

## 3 Approved project

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This chapter provides a general overview of the approved project with a more detailed description of the part of the project proposed to be modified. The approved project is fully described in Chapter 5 and Chapter 6 of the Environmental Impact Statement (EIS) and Part D of the Submissions and Preferred Infrastructure Report (SPIR) for the project as modified by the MOD1 Modification report.

### 3.1 The Project

The project was approved by the former NSW Minister for Planning on 17 April 2018. The project is being constructed in two stages:

- Stage 1<sup>1</sup>: Mainline Tunnels
- Stage 2<sup>2</sup>: The Rozelle Interchange and the Iron Cove Link.

The key components of the approved project as they related to the proposed modification are shown in **Figure 3-1**.

Since planning approval, the approved project has been modified by the MOD1 Modification report. This modification was approved by the former NSW Minister for Planning on 25 February 2019. The works related to this proposed modification were for Stage 1 of the approved project (the Mainline Tunnels) and are not relevant to this modification application. As such, the modifications relating to the MOD 1 Modification report are not discussed further.

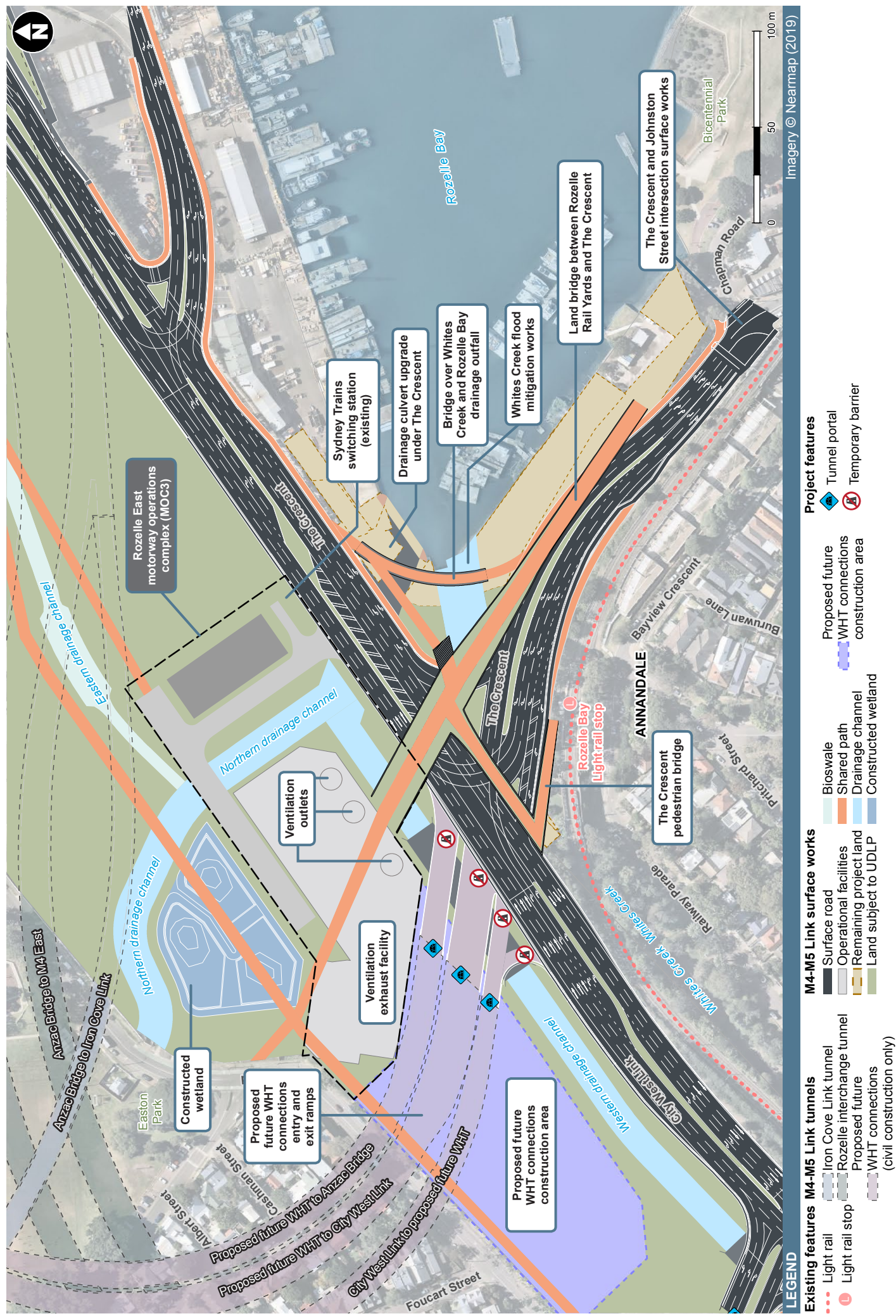
### 3.2 Stage 2 overview

The modification proposed in this report is relevant to the Stage 2 works. Stage 2 involves the construction of the Rozelle Interchange and the Iron Cove Link including connection to the stub tunnels at the Inner West subsurface interchange, connection to the surface road network at Lilyfield and Rozelle, and construction of tunnels, ramps and associated infrastructure as part of the Rozelle Interchange to provide connections to the proposed Western Harbour Tunnel and Warringah Freeway Upgrade (Western Harbour Tunnel project). Ancillary infrastructure will be provided at Rozelle West motorway operations complex (MOC2), Rozelle East motorway operations complex (MOC3) and Iron Cove Link motorway operations complex (MOC4).

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<sup>1</sup> M4-M5 Link Stage 1 (the Mainline Tunnels)

<sup>2</sup> M4-M5 Link Stage 2 (the Rozelle Interchange and Iron Cove Link)



### 3.2.1 Construction program

Stage 2 works commenced in 2019 with these components of the project anticipated to open to traffic in 2023.

The EIS noted that the total construction period for Stage 2 of the project was expected to be around five years. This timescale included commissioning that will occur concurrently with the final stages of construction. Approved construction activities for Stage 2 are described in Chapter 6 of the EIS and are shown in **Figure 3-2**.

Indicative construction staging for these activities is outlined in **Table 3-1**.

**Table 3-1 Indicative construction program for Stage 2 works and C6 site**

Activity					Timing																							
Stage 2 construction program																												
					2018				2019				2020				2021				2022				2023			
Site establishment and establishment of construction ancillary facilities																												
Utility works and connections and site remediation																												
Tunnel construction																												
Portal construction																												
Construction of surface road works																												
