Transport for NSW

Beaches Link and Gore Hill Freeway Connection

Chapter 3

Strategic context and project need

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3 Strategic context and project need

This chapter outlines the strategic context and need for the project, taking into account the current and future transport challenges Sydney is facing, and describes the benefits of the project for people across Greater Sydney. It also describes how the project aligns with national and State strategic planning and transport policies.

The Secretary's environmental assessment requirements as they relate to the strategic context and project need, and where in the environmental impact statement these have been addressed, are detailed in Table 3-1.

Table 3-1 Secretary's environmental assessment requirements – Strategic context and project need

Secretary's requirement	Where addressed in EIS
Environmental impact statement	
1. The EIS must include, but not necessarily be limited to, the following: b. a description of the project and all components and activities (including ancillary components and activities) required to construct and operate it, including: - the relationship and/or integration of the project with existing and proposed public and freight transport services	The relationship and integration of the project with existing and proposed public and freight transport services is described in **Section 3.6** and **Section 3.7**. Additional information about the relationship and integration of the project with existing and proposed public and freight transport services is in **Chapter 8** (Construction traffic and transport), **Chapter 9** (Operational traffic and transport) and **Chapter 27** (Cumulative impacts).
c. a statement of the objective(s) of the project	**Section 3.4** states the project objectives.
d. a summary of the strategic need for the project with regard to its State significance and relevant State Government policy	**Section 3.2** outlines the strategic need for the project. References to the project's State significance and relevant State Government policies are provided in **Section 3.7**.

3.1 Sydney's present and future

Greater Sydney is expanding and the NSW Government is working hard to deliver an integrated transport network that meets the community's needs now and into the future. The population of Greater Sydney is forecast to grow from five million to eight million people over the next 40 years. To accommodate this growth, the Greater Sydney Commission's *Greater Sydney Region Plan – A Metropolis of Three Cities* (Greater Sydney Commission, 2018a) envisages a global metropolis of three liveable, productive and sustainable cities. The Beaches Link and Gore Hill Freeway Connection project (the project) would be located in the North District of the Eastern Harbour City - an area of strategic economic importance for Sydney. The cities and districts of the *Greater Sydney Region Plan* and their key metrics are shown in Figure 3-1.

Sydney's key employment and economic areas are clustered along a corridor that runs from Port Botany and Sydney Airport to Macquarie Park; this is known as the Eastern Economic Corridor. The Eastern Economic Corridor contributed two thirds of the NSW economic growth for the 2015/16 financial year (Greater Sydney Commission, 2018b), and provides jobs in a range of

knowledge-based sectors including education, financial and other business services, communications, high-tech manufacturing and biotechnology (NSW Government, 2014). The *Greater Sydney Region Plan* is built on a vision of three cities where most residents live within a 30 minute journey of their jobs, education and health facilities, and services.

Supporting the current needs and future growth of the North District, Eastern Harbour City and Eastern Economic Corridor through an efficient transport network is fundamental to maintaining the liveability, productivity and sustainability of Greater Sydney. Accordingly, the *Greater Sydney Region Plan* was prepared concurrently with the *Future Transport Strategy 2056* (NSW Government, 2018) and the *State Infrastructure Strategy 2018–2038* (Infrastructure NSW, 2018) to align land use, transport and infrastructure outcomes for Greater Sydney.

The North District's economy is focused on the cluster of strategic centres along the Eastern Economic Corridor, including North Sydney, St Leonards, Chatswood, Macquarie Park, and centres further north in the district including Frenchs Forest and Brookvale-Dee Why. These centres play an important economic role in supporting the growth of Sydney as a global city.

The North District is home to 886,550 residents (or 19 per cent of Greater Sydney's population), which is forecast to increase by 18 per cent by 2036. The North District accommodates 483,300 jobs (or 20 per cent of Greater Sydney's jobs) (Greater Sydney Commission, 2018b). The highest share of employment in the North District is in knowledge-intensive and professional jobs (35 per cent compared to the Greater Sydney average of 32 per cent) and health and education (21 per cent compared to the Greater Sydney average of 19 per cent) (Greater Sydney Commission, 2018b). These sectors are among the fastest growing in the North District, reinforcing their significance in the North District's economy and, more broadly, to Greater Sydney (Greater Sydney Commission, 2018b).

Access between the North District and employment hubs along the Eastern Economic Corridor is primarily provided by private vehicle and bus services using the Military Road/Spit Road (A8) and Warringah Road (A38)/Eastern Valley Way corridors. These arterial links are highly congested and unreliable during peak periods. As a result, a small proportion of jobs within Greater Sydney are accessible to North District residents within 30 minutes by private vehicle or public transport during the morning peak.

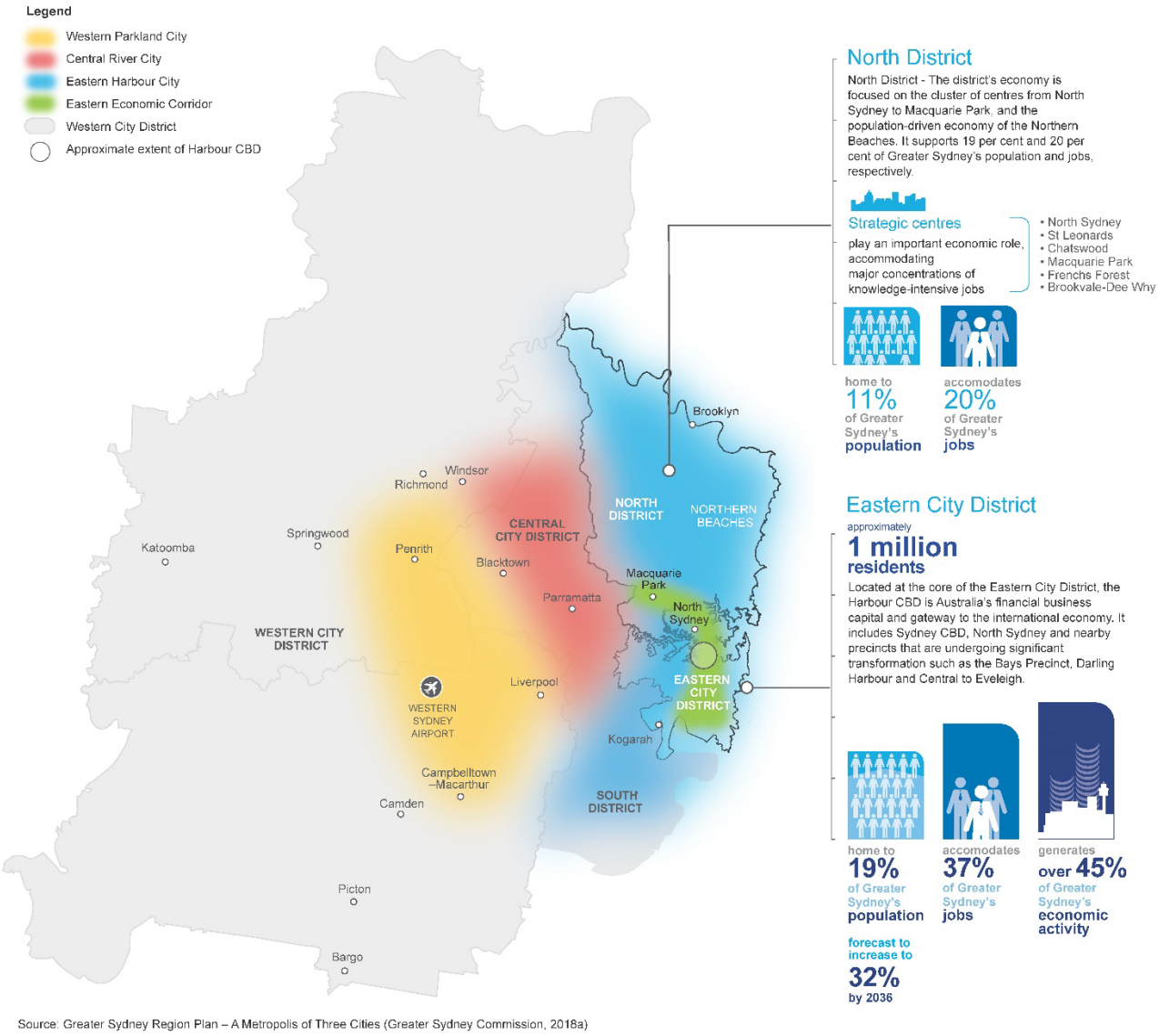
The Greater Sydney Commission's *Greater Sydney Region Plan* focuses on concentrating jobs and education facilities around strategic centres. Within the North District, this includes Frenchs Forest, Chatswood, St Leonards and North Sydney. The Greater Sydney Commission lists Frenchs Forest as a key catalyst to attract complementary health services and develop as a major employment hub for the Northern Beaches. This has been supported by the Northern Beaches Hospital road upgrade project, which has improved access to the Northern Beaches Hospital and increased the capacity of the broader road network, particularly along Warringah Road.

The Northern Beaches is the largest population centre within the North District and has a population of about 273,000. Since 1981, annual residential population growth on the Northern Beaches has been below the Greater Sydney average, typically tracking at about one per cent, or half the growth rate of Greater Sydney (Bureau of Transport Statistics, 2016). Jobs growth on the Northern Beaches is also below average relative to other parts of Sydney, with jobs forecast to grow by 0.8 per cent per annum compared to a metropolitan average of 1.1 per cent (excluding the Harbour CBD and Parramatta).

The COVID-19 pandemic is an unprecedented event that has changed the way people work and their travel patterns, while creating some uncertainty about the future of the NSW economy. While it is difficult to fully assess the impact of the event, evidence of Greater Sydney's resilience to such disruptions is already apparent. In Greater Sydney, traffic levels on most roads have returned to those experienced before NSW Government restrictions for COVID-19 were put in place. This indicates a relatively rapid response to the event by the city, and suggests that the movement of people, goods and services and demand for road capacity is returning to conditions similar to those prior to the COVID-19 pandemic. The NSW Government is demonstrating its commitment to supporting the recovery from the COVID-19 pandemic through its guaranteed infrastructure pipeline to drive the creation of jobs and contribute to economic growth. The project is part of this

pipeline. While the COVID-19 pandemic (along with other unprecedented events such as bushfires) presents short to medium-term challenges for Sydney (and NSW more broadly), the project has been developed with a long-term view to address the challenges Greater Sydney will face over the next 40 years, and to deliver long-lasting benefits for road users, communities and businesses. As such, the need for the project and other strategic transport projects to meet the demands of a growing population and economy remains critical to ensuring the future success of Sydney.

Additional key strategic planning and policy documents relevant to the project are discussed in Section 3.7.



Source: Greater Sydney Region Plan – A Metropolis of Three Cities (Greater Sydney Commission, 2018a)

Figure 3-1 Key metrics of Sydney's Eastern City and North District

3.2 The North District's road transport challenge

Freight services, public transport and other road users travelling to and from the Northern Beaches region currently experience some of the slowest and most unreliable journey times across Greater Sydney. The transport challenges for the North District and Northern Beaches region are the product of a number of key issues, summarised below:

- *High traffic volumes and limited capacity at the eastern Sydney Harbour and Middle Harbour crossings, and roads around the Harbour CBD*
  - Network data demonstrates that incidents on the Sydney Harbour crossings and their approaches heavily impact journey times for freight, buses and private vehicles travelling on the arterial network across the Northern Beaches region
  - The limited alternative routes and high demand for the eastern Sydney Harbour and Middle Harbour crossings result in high levels of congestion, and make these cross-harbour corridors critical to the performance of the broader motorway and arterial road network
  - The performance of the road crossings of Sydney Harbour and Middle Harbour are critical to the performance of the arterial network servicing the Northern Beaches (refer to Figure 3-4) – particularly for north-south trips
  - It has long been understood that the benefits of upgrading road capacity to the Northern Beaches region would not be realised without addressing downstream capacity constraints at the Sydney Harbour crossings and beyond.
- *Limited arterial road capacity servicing the Northern Beaches region*
  - The Northern Beaches is connected to the rest of Greater Sydney by a small number of transport corridors. Just three road corridors, including only two Middle Harbour crossings, connect the Northern Beaches with the rest of Greater Sydney:
    - Mona Vale Road (A3)
    - Military Road/Spit Road (A8)
    - Warringah Road (A38)/Eastern Valley Way.

