Transport for NSW

Chapter 13 Land use and property



Parramatta Light Rail Stage 2





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Parramatta Light Rail Stage 2

Environmental impact statement



13. Land use and property

This chapter provides an assessment of the potential impacts of the project on land use and property. It describes existing land uses in the project site, assesses the impacts of construction and operation on land uses and properties, and provides measures to mitigate and manage the impacts identified.

13.1 Approach

Developing new transport infrastructure can change the use of the land on which it is proposed to be located. For most of the project site, the change would involve introducing a new form of public transport within existing transport corridors. However, the project would also affect some land outside existing transport corridors, with consequent changes to land use and the potential for property impacts. Assessing potential impacts on land use and properties broadly involves considering existing and potential future land uses in the study area and determining how these land uses may change as a result of the project, both temporarily during construction and permanently during operation.

The assessment has taken into account the project's indicative land requirements, based on the land with the potential to be affected by the project's construction and operational footprints. The land requirements have been estimated based on the design work undertaken to date and would continue to be refined as the design is further developed and acquisition negotiations progress.

An overview of the approach to the land use and property assessment is provided below.

13.1.1 Study area

The study area for the assessment is focussed mainly on the project site (described in Chapter 2 (Location and setting)) and includes consideration of land surrounding the project site with the potential to be affected by the project's land requirements during construction and operation.

13.1.2 Key tasks

The assessment involved:

- reviewing, identifying and mapping land use in the study area, based on site visits and a desktop review of spatial data, aerial photography, and relevant environmental planning instruments:
 - Parramatta Local Environmental Plan 2011 (the Parramatta LEP)
 - Auburn Local Environmental Plan 2010 (the Auburn LEP)
 - Ryde Local Environmental Plan 2014 (the Ryde LEP)
 - State Environmental Planning Policy (Precincts Central River City) 2021 (the Central River City SEPP)
- reviewing key strategic plans and development proposals relevant to the study area to identify future priorities, land uses and developments (as described in Chapter 3 (Strategic context and need))

- confirming the project's estimated temporary and permanent land requirements based on the project site described in Chapter 2 (Location and setting) and the project described in Chapter 6 (Project description infrastructure and operation) and Chapter 7 (Project description construction)
- identifying properties located within the project site, including reviewing cadastral and property ownership information, and how these may be affected by the project's land requirements
- considering the potential impacts of construction and operation, including temporary and permanent land use changes, property impacts and potential impacts on utilities, based on the estimated land requirements for the current reference design
- providing measures to avoid, minimise and manage the potential impacts identified.

13.1.3 How potential impacts have been avoided or minimised

The approach to design development included a focus on avoiding and/or minimising the potential for impacts during key phases of the design process. As described in Chapter 5 (Design development, alternatives and options) a project corridor and alignment options assessment process was undertaken to identify the preferred alignment. This process considered a range of factors, including existing and future land use, and potential impacts on properties.

The project location and design has been, and would continue to be, refined to minimise land use and property impacts and enhance potential benefits as far as practicable, including:

- maximising the use of existing transport corridors
- modifying the alignment where an alternative route, which met the project objectives with lower potential for impacts, is available
- refining the design to reduce potential land requirements and associated need for property acquisition
- locating the alignment and proposed stops to take into account existing and future land use and urban renewal opportunities along the proposed route, and integrating the design (as far as practicable) with future development opportunities and planning for urban renewal areas (see Technical Paper 1 (Design, Place and Movement)).

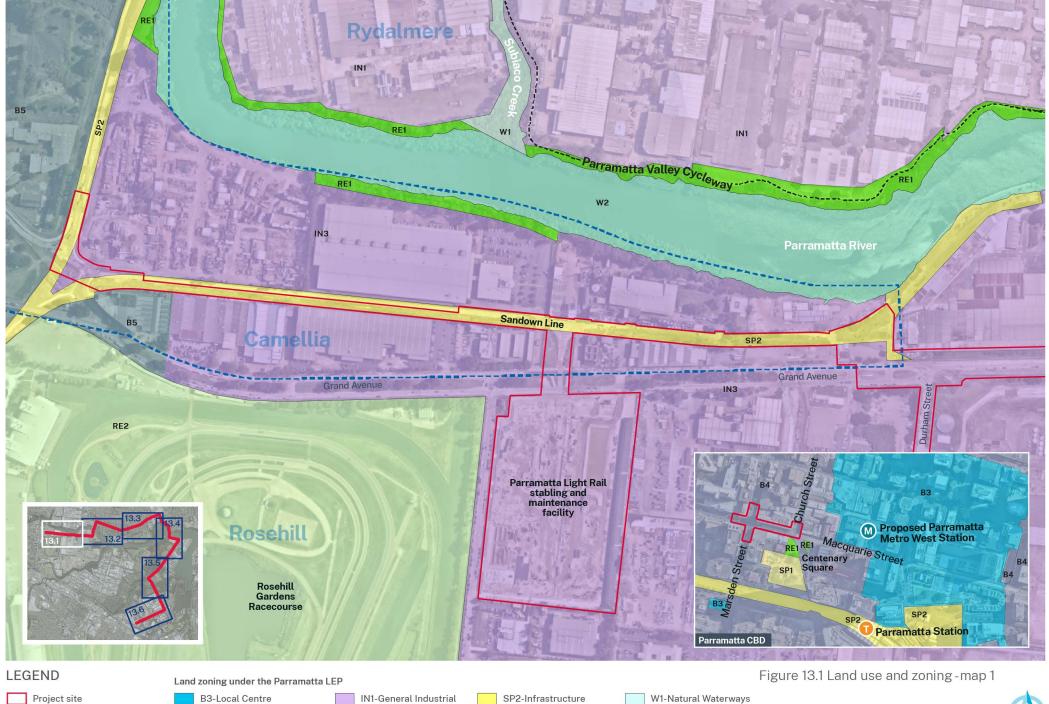
13.2 Existing environment

A description of the project site for the purpose of the EIS is provided in Chapter 2 (Location and setting). This section provides an overview of existing land uses (including land use zoning under the relevant environmental planning instrument) within and immediately surrounding the project site. Future land use planning, including key strategic planning, development and urban renewal directions for the study area, is described in Chapter 3 (Strategic context and need).

13.2.1 Existing land use

The study area comprises a mix of land uses, including residential, industrial, commercial, education, recreation, and transport infrastructure. Most of the project site is located within existing transport corridors, mainly local roads, but also including sections of the Sandown Line corridor in Camellia and the Holker Busway in Sydney Olympic Park. Small sections of the project site are located on land subject to other uses, including industrial, residential and recreation uses.

Land uses within and surrounding the project site, including the land use zoning according to the relevant environmental planning instrument, are shown on Figure 13.1 to Figure 13.6 and summarised below according to the suburbs along the project site. Figure 13.1 to Figure 13.6 also show community/recreation uses within and close to the project site.



