

4 Proposed construction updates

This chapter describes proposed updates to the construction of the project as described in the EIS. The updates are due to the proposed changes described in **Chapter 3** as well as further development of the project's procurement and delivery strategy. As a result of industry briefings to inform the project's procurement strategy, it was determined that instead of the project being the subject of a single design and construct contract, it would be divided into multiple contracts to maximise efficiency.

Proposed updates are listed below and are described in detail in the following sections:

- Additional construction ancillary facilities
- Amended earthwork quantities
- Amended drainage works
- Additional temporary leases
- Out-of-hours work
- Amended construction access
- Amended haulage routes and heavy vehicle movements
- Amended construction resources
- An amended construction program
- An amended construction footprint.

Where construction details have been described in the EIS and are not proposed to change, they have not been replicated in this chapter. Only those construction aspects that would change as a result of the amended project and further development of the procurement and delivery strategy have been described in this chapter.

4.1 Additional and amended construction ancillary facilities

4.1.1 Project as described in the EIS

Section 5.24.3 of the EIS describes the ancillary facilities that would be required at different locations across the construction footprint to support the construction of the project as described in the EIS. The ancillary facilities comprised:

- Temporary buildings including offices and meeting rooms, amenities and first aid facilities, a main project office and secondary offices, and material testing laboratories; the size and number of office facilities at the main compound would be greater than at the secondary compounds
- Hardstand parking areas with sufficient space to accommodate the numbers of construction workers expected at any site
- Materials laydown, storage and handling areas, including purpose-built temporary structures as required and appropriately bunded storage for hazardous and non-hazardous substances
- Secure perimeter fencing, including visual screening of construction compounds where necessary
- Bridge construction support areas
- Workshops with appropriate safety and environmental controls for servicing plant and equipment
- Concrete precast elements casting yards and concrete and/or asphalt batching plants.

A total of nine ancillary facilities were proposed in the EIS.

4.1.2 Proposed change

In order to support the construction of the amended project, including change to the procurement strategy described above, nine additional construction ancillary facilities would be required (see **Table 4-1**). In addition, the following changes would be made to the ancillary facilities described in the EIS:

- AF 1 – Material crushing and screening activities would take place within the ancillary facility
- AF 2 – Material crushing and screening activities would take place within the ancillary facility
- AF 4 – A concrete/asphalt batching plant would be located within the ancillary facility
- AF 9 – Size would be increased, and crushing and screening activities would take place within the ancillary facility.

The additional and amended ancillary facilities and their locations are described in **Table 4-1** (with changes to the ancillary facilities as described in the EIS shown in **bold text**) and **Figure 4-1**.

Table 4-1 also details the purpose of each ancillary facility, while **Figure 4-2** shows the indicative layout. Proposed access arrangements to the additional construction ancillary facilities are described in **Section 4.2.5**. The remaining ancillary facilities described in the EIS that would not be amended have not been included in **Table 4-1**.

These additional ancillary facilities and their purposes are indicative only. The final type, use, location and number of ancillary facilities would be determined by the construction contractor and identified in a site establishment management plan.

Table 4-1 Amended and additional ancillary facilities and their purposes (bold text shows change from EIS)

Ancillary facility	Location	Approximate size (ha)	Purpose
AF 1	East of The Northern Road	6.4	Plant servicing workshop Stockpile and laydown area (including crushing and screening activities) Secondary offices Amenities Vehicular access Car park
AF 2	North of Elizabeth Drive opposite the Elizabeth Drive/Badgerys Creek Road intersection	23.2	Plant servicing workshop Stockpile and laydown area (including crushing and screening activities) Main office Amenities Vehicular access Car park

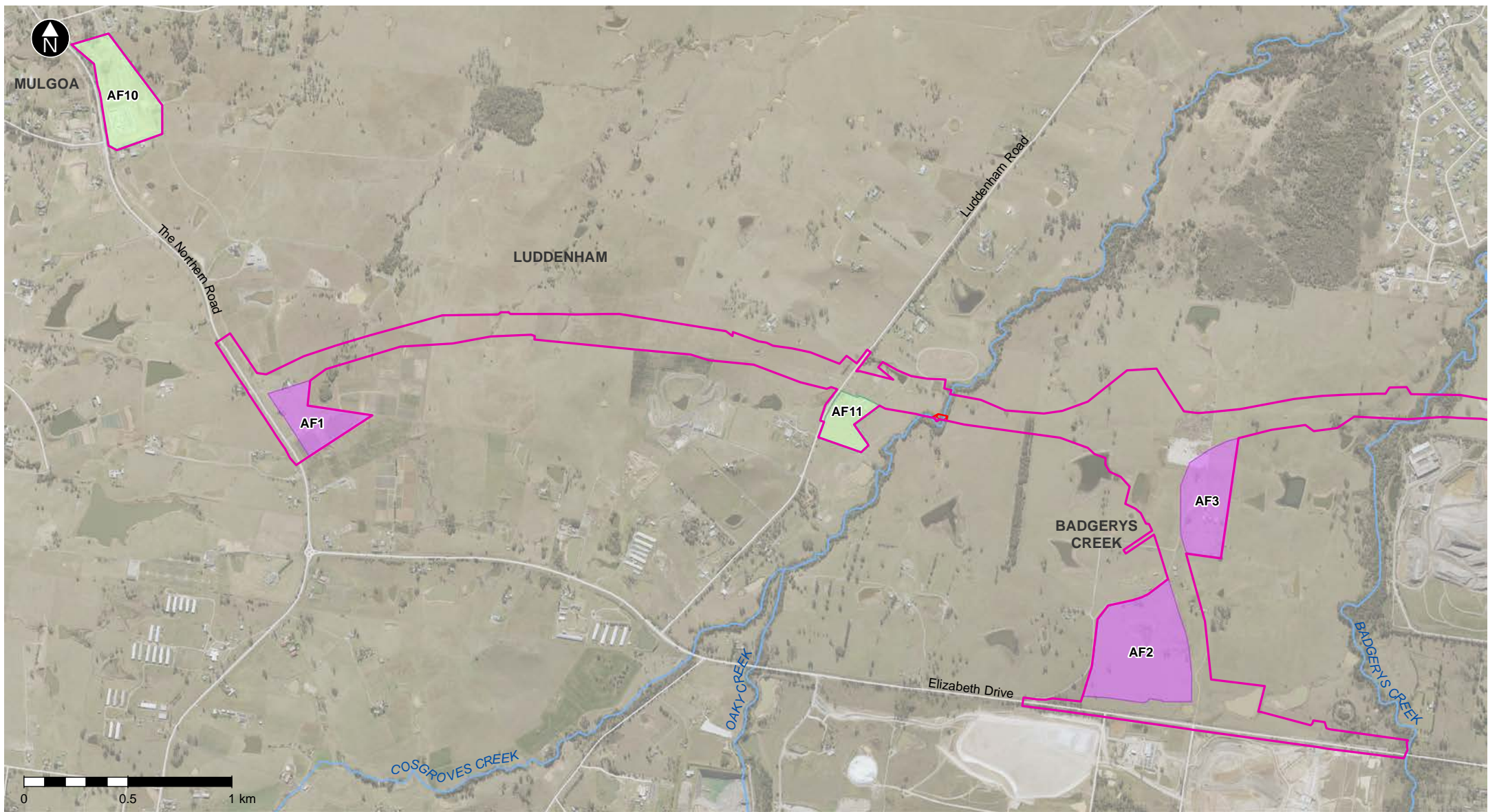
Ancillary facility	Location	Approximate size (ha)	Purpose
AF 4	West of Clifton Avenue	3.0	Concrete/asphalt batching plant Plant servicing workshop Stockpile and laydown area Secondary offices Amenities Vehicular access Car park
AF 9	East of the M7 Motorway	14.0	Stockpile and laydown area Site offices Amenities Vehicular access Car park
AF 10	East of The Northern Road, South of Gates Road. Existing ancillary facility for construction of Stages 5 and 6 of The Northern Road	12.2	Concrete/asphalt batching plant Stockpile and laydown area (including crushing and screening activities) Site offices Amenities Vehicular access Car park
AF 11	East of Luddenham Road	4.6	Stockpile and laydown area Site offices Amenities Vehicular access Car park
AF 12	West of Clifton Avenue	14.0	Stockpile and laydown area Amenities Vehicular access Car park
AF 13	East of Salisbury Avenue	4.1	Stockpile and laydown area Site offices Amenities Vehicular access Car park
AF 14	West of Salisbury Avenue	1.5	Stockpile and laydown area Vehicular access Car park

Ancillary facility	Location	Approximate size (ha)	Purpose
AF 15	South of the intersection of Elizabeth Drive and Mamre Road	2.08	Stockpile and laydown area Site offices Amenities Vehicular access Car park
AF 16	Within the carpark of the Wylde Mountain Bike Trail	1.0	Stockpile and laydown area Site offices Amenities Vehicular access Car park
AF 17	West of the M7 Motorway	4.5	Stockpile and laydown area Amenities Vehicular access Car park
AF 18	West of the M7 Motorway	1.1	Stockpile and laydown area Site offices Amenities Vehicular access Car park

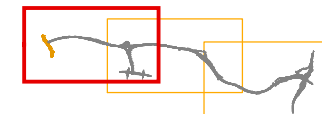
Where possible, additional ancillary facilities have been nominated in locations that:

- Are more than 50 metres from a waterway
- Are within or adjacent to land where the project is being carried out
- Have ready access to the road network
- Minimise the need for heavy vehicles to travel through residential areas
- Are on relatively level land
- Are separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant)
- Do not require vegetation clearing beyond that already required for the project alignment
- Avoid and minimise impact on heritage items (including areas of archaeological sensitivity)
- Do not unreasonably affect the land use of adjacent properties
- Are above the one in 20 year ARI flood level unless a contingency plan to manage flooding is prepared and implemented
- Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.

This is consistent with the assessment undertaken for the project as described in the EIS. An assessment of the proposed ancillary facilities against the considerations above is summarised in **Figure 4-1**.



- The amended project construction footprint
- Ancillary facilities as per the EIS
- Additional ancillary facilities
- The amended project exclusion zones
- Waterways
- Motorway
- Existing roads



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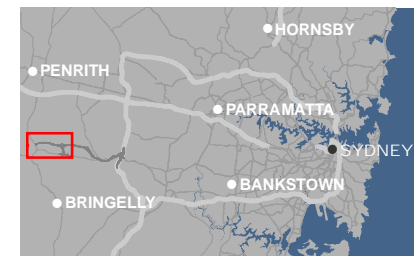
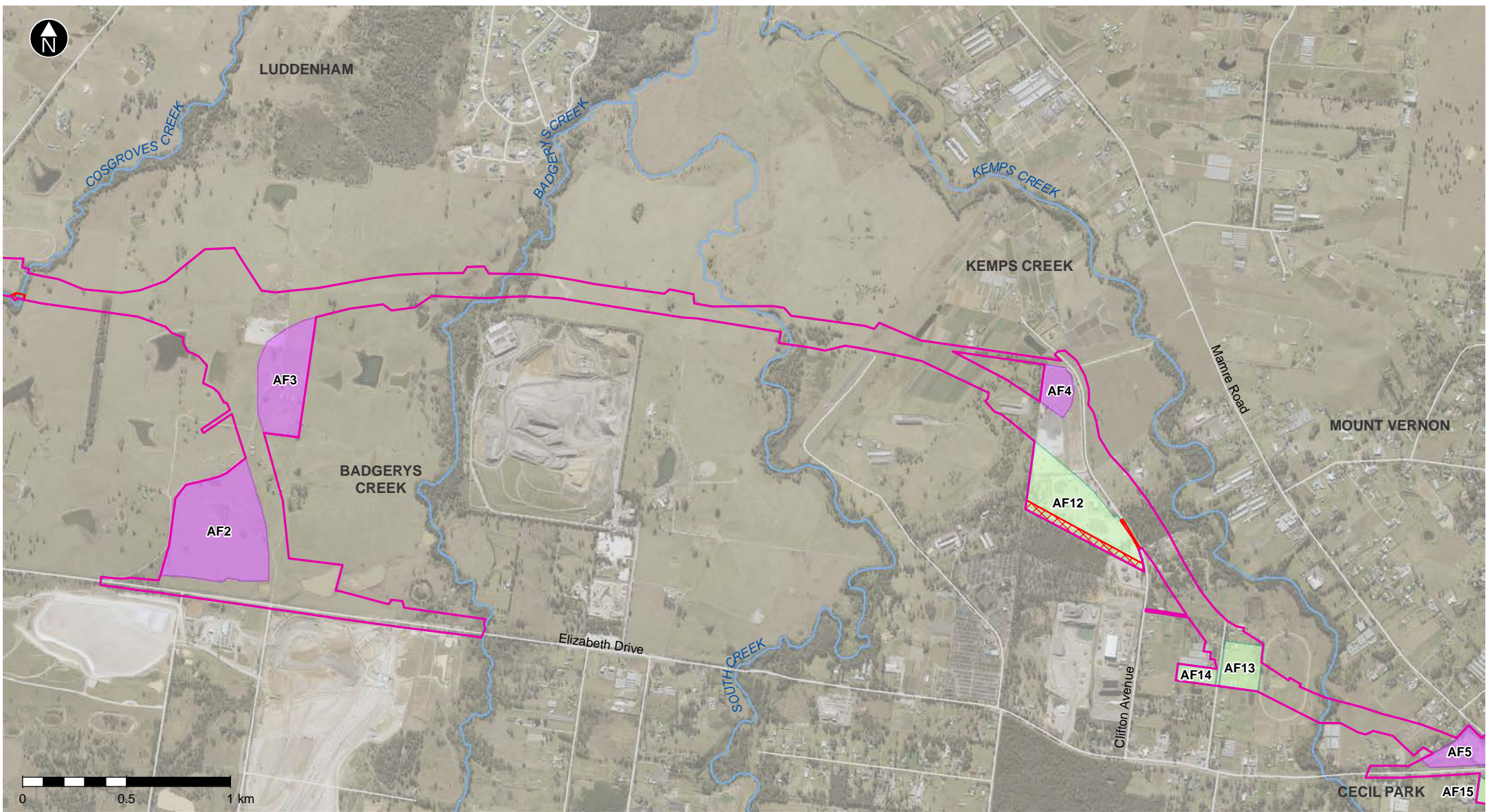
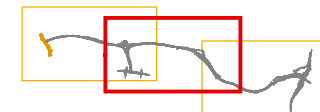


Figure 4-1 Location of ancillary facilities as described in the EIS and proposed additional and amended ancillary facilities