    These three corridors are required to accommodate journeys to and from strategic centres across Greater Sydney, as well as local and intraregional trips, including a large number of bus trips.
  - The Mona Vale Road, Military Road/Spit Road and Warringah Road/Eastern Valley Way road corridors generally operate well over capacity during peak periods. This contributes to high levels of congestion, long and unreliable journey times and, consequently, poor accessibility to and from the region. This poor accessibility hinders daily access for people and goods travelling to, from, and within the region, increasing the time people spend commuting and restricting opportunities for growth in the strategic centres
  - The limited number of corridors connecting the Northern Beaches to the rest of Greater Sydney means that the network is very susceptible to major delays caused by incidents. Network data demonstrates that an incident on one corridor servicing the region can have major impacts on journey times across the broader road network.
- *Low population density across the Northern Beaches region*
  - While the Northern Beaches region is home to a large population, the population density is relatively low. This results in a wide variety of origins and destinations for transport journeys that are not well suited to high-frequency mass transit modes
  - Accordingly, the most appropriate transport modes for the region continue to be road based, including high-quality express bus services such as the B-Line. These modes provide the greatest flexibility to service the diverse trip needs of the dispersed Northern Beaches population

- However, the effectiveness of express bus services will diminish without appropriate improvements to road capacity and travel reliability.

- *Travel time reliability and speed of public transport journeys constrained by a congested road network*
  - The effectiveness and travel time reliability of the public transport network servicing the region is constrained by the capacity of the arterial road network, particularly the Military Road/Spit Road corridor which is the primary bus corridor between the Northern Beaches and Harbour CBD
  - The Military Road/Spit Road corridor also serves as the key corridor for all other road traffic for both interregional journeys between the Northern Beaches and Harbour CBD as well as local trips, resulting in heavy and conflicting road transport demands on this corridor and consequently, poor travel speeds during peak periods.

Further detail on these transport challenges and their influence on the proposed design for the Beaches Link and Gore Hill Freeway Connection project is provided in the following sections of this chapter.

3.2.1 High traffic volumes and limited capacity at the eastern crossings of Sydney Harbour and roads around the Harbour CBD and North District

The Eastern Harbour City has the largest concentration of jobs in Greater Sydney, accommodates the most productive industries and is home to a highly skilled workforce. Accordingly, the eastern motorway crossings of Sydney Harbour and crossings of Middle Harbour are critical links in Sydney's motorway and arterial road network. These major transport corridors around the Harbour CBD are critical to the performance of the arterial network servicing the Northern Beaches, particularly for north-south trips, and are some of the busiest in Greater Sydney and indeed in Australia, including:

- Spit Road/Spit Bridge – a critical connection to and from the Sydney CBD and Northern Beaches, carrying 69,500 vehicles per day and over 34,000 bus passengers per day (Transport for NSW, 2019)[1]
- Warringah Road/Roseville Bridge – a critical connection between employment centres at Chatswood and Macquarie Park and the Northern Beaches, carrying 79,000 vehicles per day and over 9,500 bus passengers per day (Transport for NSW, 2019)[2]
- Sydney Harbour Bridge (Bradfield Highway and Cahill Expressway) – one of the busiest roads in NSW, carrying 165,000 vehicles a day and over 79,000 bus passengers per day (Roads and Maritime, 2017)
- Sydney Harbour Tunnel – the eighth busiest road in NSW, carrying 94,000 vehicles a day (Roads and Maritime, 2017)
- The Warringah Freeway – the busiest road in NSW, carrying over 240,000 vehicles per day and over 100,000 bus passengers per day (Roads and Maritime, 2017)
- Sydney Harbour Bridge railway crossing – an essential link on the Sydney Trains network, accommodating the T1 North Shore and Western Line and T9 Northern Line services (Sydney Trains, 2015)

Key metrics for the Eastern Harbour City's road crossings of Middle Harbour are shown in Figure 3-2.

[1] Note: Existing traffic data sourced prior to the COVID-19 pandemic

[2] Note: Existing traffic data sourced prior to the COVID-19 pandemic

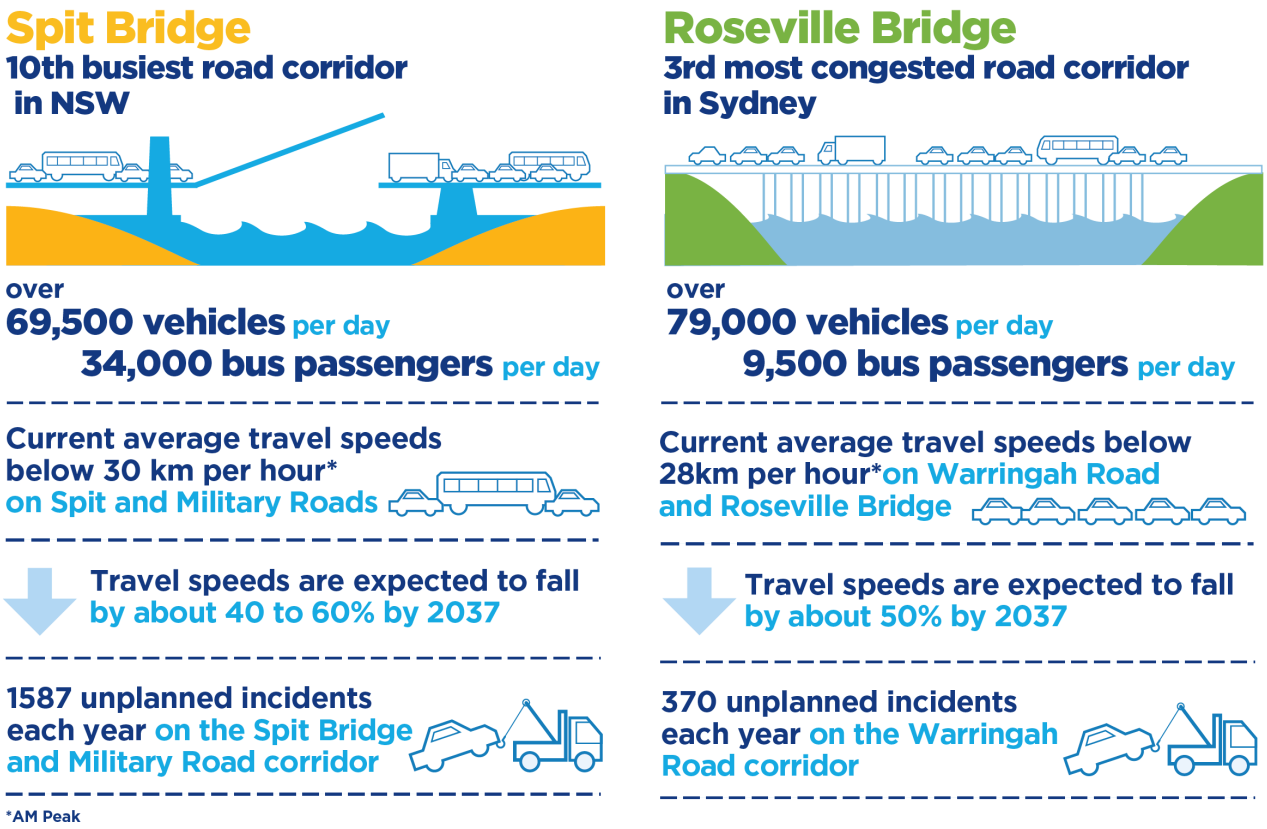


Figure 3-2 Key metrics for the critical Middle Harbour road crossings

The *Australian Infrastructure Audit 2019* (Infrastructure Australia, 2019) listed the Eastern Distributor, Sydney Harbour Bridge, Warringah Freeway and Gore Hill Freeway among Australia's most congested road corridors, generating a congestion cost of $65,000 per day in 2016. If no action is taken, this is forecast to rise to $98,000 per day by 2031, indicating that as congestion on these corridors increases, so too would the costs.

Infrastructure NSW has estimated that the economic risk to growth and productivity posed by traffic congestion in the Eastern City District is about $5 billion a year and is forecast to increase to about $8 billion annually by 2020. Infrastructure NSW has observed that "*without corrective action, congestion will worsen – and the costs to business and the community will escalate – as the city's population grows*" (Infrastructure NSW, 2014).

In addition to the large number of customers who rely on these corridors, the limited capacity and number of alternative routes for crossing Sydney Harbour make these corridors critical to the performance of the broader motorway and arterial road network. Network data demonstrates that incidents on the harbour crossings and their approaches can greatly impact journey times for freight, buses and private vehicles travelling north and south on the arterial network servicing the Northern Beaches region, with Military Road and Spit Road particularly affected.

During 2019, there were 1149 incidents on the Sydney Harbour Bridge and its approaches (including the Warringah Freeway), further impacting journey times for vehicles travelling to and from the North District and Northern Beaches region. Without intervention, the predicted growth in traffic demand over time would result in further increases in journey time delays and deterioration of road travel reliability.

In addition to high traffic volumes, a major contributor to congestion around the Harbour CBD and North District is that many of the most critical road corridors, including the Sydney Harbour Bridge, Sydney Harbour Tunnel, ANZAC Bridge, Western Distributor, Military Road, Spit Road, Warringah Road and Eastern Valley Way, perform both bypass and access functions. The dual function of these corridors is reflected in the high proportion of vehicles that use them to travel to destinations

other than the Sydney CBD (see Figure 3-3). This contributes to high levels of congestion as well as poor network outcomes, as bypassing traffic is impacted by congested collector/distributor roads.

Supplementing capacity and reducing the conflict between access and bypass functions for the Sydney Harbour Bridge, Sydney Harbour Tunnel, ANZAC Bridge, Western Distributor, Military Road, Spit Road, Warringah Road and Eastern Valley Way is therefore a key element of the integrated transport network required to support the liveability and productivity of the Eastern Economic Corridor and its connections with international gateways and their surrounds. This is also a key step in supporting and enabling future strategic links, including Beaches Link.

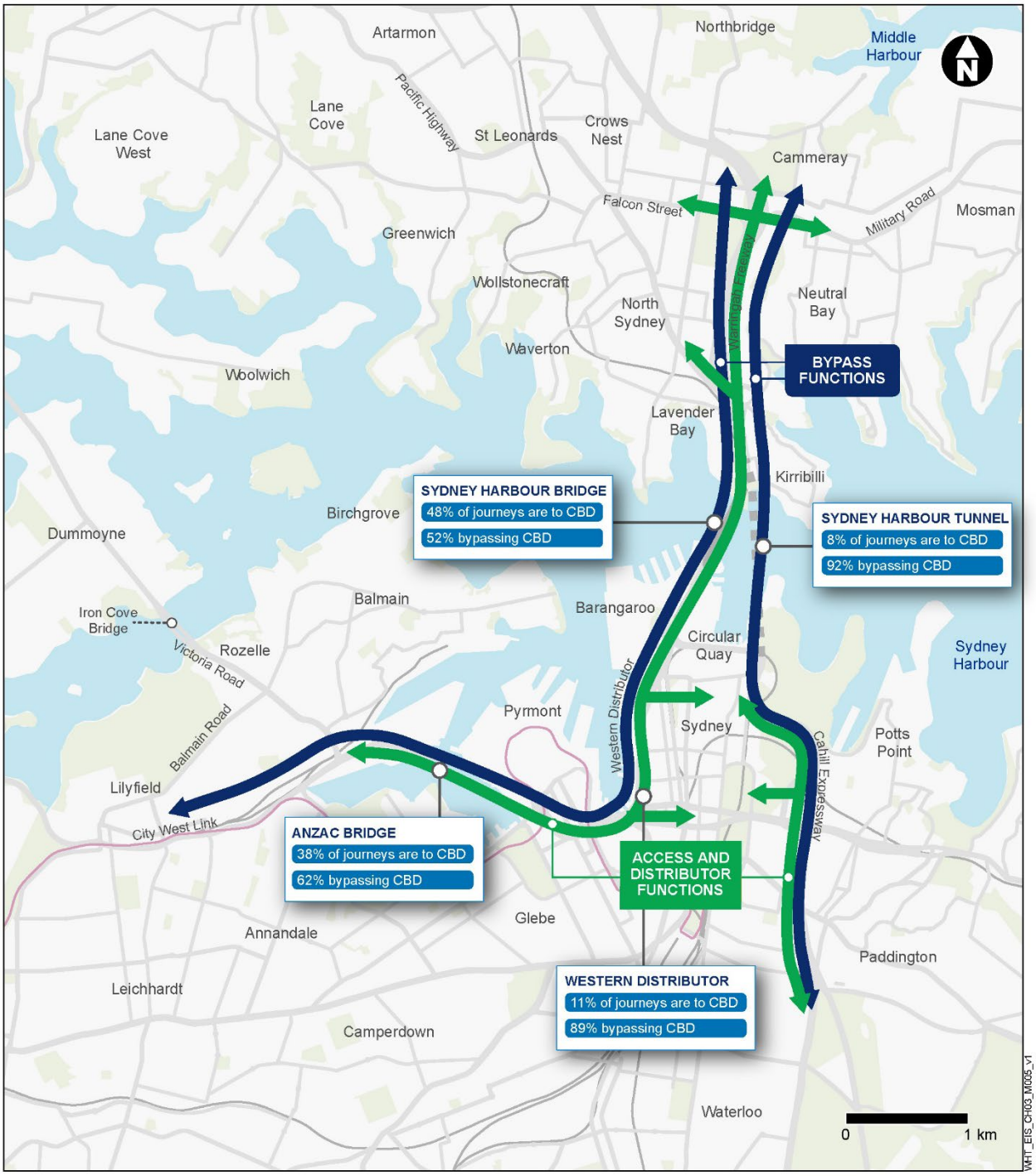


Figure 3-3 Function of critical road corridors around the Harbour CBD

3.2.2 Limited transport corridors connecting the region

The Northern Beaches is connected to the rest of Greater Sydney by a small number of transport corridors, which contributes to high levels of congestion, long and unreliable journey times and, consequently, poor accessibility to and from the region. Just three road corridors connect the Northern Beaches with the rest of Greater Sydney:

- **Mona Vale Road (A3)** is the most northerly road corridor. It is an arterial road from Mona Vale to North Ryde and onward, to the South, Central City and Western City Districts.