RE1-Public Recreation

RE2-Private Recreation

W2-Recreational Waterways

Future Camellia Town Centre

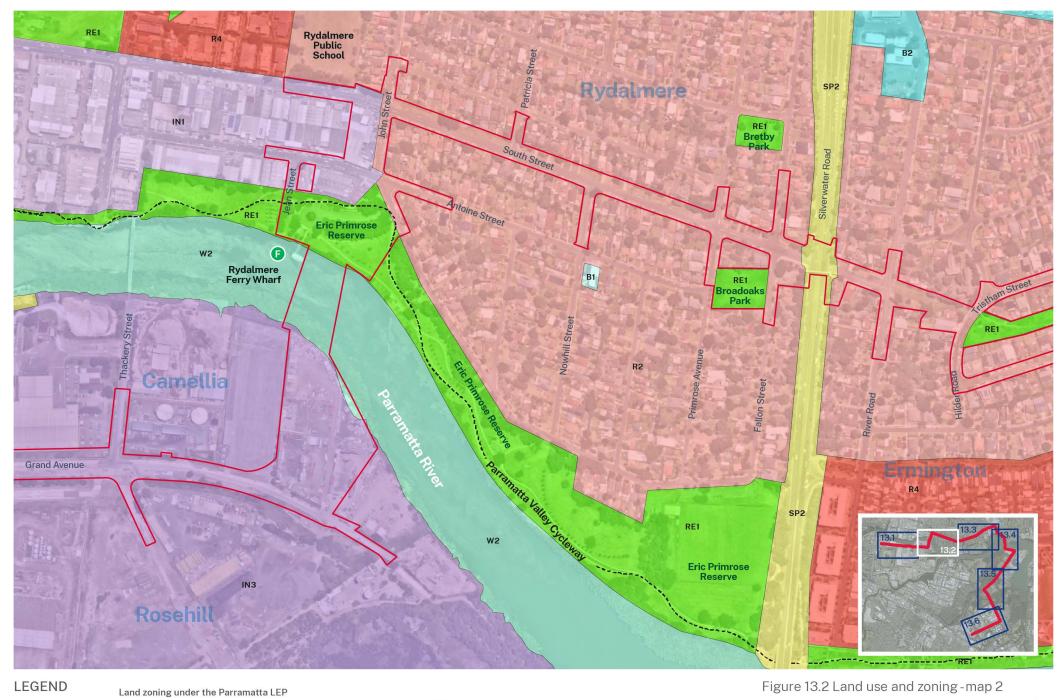
B4-Mixed Use

B5-Business Development

IN3-Heavy Industrial

SP1-Special Activities

200m



SP2-Infrastructure

RE1-Public Recreation

W2-Recreational Waterways

Project site

R2-Low Density Residential

R4-High Density Residential

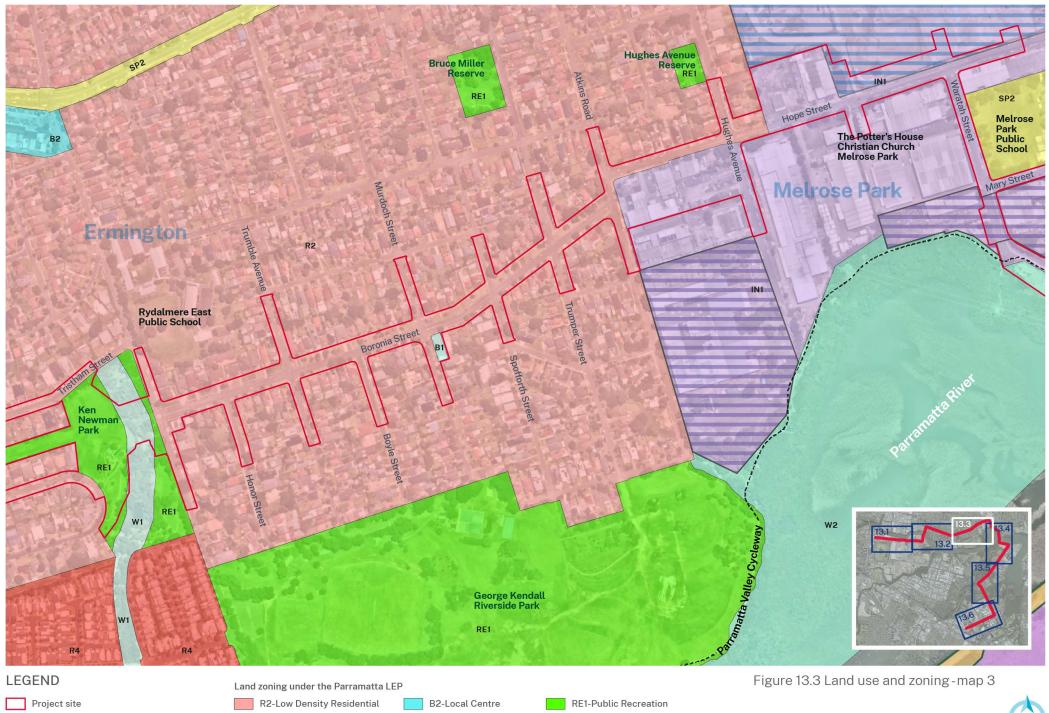
B1-Neighbourhood Centre

B2-Local Centre

IN1-General Industrial

IN3-Heavy Industrial

0 200m



IN1-General Industrial

SP2-Infrastructure

W1-Natural Waterways

W2-Recreational Waterways

Melrose Park North development precinct

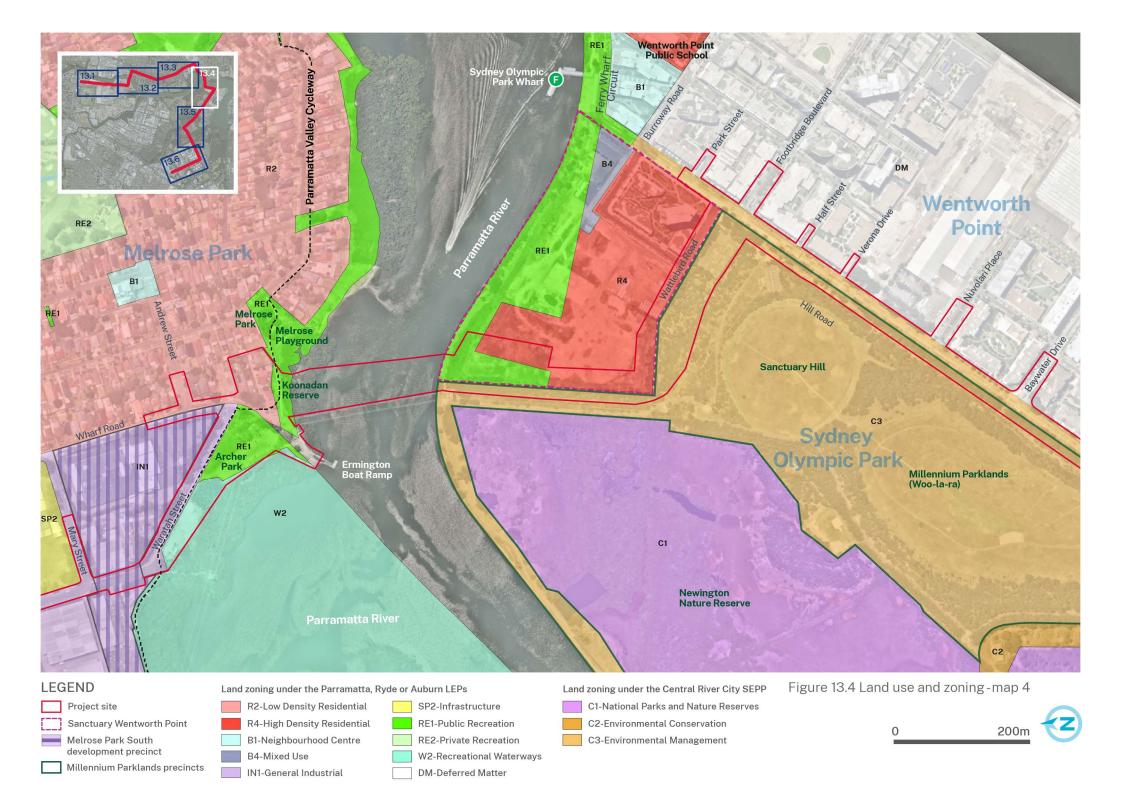
Melrose Park South development precinct

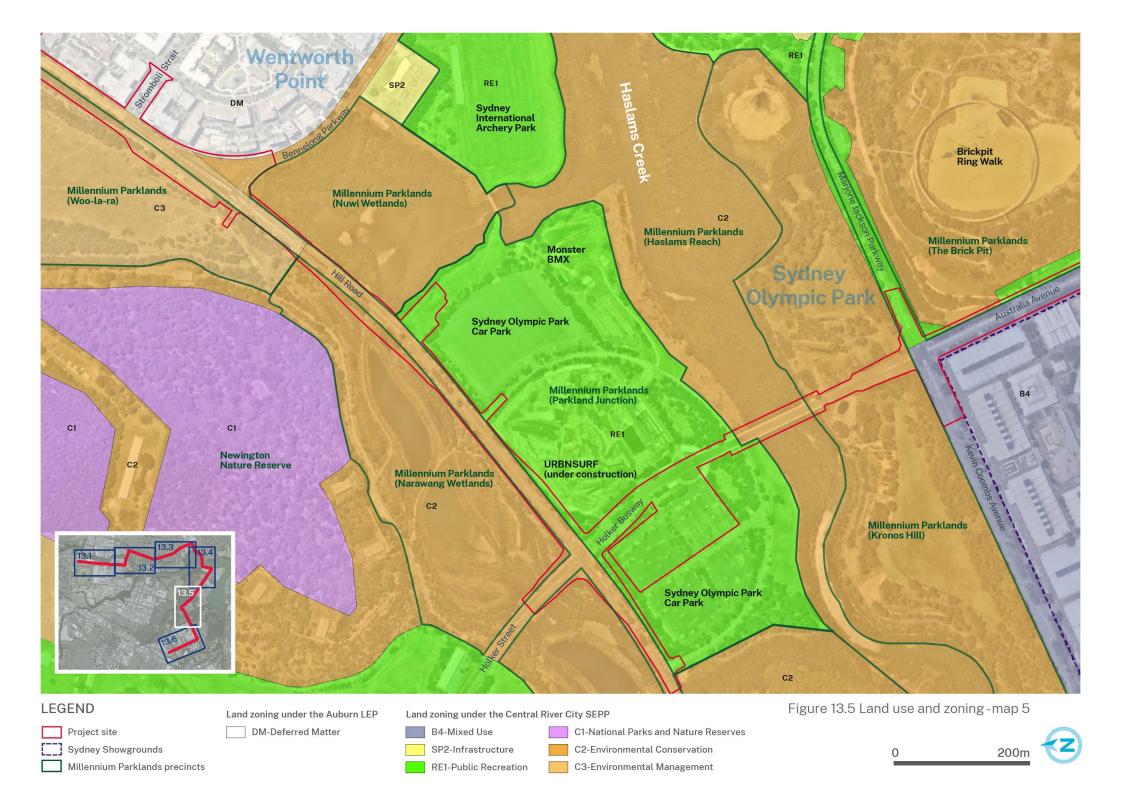
R4-High Density Residential

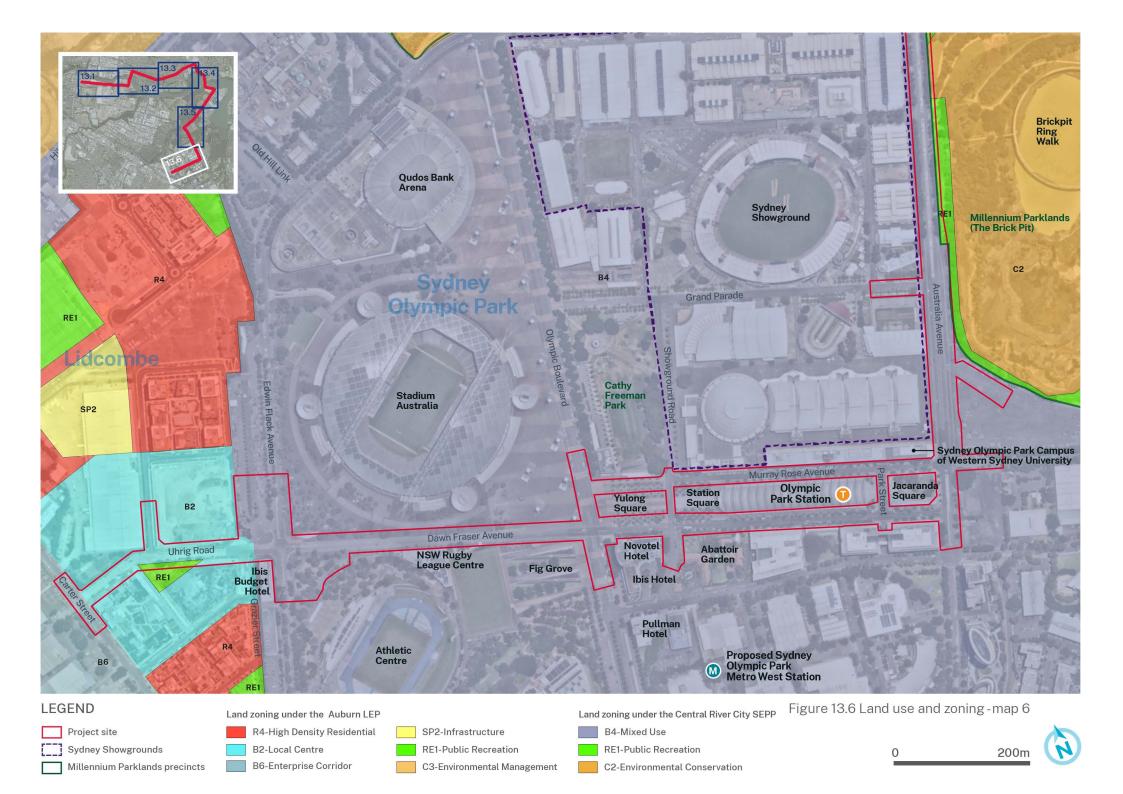
B1-Neighbourhood Centre

N

200m







It is noted that local roads within the study area are zoned by the relevant environmental planning instrument as per the adjacent zoning (such as R2 Low Density Residential). A single adjacent zone is selected for a road reserve where two different zones are located on either side of the road. Classified main roads (such as Silverwater Road) are generally zoned SP2 Infrastructure.

Parramatta

Land within and surrounding the western end of the project site (in Macquarie Street in the Parramatta CBD) is used mainly for transport (road) and commercial uses.

Land within the project site and surrounds is subject to the Parramatta LEP and is mainly zoned B4 Mixed Use. An area of land (Centenary Square) zoned RE1 Public Recreation adjoins the southern end of the project site in the CBD (see Figure 13.1).

Camellia and Rosehill

The suburbs of Camellia and Rosehill are dominated by industrial land uses, including manufacturing, bulk materials storage and handling, waste management, warehouses, container terminals/storage and a petroleum refinery.

Most of the project site is located on land used or zoned for transport purposes, including the Sandown Line corridor, the Parramatta Light Rail stabling and maintenance facility, and Grand Avenue. Small areas of the project site (mainly to the east near the Parramatta River) are located on land used for industrial purposes.

Adjoining land uses include recreation (Rosehill Gardens Racecourse), industrial and transport (Parramatta Light Rail Stage 1 and local roads).

Land within the project site and surrounds is subject to the Parramatta LEP and is mainly zoned IN3 Heavy Industrial (see Figure 13.1 and Figure 13.2). Smaller areas are zoned SP2 Infrastructure (the Sandown Line corridor), and W2 Recreational Waterways (the Parramatta River).

Rydalmere and Ermington

Land uses in Rydalmere and Ermington are dominated by low density residential uses, with areas of commercial/light industrial uses located to the west of John Street in Rydalmere and east of Atkins Road in Ermington.

Most of the project site is located on land used for transport purposes (road reserve). Smaller areas of the project site are located on land used for residential, industrial and recreation/open space (Eric Primrose Reserve and Broadoaks Park in Rydalmere, and Ken Newman Park in Ermington) uses. Adjoining land uses include:

- recreation/open space other areas of Eric Primrose Reserve (traversed by the Parramatta Valley Cycleway) and Ken Newman Park
- residential
- transport Rydalmere Wharf, Silverwater Road and local roads
- industrial uses to the west (in Rydalmere) and east (in Ermington)
- education Rydalmere Public School (in Rydalmere) and Rydalmere East Public School (in Ermington).

Land within the project site and surrounds is subject to the Parramatta LEP and is mainly zoned R2 Low Density Residential. Smaller areas are zoned IN1 General Industrial, RE1 Public Recreation, SP2 Infrastructure (Silverwater Road), W1 Natural Waterways (around the drainage line/gully within Ken Newman Park), and W2 Recreational Waterways (see Figure 13.2 and Figure 13.3). A parcel of land at the corner of Boronia and Murdoch streets in Ermington is zoned B1 Neighbourhood Centre (see Figure 13.3).

Melrose Park

