

## 12. Historic heritage

The chapter provides a summary of the *Sydney Light Rail Extension Stage 1 Heritage Impact Assessment* prepared by AMBS which is contained as Technical Paper 3 in Volume 2 of this environmental assessment (EA).

The chapter provides an outline of the potential historic heritage impacts associated with the project, including impacts of construction and operation phases of the project. It also sets out mitigation and management measures to minimise impacts during construction and operation.

DGRs	Where addressed in the EA
Historic heritage — including but not limited to	
<ul style="list-style-type: none"> <li>an historical overview and context of the corridor and adjoining areas and the identification of items and areas of heritage significance affected by the project by field survey and research. This includes any buildings, works, relics, gardens, landscapes, views, trees or places of heritage significance (including but not limited to the Lewisham Railway Viaduct, Lewisham Sewage Viaduct, Hawthorne Canal, Battle Bridge, and Dulwich Hill Railway Station)</li> </ul>	Section 12.1 Technical Paper 3 in Volume 2
<ul style="list-style-type: none"> <li>the heritage significance of the site/s and impacts the project may have upon this significance, including natural areas and places of historic or archaeological significance and the consideration of wider heritage impacts in the surrounding area</li> </ul>	Section 12.2 Technical Paper 3 in Volume 2
<ul style="list-style-type: none"> <li>the preparation of an Interpretation Strategy, including an analysis of the former use and history of the rail corridor as a goods line, and the preparation of a Heritage Management Plan to manage impacts at all stages of the project</li> </ul>	Section 12.4, Chapter 19 Technical Paper 3 in Volume 2
<ul style="list-style-type: none"> <li>taking into account the guidelines in the <i>NSW Heritage Manual</i> and field survey and assessment undertaken by a qualified practitioner with historic sites experience.</li> </ul>	Chapter 12 of the EA Section 1.3 of Technical Paper 3 in Volume 2

### 12.1 Assessment approach

The assessment included:

- a review of background information
- a field survey for historic heritage on 3 August 2010
- an assessment of the physical condition, curtilage (surrounding land) and context of heritage items
- an assessment of the significance of heritage items
- an assessment of the potential impacts on those heritage items

- the development of mitigation measures.

The historic heritage assessment was undertaken in accordance with the principles and guidelines of the Burra Charter, the *NSW Heritage Manual* (NSW Heritage Office 1996) and *Assessing Heritage Significance* (NSW Heritage Office 2001).

## 12.2 Existing environment

### 12.2.1 Heritage categories

#### State Heritage Register

The *Heritage Act 1977* provides protection for historic places, buildings, works and archaeological sites that have particular importance to the state of NSW through listing of these items on the State Heritage Register (SHR).

Three items listed on the State Heritage Register are near to the project:

- Lewisham railway viaduct over Long Cove Creek (ref: 01043)
- Lewisham sewage aqueduct (ref: 01326)
- Pressure tunnel and shafts (pressure tunnel building) (ref: 01630).

#### Section 170 of the Heritage Act 1977

Under Section 170 of the *Heritage Act 1977*, government authorities are required to maintain a register of heritage assets. This is called a Heritage and Conservation Register, or a Section 170 Register. Section 170 registers relevant to the project include those maintained by RailCorp, Sydney Water Corporation, NSW Roads and Traffic Authority, the NSW Department of Education & Training and the Sydney Harbour Foreshore Authority.

Items that are listed on Section 170 Registers and are nearby the project are identified in Table 12.1.

#### Local environmental plans

The project is located in three local government areas (LGAs): Leichhardt, Ashfield and Marrickville. The local environmental plans (LEPs) within each LGA list heritage items of significance.

Items that are listed on relevant LEPs and are nearby the project are identified in Table 12.1.

#### National listings

Items listed with the National Trust of Australia do not have statutory authority; however, the National Trust of Australia performs a role in raising public awareness of heritage issues.

The Register of the National Estate (RNE) has been frozen since February 2007 and should be considered as an information resource only.

## 12.2.2 Heritage items

Table 12.1 summarises the 30 historic heritage items that have been recorded near the project corridor and their respective listing and heritage significance. They are also identified in Figure 12.1a to Figure 12.1e.

**Table 12.1 Summary of identified historic heritage items near the project corridor**

Item	Primary address	Significance	Listing identification
Battle Bridge over Hawthorne Canal	Parramatta Road crossing of Hawthorne Canal, Summer Hill	Local	LEP (Ashfield 1985) S.170 (RTA)
Darling Harbour rail corridor	West side of Darling Harbour to Pyrmont, Darling Harbour and Pyrmont	Local	S.170 (Sydney Harbour Foreshore Authority)
Dulwich Hill Railway Station Group	Wardell Road, Dulwich Hill	Local	S.170 (RailCorp)
Former House in Lambert Park (now a childcare centre)	22 Foster Street, Leichhardt	Regional*	LEP (Leichhardt 2000)
Haberfield Conservation Area	Haberfield	Local	LEP (Ashfield 1985) RNE National Trust
Hawthorne Canal Stormwater Channel No. 62 (& Leichhardt Branch)	Hawthorne Parade, Haberfield to Canterbury Road	Local	S.170 (Sydney Water)
Hercules Furniture Factory (replaced by modern apartments)*	3 Terrace Road, Dulwich Hill	n/a	National Trust
Houses	18–20 Beeson Street, Leichhardt	Local	LEP (Leichhardt 2000)
Kegworth Primary School	Tebbutt Street (between Lords Road and Kegworth Street), Leichhardt	State*	LEP (Leichhardt 2000) S.170 (Dept. Education and Training)
Leichhardt (Charles Street) underbridge	Dulwich Hill to Rozelle goods line, Charles Street, Leichhardt	Local	S.170 (RailCorp)
Leichhardt (Marion Street) underbridge	Dulwich Hill to Rozelle goods line, Marion Street, Leichhardt	Local	S.170 (RailCorp)
Lewisham (Parramatta Road) underbridge	Dulwich Hill to Rozelle goods line, Parramatta Road	Local	S.170 (RailCorp)
Lewisham Estate Heritage Conservation Area	Old Canterbury Road, Lewisham	Local	LEP (Marrickville (Draft) 2010)
Lewisham Railway Substation	Alfred Street, Lewisham	Local	S.170 (RailCorp)
Lewisham railway viaducts over Long Cove Creek (described as 'adjacent girder bridges' on the Marrickville 2001 LEP)	Great Southern and Western Railway, Grosvenor Crescent, Summer Hill	State	State Heritage Register LEP (Ashfield 1985, Marrickville (Draft) 2001) S.170 (RailCorp) National Trust

