

Intermodal Logistics Centre at Enfield Environmental Assessment

CHAPTER 15

HERITAGE

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15. Heritage

This chapter addresses the Director-General's requirements to assess the heritage impacts of the proposed Intermodal Logistics Centre (ILC). Two heritage reports have been prepared for this purpose, one for Indigenous and one for European Heritage issues. These are located in Appendix H – Heritage.

The site functioned as the former Enfield Marshalling Yards from circa 1916 through to the 1990s. As a result European heritage elements remain. The heritage assessment includes a review of the surviving elements to determine their heritage value. Options for adaptive reuse, relocation or demolition of these elements have been considered in parallel with the design process. The heritage assessments have been conducted in accordance with NSW Department of Environment and Conservation (DEC) guidelines and, as required by the Director-General, in consultation with the NSW Heritage Office and the Metropolitan Local Aboriginal Land Council.

15.1 European Heritage

15.1.1 Introduction

This section summarises the heritage assessments prepared for the EIS by Graham Brooks and Associates. The full assessment can be found in Appendix H – European Heritage Assessment.

The heritage assessment has been prepared in accordance with guidelines outlined in the Australia International Council on Monuments and Sites (ICOMOS) Charter for the Conservation of Places of Cultural Significance, known as the Burra Charter and in accordance with guidelines contained in the NSW Heritage Manual.

15.1.2 Methodology

Heritage Register Search

To determine the heritage significance of items on site Graham Brooks and Associates undertook a review of the Tropman & Tropman Architects heritage report prepared for Strathfield City Council in 1999, as well as the statutory and non statutory heritage registers. The results of the register search are provided in **Table 15-2**.

In NSW there are two types of statutory listings that provide legal protection for heritage items. Legal protection generally comes from the *Heritage Act, 1977* and the *Environmental Planning and Assessment Act, 1979*. A property/structure is a heritage item if it is listed in the heritage schedule of the local council's Local Environmental Plan (LEP) or listed on the State Heritage Register maintained by the NSW Heritage Office.

Government agencies have responsibilities under Section 170 of the NSW *Heritage Act, 1977* which requires agencies to identify, conserve and manage heritage assets owned, occupied or managed by that agency. A Section 170 register is a record of the heritage assets of a government agency. State

significant items identified in a Section 170 register are considered for listing on the State Heritage Register.

The Register of National Estate lists heritage items across Australia as well as those owned or managed by the Commonwealth Government. This list is maintained by the Australian Heritage Council.

The National Trust register was also reviewed. This is a non-statutory register which identifies places which have heritage significance, but does not provide legal protection.

Site History

A site visit was conducted and a review of the site history undertaken based on existing documentation. This was used to build up a picture of the historic Enfield Marshalling Yards landscape and activities undertaken.

Status of Existing Items on Site

The items remaining on site were reviewed and documented. Items include:

- Tarpaulin Factory and Waxing Room Annex;
- Pedestrian Footbridge;
- Pillar Water Tank;
- Transshipment Shed and Wagon Depot Workshop (referred to as Wagon Repair Shed) and Associated Gantry Crane through this chapter;
- Administration Building;
- Yard Master's Office; and
- DELEC Service Centre.

Consideration was given to the potential impacts of the proposal on these items and management options for adaptive reuse, relocation or removal were investigated. The heritage implications of the options on each of the items were considered and a preferred option developed for each item. These items and the management options were considered against Strathfield Council's Heritage requirements and discussed with the NSW Heritage Office.

More than 60 additional structures remain from the marshalling yard activities on the site. These are predominantly small, dilapidated weatherboard structures of no heritage significance. Removal of these structures forms a separate Development Approval (DA No 0304/365) and this removal is being undertaken at present.

15.1.3 Historical Background

The land associated with the proposed ILC site entered commerce when lands were granted to Harriet Carr and James Morris in 1810. Grazing and agriculture was the predominant use until the site was acquired by the railways in 1912 to 1914. By this time the original grants had been subdivided into multiple ownership and some additional land uses were introduced including:

- Enfield Brick Company (1903-1905);
- Poultry farming (1903-1914);
- Timber Merchant/lumber yard (1904-1910);
- Bus yard (1908-1913);
- Night soil depot; and
- Market garden.