- The amended project construction footprint
- Ancillary facilities as per the EIS
- Additional ancillary facilities
- The amended project exclusion zones
- ~~~~~ Waterways
- Motorway
- Existing roads



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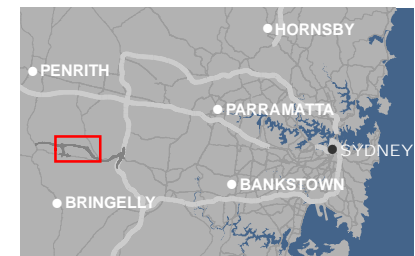
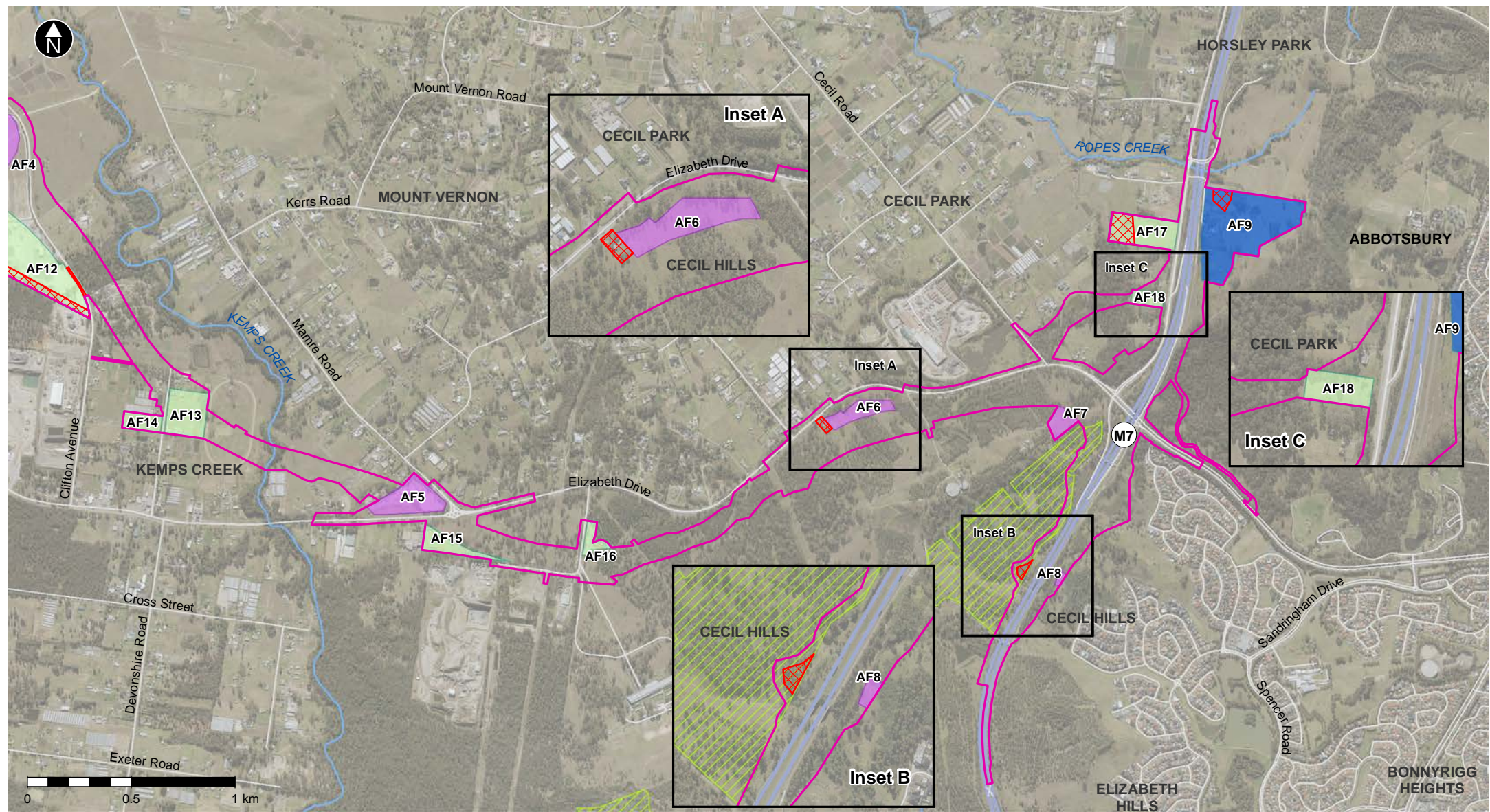
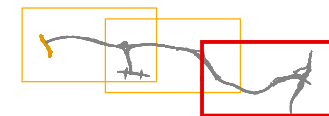


Figure 4-1 Location of ancillary facilities as described in the EIS and proposed additional and amended ancillary facilities



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| The amended project construction footprint | Waterways |
| Ancillary facilities as per the EIS | Motorway |
| Additional ancillary facilities | Existing roads |
| Amended ancillary facilities | WSPT Biobanking site |
| The amended project exclusion zones | |



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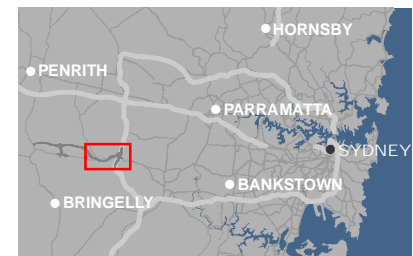
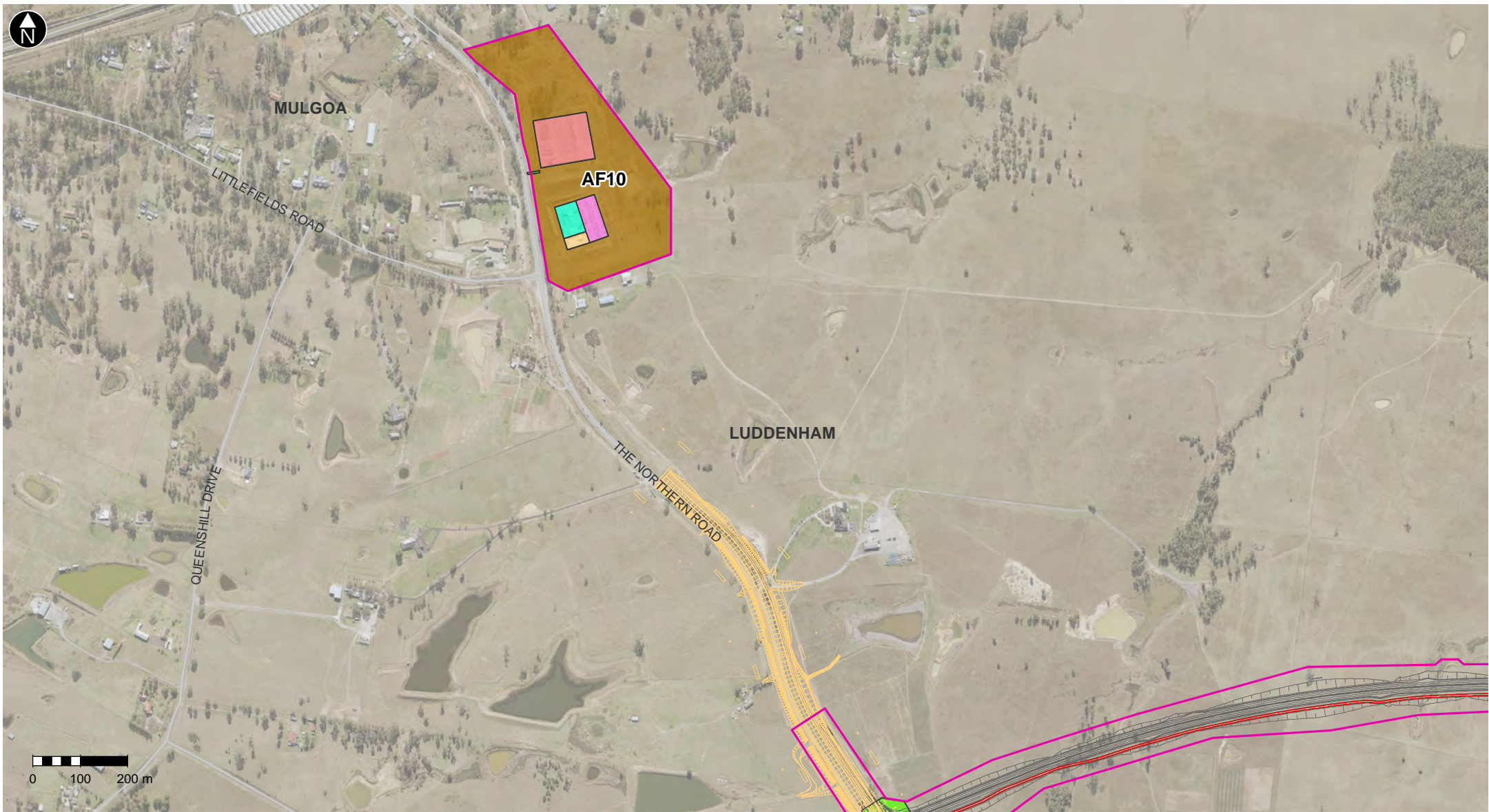


Figure 4-1 Location of ancillary facilities as described in the EIS and proposed additional and amended ancillary facilities



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|--|---------------------------------|--|
| The amended project construction footprint | Amenities | Site offices |
| The amended project (option 2) | Car park | Plant servicing workshop |
| Amended project shared user path | Concrete/asphalt batching plant | Vehicular access to ancillary facilities |
| Existing roads | Stockpile and laydown area | |



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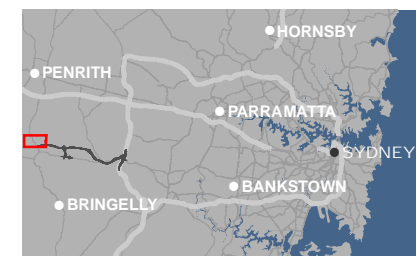
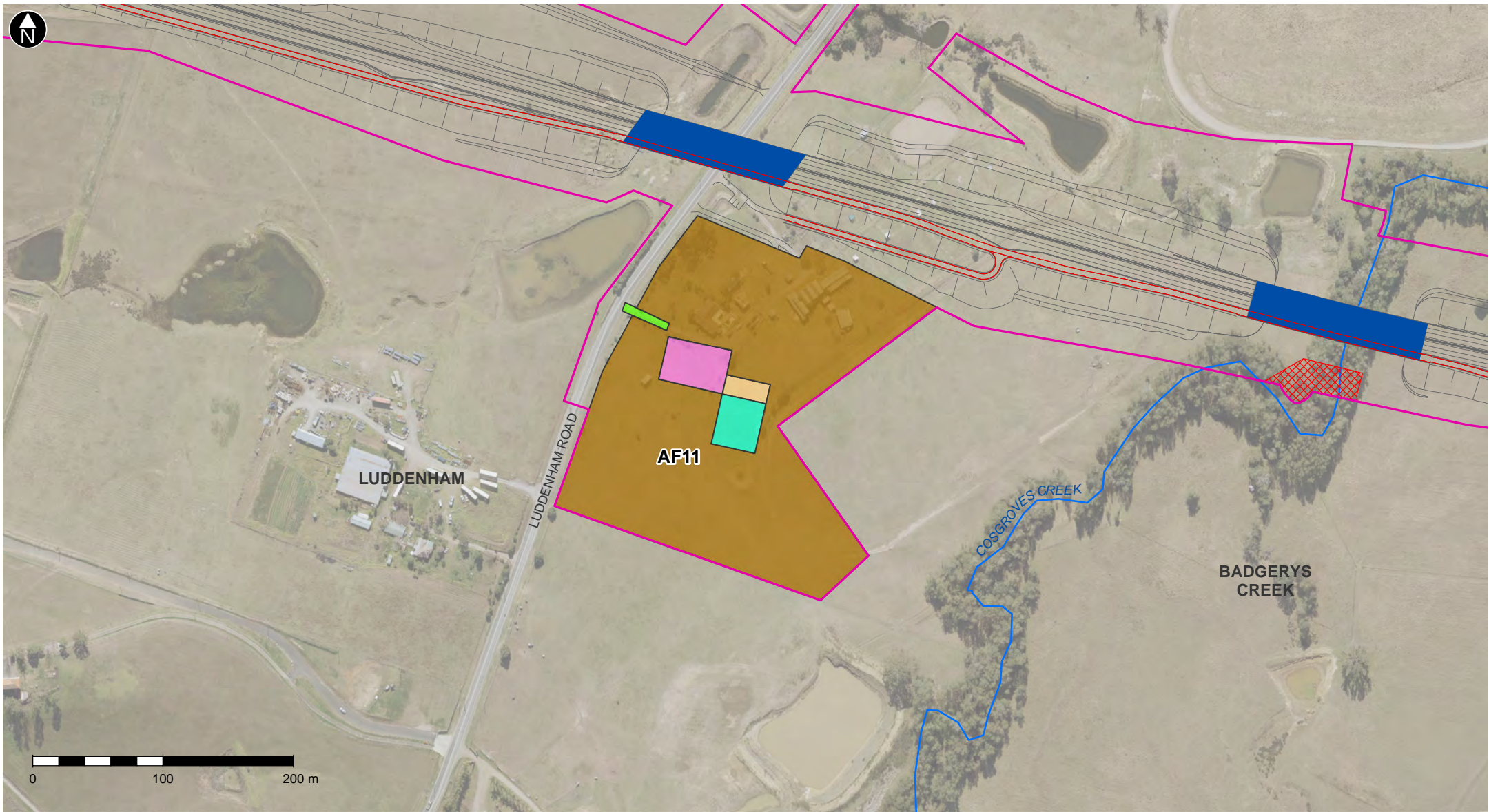


Figure 4-2 Indicative site layout of proposed ancillary facilities



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|--|-------------------------------------|---------------------------------|--|
| The amended project construction footprint | Amended project bridges | Amenities | Site offices |
| The amended project (option 2) | The amended project exclusion zones | Car park | Plant servicing workshop |
| Amended project shared user path | Existing roads | Concrete/asphalt batching plant | Vehicular access to ancillary facilities |
| Waterways | Stockpile and laydown area | | |

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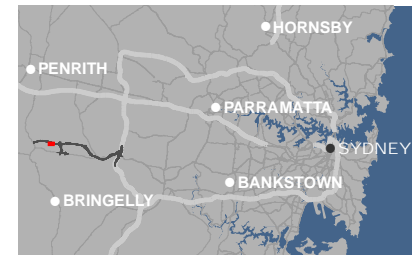
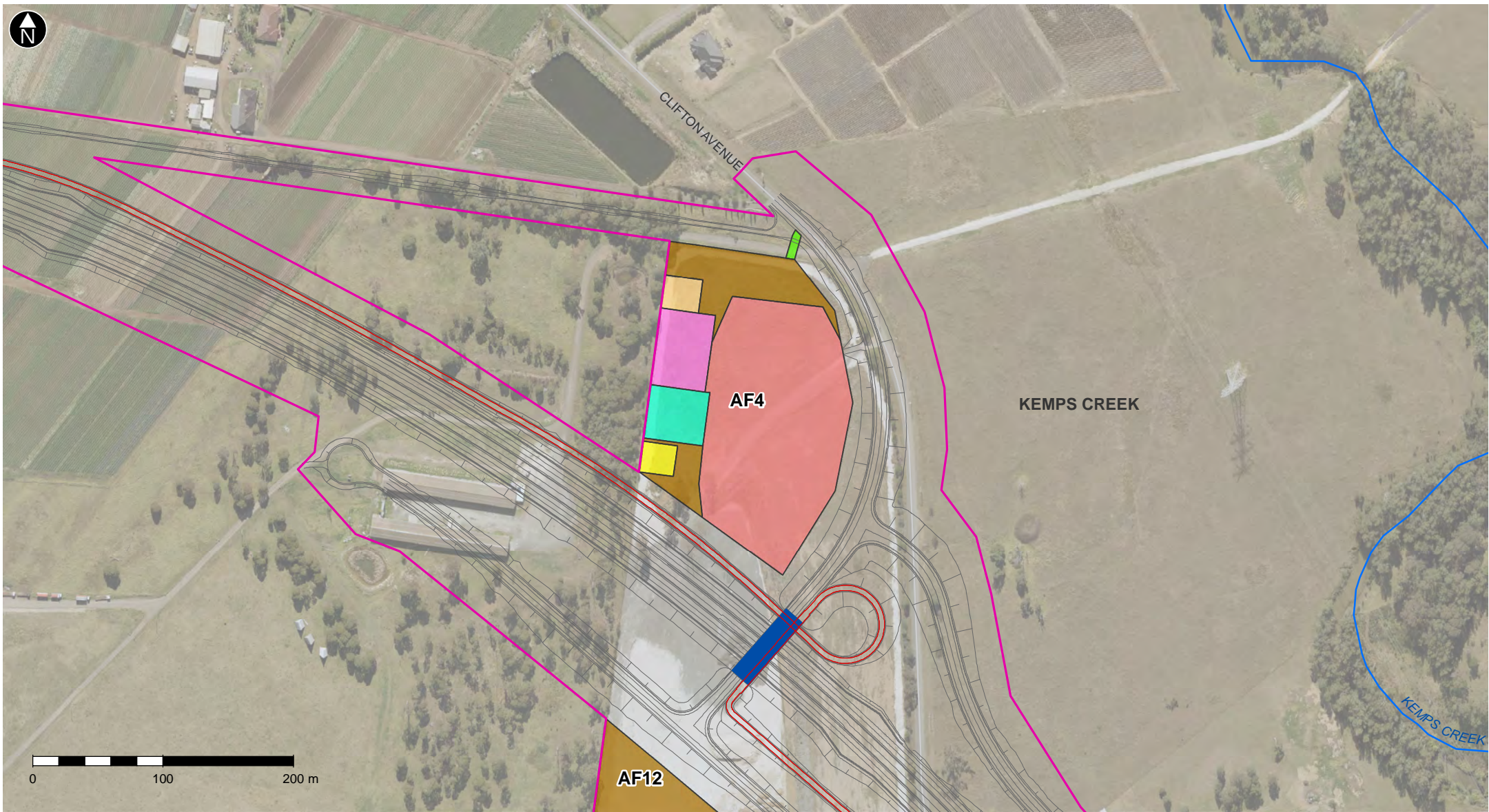


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|--|---|--|---|
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| Amended project shared user path | ~ Waterways | Concrete/asphalt batching plant | Vehicular access to ancillary facilities |
| | | Stockpile and laydown area | |

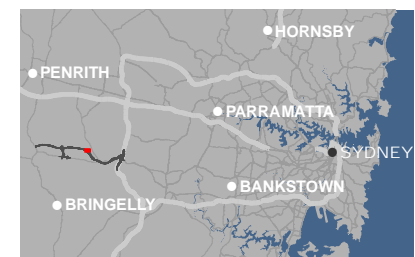
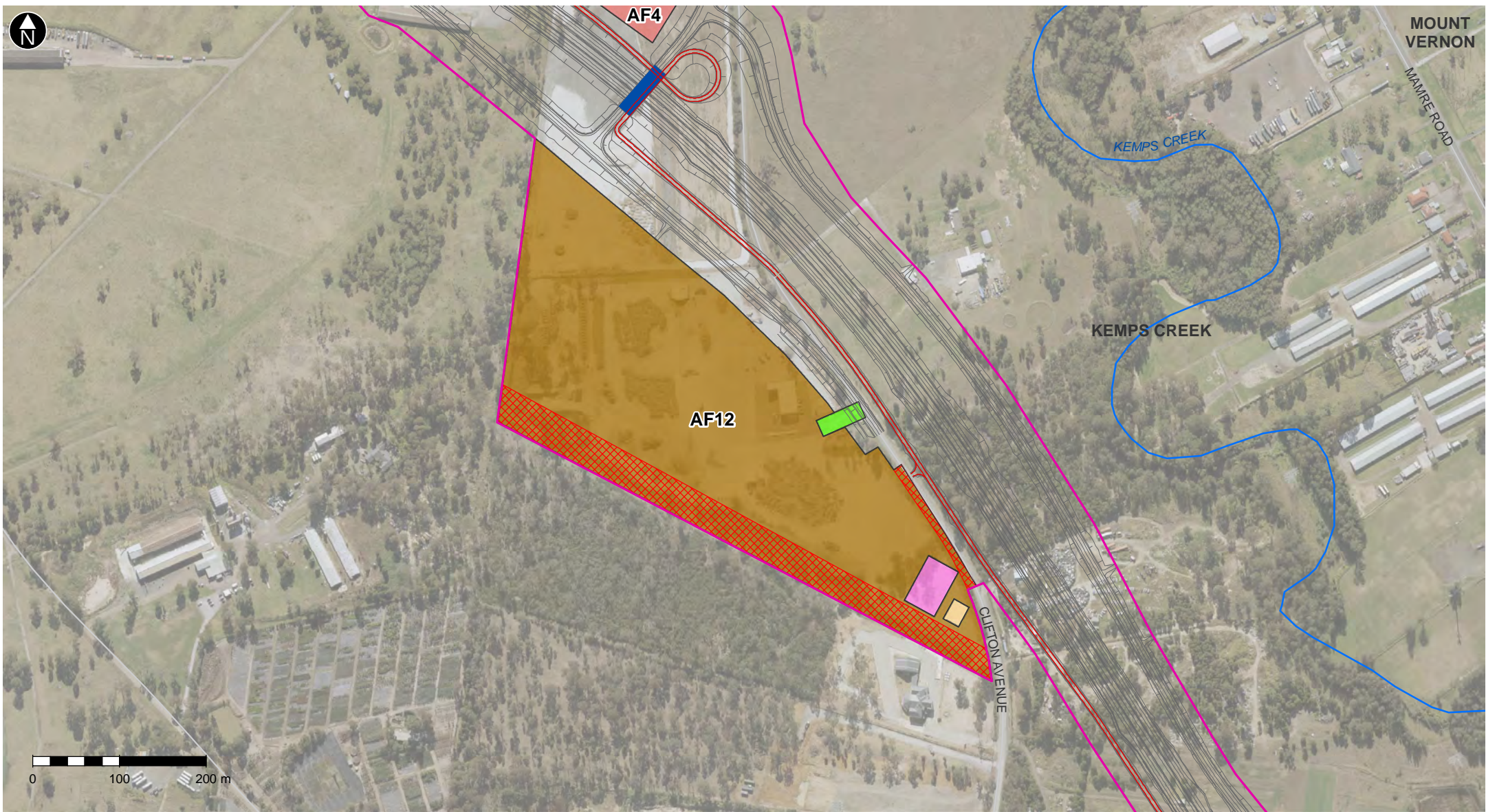


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| Waterways | Stockpile and laydown area | | |

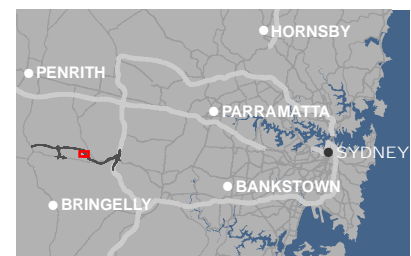
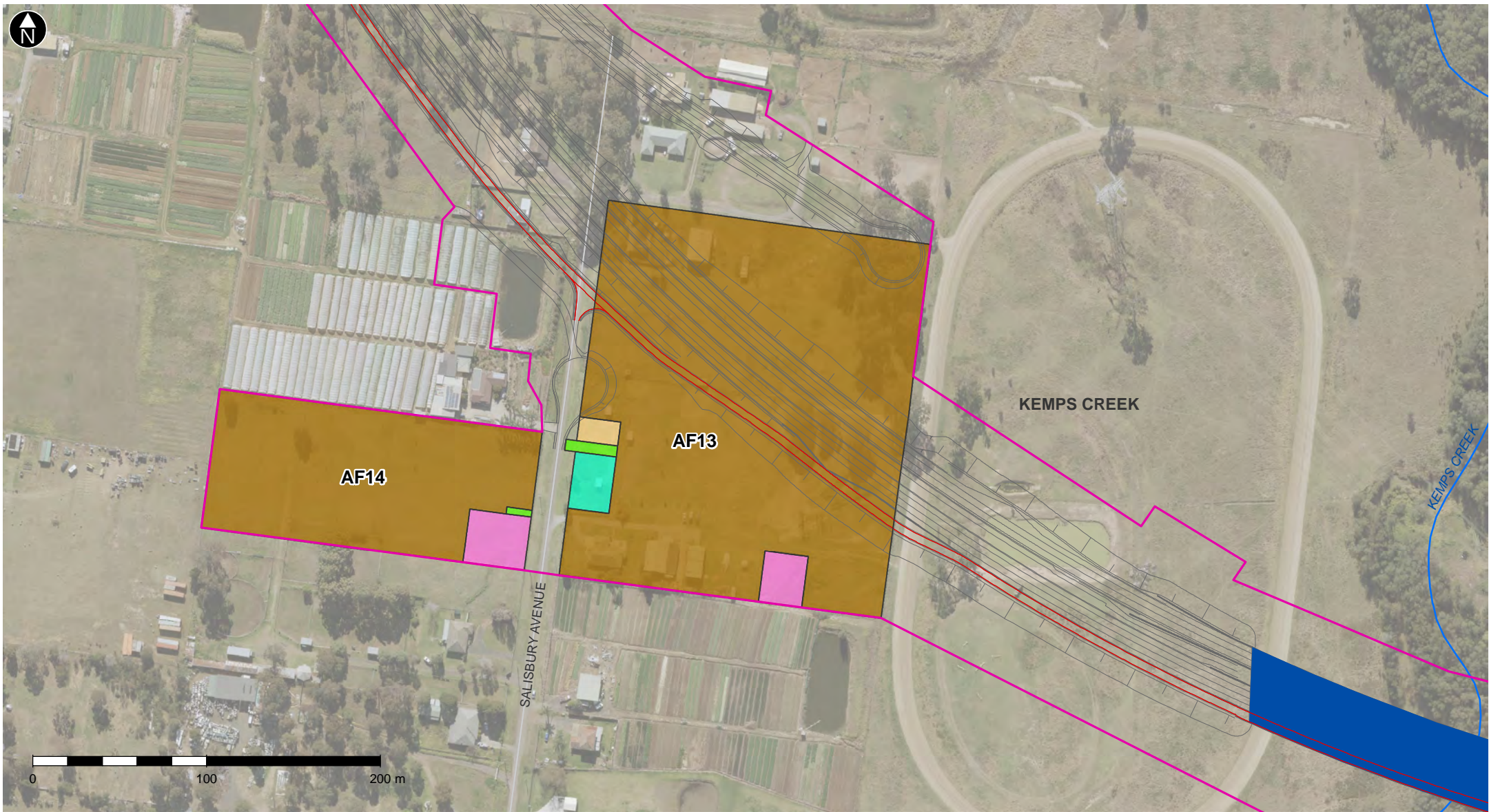


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| The amended project construction footprint | Amended project bridges | Amenities | Site offices |
| The amended project (option 2) | Existing roads | Car park | Plant servicing workshop |
| Amended project shared user path | Waterways | Concrete/asphalt batching plant | Vehicular access to ancillary facilities |
| | | Stockpile and laydown area | |

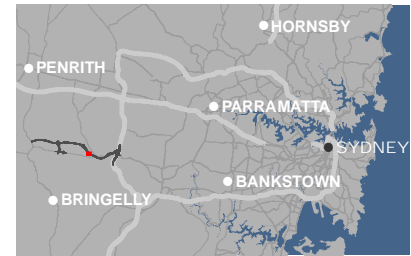
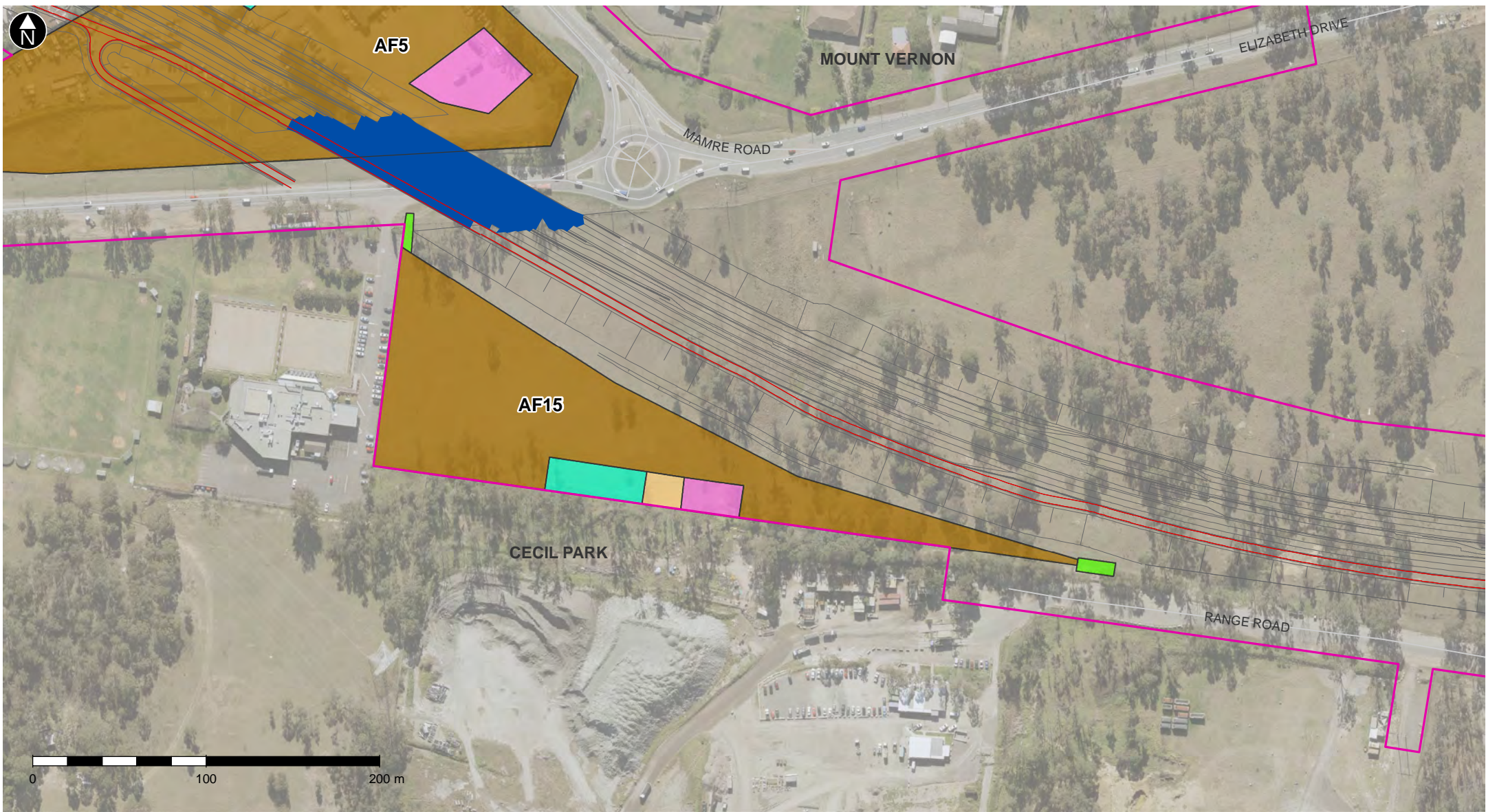


Figure 4-2 Indicative site layout of proposed ancillary facilities



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| The amended project construction footprint | Amended project bridges | Amenities | Site offices |
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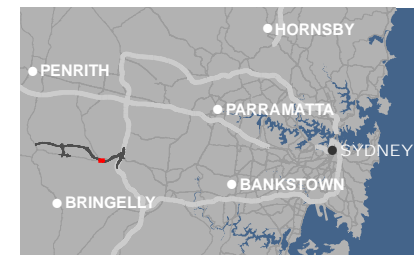
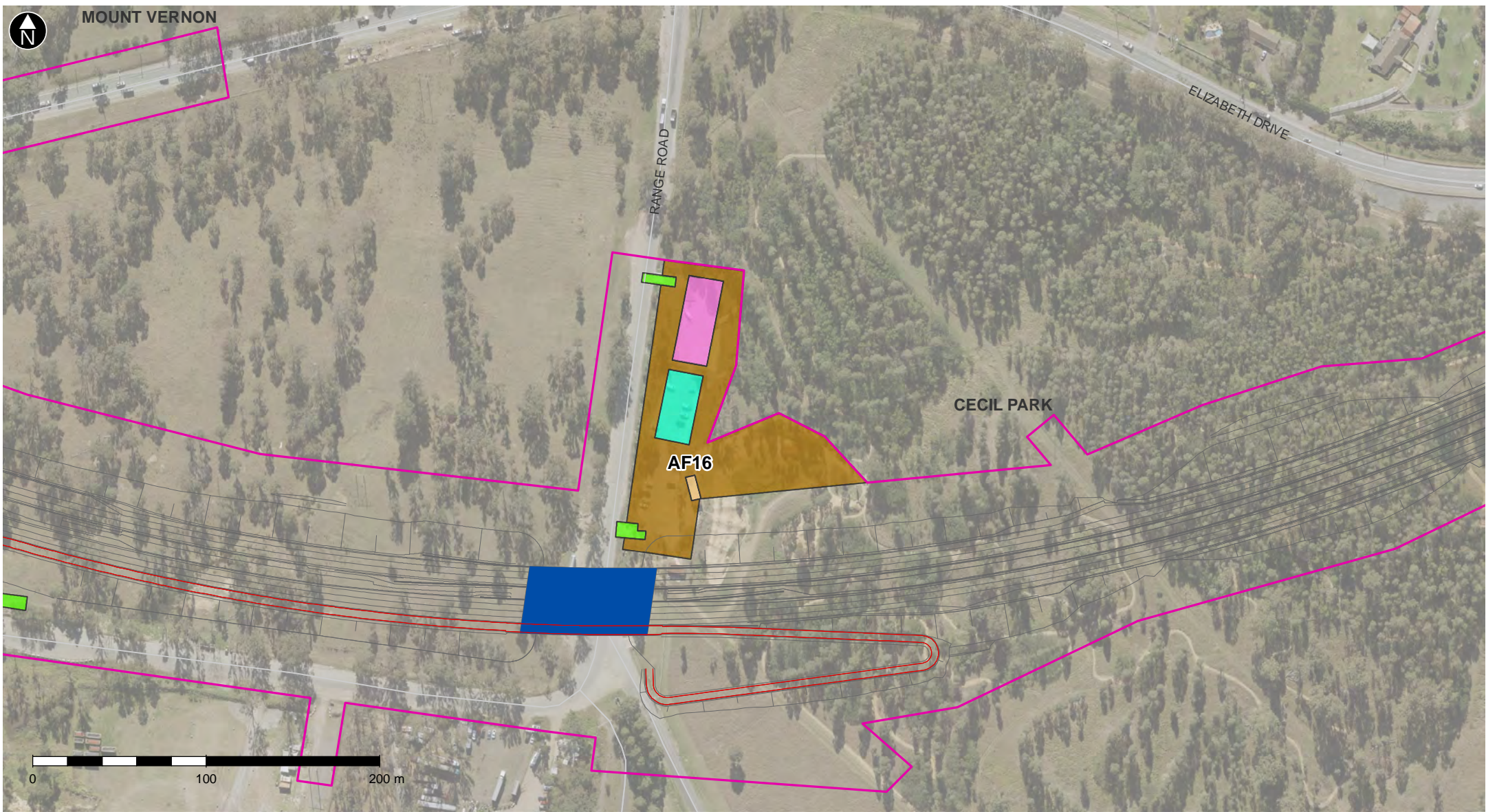


Figure 4-2 Indicative site layout of proposed ancillary facilities



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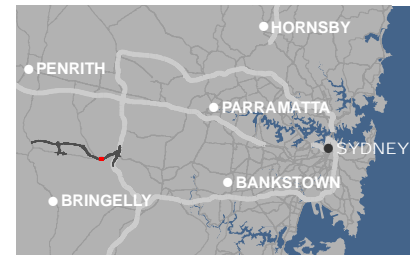


Figure 4-2 Indicative site layout of proposed ancillary facilities



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|--|-------------------------------------|---------------------------------|--|
| The amended project construction footprint | Amended project bridges | Amenities | Site offices |
| The amended project (option 2) | The amended project exclusion zones | Car park | Plant servicing workshop |
| Amended project shared user path | Existing roads | Concrete/asphalt batching plant | Vehicular access to ancillary facilities |
| Waterways | Stockpile and laydown area | | |

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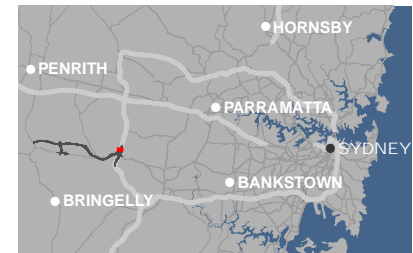


Figure 4-2 Indicative site layout of proposed ancillary facilities



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|--|-------------------------|---------------------------------|--|
| The amended project construction footprint | Amended project bridges | Amenities | Site offices |
| The amended project (option 2) | Existing roads | Car park | Plant servicing workshop |
| Amended project shared user path | | Concrete/asphalt batching plant | Vehicular access to ancillary facilities |
| | | Stockpile and laydown area | |



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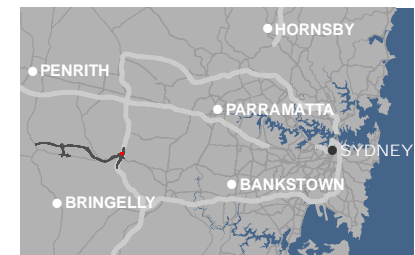
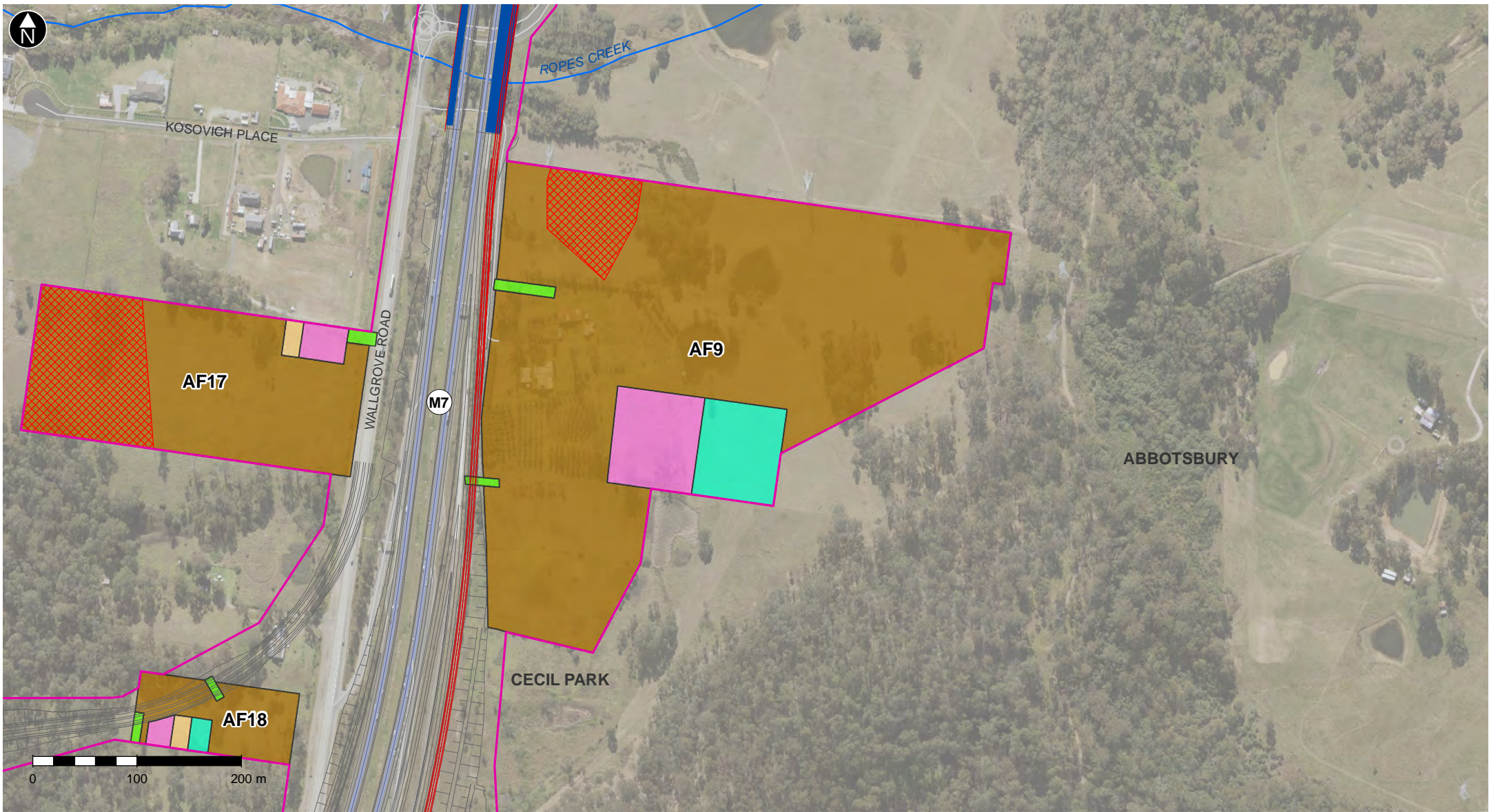


Figure 4-2 Indicative site layout of proposed ancillary facilities