Item	Primary address	Significance	Listing identification
Lewisham sewage aqueduct	Grosvenor Crescent East, Summer Hill/Lewisham	State	State Heritage Register LEP (Ashfield 1985, Marrickville (Draft) 2010) S.170 (Sydney Water) National Trust
Lilyfield (Catherine Street) overbridge	Catherine Street, Lilyfield	Local	S.170 (RailCorp) City West SREP No.26 (now considered a SEPP)
Parramatta and Lane Cove rivers landscapes, Sydney*	Parramatta River and Lane Cove River from North Rocks Road and de Burghs Bridge, respectively, to Greenwich and including areas along the banks of both rivers	n/a	RNE (Indicative place)
Pressure tunnel and shafts (pressure tunnel building)	1–9 Weston Street, Lewisham	State	State Heritage Register S.170 (Sydney Water) LEP (Marrickville (Draft) 2010) RNE (Indicative place)
SRA Stores Branch Building, former tram depot office, tram shed, cable store	25 Derbyshire Road and Balmain Road, Leichhardt	State*	LEP (Leichhardt 2000) National Trust
Stone terracing and steps	101–109 Old Canterbury Road, Lewisham	Local	LEP (Marrickville 2001)
Street names marked in cement paving*	Various streets located in the former Municipality of St Peters	Local	LEP (Marrickville 2001)
Street trees — avenue of Brush Box	Planted in carriageway, Allen Street, Leichhardt	Local	LEP (Leichhardt 2000)
Street tree — Moreton Bay Fig	Derbyshire Road, Leichhardt	Local	LEP (Leichhardt 2000)
Street trees — row of Brush Box and one Ficus Hillii	Planted in carriageway, Henry Street, Leichhardt	Local	LEP (Leichhardt 2000)
Summer Hill Mills site (former Mungo Scott Mills)	2–32 Smith Street, Summer Hill	Local	LEP (Ashfield 1985)
Timber Edwardian house	122 Victoria Street, Dulwich Hill	Local	LEP (Marrickville 2001)
Two adjacent stone houses	134–136 James Street, Leichhardt	Local	LEP (Leichhardt 2000)
Victorian cottage	286 Wardell Road, Marrickville	Local	LEP (Marrickville 2001)
Waratah Flour Mills	10–14 Terry Road, Dulwich Hill	Local	LEP (Marrickville 2001)

\* The NSW Heritage Council recognises State and Local levels of heritage significance only. Since the remainder of these items and places are not currently listed on the SHR, they have local heritage significance only; however, they have particular value to the local community.

Note:

SHR — State Heritage Register, LEP — Local Environmental Plan, RNE — Register of National Estate



Joins Figure 12.1b



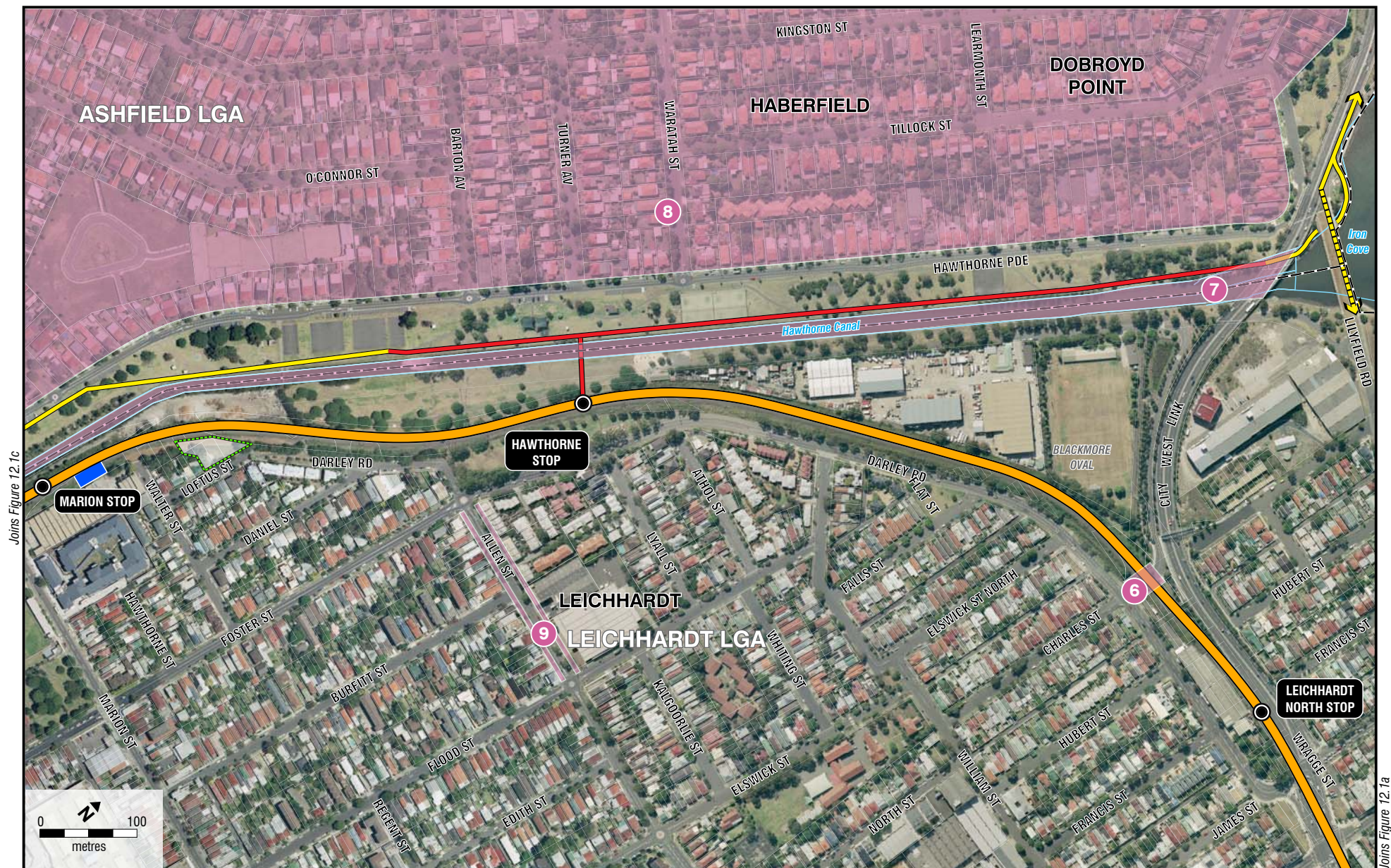
- — — Light rail alignment
- - - - - City West Link rail corridor tunnel
- - - - - Local government area boundary

