



**Adaptive Reuse of the Former Tarpaulin Factory
Intermodal Logistics Centre
127 Cosgrove Road
South Strathfield, NSW**

HERITAGE IMPACT STATEMENT

August 2016

Conybeare Morrison International Pty Ltd
52-58 William Street
East Sydney NSW 2011
T: 8244 8888

15.078



Adaptive Reuse of the Former Tarpaulin Factory
Intermodal Logistics Centre
127 Cosgrove Road, South Strathfield, NSW

HERITAGE IMPACT STATEMENT

August 2016

Conybeare Morrison International Pty Ltd
52-58 William Street
East Sydney NSW 2011
T: 8244 8888

15.078

Rev	Date	Description	By	Chk	App
A	23.03.16	Draft Final	AT	AT	
B	30.05.16	Incorporation of NSW Ports' comments	AT	AT	
C	06.08.16	Incorporation of NSW Ports' comments	AT	AT	

CONTENTS

1.0	INTRODUCTION	1
1.1	Purpose	1
1.2	Location of the Site	1
1.3	Methodology	3
1.4	Sources	3
1.5	Heritage Conservation Terminology	3
2.0	HISTORICAL CONTEXT	5
2.1	European History – Enfield Marshalling Yards	5
2.2	Tarpaulin Factory	6
3.0	PHYSICAL DESCRIPTION	8
3.1	Former Tarpaulin Factory – Main Buildings	8
3.2	Interiors	10
3.3	Waxing Annex	12
4.0	HERITAGE CONSIDERATIONS	13
4.1	Heritage Listing	13
4.2	Heritage Assessment of the Site	13
4.3	Assessment of Heritage Significance	14
4.3.1	Criteria evaluation	
4.3.2	Application of the NSW State Heritage Criteria	
4.4	Statement of Significance	17
4.5	Grading of Significance	17
4.6	Significance of Elements in the former Tarpaulin Factory	18
4.7	Project Application for the Enfield Intermodal Logistics Centre	20
5.0	HERITAGE IMPACT ASSESSMENT	
5.1	The Proposed Development	22
5.2	Assessment of Heritage Impacts – Overall	24
5.3	Assessment of Heritage Impacts – Specific Items	25
6.0	RECOMMENDATIONS	28
6.1	Heritage Framework	28
6.2	Summary Heritage Assessment of the Proposed Works	28
6.3	Recommendations	28

This page is left blank intentionally

HERITAGE IMPACT STATEMENT FOR ADAPTIVE REUSE OF THE FORMER TARPAULIN FACTORY INTERMODAL LOGISTICS CENTRE, ENFIELD, NSW

1.0 INTRODUCTION

1.1 Purpose

This Heritage Impact Statement has been prepared by Conybeare Morrison International to accompany a Development Application for the adaptive reuse of the former Tarpaulin Factory at the Intermodal Logistics Centre, 127 Cosgrove Road, South Strathfield.

The former Tarpaulin Factory is to be used for the purpose of a Garden Centre for the retail of plants, goods for and associated with gardening, pet goods, pool equipment, with associated administrative and amenity facilities.

Architectural drawings accompanying this Development Application, prepared by BN Architects, comprise:

- A06.01–DA-P4: Proposed Plan
- A06.03–DA-P3: Roof Plan
- A10.01–DA-P2: Elevations
- A10.02–DA-P2: West Elevation
- A10.03–DA-P2: East Elevation – Cosgrove Road
- A10.04–DA-P2: North and South Elevations
- A11.01–DA-P3: Site Sections

1.2 Location of the Site

The site is part of the Intermodal Logistics Centre (ILC), Enfield, approved for its use in 2006/7.

The ILC site comprises an area of approximately 60 hectares and is approximately 500m (0.5km) wide and 2km long. The site extends from the:

- intersection of the Hume Highway and Roberts Road – at the northern end to
- intersection of Punchbowl Road and Cosgrove Road – to the south.

(Figures 1 and 2)

The site is owned by Sydney Ports Corporation and was formerly known as the Enfield Marshalling Yard. The site is managed by NSW Ports under a 99 year lease from the NSW Government. Sydney Ports is no longer the owner of the site. The new owner of the Enfield ILC is Port Botany Lessor Pty Ltd.

The site is within the Strathfield local government area.