Land uses in Melrose Park consist mainly of low density residential uses to the east of Wharf Road and a mix of industrial/commercial uses, some of which is subject to current urban renewal and redevelopment for mixed uses (as part of the Melrose Park North and Melrose Park South development precincts) west of Wharf Road.

Most of the project site is located on land used for transport purposes (road reserve). Smaller areas of the project site are located on land used for residential, industrial and recreation/open space uses (Koonadan Reserve and Archer Park). Adjoining land uses include:

- industrial
- residential
- recreation/open space Melrose Park/Melrose Playground (including Parramatta Valley Cycleway),
 Hughes Avenue Reserve, other areas in Archer Park and Ermington Boat Ramp
- transport local roads
- education Melrose Park Public School.

Most land within the project site and surrounds is subject to the Parramatta LEP and is mainly zoned IN1 General Industrial. Other areas of the project site are zoned R2 Low Density Residential, RE1 Public Recreation and W2 Recreational Waterways under the Parramatta LEP. A small area of the project site is subject to the Ryde LEP and is zoned RE1 Public Recreation and R2 Low Density Residential (see Figure 13.3 and Figure 13.4).

Land within the Melrose Park North and Melrose Park South development precincts (see Figure 13.3 and Figure 13.4) is currently subject to a rezoning process. This includes some land located in and adjoining the project site that is currently zoned IN1 General Industrial. Based on the current planning proposals (rezoning applications), the following proposed new zones would apply within the proposed development precincts (within and adjoining the project site) should the current plans be approved:

- north of Hope Street:
 - B2 Local Centre
 - R4 High Density Residential
- along Waratah Street:
 - R4 High Density Residential
 - RE1 Public Recreation.

Wentworth Point/Sydney Olympic Park

Land uses in the suburb of Wentworth Point (which is located to the east of Hill Road and north of Bennelong Parkway) consist of a mix of relatively recently constructed high density residential and commercial land uses, education, transport and recreation uses, and land subject to current urban renewal and redevelopment for mixed uses. The suburb of Sydney Olympic Park comprises a varied mix of land uses, dominated by reserves (Newington Nature Reserve and the Millennium Parklands) and sporting facilities, interspersed with areas of recent and future residential, commercial and mixed use development.

Most of the project site is located on land used for transport purposes (road reserve and Holker Busway). Smaller areas of the project site are located on land used for recreation, environmental management and conservation (Millennium Parklands), residential and mixed/commercial uses. Adjoining land uses include:

- environmental management/conservation/recreation areas within the Millennium Parklands
 including the following precincts defined by the Parklands Plan of Management 2020 (Sydney Olympic
 Park Authority, 2010): Woo-la-ra, Nuwi Wetland, Narawang Wetland, Parkland Junction, Haslams
 Reach, Kronos Hill and The Brick Pit
- recreation/sporting facilities in Sydney Olympic Park (including URBNSURF Sydney, which is currently under construction at the corner of Hill Road and Holker Busway)
- Sydney Showground
- residential
- transport local roads and Olympic Park Station
- mixed use/commercial mainly along Hill Road, Australia Avenue, Dawn Fraser Avenue, and Olympic Boulevard (including the hotels at the corner of Olympic Boulevard/Dawn Fraser Avenue and Edwin Flack Avenue/Uhrig Road).

Land within the project site is mainly zoned C2 Environmental Conservation, C3 Environmental Management and B4 Mixed Use under the Central River City SEPP. Land within the project site at the northern end of Wentworth Point is zoned RE1 Public Recreation and R4 High Density Residential under the Auburn LEP (see Figure 13.4 to Figure 13.6). Parts of the project site in Wentworth Point (the location of proposed road tie in works) are located on land designated as a deferred matter under the Auburn LEP, with land use in this area subject to development control plans.

Lidcombe

Land uses close to the project site include a mix of redevelopment areas (such as residential, commercial and mixed use development) and commercial/industrial uses.