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| The amended project construction footprint | Amended project bridges | Amenities | Site offices |
| The amended project (option 2) | The amended project exclusion zones | Car park | Plant servicing workshop |
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| Waterways | Stockpile and laydown area | | |

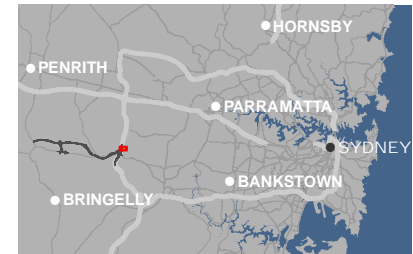


Figure 4-2 Indicative site layout of proposed ancillary facilities

Table 4-2 Environmental considerations when selecting amended or additional ancillary facilities

Consideration	Expanded AF 9	AF 10	AF 11	AF 12	AF 13	AF 14	AF 15	AF 16	AF 17	AF 18
Located more than 50 metres from a waterway	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Located within or next to land where the project is being carried out	Y	N Currently established AF for The Northern Road upgrade project; located along The Northern Road at Luddenham	Y	Y	Y	Y	Y	Y	Y	Y
Ready access to the road network	Y	Y	Y	Y	Y	Y	N Access would be provided through the project construction footprint	Y	Y	Y
Located to minimise the need for heavy vehicles to travel through residential areas	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Sited on relatively level land	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Consideration	Expanded AF 9	AF 10	AF 11	AF 12	AF 13	AF 14	AF 15	AF 16	AF 17	AF 18
Separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant)	N	N	N	N	N	N	Y	Y	N	Y
Not requiring vegetation clearing beyond that already required by the project	N	Y	N	Y Biodiversity exclusion zone located within this AF	Y TEC located within this AF	N	N	N	N	N Threatened species located within this AF
Avoiding and minimising impact on heritage items (including areas of archaeological sensitivity)	Y Aboriginal heritage exclusion zone located within this AF	Y	N	Y	Y	Y	Y	Y	Y Aboriginal heritage exclusion zone located within this AF	Y
Not unreasonably affecting the land use of nearby properties	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Consideration	Expanded AF 9	AF 10	AF 11	AF 12	AF 13	AF 14	AF 15	AF 16	AF 17	AF 18
Above the 20-year ARI (five per cent AEP) flood level unless a contingency plan to manage flooding is prepared and implemented	N	N	Y	Y	Y	Y	Y	Y	N	N

It is noted that AF 12 contains a biodiversity exclusion area. This area is a restricted conservation area identified under the DA14/0024.01 Modification of Consent Conditions at 90-145 Clifton Avenue, Kemps Creek (Lot 3 DP 812284). The conservation area is subject to a section 88B restriction of the *Conveyancing Act 1919* (NSW). No project-related activities would take place within the exclusion area.

In addition, AF 9 and AF 17 would include Aboriginal heritage exclusion zones as determined by the Aboriginal heritage assessment described in **Section 6.5**. No project-related activities would take place within those exclusion areas.

4.2 Other changes

4.2.1 Amended earthworks quantities

Changes to the approximate total bulk earthwork quantities are described in **Table 4-3**. The spoil management approaches described in Section 5.24.5 of the EIS would not be altered, and material excavated during project earthworks would be reused in construction where possible. Potential for spoil reuse would be confirmed during detailed design.

The approximate total bulk earthwork quantities described in the EIS (see Section 5.24.5 of the EIS) included only the earthworks associated with the M12 Motorway. It did not include the earthworks associated with proposed local road changes and upgrades. These quantities have been revised to include the proposed local road changes and updates and are provided in **Table 4-3**. These quantities are shown alongside the total bulk earthwork quantities for the amended project, incorporating both the M12 Motorway and local roads. **Table 4-3** also provides the change between the project as described in the EIS and the amended project.

Table 4-3 Amended approximate total bulk earthwork quantities

Type of material	Approximate quantity (cubic metres)			
	Project as per EIS (M12 Motorway only)	Project as per EIS (M12 Motorway and local roads)	Amended project (M12 Motorway and local roads)	Change between EIS and amended project (M12 Motorway and local roads)
Total fill material required	3,128,000	3,589,000	3,322,000	-267,000 (Decrease)
Total cut material to be excavated	1,396,000	1,410,000	2,144,000	734,000
Total fill deficit ¹ to be imported	1,732,000	2,179,000	1,178,000	-1,001,000 (Decrease)
Topsoil (balance)	182,000 ²	209,000	271,000	62,000
Selected material zone (SMZ) (import)	127,000	150,000	194,000	44,000
Pavement (import)	200,000	231,000	290,000	59,000

¹ Total fill material minus total cut material

² This was incorrectly stated in the EIS as 1,820,000 cubic metres.

4.2.2 Amended drainage works

The amended project would impact one additional farm dam that would be located within the amended construction and operational footprints (see **Figure 4-3**). As a result, a total of up to 16 farm dams may require de-watering and either full or partial infilling to construct the amended project.

4.2.3 Additional temporary leases for ancillary facilities

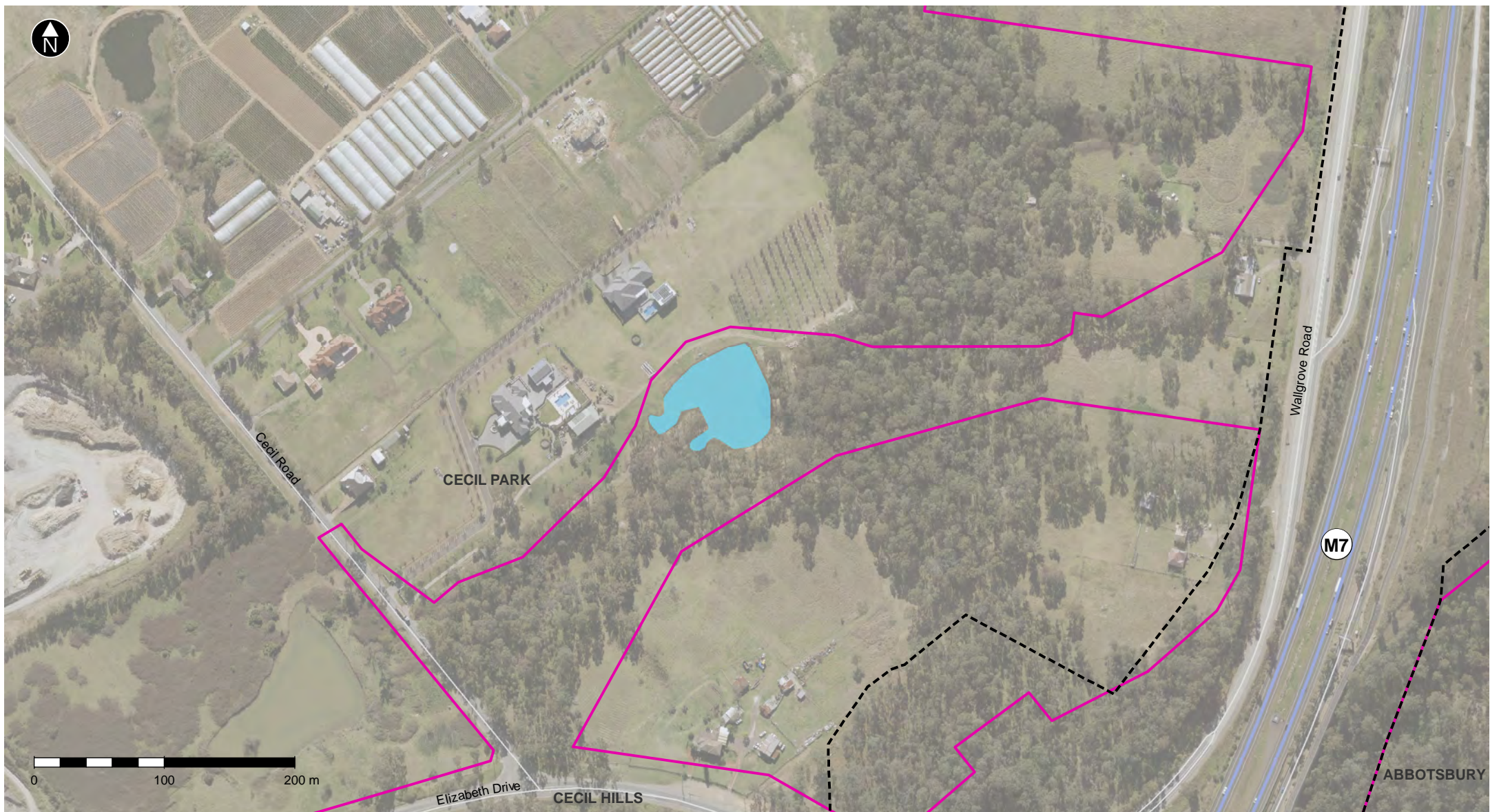
