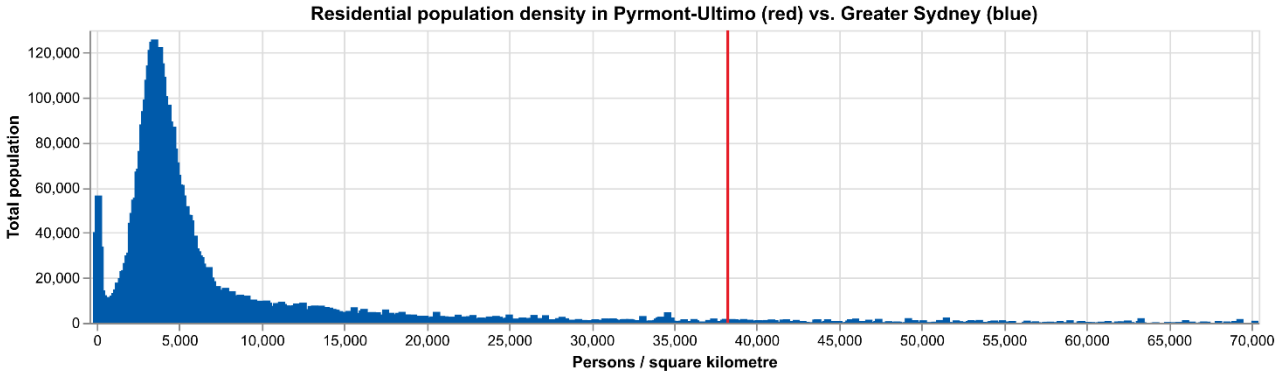
Figure 35 population density (2021)

Legend

- Rezoning
- > 20,000 people / km^2
- > 16,000 people / km^2
- > 12,000 people / km^2
- > 8,000 people / km^2
- > 4,000 people / km^2
- > 0 people / km^2

Figure 36 below compares the mean population density in Pyrmont-Ultimo (weighted by the population of each area for which density is calculated, to reflect what the average resident experiences) against the distribution of population densities found across Greater Sydney and shows that existing residents of Pyrmont-Ultimo are living in much higher residential densities than the rest of Greater Sydney.

Figure 36 population-weighted mean population density in Pyrmont-Ultimo (red) vs. population-weighted distribution of population density in Greater Sydney (blue)



A.1.2.2 Employment

Figure 37 below shows that employment is distributed less evenly in the precinct, primary clustered in the southern end of Ultimo and in the north-eastern corner of the peninsula around the Darling Island sub-precinct. Employment density in the peninsula remains well below levels found in the adjacent CBD.

More localised patterns in the area—for example, existing employment at the Saunders Street site—may be masked in this map by the coarse resolution (destination zones) at which the ABS reports employment data from the census.