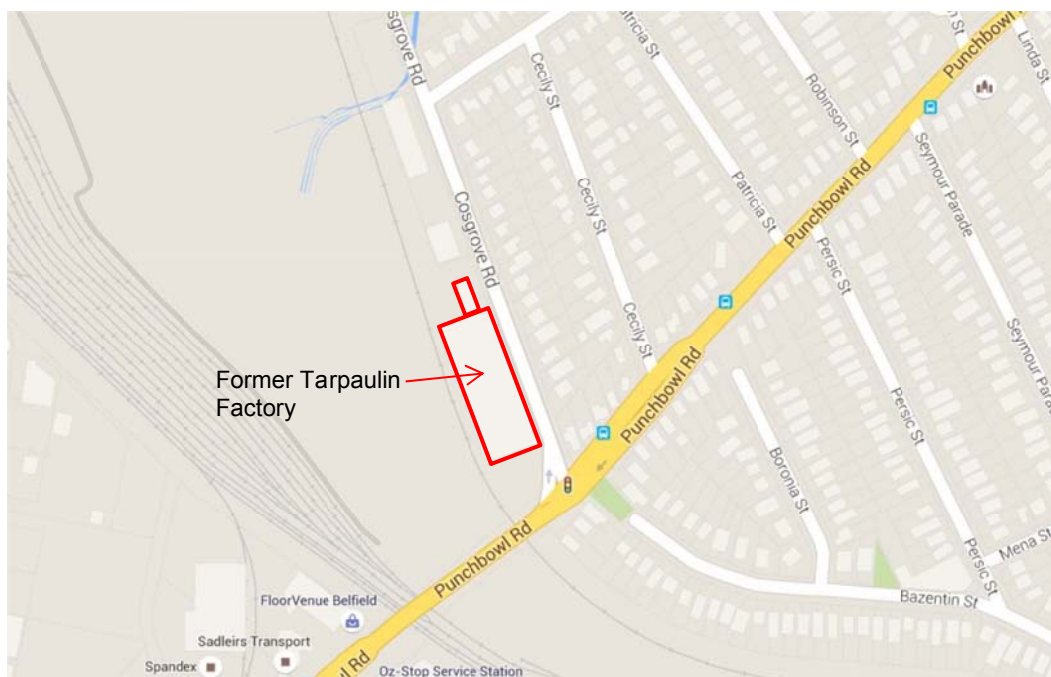


Figure 1: Location plan

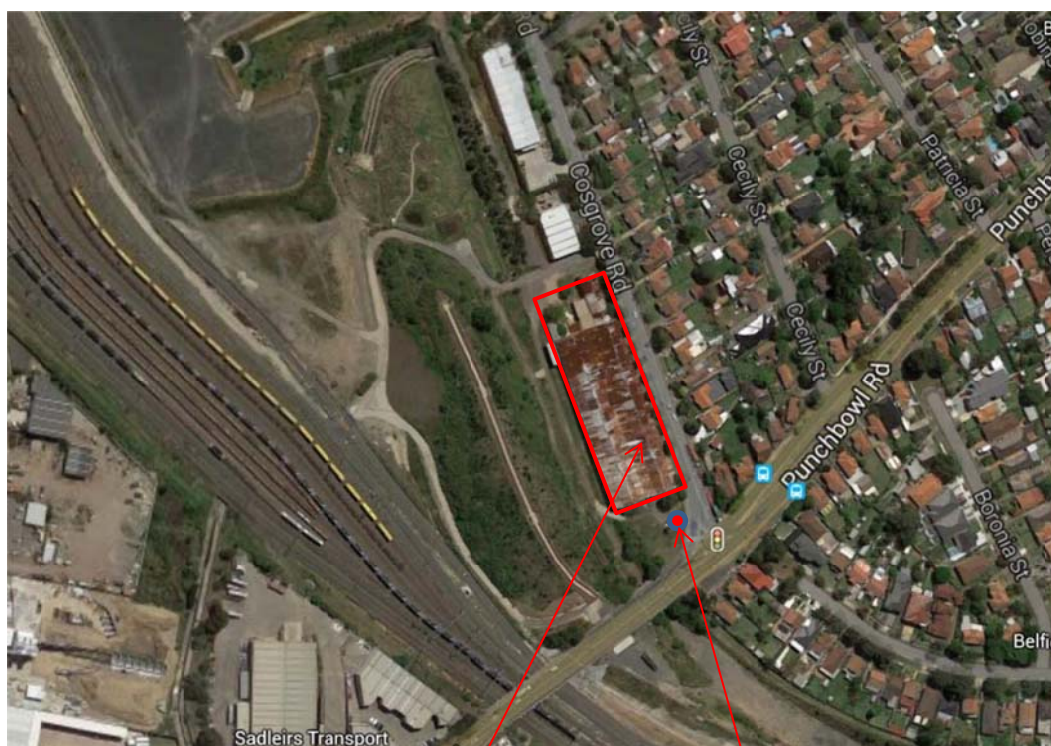


Figure 2: Aerial layout

Tarpaulin Factory

Pillar Water Tank
(approximate location)

1.3 Methodology

The methodology used is in accordance with the principles and definitions set out in the guidelines to include:

- *Australian ICOMOS Charter for the Conservation of Places of Cultural Significance* – the Burra Charter;
- *Australia Natural Heritage Charter for the Conservation of Places of Natural Heritage Significance* (2nd Edition, 2002);
- *The Conservation Plan* – J.S. Kerr;
- *Assessing Heritage Significance*, NSW Heritage Manual – NSW Heritage Office.

1.4 Sources

Historical research is based on the secondary source of:

- Graham Brooks and Associates, *Proposed Intermodal Logistics Centre, Enfield: Assessment of Heritage Impact*, June 2005, and its background reference documents of:
 - Godden Mackay, *Enfield Tarpaulin Factory History, Operations and Building Fabric*, State Rail Authority (1991), Sydney Ports;
 - Frank Johnson, *A Short History of the Tarpaulin Factory at Enfield*, ARHS Bulletin, September 1999.
- Navin Officer Heritage Consultants, *Intermodal Logistics Centre at Enfield: Indigenous Heritage Assessment*, June 2005.