As described in **Section 4.1.2**, nine additional ancillary facilities, as well as the expansion of AF 9, would be required to support the construction of the proposed changes described throughout **Chapter 3**. Two properties used for additional ancillary facilities will not be leases as land for AF 11 has already been acquired by TfNSW and land for AF 13 will be acquired by TfNSW following landholder consultation. As a result, an additional three properties would need to be leased during construction (see **Table 4-4** and **Section 3.3.5**). Properties impacted in relation to the construction footprint of the amended project are presented in **Figure 6-24**, while properties impacted in relation to the operational footprint of the amended project are shown in **Figure 6-25**.

In addition the temporary lease of AF 9 would comprise a larger area of the total property. AF 10 is an existing construction ancillary facility for Stages 5 and 6 of The Northern Road upgrade project. As such, the property on which AF 10 is located is already being leased by TfNSW. This lease would be extended as a result of the amended project in consultation with the landowner.

The number and location of leases would be confirmed during detailed design and in consultation with property owners.

Table 4-4 Potential additional properties subject to temporary leases during construction

Construction ancillary facility	Property ID	Lots subject to temporary lease (lot/deposited plan)	Existing land use
AF 9 and AF 16	38	Lot 58 DP1110579 Lot 59 DP1110579 Lot 11 DP1021940 Lot 12 DP1021940 Lot 13 DP1021940 Lot 14 DP1022954	Wylde Mountain Bike Trail and other recreation uses, International Shooting Centre, car parking area, vegetated areas
AF 10	2	Lot 1 DP1240402 Lot 2 DP1240402	Construction ancillary facility for Stages 5 and 6 of The Northern Road upgrade works
AF 12	13	Lot 47 DP734584 Lot 3 DP812284	Commercial
AF 14	23	Lot 33 DP2566	Rural/agriculture
AF 15	37	Lot 7 DP1054778 Lot 8 DP1054778 Lot 9 DP1054778	Rural/agriculture
AF 17 and AF 18	44	Lot 26B DP387529 Lot 24 DP1152887	Rural/agriculture



- The project construction footprint as per the EIS
- The amended project construction footprint
- Additional farm dam to be impacted
- Motorway
- Existing roads

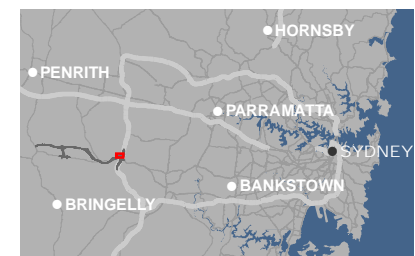


Figure 4-3 Additional farm dam to be impacted as part of amended project

4.2.4 Out-of-hours work

As a result of the proposed changes described in **Chapter 3**, TfNSW is also proposing to be able to carry out works at four of the construction ancillary facilities 24 hours a day, seven days per week, in addition to the extended construction hours proposed in Section 5.24.15 of the EIS. The construction ancillary facilities that may require out-of-hours work include:

- AF 2
- AF 6
- AF 7
- AF 9.

The works that would be carried out outside of standard working hours during the 24-hour period would be consistent with those listed in Section 5.24.16 of the EIS. In addition, TfNSW is proposing to include the following activities:

- Stockpiling of soil within ancillary facilities
- Deliveries of concrete to the ancillary facilities.
- Deliveries of large prefabricated material (eg bridge girders).

It is noted that these activities are indicative only, and would be subject to confirmation following construction methodologies being developed by the construction contractor. No concrete batching activities or crushing, grinding and screening activities would be undertaken at any ancillary facility outside of standard working hours.

The 24-hour operation would allow the project to take advantage of opportunities to transfer high quality spoil from transport tunnelling projects in the Sydney area. These other projects often operate a 24-hour construction program. This would reduce costs for the project and would provide increased opportunities for recycling and, as such, would improve sustainability outcomes. Deliveries of large items out of hours would also reduce impacts on the wider traffic network by the operation of wide and oversized vehicles.

4.2.5 Amended construction access

Access to ancillary facilities AF 1 to AF 9 would remain unchanged for the amended project to what was described in the EIS. In order to access the additional ancillary facilities described in **Section 4.1.2**, namely AF 10 to AF 18, additional construction access would be required as described in **Table 4-5**. The access points to the additional and amended construction ancillary facilities are shown in **Figure 4-2**. No other construction access as described in the EIS would be altered as a result of the amended project.

Table 4-5 Additional construction access to ancillary facilities

Ancillary facility	Access
AF 10	Access from The Northern Road, via the existing ancillary facility access point
AF 11	Access from Luddenham Road via an existing property access
AF 12	Access via Clifton Avenue via an existing property access
AF 13	Access via Salisbury Avenue via an existing property access

Ancillary facility	Access
AF 14	Access via Salisbury Avenue via an access road to be constructed
AF 15	Access via Range Road via an access road to be constructed
AF 16	Access via Range Road via an existing access to the carpark of the Wylde Mountain Bike Trail
AF 17	Access via Wallgrove Road via an access point to be constructed
AF 18	Access along the proposed project alignment Vehicles would enter AF 17 and travel through the amended construction footprint to AF 18

