Hobsons Bay Transport Planning Study

Network Challenges Report

FINAL

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Find out more:

If you see this symbol next to a section heading, the number within corresponds to the section(s) in the Hobsons Bay Transport Planning Study – Network Investigations Technical Report where you can find out additional information.

1 Purpose

This document provides a summary of the transport network challenges and opportunities identified as part of the Hobsons Bay Transport Planning Study.

2 Background

Hobsons Bay is experiencing significant population growth and is at the centre of a number of major infrastructure projects, including level crossing removals at Kororoit Creek Road and Ferguson Street, and the West Gate Tunnel Project.

The Hobsons Bay Transport Planning Study was initiated to respond to the issues identified during the West Gate Tunnel Environment Effect Statement (EES) process.

The Department of Transport (DoT) and Hobsons Bay City Council (HBCC) have worked collaboratively to investigate the cumulative effects of the major transport infrastructure projects, land use changes and residential growth on the Hobsons Bay transport network.

3 Study need

With the implementation of major transport projects such as the West Gate Tunnel (WGT) Project, Western Suburban Roads Upgrade and Level Crossing Removals, there is a need to review the cumulative impacts on the Hobsons Bay transport network.

This presents an opportunity to review how the Hobsons Bay transport network serves local residents and wider users, and to define the future role of the Hobsons Bay network and its function within the broader inner west transport network.

The Hobsons Bay Transport Planning Study (the Study) will address challenges identified in the Minister for Planning's Assessment of the West Gate Tunnel Project EES process including:

- addressing the traffic impacts of the West Gate Tunnel Project on local area movements and public transport accessibility
- identifying opportunities to improve public transport accessibility for Hobsons Bay residents within the defined study area
- identifying opportunities to improve active transport infrastructure to encourage travel behaviour change

- identifying opportunities to improve transport connectivity to, through and within the Hobsons Bay municipality
- identifying preferred and appropriate heavy vehicle freight routes that limit residential interfaces.

HBCC are developing and delivering Local Area Movement Plans (LAMPs) within the study area that assess and address the cumulative impacts on local streets. Opportunities identified as part of the Hobsons Bay Transport Planning Study will guide the future development of the Hobsons Bay transport network by both DoT and HBCC.

Network Investigations Technical Report

A Technical Report has been developed that provides an evidence-based approach to verify network transport challenges and opportunities previously identified through public consultation as part of the Hobsons Bay Integrated Transport Plan and the West Gate Tunnel Project EES.

The Study establishes a network hierarchy for all modes that will guide future network transport planning for Hobsons Bay and the development of potential transport initiatives.

4 Context

Hobsons Bay is located on Port Phillip Bay to the south-west of the Melbourne Central Business District (CBD) and shares a boundary with the Port of Melbourne. It has boundaries with the City of Wyndham to the west and the Cities of Maribyrnong and Brimbank to the north.

Hobsons Bay has a mixture of residential areas alongside significant areas of industry.

Hobsons Bay is part of the Western Metropolitan Region, which is a centre for transport and logistics activity. The region interfaces with the Port of Melbourne, which is a key origin and destination for freight movements by road and rail.

Hobsons Bay has around 96,000 residents and provides employment for around 33,000 people.





Hobsons Bay Transport Planning Study: study area

5 Objectives

The objective of the Study is to develop an evidence base for the challenges identified as part of the Minister of Planning's Assessment of the West Gate Tunnel Project and the Hobsons Bay Integrated Transport Plan.

The Study is guided by principles developed collaboratively between DoT and HBCC which align with the shared vision articulated in existing legislation, policy and strategy.

The Study principles are:



An efficient, integrated and sustainable transport network outcome



Positive liveability, amenity and community wellbeing



Planning for future growth

6 What we heard

Previous community consultation including through the Millers Road and Williamstown / Melbourne Road corridor study highlighted the following challenges:

- Public transport service levels
- Potential impacts of major projects
- Active transport infrastructure gaps
- Road congestion on both arterial road network and local streets.
- Increasing levels of freight activity in Hobsons Bay
- Difficulties accessing Newport station on foot, bike, bus and car
- Population growth, urban development and density.

These community inputs were used to direct the study team's investigations.

7 What we found

The study team has investigated and developed an evidence-based view of the challenges for the Hobsons Bay transport network, within the study area shown in Figure 1.

An assessment was also undertaken of:

- current and anticipated land uses within the study area
- current and anticipated changes to the transport network within the study area
- current public transport offering within the study area
- trips from and within the study area by common modes
- current active transport offering within the study area
- current and anticipated freight movements to, from and within the study area
- information on the effects of the West Gate Tunnel Project and future infrastructure.