Construction of permanent operational facilities																												
Mechanical and electrical fit out works																												
Establishment of tolling facilities																												
Site rehabilitation and landscaping																												
Demobilisation and rehabilitation																												
Testing and commissioning																												
The Crescent civil site (C6) construction program																												
					2018				2019				2020				2021				2022				2023			
Site establishment and utility works																												
Surface road and intersection works																												

Activity	Timing																											
Whites Creek widening and improvement works																												
Drainage works including construction of the culvert below City West Link and upgrades to the drainage outfall to Rozelle Bay																												
Construction of Whites Creek Bridge and demolition of existing bridge																												
Rehabilitation and landscaping																												

### 3.2.2 Construction hours

The approved project will be undertaken as a mix of both standard and out of hours construction works. Condition E68 defines standard construction hours as:

- Monday to Friday 7 am to 6 pm
- Saturday 8 am to 1 pm
- No work on Sundays or public holidays.

Condition E69 allows works to be undertaken between 1:00 pm and 6:00 pm on Saturdays. Daytime works for the proposed modification would be undertaken during these hours.

### 3.2.3 Construction road network modifications

Temporary road network modifications are required to facilitate the construction of the project and the requirements of extra traffic numbers and personnel. These will indicatively include:

- Temporary diversions to allow for construction along the existing alignment
- Under existing and diverted arrangements, all traffic lanes in each direction will generally be maintained with some short-term lane closures (outside of peak hours where feasible and reasonable) subject to road occupancy licences
- Temporary changes to the intersection of The Crescent/Johnston Street/Chapman Road
- Traffic signal modifications at the intersection with City West Link in line with the temporary and permanent design.

Construction works for Stage 2, specifically for The Crescent/City West Link intersection, requires the preparation of detailed traffic management plans to facilitate development and operation of the construction facilities. The requirements for the detailed traffic management plans are provided in the Traffic and Transport and Access CEMP Sub-Plan in accordance with Conditions C4 and C5. In preparing these plans, consideration was and will be given to:

- Minimising impacts on existing traffic network capacity and performance during peak periods
- Maximising off line/off road work areas to allow for as much work as possible to occur during standard construction hours
- Minimising delays to motorists utilising this part of the arterial road network
- Undertaking the works efficiently to minimise the duration of traffic impacts

- Maintenance of the safety of motorists, members of the public and construction personnel
- Minimising impacts on public transport services and providing alternative arrangements where necessary
- Minimising impacts on key active transport links and providing alternative arrangements where necessary.