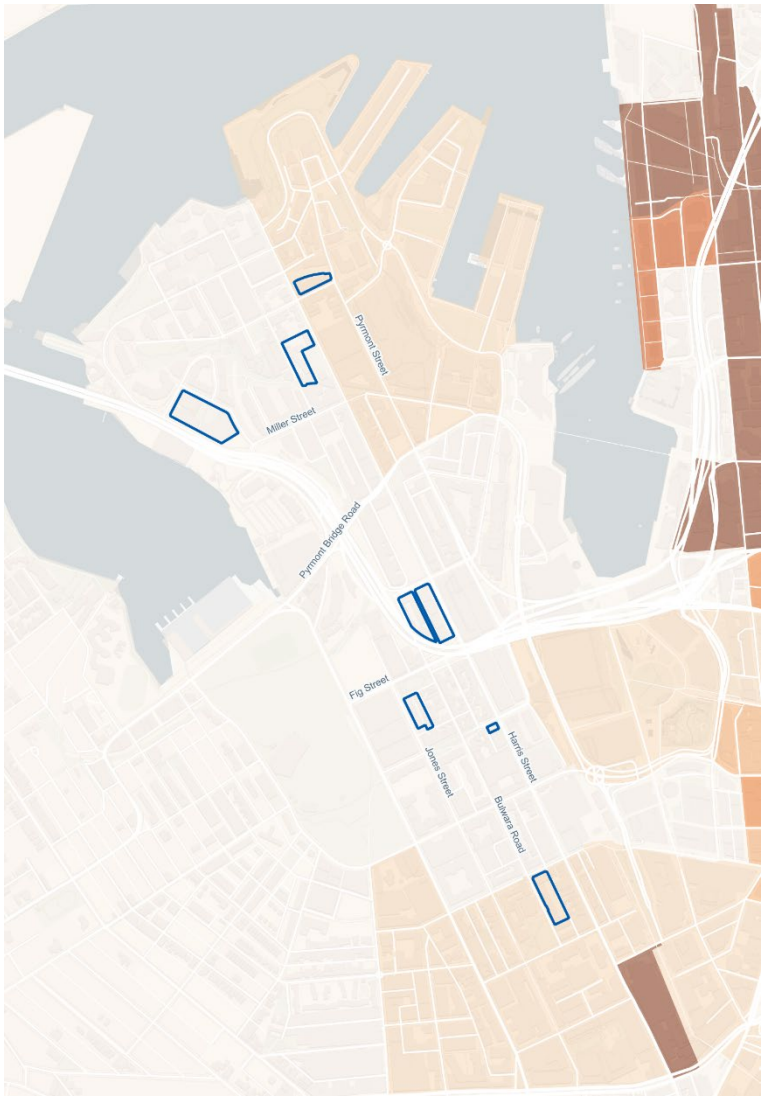


Figure 37 employment density (2016)

Legend

Rezoning

> 125,000 workers / km^2

> 100,000 workers / km^2

> 75,000 workers / km^2

> 50,000 workers / km^2

> 25,000 workers / km^2

> 0 workers / km^2

A.1.3 Land-use transport integration by walking

A.1.3.1 Education

Figure 38 shows that there is effectively no walkable access to public primary education north of Miller Street, if a gravity measure of access is calibrated to average walking distances. Given the constraints on public school supply generally, it may not be possible to plan for a new public school on the northern quarter of the peninsula. This means that safe cycling infrastructure is required in order to provide access to primary education by a sustainable and independent mode of transport.