1.5 Heritage Conservation Terminology

The following terms used in this report are derived from definitions in the *Australia ICOMOS Burra Charter*, the *Australian Natural Heritage Charter* (2002) and the NSW Heritage Council guidelines.

- **Natural significance** means the importance of ecosystems, biodiversity and geodiversity for their existence value for present and future generations, in terms of their scientific, social, aesthetic and life support value.
- **Cultural significance** means aesthetic, cultural, historic, scientific or social value for past, present or future generations.
- **Indigenous significance** refers to indigenous heritage value and includes Aboriginal sites showing evidence of Aboriginal occupation and Aboriginal places which are of contemporary or spiritual importance according to Aboriginal culture or custom.
- **Fabric** means all the physical material of the place.
- **Built environment** means the collection of man-made structures and surfaces in the place.
- **Conservation** means all the processes of looking after a place so as to retain its *Natural, Indigenous and Cultural significance*. It includes protection, maintenance and monitoring. According to circumstance, it may involve *preservation, restoration, reconstruction, reinstatement* or *adaption*, and will be commonly a combination of more than one of these. For indigenous communities, it can include conserving relationships between people and places that embrace spiritual as well as historical values, and protecting Aboriginal Sites in order to protect their significance to people.
- **Preservation** means maintaining the *fabric* of a place in its existing state and retarding deterioration.

- **Maintenance** means upkeep of fabric and places to the standards required by the *NSW Heritage Act 1977*, and does not involve restoration, reconstruction or reinstatement.
- **Restoration** means returning the existing fabric, habitat or place to a known earlier state or to an approximation of the natural condition by repairing degradation, removing accretions or introduced species, or by reassembling existing components without the introduction of new material.
- **Reinstatement or reintroduction** means to introduce to a place one or more species or elements of habitat or geodiversity that are known to have existed there naturally at a previous time, but that can no longer be found at that place.
- **Adaption** means modifying a place to suit proposed compatible uses.
- **Compatible use** means a use that involves no change to the significant fabric or attributes, changes, which are substantially reversible, or changes which require minimal impact.

2.0 HISTORICAL CONTEXT

2.1 Indigenous/ Aboriginal History

Prior to European settlement, the Aboriginal people are likely to have used this site for resource, exploitation (hunting, gathering and travelling) and settlement (camping), as the area is relatively well watered, with three small creeks running through it. One of these, Coxs Creek, is a named tributary of the Cooks River, which carries seasonal large flows.

Additionally, the overall Intermodal Logistic Centre site is well elevated, providing a clear vantage point of the Sydney skyline.

Examination of the site in 2004-2005 revealed no Aboriginal sites of artefacts and identified no Potential Archaeological Deposits.

2.2 European History – Enfield Marshalling Yards

The Intermodal Logistic Centre site was originally land grants made to William Roberts, Harriet Carr (1810) and James Morris (1810) in the early decades of the 19th century. The area was used for agricultural practices, with a good portion of the land covered by timber. This changed with the opening of a new rail link to Parramatta, in 1855, spurred social and economic expansion along the rail line.

The area was also used for brickworks, with the Enfield Brick Company located within the area, from 1903-05.

Enfield Council set aside a large part of the former Enfield Marshalling Yards as “Enfield Park”. Enfield Park was acquired by the Chief Commissioner of Railways and Tramways, NSW between 1912 and 1914, and developed as the Enfield Marshalling Yards in 1916 as a steam locomotive depot and shunting yard for goods wagons, following the NSW State Government’s resumption of the site of Enfield Park. The creation of a new marshalling yard was the result of a wartime expansion of railway building that commenced in 1914. The Yard was the location of the sixth of a series of Locomotive Depots (1-38 Locomotive Depot) that began with the Sydney Yard (approximate location of Central Station).

By 1917, the Enfield Marshalling Yards comprised a series of transfer and shunting sidings, two roundhouses, the Enfield Locomotive Depot and the Yard Master’s Office. At this time, part of the site on the eastern side appears to be used as grazing land and the two creeks at the north-eastern end of the site retaining its natural form, with only Coxs Creek to the south canalised. The site was surrounded by large open areas, with a slight gradient from north to south, which assisted in the shunting process from uncoupling to replacement in sidings.

Buildings erected on the Enfield Marshalling Yards, built by the mid-1920s include the Tarpaulin Factory (at the south-eastern corner of the site) and the Wagon Repair Shed (located at the centre of the site).

The site functioned as the former Enfield Marshalling Yards from c. 1916 until the early 1970s. The former Enfield Marshalling Yards were under the control of the State Rail Authority of NSW until 1996 when several parcels were transferred to Rail Estate and Rail Infrastructure Corporation, with the balance of the site remaining with the State Rail Authority of NSW.