The site was first developed as the former Enfield Marshalling Yards in 1916. The term marshalling yard is used to describe a large set of sidings that are used to put together wagons going to the same destination on one train. The development of the yard appears to have been undertaken in three stages.

Table 15-1 provides details of infrastructure creation on the site.

Table 15-1: Stages of the Creation of Infrastructure on the former Enfield Marshalling Yards

Basic Infrastructure	Date	Present Status
First Stage		
Yard Signal Boxes (Enfield North signal box and Enfield South signal box)	1916	Demolished
Roundhouses to turn steam locomotives (2)	1916	Demolished
Yard Master's Office	1916	Surviving
Second Stage		
Turntable	n.d	Demolished
Tarpaulin Factory and annexes	1924	Surviving
Transshipment Shed and carriage and wagon depot also known as 'Wagon Repair Shed'	Circa 1920	Administration area partially demolished, shed surviving
Wagon Repair Shop	Circa 1927	Demolished
Replacement of original Pedestrian Footbridge	Circa 1937	Surviving
Administration Building	1946	Surviving
20 tonne gantry crane (associated with Wagon Repair Shed)	1949	Surviving
Concrete Pillar Water Tank	Before 1951	Surviving
Third Stage		
Roundhouse for Garratt heavy locomotives	1952	Demolished
DELEC (diesel and electric locomotive) Service Centre	1957	Surviving and operational

15.1.4 Site Elements

This section provides a description of items and elements remaining on site, with an assessment in terms of their heritage significance. The former Enfield Marshalling Yard landscape has also been assessed for its heritage significance. **Table 15-2** lists the items assessed as part of the European heritage assessment and their status in terms of local and state heritage policies and/or registers. The location of these items is shown in **Figure 15-1**.



Table 15-2: Heritage Items and their Heritage Status

Item/ Element	State Heritage Register	Strathfield Planning Scheme Ordinance	Strathfield Draft LEP 2003*	Strathfield Council Heritage Study (Tropman & Tropman Report, 1999)	State Rail s170 Register	Register of National Trust	Register of National Estate	GBA Assessment of Significance
Enfield Marshalling Yards Landscape	No	No	No	Yes	No - deleted on ownership transfer	No	No	No significance
Tarpaulin Factory and waxing room annex	No	No	No	Yes	No - deleted in ownership transfer	No	No	State
Pedestrian Footbridge (workmen's footbridge)	No	No	No	Yes	No	No	No	Local
Pillar Water Tank	No	No	No	Yes as an element within the industrial landscape	No	No	No	State
Wagon Repair Shed and associated Gantry Crane	No	No	No	Yes as an element within the industrial landscape	No	No	No	Local
Administration Building	No	No	No	Yes	No	No	No	No significance
Yard Master's Office (traffic office)	No	No	No	Yes	No	No	No	Local significance due to fabric losses
DELEC Service Centre	No	No	No	No	No	No	No	No significance
Strathfield North Signal Box	No	No	No	Yes	No	No	No	Demolished circa 1998
Strathfield South Signal Box	No	No	No	Yes	No	No	No	Demolished circa 1998

* The former Enfield Marshalling Yards is a deferred matter under the Draft Strathfield Council LEP 2003

Enfield Marshalling Yards Landscape

The landscape of the former Enfield Marshalling Yards is included as a discrete heritage item in the Tropman and Tropman heritage report (1999). Following decommissioning of the former Enfield Marshalling Yards, the infrastructure was removed and spoil stockpiling meant that the vistas and level topography required of a marshalling yard were lost. The self-seeding of vegetation on these mounds has further reduced visibility. **Figures 15-2 and 15-3** highlight the change that has occurred to the Enfield Marshalling Yard landscape since decommissioning. Although there are a small number of isolated buildings surviving in this disrupted landscape, they no longer have a contextual setting. As a result the heritage assessment considers that viewed holistically the former Enfield Marshalling Yards can no longer communicate any degree of railway heritage significance. Consequently it is considered to have no heritage value.