4.2.6 Amended haulage routes and heavy vehicle movements

In order to transport materials to the amended construction footprint and access the additional ancillary facilities described in **Section 4.1.2**, three additional haulage routes would be required. These are described in **Table 4-6** and **Figure 4-4**.

Other haulage arrangements at key locations as described in the EIS would not be altered as a result of the amended project.

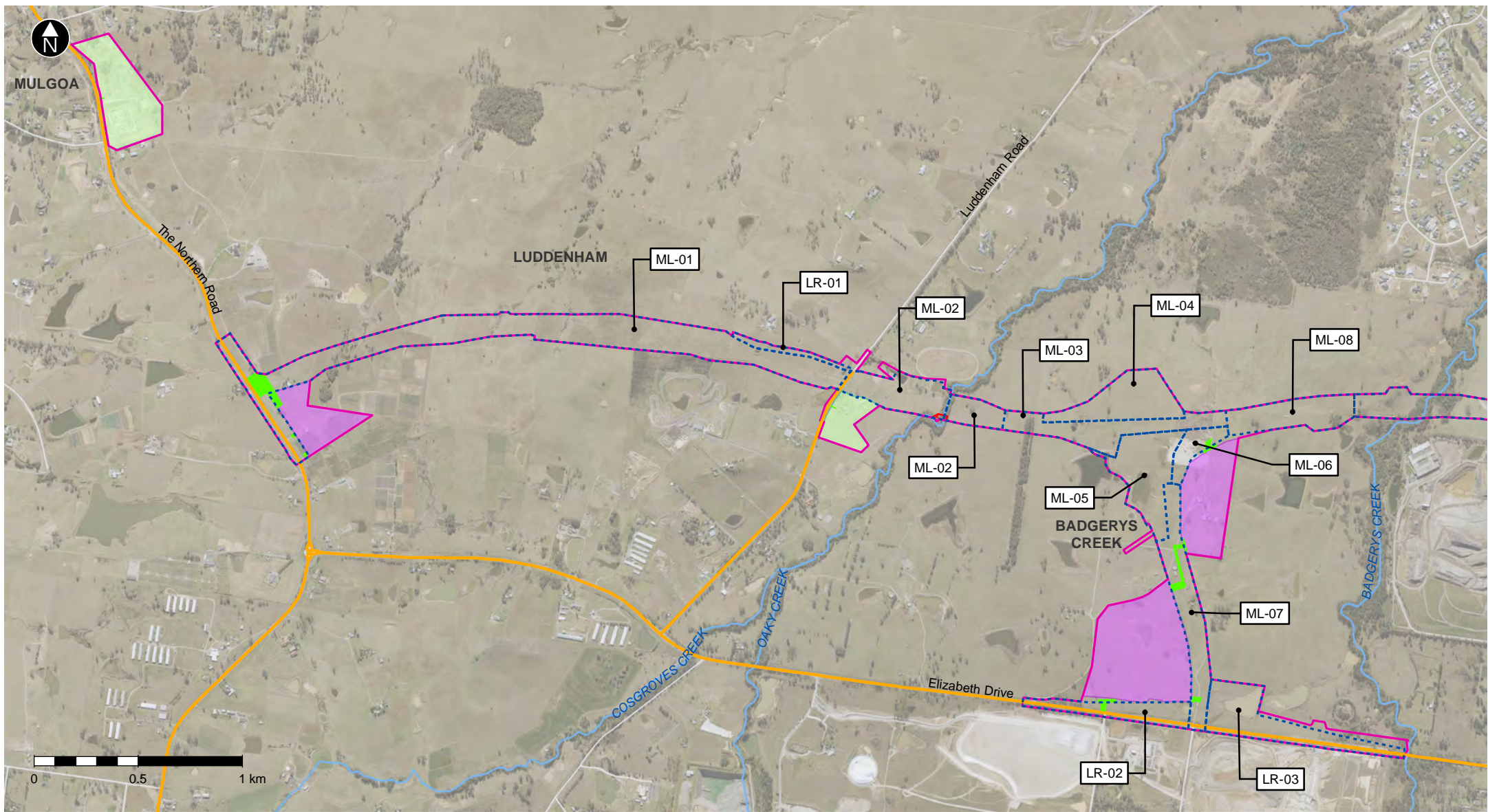
Table 4-6 Additional haulage arrangements at key locations within the construction footprint ¹

Key location	Haulage arrangements
Wallgrove Road	Wallgrove Road would be used as a haulage route to access the amended AF 9
Salisbury Avenue	Salisbury Avenue would be used as a haulage route to access the amended construction footprint via AF 13 and AF 14
Luddenham Road	Luddenham Road to Elizabeth Drive would be used as a haulage route to access AF 11

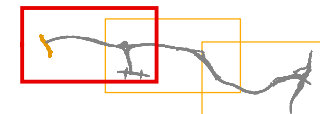
¹ While The Northern Road was not stated as a haulage route in Table 5-20 of the EIS, it was identified as a haulage route in Figure 5-24 of the EIS and assessed in Section 7.2 and Appendix F of the EIS. As a result, it is not considered an additional haulage route for the amended project

Amended haulage routes and predicted truck movements outside the construction footprint for option 1 and option 2 are described in **Table 4-7**. As described in **Section 3.1.2**, option 2 would provide a direct connection between the M12 Motorway and Elizabeth Drive at the motorway-to-motorway interchange at the M7 Motorway, as shown in **Figure 3-3**.

The construction of the amended project would result in an average of 229 truck movements per day. This is an increase of about 15 truck movements per day from the project as described in the EIS. This number would be consistent between option 1 and option 2 of the amended project.



- | | | |
|--|--|----------------|
| The amended project construction footprint | Haulage routes | Waterways |
| Ancillary facilities as per the EIS | Work zones | Motorway |
| Additional ancillary facilities | Vehicular access to ancillary facilities | Existing roads |
| The amended project exclusion zones | | |



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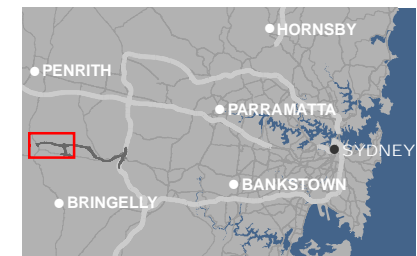
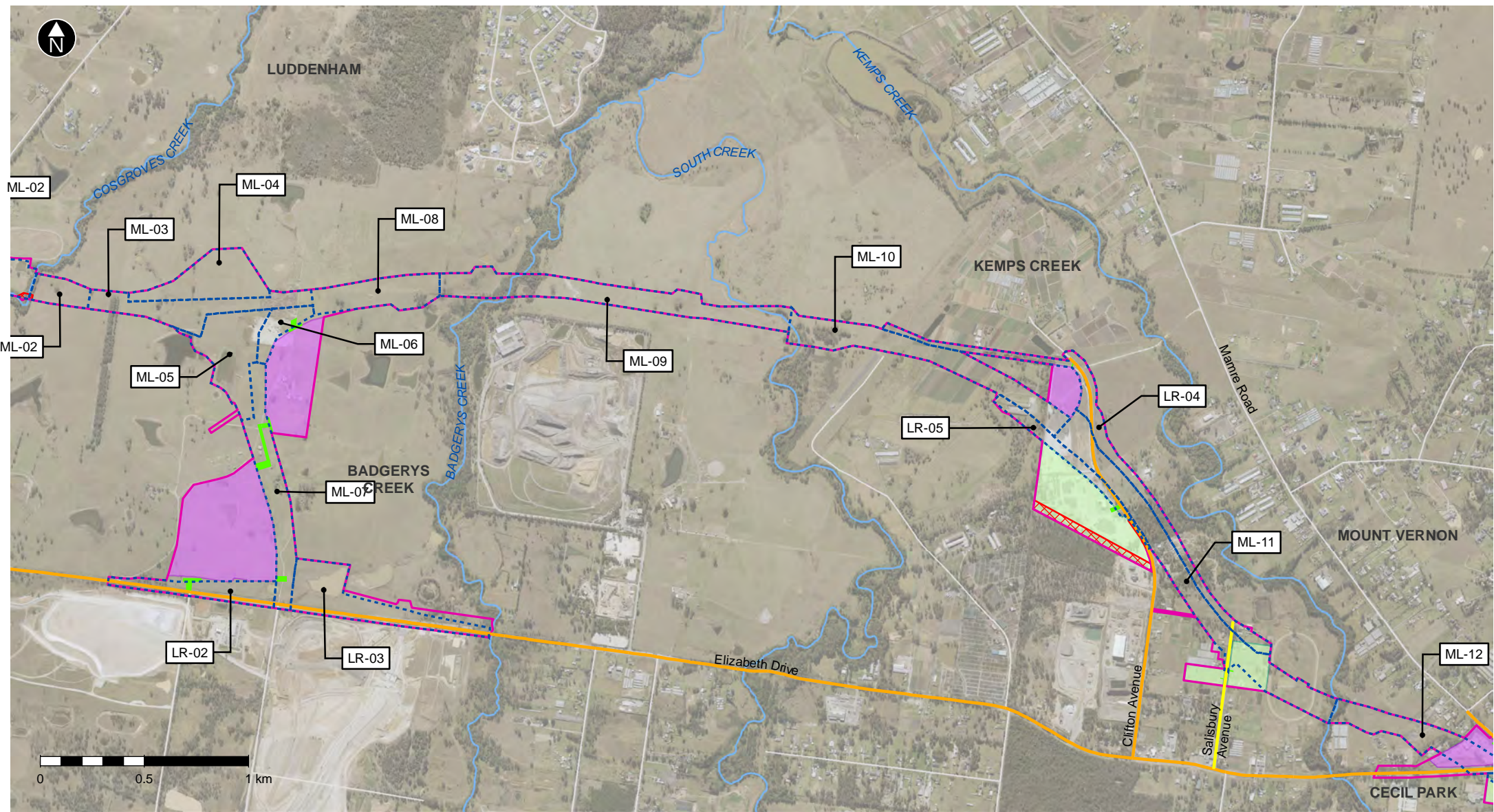
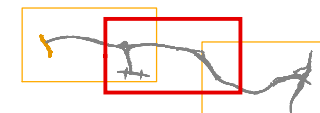


Figure 4-4 Amended haulage arrangements



- | | | |
|--|--|----------------|
| The amended project construction footprint | Haulage routes | Waterways |
| Ancillary facilities as per the EIS | Amended project haulage route | Motorway |
| Additional ancillary facilities | Work zones | Existing roads |
| The amended project exclusion zones | Vehicular access to ancillary facilities | |



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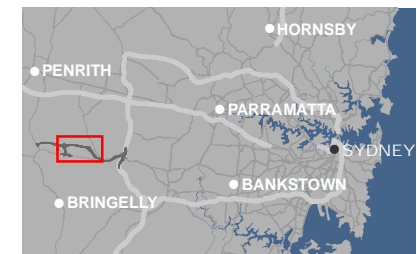
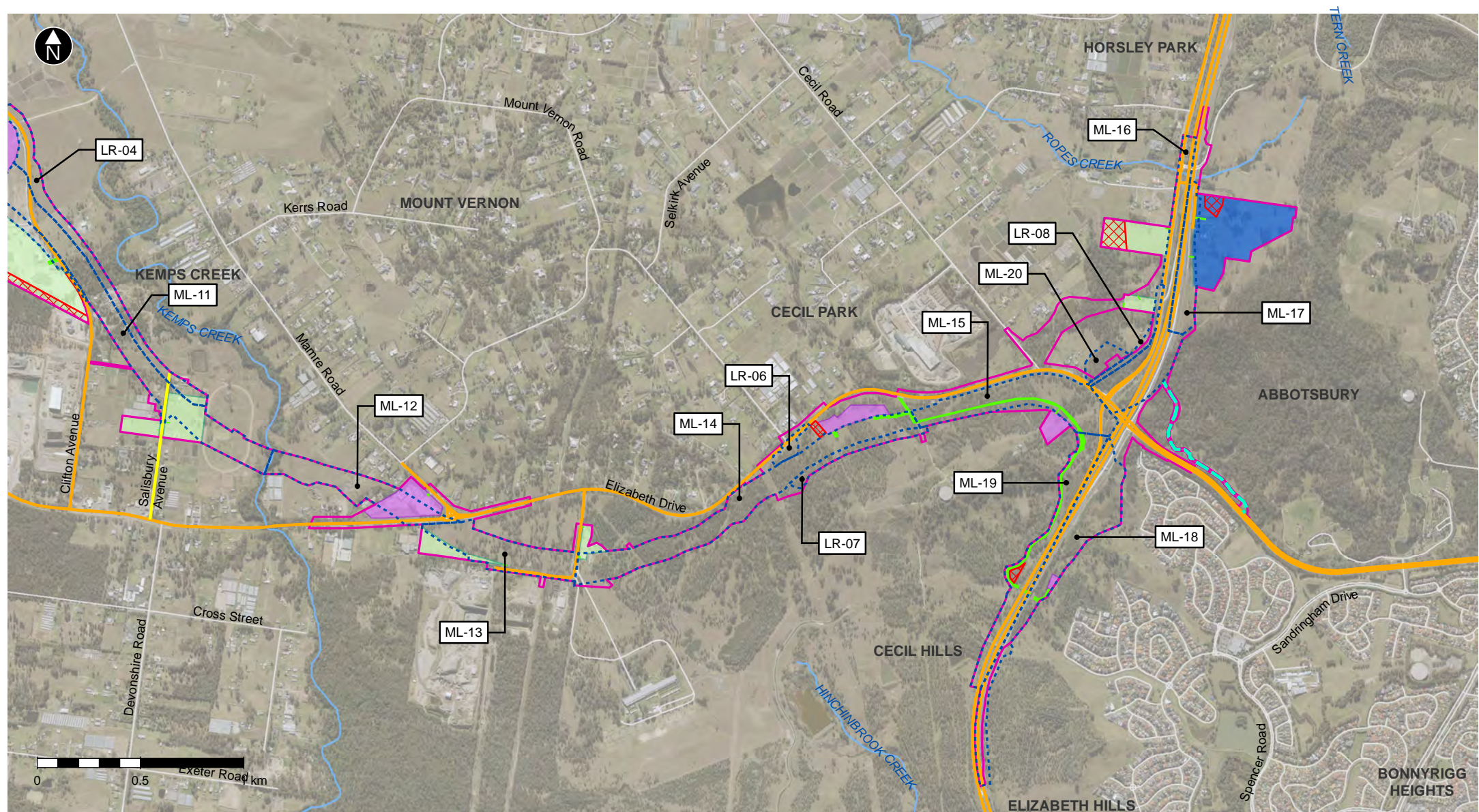
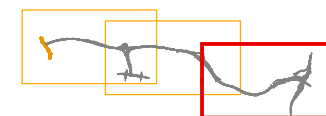


Figure 4-4 Amended haulage arrangements



- | | | |
|--|---|----------------|
| The amended project construction footprint | Haulage routes | Waterways |
| Ancillary facilities as per the EIS | Amended project haulage route | Motorway |
| Additional ancillary facilities | Temporary haulage route for bridge construction | Existing roads |
| Amended ancillary facilities | Work zones | |
| The amended project exclusion zones | Vehicular access to ancillary facilities | |



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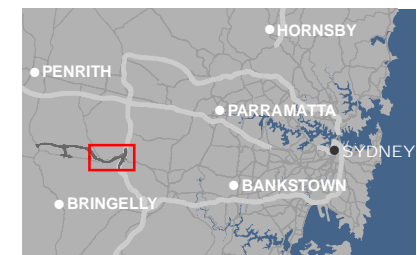


Figure 4-4 Amended haulage arrangements

Table 4-7 Amended key haulage routes and predicted truck movements outside the construction footprint

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
M7 Motorway, Elizabeth Drive and The Northern Road	AF 1	ML-01 The Northern Road to Luddenham Road	7,856	M7 Motorway, Elizabeth Drive and The Northern Road	AF 1 (and AF 10)	ML-01 The Northern Road to Luddenham Road	16,671	16,671
		ML-02 Luddenham Road to South Creek bridge						
-	-	-	-	M7 Motorway, Elizabeth Drive, The Northern Road, and Luddenham Road	AF 11	ML-02 Luddenham Road to Cosgroves Creek bridge	18,566	18,566
						LR-01 Luddenham Road's private access driveway		

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
M7 Motorway and Elizabeth Drive	AF 2 (and AF 3)	ML-03, ML-05, ML-06, ML-08 South Creek bridge to Badgerys Creek	83,065	M7 Motorway and Elizabeth Drive	AF 2 (and AF 3)	ML-03, ML-05, ML-06, ML-08 Cosgroves Creek bridge to Badgerys Creek	30,124	30,124
		ML-04 Airport interchange north of the M12 Motorway main line				ML-04 Airport interchange north of the M12 Motorway main line		
		ML-07 Western Sydney International Airport access road				ML-07 Western Sydney International Airport access road		
		LR-02 Elizabeth Drive, west of the Western Sydney International Airport access road				LR-02 Elizabeth Drive, west of the Western Sydney International Airport access road		
		LR-03 Elizabeth Drive, east of the Western Sydney International Airport access road				LR-03 Elizabeth Drive, east of the Western Sydney International Airport access road		
		ML-09 Badgerys Creek to South Creek bridge				ML-09 Badgerys Creek to South Creek bridge		

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