- Existing light rail stop
- Proposed light rail stops
- Potential substation location

- 1 Catherine Street overbridge
- 2 SRA site
- 3 Moreton Bay Fig
- 4 Street trees Henry Street
- 5 James Street houses

**Figure 12.1a Historic Heritage**  
**Note:** Indicative only, subject to detail design.





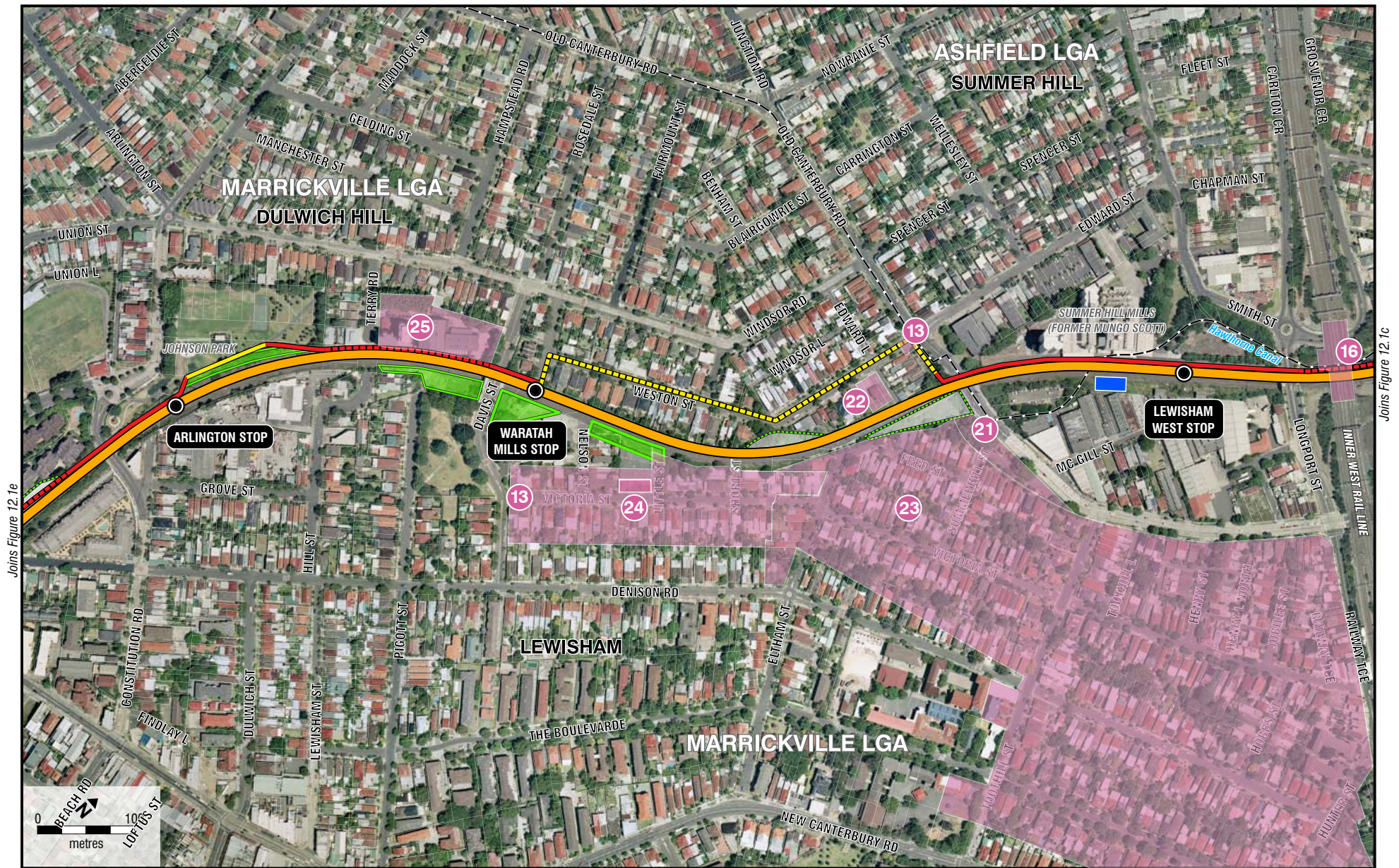
- |                                |  |                                |                              |
|--------------------------------|--|--------------------------------|------------------------------|
| Light rail alignment           | Existing GreenWay shared path (upgraded) | Potential bushcare/landscaping | Charles Street Overbridge    |
| Proposed light rail stops      | New GreenWay on-street cycle path        | Potential substation location  | Hawthorne Canal              |
| Local government area boundary | New GreenWay shared path (at-grade)      |                                | Haberfield Conservation Area |
| Watercourse                    | New GreenWay shared path (elevated)      |                                | Street trees - Allen Street  |