Tarpaulin Factory

The Enfield ‘Tarpaulin Factory’ is considered to be an assemblage of two 19th century prefabricated cast and wrought iron single bay buildings that were once in the Sydney Yard (now Central Station). The structure was reassembled as two bays to form a Tarpaulin Factory in the former Enfield Marshalling Yards as shown in **Figure 15-4**. Tarpaulins made in this shed had a variety of uses including cover for the loaded wagons, tool covers, leggings and other railway-related items. The inner spans are of considerable width and would have allowed for the workers to lay out the cloth for cutting, sewing and insertion of grommets and attaching ropes. The spans are formed from Howe-type trusses and rest on a wall of cast iron columns bridged by wrought iron latticed beams. The fabricated cast iron columns were supplied by Pope Maher and German, Darlington Ironworks.

The Tarpaulin Factory also includes a combination of structures to the north of the iron building. The annex to the Tarpaulin Factory, called the waxing room annex, was the area where wax was melted for application to the cloth, an operation that would have been hazardous and very susceptible to fire. This element was moved from the Sydney Yard where in 1920 it served as a ‘Fireproof Tarpaulin Store’. The Tarpaulin Factory operated from 1925 until 1991 when the staff had dwindled to 15 from the wartime high of 81 employees. Since closure the factory has been subject to vandalism. Although most elements of the operation, such as timber flooring, equipment and tarpaulins have been lost, the history of site operations has been well documented (Godden Mackay, 1991). The study preserves the factory methods of working, images, canvas patterns and an interview with a life-long employee of the factory. The Tarpaulin Factory was a unique operation amongst the NSW Government Railways infrastructure. The annex has some heritage significance through its association with the factory but low significance without this association.

The Tarpaulin Factory is not listed on any statutory heritage registers, although it was assessed as part of the Tropman and Tropman Report (1999). Based on the heritage assessment, the item is considered to be of State significance. The Fireproof Tarpaulin Store has no unique features but is also considered to be of State significance because of its association with the Tarpaulin Factory. The additional amenities annexes are derelict structures that detract from the importance of the factory.



Figure 15-2
 Former Enfield Marshalling Yard from the
 South East when it was in Operation



Figure 15-3
 Former Enfield Marshalling Yard from
 the South East (June 2005)

Pedestrian Footbridge

The Pedestrian Footbridge was constructed in 1937 to replace a previous footbridge. It is a steel Warren Truss structure with a reinforced concrete deck resting on two sets of braced pylons. It is currently in poor condition with significant corrosion evident at the joins and concrete spalling. Earlier reports suggest that the footbridge was originally 120m long and has since been reduced to 80m. **Figure 15-5** shows its current form.

The height of the footbridge is considered an important feature as it is tall enough to have cross-bracing above the deck. A survey of railway footbridges conducted by Don Fraser in 1996 noted that while there are 248 footbridges on the rail network, only three are ‘through’ Warren Truss types such as this. This places the Enfield footbridge into the ‘rare’ group.

The Pedestrian Footbridge is not listed on any statutory heritage registers, although it was assessed as part of the Tropman and Tropman report (1999). As it is one of only three surviving examples Enfield Pedestrian Footbridge was considered by the heritage assessment to be of local significance. The footbridge cannot communicate its significance to a potential audience in this setting as it is isolated in the former Enfield Marshalling Yards, stripped of its sidings and ancillary buildings.

Pillar Water Tank

The Pillar Water Tank appeared on the proposed ILC site in 1918 to provide a watering station for steam powered locomotives. It comprises a cylindrical concrete tank and various concrete mouldings, mounted on top of a reinforced concrete pillar. A swivelling jib completed the assembly. The dimensions of water tanks were typically nine feet in diameter, 28 feet high with capacity to hold 4,000 gallons of water. Research undertaken by Ray Love has identified that this is the only concrete pillar tank surviving from the NSW Government Railway system.

The water is fed through the column of the tank and extracted via ‘the bag’, a canvas tube fixed to the tank to carry the water to the locomotive. The bag is now missing. The tank has a PVC overflow device attached, indicating that it continued to be used after the 1973 disappearance of steam power from the network. **Figure 15-6** shows the Pillar Water Tank in its current form. The column, tank and base suffer from spalling due to corrosion of the reinforced steel.

Very little is known about the design and origin of this form of tank within the railway system. It displays particular engineering significance as an early 1900s design using moulds, steel reinforcing mesh and a modular design assembled on site. The Pillar Water Tank is not listed on any statutory heritage registers, although it was assessed as part of the Tropman and Tropman report (1999). As a sole representative of the unique concrete form, the tank was considered by the heritage assessment to be of State significance.