### 3.2.4 Construction sites

Construction works around the Rozelle Interchange will involve the use of the Rozelle civil and tunnel site (C5 civil and tunnel site) and the The Crescent civil site (C6 civil site). Section 6.5.9 and section 6.5.10 of the EIS provide a detailed description of the activities proposed to be completed at the C5 civil and tunnel site and C6 civil and tunnel site respectively.

No changes to the C5 civil and tunnel site and C6 civil site are proposed as part of this modification application and therefore these sites are not discussed further.

To support the C6 civil site, an area of land on the south side of The Crescent to the west of James Craig Road and adjacent to Rozelle Bay will be used as a minor construction ancillary facility in accordance with Condition C24 of the CoA. This land includes existing hard stand areas which have previously been used for maritime maintenance purposes. As a minor construction ancillary facility, the site will be used for the establishment of site offices, lunch rooms, storerooms, lockers and toilet facilities for construction workers.

The approved project during construction is shown in **Figure 3-2** with The Crescent civil site C6 and the minor construction ancillary facility site C6a shown in **Figure 3-3**.



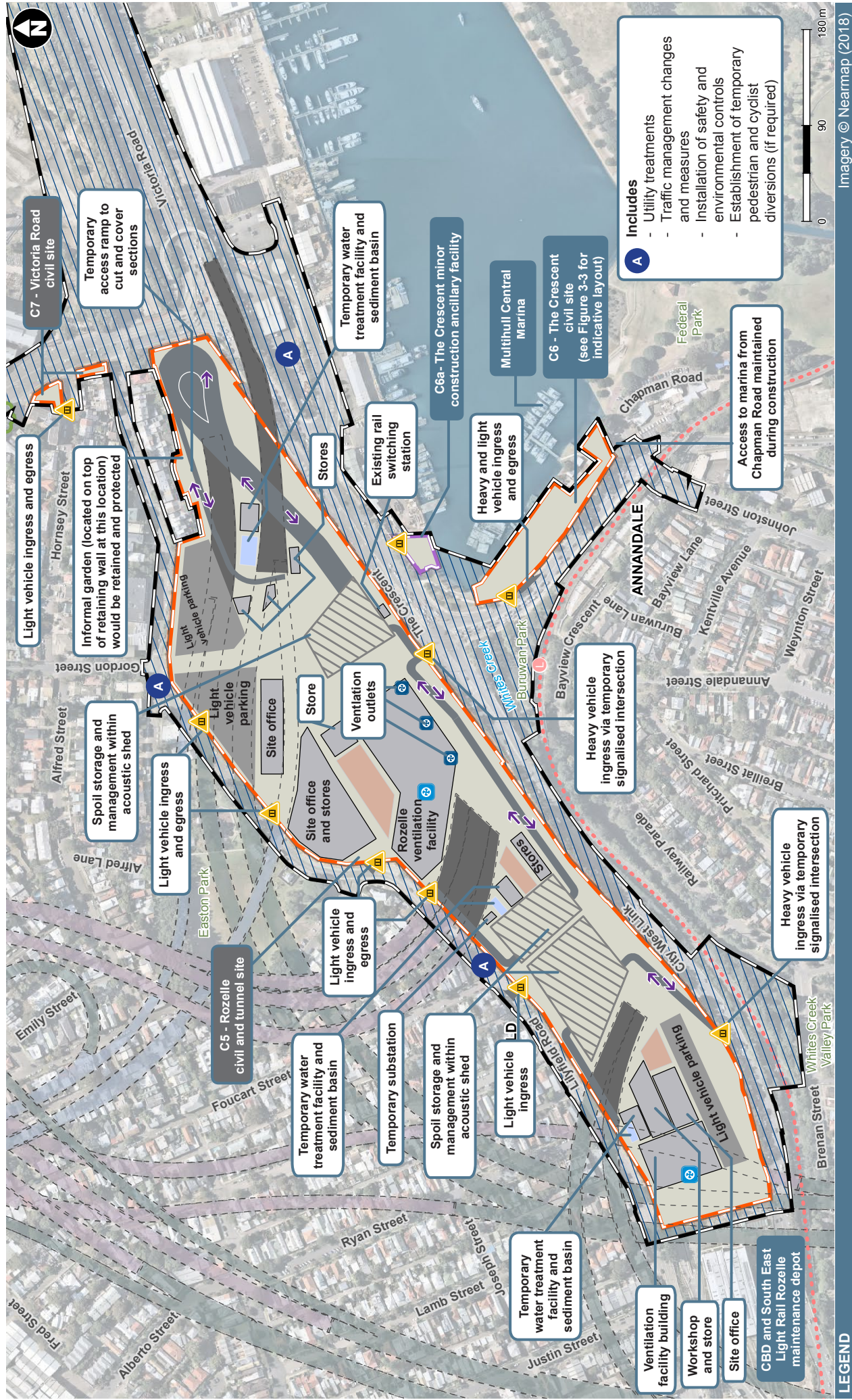
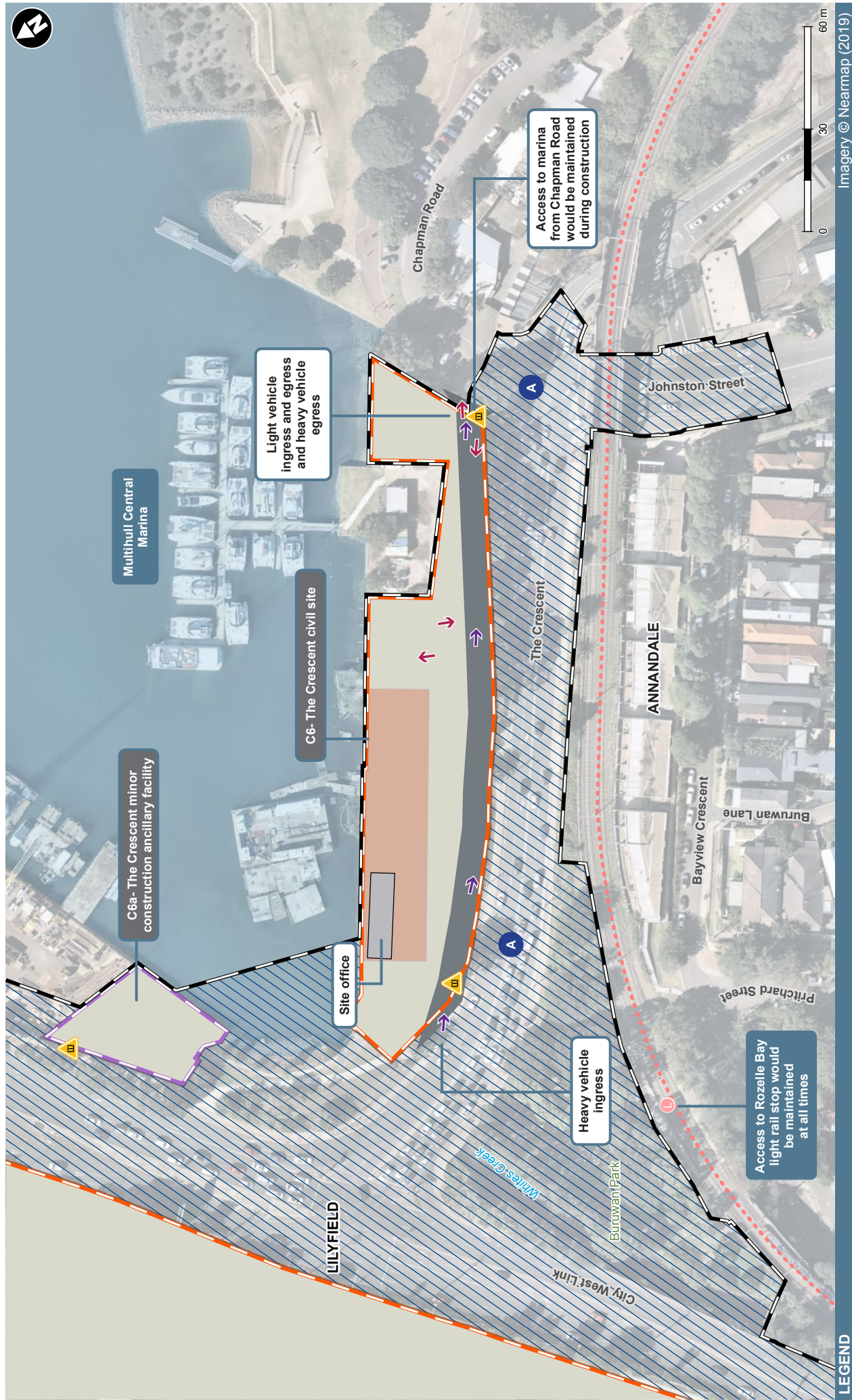