  Mona Vale Road carries about 60,000 vehicles per day, with around 4850 vehicles during the morning peak and 4700 vehicles during the afternoon peak, and is used by private vehicles, heavy vehicle freight, light commercial vehicles and several bus routes by both public and private operators connecting Mona Vale with Gordon and Macquarie Park.

- **Warringah Road (A38)** is an east–west part-arterial and part-motorway connection from Brookvale to Chatswood via Frenchs Forest.

  Carrying about 80,000 vehicles per day, including 5850 vehicles during the morning peak and 5800 vehicles during the evening peak, Warringah Road is the third most congested road in Sydney. This route serves private vehicles and freight, including journeys to and from the Harbour CBD via Eastern Valley Way and to Chatswood, Macquarie Park and other centres to the west.

  Given the pressure on the Military Road/Spit Road corridor, Warringah Road also carries vehicles that are making north-south journeys via Eastern Valley Way and using local sub-arterial roads including Willoughby Road, Flat Rock Drive, and Strathallen Avenue to access the Warringah Freeway and North Sydney.

  Warringah Road also carries several bus routes connecting Manly with Chatswood via Brookvale-Dee Why and Frenchs Forest, with about 18 buses traveling on this corridor in the AM peak one hour (Transport for NSW, 2016d). About 9500 bus passengers travel along Warringah Road per day (Transport for NSW, 2019). Planning is underway for a rapid bus system from Dee Why to Chatswood which would benefit from reduced congestion on Warringah Road.

- **Military Road/Spit Road (A8)** is the most southerly road corridor and is a north–south arterial road from Seaforth to North Sydney and the Warringah Freeway. This corridor is the primary route for private vehicles and buses travelling between the Northern Beaches, Harbour CBD and North Sydney.

  Military Road and Spit Road are the seventh and tenth busiest roads, respectively, in NSW in the AM peak, carrying about 70,000 vehicles per day, including about 4250 vehicles during the morning peak and 4750 vehicles in the evening peak.

  A total of 43 bus routes connect the Northern Beaches via the Spit Bridge, with 117 bus movements across the bridge in the AM peak one hour. The number of bus routes increases to 56 on Military Road. The corridor is serviced by the B-Line which would benefit from reduced congestion on the route. About 66,000 bus passengers travel along Military Road per day, with the Spit Bridge remaining a critical connection to and from the Sydney CBD and Northern Beaches, carrying over 34,000 bus passengers per day (Transport for NSW, 2019).

The region is particularly reliant on the most southerly corridors: the Warringah Road via Roseville Bridge and the Military Road/Spit Road via Spit Bridge corridors. Currently, these links carry 71 per cent of all interregional road journeys to and from the Northern Beaches, with traffic volumes forecast to increase by about 10 per cent by 2037 (see Figure 3-4).

Sydney's worst road congestion occurs between Balgowlah and Sydney Harbour through Mosman and Cremorne (Grattan Institute, 2017). The Spit Bridge opens regularly to allow boats to navigate Middle Harbour, resulting in traffic delays. However, even with the bridge down, morning delays on this route are greater and more unpredictable than other routes in Greater Sydney. As a result,

Balgowlah commuters to the Sydney CBD need to allow 40 minutes to get to work on time; or 23 minutes longer than the trip would take without traffic (Grattan Institute, 2017).

The *Australian Infrastructure Audit 2015* (Infrastructure Australia, 2015), identified the east–west corridor (Warringah Road between Chatswood and Narraweena) as generating the third highest congestion cost of all road corridors across Sydney, Wollongong and Newcastle. This is based on a delay cost per lane kilometre of $2.18 million. The Audit estimates that by 2031 this will increase to $6.16 million, making it the second-most costly corridor for congestion behind the Warringah Freeway (Infrastructure Australia, 2015).

The heavy reliance on these corridors results in them being highly congested and journeys that rely on them are highly susceptible to delays caused by incidents. Current average travel speeds in the AM peak are below 30 km/h on Military Road and Spit Road. Travel speeds are expected to fall by about 40 to 60 per cent in the southbound direction and about 20 per cent in the northbound direction by 2037. Similarly, average travel speeds for trips on Warringah Road in the westbound direction between Frenchs Forest and North Sydney are expected to drop below 15 km/h in the AM peak (a decrease of about 54 per cent) by 2037.

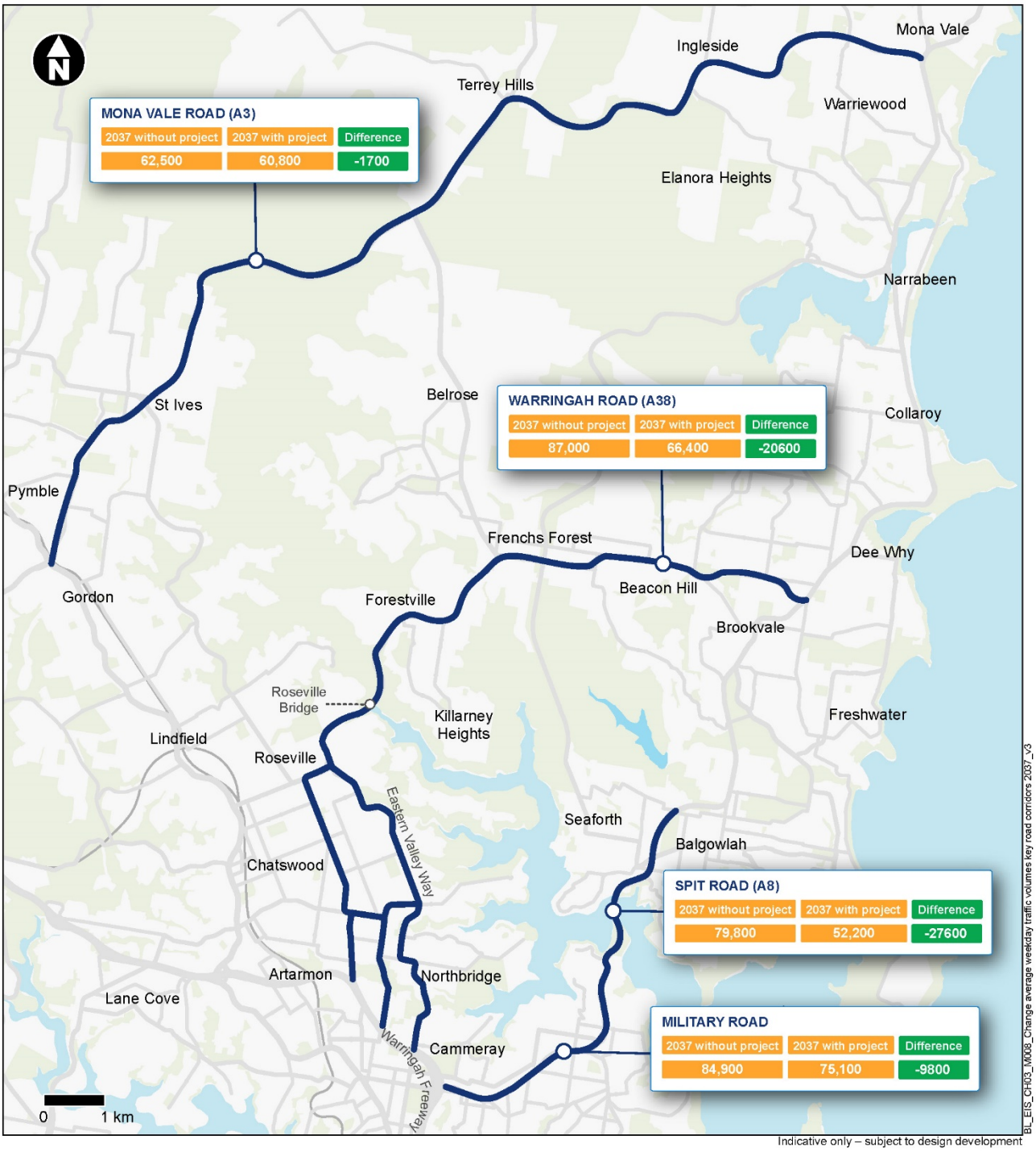


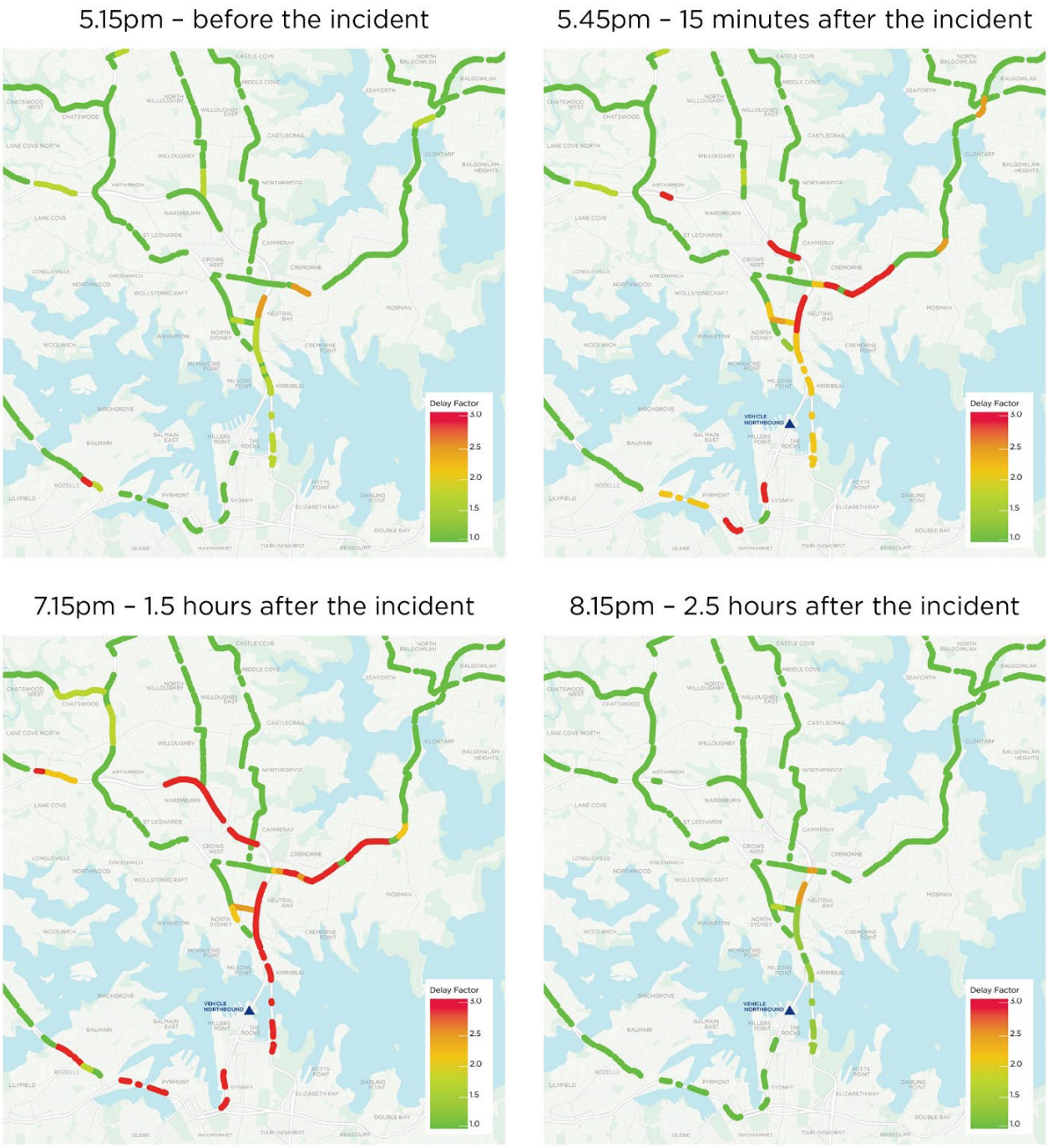
Figure 3-4 Forecast change in weekday traffic volumes average (two-way) in the AM peak on key Northern Beaches corridors by 2037

3.2.3 Low resilience in the transport network connecting the Northern Beaches

The high road demand and limited number of corridors connecting the Northern Beaches means that incidents on these corridors have significant impacts on journey times to and from the region. In 2019, there were 1587 unplanned incidents on the Military Road/Spit Road corridor, and 370 unplanned incidents on Warringah Road.