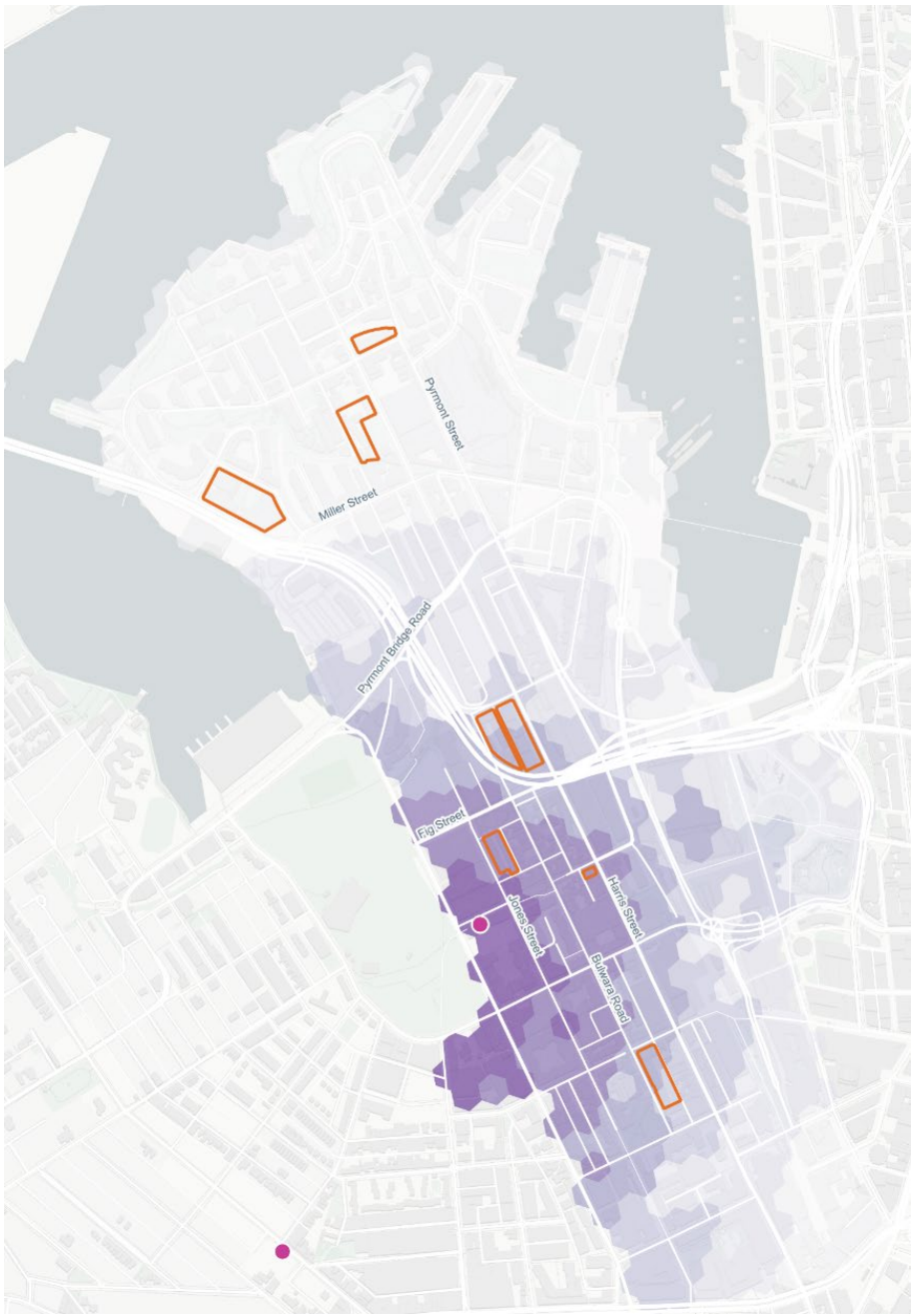


Figure 38 gravity measure of access to public primary schools by walking

Legend

Rezoning

Existing public primary school

Higher access

Lower access

A.1.3.2 Fresh food

Access to supermarkets is high in the southern parts of Ultimo, owing to proximity to both Broadway Shopping Centre and a Woolworths Metro at Haymarket. Access to supermarkets is also good in the northern quarter of the peninsula along the Miller Street-Union Street axis.

Access is relatively low in the middle of the peninsula, with the nadir between Fig Street and Quarry Street. From these locations, the nearest supermarket is more than 850 metres or 12 minutes away. Empirical data from Sydney suggests that less than one in four people are likely to walk that far to go shopping. Given the free car parking available at Broadway Shopping Centre, this land use pattern is likely to be a key driver of short private vehicle trips in the area.

Developing a supermarket within the 313 Harris Street site could significantly reduce private vehicle trips in the area.