M7 Motorway, Elizabeth Drive and Clifton Avenue	AF 4	ML-10 South Creek bridge to Clifton Avenue	12,893	M7 Motorway, Elizabeth Drive and Clifton Avenue	AF 4 (and AF 12)	ML-10 South Creek bridge to Clifton Avenue	20,095	20,095
		LR-04 Clifton Avenue north of the M12 Motorway main line				LR-04 Clifton Avenue north of the M12 Motorway main line		
		LR-05 Clifton Avenue south of the M12 Motorway main line				LR-05 Clifton Avenue south of the M12 Motorway main line		
		ML-11 Clifton Avenue to Kemps Creek		M7 Motorway, Elizabeth Drive and Salisbury Avenue	AF 13 (and AF 14)	ML-11 Clifton Avenue to Kemps Creek	9,293	9,293
M7 Motorway, Elizabeth Drive and Mamre Road	AF 5	ML-12 Kemps Creek to Elizabeth Drive	3,805	M7 Motorway, Elizabeth Drive and Mamre Road	AF 5	ML-12 Kemps Creek to Elizabeth Drive	3,811	3,811

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
M7 Motorway, Elizabeth Drive and Range Road	Range Road	ML-13 Elizabeth Drive to Range Road	26,498	M7 Motorway, Elizabeth Drive and Range Road	AF 15	ML-13 Elizabeth Drive to Range Road	26,506	26,506
	-	-	-		AF 16	ML-14 Range Road to existing utility access road	1,140	1,140
M7 Motorway and Elizabeth Drive	AF 6	ML-14 Range Road to existing utility access road	16,074	M7 Motorway and Elizabeth Drive	AF 6	-	-	-
		ML-15 Existing utility access road to M7 interchange ramp bridges				ML-15 Existing utility access road to M7 interchange ramp bridges	6,891	5,587
		ML-19 M7 Motorway northbound exit ramp				-		
		ML-18 M7 Motorway southbound entry ramp				-		

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
<i>M7 Motorway and Elizabeth Drive continued...</i>		-		<i>M7 Motorway and Elizabeth Drive continued...</i>		LR-06 Western Sydney Parklands Utility access road to the north	-	-
		-				LR-07 Western Sydney Parklands Utility access road to the south	-	-
M7 Motorway, Elizabeth Drive, Wallgrove Road and the existing M7 Motorway underpass opposite Kosovich Place	AF 9	ML-17 M7 Motorway southbound exit ramp	4,567	-	-	-	-	-

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
M7 Motorway and Elizabeth Drive	Wallgrove Road	ML-16 M7 Motorway northbound entry ramp	9,244	M7 Motorway and Elizabeth Drive	AF 7 (and AF 8)	ML-16 M12 Motorway Westbound Entry Ramp from Elizabeth Drive bridge to the M7 Motorway Northbound Exit Ramp to Elizabeth Drive	7,038	6,353
		LR-08 Wallgrove Road				-		
		ML-20 Wallgrove Road G-loop ramp				-		
		-				ML-17 M7 Motorway Northbound Exit Ramp to Elizabeth Drive M7 Motorway Southbound Entry Ramp from the M12 Motorway and Elizabeth Drive		
		-				M7 Motorway Southbound Entry Ramp from the M12 Motorway and Elizabeth Drive		

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
<i>M7 Motorway and Elizabeth Drive continued</i>		-		<i>M7 Motorway and Elizabeth Drive continued</i>		ML-19 M7 Motorway Northbound Exit Ramp to the M12 Motorway Westbound		
						ML-21 M7 Motorway Northbound Exit Ramp to Elizabeth Drive		
-	-	-	-	M7 Motorway, Elizabeth Drive, Wallgrove Road and the existing M7 Motorway underpass opposite Kosovich Place	AF 9	ML-23 M7 Motorway Southbound Exit Ramp to the M12 Motorway Westbound	10,299	10,299
						ML-24 M7 Motorway Interchange - M7 Motorway Southbound Exit Ramp to Elizabeth Drive		

Project as per EIS				Amended project				
Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	Haulage Routes	Site access via	Work zone and location	Approximate total truck movements	
							Option 1	Option 2
-	-	-	-	M7 Motorway, Elizabeth Drive and Wallgrove Road	AF 17 (and AF 18)	ML-22 M7 Motorway Northbound Entry Ramp from the M12 Motorway and Elizabeth Drive	14,645	16,657
		-				LR-09 Elizabeth Drive East to Bridge over M12 Motorway Eastbound Exit Ramp to Elizabeth Drive		
		-				LR-10 Cecil Road and roundabout at Wallgrove Road Intersection		
		-				LR-11 Wallgrove Road Realignment		
Total			164,002	Total			165,079	165,102

4.2.7 Amended construction materials

The construction of the amended project would continue to use the range of materials and pre-cast elements described in Section 5.24.18 of the EIS. However, as a result of the proposed changes associated with the amended project, the estimated total water use during construction would be amended as described in **Table 4-8**. The total water use during construction of the amended project would be 822 megalitres, 146 megalitres more than that estimated for the project as described in the EIS. Consistent with the project as described in the EIS, construction water sources would be confirmed during detailed design. These are likely to include a combination of potable mains supply and recycled water, drawn from sources internal and external to the amended construction footprint.

Table 4-8 Amended estimated water use during construction

Construction activity	Water use volume (megalitres)		
	As described in the EIS	Amended project	Change in water use
Dust suppression	270	320	50
Earthworks compaction	270	320	50
Concrete/asphalt batching plants for pavements	38	46	8
Potable water at main ancillary facility	10	10	0
Potable water at outpost sites (eight sites)	16	32	16
Concrete batching plants for bridges	63	76	13
Wheel washing (nine sites)	9	18	9
Total	676	822	146

4.2.8 Amended construction program

As a result of the change in construction contracts, an amended indicative construction program is proposed which allows certain construction activities to begin earlier. This is shown in

Figure 4-5, with amendments shown in grey.