Most of the project site is located on land used for transport purposes (road reserve). Adjoining land uses include commercial/industrial, development areas and transport.

Land within the project site and surrounds is subject to the Auburn LEP and is mainly zoned B2 Local Centre. Smaller areas are zoned RE1 Public Recreation (currently not used as open space) and B6 Enterprise Corridor (see Figure 13.6).

13.2.2 Property

Property within the project site comprises:

- privately-owned property
- land owned by local councils (mainly the City of Parramatta with a small area owned by City of Ryde)
- land owned by State Government agencies and the Crown, including:
 - Sydney Olympic Park Authority
 - New South Wales Land and Housing Corporation
 - Sydney Water Corporation
 - Minister Administering the Environmental Planning and Assessment Act 1979
 - Rail Corporation New South Wales (Transport for NSW)

- The State of New South Wales (Crown land)
- Transport for NSW.

The estimated property numbers considered in this chapter are based on known ownership information and treat each collection of adjacent lots with the same owner as a single property. In addition, lots held by different owners have been considered to be a single property when structures cross lot boundaries.

The project site includes land within about 105 properties (not including existing roads and transport corridors), consisting of about 130 individual parcels (lots) of land, with the potential to be affected by the project's land requirements. A summary breakdown of the types of properties located in the project site is provided in Table 13.1. It is noted that not all of the properties located within the project site would be affected by the project's land requirements.

Table 13.1 Summary estimate of properties in the project site

	Ownership – estimated number of properties ¹					
Property type (main land use)	Public (State)	Public (SOPA ³)	Public (local)	Private		
Residential	10	0	0	26		
Industrial	0	0	1	24		
Commercial	0	1	0	2		
Mixed use	0	1	0	2		
Recreation (park/open space)	4 ²	6	5 ²	1		
Transport reserve	4	8	6	2		
Vacant (zoned for industrial)	1	0	0	0		
Vacant (zoned for residential)	0	0	2	0		

Notes: 1. Estimate based on the current stage of the design process. Public (State) refers to properties owned by a NSW government agency or the Crown, public (SOPA) refers to properties owned by Sydney Olympic Park Authority, and public (local) refers to properties owned by a local council.

13.2.3 Utilities and services

There are a range of utilities within the project site, including telecommunications, electricity, water (drinking water and wastewater), fuel and gas. These include the following key utilities, which are shown on Figure 7.12 and Figure 7.13:

- drinking water trunk mains at Camellia, Rydalmere, Ermington and Melrose Park (Sydney Water)
- high voltage electricity transmission lines at Melrose Park and Wentworth Point (Ausgrid)
- high pressure gas mains at Camellia, Rydalmere, Ermington, Melrose Park, Wentworth Point and Sydney Olympic Park (Jemena)
- high pressure fuel lines at Camellia, Ermington and Melrose Park (Viva Energy Australia and Ampol).

Most utilities within/close to the project site are located within the road reserve and/or utility easements.

Further information on utilities is provided in section 7.8.

^{2.}One property (Eric Primrose Reserve) consists of land owned by multiple government agencies.

^{3.}Includes properties owned by the Olympic Co-Ordination Authority.

13.3 Land requirements

The project would require the use of land temporarily and permanently. While permanent land requirements would be related to the presence of project infrastructure, potential impacts would commence prior to the commencement of construction as land is acquired.

The estimated land requirements summarised below are based on the current reference design, and the land that is expected to be occupied by the project site (see description in Chapter 2 (Location and setting)). These land requirements would continue to be refined as the design is developed.

Further information on the indicative land requirements is provided in Appendix E (Preliminary land requirements).

13.3.1 Permanent land requirements

The project's operational footprint consists of the land that would be permanently required for the project's operational infrastructure (as described in Chapter 6 (Project description – infrastructure and operation)).

In total, it is estimated that around 20.7 hectares of land would be permanently required, in addition to land already owned by Transport for NSW and land that does not need to be acquired (such as land in existing road reserve). The permanent land requirements are estimated to include about:

- 14.9 hectares of government-owned land, consisting of about:
 - 9.3 hectares of land owned by Sydney Olympic Park Authority
 - 1.8 hectares of land owned by other State Government agencies or the Crown
 - 3.8 hectares of land owned by the City of Parramatta (including land owned by the former Auburn Council)
- 5.8 hectares of privately-owned land.

It is noted that not all of the land located within the project site would be affected by the project's land requirements.

Similar to other transport projects, the land that is acquired (as an outcome of the property acquisition process) to meet the project's land requirements could be more than the amount of land that is required to construct and operate the project's permanent infrastructure. This is because some properties may need to be acquired in full as a result of the impacts of the project (for example, in the event that access to a property cannot be maintained), or as a result of exceptional hardship acquisition. The amount of land that needs to be acquired to meet the project's land requirements would be confirmed once the project is approved and subject to acquisition negotiations.

The property acquisition process for the project's permanent land requirements is described in section 13.4.2.

13.3.2 Temporary land requirements

In addition to the estimated permanent land requirements, some land would be required during construction only. These areas, which are listed in Appendix E (Preliminary land requirements), would be temporarily required to:

- establish key construction infrastructure described in Chapter 7 (Project description construction)
- provide access to construction work areas
- facilitate manoeuvring of construction plant and machinery.

It is estimated that about 12.9 hectares of land would be temporarily required during construction only. The temporary land requirements are additional to the permanent land requirements and are estimated to include about:

- 9.4 hectares of government-owned land, consisting of:
 - 4.4 hectares of land owned by Sydney Olympic Park Authority
 - 2.8 hectares of land owned by local councils (mainly by the City of Parramatta, with less than
 0.1 hectares owned by the City of Ryde)
 - 2.2 hectares of land owned by other NSW Government agencies
- 3.5 hectares of privately-owned land.

No land currently used for residential purposes would be required for construction only.

The potential land use and property impacts associated with the project's land requirements are considered in sections 13.4.1 and 13.4.2 (construction) and sections 13.5.1 and 13.5.2 (operation).

13.4 Assessment of construction impacts

13.4.1 Land use impacts

During construction, land use within the project site would change from the uses described in section 13.2.1 to a construction site, with land used for work areas and construction compounds. Public access to this land (where it is currently available) would be restricted for the duration of its use as a construction site.

Permanent operational impacts on land use (in terms of land use change) are considered in section 13.5.1.

Impacts on community/recreation facilities and their use

The potential for direct impacts as a result of the project's land requirements on community and recreation facilities, and the use of these facilities, is considered in Table 13.2. Facilities described in Table 13.2 that would be affected during construction only would be restored and returned to public use as far as practicable when works are complete.

As described in section 6.8.2, the project would provide new and improved open space and recreation facilities and repurpose some residual land (see section 6.9.2). This would offset some of the areas of open space directly impacted by the project. Further information on the proposed public domain works and new and improved open spaces is provided in section 6.8.2. These opportunities would be in addition to the active transport links proposed as part of the project (see section 6.4).

Construction also has the potential to affect the use of community and recreation infrastructure located close to the project site (shown in Table 13.2), as a result of changes to local access and amenity. Potential access and amenity impacts, and relevant mitigation measures, are considered in Chapters 9 (Transport and traffic), 10 (Noise and vibration), 14 (Socio-economic impacts), 15 (Landscape and visual impacts) and 20 (Air quality).

Table 13.2 Impacts on community/recreation facilities and use

Facility	Location	Impact overview
Eric Primrose Reserve (and adjoining Rydalmere Wharf)	John Street, Rydalmere	The project would occupy a small area of land at the western end of the reserve between Jean and John streets to construct the northern abutment of the bridge between Camellia and Rydalmere. Some of the affected area would be permanently required as part of the project's operational footprint, whilst the remainder would be required temporarily for most of the construction period.
		The area occupied during construction would be less than about 10 per cent of the total area of the reserve. The use of this area by the public would be restricted during construction; however, most of the reserve (including the sporting fields to the east of the project site) would not be affected.
		Access to Rydalmere Wharf and the commuter car park via the reserve would be restricted at times during construction, as described in sections 7.7.5 and 9.3.8.
		The area that would be affected during construction only would be restored and returned to public use when works are complete. In addition, some residual land would be repurposed to increase the open space near Antoine Street.
		The section of the Parramatta Valley Cycleway / River Walk through the project site in this location would be closed during construction. A temporary detour would be provided along John, Antoine and Jean streets to maintain connectivity around the work area. Further information is provided in section 9.3.4.
		Amenity impacts (mainly noise and visual) may affect the outdoor enjoyment of areas of the reserve close to the construction work areas; however, these impacts are not expected to restrict the reserve's use or function.
		It is estimated that the project's operational footprint would affect about two per cent of the total area of the reserve, required to locate and maintain the bridge abutment. The abutment would be set back from the river bank and access across the reserve (including for the Parramatta Valley Cycleway) would continue to be available under the bridge.
Broadoaks Park	Primrose Street, Rydalmere	Broadoaks Park is proposed for use as a construction compound (see section 7.6.2). Access to, and use of, the park in its entirety would be restricted during construction. Following construction, the park would be restored and returned to publicuse.
		Alternative areas of open space located close to Broadoaks Park include Eric Primrose Reserve (about 250 metres to the south) and Bretby Park (about 180 metres to the north).
Ken Newman Park	Hilder Road to Broadoaks Road/Spurway Street, Ermington	Areas within Ken Newman Park would be required to construct the light rail infrastructure, including the proposed bridge over the drainage gully at the eastern end of the park. Some of this area would be permanently required as part of the project's operational footprint. An additional area would be required temporarily during construction. The area occupied during construction would be about 55 per cent of the total area of the park or about 100 per cent of the grassed open areas within the park.
		Access to, and use of, most of the park would be restricted at times during construction. Some areas may be available for use as construction activities are completed. For example, it is likely that areas of the park subject to the proposed public domain works (see section 6.8.2) would only be affected for a short time towards the end of the construction period, whereas areas required for the light rail infrastructure would be affected for the duration of construction within the park.
		Works within and around the park (including the staged relocation of the Sydney Water trunk mains) would be staged where practicable to maximise the area available for public use.
		Amenity impacts (noise and visual) may affect the outdoor enjoyment of areas of the park close to the construction work areas; however, these impacts are not expected to restrict the park's use or function.