**Figure 12.1b Historic Heritage**  
 Note: Indicative only, subject to detail design.









- |  |  |  |  |
|--|--|--|--|
| <ul style="list-style-type: none"> <li>Light rail alignment</li> <li>Proposed light rail stops</li> <li>Local government area boundary</li> <li>Watercourse</li> </ul> | <ul style="list-style-type: none"> <li>Existing shared path (upgraded)</li> <li>New GreenWay shared path (at-grade)</li> <li>New GreenWay shared path (elevated)</li> <li>New GreenWay on-street cycle path</li> </ul> | <ul style="list-style-type: none"> <li>13 Cement paving</li> <li>16 Lewisham Railway Viaduct</li> <li>21 Stone Terracing and steps</li> <li>22 Pressure tunnel building</li> </ul> | <ul style="list-style-type: none"> <li>23 Lewisham Estate Heritage Conservation Area</li> <li>24 Timber Edwardian house</li> <li>25 Waratah Flour mills</li> </ul> |
|--|--|--|--|

**Figure 12.1d Historic Heritage**  
 Note: Indicative only, subject to detail design.





**Figure 12.1e Historic Heritage**  
**Note:** Indicative only, subject to detail design.



## 12.3 Construction impacts

A description of the heritage items near to the project are presented in Table 12.2 below, along with a brief description of the proposed works with respect to the item and the potential impact on the item.



**Table 12.2 Potential impacts on heritage items during construction**

Item name	Item description	Proposed works	Potential impact	Mitigation required?
Battle Bridge over Hawthorne Canal	The Parramatta Road crossing over Hawthorne Canal is Battle Bridge, which was constructed in about 1873 as a sandstone arch bridge. Although the bridge was widened in about 1937 with steel beams supporting a reinforced concrete deck laid to facilitate the widening of Parramatta Road, the bridge retains its original barrel vaulted stone arch. The arch is now, however, hidden from view.	Proposed works in the vicinity of Battle Bridge include the construction of the GreenWay shared path bridge crossing over Parramatta Road, the Taverners Hill stop and associated infrastructure including lifts and stairs, upgrades to overhead wiring and associated infrastructure along the rail corridor, and the raising of the Parramatta Road underbridge.	There is the potential for adverse impacts on the historic and technical significance of the Battle Bridge arising from the changed environment and the potential for damage to these items.	Yes
Darling Harbour rail corridor	The Darling Harbour rail corridor (goods lines) was part of the first railway opened in New South Wales in 1855. The siting of the railway has strongly influenced the development of Pyrmont and Ultimo. The rail corridor is now used for the existing light rail.	Works proposed at the stabling and maintenance facility at Pyrmont would include a 30 metre extension of an existing siding and additional security features.	There is the potential for adverse impacts on the historic significance of the Darling Harbour rail corridor in the vicinity of the Pyrmont stabling facility.  Excavations associated with the construction of the siding extension or security upgrades have the potential to expose building remains and a brick lined water tank.	Yes
Dulwich Hill Railway Station Group	Dulwich Hill Railway Station is a single island platform which originally opened as Wardell Road in 1895 and was renamed Dulwich Hill in 1920. The original timber platform building was demolished and replaced by the current building in 1935. The original 1930s overbridge was replaced in 1975 by the current concrete and steel overbridge.	The proposed Dulwich Hill Interchange stop is to be located within the curtilage of Dulwich Hill Railway Station. It would include a construction compound, associated vehicle access, and modifications to the existing car parking at Bedford Crescent. It is also proposed to build the Dulwich Hill Interchange stop, and upgrade the overhead wiring and associated infrastructure along the rail corridor.	The proposed works would not adversely affect the Dulwich Hill Railway Station.	No
Former House in Lambert Park (now a childcare centre)	The single-storey stone house at 22 Foster Street is now an integral part of Lambert Park and functions as a childcare centre. It stands at the eastern side of the park. The house has a slate roof and corrugated steel veranda roof supported by timber posts and brackets.	The rail corridor is approximately 190 metres from the house. Marion Street, which would be used by construction vehicles, is approximately 70 metres from the house.	The project would not have impacts on this house.	No



Item name	Item description	Proposed works	Potential impact	Mitigation required?
Haberfield Conservation Area	The Haberfield Conservation Area extends along Hawthorne Canal from Iron Cove to Parramatta Road. The GreenWay shared path is proposed to follow the current open space area west of the canal. South of Marion Street, the canal separates the proposed GreenWay shared path from the Conservation Area.	<p>Construction of Hawthorne, Marion and Taverners Hill stops in the vicinity of the Conservation Area, which may have an impact on the aesthetic and visual amenity of the Conservation Area.</p> <p>Minor increase in traffic along Marion Street and Parramatta Road during construction.</p> <p>Construction of the GreenWay shared path in the northern part of the existing reserve that runs along each side of the canal.</p> <p>Construction of an elevated pathway near the southern end of the Conservation Area to provide access to the Taverners Hill stop and to cross Parramatta Road.</p>	These works are unlikely to have a significant adverse effect on the Conservation Area.	No
Hawthorne Canal Stormwater Channel No. 62 (& Leichhardt Branch)	<p>Hawthorne Canal is a stormwater channel that extends from Dobroyd Point at Iron Cove to Old Canterbury Road at Lewisham. It was constructed by the Public Works Department in 1892 as one of the first nine stormwater/sewer channels in Sydney. The construction process included land reclamation along the Iron Cove foreshore. The section between Iron Cove and Marion Street was built as a navigable canal, but by 1895 the water was highly polluted. The walls of the section to the Parramatta Road crossing are lined with sandstone blocks, after which they are brick lined, and it has a concrete floor. There are several branches, constructed prior to 1900, which include: Leichhardt, Leichhardt Amplification, Petersham, Petersham Park, Smith Street, Henson Street, Victoria Street and Grove Street.</p> <p>The main canal and some of the branch lines extend below the rail corridor in numerous locations. A new pedestrian and cycle shared-use bridge is proposed to cross Hawthorne Canal at the Hawthorne stop. A construction site is proposed to the south of Hawthorne Canal Reserve (north of Marion Street, east of the Canal within the rail corridor), with associated vehicle access.</p>	<p>Construction of Hawthorne, Marion, Taverners Hill, Lewisham West and Waratah Mills stops along the rail corridor adjacent to the Hawthorne Canal.</p> <p>Construction of GreenWay shared path across the canal at Lewisham West stop, where the Hawthorne Canal passes under the rail corridor.</p>	<p>There is potential for direct and indirect impacts on Hawthorne Canal. Construction of the Hawthorne stop and the associated pedestrian/cycle bridge over the canal may result in a loss of original fabric associated with the canal.</p> <p>Excavations associated with the construction of the Hawthorne, Marion, Taverners Hill and Lewisham West stops have the potential to expose subsurface canal fabric or relics associated with its construction.</p>	Yes