The Study identified three key themes that align to the study principles whilst adequately addressing the identified challenges:

- Providing accessible connected journeys to support future growth in Hobsons Bay
- Achieving a balanced network that supports access within, into and out of Hobsons Bay
- Supporting the sustainable integration of future infrastructure

8 Challenges and opportunities

Theme 1: Providing accessible connected journeys to support future growth in Hobsons Bay

Challenges and opportunities for accessible connected journeys for Hobsons Bay, for public transport and active transport connectivity

Population and Employment

Population and jobs in Hobsons Bay will continue to grow into the future. The highest population growth in Hobsons Bay is forecast to occur in Altona North (growing by 10,000 residents from 2016 to 2036¹). Strategic redevelopment sites within Hobsons Bay, such as Precinct 15, Precinct 16 and adjacent sites such as the Bradmill Precinct (shown in Figure 2) are slated to support significant residential growth (approximately 5,000 new dwellings). Employment in Hobsons Bay is forecast to grow to approximately 54,000 jobs (3.0% annual growth), compared to 35,000 jobs in 2016. Industrial and employment growth within Hobsons Bay will be driven by developments such as Millers Junction Enterprise Area, in Altona North and the Brooklyn Business Park.



Altona North has disproportionately high car use and low public transport use when compared to other areas of Hobsons Bay and Melbourne, while supporting the largest proportion of Hobsons Bay residents, employees and future growth.

The current transport network has some challenges, created by physical barriers such as the West Gate Freeway and rail lines. Public transport coverage is unevenly spread, and there are gaps in the active transport network. This limits its effectiveness to provide accessible and connected journeys, for now and into the future.



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Public Transport

Most of the study area has limited access to high frequency bus and train services, which limits public transport access to key employment locations such as Footscray, Sunshine and Melbourne CBD. The immediate surroundings of Millers Road are the only part of the study area where residents have walkable access to frequent bus services in the AM peak, provided by the Route 232, 411, 412 and 903 bus services. There is no frequent (≤ 10 minutes) service running east-west through the study area to connect to interchange facilities and high frequency public transport services.

On weekends, there are no east-west services with a frequency of 30 minutes or less. While buses run frequently, the Route 232 is a poor performing service, with poor punctuality and low number of passengers.

Active Transport

Mapping revealed gaps in the existing cycling network, contributing to public perception that routes are ineffective in providing a safe, connected and convenient active transport network. Heavy vehicles contribute to high stress environments for cyclists where there is a lack of dedicated bicycle infrastructure (i.e. no separation from vehicle traffic).

There are limited end-of-trip facilities at train stations; a Parkiteer cage of 26 spots at Newport station is in high demand, while there are no dedicated parking cages at North Williamstown and Spotswood stations.

Walking access is poor in parts of the study area due to a lack of crossing points making it difficult to connect people to places, shopping centres and rail stations. Arterial roads and the rail line act as physical barriers creating detours for pedestrians and cyclists.

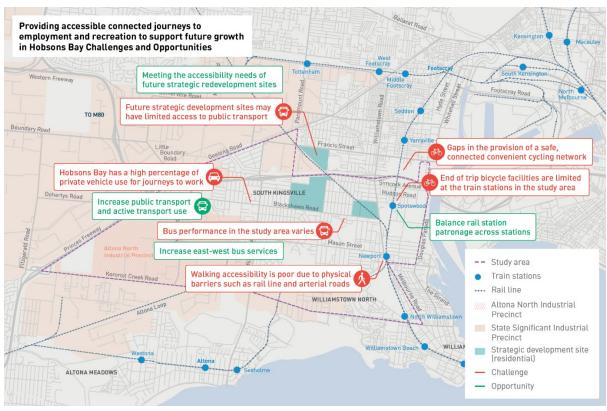
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DELWP, 2019. Victoria in Future 2019