The project may be delivered in stages under multiple contracts, with the priority being to deliver the connection between the M7 Motorway and the Western Sydney International Airport prior to the Airport opening in 2026.

It is noted that the proposed construction schedule would be subject to change, and that the construction program is anticipated to apply to both option 1 and option 2.

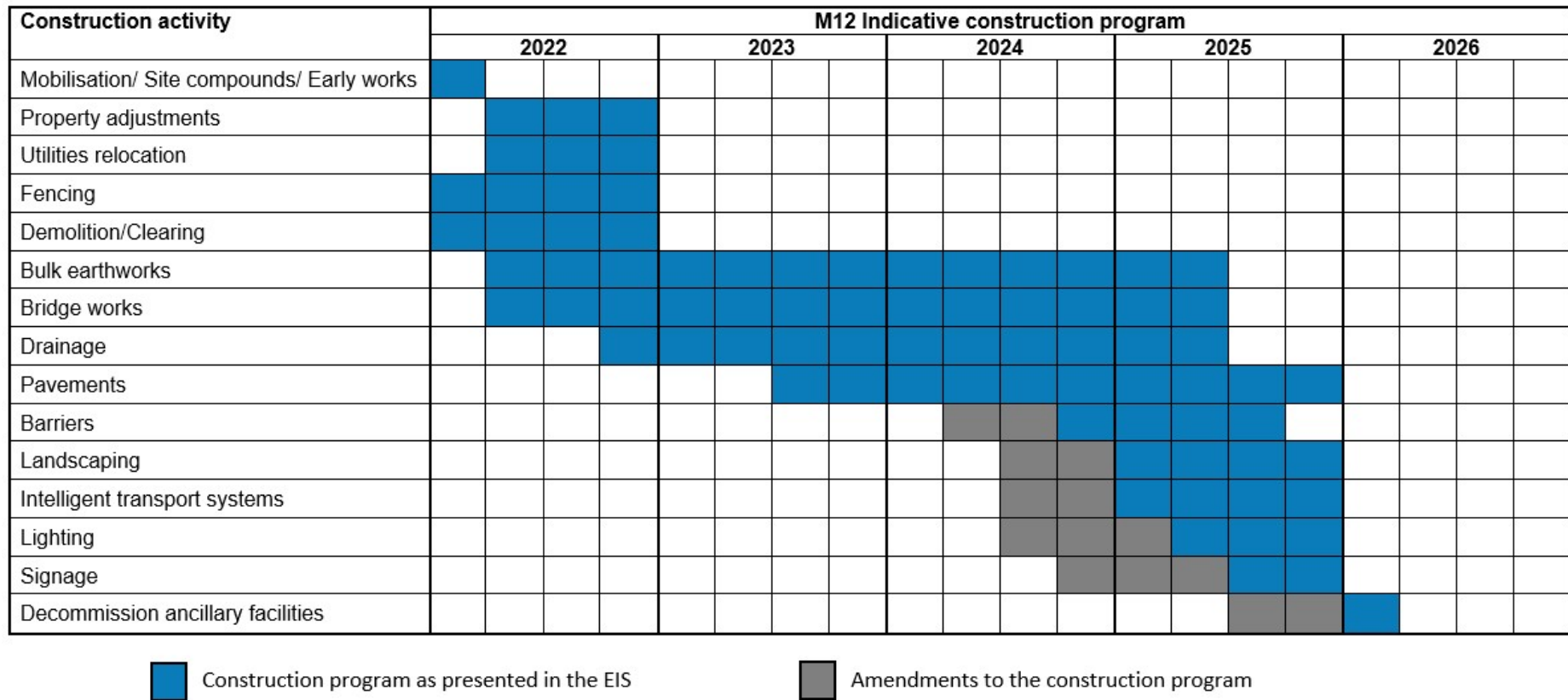


Figure 4-5 Amended construction program

4.3 Amended construction footprint

4.3.1 Project as described in the EIS

The construction footprint is the total area required to construct the project. The construction footprint is generally broader than the operational footprint, and includes those areas required for roadworks, bridge works, access for construction vehicles and plant, drainage infrastructure, temporary sediment basins, utilities and services adjustments, temporary stockpiles, property adjustments and temporary construction ancillary facilities.

The construction footprint as described in the EIS, including ancillary facilities, would comprise about 354¹ hectares. The construction footprint as described in the EIS is shown in **Figure 4-6**.

4.3.2 Proposed change

As a result of the proposed changes described in **Chapter 3**, it is proposed to amend the construction footprint to:

- Accommodate the updated construction requirements of the proposed design changes described throughout **Chapter 3**
- Include the additional ancillary facilities described in **Section 4.1**
- Include the full extent of buildings and dams that would be impacted by the project. The construction footprint as described in the EIS included only the partial extents of buildings and dams that would be directly impacted by the project. This has been updated to account for the full extent of this impact.

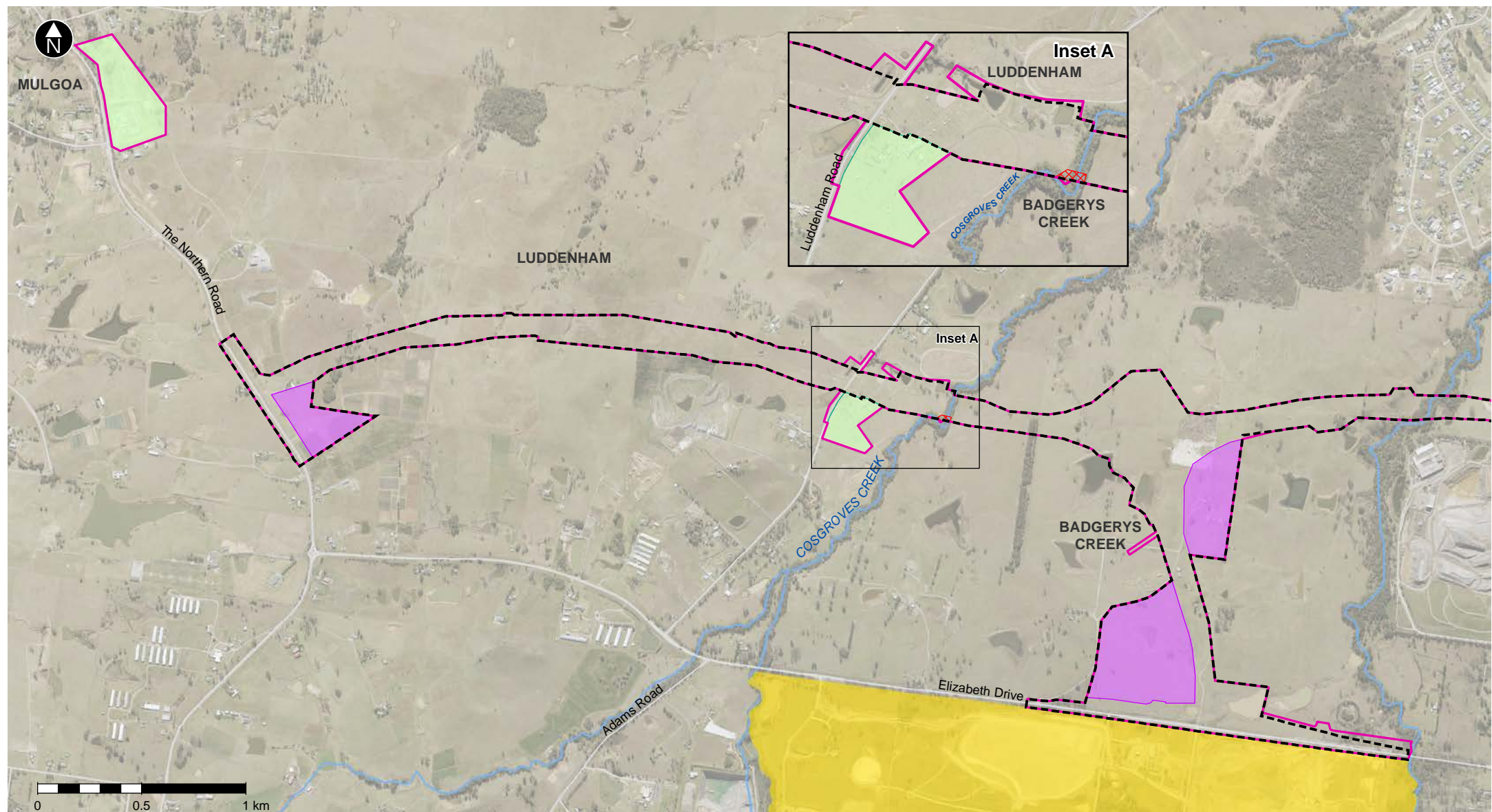
This updated footprint is referred to as the amended construction footprint. A comparison of the amended construction footprint and the construction footprint as described in the EIS, is shown in **Figure 4-6**. Where relevant, and as discussed throughout Chapter 6 and the appendices to this amendment report, the amended construction footprint has been used as a basis for the environmental assessment of the amended project. The amended construction footprint would comprise about 441 hectares, which is about 87 hectares larger than the project construction footprint as described in the EIS.

Where sensitive environmental constraints fall within the amended construction footprint, environmental protection exclusion zones would be established. These exclusion zones would ensure that these areas will be protected for the duration of construction. **Table 4-9** describes the exclusion zones within the amended construction footprint. It also shows whether these exclusion zones have been amended from those described in Section 5.24.1 of the EIS. In summary, there would be six exclusion zones, three of which would be additional to those described in the EIS and one of which would be amended from that described within the EIS. These exclusion zones are shown within **Figure 4-6**.

¹ This number was incorrectly stated in the EIS as 350 hectares.

Table 4-9 Exclusion zones within the amended construction footprint

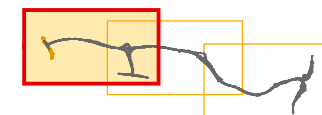
Exclusion zone location	Reason for exclusion	Change from the EIS
Immediately east of AF 11	Avoid construction activity close to Cosgroves Creek	Exclusion zone previously described in the EIS
Within AF 12	Avoid the restricted conservation area identified under the DA14/0024.01 Modification of Consent Conditions at 90-145 Clifton Avenue, Kemps Creek (Lot 3 DP812284	Exclusion zone additional to those described in the EIS
Immediately west of AF 6	Avoid impacts to utilities	Exclusion zone previously described in the EIS, amended as a result of the amended project
Immediately west of AF 8	Limit impacts to vegetation within the Western Sydney Parklands	Exclusion zone previously described in the EIS
Within AF 17	Avoid impacts to Aboriginal heritage	Exclusion zone additional to those described in the EIS
Within AF 9	Avoid impacts to Aboriginal heritage	Exclusion zone additional to those described in the EIS



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones

- Ancillary facilities as per the EIS
- Amended ancillary facilities
- Western Sydney International Airport

- Waterways
- Existing roads



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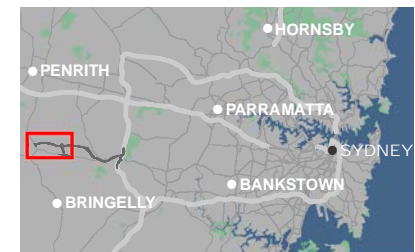
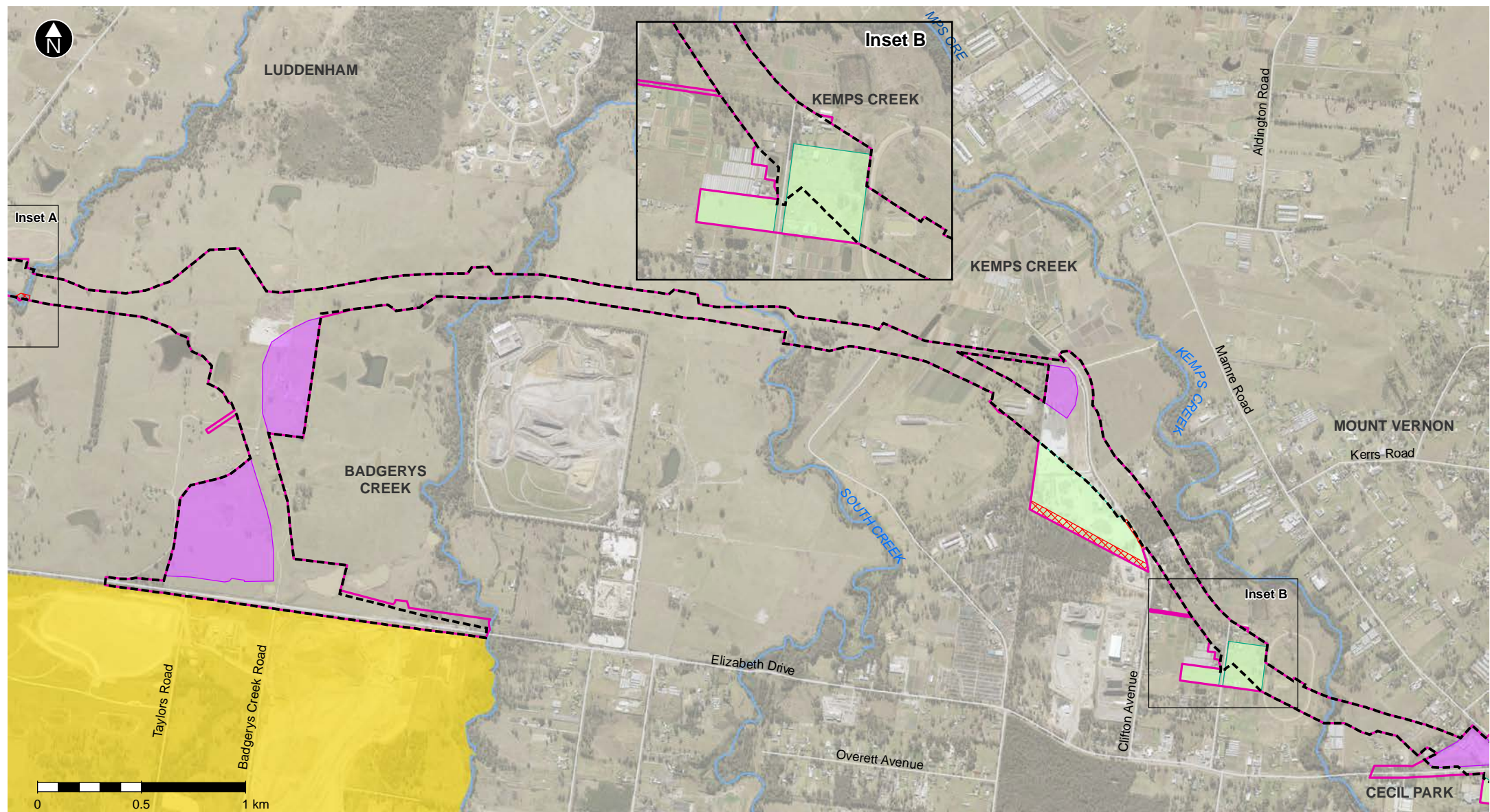
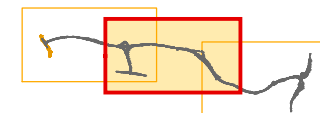


Figure 4-6 Amended construction footprint



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones
- Ancillary facilities as per the EIS
- Amended ancillary facilities
- Western Sydney International Airport

- ~ Waterways
- Existing roads



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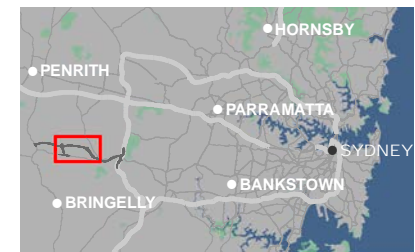
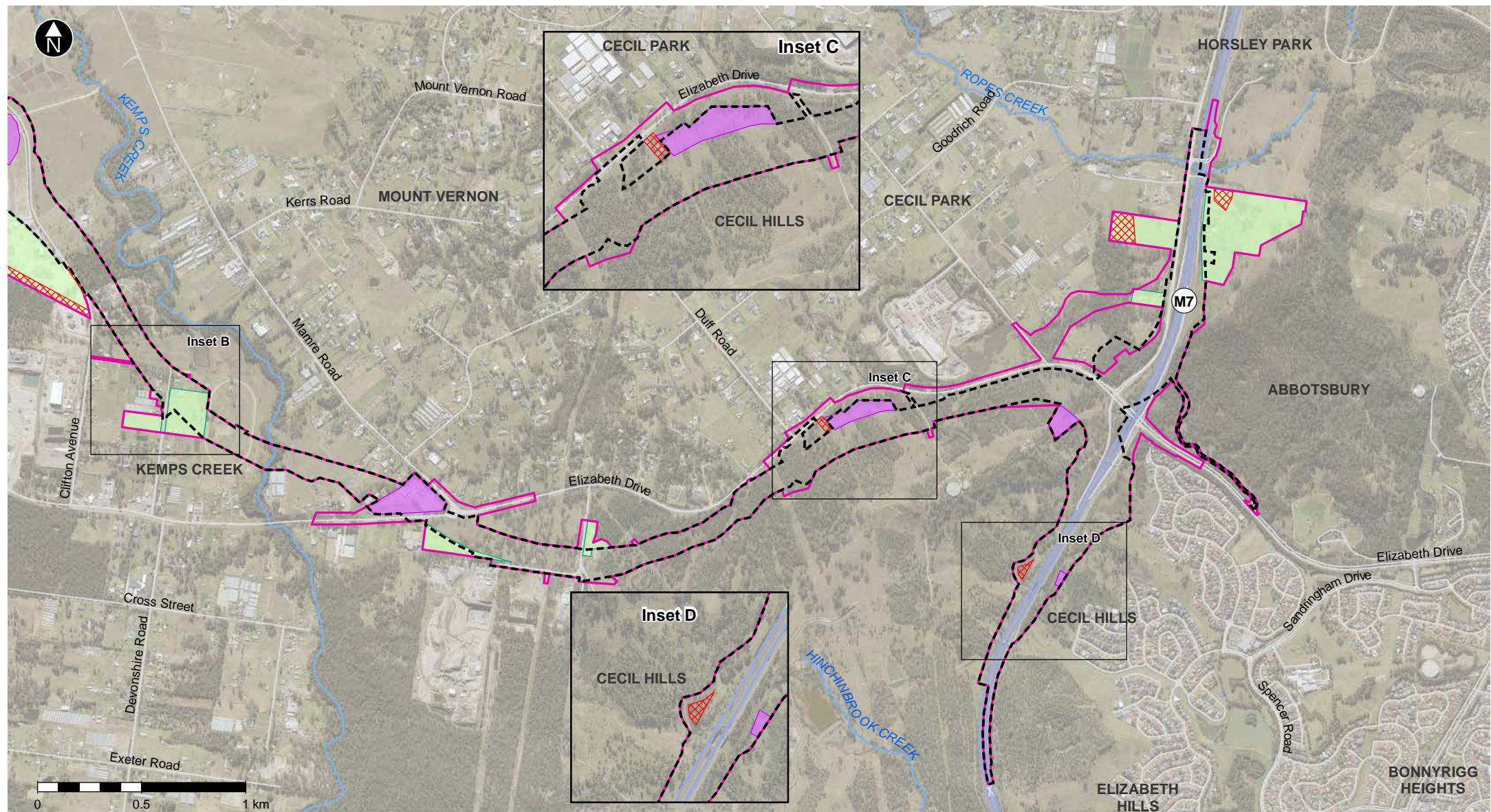
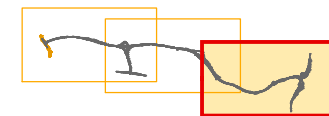


Figure 4-6 Amended construction footprint



- The project construction footprint as per the EIS
- The amended project construction footprint
- The amended project exclusion zones

- Ancillary facilities as per the EIS
- Amended ancillary facilities
- ~~~~~ Waterways
- Existing roads