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Facility	Location	Impact overview
		The area that would be affected during construction only would be restored and returned to public use when works are complete. This would include completing the public domain works and improvements described in section 6.8.2.
		The project's operational infrastructure would occupy a proportion of the total area of the reserve (about 17 per cent). The light rail tracks would run through the centre of the park, which has the potential to affect connectivity. However, the design provides for crossings of the tracks to minimise connectivity impacts.
		The proposed public domain works and improvements (see section 6.8.2), which would be confirmed in consultation with the City of Parramatta Council, are expected to enhance the overall amenity and use of the park and increase the amount of usable space. Subject to the outcomes of this consultation and the final design, the future uses, and enhanced design of Ken Newman Park, may benefit local residents and users of the park by providing access to well-designed and activated open space. It is expected that the overall use and amenity of Ken Newman Park would improve compared to the current condition of the park, which may increase opportunities for recreation for local residents.
		While users of the park may also experience amenity impacts due to the close proximity of light rail operations, this is not expected to interrupt most recreation activities.
Archer Park and Ermington Boat Ramp	Wharf Road, Melrose Park	An area within Archer Park would be permanently required as part of the project's operational footprint. An additional area would be required temporarily during construction. The area occupied during construction would be about 75 per cent of the total area of the reserve.
		Access to the adjoining Ermington Boat Ramp and parking area would not be available for most of the construction period (see sections 7.7.5 and 9.3.8).
		Amenity impacts (noise and visual) may affect the outdoor enjoyment of areas of the park close to the construction work areas; however, these impacts are not expected to restrict the park's use or function.
		The area that would be affected during construction only would be restored and returned to public use, including public domain works and improvements described in section 6.8.2. The majority of the parking area would be reinstated. These reinstatement works offset most of the project's permanent land requirements.
		The project's operational footprint would affect about four per cent of the total area of the park, which would be required to locate the light rail tracks. This is not expected to affect the overall use or function of the park. However, the presence of the project's operational infrastructure adjacent to the Ermington Boat Ramp car park has the potential to reduce the number of boat trailer parking spaces at the car park. It is estimated that about 10 of the existing 52 trailer parking spaces would be affected (see section 9.4.5).
Koonadan Reserve	Wharf Road, Melrose Park	Koonadan Reserve is a narrow reserve along the northern bank of the Parramatta River, which is traversed by the Parramatta Valley Cycleway and used mainly by people using this facility (including for the River Walk).
		Areas within the reserve would be required as part of the work area for the bridge between Melrose Park and Wentworth Point. The project would directly impact the reserve in its entirety, which would be required to construct the bridge, with about half of the reserve also forming part of the project's operational footprint.
		Access to, and use of, most of the reserve would be restricted during construction.
		The section of the Parramatta Valley Cycleway / River Walk through the reserve would be closed during construction of the northern abutment of the bridge. As described in section 9.3.4, a temporary detour of the cycleway would be provided along Lancaster Road, Andrew Street and Wharf Road to maintain connectivity around the work area.
		Areas that would be affected during construction only (about 50 per cent of the reserve) would be restored and returned to public use.

Facility	Location	Impact overview
		The Parramatta Valley Cycleway would be adjusted through the reserve as required to suit the proposed new alignment of the southern end of Wharf Road.
Millennium Parklands	Sydney Olympic Park along Hill Road, Holker Busway and Australia Avenue	Small areas within the Millennium Parklands (mainly narrow strips along roads) would be required to construct the light rail infrastructure at the north of Wentworth Point and along Hill Road, Holker Busway and Australia Avenue, including the area of the Hill Road bridge works and the proposed traction power substation adjoining Hill Road. Some of these areas would be permanently required as part of the project's operational footprint. Additional areas would be required temporarily during construction. The area occupied during construction would be about one per cent of the total area of the reserve (up to about four hectares in total across the various areas).
		The affected land is located across a number of the precincts within the parklands (as defined by the <i>Parklands Plan of Management 2020</i> (Sydney Olympic Park Authority, 2010)), including Woo-la-ra, Nuwi Wetland, Narawang Wetland, Parkland Junction, Haslams Reach, Kronos Hill and The Brick Pit.
		The affected land is located along the edge of these areas where they adjoin the roads along which the project is proposed. The land required generally consists of a narrow strip of land adjacent to the road reserve. The exceptions to this are the impacts within the Parkland Junction precinct, including the cleared area proposed as the location for a traction power substation, and the car park area at the intersection of Hill Road and Holker Busway, proposed for use as compounds during construction. The project would also encroach into car parking areas located on Australia Avenue (at construction compound 13 (Australia Avenue)) and Uhrig Road (at construction compound 15 (Dawn Fraser West)).
		The car parks proposed for use as compounds would be unavailable for the duration of the construction period. These car parks do not experience high levels of occupancy, and their use as compounds is not expected to affect the overall availability of parking in Sydney Olympic Park. Further information on potential impacts to parking is provided in Chapter 9 (Transport and traffic).
		The area that would be affected during construction only would be restored and returned to public use.
		Amenity impacts (noise and visual) may affect the outdoor enjoyment of publicly accessible areas of the parklands close to construction work areas; however, these impacts are not expected to restrict their overall use or function.
		The project's operational footprint would affect about one per cent of the total area of the Millennium Parklands. Most of the affected land consists of narrow strips along the road reserve within which the project would be constructed. The majority of the affected land is categorised as 'Leisure and Play Areas' by the <i>Parklands Plan of Management 2020</i> . The affected land is also mapped as follows by the plan of management:
		areas of remediated lands within the Woo-la-ra precinct
		• areas of threatened species habitat within the Woo-lo-ra, Nuwi Wetland, Narawang Wetland and The Brickpit precincts
		conservation buffer at Narawang Wetland
		 buffer around The Brickpit in terms of the unstable geology of the brick pit walls.
		The permanent land requirements are not expected to affect the overall use or function of the parklands precincts. Potential impacts on biodiversity, and impacts on soils and contamination, are considered in Chapters 16 (Biodiversity) and 18 (Soils and contamination), respectively.
		Paths and tracks would be adjusted as required to ensure that access is maintained.
		The location of the proposed substation (in the Parkland Junction precinct) is generally inaccessible by the public. The presence of the substation is not expected to affect the use of this precinct.

Chapter 13 Land use and property

Facility	Location	Impact overview
Jacaranda Square Cathy Freeman Park Station Square Yulong Square	Sydney Olympic Park, along/close to Australia Avenue, Dawn Fraser Avenue, Murray Rose Avenue,	Small strips of land in these areas (generally up to about five metres wide along roadways and less than about three hectares in total) would be required to construct the light rail infrastructure and road adjustments along Australia Avenue, Dawn Fraser Avenue, Murray Rose Avenue and Olympic Boulevard. Some of these areas would be permanently required as part of the project's operational footprint. Additional areas would be required temporarily during construction. Part of the Athletic Centre forecourt area is proposed to be used as a construction compound, and access to this area would be restricted during construction.
Abattoir Garden Fig Grove	Olympic Boulevard	Amenity impacts (noise and visual) may affect the outdoor enjoyment of those parts of these areas located close to construction work areas; however, these impacts are not expected to restrict their overall use or function.
Stadium Australia forecourt		The areas that would be affected during construction only would be restored and returned to public use. The presence of project infrastructure is not expected to affect the ongoing use and function of these areas.
Athletic Centre forecourt		The presence of project infrastructure is not expected to affect the origining use and function of these areas.

13.4.2 Property impacts

Properties affected by the project's permanent land requirements

Property impacts would generally be a result of the project's land requirements. These requirements could partially or fully affect properties. Not all of the properties located within the project site would be affected by the project's land requirements (see Appendix E (Preliminary land requirements)).

It is estimated that the project's permanent land requirements would have the potential to directly affect about 104 properties, including about:

- 47 government-owned properties (39 partially impacted and eight fully impacted)
- 57 privately-owned properties (36 partially impacted and 21 fully impacted).

These impacts would commence prior to construction, as properties are acquired.

Table 13.3 provides a breakdown of the estimated property impacts according to location, property type, ownership and anticipated acquisition requirements (partial or full). Further information is provided in Appendix E (Preliminary land requirements). It is noted that these estimates are based on design work undertaken to date and would continue to be refined as the design is further developed and acquisition negotiations progress.

For most of these properties, the land requirements would necessitate acquisition of a strip of the property to allow for widening of the road reserve, construction of light rail stops and/or intersection upgrades.