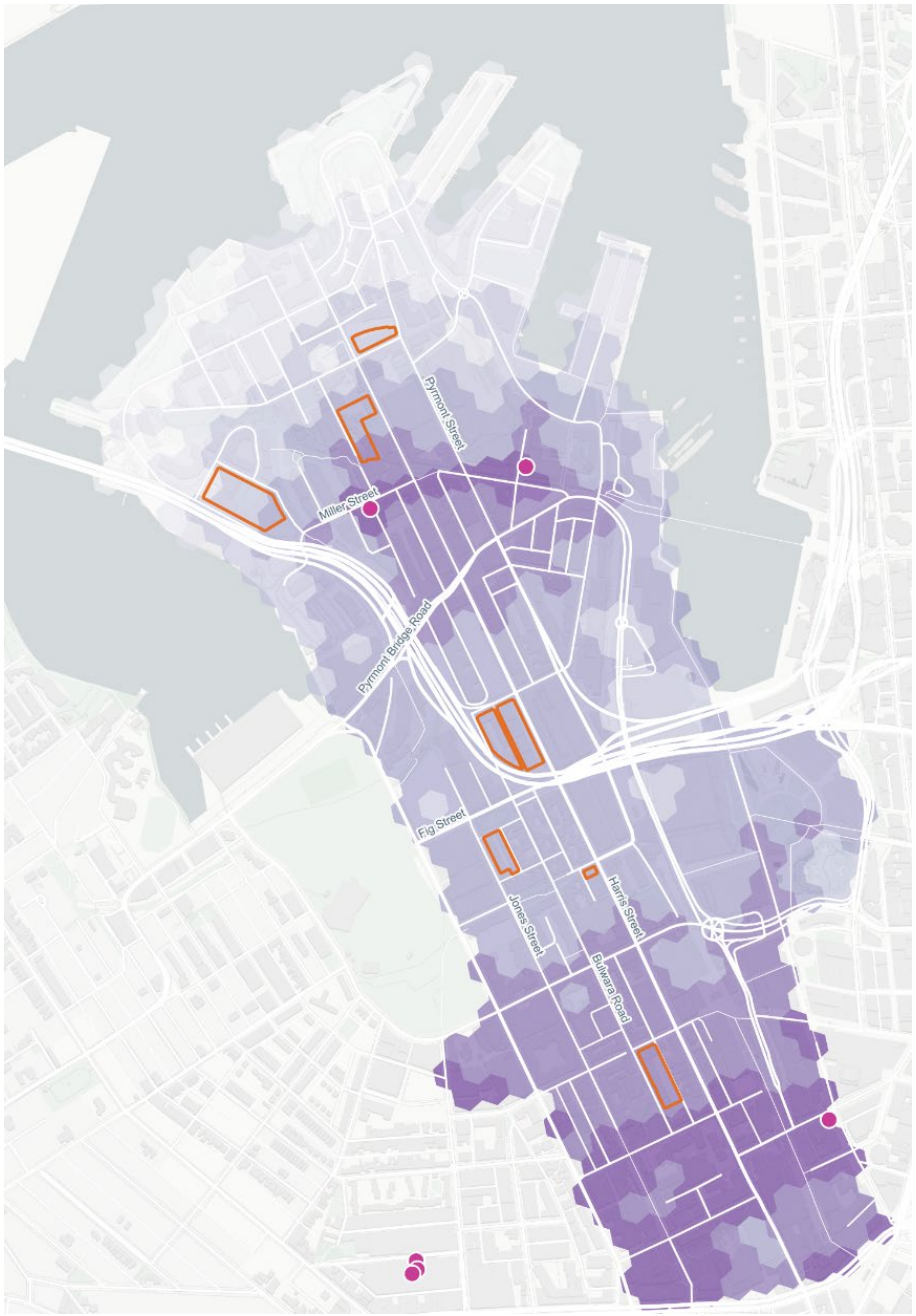


Figure 39 gravity measure of access to supermarkets by walking

A.1.3.3 Exercise and sport

Figure 40 below shows that access to gyms is good throughout the precinct, although more limited in the northern quarter of the peninsula. This may be alleviated by commercial development within the Saunders Street site.