In 2036, on a network wide level, the lack of network resilience to incidents on the Military Road/Spit Road corridor is estimated to cost $13 million annually. As congestion on this route increases, so too would the costs to the economy of the North District.

The low resilience of the network to incidents is demonstrated by the case study presented in Figure 3-5 which traces the delay impacts of an incident that occurred on the Sydney Harbour Bridge during peak hour in 2016. The incident resulted in the closure of four lanes of the Sydney Harbour Bridge which caused major delays across large parts of the network, including for motorists in the Sydney CBD, the Lane Cove Tunnel on the Eastern Distributor and along Military Road at Mosman. Delays resulting from the incident persisted along the Gore Hill Freeway and Military Road for more than 90 minutes following the incident, with traffic conditions returning to normal about two hours after the incident.



Traffic incident occurring on northbound lane of Sydney Harbour Bridge at 5.30pm

1. Traffic flow 15 minutes before the incident is relatively normal.
2. Traffic flow 15 to 30 minutes after the incident is delayed, with tailbacks developed north of the bridge to the Warringah Freeway and Military Road, and south of the bridge near Western Distributor and ANZAC Bridge.
3. Traffic flow 90 to 105 minutes after the incident, tailbacks continue and worsen north and south of the bridge, extending to Gore Hill Freeway to the north and Victoria Road (at Rozelle) to the south.
4. Traffic flow 2.5 hours after the incident has returned to normal.

Figure 3-5 Delay impacts of an evening incident on Sydney Harbour Bridge

3.2.4 Travel time reliability and speed of public transport journeys constrained by a congested road network

As outlined in the *Northern Beaches Transport Strategy 2038* (Northern Beaches Council, 2018a), residents on the Northern Beaches rely heavily on private vehicles and public buses for travel. With the exception of the Manly ferry, bus transport is the only means of public transport in the region. The travel time reliability and speed of public transport journeys for Northern Beaches bus passengers is strongly linked to the capacity of the road network the buses use and the road network's ability to cope with incidents.

The primary suburban bus routes to and from the Northern Beaches use both the Military Road/Spit Road (A8) and Warringah Road(A38)/Eastern Valley Way corridors to connect with the Harbour CBD and employment centres in Chatswood and Macquarie Park respectively. As outlined in Section 3.2.1, these roads are some of the most utilised bus routes with the Spit Bridge (A8) carrying over 34,000 bus passengers per day, while the Roseville Bridge (A38) carries over 9500 bus passengers per day.

The commencement of the B-Line program in 2017 has successfully improved public transport capacity and journey times to and from the Northern Beaches region, with travel times reduced by about 20 minutes for passengers using the service from Mona Vale to the Sydney CBD during peak periods. Despite these improvements to bus performance, bus travel times between Mona Vale and the Sydney CBD remain in excess of 60 minutes during peak periods. The key constraint in peak periods is the capacity of the Military Road/Spit Road corridor which serves both interregional journeys between the Northern Beaches and Sydney CBD as well as local trips. This places heavy and conflicting road transport demands on the corridor, resulting in poor travel speeds during peak periods. The lack of spare capacity on this corridor also amplifies the impacts of incidents, resulting in poor travel speed reliability.

Buses continue to be the most appropriate public transport mode for the Northern Beaches area given the low population density and subsequently wide variety of origins and destinations for the commuters in the area. Buses provide the ability for flexibility and will be critical in supporting predicted future demand in the area. However, without measures to relieve capacity constraints on the arterial road network, the ongoing success of the B-Line as well as opportunities to implement new express bus services, would be limited in the future as a result of continuing growth in traffic and particularly as express and limited stop services continue to clash with more local bus routes.

There are multiple local and express bus services, contributing to competition for road space and bunching

A key contributor to low bus speeds, particularly in corridors like Military Road/Spit Road, is the high number of buses that also mix with cars and other traffic, competing for limited road space and resulting in increased congestion and lengthy delays. Each day, 43 bus routes traverse the Spit Bridge, with 117 buses crossing it in the period 8am to 9am alone. A further 13 bus routes use Military Road, most carrying passengers to and from Mosman, Cremorne and Neutral Bay.

Bus journey times are unreliable

The journey times for bus services connecting the Northern Beaches to the Sydney CBD are affected by the capacity and conflicts on the existing arterial road network, resulting in some journey times being unreliable. The variability in journey times means that some customers need to incorporate additional time into their schedule, which affects the customer experience and imposes a cost on the productivity of Greater Sydney.

With the streamlining of bus services delivered through the B-Line program, bus service performance and travel time reliability has improved, and bus patronage has increased – with over 2000 weekly services providing enhanced services between Mona Vale and Wynyard. However, for these benefits to be sustained over the long term, investment in additional road capacity through alternative routes or modes for corridors at capacity, is critical to improve the transport performance of the network in this area. To support opportunities for further improvements,

including new express services to strategic centres such as North Sydney, Sydney CBD, Macquarie Park and St Leonards, a new motorway standard link is required.

3.3 Congestion impacting urban amenity across the Eastern City and North Districts

In addition to the transport challenges created by the limited arterial roads servicing the North District and Northern Beaches region, the current situation also has urban amenity implications. High through traffic and congestion along the arterial roads servicing the Northern Beaches undermines efforts to improve liveability in several inner urban areas along and next to these routes.

Across the Harbour CBD and Northern Beaches, several parts of the road network perform a 'place' function. This means that, as well as being transport corridors, parts of the road network are destinations in their own right, including for shopping and dining. These places play an important role in supporting the liveability, productivity and sustainability of Greater Sydney, and the transport network has an important role in supporting this objective, as reflected in 'Successful Places' being one of the six NSW-wide outcomes established by the *Future Transport Strategy 2056* (NSW Government, 2018).

The Military Road/Spit Road corridor is one of the busiest and most congested road corridors in NSW. In addition to local trips, about one third (33 per cent) of interregional journeys to and from the Northern Beaches pass through the corridor every day. Through traffic and congestion are a key cause of poor urban amenity along the corridor, impacting areas such as Neutral Bay, The Spit and Mosman. These impacts include restricted parking, reduced pedestrian and cyclist amenity, limited vegetation, and traffic noise and air quality impacts.

Congestion of these corridors also results in broader urban amenity impacts beyond the arterial corridors themselves, with drivers moving to local routes in an attempt to avoid congestion. Transport for NSW customer research carried out in 2017 indicates that 73 per cent of motorway users 'rat-run' to avoid congestion. Improving the core motorway and arterial capacity, resilience and reliability is a key part of the multi-modal transport network required to improve the amenity of local communities and reduce 'rat running'.

3.4 The Western Harbour Tunnel and Beaches Link program of works

The Western Harbour Tunnel and Beaches Link program of works is a major transport infrastructure program that would make it easier, faster and safer to get around Sydney. As Sydney continues to grow, faster and more reliable trips are essential to reducing congestion and providing new levels of access to jobs, recreation, and services such as schools and hospitals. By creating a western bypass of the Sydney CBD, the Western Harbour Tunnel would take pressure off the Sydney Harbour Bridge, Sydney Harbour Tunnel and ANZAC Bridge; while Beaches Link would create an alternative to the Military Road/Spit Road and Warringah Road corridors to relieve traffic pressure on the North Shore.

The program of works has been designed as part of an integrated transport network, with a focus on new public transport connections and improved journey time reliability for buses. It would also provide improvements to walking and cycling routes, providing more shared transport options.

The Western Harbour Tunnel and Warringah Freeway Upgrade project and the Beaches Link and Gore Hill Freeway Connection project are being delivered as separate projects, but have been developed as an integrated program of works known as the Western Harbour Tunnel and Beaches Link program.

The Western Harbour Tunnel and Beaches Link program of works comprises three core elements as illustrated in Figure 3-6.

Figure 3-6 Elements of the Western Harbour Tunnel and Beaches Link program of works

- **Warringah Freeway Upgrade** – An upgrade to about four kilometres of the Warringah Freeway to integrate with the Western Harbour Tunnel and Beaches Link and optimise the way the three harbour crossings will function into the future
- **Western Harbour Tunnel** – A new 6.5 kilometre cross-harbour motorway tunnel linking the Rozelle Interchange to the Warringah Freeway and Beaches Link near North Sydney. This new crossing will change the way people move around Sydney, creating a western bypass of the Sydney CBD, easing pressure on the congested Sydney Harbour Bridge, Sydney Harbour Tunnel and ANZAC Bridge, and enabling the new Beaches Link
- **Beaches Link** – A new seven kilometre motorway tunnel from the Warringah Freeway at Cammeray and the Gore Hill Freeway at Artarmon to Burnt Bridge Creek Deviation at Balgowlah and the Wakehurst Parkway at Killarney Heights, under Middle Harbour. Beaches Link also includes underground connections to and from the Western Harbour Tunnel and widening of the Wakehurst Parkway to two lanes each way between Killarney Heights and Frenchs Forest along with connection and integration works along the existing Gore Hill Freeway and surrounding roads at Artarmon.

In conjunction with the other road, rail, bus and light rail projects outlined in the *Future Transport Strategy 2056* (NSW Government, 2018), the Western Harbour Tunnel and Beaches Link program of works has been developed to meet the current and future transport needs of Sydney. The program of works represents an important step in the long-term development of Greater Sydney's strategic transport network. The program of works has been developed to address critical transport constraints in the motorway and arterial road network, and support the growth of the city and NSW, by improving the capacity, reliability, and journey time performance of the critical cross-harbour transport corridors near the Harbour CBD.

As well as relieving road congestion for freight operators and private vehicle commuters who are affected by limited road capacity to and from the Northern Beaches, the program of works has been designed as part of an integrated transport network with a focus on new public transport connections and improved journey times and journey time reliability for buses to provide major benefits to public transport commuters. This includes opportunities for new express bus services between the Northern Beaches, North Sydney, Sydney CBD, St Leonards and strategic centres to the south west and north west.

To ensure the design for the program of works addresses the transport challenges of the North District and Eastern Harbour City, the following objectives have been developed for the Western Harbour Tunnel and Beaches Link program of works:

- Reduce congestion on distributor roads around the Harbour CBD, including the Sydney Harbour Bridge, Western Distributor and ANZAC Bridge
- Create faster, safer and more reliable journeys across Sydney Harbour, particularly for traffic bypassing the Harbour CBD to the west
- Improve productivity by allowing commuters and freight to reach their destination faster, safer and more reliably
- Increase the ability for the Harbour CBD road network to cope with traffic incidents

- Reduce travel times, delays and queuing on the Warringah Freeway by improving cross-harbour capacity and reducing merges and weaves, supporting long-term increased demand
- Improve streetscapes, sustainability and liveability across the Eastern City and North Districts by reducing congestion and through traffic in local centres.