Figure 15-4
Tarpaulin Factory



Figure 15-5
Pedestrian Footbridge

Wagon Repair Shed and Associated Gantry Crane

The 'Wagon Repair Shed' originated as a transshipment shed which was later modified to become a wagon repair workshop. It is not listed on any statutory heritage registers, although it was assessed as part of the Tropman and Tropman report (1999). The transshipment shed appeared on the ILC site in the 1920s. This structure is a 90 metre long timber shed originally used for sheltering goods to be transferred by hand or by gantry crane from one train to another. It was later extended or/and adapted for use as a workshop used for repairing goods wagons which would include carpentry, painting, metals work and 'bogie work'¹.

The Wagon Repair Shed is a braced frame construction comprising horizontal timbers bolted to hardwood posts that extend for the full height of the frame. The east side of the building is open, the west side enclosed and the roof enclosed with fibrous cement corrugated sheeting. A group of brick buildings, now in ruins, lies to the south west of the shed and may have supplied administrative support and specialised trades for the later workshop activities, most likely these buildings were added on later. An electric-powered gantry crane was also added at a later date. This is shown in **Figure 15-7**.

A building inspection conducted in 2001 identified significant termite damage in 25 of the 62 timber supports. The building is not technically innovative and the structure has been stripped of devices used within the building. In its current setting the building has diminished ability to communicate its significance due to the limited access to the site, its condition, loss of original tools, equipment and context. As a consequence, the heritage significance of the structure is considered as part of the heritage assessment to be of marginal local significance. The external gantry crane is a commonplace sight in supply yards, coastal wharfs and transshipment points throughout the Sydney region. As such the crane is considered to have low heritage significance as a singular object and has only local significance through its association with the Wagon Repair Shed.

Administration Building

This building was designed in 1945 and constructed soon after. Shown in **Figure 15-8**, the building was designed to provide offices for railway administration and consists of two levels of office accommodation, toilets, staff canteen area and a panoramic office to the northern end of the building on the upper level. The building is formed of multicoloured bricks and metal casement windows. Undocumented former employee interviews suggest that the Administration Building replaced the Yard Master's Office as the centre for the Enfield Marshalling Yards. The Administration Building is designed in a 20th century modernist style influenced by the Dutch architect William Dudok (1884-1974). This style was very popular in Australia, with many examples of this form of architecture in Sydney. Air conditioning has been retro-fitted onto the building and since the closure of the yards, the building has been subject to some vandalism.

¹ A bogie is a British railway term for a wheeled truck or frame under a carriage or engine that moves to allow a wagon to travel around a curved track.



Figure 15-6
Pillar Water Tank



Figure 15-7
Wagon Repair Shed and Associated Gantry Crane

In assessing the building's significance, it was acknowledged that although its setting in the abandoned former Enfield Marshalling Yards gives the building immediate prestige, it is not considered to be a structure possessing important architectural significance when compared to other buildings of that style. It is not present on any statutory heritage registers although it is assessed as part of the Tropman and Tropman report (1999). The Administration Building is considered by the heritage assessment to have no heritage significance.

Yard Master's Office

The Yard Master's Office, constructed around 1916, was used by the Yard Master and his employees to track wagons and ensure they were sealed properly. The Yard Master held a highly responsible position.

The Yard Master's Office is a two-storey brick building with a gabled fibrous cement tile roof. There are four rooms on each floor with a fireplace in each. The original plan has been altered since its construction. Plans of the building show the rooms to be occupied by different personnel including the timekeeper, shunters, foreman, guard, clerk and Yard Master and assistant.

The structure was fitted with a rooftop observation platform some time before 1967 that was reached via a surviving internal timber staircase. The observation platform, the clock, chimneypieces, mantels and surrounds were removed in the late 20th century. The building was radically altered by these changes, as well as by re-roofing with tiles.

The Yard Master's Office was also surrounded by a partially enclosed verandah and balcony at each level. This has since been removed and a number of the windows and verandah doors have been bricked in and new doorways fashioned in the interiors. The change to the Yard Master's office is shown in **Figure 15-9**.

The Yard Master's Office is not present on any statutory heritage registers, but is assessed as part of the Tropman and Tropman report (1999). Previous studies identified that the Yard Master's Office is the only surviving example in the former rail network. Its rail heritage significance, however, has been reduced by extensive alterations, including the removal of communication devices (telephones and telegraph) and encircling verandahs.