Table 13.3 Summary of property impacts (estimate of properties directly affected by the project's land requirement such that acquisition is proposed)

Suburb	Ownership ¹	Type (main land Estimated number of use based on properties affected ²		Location	
		zoning)	Full	Partial	-
Camellia/	Private	Industrial	2 (3)	7 (8)	Grand Avenue
Rosehill		Transport	1		Grand Avenue
	Public (State)	Transport		2	Grand Avenue
		Industrial		2	Grand Avenue
	Public (local)	Industrial		2	Sandown Line corridor
Rydalmere	Private	Residential		7	John Street, South Street
		Industrial	6 (9)		Antoine Street, John Street
	Public (State)	Open space		1 ³	Eric Primrose Reserve
		Residential	2	3	Fallon Street, South Street, Primrose Street
	Public (local)	Open space		1 (2) ³	Eric Primrose Reserve
		Vacant (zoned residential)	1	1	Fallon Street
Ermington	Private	Residential	6	4	South Street, Hilder Road, Boronia Street, Hughes Avenue
		Industrial	2	3 (4)	Atkins Road, Hope Street, Hughes Avenue
	Public (State)	Residential	1	3	Hilder Road, Boronia Street, River Road
		Vacant (zoned industrial)	2		Atkins Road
	Public (local)	Open space		1	Ken Newman Park

Suburb	Ownership ¹	Type (main land use based on zoning)	Estimated number of properties affected ²		Location
			Full	Partial	-
Melrose Park	Private	Residential	4	2	Wharf Road
		Industrial		8 (12)	Hope Street, Waratah Street, Wharf Road
	Public (State)	Open space	1	1	Archer Park, Koonadan Reserve
	Public (local)	Open space		2	Koonadan Reserve
Sydney Olympic	Private	Residential		1	Hill Road
Park (includes some land	Private	Open space		1	Hill Road
adjacent to Wentworth	Public (SOPA)	Mixed use		12	Dawn Fraser Avenue
Point)		Open space		4	Millennium Parklands, Holker Street, Australia Avenue
	Public (State)	Open space		1	Millennium Parklands
	Public (local)	Transport reserve (various zones)		2	Various roads in Wentworth Point, Hill Road
Lidcombe	Private	Mixed use		3 (5)	Uhrig Road
	Public (local)	Transport reserve (zoned local centre)	1	2	Uhrig Road
Total properties a	Total properties affected		29	76³	
Total land parcels (lots) affected			33	85	

Notes: 1. Public (State) refers to properties owned by a NSW government agency or the Crown, public (SOPA) refers to properties owned by Sydney Olympic Park Authority, and public (local) refers to properties owned by a local council.

Acquisition arrangements

All property acquisitions would be undertaken by Transport for NSW in accordance with the following:

- Land Acquisition (Just Terms Compensation) Act 1991 (the Just Terms Act)
- Land Acquisition Information Guide (Roads and Maritime Services, 2014)
- the five property acquisition standards developed by the NSW Government that focus on fairness, access to information and assistance, consistency and transparency
- the land acquisition reforms announced by the NSW Government in 2016
- recommendations of the Auditor General's 2021 review of Transport for NSW's acquisition practices.

These requirements ensure consistent and equitable dealings with all landowners whose properties are to be acquired. Information about acquisitions under the Just Terms Act can be viewed online at: Property acquisition in NSW. Information about Transport for NSW's approach to the acquisition process is provided at: Land acquisition information guide.

During the project, Transport for NSW may, at its absolute discretion, purchase residential properties that are not within the project site where landowners are able to demonstrate and meet the criteria for exceptional hardship, in accordance with the *Exceptional Hardship Land Purchase Guideline* (Roads and Maritime Services, 2016).

^{2.} Estimate based on the current stage of the design process. The number of individual land parcels (lots) is provided in brackets where a property/properties consist of more than one lot.

^{3.} Eric Primrose Reserve consists of a number of land parcels (lots) owned by various government agencies and therefore is counted against each ownership type.

Transport for NSW's preference is to acquire land by negotiated agreement; however, a compulsory acquisition process may be required if agreement cannot be reached or is otherwise necessary.

Compensation payable pursuant to section 55 of the Just Terms Act generally includes, among other things, provisions for market value, special value, severance, disturbance items (such as reasonable legal costs, valuation fees, relocation and removal expenses, and mortgage costs (i.e. fees associated with the discharge of mortgages and creation of a new mortgage where relocation is required)) and disadvantage resulting from relocation.

Depending on the individual circumstances of each property and the potential impacts of the project, compensation may take the form of compensation or land/works, as agreed by the parties.

Properties affected by the project's temporary land requirements

It is estimated that construction would require temporary use of land in about 22 properties, including:

- 15 government-owned properties (14 partially impacted and one fully impacted), consisting of:
 - five properties owned by Sydney Olympic Park Authority
 - 10 properties owned by NSW Government agencies and City of Parramatta Council
- seven privately-owned properties (partially impacted).

Properties affected during construction only would be confirmed during further design development and construction planning.

Following construction, land affected by construction only would be reinstated to the equivalent preconstruction use and condition (or as agreed in consultation with the landowner/landholder) in accordance with the rehabilitation strategy (see section 13.7). This would include reinstating affected infrastructure (such as fencing and driveways) as agreed.

Land required during construction only would be via acquisition or a lease, licence or a memorandum of understanding with the relevant government agency or private landholder.

Other impacts

Property adjustments

Partial acquisition of properties and/or temporary use of properties during construction may require adjustments to property infrastructure and improvements, such as fencing, driveways, landscaping, letter boxes, utility connections and other structures impacted by the project.

For properties adjoining the project site, which are not directly affected by the project's land requirements/acquisition, some changes to property features/improvements may be required, within the property boundary, to accommodate project infrastructure or mitigate the potential impacts of the project. This could include, for example, changes to driveways and kerb laybacks, fencing, retaining walls and landscaping.

The approach to managing property adjustments is described in section 13.7.

Access changes

Access would be maintained to properties near construction work areas, although temporary changes may be required for some properties.

For a small number of properties, permanent changes to access arrangements may be required to accommodate project infrastructure. These changes would commence during construction (see sections 6.6 and 9.4), including:

 adjustments to informal access and parking arrangements for around eight properties on the northern side of South Street in Rydalmere

- adjustments to informal access arrangements, such as access to Ken Newman Park from properties on Heysen Avenue and Tristram Street in Ermington that back onto the park
- change in access to left in and left out for properties in a number of locations.

Suitable access arrangements for affected properties would be implemented, prior to the commencement of construction in the vicinity of the affected property, in consultation with affected property owners/occupants.

Where formal property accesses would be permanently affected by the project, access would be provided from existing roads or new access would be provided as part of the project. Further information about potential access impacts, and the proposed approach to managing these impacts, is provided in Chapter 9 (Transport and traffic).

In accordance with mitigation measure TT3, where any legal access to a property is permanently affected and a property has no other legal means of access, alternative access to and from a public road would be provided to an equivalent standard, where feasible and reasonable. Where an alternative access is not feasible or reasonable, and a property or part of a property is left with no access to a public road, consideration would be given to acquisition of the property (or part of the property) in accordance with the provisions of the Just Terms Act.

Amenity impacts

Properties close to the project site may experience changes in amenity when construction occurs close to their property. Construction may result in the following impacts, which could affect amenity:

- increase in noise and vibration levels as a result of the operation of construction plant and equipment and construction traffic
- changes in the visual outlook for properties with views over/towards construction work areas and compounds
- increase in dust generated during construction.

These potential impacts and relevant mitigation measures are considered in Chapters 9 (Transport and traffic), 10 (Noise and vibration), 14 (Socio-economic impacts), 15 (Landscape and visual impacts) and 20 (Air quality).

Amenity impacts would be temporary and managed by implementing the mitigation measures provided in these chapters.

13.4.3 Utilities and services

As described in section 7.8, utilities would need to be protected and/or adjusted/relocated where they conflict with the design and in accordance with the requirements of the relevant service providers. This would assist in minimising the potential for impacts associated with construction. Section 7.8 provides an overview of the proposed treatment during construction for the key utilities identified to date. Appropriate treatments would be confirmed during design development and construction planning in consultation with the service provider, and in accordance with relevant standards and requirements. An easement would need to be established where a utility needs to be relocated to privately-owned land.

Interruptions to utilities would be minimised as far as possible. Where interruptions are required, consultation with affected landowners, customers and utility owners would be undertaken, and advance notice provided, to minimise any unavoidable impacts.

Further information about potential hazards and risk impacts associated with utilities, and how these would be managed, is provided in Chapter 19 (Hazards and risk).

13.5 Assessment of operation impacts

13.5.1 Land use impacts

Impacts on existing land uses

Much of the project site is currently used for transport (mainly road) infrastructure. In these areas, the overall transport land use would remain, with additional public transport infrastructure introduced.

Direct impacts on land use during operation would result from the permanent land requirements and the presence of operational infrastructure. Where land is permanently required outside existing transport corridors, there would be a change in land use from the existing use (described in section 13.2.1) to transport infrastructure.