The overarching objectives of the program of works translate into the following project specific objectives for the Beaches Link and Gore Hill Freeway Connection project:

- Provide increased capacity on the road network connecting the Northern Beaches region and Greater Sydney by reducing congestion and through traffic on arterial roads
- Create faster, more reliable journey times for freight services, public transport and other road users between the Northern Beaches region and other strategic centres across Greater Sydney, including North Sydney, the Harbour CBD, Macquarie Park and St Leonards
- Provide opportunities to expand and improve public transport journeys between the Northern Beaches and key centres across Greater Sydney, and improve access for the Northern Beaches region to an expanded transport network, including Victoria Cross Metro Station (opening 2024)
- Improve productivity and access to services by facilitating faster and more reliable journey times for commuters and freight to reach their destinations
- Increase the resilience of the Northern Beaches and North Shore road network to traffic incidents
- Improve urban amenity by reducing congestion, through traffic and rat-running on surface corridors.

A summary of the project challenges, corresponding objectives and overall project benefits are shown in Figure 3-7 and discussed in more detail in Section 3.6.

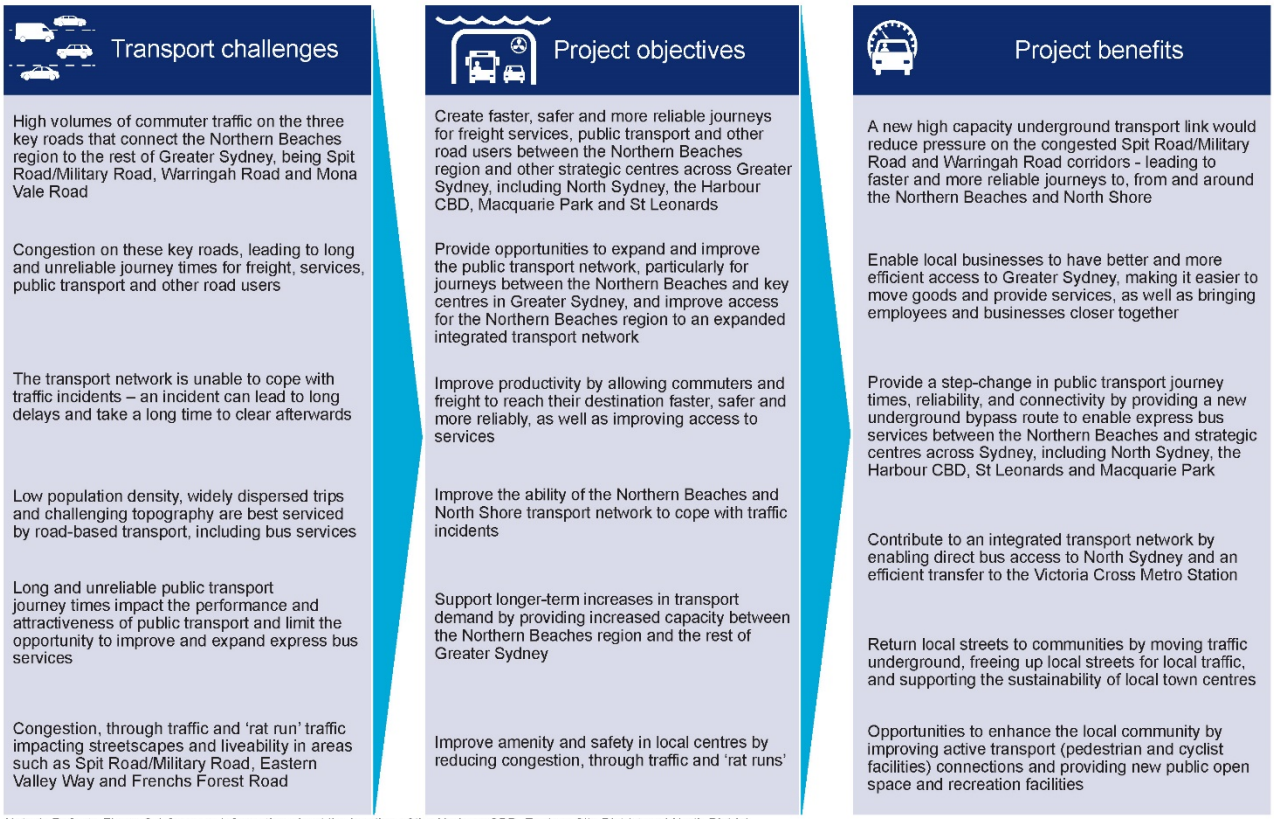


Figure 3-7 Project challenges, objectives and benefits

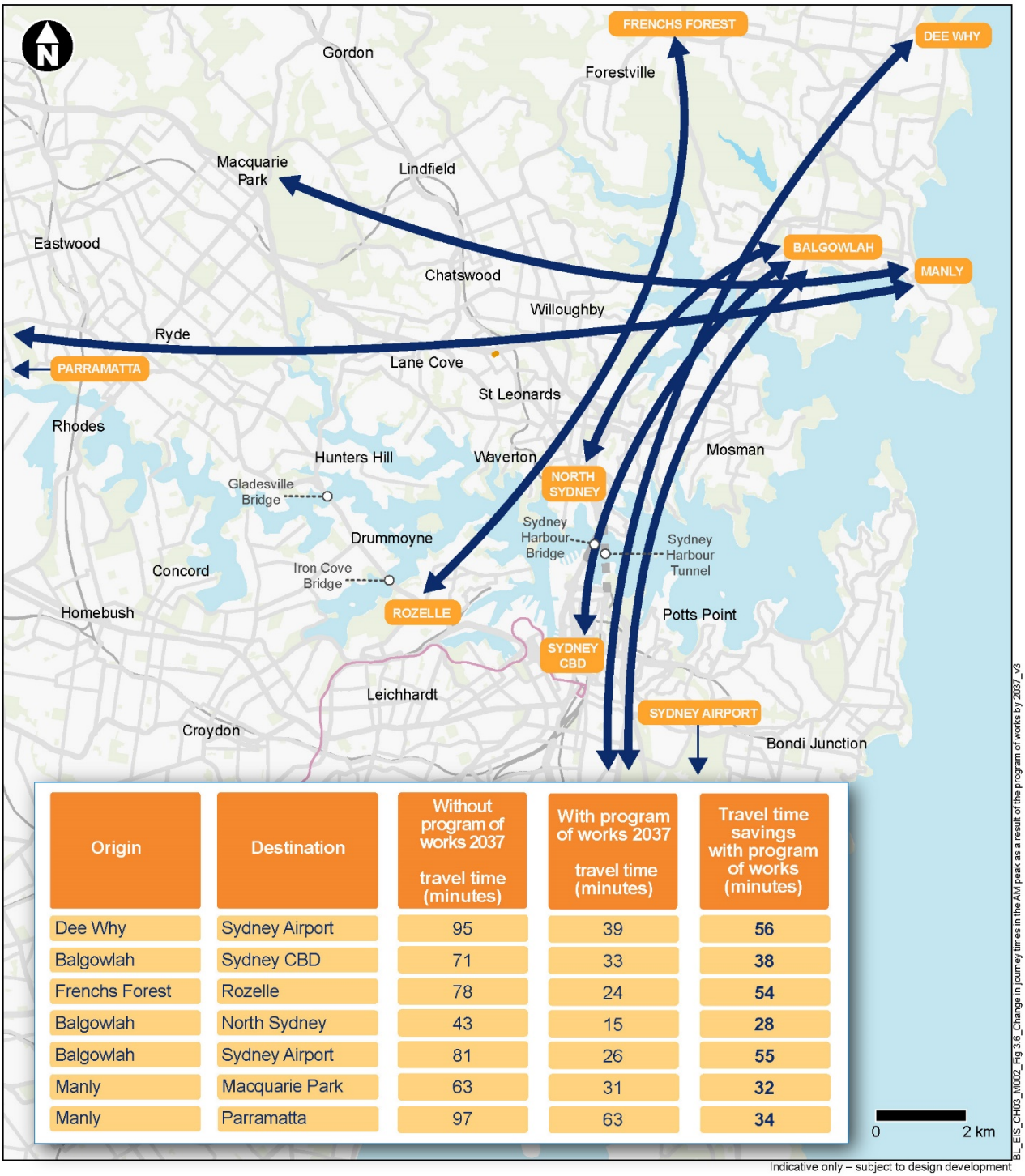
3.5 Key benefits of the Western Harbour Tunnel and Beaches Link program of works

The Western Harbour Tunnel and Beaches Link program of works would deliver new strategic road links for Greater Sydney, improving journey times for freight services, public transport and other road users and alleviating pressure on some of the city's most critical transport corridors. The program of works is designed to improve the capacity, reliability, and journey times on cross-harbour transport corridors near the Harbour CBD and improve connectivity to the Northern Beaches.

Key benefits of the program of works include:

- Delivering a new motorway crossing of Sydney Harbour, taking pressure off critical corridors including the Sydney Harbour Bridge, Sydney Harbour Tunnel, Western Distributor and ANZAC Bridge, and enabling the Beaches Link
- Improving the efficiency and safety of Australia's busiest road, the Warringah Freeway
- Providing a new motorway link between the Northern Beaches and the existing network near North Sydney and Artarmon, bypassing the congested Military Road/Spit Road and Warringah Road/Eastern Valley Way corridors
- Delivering faster and more reliable journey times for freight services, public transport and other road users who rely on the critical cross-harbour road corridors and arterial corridors connecting to the Northern Beaches region
- Increasing the ability for the Harbour CBD arterial road network to cope with traffic incidents by providing additional capacity and an alternative route to the heavily congested existing harbour crossings
- Enabling substantial improvements for public transport customers currently using some of Sydney's busiest road corridors – allowing for quicker and more reliable journey times for express bus services between the Northern Beaches and strategic centres including North Sydney, Sydney CBD, Macquarie Park and St Leonards via the motorway network
- Benefits to users of existing surface corridors by reducing congestion.

The program of works would support faster and more reliable travel times for journeys between the Northern Beaches region and key centres south and west of Sydney Harbour. For example, journeys from Dee Why to Sydney Airport are expected to be 56 minutes faster (total travel time 39 minutes) in the AM peak by 2037 (via the proposed Beaches Link, Western Harbour Tunnel, WestConnex and Sydney Gateway). Other key journey time improvements in the AM peak as a result of the program of works are shown in Figure 3-8.



Origin	Destination	Without program of works 2037 travel time (minutes)	With program of works 2037 travel time (minutes)	Travel time savings with program of works (minutes)
Dee Why	Sydney Airport	95	39	**56**
Balgowlah	Sydney CBD	71	33	**38**
Frenchs Forest	Rozelle	78	24	**54**
Balgowlah	North Sydney	43	15	**28**
Balgowlah	Sydney Airport	81	26	**55**
Manly	Macquarie Park	63	31	**32**
Manly	Parramatta	97	63	**34**

Figure 3-8 Change in journey times in the AM peak as a result of the program of works by 2037

3.6 Key benefits of the Beaches Link and Gore Hill Freeway Connection project

The Beaches Link and Gore Hill Freeway Connection project is a vital part of the overall Western Harbour Tunnel and Beaches Link program of works.

The Northern Beaches and its strategic centres suffer from poor accessibility caused by limited transport capacity connecting the region and the resulting flow on effects for bus performance during peak periods. The project would provide a step-change in journey times and reliability, and resilience for the critical road network servicing the Northern Beaches region. This would deliver considerable benefits for freight services, public transport, and other users of the new and existing links and also enable amenity improvements in areas along and adjacent to the congested surface corridors.

Further detail on some of the key benefits of the project is provided in the following sections. Further information on the consistency of the project outcomes with strategic local, State and Australian Government objectives is provided in Section 3.7.

3.6.1 Reducing pressure on congested road corridors servicing the Northern Beaches and North Shore

The Beaches Link and Gore Hill Freeway Connection project would provide a new underground motorway bypass of the Military Road/Spit Road (A8) and Warringah Road (A38)/Eastern Valley Way corridors. The project would substantially improve journey times and trip reliability for millions of freight vehicles, public transport users and other commuters who rely on these transport links each year.

The project has been designed to provide motorway standard connectivity for both east-west journeys between the Northern Beaches and employment centres such as Chatswood and Macquarie Park, and north-south journeys including to and from the Sydney CBD. This is achieved by providing tunnelled connections to and from the Gore Hill Freeway and Warringah Freeway and the Western Harbour Tunnel. This is key to improving travel times for both north–south and east–west road journeys to and from the Northern Beaches, and alleviating congestion on a number of arterial roads in northern Sydney that are used for these journeys, including Military Road, Spit Road, Warringah Road, Boundary Street, and Eastern Valley Way.