Item name	Item description	Proposed works	Potential impact	Mitigation required?
Hercules Furniture Factory (replaced by modern apartments)*	The factory was demolished and replaced by a group of modern apartments.	n/a	n/a	
Houses (18 and 20 Beeson Street, Leichhardt)	The two single-storey timber cottages at 18 and 20 Beeson Street are good examples of early twentieth century workers' cottages. They are in good condition.	The houses are approximately 30 metres from the rail corridor	There would be no adverse impact on these houses.	
Kegworth Primary School	Kegworth Primary School, Leichhardt, comprises two late nineteenth century educational buildings on the corner of Foster Street, Kegworth Street and Lords Road. The single-story building was constructed in 1887, and the two-storey building in 1896. They are fine examples of their type.	The goods line is located approximately 120 metres from the school.	There would be no adverse impact as a result of the project.	
Leichhardt (Charles Street) underbridge	This underbridge carries the former goods line over Charles Street. The bridge was constructed between 1910 and 1922 and retains its original riveted plate girders, with new steel stringers. It is in good condition and operational.	Construction site on the eastern side of the bridge, with Charles Street to be used as a vehicle access point. Upgrades to the overhead wiring and associated infrastructure along the rail alignment.	No adverse impact. Works are consistent with the continuing operation of the goods line for rail services. Care should be taken to avoid adverse impacts on the historic fabric of the bridge.	
Leichhardt (Marion Street) underbridge	The former goods line crosses Marion Street on a single-span underbridge constructed as part of the double-track goods line built from 1910–1922. The bridge is a steel half-through riveted plate web girder with a 22.71 metre span between brick abutments and perpendicular wing walls.	Construction of Marion stop on the northern side of Marion Street with vehicle access adjacent to the underbridge. Provision of a new signalised pedestrian crossing on Marion Street, adjacent to the underbridge. Upgrade of overhead wiring and associated infrastructure along the rail corridor.	Siting of the Marion Street stop would need to take into account the potential for impacts on the abutments of the underbridge	Yes
Lewisham (Parramatta Road) underbridge	The Parramatta Road underbridge was constructed in 1912, on the Dulwich Hill to Rozelle section of the Metropolitan goods line. Due to the length of the span over such a major road, a half-through Warren-style truss bridge was selected as the most efficient design. The brick abutments are in good condition.	Construction of Taverners Hill stop to the north of the underbridge. Construction of an elevated and shared path bridge to cross Parramatta Road. Upgrade of overhead wiring and associated infrastructure along the rail corridor and provision vehicle access along Parramatta Road and Brown Street. The Parramatta Road underbridge currently does not meet standard bridge height clearances and is required to be raised.	The siting and construction of the Taverners Hill stop and associated infrastructure upgrades have the potential to have an adverse impact on the fabric of the underbridge. The proposal to raise the rail bridge would have a significant impact on the fabric and historic significance of the underbridge.	Yes



Item name	Item description	Proposed works	Potential impact	Mitigation required?
Lewisham Estate Heritage Conservation Area	<p>The Lewisham Estate Heritage Conservation Area is a substantial late nineteenth to early twentieth century residential area, subdivided as part of the land boom of the 1870s and 1880s, and the 1920s.</p> <p>The area is characterised by long streets following the line of the ridges with shorter, steeper cross streets, lined with a mix of one and two storey housing.</p>	<p>Construction of a bushcare site between the rail corridor and some housing.</p> <p>Local vehicle access is to be along Old Canterbury Road.</p>	It is unlikely that these works will have an adverse effect on the aesthetic significance and visual amenity of the Lewisham Estate Heritage Conservation Area.	No
Lewisham Railway Substation	<p>The Lewisham Railway substation, built in 1928, is one of 15 electrical substations built in the Sydney metropolitan area between 1926 and 1932. It stands adjacent to the rail corridor, at the end of Alfred Street, Lewisham.</p> <p>The substation is characteristic of its type: an Inter-War Stripped Classical style face-brick building that reflects the prevailing urban architecture, and features a hipped, tiled roof with a gabled clerestory. It has clearly been modified, with infill brickwork windows, but is otherwise in good condition.</p>	<p>Construction of an elevated shared path within the rail corridor, and vehicle access at Alfred Street.</p> <p>Upgrade of overhead wiring and associated infrastructure along the rail corridor.</p>	It is unlikely that the project would have an adverse impact on the substation.	No
Lewisham railway viaducts over Long Cove Creek	<p>The original railway viaduct at Lewisham was an eight-span stone arch viaduct constructed as part of the 1850s Great Western Railway. By the 1880s, the viaduct had deteriorated to such an extent that it was replaced by three pairs of 90-foot wrought iron, pin-jointed deck Whipple trusses.</p> <p>The remnant Whipple trusses of the Lewisham railway viaduct occur immediately to the south of, and parallel with, the Great Western Railway and extend from Grosvenor Crescent to the goods line corridor.</p>	<p>Construction of an elevated shared path between the existing track and Hawthorne Canal at this location, crossing under the rail bridge through the existing structure</p>	<p>The construction of the elevated shared path has the potential to damage the fabric of the remnant Whipple trusses.</p> <p>Construction of the GreenWay shared path also has the potential to have an adverse effect on the historic and technical significance of the viaducts.</p> <p>The GreenWay shared path would most likely avoid any impacts on the Lewisham railway viaduct, but a detailed construction methodology for this area should be undertaken prior to a final assessment of any potential impacts.</p>	Yes