Figure 3-2 Overview of the approved project (during construction)





Imagery © Nearmap (2019)

LEGEND

<b>M4-M5 Link</b> <b>Boundaries</b> Light rail  Light rail stop  Construction ancillary facility  Minor construction ancillary facility  Surface works		<b>Surface construction</b> Access road  Laydown area		<b>Access and egress</b> Site gate		<b>Vehicle movements</b> Light vehicle  Heavy vehicle	
<b>Includes</b> A - Utility treatments - Traffic management changes and measures - Installation of safety and environmental controls - Establishment of temporary pedestrian and cyclist diversions (if required)							

**Figure 3-3** Approved project during construction – The Crescent civil site (C6) and minor construction ancillary facility (C6a)

### 3.3 Road network changes

Section 5.6 of the EIS describes works that will be undertaken for the Rozelle surface works. As stated: *“The surface road network around the Rozelle Interchange would be upgraded and modified to ensure safe and efficient connections with the road infrastructure proposed as part of the project, and to cater for additional traffic demands in the future”.*

These surface works will include:

- Upgrades, widening and intersection works along City West Link and The Crescent. This involves the following:
  - Realignment and upgrade of City West Link and The Crescent between around 300 metres east of Catherine Street and The Crescent/Victoria Road intersection
  - Traffic lanes will generally be between three and 3.5 metres wide. The eastbound and westbound traffic lanes will be separated by a median, which will vary in width to accommodate turning lanes at intersections
  - A section of The Crescent between the upgraded City West Link/The Crescent intersection and James Craig Road will be raised about 0.2 metres (compared to the current level)
  - Upgrade works to the intersection of The Crescent and James Craig Road.
- The realignment of The Crescent at Annandale. This involves the following:
  - The Crescent will be realigned by around 75 metres at the intersection with City West Link. The new alignment will be constructed next to the existing alignment. Traffic will be switched onto the new alignment when ready and the old alignment of The Crescent will be demolished and repurposed
  - Two northbound lanes, three southbound lanes and a median will be established
  - A new bridge will be constructed over Whites Creek at The Crescent to facilitate these realignment works. Construction of a new bridge will also allow for widening and improvement works to the Whites Creek channel as it enters Rozelle Bay. The bridge will be constructed off-line (that is, next to the existing bridge), which will mean that traffic will continue to use this section of The Crescent during construction.
- Upgrades and adjustments at the intersection of The Crescent and City West Link. This involves the following:
  - Realignment of the intersection to the west of its current location
  - Dedicated right and left turn lanes.

This will allow motorists to:

- Turn left from the northbound carriageway of The Crescent at Annandale onto City West Link
- Turn right from the northbound carriageway of The Crescent at Annandale, to continue along The Crescent eastbound towards Victoria Road or Anzac Bridge
- Turn right from the eastbound carriageway of City West Link to head south along The Crescent at Annandale
- Turn left from the westbound carriageway of The Crescent, to continue south along The Crescent at Annandale.

Design of the upgraded intersection included new lanes that will allow motorists to enter and exit the proposed Western Harbour Tunnel project to and from The Crescent and City West Link, should the Western Harbour Tunnel project be granted planning approval. The approved project includes the civil construction of entry and exit ramps, tunnel portals, tunnels and civil infrastructure for connecting to the proposed Western Harbour Tunnel project. This includes underground entry and exit ramps extending north from the Rozelle Rail Yards, joining mainline tunnels at a point below ground around Victoria Road at Rozelle.



### 3.4 Active and public transport

In accordance with Conditions E120 and E121, a Pedestrian and Cycling Green Link ('green link'), is approved to link the Rozelle Rail Yards to the park adjacent to Chapman Road (Bicentennial Park) through the construction of an elevated land bridge that spans The Crescent/City West Link intersection.

The green link will include diverse planting across the bridge and will integrate with the open space and active transport infrastructure within Bicentennial Park. The green link and associated connections will provide a direct link for pedestrians and cyclists between Lilyfield Road, the Rozelle Rail Yards, City West Link, The Crescent and the Rozelle Bay light rail stop, linking Anzac Bridge, Balmain, Rozelle and Lilyfield with Annandale and Glebe.

A new elevated pedestrian connection between the green link and the Rozelle Bay light rail stop was also approved. The works will not affect the existing connection to the Rozelle Bay light rail stop from Bayview Crescent at Annandale.