The forecast major reductions in traffic volumes on major arterial routes around northern Sydney that are expected due to the project are shown in Figure 3-9. Analysis of the modelled forecast traffic demands across Middle Harbour with the project in 2037 indicates that:

- Peak period traffic demand on Military Road and Spit Road would decrease as a result of the project, by up to 11 per cent and 33 per cent respectively
- Peak period traffic demand on Warringah Road would decrease as a result of the project by up to 23 per cent
- Peak period traffic demand on Mona Vale Road would decrease by up to eight per cent as a result of the project
- Daily traffic demand on Eastern Valley Way would decrease substantially as a result of the project, by up to 40 per cent.

The overall reduction in traffic on the above surface arterial routes would result in improved travel speeds on these routes as a result of the project by 2037. This would deliver improved journey times for freight services, public transport and other road users that continue to use these routes.

Furthermore, reduced congestion on these surface arterial routes is expected to reduce the attractiveness of rat-running on existing surface roads including Eastern Valley Way, Frenchs Forest Road and Ourimbah Road, reducing traffic through surrounding urban and residential areas.

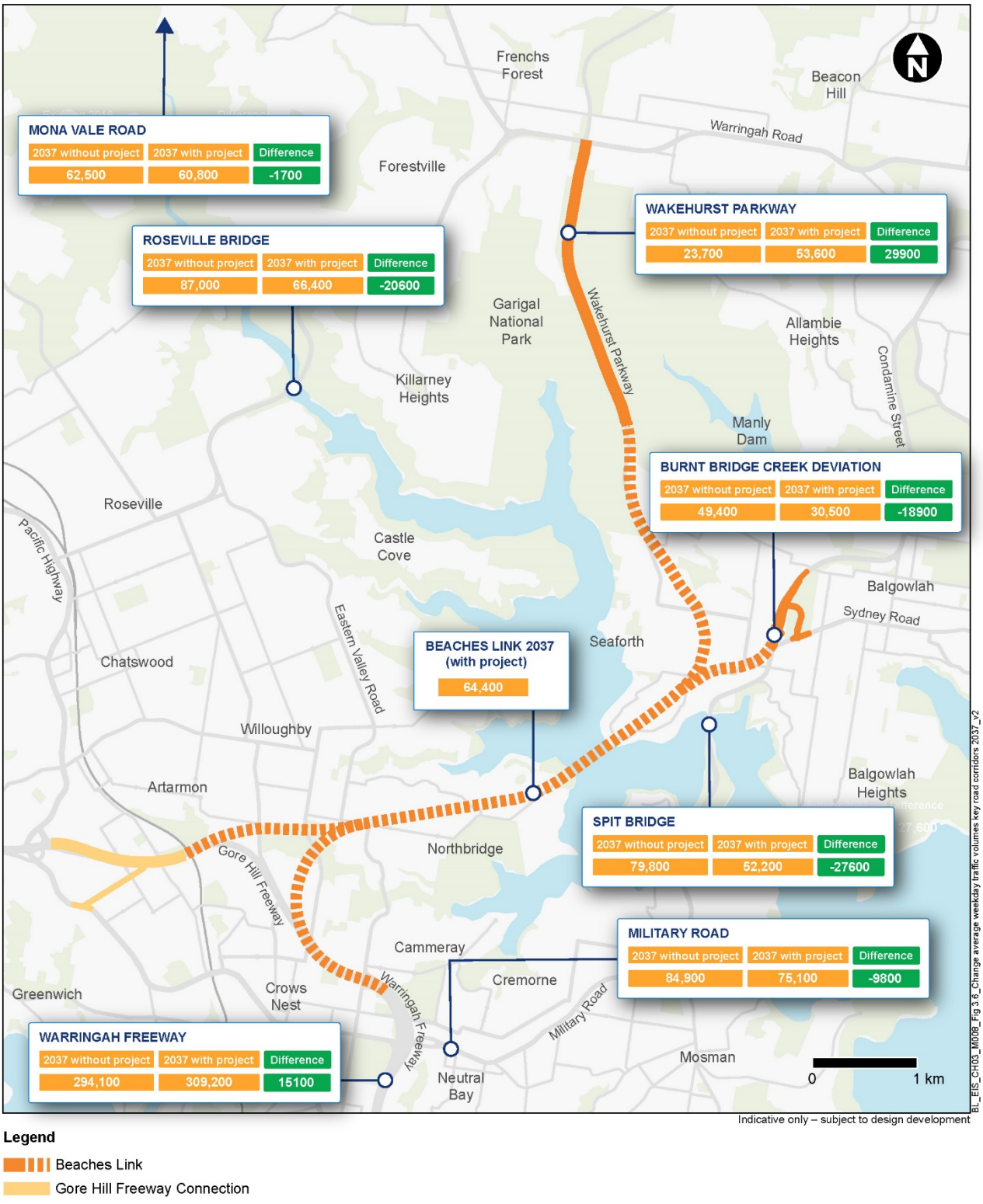


Figure 3-9 Change in average weekday traffic volumes (two-way) on key road corridors by 2037

3.6.2 Creating faster, more reliable journeys for freight services and other road users between the Northern Beaches region and other strategic centres across Greater Sydney

Freight services and private vehicle commuters would benefit from the project through faster and more reliable road journey times between the Northern Beaches region and key centres across Greater Sydney. By connecting the Northern Beaches to the Sydney motorway network, the project would provide faster connections to strategic commercial and industrial centres across Greater Sydney. For example, customers travelling between Frenchs Forest and Macquarie Park would be able to bypass about 20 sets of traffic lights by using the Beaches Link tunnel.

The expected travel time savings for specific journeys in the AM peak are shown in Figure 3-8 which indicates shorter journey times when comparing the 2037 'with program of works' and 'without program of works' cases. Key improvements as a result of the project (in conjunction with the Western Harbour Tunnel and Warringah Freeway Upgrade) would include:

- Journeys from Frenchs Forest to Rozelle would experience a travel time saving of about 31 minutes. This shorter journey time would particularly benefit freight vehicles connecting to the M4-M5 Link at Rozelle
- Journeys to the west, from Manly to Macquarie Park, would experience a travel time saving of about 34 minutes
- Journeys from Balgowlah to North Sydney would experience a travel time saving of about 28 minutes
- Journeys from Dee Why to Kingsford Smith Airport would experience a 27 minute travel time saving.

The above travel time savings would provide the opportunity to investigate new high-quality express bus services to employment centres including Chatswood and Macquarie Park, as well as resulting in improved connectivity to the Sydney Trains network and new Victoria Cross Metro Station at North Sydney.

3.6.3 Creating faster, more reliable travel times and more direct routes for bus journeys between the Northern Beaches, the Harbour CBD and other strategic centres

In addition to the journey time and reliability benefits provided for freight services and private vehicle commuters, the project would unlock considerable improvements for public transport users travelling on some of Sydney's busiest road corridors. The project has been designed to complement and enhance the existing and future public transport network servicing the Northern Beaches region. The project would materially improve the capacity, efficiency and journey time reliability of bus services for the Northern Beaches region and ensure the longer-term success of the B-Line. The project would deliver this by:

- Relieving pressure on surface arterial roads, allowing surface bus routes to operate more efficiently
- Providing an underground bypass route, which would enable express bus services to travel via the tunnel and motorway network to destinations like North Sydney, the Harbour CBD, Macquarie Park and St Leonards, as shown in Figure 3-10. This would result in more rapid and reliable journey times and more direct routes for express bus services, while simultaneously improving the capacity and efficiency of existing surface corridors by reducing conflicts between express and multi-stop services.

The public transport network servicing the Northern Beaches region, including B-Line, is constrained by the performance of the existing surface arterial corridors, particularly the Military Road/Spit Road and Warringah Road/Eastern Valley Way corridors. By relieving pressure on these existing surface arterial road corridors, the project would support the operation of the B-Line as

well as local and interregional buses, by improving travel times and travel time reliability on these roads as a result of reduced traffic demand and congestion. Improvements in the capacity of the road network would encourage opportunities for new express bus services, as evidenced by the new rapid bus service from Dee Why to Chatswood which is currently being planned, which would benefit from reduced congestion on the Warringah Road corridor.

By reducing network congestion, and therefore improving network resilience and reliability, particularly in peak periods, the project would make bus routes to and from the Northern Beaches a more attractive transport option, supporting and encouraging a mode shift to public transport. New and improved bus priority infrastructure, dedicated bus bays and shared user underpasses offering access to bus stops that would be provided by the project would also improve efficiency and safety for road users and bus passengers.

By providing a new underground bypass route, the project offers the opportunity for express bus services in the Beaches Link tunnel between the Northern Beaches and strategic centres such as North Sydney, Sydney CBD, Macquarie Park and St Leonards via the new motorway network. These bus services would provide links to strategic stations on the Sydney Trains network, while also facilitating efficient access and interchange with the new Victoria Cross Metro Station at North Sydney, improving connectivity across the broader public transport network. Expansion of express bus services to take advantage of these opportunities would greatly improve the journey times, travel time reliability and connectivity for public transport services both within the Northern Beaches, and between the region and key centres across Greater Sydney.

The potential benefits outlined above only account for the diversion of express bus services to the Beaches Link tunnel and motorway network and improved surface conditions along existing key routes, meaning it is a conservative estimate of the overall public transport benefits and opportunities delivered by the project. It is expected that the bus network could be re-optimised to take advantage of broader opportunities (including provision of new services) unlocked by the project. The project would enable these opportunities for new services to be developed in response to diverse travel demands and future development.