Item name	Item description	Proposed works	Potential impact	Mitigation required?
Lewisham sewage aqueduct	The Lewisham sewage aqueduct was completed in 1900 for the Dobroyd Branch of the Southern and Western Suburbs Ocean Outfall Sewer (SWSOOS no.1). The aqueduct comprises a riveted steel oviform pipeline supported on concrete piers faced in sandstone rusticated blocks, with worked decorative bases and capitals. The aqueduct, and its structural elements, is in good condition. It rises above ground to be carried on sandstone pillars to the west of Cadigal Reserve, crosses Hawthorne Canal and dives below ground level on the western side of the rail corridor.	Upgrade of overhead wiring and associated infrastructure along the rail corridor. Construction of an elevated shared path within the corridor.	Construction of the GreenWay shared path has the potential to have an adverse effect on the sandstone piers supporting the aqueduct. They are spaced at a diagonal to the existing path, which reduces the functional width for a pathway. During construction, care would be required to ensure that the original and significant fabric of the piers is not impacted directly or indirectly. A detailed construction methodology for this area should be undertaken prior to a final assessment of any potential impacts.	Yes
Lilyfield (Catherine Street) overbridge	The existing Lilyfield light rail stop is located on the eastern side of the Catherine Street overbridge, with the rail corridor beneath the bridge. The Catherine Street overbridge is a concrete bridge supported by 10 brick piers, with brick parapet walls, and was constructed in 1922 to provide road access over the newly constructed Rozelle goods line. The bridge continues to carry road traffic across the line at Catherine Street and is in good condition.	The project includes a construction compound on the eastern side of the bridge, modification to the existing Lilyfield stop to accommodate a track on either side of the platform, provision of overhead wiring and upgrades to associated infrastructure along the rail alignment, and the building of a substation to the west of the bridge with access off Lilyfield Road and under the bridge.	Works are consistent with the continuing operation of the goods line for rail services. Care should be taken to avoid adverse impacts on the historic fabric of the bridge.	No
Parramatta and Lane Cove rivers landscapes, Sydney*	Parramatta and Lane Cove Rivers from North Rocks Road and de Burghs Bridge respectively, to Greenwich and including areas along the banks of both rivers	The northern end of the GreenWay extends the existing shared path at Iron Cove, beneath the City West Link.	The proposed works are consistent with the current recreational use of this area and will not have an adverse impact on this significant landscape.	No
Pressure tunnel and shafts (pressure tunnel building)	The pressure tunnel was constructed between 1921 and 1935. It carried potable water from the Potts Hill Reservoir to the Waterloo Water Pumping Station. Along the pressure tunnel line, a series of buildings are attached to the vertical maintenance shafts, including one at 1 to 9 Weston Street, Dulwich Hill. The building is characteristic of the Public Works Department's approach in designing functional buildings that blend with the local residential style.	It is proposed to build an on-street cycle path along Weston Street.	Although there is unlikely to be any direct impact on the building housing the vertical maintenance shafts, extreme care should be exercised should any excavations be undertaken in the area. The alignment and curtilage of the pressure tunnel should be confirmed prior to any excavation.	No

Item name	Item description	Proposed works	Potential impact	Mitigation required?
	Although it is a simple face-brick building with roller shutter entry, there is subtle decorative detailing of the engaged brick piers at the corners and rusticated brickwork framing the windows.			
SRA Stores Branch Building, former tram depot office, tram shed, cable store	The SRA buildings are located between Moore Street and the City West Link, Leichhardt. The site covers some 6,500 square metres and has a street frontage of 105 metres on Balmain Road. Originally constructed as a storage depot for trams in the early twentieth century, it was subsequently used to house buses, and there are two extant tram/bus sheds within the site.	The rail corridor is separated from the SRA stores building by the City West Link, and there is also a wall at the end of Derbyshire Street shielding the buildings from the City West Link.	The proposed works associated with the project would not have an impact on these buildings.	No
Stone terracing and steps, Old Canterbury Road, Lewisham	To the south of Old Canterbury Road and north of Summerhill Street is a landscaped area of stone terracing and steps that is an example of civic works undertaken during the Depression era, as a relief work project. The stone terracing has been laid out on a steep embankment facing Summerhill Street and comprises rusticated sandstone edging forming garden terraces with integrated stone seats and steps leading up to Canterbury Road.	Provision of a bushcare site between the landscaped terrace and the rail corridor. Construction traffic on Old Canterbury Road.	It is unlikely that there would be an impact on this important landscape area as a result of the project.	No
Street names marked in cement paving, (Marrickville LGA) (not mapped)	There are a number of street and municipality names in cement paving on various streets located in the former Municipality of St Peters, now Marrickville. There is no specific locational information on the cement paving in the Marrickville LEP and, as the historic field survey only targeted known locations of identified heritage items, it is possible that other instances of cement paving are located in the vicinity of the study area. The locations of three of the markings which have been identified during the survey of the project are at the Marion Street bridge over the Hawthorne Canal, the corner of Davis Street and Victoria Street, Lewisham and Weston Street near its intersection with Old Canterbury Road.	Construction of a new on-street cycle path along Weston Street in the vicinity of the signed cement paving. The cycleway would be located on the street and would be marked with stencil. Therefore, the street names in cement paving should not be affected. Construction of the Waratah Mills stop in the vicinity of Davis and Victoria Streets, approximately 100 metres from the signed cement paving. Provision of a new signalised pedestrian crossing on Marion Street, just to the east of the signed cement paving.	Any proposed stencilling works for the GreenWay shared path, especially along Weston Street, should not paint over the signed pavements. Care should be taken to ensure that the cement paving at the Marion Street stop is not affected during construction of the proposed pedestrian crossing.	No