As a consequence of continued alterations to the form and substance of the building, the loss of fabric and the deterioration of the setting, it has been concluded that the building's ability to communicate its importance has been lost. Therefore, the Yard Master's Office is considered by the heritage assessment to have only local significance.



Figure 15-8
Administration Building



Figure 15-9
Yard Master's Office in 1964 and 2005

DELEC Service Centre

The Service Centre and associated structures was established in 1957 and remains operational today. The DELEC facilities, currently leased to Pacific National, provide rail operations. As such, tools and equipment are replaced as they become obsolete and consequently items like the original wheel lathe have been discarded and replaced. The DELEC Service Centre and associated facilities are therefore considered by the heritage assessment to have no heritage implications.

15.1.5 Assessment of Impacts During Construction

The management options for each of the items on-site, to include re-use, relocation or removal, were considered during ILC design. The outcome is provided in **Table 15-3**. As relocation of heritage items is considered to have an impact on their significance, a review against the NSW Heritage Office Impact Criteria was conducted to assess the recommended resiting of items which could not be retained as part of the ILC design. An engineering assessment prepared by Hyder Consulting (2005) which provides details on some of the items' physical condition was also used when developing management options.

The following items would be retained and re-used on site:

- **The Tarpaulin Factory.** This would be retained in its current location;
- **Pedestrian Footbridge.** The ILC design incorporates a scheme to relocate part of the footbridge to a site within the ILC away from trafficable areas. The remainder could be offered to an external rail heritage organisation; and
- **The Pillar Water Tank.** This would be removed, stabilised and resited to an area away from site traffic where it could be visible to a wider audience.

As the Tarpaulin Factory is to be retained in its current location it would be stabilised to prevent further deterioration while determining the options for future use. The Pedestrian Footbridge and Pillar Water Tank would be dismantled and repaired by a suitably qualified specialist. Items, which could not be relocated immediately, would be stored in an appropriate manner to ensure no damage occurs during the construction stage. These items would be relocated once construction is complete. If during detailed design it is clear that retention of these items on site is incompatible with the ILC design, they could be offered to an external rail heritage organisation.

The following items would be removed from the site and offered to an external rail heritage organisation:

- **The Wagon Repair Shed and Associated Gantry Crane.** The extensive termite damage has rendered this structure unstable. All or part of it could be given to an external rail heritage organisation. If the shed is not relocated to a rail heritage organisation and is required to be dismantled, there is also the potential for elements of it to be recycled and used on site for amenities; and
- **Pedestrian Footbridge.** If during detailed design there is no scope for retention of part of this item on site, it could be offered to an external rail heritage organisation.

Negotiations would be undertaken with interested rail heritage organisations and these items would be removed from site under the guidance of rail heritage specialists and transported to a new location.

The following items are to be dismantled and removed from site.

- **Yard Master's Office.** This item is not a candidate for reuse or relocation;
- **Administration Building.** This item is not a candidate for reuse or relocation; and
- **DELEC Service Centre.** These facilities are currently operational and would be dismantled once operations have ceased.

A photographic record and brief report would be prepared for each item to be demolished. This would be undertaken by a suitably qualified heritage specialist and would include a brief history, sketch plans, and measurements to accompany the photographs. The recording report for these items would be lodged with the Local Studies Collection of Strathfield Public Library. The Enfield Marshalling Yard Landscape no longer exists on site; therefore, no reporting of this element is required.

15.1.6 Assessment of Impacts During Operation

The future use for the Tarpaulin Factory is undecided. Options for its future use would be developed and discussed in consultation with the local community. Its usage would be subject to a separate development application. Providing the Tarpaulin Factory is managed in a sympathetic fashion there should not be any negative impacts on heritage. If no viable use for the Tarpaulin Factory is identified, it may be recorded and relocated to a heritage organisation.

The two items that may be retained on-site in a new location are the Pillar Water Tank and part of the Pedestrian Footbridge. These items could be relocated to an on-site position that would increase their audience. Providing adequate protection is available to prevent damage from moving vehicles, there should not be any negative impacts during operation.