Theme 1 Challenges and opportunities summary

	Challenge Hobsons Bay has a high percentage of private vehicle use for journey to work. Based on mode share data, private vehicle trips are preferred to public and active transport modes. There is a concentration of high frequency public transport to the east of the study area, however connectivity and coordination to rail services limits transport options for journeys to work, particularly for areas such as Brooklyn and Altona North. Public transport mode share increases for catchments within walking distance to a rail station.
	Challenge
	Future strategic development sites may have limited access to frequent and direct public transport. Altona North contributes to a high proportion of the population and employment growth in Hobsons Bay, experiencing the highest car mode share for journey to work and low public transport mode share compared to other suburbs within Hobsons Bay.
	Challenge
	Bus performance in the study area varies. Whilst some bus services in the study area provide a level of performance comparable to Metropolitan Melbourne, many services in the Altona North and Brooklyn area are infrequent, unreliable, indirect, cover a limited catchment, have poor punctuality or have low productivity compared to other bus services within Metropolitan Melbourne.
	Challenge
FP	Gaps in the provision of a safe, connected, convenient cycling network for Hobsons Bay. There are gaps in the Strategic Cycling network that limits the attractiveness of cycling as a transport mode. The provision of dedicated cycling infastructure on key routes would promote cycling as a transport mode.
	Challenge
40	End-of-trip bicycle facilities are limited at the train stations in the study area. The benefits of any improvements to the cycling infrastructure to and from the station precincts could be further improved with upgrades to end-of-trip facilities at stations.
	Challenge
Ŕ	Walking accessibility is limited in parts of the study area due to physical barriers such as the rail line and arterial roads. Walking access to key destinations such as Newport Station and Altona Gate Shopping Centre is hindered by major arterial roads such as Millers Road and Melbourne Road.
	Opportunity Meeting the accessibility needs of future strategic redevelopment sites. Strategic redevelopment sites, such as Precinct 15 are slated to support significant residential growth. There is an opportunity to connect these redevelopment sites to Spotswood station, which would require improvements to east-west public transport connectivity and east-west active transport upgrades in the area.
	Opportunity Increase public transport and active transport use. Improve bus services and active transport connectivity, supporting public transport and active transport options as alternatives to cars.
	Opportunity Improve east-west bus services. There appears to be capacity on the existing road network for east-west travel, as east-west buses are relatively punctual, compared to north-south.
	Opportunity Balance rail station patronage across stations. Newport station attracts four times as many patrons as North Williamstown and Spotswood. Where improved access to the train network is required, encourage patronage uplift at North Williamstown and Spotswood.





Theme 1 challenges and opportunities summary

Theme 2: Achieve a balanced network that supports access within, into and out of Hobsons Bay

Challenges and opportunities for facilitating key freight and traffic movements into and out of Hobsons Bay, while balancing the needs of freight and other modal movements and local land uses

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Industrial Precincts

The study area includes significant industrial areas that have interactions with key heavy vehicle generators such as the Port of Melbourne and the Laverton and Tottenham industrial precincts.

Freight Network

Some arterial roads in Hobsons Bay currently carry a large amount of freight traffic and play an important function in connecting Hobsons Bay industrial areas to the wider road network. Millers Road north of the West Gate Freeway is a key conduit to the Brooklyn / Tottenham Industrial Precinct and the Brooklyn Business Park.

Truck curfews on designated roads following the completion of the West Gate Tunnel Project will significantly alter freight routes within and surrounding the study area. Whilst Hudsons Road and Blackshaws Road will have lower truck volumes, significantly greater volumes are forecast on Millers Road, with an additional 4,000 trucks expected north of West Gate Freeway once the West Gate Tunnel Project opens and inner west truck bans are implemented.

Once the West Gate Tunnel Project is operational and the east-west truck bans are in place in the inner west, key arterial routes via Millers Road and Williamstown Road to the West Gate Freeway and West Gate Tunnel will become the most direct connection for trucks travelling between Port of Melbourne and the Brooklyn / Tottenham Industrial Precinct. The Planning Minister's Assessment of the West Gate Tunnel acknowledged that there would be impacts to freight movements on Millers Road as a result of the truck bans

Freight Movements and Local Land Use

Changes in truck routes and increasing freight volumes may impact on the amenity and access for adjacent local neighbourhoods. The addition of Hyde Street Ramps to the West Gate Freeway will have an impact on how freight moves around the Yarraville and Spotswood industrial precincts, particularly for petroleum tankers.

Balancing the needs of local land uses and the freight movements is a challenge that will need consideration in the future development of the Hobsons Bay transport network.

General Traffic

Road congestion is a key challenge along key routes within Hobsons Bay. Parts of the network already experience peak hour congestion and delays, which are comparatively greater on arterial sections approaching freeway interchanges.

The Millers Road interchange with the West Gate Freeway is currently experiencing high levels of congestion along Millers Road during peak periods. The links of Millers Road either side of the West Gate Freeway were benchmarked against other Melbourne intersections performing a similar function. This revealed that the delays on Millers Road southbound in the PM peak are higher than those experienced by other Melbourne intersections performing a similar function. There is a challenge to establish options available to relieve congestion, in conjunction with upgrades provided as part of the West Gate Tunnel Project.

A key challenge is to balance the needs of all road users whilst protecting residential amenity. This will be supported by the introduction of local traffic management measures within the LAMPs.