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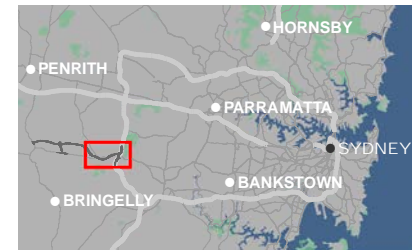


Figure 4-6 Amended construction footprint

5 Consultation

Chapter 6 of the EIS described the consultation that was carried out prior to the exhibition of the EIS.

This chapter provides a summary of the consultation that has been carried out following the exhibition of the EIS with a focus on the proposed changes described in **Chapter 3** and construction updates outlined in **Chapter 4**. It also summarises the ongoing engagement with Western Sydney Parklands, government agencies and utility and service providers. The consultation carried out is in accordance with the SEARS and consistent with the consultation guidelines outlined in Section 6.1 of the EIS.

A number of consultation activities were carried out with a range of stakeholders including the local community, directly impacted landowners and residents, government agencies, local government authorities, utility and service providers, Aboriginal stakeholders and business and industry stakeholders.

Key consultation activities have been carried out with the following stakeholders:

- Western Sydney Parklands Trust to discuss acquisition, progress of the delivery of the new Wylde Mountain Bike Trail (MBT), progress of the Mirror Dam cycleway concept design and collaborative community consultation event for the Wylde MBT
- Landowners and residents directly impacted by the project regarding property adjustment plans, and ongoing investigations including geotechnical investigations and cadastral surveys
- WSA Co in relation to ongoing construction developments onsite, road impacts during airport construction and general information sharing
- Regular liaison with Westlink M7 Motorway to discuss technical matters in relation to the M12 Motorway to M7 Motorway interchange design, arranging technical workshops to discuss potential traffic impacts to the M7 Motorway
- Regular liaison with Sydney Metro regarding Sydney Metro – Western Sydney Airport, including discussions of technical matters in relation to the interface of the M12 Motorway and the Sydney Metro – Western Sydney Airport and general information sharing
- Western Sydney Planning Partnership via regular meetings to discuss the M12 Motorway project in relation to the Land Use Infrastructure and Implementation Plan (LUIIP) for the Western Sydney Aerotropolis
- Utility and service providers to construction planning and proposed changes to the project.

In addition to the above, this amendment report will be placed on exhibition for 14 days as described in **Section 1.4**. Exhibition of this amendment report will be an opportunity for all stakeholders to provide feedback on the amended project and the Secretary may require a further report to be prepared responding to any submissions received.

5.1 Community consultation

Community consultation carried out prior to and during preparation of the EIS is discussed in Chapter 6 of the EIS. Further details of community consultation during the exhibition of the EIS are described in Section 1.3 of the submissions report.

Since the EIS exhibition, there has been no further widespread engagement activities with the wider public. Community engagement has focused on one-on-one liaison with impacted property owners and government agencies in relation to acquisition, design development and proposed changes to the project.

Aside from the collaborative public session with Western Sydney Parklands Trust at Wylde MBT on 22 February 2020 which has included press and social media promotion, further public consultation is scheduled for mid-2020 with the release of the amendment report and the submissions report.

5.2 Directly impacted landowners and residents

In addition to the land identified as being impacted by the project as described in the EIS (see Table 5-11 of the EIS), privately owned land would be impacted in order to accommodate the proposed changes of the amended project described throughout **Chapter 3**. Residents, landowners and developers who may be potentially impacted by the additional land impacts were notified via letters sent between April and May 2020. Additional consultation with directly impacted landowners and residents would be carried out as required.

A number of properties would be impacted to accommodate additional or amended ancillary facilities as described in **Section 4.1** and described in **Table 4-4**. Residents, landowners and developers who may be potentially impacted by the additional land impacts resulting from these additional or amended ancillary facilities were notified via written correspondence sent in between April and May 2020. In addition, property owners and/or residents in close proximity to ancillary facilities would also be notified in advance of any impacts via door knocking and posted material.

All acquisition required for the project would be carried out in accordance with the requirements set out in the *Land Acquisition (Just Terms Compensation) Act 1991 (NSW)* (Just Terms Act), the Land Acquisition Information Guide (NSW Government, 2014), and the land acquisition reforms announced by the NSW Government in 2016.

A TfNSW Personal Manager – Acquisition (PMA), has been assigned to the M12 Motorway and will continue to assist landowners and residents who may be affected by property impacts for the project. The PMA would continue to maintain regular contact with potentially impacted landowners and residents to provide updates on the process and respond to queries and concerns, and to work with the affected landowners and residents once acquisition requirements are confirmed to offer assistance and support through the acquisition process.

5.3 Key interface stakeholders

Consultation with key interface stakeholders is ongoing. **Table 5-1** provides a summary of the consultation activities carried out following exhibition of the EIS.

Table 5-1 Consultation with key interface stakeholders

Key interface stakeholder	Purpose of consultation	Frequency	Issues raised and where addressed
Western Sydney Parklands	Closure of the Wylde Mountain Bike Trail, new trail designs, M12 Motorway construction plans, property acquisition and installation of M12 Motorway boundary fencing	Ongoing regular interface meetings	<p><u>Issues</u></p> <p>Concern about impact of the M12 Motorway on the Western Sydney Parklands and seeking to minimise and/or mitigate impacts.</p> <p><u>Response</u></p> <p>The realignment of Wallgrove Road realignment removed the G-loop as discussed in Section 3.1.2.</p> <p>The provision of Elizabeth Drive connections as part of option 2 (with Elizabeth Drive connections) would provide improved access and connectivity to M12 Motorway near the Western Sydney Parklands entry.</p> <p>Utilising land between M12 Motorway and Elizabeth Drive and along Wallgrove Road for ancillary facilities would support the commercial needs of the Western Sydney Parklands Trust.</p> <p>Ongoing discussions have been undertaken with Western Sydney Parklands, including those regarding the design of the relocation of Wylde Mountain Bike Trails and property adjustment plans (see Section 6.4).</p>
Westlink M7	Proposed design changes and traffic and construction impacts	Ongoing regular interface meetings	<p><u>Issues</u></p> <p>Concern about impacts of construction and operation on the M7 Motorway traffic flows and existing M7 Motorway assets.</p> <p><u>Response</u></p> <p>The following design changes have been implemented to improve traffic flow along the M7 Motorway:</p> <ul style="list-style-type: none"> • Design changes to M7 Motorway exit and entry ramps to the M12 Motorway • Realignment of Wallgrove Road and addition of Elizabeth Drive connections • Changes to procurement and construction packaging have been implemented for the design and construct phase of the project to better manage of risks M7 Motorway interface risks.

Key interface stakeholder	Purpose of consultation	Frequency	Issues raised and where addressed
WSA Co	Proposed design changes, airport design progression, construction staging and general project updates and information sharing	Interface meetings held monthly	<p><u>Issues</u></p> <p>Concern about connectivity to Western Sydney International Airport from the M12 Motorway and Elizabeth Drive.</p> <p>Integration of the M12 Motorway and Western Sydney International Airport design and construction project designs.</p> <p><u>Response</u></p> <p>The amended project includes provision of intersections into Western Sydney International Airport Business Park (see Section 3.2).</p> <p>Option 2 (with Elizabeth Drive connections) provides a potential inclusion of the Elizabeth Drive connection near the M7 Motorway.</p> <p>Review of construction program and procurement strategy to improve project delivery outcomes at the interface with Western Sydney International Airport.</p>
Sydney Metro - Western Sydney Airport	Proposed design changes, Metro design progression, construction staging and general project updates and information sharing	Interface meetings held monthly	<p><u>Issues</u></p> <p>Integration of M12 Motorway and Metro design and construction work.</p> <p><u>Response</u></p> <p>Lowering of the Western Sydney International Airport access road by about eight metres to facilitate Metro design bridging over the M12 Motorway (see Section 3.3.1).</p>

5.4 Local government authorities

The amended project would be located within the following Local Government Areas (LGAs):

- Fairfield LGA (Fairfield City Council)
- Liverpool LGA (Liverpool City Council)
- Penrith LGA (Penrith City Council).

As described in **Section 3.1**, the motorway-to-motorway interchange between the M12 Motorway and the M7 Motorway would be changed as a result of the amended project. TfNSW briefed Liverpool City Council staff and community members at the Liverpool District Forum on 12 March 2020 in regard to impacts from the interchange and TfNSW's intent to refine the design.

In addition, briefings were provided to Fairfield City Council, Liverpool City Council and Penrith City Council prior to the exhibition of the amendment report and publication of the submissions report in June 2020.

5.5 Utility and service providers

Consultation with utility and service providers was carried out to further understand potential impacts to assets as a result of the project, as well as discuss project timing and requirements for adjustments and protection. Consultation with relevant utility and service providers, including the following, has been ongoing since the EIS was exhibited and would continue to be carried out as needed:

- Jemena
- Airservices Australia
- WaterNSW
- Sydney Water
- Telstra Corporation Ltd
- Optus
- Uecomm
- Transgrid
- Endeavour Energy
- NBN Co.

5.6 Aboriginal stakeholders

Aboriginal stakeholder engagement was carried out to address the requirements of the TfNSW Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) in accordance with relevant statutory requirements and Government policies, including the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010).

The Deerubbin Local Aboriginal Land Council (LALC) was engaged in January 2020 to carry out site visits with the project archaeologist and the TfNSW Aboriginal Cultural Heritage Officer on the additional areas impacted by the proposed design and construction changes (see **Section 6.5**).

5.7 Business and industry stakeholders

In addition to the community consultation described in **Section 5.1**, consultation with business and industry stakeholders would be carried out as needed at a broad project level. In addition, business and industry stakeholders that would be impacted by additional or amended ancillary facilities are discussed in **Section 5.2**, and further detail of impacted business and industry stakeholders is described in **Section 6.4**.