Item name	Item description	Proposed works	Potential impact	Mitigation required?
Street trees — avenue of Brush Box, Allen Street, Leichhardt	An avenue of Brush Box on Allen Street, Leichhardt is located on the eastern side of the rail corridor. The trees are described as being a remnant of a more extensive inter-war era planting.	Site access for construction vehicles would be at the end of Allen Street and would not have an impact on the trees.	Potential damage to trees as a result of construction access/traffic along Allen Street. Indirect or accidental impacts should be avoided	No
Street tree — Moreton Bay Fig, Derbyshire Road, Leichhardt	The Moreton Bay Fig on Derbyshire Street is approximately 80 metres from the City West Link.	The rail corridor is separated from the fig by the City West Link, and there is also a wall at the end of Derbyshire Street shielding the fig from the City West Link.	The proposed works associated with the project would not have an impact on the Moreton Bay Fig.	No
Street trees — row of Brush Box and one Ficus Hillii, Henry Street, Leichhardt	A row of Brush Box and one Ficus Hillii have been planted on Henry Street and stand along the northern and southern sides of the rail corridor, which is underground at this point.	The rail corridor and City West Link are separated from these trees by walls on the northern and southern sides of the City West Link.	The proposed works associated with the project would not have an impact on the trees.	No
Summer Hill Mills site (former Mungo Scott Mills)	The original mill complex was built in 1916 by Mungo Scott Ltd and comprised the brick mill, a building housing the grain bins, and associated workshops and stables. Subsequent additions included concrete silos and storage bins, offices and associated buildings. The railway siding on the goods line, which is an integral element in the historic and technical significance of the mill site, is extant.	Construction of Lewisham West stop. Construction of the GreenWay shared path within the rail corridor under Longport Street and Old Canterbury Road. Construction compound area on the western side of the rail corridor.	There is unlikely to be any adverse effect on the mill site and its associated buildings. The siding and any associated subsurface storage bins, if they are present within the rail corridor, should be avoided during construction.	No
Timber Edwardian house, Victoria Road, Dulwich Hill	The house at 122 Victoria Street, Dulwich Hill, described as a timber Edwardian house in the current LEP, is characteristic of the Federation period architectural style with timber detailing to the veranda and gable. It is in good condition and appears to retain its original features intact.	The house is located approximately 40 metres from the rail corridor, and about 120 metres from the proposed Waratah Mills stop.	It is unlikely that the proposed works would adversely affect the house.	No
Two adjacent stone houses, James Street, Leichhardt	There is little available information concerning the two stone houses at 134 and 136 James Street. They are characteristic of the Victorian period, and should date to the second half of the nineteenth century. They are rare for the area in the use of sandstone as the primary construction material.	The houses are separated from the project corridor by the City West Link and are buffered by a concrete noise wall. The houses are located approximately 60 metres from the project corridor.	It is unlikely that the proposed works would adversely affect them.	No



Item name	Item description	Proposed works	Potential impact	Mitigation required?
Victorian cottage, Wardell Road, Marrickville	There is no available information concerning the single-storey Victorian cottage at 286 Wardell Road, opposite the end of Riverside Crescent. However, it appears to be in good condition with original features intact (e.g. rendered finish and window mouldings) despite having been re-roofed with terracotta Marseilles-type tiles.	Construction of an on-street cycle path along Riverside Crescent and Wardell Road, within the existing road corridor.	There would be no adverse impact on the cottage.	No
Waratah Flour Mills	The Waratah Flour Mills were constructed in about 1914 adjacent to the goods line with a siding for loading and unloading grain and flour. Although the industrial structures, concrete silos and buildings housing the operational facilities and grain bins are largely extant, they have been modified and adapted for use as apartments.	Construction of an elevated shared path within the rail corridor, adjacent to the mills. Construction site located on the opposite side of the rail corridor. Upgrade of overhead wiring and associated infrastructure along the rail corridor.	It is unlikely that the proposed works would adversely affect the former flour mills site.	No

## 12.4 Operational impacts

A substation is proposed on the western side of the Lilyfield (Catherine Street) overbridge. Access to this substation would be under the overbridge (visits would be made on an irregular basis). Care should be taken to avoid adverse impacts on the historic fabric of the bridge when accessing the substation site for maintenance.

The operation of the project is otherwise unlikely to impact any historic heritage items discussed in this chapter.

## 12.5 Management of impacts

The project does not require a Section 139 exemption under the *NSW Heritage Act 1997*, as it is assessed as a major project under Part 3A of the EP&A Act. Best practice, however, requires that project impacts on heritage values are minimised and mitigated where possible.

As part of ongoing project development, a heritage management plan (HMP) and an interpretation strategy is required to be prepared. During the EA, frameworks for the HMP and interpretation strategy have been developed and are presented below. These frameworks establish the objectives and principles of the HMP and interpretation strategy. These frameworks would be subject to a comprehensive review during detailed design to incorporate specific details to finalise these documents. In addition, liaison with relevant stakeholders, including the GreenWay Steering Committee, local Councils and Department of Planning (Heritage Branch) would be undertaken.

### 12.5.1 Heritage management plan framework (HMP)

The aim of the HMP is to minimise heritage impacts through all stages of the project. The purpose of the HMP is to document the specific management measures that would be implemented to achieve this aim. The HMP would guide construction within the vicinity of a heritage item and would include details of protective measures where construction is proposed in the vicinity of identified heritage items, details of impacts caused by raising the Lewisham (Parramatta Road) underbridge, extension of the siding at Pyrmont stabling facility and works within the vicinity of State heritage items.

The detailed HMP would be prepared in accordance with the framework outlined below and in conjunction with the construction environmental management plan (CEMP). The HMP is one of a suite of documents that forms the CEMP framework to guide the overall management of environmental issues for the project.

The HMP would be finalised in accordance with heritage best practice and Heritage Branch guidelines and in consultation with Department of Planning (Heritage Branch) and Sydney Water.