Table 15-3: Management options for Heritage Items and impacts

Item	Adaptive reuse	Relocation	Removal	Preferred Option
Enfield Marshalling Yards Landscape	NA	NA	NA	This element no longer exists
Tarpaulin Factory and waxing room annex	There are opportunities for reuse either with or without selective demolition to include lease for storage, as a museum, community facilities or a council depot	There is an option to allow continued use of this facility off-site and to increase the audience, although there may be some loss of context	Not preferred as it is of State significance	Retention and adaptive reuse on site. Viability of options would require further development with input from the Heritage Office and the local community. Alternatively relocate to heritage organisation
Pedestrian Footbridge (workmen's footbridge)	No options for reuse in its current location	Potential for relocation of part of the bridge on site and all or part to external heritage organisations	Not an option. Potential for use of elements on site and external heritage organisations have expressed interest	Reuse of part on site if practical with relocation of remainder or if not all of it to heritage organisation
Pillar Water Tank	No option for operational re-use at the ILC	Potential for stabilisation and relocation on-site or off-site	Not preferred as it is of State significance and external heritage organisations have expressed interest	Disassembly, restoration and relocation on site. Alternatively relocation to off-site heritage organisation
Wagon Repair Shed and associated gantry crane	No on-site reuse options for the shed or gantry crane	Potential for relocation of the gantry crane and shed to an external rail heritage organisation	This is an option, however, roof timbers could be recycled to create amenities on site	Disassemble and reuse roof timbers on site and relocate parts to external heritage organisations if there is interest
Administration Building	No viable options for reuse at the ILC	Relocation of a brick building is not a feasible option	Demolition is an option after recording the building	Due to the lack of reuse options within the proposed ILC demolition is recommended. A recording report is recommended
Yard Master's Office (traffic office)	No viable options for reuse at the ILC	Would require considerable skill, and would provide no real value for rail heritage	This is an option, however, photographic recording would be required	This item has been subject to significant fabric losses. Due to lack of reuse options within the proposed ILC record and demolish
DELEC Service Centre	NA	NA	NA	The wheel lathe is to remain operational. The remaining area is of no heritage significance. Record and demolish

15.1.7 Management and Mitigation Measures

Specific management and mitigation measures for individual items include:

- **Tarpaulin Factory** – reuse options to be designed with input from the NSW Heritage Office and the local community;
- **Pedestrian Footbridge** – reuse options for a section of the 80m long Pedestrian Footbridge within the Community and Ecological Area should be investigated to increase its heritage audience;
- **Pillar Water Tank** – the lifting points on the tank are lost. A cradle and support structure would be required for lifting and transport. Relocation options to consider situating in areas where the item would be visible to an audience, including options on the entrance roundabout;
- **Wagon Repair Shed and Associated Gantry Crane** – the item should be dismantled and salvageable structures of significance should be removed and used where possible on the site, or offered to an external heritage organisation. There is an opportunity to reuse the wooden planks from the roof on site to create amenities such as picnic tables and benches;
- **Administration Building** – although this item is considered to be of no heritage significance photographic records and a report should be prepared prior to demolition;
- **Yard Master's Office** – this item has been subject to significant fabric losses which have diminished its heritage value. There are no opportunities for adaptive reuse within the proposed ILC, therefore photographic records and a report should be prepared and the building demolished; and
- **DELEC Service Centre** – although this item is considered to be of no heritage significance, photographic records and reporting should be undertaken prior to removal.

15.1.8 Conclusions

The findings of the heritage assessment are outlined in **Table 15-4**. The massive scale and extent of demolitions at the former Enfield Marshalling Yard site have removed the essential elements that characterise the qualities of a railway marshalling yard. As a result the landscape can no longer communicate any degree of railway heritage significance. The proposal to develop the site as an Intermodal Logistics Centre also presents an additional loss of context.

The heritage assessment indicates that there are two items of State significance (Tarpaulin Factory and Pillar Water Tank) and three items of local significance (Pedestrian Footbridge, Wagon Repair Shed and Yard Master's Office) on the former Enfield Marshalling Yards. Options have been developed for the two items of State significance, to be retained on the ILC site where they will be subject to ongoing maintenance. This provides an opportunity to preserve their values for future audiences. The items of local significance which can be relocated, the Pedestrian Footbridge and gantry crane associated with the Wagon Repair Shed, would be offered to a railway heritage organisation. There may be an opportunity for use of part of the Pedestrian Footbridge on site. The Wagon Repair Shed would also be offered to a heritage organisation.