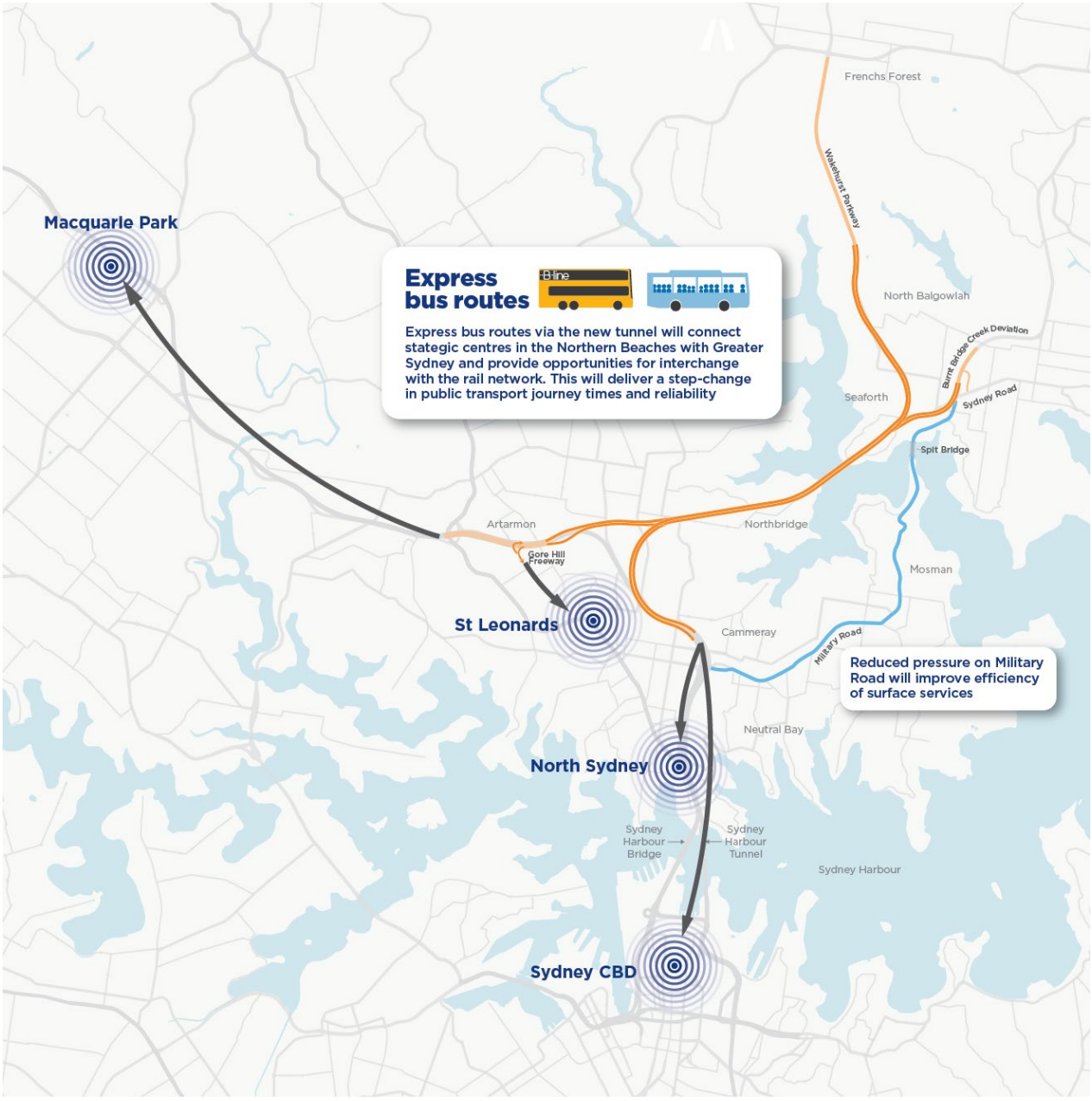


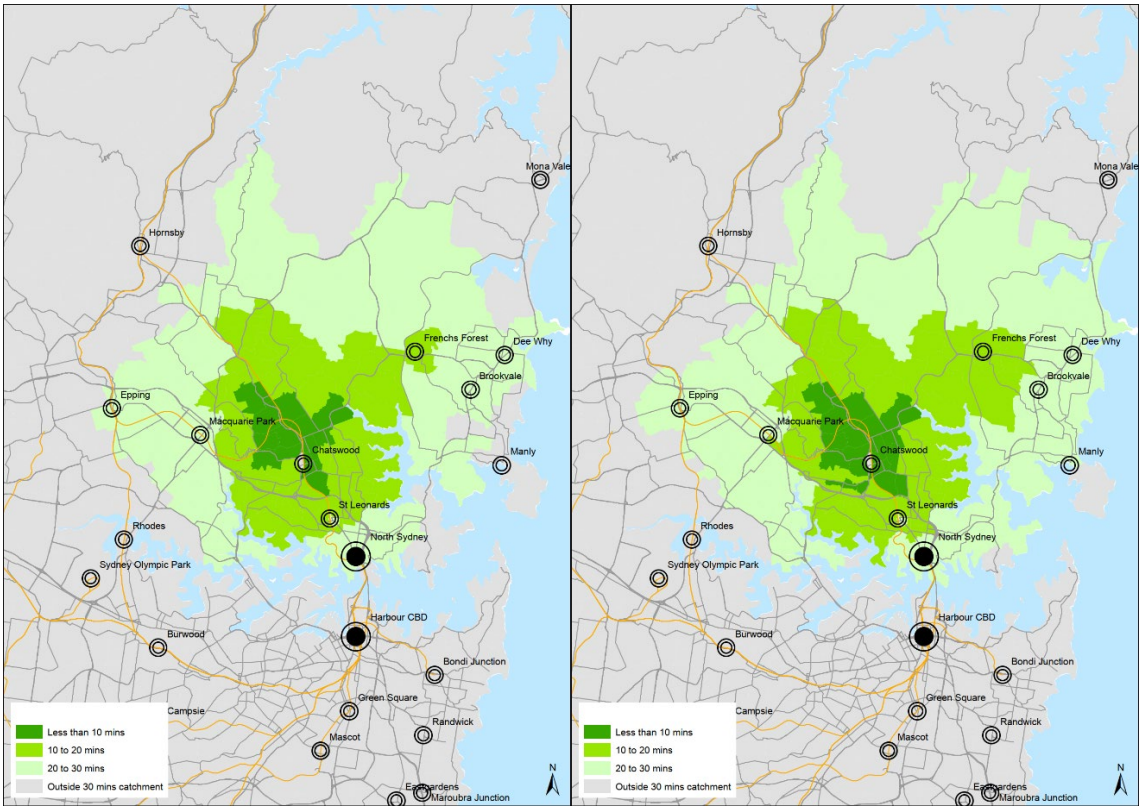
Figure 3-10 Express bus routes and connections to strategic centres

3.6.4 Improving productivity and enabling greater access to jobs and services for northern Sydney businesses and residents

The project would deliver labour supply benefits, including higher employment and better matching of skills and jobs, by improving accessibility. For workers, this is demonstrated by improved accessibility to employment. Once the project is operational, residents of the Northern Beaches and lower North Shore would enjoy improved access to jobs in other parts of Greater Sydney, in particular to jobs in the Harbour CBD and North Sydney CBD.

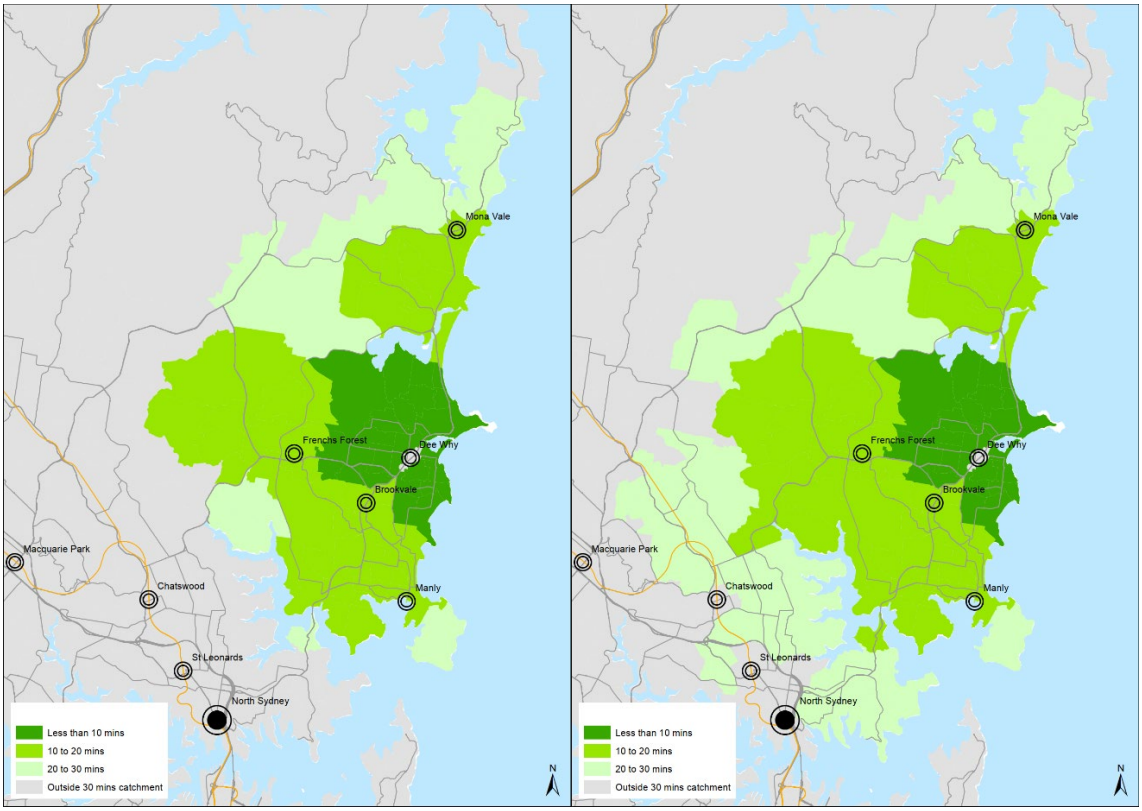
Given the contribution of the Harbour CBD to New South Wales' gross state product, supporting the future growth and productivity of the Eastern Economic Corridor by enabling greater business-to-business connections would deliver substantial benefits for NSW and the national economy.

Forecast 30-minute catchments by road for strategic centres in the vicinity of the project are provided in Figure 3-11, Figure 3-12 and Figure 3-13. These figures indicate that the project would result in the employment centres of North Sydney and Chatswood being much more accessible for workers residing in the Northern Beaches region, including Manly and Dee Why.



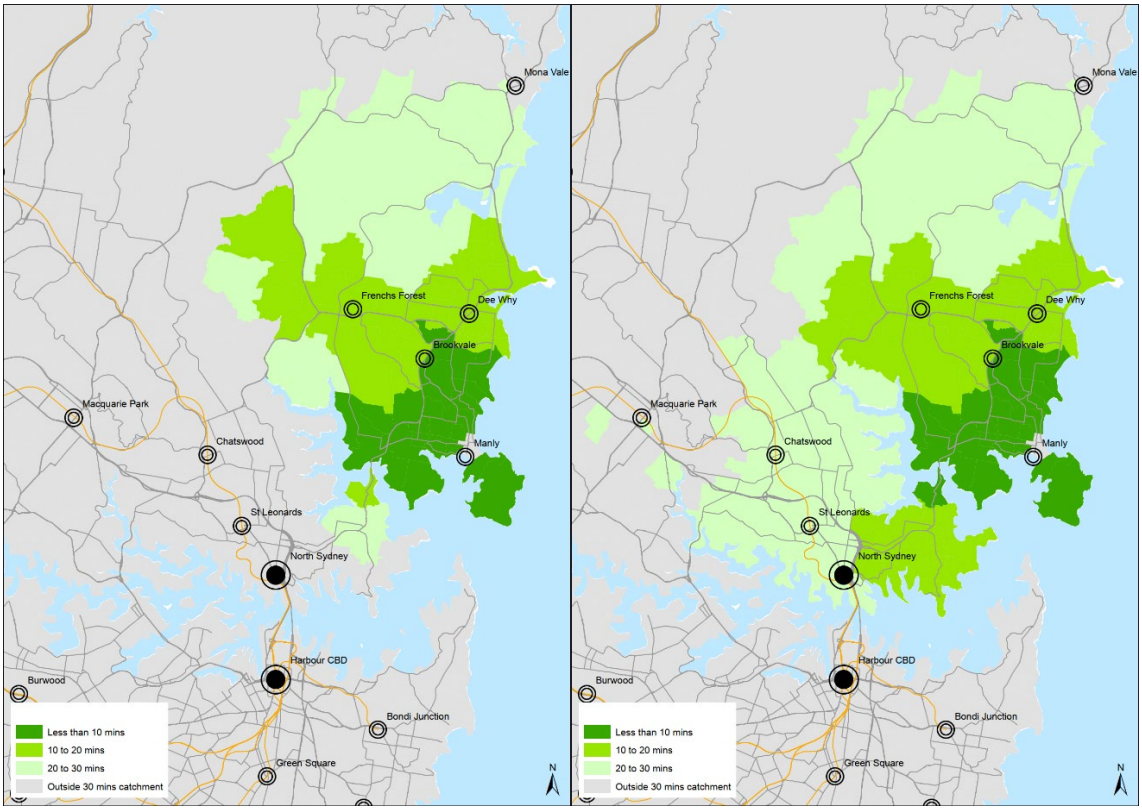
2037 'Do minimum' **2037 'Do something'**

Figure 3-11 Modelled 2037 'Do something' morning peak 30-minute catchment by road from Chatswood



2037 'Do minimum' **2037 'Do something'**

Figure 3-12 Modelled 2037 'Do something' morning peak 30-minute catchment by road from Brookvale-Dee Why



2037 'Do minimum' **2037 'Do something'**

Figure 3-13 Modelled 2037 'Do something' morning peak 30-minute catchment by road from Manly

3.6.5 Increasing the resilience of the Northern Beaches transport network

The limited number of arterial road corridors, such as the Military Road/Spit Road corridor, connecting to the Northern Beaches means that the North District transport network lacks resilience, with incidents on these corridors impacting the performance across the wider transport network.

The project would boost the resilience of the Eastern Harbour City by providing a new underground motorway bypass of the Military Road/Spit Road and Warringah Road/Eastern Valley Way corridors. This would improve the ability of the arterial network servicing the Northern Beaches and North Shore regions to cope with traffic incidents by:

- Substantially increasing capacity
- Providing a new alternate bypass route for many trips currently reliant on the Military Road/Spit Road and Warringah Road/Eastern Valley Way corridors
- Reducing pressure on the existing surface arterial roads, leaving them better placed to accommodate minor incidents without major deterioration or failure.

The resilience benefit resulting from the project is estimated to be $89 million per year (present value). This benefit reflects the travel time and vehicle operating cost savings that would be derived by providing an additional transport route, which would limit the impacts of an incident on the Military Road/Spit Road corridor alone.

3.6.6 Improving urban amenity and safety in local centres

The *Future Transport Strategy 2056* identifies 'Successful Places' as one of the six outcomes for NSW and sets out a vision for better balancing 'movement and place' needs, particularly in major centres such as the Sydney CBD (NSW Government, 2018). Certain roads in and around the Harbour CBD and Northern Beaches perform important 'place' functions, meaning they are destinations in their own right, such as shopping or dining precincts. However, some of these places are adversely affected by amenity issues linked to the performance of the road network, including Military Road and Spit Road (The Spit to Neutral Bay) and some streets in the Sydney CBD.