The technology of locomotives changed the use of the site. The transition from steam to diesel-electric power marked the establishment of the Diesel Electric Locomotive Service Centre (DELEC) on the north-eastern part of the site in 1957. The introduction of

containerisation also caused change to the site, with part of the site used as a container depot with the remainder used to store and distribute containerised freight.

In the early 1990s, the Rail Authority proposed an Intermodal terminal at Enfield, which eventually shifted to a site in Chullora.

In 2005, Sydney Ports Corporation proposed a 300,000 twenty foot equivalent unit (TEU) container terminal at this site. This development was known as 'Port Enfield'. The proposal comprised development of the site into a rail and freight centre, to be known as the Intermodal Logistic Centre. The proposal for its use was approved in September 2007 under the *Environmental Planning and Assessment Act 1979* former Part 3A Major Projects process. NSW Ports have been the new custodians of the ILC site since May 2013 under a 99 year lease.

The scale and extent of demolition at the former Enfield Marshalling Yard have removed the essential elements that characterise the qualities of its former use. Items of European heritage on the former Enfield Marshalling Yard site included:

- Former Enfield Marshalling Yard landscape
- Yard Master's Office
- Transhipment and Wagon Repair Shed and associated Gantry Crane
- Tarpaulin Factory and Waxing Room Annex
- Pedestrian Footbridge
- Pillar Water Tank
- Administration Building
- DELEC Service Centre

Most of these items have either been demolished or relocated on or off the site. The only items that currently are on the site from this list are the Pillar Water Tank and the Tarpaulin Factory. The Pillar Water Tank was relocated from a central area on the Enfield ILC site to the southern precinct, on the southern side of the Tarpaulin Factory.

2.3 Tarpaulin Factory

The former Tarpaulin Factory and its annexes, constructed in 1924 are located at the south-east portion of the ILC site, at the corner of Cosgrove Road and Punchbowl Road.

The building is setback approximately 40m from Punchbowl Road, with the setback area being an open space containing a raised water tank and a steel structure. The eastern side of the building runs along the boundary line with Cosgrove Road. On the western side, there was a rail corridor that ran under the Punchbowl Road bridge and continued to the DELEC Service Centre in the north. This has since been removed.

Its construction comprises a building with an assemblage of structures formerly located along the north-eastern border of the Sydney Yard (now Central Station), being the:

- Hay Shed and
- Transshipping Shed

The open configuration of the building of wide spanning steel trusses with no mid or intermediate supports enabled its effective use as a tarpaulin factory to lay out cloth, sew and assembly of tarpaulins. Tarpaulins manufactured from these premises were used for the railway and to protect goods from weather, dust and contamination from by-products of coal-burning locomotives, used by the NSW railways until 1973. Additionally the factory also produced other canvas goods, such as bags, covering, stretchers, etc.

The Tarpaulin Factory includes small buildings attached to the north of the building, referred to as the Waxing Annex. Externally, the Waxing Annex is clad in corrugated iron with 4 centrally located windows, in pairs, with one pair sited above the other.

The waxing operation involved heat generation, which may account for the separation of these structures from the main assemblage of buildings. Only the Wax Dressing Room, located at the north-eastern side of the former Factory building is steel framed and of fire-resistant construction. The Wax Dressing Room also known as the Tank Room or Tarpaulin Dressing Room was also disassembled at Sydney Yard (where it was known as the Fireproof Tarpaulin Store and reassembled on this site.

To the west of the Waxing Annex, along the northern facade of the Factory buildings, are additional rooms which are constructed of timber stud frame. The wall cladding of these buildings is no longer present.

The Tarpaulin Factory operated until April 1991.

3.0 PHYSICAL DESCRIPTION

3.1 Former Tarpaulin Factory – Main Buildings

The Tarpaulin Factory consists of 2 conjoined, large span, gabled buildings, with rows of 19th century prefabricated cast iron columns located along the eastern and western perimeter of the building and a double row of cast iron columns where the 2 buildings abut. This central row of columns support a stormwater system with a central box gutter located between the buildings, draining stormwater into internal downpipes located within the cast iron columns which discharged into pits.

The western and eastern sides of the building have pre-formed eaves gutter with steel plate brackets. The gutters discharge into exposed rainwater pipes (currently PVC), which discharge at the base into cast iron pipes and into in-ground drainage system (Figures 13 and 14).

Lattice, wrought iron, bridging beams span between the columns. Steel (Howe) trusses support the roofs.

The building structure is clad with a corrugated iron roof with corrugated translucent sheeting at every second roof truss bay (Figure 12).

The external walls and roofs are framed and cladded/ lined in corrugated iron (Figures 6-11).



Figure 3: View south-east to building



Figure 4: View south – to northern façade



Figure 5: View S-W to building surrounds



Figure 6: View south – to western building façade



Figure 7: View further south – to western building façade



Figure 8: View north – to southern building façade



Figure 9: View north-east – to southern building façade



Figure 10: View south-west – to the eastern building façade



Figure 11: View south-west – to eastern building façade, depicting windows boarded up



Figure 12: Aerial of existing building depicting extent of rust on the roof



Figure 13: Condition of cladding and windows. Location of downpipes



Figure 14: Contemporary PVC downpipes connect to existing cast iron pipes

Timber framed windows are located at regular intervals, 3 per column bay. The windows are in various state of disrepair (Figure 13).