During construction of the various surface works and as a result of their completion, temporary and permanent changes to public transport and active transport infrastructure will be made. These include:

- Periodic, temporary closures of the footpath on the eastern and western side of The Crescent at Annandale between City West Link and Johnston Street at Annandale during construction. Works will be staged so that the footpath on either the eastern or western side of The Crescent will remain open at all times
- Temporary closure of the shared path through Buruwan Park connecting The Crescent with Bayview Crescent at Annandale. Alternative access to the Rozelle Bay light rail stop from The Crescent, Johnston Street and Bayview Crescent at Annandale will be provided at all times during construction
- A temporary connection to the light rail stop will be provided for pedestrians to ensure continued access; cyclists will be diverted via The Crescent/Johnston Street/Bayview Crescent.
- The northbound bus stop on The Crescent, located between Johnston Street and City West Link, will be permanently relocated around 80 metres south of the existing location during upgrade works. The southbound bus stop at this location will be temporarily moved south towards Johnston Street, but will be reinstated generally in the same location
- Three bus stops on Victoria Road at Rozelle (two on the northbound side and one on the southbound side) near the intersection with The Crescent/Western Distributor would be relocated north to accommodate the reconstruction of Victoria Road. These bus stops will be reinstated in generally the same location at the completion of construction.

### 3.5 Landscape and urban design outcomes

The approved project includes various works within the Rozelle Rail Yards. These works included:

- The provision of a new open space within the Rozelle Rail Yards, including landscaping
- Revegetation, including tree planting at key locations such as near pedestrian and cycling paths
- The provision of active transport infrastructure including the green link between Rozelle Rail Yards and the eastern side of The Crescent
- Provision of drainage infrastructure
- Motorway operational infrastructure.

The creation of a new open space within the Rozelle Rail Yards will involve landscaping works and the provision of pedestrian and cycling paths and connections. Revegetation will also occur in the form of tree planting around the perimeter of the Rozelle Rail Yards. Tree planting within the Rozelle Rail Yards will be integrated with street tree planting that will be carried out by the project.

The approved project includes urban design and landscaping works that will be carried out adjacent to the areas associated with the Rozelle surface works and includes the provision of new open space within the Rozelle Rail Yards.

The concept design for urban design and landscaping works will be refined during the development of the Urban Design and Landscape Plan (UDLP), which will be prepared based on the detailed design and will be developed in accordance with Condition E133 to E137 and relevant commitments in the EIS and SPIR. The UDLP will be prepared in consultation with relevant councils, stakeholders and the community. The UDLP must be reviewed by the Design Review Panel in accordance with Condition E135.

Conditions E120 and E121 control the urban design components of the green link. Condition E120 specifies that vegetation planting must be provided across the green link and outlines the minimum width of the structure, while Condition E121 mandates that the connection between the green link and the park adjacent to Chapman Road (Bicentennial Park) must integrate with the open space and active transport infrastructure in that park.

### 3.6 Drainage infrastructure

The project requires construction of new drainage infrastructure and alterations to existing drainage infrastructure. Drainage and water management infrastructure works will include the construction of a tunnel drainage system, construction of water treatment plants including a wetland at the Rozelle Rail Yards, construction of new surface water drains and drainage pits, construction of new drainage channels and new or upgraded culverts in the Rozelle Rail Yards widening and improvement works to the channel of Whites Creek, and upgrades to existing drainage infrastructure that services surface roads.

A section of The Crescent between the upgraded City West Link/The Crescent intersection and James Craig Road will be raised about 0.2 metres (compared to the current level) to provide clearance over a new drainage channel that will direct stormwater from the Rozelle Rail Yards to Rozelle Bay.

A new low level bridge structure will support a section of The Crescent carriageways between the intersection with City West Link and the intersection with James Craig Road. This low level bridge structure will span over the northern drainage channel that will convey flows from the Rozelle Rail Yards to Rozelle Bay. A series of box culverts will continue from the culvert structures to facilitate drainage from Rozelle Rail Yards to Rozelle Bay. The location of this bridge and the associated culvert structure is shown in Figure 5-26 of the EIS and an indicative cross section is shown in Figure 5-31 of the EIS.

Widening and improvement works are proposed to the channel of Whites Creek to provide flood mitigation. The works will be carried out along Whites Creek, between the light rail bridge and Rozelle Bay. The channel design would aim to deliver similar outcomes to the planned Sydney Water Whites Creek naturalisation works upstream.