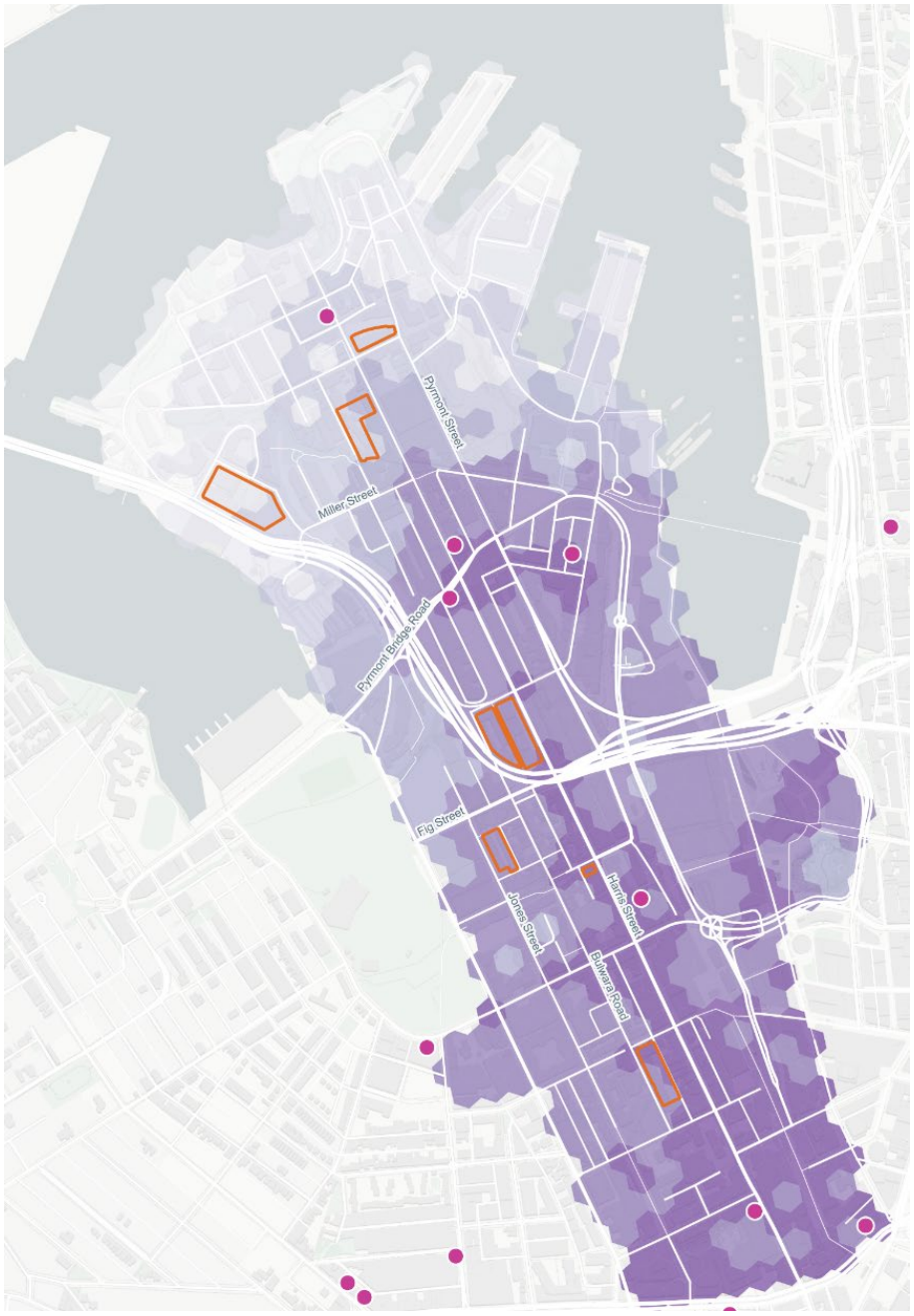


Figure 40 gravity measure of access to gyms by walking

Legend

- Rezoning
- Existing gym
- Higher access
- Lower access

Access to popular exercise opportunities with more limited land uses, such as swimming is more constrained. Figure 41 below shows that there is effectively no access to pools by walking from the northern quarter of the peninsula. This reinforces the need for safe cycling infrastructure to provide independent access to opportunities by sustainable modes of transport.