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Final

Theme 2 Challenges and opportunities summary

	Challenge Additional freight generation from developing precincts. The redevelopment of precincts in Altona North and Brooklyn may generate additional freight movements along arterial roads such as Millers Road north of the West Gate Freeway.
	Challenge Trucks on Millers Road have limited alternative arterial routes to the West Gate Freeway. Millers Road north of the West Gate Freeway is a key conduit to the Brooklyn / Tottenham Industrial Precinct and the Brooklyn Business Park.
8	Challenge Existing delays on Millers Road and other key interchanges. Millers Road southbound (particularly in the PM peak) experiences comparatively high levels of delay compared with similar arterial roads in Melbourne. Melbourne Road and Francis Street / Hyde Street also experience high levels of congestion and delay during peak periods.
	Challenge The implementation of the 24 hour inner west truck bans will significantly change the routes that trucks travel within and surrounding the study area. Increasing truck volumes, in particular on Millers Road (north of the West Gate Freeway) is expected to impact on residential amenity, increase congestion, limiting accessibility to adjacent neighbourhoods and establishing an unsafe environment, particularly for pedestrian and cycling movements.
	Challenge Maintaining the balance between key freight movements and local land uses. Balancing the movement needs of the key freight links with the local land use needs is integral to the development, liveability and growth of Hobsons Bay.
	Opportunity A potential connection by extending Grieve Parade. There is the potential to create a new and direct connection between Altona North industrial precinct and the Tottenham Industrial Precinct. This would potentially divert freight traffic away from Millers Road and Geelong Road. Further investigations would be required to determine the feasibility.

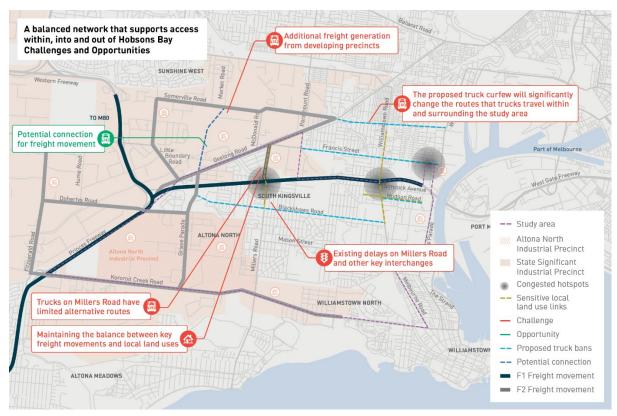


Figure 3 Theme 2 challenges and opportunities summary

Theme 3: Support the sustainable integration of future infrastructure

Challenges and opportunities for integrating future infrastructure and mitigating impacts on the study area

Major transport initiatives are underway within and surrounding the study area, including the West Gate Tunnel Project, Western Suburban Roads Upgrade and Level Crossing Removals. Upgrades to infrastructure, in particular the West Gate Tunnel Project, will have impacts on the study area.

The completion of any major piece of road infrastructure will result in changes to travel patterns across the road network, and changes at the connections to the existing network. There is a need to manage and mitigate potential localised network challenges as a result of major transport infrastructure upgrades to ensure a balanced network outcome.

Millers Road Interchange

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While there are current performance challenges at the Millers Road / West Gate Freeway interchange, the interchange is modelled to operate satisfactorily after the opening of the West Gate Tunnel project, even with larger traffic volumes. This is due to freeway traffic flow improvements which will reduce delays in entering the freeway.

Hyde Street Interchange

There are existing delays along Hyde Street and Douglas Parade. Modelling of the new intersections where the ramps connect at Hyde Street and provide access to Douglas Parade indicates these will perform acceptably. However, the continued growth in vehicle volumes, particularly by heavy vehicles, may exacerbate existing delays by 2031.

According to the WGTP EES, the intersection of Hyde Street / Francis Street is expected to operate at a low level of service in the 2031 PM peak. This has potential to cause wider issues to the network.

Grieve Parade Interchange

Grieve Parade, north of the West Gate Freeway is forecast to have a decrease in traffic volumes. Current congestion challenges at the interchange will be mitigated as part of the West Gate Tunnel Project and the interchange will perform acceptably after the opening of the West Gate Tunnel Project. There is an opportunity for the network to better utilise existing freight capacity in the Grieve Parade corridor.

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Active Transport Infrastructure

The new freeway ramps at Hyde Street will have signalised intersections with pedestrian crossing facilities, facilitating active transport movements between the Federation Trail and the Hobsons Bay Coastal Bay Trail.