The main impacts would be on land that is currently used and zoned for industrial, recreation, environmental and residential uses, located outside existing transport corridors/roads and the Parramatta Light Rail stabling and maintenance facility (see Table 13.4). Once the project is operational it is estimated (based on the current design) that about:

- 3.9 hectares of land that is currently zoned for industrial use would be used for transport purposes
- 3 hectares of land that is currently zoned for environmental use would be used for transport purposes
- 2.7 hectares of land that is currently zoned for recreation use would be used for transport purposes
- 1.1 hectare of land that is currently zoned for residential use would be used for transport purposes.

Potential impacts on these uses/land use zones are summarised below the table.

Table 13.4 Estimate of permanent impacts on zoned land located outside existing transport corridors (based on indicative land requirements)

Land use	Zoning under the relevant environmental planning instrument ¹	Estimate of area potentially affected (hectares)	Main location/s of potential impact
Industrial	IN1 General Industrial	1.8	John Street and Antoine Street (Rydalmere), Atkins Road and Hughes Avenue (Ermington), and Hope Street, Waratah Street and Wharf Road (Melrose Park)
	IN3 Heavy Industrial	2.1	Grand Avenue and Thackeray Street (Camellia/Rosehill)
Residential	R2 Low Density Residential	0.8	South Street (Rydalmere), Boronia Street (Ermington) and Wharf Road (Melrose Park)
	R4 High Density Residential	0.3	Hill Road, Sydney Olympic Park (adjacent to Wentworth Point)
Commercial/ business and mixed use	B1 Neighbourhood Centre	Less than 0.01	Corner of Boronia and Murdoch streets (Ermington)
	B2 Local Centre	0.3	Uhrig Road (Lidcombe)
	B4 Mixed Use ²	7.3	Dawn Fraser Avenue (Sydney Olympic Park)
Recreation ³	RE1 Public Recreation	1.3	Eric Primrose Reserve (Rydalmere), Ken Newman Park (Ermington), Archer Park and Koonadan Reserve (Melrose Park)
			Future open space at Hill Road (Sydney Olympic Park) and Uhrig Road (Lidcombe)
	RE1 Public Recreation ²	1.4	Millennium Parklands (The Brick Pit), Australia Avenue (Sydney Olympic Park)

Land use	Zoning under the relevant environmental planning instrument ¹	Estimate of area potentially affected (hectares)	Main location/s of potential impact
	W1 Natural waterways	0.1	Eric Primrose Reserve (Rydalmere) and Ken Newman Park (Ermington)
Environmental	C2 Environmental Conservation ²	1.2	Millennium Parklands, including Nuwi Wetland, Narawang Wetland, Haslams reach, Kronos Hill and The Brick Pit precincts (Sydney Olympic Park)
	C3 Environmental Management ²	1.8	Millennium Parklands, including Woo-la-ra precinct (Sydney Olympic Park)
Infrastructure	SP2 Infrastructure	1.7	Grand Avenue (Camellia)
Deferred matter	-	0.8	Various roads within Wentworth Point

Notes: 1. Land is zoned by the relevant local environmental plan (see section 13.2.1) unless indicated under note 2.

- 2. Land zoned by State Environmental Planning Policy (Precincts Central River City) 2021.
- 3. Potential impacts on individual parks/reserves and their use are described in Table 13.2.

Industrial zoned land

A number of areas that are currently zoned for industrial land uses, particularly in Camellia and Melrose Park, are planned for future redevelopment, proposed for rezoning and/or are currently undergoing redevelopment for residential/mixed use development (see Chapter 3 (Strategic context and need)). This reflects similar patterns of redevelopment that are underway in many industrial areas in Sydney.

About one hectare of land currently zoned for general industrial uses (IN1) that would be affected by the project (outside existing transport corridors) in Melrose Park is currently subject to a rezoning application (see section 13.2.1) and is proposed to be rezoned for residential and mixed uses.

The amount of land that is currently zoned for heavy industrial uses (IN3) and would be affected by the project (estimated to be about two hectares) is only a small proportion of the total area of IN3 zoned land in the City of Parramatta LGA (less than one per cent); however, there is limited availability of IN3 zoned land in the surrounding region (including no IN3 zoned land in adjacent LGAs). About 0.3 hectares of IN3 zoned land that would be affected by the project is proposed for future alternative land uses by the *Draft Camellia–Rosehill Place Strategy* (DPIE, 2021b) (see Chapter 3 (Strategic context and need)).

Recreation zoned land

The change in use for recreation zoned land would have the potential to reduce the amount of land available for recreation uses in the LGA. It is estimated that about 2.7 hectares of land currently zoned for public recreation uses (RE1) would be permanently required as part of the project's operational footprint. This represents about one per cent of land zoned RE1 in the suburbs along the project site. About half of the affected area (about 1.4 hectares) consists of land zoned RE1 under the Central River City SEPP, which represents about one per cent of land zoned RE1 by this environmental planning instrument.

Potential impacts on individual recreation reserves/parks and their use are described in Table 13.2. However, it is noted that the project would provide new active transport infrastructure, new and improved open spaces and recreation facilities, and would repurpose some residual land. This would offset the areas of open space directly impacted by the project's land requirements. Further information on the proposed public domain works and new and improved open spaces is provided in section 6.8.2.

Environmental zoned land

The project would affect about three hectares of land zoned C2 (Environmental Conservation) and C3 (Environmental Management) by the Central River City SEPP. This would reduce the amount of land zoned C2 and C3 in Sydney Olympic Park by less than one per cent and about three per cent respectively. The land affected is located in the Millennium Parklands. Further information on impacts to the use of the parklands (and precincts within the parklands) is provided in Table 13.2. Further information on the biodiversity impacts of the project is provided in Chapter 16 (Biodiversity).

Residential zoned land

The project would affect about one hectare of land zoned for residential uses. However, with the changes in land use proposed and planned for many of the suburbs along the project site, this is not expected to result in a significant reduction in the availability of residential land in the study area as a whole.

Estimated potential impacts on land use, in terms of the indicative land requirements for land zoned for different uses by the relevant environmental planning instrument, are shown in Table 13.4.

As described in section 13.3, the indicative land requirements would continue to be refined during design development and the property acquisition negotiations. The total amount of land that is actually acquired to meet the project's estimated land requirements could be more than the amount of land required to construct and operate the project's permanent infrastructure.

Some of the project's residual land could provide opportunities to offset impacts on land uses, subject to the considerations in section 6.9.2, including future planning objectives, required remediation of contaminated land, and the characteristics of the site.

Future land use

Land within and surrounding the project site comprises several areas identified for future redevelopment as noted above and described in Chapter 3 (Strategic context and need). The project provides a benefit for future land uses as it would meet the needs described in Chapter 3, providing improved public transport capacity to service existing land uses together with the proposed urban renewal and development areas, which would result in the opportunity for increased residential densities. For example, in response to the planning proposal for rezoning of land in Melrose Park North, the City of Parramatta Council resolved that, with delivery of a bridge to Wentworth Point (with light rail or equivalent bus service) and Sydney West Metro, the development capacity of the north and south precincts could increase from 6,700 to 11,000 dwellings (City of Parramatta, 2019a).

The project has been, and would continue to be, designed to integrate with existing and future land uses, including master planning for the identified urban renewal areas.

The project would be an important part of the transport network allowing more efficient and safer access for residents, workers and businesses along the alignment, as well as the wider region.

13.5.2 Property impacts

Direct impacts associated with the project's land requirements

The main direct property impacts would be associated with the project's land requirements, which are described in section 13.3. Property acquisition would occur prior to construction. As described in section 13.4.2, the project's permanent land requirements would have the potential to directly affect about 104 properties, which are listed in Appendix E (Preliminary land requirements).

Integration with surrounding development areas

The project site adjoins a number of areas in Camellia, Melrose Park, Wentworth Point, Sydney Olympic Park and Lidcombe that are currently being redeveloped (such as Sanctuary Wentworth Point and sites in Melrose Park), proposed for redevelopment (including land within the Melrose Park North and South precincts – see section 13.2.1) or subject to planning for future redevelopment (including land subject to the *Draft Camellia-Rosehill Place Strategy* (DPIE, 2021b) and the *Carter Street Precinct Development Framework* (DPIE, 2020a).

Integration with future development in the study area has been a key principle driving the strategic need, option selection and design development process (see Chapters 3 (Strategic context and need) and 5 (Design development, alternatives and options)).

Transport for NSW would continue to liaise with relevant stakeholders, including developers of properties adjoining the project site, to manage the interface between the project, adjoining properties and future land uses, and minimise the potential for impacts as far as possible.

Impacts on development potential

Acquisition of part of a lot could reduce its size such that the lot's development potential (that is, the ability to subdivide it into separate lots) is affected.

About 27 lots that may need partial acquisition to achieve the project's land requirements are subject to minimum lot size requirements under the relevant local environmental plan. The majority of the affected lots are currently below the minimum lot size (550 square metres). Only two affected lots could be subdivided based on their existing lot size, which is larger than the minimum lot size requirements.

The development potential of one of these lots (on Hilder Road in Ermington) could be affected by the project's land requirements. Acquisition could reduce the lot size such that its development potential is reduced from 11 to eight potential lots. However, this lot is subject to an electricity and water infrastructure easement, which is not expected to be developable. As the project only affects land within the easement, it is not expected to impact the development potential of the overall lot.

Other impacts

Access changes

As described in sections 6.6.3 and 9.4.6, permanent changes to access arrangements may be required for a small number of properties to accommodate project infrastructure. Other changes to access movements (such as a change to left in/left out only) would be required for some properties. Further information about potential access impacts, and the proposed approach to managing these impacts, is provided in Chapter 9 (Transport and traffic).