3.2 Interiors

The structure consists of a system of Howe-type truss supported on cast iron columns located at the eastern and western perimeter of each of the assembly of buildings. The steel trusses span the entire width of each bay of the building without intermediate supports (Figure 15). The columns are, in turn, bridged by wrought iron latticed beams. Between columns are timber frames that support the external cladding. The building is not internally lined.

The east side of the building is below grade resulting in massive concrete supports encasing many of the cast iron columns on this side of the building (Figure 16). On the western side of the building, the cast iron columns are supported on concrete footings.

The columns depict their cast lettering of being manufactured by Pope Maher & German, Darlington Ironworks. These manufacturers commonly sourced and manufactured their ironwork from London in the late 19th century.

A dirt floor exists to the former Factory, with no floor structure or finishes.



Figure 15: Howe type truss



Figure 16: Interior view of eastern wall



Figure 17: Interior view of western wall (view south)



Figure 18: Interior view of western wall (view north)



Figure 19: View of columns, lattice beams, truss, wall framing & windows



Figure 20: Wall framing system



Figure 21: Internal columns



Figure 22: Inscription of manufacture on cast iron columns

3.3 Waxing Annex



Figure 23: Waxing Annex – view south to its northern façade



Figure 24: Waxing Annex – view south to its western façade

The former Waxing Annex is located at the northern side of the Tarpaulin Factory. Its structural framework remains intact, but its external condition is weathering,

4.0 HERITAGE CONSIDERATIONS

4.1 Heritage Listing

Statutory heritage listing

The Tarpaulin Factory and the Pillar Water Tank (located to the south of the Tarpaulin building) are listed on the NSW Ports s170 Register under the *NSW Heritage Act 1977*, which is managed on behalf of the NSW Government (i.e. Port Botany Lessor Pty Limited).

The former Tarpaulin Factory was formerly listed on the:

- State Rail Authority's s170 Register – Item SRA 886
- Sydney Ports Corporation s170 Register

Currently, neither the former Tarpaulin Factory nor the Pillar Water Tank are listed as items of heritage significance in:

A. Statutory heritage listings, of:

- NSW Heritage Register – as an Item of State significance
- Register of the National Estate (Commonwealth) – closed in 2007
- *Strathfield Local Environmental Plan 2012*

B. Non-statutory heritage listings, of:

- National Trust of Australia (NSW) Register
- Strathfield Council Heritage Study

4.2 Heritage Assessment of the Site

The heritage assessment undertaken for the Project Application for the Intermodal Logistics Centre (2005-2007) concluded that:

- The Tarpaulin Factory and the Pillar Water Tank are of State significance;
- The Tarpaulin Factory should be retained and adaptively reused.

In the Preferred Project Report, Sydney Ports Corporation (owner of the site and its buildings) stated in their Statement of Commitments, that:

“Reuse options for the Tarpaulin Factory will be further investigated as part of the detailed design phase of the project. The Tarpaulin Factory will be stabilised against further deterioration and, in consultation with the Heritage Office and the community, options for its reuse at its present site will be investigated. Only if on-site reuse is found to be unachievable or unacceptable will consideration be given to its relocation off-site to a railway heritage museum, or demolition.” (SPC PPR, p.43)

The Independent Hearing and Assessment Panel stated in its recommendations:

Recommendation 8.1: *Prior to the ILC operation commencing, Sydney Ports Corporation consult with relevant stakeholders and develop a plan for the appropriate adaptive reuse of the Tarpaulin Factory.*

The Project Approval for the Intermodal Logistics Centre, dated 5 September 2007 (File No: 9037344) as a condition of consent requires:

Condition 2.34:

Except for the necessary stabilisation works agreed in consultation with the NSW Heritage Office, the Proponent is not permitted to destroy, modify or otherwise physically affect the Tarpaulin Factory as part of this approval. Any proposal to destroy, modify, redevelop, relocate or otherwise physically affect the Tarpaulin Factory, except for agreed stabilisation works, shall be the subject of further assessment and approval in accordance with the Environmental Planning and Assessment Act 1979.

4.3 Assessment of Heritage Significance

Assessment of heritage significance endeavours to establish why a place is important. Significance is embodied in the fabric of a place, including its setting and relationship to other items, the records associated with the place, and the response the place evokes in the community or in individuals to whom it is important.

The NSW heritage assessment criteria encompass the four values in the Australia ICOMOS *Burra Charter*, which are:

- Historical significance
- Aesthetic significance
- Scientific significance
- Social significance

Historical analysis provides the context for assessing significance. The NSW Heritage Manual has produced standard evaluation criteria which are compatible with the criteria used by the Australian Heritage Commission for the assessment of potential items for the Register of the National Estate, are in line with the standard criteria adopted by other state heritage agencies, and are in accordance with the values embodied in *The Burra Charter*.