The Federation Trail will be extended between Fogarty Avenue and Hyde Street with a new off-road shared-use path, as part of the West Gate Tunnel construction works. This will provide benefits for active transport connectivity. However, the new ramps and the extension of the Federation Trail has potential modal conflicts as pedestrians and cyclists need to navigate the pedestrian signals at Hyde Street. There may be opportunities to provide additional cycling and pedestrian routes and infrastructure to reduce modal conflict areas that are outside the scope of the West Gate Tunnel Project.

The Millers Road / West Gate Freeway interchange has been noted as an existing potential conflict point for shared path users as part of the West Gate Tunnel EES. With the expected increases in freight traffic on Millers Road after the opening of the West Gate Tunnel Project. There may be opportunities to provide additional cycling and pedestrian routes and infrastructure to reduce modal conflict that are outside the scope of the West Gate Tunnel Project.

Ferguson Street Level Crossing

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The level crossing at Ferguson Street in Williamstown is planned for removal between 2020 and 2022. The removal of the level crossing introduces opportunities and challenges to be considered as part of the Hobsons Bay Transport Planning Study. There is an opportunity to connect to and further develop infrastructure being developed by the LXRP.

Theme 3 Challenges and opportunities summary

	Challenge
	Mitigating the impacts of additional trucks on Millers Road once the West Gate Tunnel opens. The West Gate Tunnel is expected to lead to an increase of 4,000 trucks a day on Millers Road, north of the West Gate Freeway. As discussed in the IAC report for the WGTP EES and the Planning Ministers assessment, an increase in truck volumes may lead to increases in noise and air pollution and reduction in the local amenity of the residents living along Millers Road.
	Challenge
8	Interchanges with the West Gate Tunnel have existing delays that impact the network. West Gate Tunnel EES modelling indicates satisfactory operation of the Millers Road, Grieve Parade and Hyde Street interchanges after the West Gate Tunnel opens. However, the source of existing delays may require further investigation to understand these potential congestion hotspots and key barriers to efficient north-south movement within the area.
	Challenge
8	The Hyde Street / Francis Street intersection is expected to be congested. West Gate Tunnel EES modelling indicates unsatisfactory operation of this intersection in the PM peak period after the opening of the West Gate Tunnel. This has potential to cause wider impacts to the network.
	Challenge
	Better understanding of the impact of Hyde Street Ramps on local streets. There is expected to be increased traffic along Hyde Street (additional 1,500 vehicles a day due to West Gate Tunnel Project) and Simcock Avenue (additional 1,500 vehicles a day) due to provision of ramps. It is unclear how this may impact local movements through the adjacent residential and commercial zones of Spotswood and Yarraville.
	Challenge
₫ <i>₽</i>	Safe integration of Hyde Street Ramps with the active transport network is needed to protect vulnerable road users. The new ramps and the extension of the Federation Trail raises the potential for safety implications as pedestrians and cyclists use pedestrian signals at Hyde Street.
A	Challenge
	Ferguson Street level crossing removal. Controlling movements for general traffic and freight through this area will be important, to support the vision for place and active transport.
	Opportunity
90	Maximise the benefits of active transport upgrades as part of the West Gate Tunnel Project. The West Gate Tunnel introduces new shared-use and active transport paths along the Federation Trail. Consolidating the active transport network will bring benefits for the residents of Hobsons Bay.
	Opportunity
90	Consolidate and formalise the cycling infrastructure along Kororoit Creek Road. Ferguson Street level crossing removal will allow for changes for safer and better connected active transport in the area.

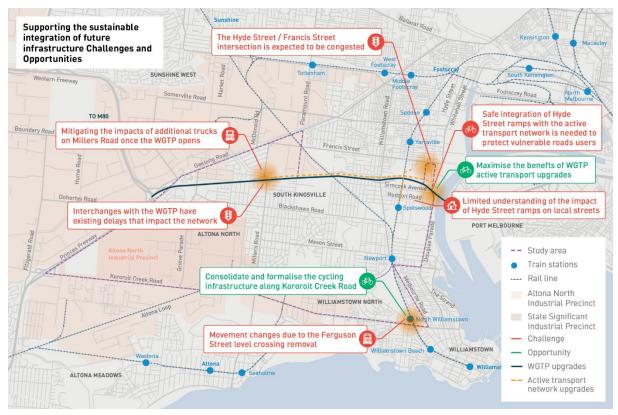


Figure 4 Theme 3 challenges and opportunities summary

9 What about local issues?

Identified transport issues and opportunities will be transferred to the relevant Local Area Management Plan (LAMP), which will be led by HBCC.

10 What is happening next?

The information developed as part of the Study will be used by DoT and HBCC to assist in the future development of the Hobsons Bay transport network in the short, medium and long-term.

Indicative future process