Amenity impacts

Properties close to the project site may experience changes in amenity as a result of the project. Operation may result in the following impacts on amenity:

- increase in noise levels as a result of the operation of light rail vehicles
- changes in the visual outlook for properties with views over/towards project infrastructure.

These potential impacts and relevant mitigation measures are considered in Chapters 10 (Noise and vibration) and 15 (Landscape and visual impacts).

Further information about the potential for amenity impacts is provided in section 14.4.1.

13.6 Cumulative impacts

The potential for cumulative impacts is mainly associated with potential impacts on specific land uses, including land zoned for specific purposes.

The project, in conjunction with wider redevelopment in the study area, has the potential to affect the total area of industrial zoned land in suburbs along the project site. This is particularly the case for land zoned IN3 Heavy Industrial, which would be occupied by project infrastructure in Camellia. However, in accordance with the *Draft Camellia–Rosehill Place Strategy* (DPIE, 2021b), the majority of this land has already been proposed for other future land uses (such as mixed use and residential).

The proposed land use changes, and future development of the Camellia-Rosehill precinct as indicated by *Draft Camellia-Rosehill Place Strategy*, would result in about 23 hectares of land zoned IN3 being developed for other land uses. The project would increase this change in land use by about two hectares.

13.7 Mitigation and management measures

13.7.1 Approach to mitigation and management

Approach to managing the key potential impacts identified

The design would continue to be refined to minimise the project's land requirements and associated property impacts as far as practicable. Engagement with affected property owners, interest holders and occupants would be ongoing to identify opportunities to minimise impacts on properties, where practicable.

Comprehensive and appropriate communication and engagement with the community and other key stakeholders (including property owners/occupants) would play a key role in managing the potential for impacts during construction and operation. Effective communication and engagement are fundamental to reducing risk and minimising potential impacts. Identifying, engaging and effectively communicating with stakeholders is critical to the successful delivery of the project.

Further information on the proposed approach to engagement, and relevant mitigation measures (including preparing and implementing a community communication strategy) is provided in Chapter 8 (Community and stakeholder engagement) and section 14.6, respectively.

Other key mitigation measures, which have been developed with consideration of learnings from other projects (including Parramatta Light Rail Stage 1) include developing property-specific measures in consultation with landowners, appointing relationship managers to assist property owners and tenants, developing property adjustment plans, and considering opportunities to redevelop residual land for other uses (described below).

Managing property impacts

Property-specific measures would be developed, in consultation with individual property owners (and occupants, where appropriate), for property-level responses to the impacts of the project. Individual property-level responses would be defined by property adjustment plans, the development of which would be guided by Personal Relationship Manager(s) in consultation with property owners and occupants. The responses developed would ensure that relevant statutory rights of property owners and tenants are protected.

Engagement with property owners and occupants would be undertaken in accordance with the project-specific community communications strategy (mitigation measure SE1 – see section 14.6).

Owners/occupants would be informed about the timing and scope of activities in their area, and any potential property impacts/changes, particularly in relation to potential impacts on access. Engagement would also assist in identifying feasible and reasonable property-specific measures where construction is located on, or immediately adjacent to, private properties.

Personal Relationship Manager(s) would assist residential landowners/landholders affected by acquisition. As described in section 13.4.2, all property acquisitions would be undertaken by Transport for NSW in accordance with the Just Terms Act and the results of recent relevant acquisition reforms and reviews.

Land affected during construction only would be rehabilitated in accordance with a rehabilitation strategy. The rehabilitation strategy would be prepared to guide rehabilitation planning, implementation, monitoring and maintenance of these disturbed areas. This includes areas occupied by compounds and other areas disturbed during construction where final operational infrastructure would not be located. The rehabilitation strategy would:

- · identify rehabilitation objectives and criteria
- establish roles and responsibilities
- define rehabilitation actions and requirements
- define monitoring and maintenance requirements.

In general, rehabilitation would be undertaken in two stages. The first stage would involve stabilisation immediately following disturbance, such as at the completion of construction work in a particular area. The second stage would involve longer-term rehabilitation. The rehabilitation strategy would integrate with the project's urban design requirements (see section 5.6.2), which would define landscaping requirements and residual land planning.

Residual land management plan

As described in section 6.9.2, following construction, it is expected that some of the land acquired by Transport for NSW to construct the project would become surplus to the operational requirements of the project and would be available for other uses. Transport for NSW would prepare a residual land management plan to guide how this surplus land would be used. The plan would include:

- identification of residual land, including location, land use characteristics, size and surrounding land uses
- identification of potential feasible uses for the land guided by relevant local and regional strategic and statutory planning instruments, including master planning for identified urban renewal areas, environmental constraints, and consideration of future development feasibility
- identification of, and consultation with, key internal and external stakeholders, including local councils
 and relevant government agencies (including the Department of Planning and Environment, Transport
 for NSW and Sydney Olympic Park Authority) as appropriate
- identification of proposed uses for the land and actions required (including any remediation of contaminated land) to make the land suitable for the identified final use
- timeframes for implementation of the actions in relation to the identified future uses.

Approach to managing other impacts

Implementing other relevant measures provided in Chapters 9 (Transport and traffic), 10 (Noise and vibration), 14 (Socio-economic impacts), 15 (Landscape and visual impacts) and 20 (Air quality) would minimise the potential for property access and amenity impacts.

Measures to manage potential impacts on community/recreation facilities, including parks, reserves and areas of open space, are provided in Chapter 14 (Socio-economic impacts).

Other measures are provided in Table 13.5.

13.7.2 List of mitigation measures

Measures that will be implemented to address potential impacts on land use and property are listed in Table 13.5.

Table 13.5 Land use and property mitigation measures

Impact/issue	Ref	Mitigation measure	Timing
Impacts on land use and property	LP1	The design will continue to be refined to minimise land requirements and potential impacts on land uses and properties as far as reasonably practicable.	Design
		Consultation with landowners/landholders will be ongoing to confirm feasible and reasonable measures to minimise impacts on their operations/properties.	
Integration and interface with surrounding land uses and properties	LP2	Consultation with key stakeholders (including City of Parramatta Council, Sydney Olympic Park Authority, the Department of Planning and Environment, and relevant developers) will be ongoing to ensure that the design of the project is integrated as far as practicable with adjoining developments, proposed developments and urban renewal areas (including those subject to the <i>Draft Camellia-Rosehill Place Strategy</i> (DPIE, 2021b), structure planning for Melrose Park North and Melrose Park South, and the <i>Carter Street Precinct Development Framework</i> (DPIE, 2020a)). This will include identifying measures and design responses to manage the interface between the project and adjoining land	Design
		uses and properties as far as reasonably practicable.	
Residual land	LP3	A residual land management plan will be prepared to define the proposed approach to managing residual land, including consulting on proposed future uses with key stakeholders, and required actions in relation to the identified land.	Design
Impacts on land use and property	LP4	Construction planning will minimise the duration that land is required to the shortest possible duration, particularly where the land requirements affect recreation/open space areas.	Pre-construction
Land requirements and property acquisition	LP5	All property acquisitions will be undertaken in accordance with the requirements of the Land Acquisition (Just Terms Compensation) Act 1991, the land acquisition reforms announced by the NSW Government in 2016, and the recommendations of the Auditor General's 2021 review of Transport for NSW's acquisition practices.	Pre-construction
	LP6	Transport for NSW will appoint Personal Relationship Manager(s) to assist residential landowners and tenants who may be affected by acquisition. The Personal Relationship Manager(s) will maintain regular contact with these individuals to provide assistance with the acquisition process, including updates on the project, and respond to queries. The Personal Relationship Manager(s) will work with the landowners and tenants to offer assistance and support	Pre-construction
Property impacts	LP7	throughout the acquisition process. Transport for NSW will seek to secure agreements with affected landowners/landholders, to guide property-level design requirements and the management of construction on, or immediately adjacent to, private properties.	Pre-construction
		Property adjustment plans will be prepared in consultation with impacted landowners/landholders. The plans will define the works required to properties affected by acquisition and those requiring adjustments as a result of the project. Works will include, but not be limited to, adjustments to driveways, fences, trees and landscaping.	

Impact/issue	Ref	Mitigation measure	Timing
Impacts on utilities	LP8	The location of all utilities and services, and requirements for access to, diversion, protection and/or support, will be confirmed prior to construction. This will include (as required) undertaking utilities investigations, including intrusive investigations, and consultation and agreement with service providers,	Pre-construction
Rehabilitation of land subject to temporary use during construction	LP9	A rehabilitation strategy will be prepared to guide rehabilitation planning, implementation, monitoring and maintenance of disturbed areas outside the operational footprint following the completion of construction. The strategy will have regard to Appendix G (Rehabilitation recommendations) of Managing Urban Stormwater – Soils and Construction – Volume 1 (Landcom, 2004).	Pre-construction
		The strategy will be consistent with the residual land management plan for land owned by Transport for NSW.	
	LP10	Land subject to temporary use will be rehabilitated as soon as practicable to the pre-construction condition (or as agreed with the landowner/landholder), taking into consideration the existing condition, location and land use characteristics.	Construction
		Rehabilitation will be undertaken in consultation with the relevant landowner/landholder, and in accordance with the rehabilitation strategy.	