4.3.1 Criteria evaluation

The heritage value of a place or building relates to specific criteria used by the NSW Heritage Office to evaluate the heritage significance of a place. These criteria were gazetted in April 1999. The criteria are as follows:

Criterion A	An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area)	Historical significance
Criterion B	An item has strong or special association with the life or works of a person, or a group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area)	Historical significance
Criterion C	An item is important in demonstrating aesthetic characteristics and/ or a high degree of creative or technical achievement in NSW (or the local area)	Aesthetic/ technical significance
Criterion D	An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons	Social significance
Criterion E	An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history for the cultural (or natural history of the local area)	Technical/ research value
Criterion F	An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)	Rarity
Criterion G	An item is important in demonstrating the principal characteristics of a class of NSW's (or a local area's): <ul style="list-style-type: none"> ▪ cultural or natural places; or ▪ cultural or natural environments 	Representativeness

4.3.2 Application of the NSW State Heritage Criteria

Assessment of the Tarpaulin Factory and annexes were undertaken by Graham Brooks and Associates in 2005 for the site to be used as an Intermodal Logistics Centre. As the building and the Pillar Water Tank are currently listed as items of heritage significance on the NSW Ports s170 Heritage Register, these criteria will be adopted as the approved methodology for the adaptive reuse of this building.

Criterion A	<i>Historical significance</i>
An item is important in the course or pattern of NSW/ the local area's cultural or natural history	<p>The Tarpaulin Factory was an element of the Sydney Yard, erected in the 19th century for use as a transshipment shed and hay shed. The structure was transferred and reassembled on the former Enfield Marshalling Yards site.</p> <p>As an intact survivor of this historic yard, the buildings' structure of cast and wrought iron columns, lattice beams and roof trusses are deemed to have STATE significance (by the 2005 assessment).</p> <p>The c. 1920s Waxing Room Annex, built as a "Fireproof Tarpaulin Store" has been assessed (in 2005) as having no unique qualities but possesses significance in its association with the Tarpaulin Factory.</p>
Criterion B	<i>Historical significance</i>
An item has strong or special association with the life or works of a person, or a group of persons, of importance in NSW/ the local area's cultural or natural history	<p>The Tarpaulin Factory and its former uses provides an association with the workers of the NSW Railways and subsequently with workers involved in the manufacturing of tarpaulins and associated goods.</p>
Criterion C	<i>Aesthetic/ technical significance</i>
An item is important in demonstrating aesthetic characteristics and/ or a high degree of creative or technical achievement in NSW/ a local area	<p>The structure of the building provides an example of cast iron column and bracing lattice truss beams assembly that support a system of Howe roof trusses. This form of construction is rare, with limited examples surviving in the Sydney Mint coining factory at Macquarie Street, and at other industrial sites.</p> <p>The structural system was considered in 2005 to have STATE significance.</p> <p>The Waxing Room Annex survives with much of its 1920 structure, but does not display a high level of technical achievement.</p>
Criterion D	<i>Social significance</i>
An item has a strong or special association with a particular community or cultural group in NSW/ a local area for social, cultural or spiritual reasons	<p>There are no significant, specific associations for this site.</p>

Criterion E	Technical/ research value
An item has potential to yield information that will contribute to an understanding of NSW/ the local area's cultural or natural history	The former Tarpaulin factory displays evidence of building that was transferred from its original site at Sydney Yards and recycled to a new use as a tarpaulin factory.
Criterion F	Rarity
An item possesses uncommon, rare or endangered aspects of NSW/ the local area's cultural or natural history	<p>Very few 19th century examples of a structural system of cast iron columns with lattice truss beams in the NSW railway setting exists. However, there are many examples of hollow cast iron beam columns used for the transportation of rainwater in buildings associated with the former 19th century Eveleigh carriage works.</p> <p>The cast iron column and lattice truss beam system has STATE significance.</p> <p>The Howe Truss (patented c. 1840) is used, and continues to be used in building and elementary bridge construction, with examples found in many factory buildings and storage sheds.</p> <p>The Howe roof truss has STATE significance in its assembly with the columns and beam system, but LOW significance as a sole construction element.</p> <p>The Waxing Room Annex's steel framed structure has little significance.</p>
Criterion G	Representativeness
An item is important in demonstrating the principal characteristics of a class of NSW/ or the local area's: <ul style="list-style-type: none"> ▪ cultural or natural places; or ▪ cultural or natural environments 	<p>The former Tarpaulin Factory was used by the NSW Railways from 1925-1991. It is the only surviving example of its kind and is therefore of STATE significance.</p> <p>The Waxing Room Annex has STATE significance only in its association with the Tarpaulin Factory.</p>

4.4 Statement of Significance

The former Tarpaulin Factory comprises the assembly of two buildings that were previously sited, in the 19th century, at the former Sydney Yards (now Central Station) for the use of the NSW Railways as hay and transshipping sheds. The structure of these sheds was fabricated, with cast iron columns supplied by Pope, Maher & German, Darlington Ironworks. Darlington Ironworks was an important supplier of iron products in the 19th century.

The structures were transported and reassembled for a Tarpaulin Factory on the former Enfield Marshalling Yards. The factory operated in the manufacturing of tarpaulin and other products from 1925-1991. The factory was a unique operation servicing the NSW Railways. The history of the factory and its operation is well documented in *“Enfield Tarpaulin Factory History: Operations and Building Fabric”* prepared by Godden Mackay for State Rail Authority in 1991.