By providing additional motorway capacity and bypassing communities underground, the project would reduce through traffic volumes in many areas. This would result in reduced noise and improved amenity in these areas. The project would facilitate improvements to urban amenity in the Harbour CBD and Northern Beaches by reducing through traffic in a number of urban areas and by reducing pressure on arterial roads. Specific benefits would include:

- Diversion of through-traffic from Military Road and Spit Road, improving the amenity of local town centres along the corridor, including Mosman, Cremorne and Neutral Bay
- Reduced rat-running on local streets including Ourimbah Road
- Reduced through traffic on Eastern Valley Way and down through Willoughby, Naremburn, Cammeray and Northbridge
- Reduced traffic within Seaforth town centre (due to traffic using the Wakehurst Parkway to access the Spit Bridge).

The project would also provide several new or upgraded shared user paths and underpasses in the Balgowlah, Killarney Heights and Frenchs Forest areas (refer to Chapter 5 (Project description)). These facilities would support safer and easier access for pedestrians and cyclists, helping to encourage increased walking and cycling.

In addition, the project would return an area, equivalent to around 90 per cent of the current open space, to the community as new and improved public open space and recreation facilities at Balgowlah. A dedicated consultation process jointly led by Transport for NSW and Northern Beaches Council will take place to give the community an opportunity to provide input on the final layout of the new and improved open space and recreation facilities at Balgowlah. This consultation will be separate to the consultation for the environmental impact statement. This process would start after the environmental impact statement public exhibition period and well in advance of construction starting. As part of this consultation process, a community reference group would be established, with representative stakeholder groups and the community, to support Transport for NSW and Northern Beaches Council with the development of this important public space. Opportunities for new public open space are discussed further in Chapter 5 (Project description).

3.7 Strategic planning and policy framework

The project has been developed to align with the objectives of a number of strategic plans for transport, freight, and city planning that have been prepared at a national and State level. Table 3-2 provides an overview of relevant strategic plans, policies and strategies and their relationship to the project.

Table 3-2 Strategic planning and policy framework

Policy	Description
Australian Infrastructure Plan	The *Australian Infrastructure Plan: Priorities and Reforms for Our Nation's Future* (Infrastructure Australia, 2016) identifies priority infrastructure investments that Australia needs over the next 15 years. The *Infrastructure Priority List* (Infrastructure Australia, 2018) is a reference point for Australia's most important infrastructure investment needs and currently identifies 100 major infrastructure projects and initiatives. The projects and initiatives have been assessed by Infrastructure Australia for their economic viability, deliverability and strategic compliance with the principles detailed in the *Australian Infrastructure Plan*. The *Infrastructure Priority List* identifies the Western Harbour Tunnel and Beaches Link program of works as a priority initiative in recognition of its importance in addressing urban congestion on Sydney's arterial road network, augmenting critical cross-harbour capacity and Northern Beaches connectivity. This aligns with the Australian Infrastructure Audit's identification of road corridors to the Northern Beaches and across Sydney Harbour as among the top 30 most congested corridors in Australia.
NSW State Priorities	The NSW Government set out 18 State priorities to create a stronger, healthier and safer NSW (NSW Government, 2015). State priorities include improving road travel reliability, with a target of ensuring that 90 per cent of peak travel on key road routes is on time. The project would contribute to achieving a number of these priorities including: • **Encouraging business investment** – by improving east–west and north–south connectivity, and reducing congestion around the Eastern Harbour City, more people would be able to access key employment centres such as Chatswood and Macquarie Park and strategic centres in the Northern Beaches in less time. Freight transport would also benefit from improved cross-harbour connectivity • **Improving road travel reliability** – by delivering travel time savings for freight services, public transport and other road users, and improving the resilience and efficiency of the existing road network • **Reducing road fatalities** – by providing a free-flowing cross-harbour alternative for through traffic, reducing traffic on surface roads and improving traffic flows, which is correlated with a lower number of road incidents.
State Infrastructure Strategy	The *State Infrastructure Strategy 2018-2038* (Infrastructure NSW, 2018) is a 20 year strategy which identifies and prioritises the delivery of critical public infrastructure to drive productivity and economic growth. The *State Infrastructure Strategy 2018-2038* identified the Beaches Link as a near-term priority for the Sydney motorway network to provide an alternative to the Military Road/Spit Road corridor and bypass the Spit Bridge. The NSW Government is committed to commencing work on a new crossing of Middle Harbour. The Beaches Link and Gore Hill Freeway Connection project, as part of the Western Harbour Tunnel and Beaches Link program of works, is the result of that commitment. The *NSW Infrastructure Pipeline* (Infrastructure NSW, 2017) was prepared by Infrastructure NSW to outline infrastructure proposals under development by the NSW Government. This includes the opportunity to develop the Beaches Link and Gore Hill Freeway Connection project.

Policy	Description
Future Transport Strategy 2056	The *Future Transport Strategy 2056* (NSW Government, 2018) builds on the *NSW Long Term Transport Master Plan* (Transport for NSW, 2012a) and sets the 40-year vision, strategic directions and outcomes for customer mobility in NSW. *Future Transport Strategy 2056* identifies the transport challenges that will need to be addressed to support NSW's economic and social performance over the next 20 years and establishes a number of short, medium and long-term actions to address those challenges. These actions provide the overall framework for how the NSW transport system should develop, in terms of services and infrastructure. The *Greater Sydney Services and Infrastructure Plan* forms part of the *Future Transport Strategy 2056*. Building on the state-wide transport outcomes identified in the *Future Transport Strategy2056*, the *Greater Sydney Services and Infrastructure Plan* establishes the specific outcomes that transport customers in Greater Sydney can expect and identifies the policy, service and infrastructure initiatives to achieve these. The *Greater Sydney Services and Infrastructure Plan* identifies the Western Harbour Tunnel and Beaches Link program of works as a committed services and infrastructure initiative and a city shaping transport corridor. In addition, the *Future Transport Strategy 2056* identifies 'Successful Places' as one of the six outcomes for NSW, and sets out a vision for better balancing 'movement and place' needs, particularly in major centres such as the Sydney CBD. The Western Harbour Tunnel and Beaches Link program of works is identified in the *Future Transport Strategy 2056* as a 'Committed' project (within the next ten years, subject to final business case) forming part of the vision for the future strategic road network for Greater Sydney that would support key movements by road, including freight, public transport and private vehicles.
Greater Sydney Region Plan	The *Greater Sydney Region Plan – A Metropolis of Three Cities* (Greater Sydney Commission, 2018a) is built on a vision of three cities where most residents live within 30 minutes of their jobs, education and health facilities, and services. To meet the needs of a growing and changing population, the vision seeks to transform Greater Sydney into a metropolis of three liveable, productive and sustainable cities: the Western Parkland City, Central River City and Eastern Harbour City. The project is located in the Eastern Harbour City and contains Australia's global gateway (Sydney Airport and Port Botany) and financial capital, the Harbour CBD, as its metropolitan centre. One of the key roles of the *Greater Sydney Region Plan* is to provide appropriate infrastructure in the right places to support the continued growth of Greater Sydney. The *Greater Sydney Region Plan* also identifies the importance of investing in and delivering efficient and effective transport systems including road infrastructure that would improve business to business connections and support the 30-minute city vision. Objective 18 of the *Greater Sydney Region Plan* references the Western Harbour Tunnel and Beaches Link program of works as infrastructure that would further improve accessibility from the Northern Beaches to the Harbour CBD and reduce through traffic in the Harbour CBD ensuring the economic strength and global competitiveness of the Harbour CBD. As part of the *Greater Sydney Region Plan*, the Greater Sydney Commission also prepared District Plans which provide a basis for strategic planning at a district level. The District Plan relevant to the project is discussed below.

Policy	Description
North District Plan	The *North District Plan* (Greater Sydney Commission, 2018b) sets out priorities and actions for Greater Sydney's North District, which includes the project-based local government areas of the Northern Beaches, North Sydney and Willoughby. The *North District Plan* addresses issues influencing Greater Sydney to 2056 with one of the overarching priorities for a productive North District including improved access to local jobs, goods and services within 30 minutes. The *North District Plan* includes the Western Harbour Tunnel and Beaches Link program of works as a transport initiative that would provide improved connections and access for the Northern Beaches and North Shore regions.
Directions for a Greater Sydney	*Directions for a Greater Sydney 2017-2056* (Greater Sydney Commission, 2017) aims to better integrate land use and infrastructure in Greater Sydney to accommodate a population that will grow from five to eight million people over the next 40 years. It builds upon the *Greater Sydney Region Plan – A Metropolis of Three Cities* (Greater Sydney Commission, 2018a) and *Towards our Greater Sydney 2056* (Greater Sydney Commission, 2016). The project would support this vision by improving road network performance, resilience and efficiency, enabling sustained growth and productivity across Greater Sydney. The project would also improve access to the strategic centres of North Sydney, Sydney CBD, Macquarie Park and St Leonards, resulting in more people having access to jobs and services.
NSW Freight and Ports Plan	The *NSW Freight and Ports Plan* (Transport for NSW, 2018) supports the *Future Transport Strategy 2056* and provides direction to business and industry for managing and investing in freight into the future. The project in conjunction with the Western Harbour Tunnel and Warringah Freeway Upgrade and M4-M5 Link would benefit the freight industry by providing a western bypass of the Harbour CBD, greatly improving the quality of the freight connection through the Eastern Economic Corridor. The project would address key priority areas in the *NSW Freight and Ports Plan* such as strengthening the freight industry, increasing access for freight across the road and rail network, protecting existing freight precincts and ensuring safe, efficient and suitable freight access would meet the needs of Greater Sydney.

Additional relevant local government strategic plans and their relationship to the project are outlined in Table 3-3.

Table 3-3 Local strategic plans

Policy	Description
North Sydney Integrated Transport Program	The North Sydney Integrated Transport Program (the North Sydney Program) is an ongoing multi-agency collaboration between Transport for NSW, North Sydney Council, Greater Sydney Commission and the Government Architect of NSW, to guide future integrated transport planning and investment in the North Sydney CBD and interconnected areas. Led by Transport for NSW since 2018, it aims to deliver a shared place-based vision for the North Sydney CBD. A key focus of the North Sydney Program is to ensure major projects, such as the Western Harbour Tunnel and Beaches Link program of works, integrate with the North Sydney CBD in a manner that supports the globally connected 'Harbour CBD' and enables delivery of befitting place-based outcomes. Transport for NSW would continue to work with North Sydney Council and key stakeholders through agreed governance structures to investigate options to improve

Policy	Description
	movement and place outcomes within North Sydney, further leveraging the strategic benefits of the program of works. Community consultation would also be carried out. Issues raised by the community would be considered in any final decision to refine the project.
Northern Beaches Council: Towards 2040	*Towards 2040* (Northern Beaches Council, 2020) is Northern Beaches Council's local strategic planning statement which guides planning for the Northern Beaches over the next 20 years. Along with the 20 year vision, *Towards 2040* includes planning priorities and options to guide local land use and planning along with measures of success to determine whether priorities have been achieved. *Towards 2040* aligns with the *North District Plan* and *Greater Sydney Region Plan* and acts as the bridge between strategic land use planning at the district level and local statutory planning. *Towards 2040* outlines the strategic importance that the implementation of the Beaches Link has for the Northern Beaches region and identifies the need for infrastructure to be delivered with predicted employment and housing growth within the Northern Beaches Council area.
Mosman Local Strategic Planning Statement	The *Mosman Local Strategic Planning Statement* (Mosman Council, 2020) (LSPS) sets out Mosman Council's 20-year vision for land use planning in Mosman, along with a suite of planning priorities and actions relating to housing, local centres, infrastructure and the environment. The LSPS identifies reimagining the Military Road/Spit Road corridor to improve function, amenity and accessibility in response to the Western Harbour Tunnel and Beaches Link program of works as a planning priority. The LSPS also acknowledges that poor road capacity on Military and Spit Roads presents a barrier to future growth, limiting future opportunities for Mosman, while noting the Western Harbour Tunnel and Beaches Link program of works would result in traffic reduction along this corridor. The LSPS identifies an action of supporting the construction of the Western Harbour Tunnel and Beaches Link program of works as a key method of achieving the planning priority of ensuring that Mosman is supported by infrastructure.
Military Road Corridor Planning Study	North Sydney Council is currently finalising the preparation of the *Military Road Corridor Planning Study* (North Sydney Council, 2020) in response to strong development interest along Military Road. The project would support the objectives outlined in the *Military Road Corridor Planning Study* through reducing traffic volumes and congestion along the Military Road/Spit Road corridor, enhancing the connectivity and amenity of Military Road.