The structure of the HMP is as follows:

- introduction — including objectives and purpose of the HMP, relationship to other plans (e.g. the CEMP) and statutory context
- project overview — a brief description of the project, including all heritage items likely to be impacted



- assessment of impacts — further assessment of impacts to heritage items pending detailed design and further development of construction methodology, in particular the impacts of raising the Parramatta Road underbridge, works in the vicinity of the Lewisham Railway Viaduct, the Lewisham Sewage Aqueduct and the Hawthorn Canal
- management of impacts — specific mitigation measures to avoid impacts to heritage items during construction and operation. These mitigation measures would be developed in accordance with the Heritage Branch and Sydney Water. Sydney Water would specifically be consulted when determining mitigation measures for the Lewisham Railway Viaduct over Long Cove Creek and Lewisham Sewage Aqueduct.
- awareness and training — details on the induction of contractors and maintenance staff on the heritage provisions and the significance of the identified heritage items within the vicinity of the project to ensure impacts are minimised or avoided.

The HMP objectives and key strategies are outlined in Section 19.2.7 and described in detail below.

### **HMP objectives and strategies**

The objectives of the HMP include the following:

- *Objective:* minimise or avoid impacts to heritage items in the vicinity of the project, particularly State heritage listed items.
- *Objective:* to guide construction in the vicinity of heritage items.
- *Objective:* create an awareness of the former use and history of the rail corridor.
- *Objective:* preserve the original fabric and historic significance of the Parramatta Road underbridge, Battle Bridge and Hawthorne Canal during construction works associated with raising the bridge.

The following specific strategies have been developed and form part of the HMP:

- *Parramatta Road underbridge and Battle Bridge, Lewisham* — final detailed designs and engineering plans for the project around the Taverners Hill stop and Parramatta Road should respect the original fabric and historic significance of the Parramatta Road underbridge, Lewisham and Battle Bridge. Raising the Parramatta Road underbridge should be undertaken in accordance with heritage best practice guidelines; including minimisation of impact to original historic fabric, clear delineation between extant and new fabric and materials and maintenance of existing proportions of the bridge and its relationship to its environment
- *Hawthorne Canal* — final design and engineering plans should respect the original fabric and historic significance of Hawthorne Canal. These plans would be required to inform the extent of potential impacts; however, in accordance with heritage best practice, impacts on the original fabric of the Hawthorne Canal should be avoided or minimised
- *Lewisham Railway Viaducts over Long Cove Creek and Lewisham Sewage Aqueduct* — avoidance of impacts to these items should guide design principles associated with construction of the GreenWay shared path within the rail corridor

- *bridge design* — detailed design and engineering adjacent to the Leichhardt (Charles Street) underbridge, Leichhardt (Marion Street) underbridge and Lilyfield (Catherine Street) overbridge should ensure that impacts to their original fabric are minimised, if not avoided
- *Summer Hill Mills site (former Mungo Scott Mills)* — the siding would be retained and integrated with the project design to ensure that the relationship between the operational mill and the goods line is not lost
- *Street names marked in Cement Paving and Stone Terracing and Steps* — where there may be construction impacts to the signed pavements or stone terracing and steps, protective measures should be implemented. Construction of the new signalised pedestrian crossing should avoid impacting the cement paving on Marion Street
- *excavation works* — any excavation works directly adjacent to, or associated with, the Lewisham Sewage Aqueduct, Lewisham Railway Viaducts, the Pressure Tunnel, Battle Bridge, Hawthorne Canal or the two former flour mills should be undertaken with archaeological supervision. Recording of excavations within the vicinity of these items would be in accordance with heritage best practice and Heritage Branch guidelines to ensure that details regarding significant fabric, works or relics with the ability to provide an insight into the historical construction of such items are not damaged or lost
- *vibration impacts* — to ensure against impacts from vibration on the original fabric of Hawthorne Canal, Lewisham Sewage Aqueduct and the Lewisham Viaducts vibration monitoring would be undertaken during construction in accordance with heritage best practice standards. If measured vibration levels are found to have the potential to cause structural damage, construction equipment and methodologies should be modified so that vibration levels are reduced to safe levels.
- *Lewisham Railway Viaduct over Long Cove Creek and Lewisham Sewage Aqueduct* — consult with Sydney Water to determine appropriate mitigation measures to minimise impacts on these items.

The detailed HMP would be finalised following an assessment of the impacts of detailed design on heritage items in the vicinity of the project.

## 12.5.2 Interpretation strategy framework

The aim of the interpretation strategy is to convey an understanding of the heritage and natural significance of the former Rozelle goods line corridor and the GreenWay to the community. An interpretation strategy framework has been prepared as part of the EA. The details of the strategy would be further developed in consultation with the GreenWay Steering Committee and would be consistent with the Heritage Office publications the *NSW Heritage Manual* (Heritage Office and Department of Urban Affairs & Planning 1996), *Heritage Interpretation Policy (2005)* and *Interpreting Heritage Places and Items Guidelines (2005)*.



### Interpretation strategy objectives

The objectives of the strategy include:

- to create a meaningful interpretation of the goods line, the development of industries along the alignment, and the associated historical urban growth
- to raise public awareness of the historical, natural and community items and values along the GreenWay shared path
- to strengthen and sustain understandings and relationships between the community and the environment, both built and natural

The following principles have been developed to achieve these objectives:

- recognise the historical and technical significance of the disused Rozelle goods line corridor and its role in the development of industries and urban growth, including identifying relevant stories and images that will enhance the understanding for users of the light rail and GreenWay shared path
- highlight the industrial history of the area and identify key historic features through interpretive signage along the GreenWay shared path, for example the Hawthorne Canal and the former Mungo Scott Mills and Waratah Mills
- incorporate community cultural themes through engagement with the local community and community groups to achieve a deeper understanding of the corridor and its cultural heritage and contemporary makeup
- identify the GreenWay as a 'green corridor', highlighting the bushcare program and sites, the potential for wildlife habitat and movement and identifying specific flora and fauna species that may be present within the corridor through interpretive signage using appropriate text and images
- provide the opportunity for awareness and education
- provide the background for the identity of the light rail stops and the historical and local themes along the corridor that contributed to stop names

The interpretation strategy would be finalised in consultation with the GreenWay Steering Committee during detailed design.

Implementation of the strategy would include the development and installation of interpretation signage, information boards and other physical displays along the GreenWay. These would provide GreenWay users and light rail passengers with an account of the history of the corridor and its heritage significance, as well as the cultural and environmental items and themes of note along the GreenWay.