As a building with the use of these specifically styled structural elements that date to the 19th century, and its former uses on two different sites, the two bays of the Tarpaulin Factory should be deemed to be of STATE significance.

The Waxing Room Annex, also moved from Sydney Yard, has significance in its association with the use of the Tarpaulin Factory as a fireproof tarpaulin store. The annex has no unique features and is therefore classified to be of low significance without this association.

The additional amenity annexes to the west of the Waxing Room Annex are derelict structures that detract from the significance of the overall building.

4.5 Grading of Significance

The significance of the former Tarpaulin Factory has been assessed and ranked for the purpose of enabling decisions on the future conservation of the place based on an understanding of its significance.

Different components of a place may make a different relative contribution to its heritage value. Loss of integrity or condition may diminish significance. The grading/ classification of significance may need to be modified to suit its application to each specific item.

The grading of significance is in 5 levels:

EXCEPTIONAL	<ul style="list-style-type: none"> Rare or outstanding element directly contributing to an item's local and State significance
HIGH	<ul style="list-style-type: none"> High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.
MODERATE	<ul style="list-style-type: none"> Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.
LITTLE	<ul style="list-style-type: none"> Alterations detract from significance. Difficult to interpret.
INTRUSIVE	<ul style="list-style-type: none"> Damaging to the item's heritage significance.

4.6 Significance of Elements in the former Tarpaulin Factory

Significant elements in the former factory were identified in the *Proposed Intermodal Logistics Centre, Enfield – Assessment of Heritage Impact* report prepared by Graham Brooks and Associates in June 2005, as a contributory report to the Project Application for the use of the site as an Intermodal Logistics Centre.

These elements were assessed in 2005, by Graham Brooks and Associates, for their contribution to the overall significance of the structure, with assessment for their technological importance and for their condition.

Item	Origin	Condition	Significance
Cast iron columns	19 th century from the Sydney Yard and reconstructed at Enfield c.1925	Shed 1 (western side): Fair to good Shed 2 (eastern side): Poor to fair with columns along the eastern alignment having been encased in concrete	High significance Concrete plinths around base of eastern columns are intrusive, but should not be removed due to potential damage to cast iron columns
Lattice truss beam	19 th century from the Sydney Yard and reconstructed at Enfield c.1925	Fair to good	High significance
Howe truss	19 th century from the Sydney Yard and reconstructed at Enfield c.1925	Fair to good	High significance – being element of the original building
Waxing Room Annex	From the Sydney Yard and reconstructed at Enfield	Good	Medium significance
Windows	Original on the west Some replacement on the east		Medium significance
Safety First Banner (north wall)			Medium significance but in derelict condition
Roofing – corrugated iron	Original	Surface evidence of rusting	Low significance
Exterior cladding – corrugated iron	Original	Surface evidence of rusting	Low significance
Doors	Not evident		Low significance – replaced and/ or altered

Item	Origin	Condition	Significance
Internal toilets and amenities	Altered – mid 20 th century	Derelict	Low significance
Tank stand	Tank removed after 1991		Low significance
Lighting fixtures – upgraded	Not anticipated to be original		Low significance
Original timber floor to the main building	Originally c. mid-19 th century. Removed and replaced with packed dirt		Alteration to the original appearance of the sheds
Concrete plinths poured around eastern cast iron columns	Not original		
Meal room addition (Northern side of Factory)			Little/ intrusive impact on significance. New openings forced
Men's amenities (Northern side)			Little/ intrusive impact on significance. New openings forced
Women's amenities (Northern side)			Little/ intrusive impact on significance. New openings forced.
Loss of internal divisions for factory work flow			Shed reduced to an empty shell

Within the Intermodal Logistics Centre, the site of the Tarpaulin Factory is located within the southern precinct of the Enfield ILC site, known as a "Community and Ecological Area". The recommendations of the 2005 Heritage Impact Assessment is for the building to be **retained on the site and adaptively reused**, taking into consideration the assessment of significance of the various elements in the Tarpaulin Factory (as outlined in Grading of Significance section of this report).

4.7 Project Application for the Enfield Intermodal Logistics Centre

The Tarpaulin Factory and surrounding land was captured under the Part 3A application for the Enfield ILC site (Figure 25). At the time of lodgement of the Part 3A application, the future use and development of the Tarpaulin Factory was unknown.

The site is currently a highly modified and degraded landscape. Of all the heritage items identified, only the Tarpaulin Factory and the Pillar Water Tank (relocated to the southern side of the Tarpaulin Factory) remains.