Table 15-4: Summary of Heritage Findings

Item	(Statutory) Heritage Listing	Significance	Recommendation	Alternative
Enfield Marshalling Yards Landscape	None	No longer exists	This element no longer exists	NA
Tarpaulin Factory and waxing room annex	None	State	Retain and adaptively re-use	Offer to external heritage organisation
Pedestrian Footbridge (workmen's footbridge)	None	Local	Retain part of the footbridge and relocate on site, relocate remainder to heritage organisation	Offer complete item to external heritage organisation
Pillar Water Tank	None	State	Disassemble, stabilise, retain and relocate on site	Offer to external heritage organisation
Wagon Repair Shed and associated gantry crane	None	Local	Relocate to heritage organisation. If no interest record and dismantle, recycle items where possible on site	Record and demolish
Administration Building	None	None	Record and demolish	NA
Yard Master's Office (traffic office)	None	Local	Record and demolish	NA
DELEC Service Centre	None	None	Record and demolish	NA
Strathfield North Signal Box	None	No longer exists	No longer present on site	NA
Strathfield South Signal Box	None	No longer exists	No longer present on site	NA

15.2 Indigenous Heritage

15.2.1 Introduction and Methodology

This section provides a summary of the indigenous heritage assessment prepared for the site by Navin Officer Heritage Consultants. The full assessment for indigenous heritage can be found in Appendix H – Indigenous Heritage. The scope of the assessment is as follows:

- To review available information sources in relation to indigenous heritage;
- To assess the likelihood of the study area containing indigenous heritage sites or potential archaeological deposits; and
- To undertake a search of the Department of Environment and Conservation (DEC) Aboriginal Heritage Information Management System.

This study was based on extensive studies undertaken on the site in 2001 and field notes taken at that time. The aim of the exercise was to assess the likely indigenous heritage resources remaining within the study area. Three approaches were used to build up a picture of the Aboriginal use and historical activities. Firstly, a review of the history of the site since European settlement was undertaken to understand the range of places and activities that may be represented archaeologically in the study area. Secondly, through a review of extant historic structures to determine the likelihood that activities would result in archaeological deposits forming. Thirdly, analysis of the level of surface and subsurface disturbance was undertaken to determine if and where intact deposits might remain. This information was then used to map areas of potential for archaeological deposits.

Environmental Context

The entire landscape of the study area has been totally modified by human intervention at some point after European settlement in NSW. Most of the disturbance occurred during the initial construction and subsequent redevelopment of the former Enfield Marshalling Yards. Intrusive ground investigations conducted on the site for geological and geotechnical studies identified no topsoil remains on site, either at the current surface or sealed beneath the fill.

Archaeological Context

Prior to European settlement Aboriginal people are likely to have used the site both for resource exploitation and for camping. However, no Aboriginal sites or artefacts were noted and no Potential Archaeological Deposits were identified during desk studies or previous field investigations. All land on the site including areas along the creek has been subject to disturbance. As a result any Aboriginal sites which once existed will have been destroyed by past land use activity.

No Aboriginal consultation was conducted during field surveys as the area contained no known Aboriginal sites and the past land use effects of the longstanding industrial development on the site mean that any evidence of pre-contact Aboriginal occupation will have been removed. The Metropolitan Local Aboriginal Land Council (MLALC) has been contacted as part of the preparation of this EIS and they have indicated no concerns about the project.

15.2.2 Assessment of Impacts During Construction

Since no sites of Aboriginal heritage significance or areas of potential Aboriginal deposits have been located, impacts during the construction stage are considered unlikely.

15.2.3 Assessment of Impacts During Operation

No impacts are envisaged during the operation stage.

15.2.4 Mitigation Measures

No impacts or mitigation measures are required during construction or operation of the proposed ILC. It is an offence, however, to knowingly disturb an Aboriginal object (site) without an appropriate permit or consent. In the unlikely event that items of Aboriginal heritage significance are uncovered during construction, works must cease and advice should be sought from DEC.

15.2.5 Conclusions

The site has been extensively disturbed through its use as the former Enfield Marshalling Yards, and no natural soils are thought to remain on the site. As a result there are no heritage constraints for development of the site and no further indigenous heritage assessments for the site would be required as part of the detailed design.