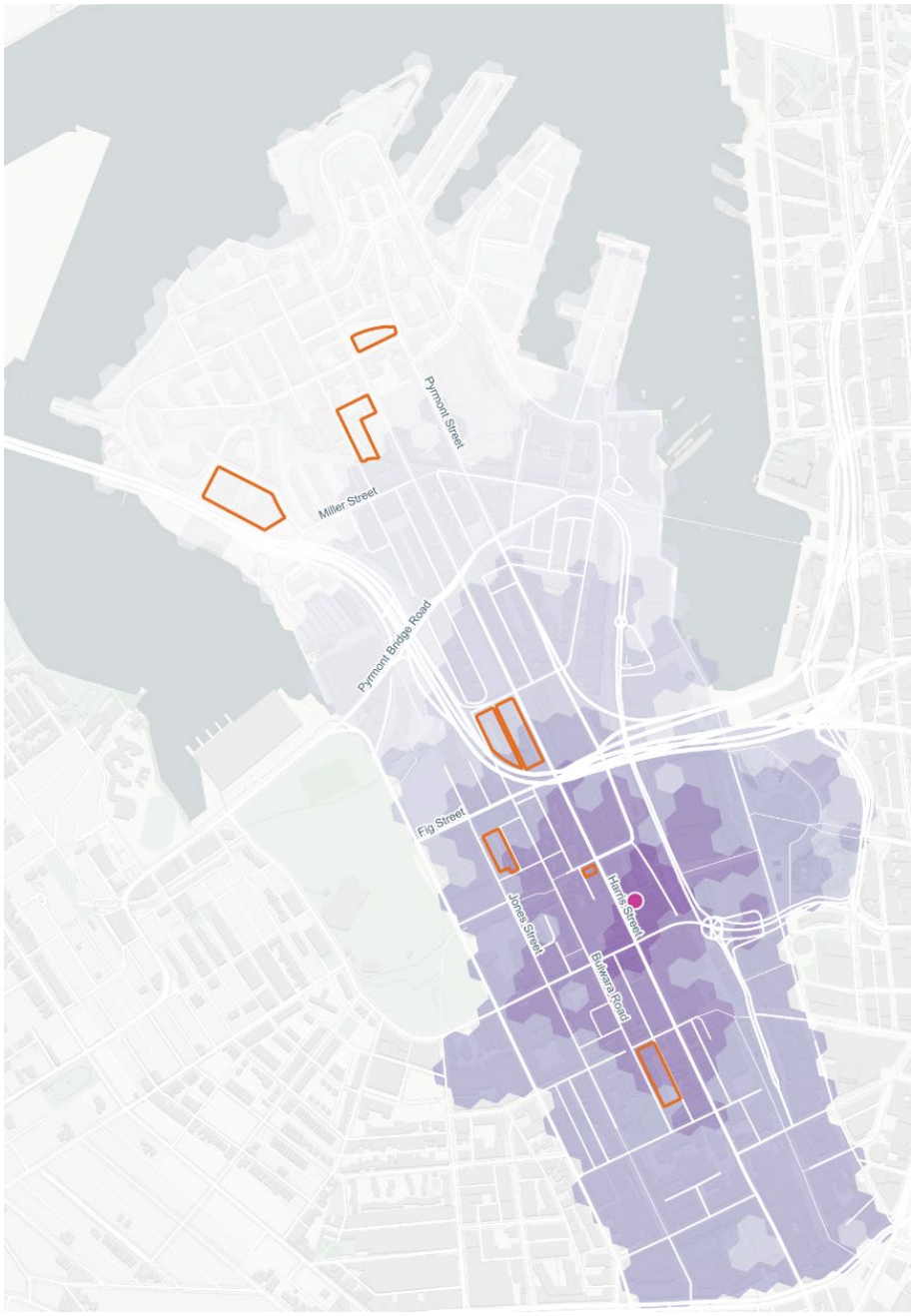


Figure 41 gravity measure of access to swimming pools by walking