Figure 25: Location of items assessed for heritage values in Project Application for ILC

The Project Approval for the Enfield Intermodal Logistics Centre dated 5 September 2007 under Section 75J of the *Environmental Planning and Assessment Act 1979*, states:

Heritage Impacts and Management:

- 2.34 *Except for necessary stabilisation works agreed in consultation with the NSW Heritage Office, the Proponent is not permitted to destroy, modify or otherwise physically affect the Tarpaulin Factory as part of this approval. Any proposal to destroy, modify, redevelop, relocate or otherwise physically affect the Tarpaulin Factory, except for agreed stabilisation works, shall be the subject of further assessment and approval, in accordance with the Environmental Planning and Assessment Act 1979.*
- 2.35 *The proposal shall relocate and maintain the Pillar Water Tank to an appropriate location within the site, determined in consultation with the NSW Heritage Office.*

As this subject proposal is to adaptively reuse the Tarpaulin Factory, comprising refurbishment, new additions and some modifications to internal and external spaces, the development is subject to a separate development application.

The Pillar Water Tank has been relocated earlier to south of the Tarpaulin Factory and its relocation is not part of this application.

5.0 HERITAGE IMPACT ASSESSMENT

5.1 The Proposed Development

The proposed development is for the adaptive reuse of the former Tarpaulin Factory into a garden centre for the retail of plants, goods for and associated with gardening, pet goods, pool equipment, with associated administrative and amenity facilities.

The proposed works comprise:

Refurbishment:

- The two assemblage of sheds of the former Factory – to be retained, refurbished and refitted for use for retail of garden goods, fruit and vegetables.
- Retention of the external wall structure of the former Waxing Annex, with external cladding either retained or replaced to match existing.
- Retention (if possible) of existing external cladding (galvanised iron sheets). Replacement of damaged cladding, with provision of new corrugated zincalume cladding to match existing, where required.
- Retention (if possible) of existing windows (timber framed). Refurbishment of damaged windows (if possible) or provision of new windows/ fixed glazing, where required.

Demolition:

- Timber, masonry and concrete buildings to its north-west.
- Lean-to open structure located at the north-western side of the building.

New additions:

- A new entrance at the central portion of the western façade, with new contemporary glazed entrance roof and walls. This element is to be treated in a contemporary architectural style, to distinguish this new addition from the former factory building.
- Retail facilities to the north-west of the Factory, east of the Waxing Annex – for retail purposes (pet and pool stores).
- A new loading area to its north.
- New public amenities at the southern side of the Factory building. The building is to be of light-weight construction and clad externally in timber – to provide aesthetic differentiation between new addition and existing.
- New external plant for mechanical units located above the proposed pet shop.

Alterations/ modifications:

- At the south-eastern and south-western portions of the former factory building – removal of existing cladding, retention of original wall framing and provision of new glazed/ perspex wall, externally screened with vertical timber fins.
- Removal of existing corrugated iron roof and replacement of new roof to match existing.
- Repair or replace existing translucent roof sheets.
- Provision of new sections of translucent roof sheeting and new retractable roof over the southern portion of the building.

External works:

- Retention of existing vehicular accessway from Cosgrove Road and cross-over.
- Provision of a new external car parking area for customers and staff. This will require earthworks to extend the western open area and construction of new terraced embankment.

- Utilisation of external southern area as an outdoor nursery, partially roofed with retractable shade cloth.
- Retention of existing steel structure which will be reconfigured as a feature, and Pillar Water Tank – both located at southern open area fronting Punchbowl Road.
- Provision of an open bulk goods area to the north of the vehicular accessway.
- Landscaping of all external areas.



Figure 26: Demolition of ancillary timber lean-to at NW side of Factory building



Figure 27: Demolition of timber structures west of the Waxing Annex



Figure 29: Existing steel structure – to be reconfigured as feature (located at southern open area)



Figure 30: Relocated Pillar Water Tank (heritage item), located at southern open area – to be retained

Internal works:

- Provision of new reinforced concrete floor of levels to generally match existing.
- Retention of existing cast iron columns, trusses and lattice beams.
- New partition walls to underside of roof sheeting – between auxiliary uses.

Refer to Architectural Drawings.

5.2 Assessment of Heritage Impacts – Overall

Assessment of the impacts of the proposed works to existing elements of the former Tarpaulin Factory has been undertaken in accordance with the guideline of the NSW Heritage Office, *Statements of Heritage Impact*, and utilising the 2005 evaluation of the original elements within the former factory by Graham Brooks and Associates.

Assessment of the proposed works for the adaptive reuse of the former Tarpaulin Factory is as follows:

Proposed change to heritage item	Heritage Impact Assessment
Demolition of ancillary structures <ul style="list-style-type: none"> Ancillary public amenities – northern facade Lean-to structure – western façade 	<ul style="list-style-type: none"> Subject structures are of low heritage significance. Amenities are dilapidated. Lean-to structure is an intrusive element and a later addition to the factory building. The structure and form of the Factory building will not be impacted by this demolition.
Change of use Proposed use as a garden centre.	<ul style="list-style-type: none"> Proposed use is compatible with the former use of the building for tarpaulin manufacture and assembly. Garden centre requires large interior spaces.
Additions – Internal Internal additions of partition walls.	<ul style="list-style-type: none"> The factory originally contained internal partition walls. New walls will be of light-weight construction and whilst extending to the underside of the roof sheeting, will enable a majority of the existing roof trusses to be seen.
Additions – External New retail buildings within (and close to) the former footprint of the ancillary structures adjacent to the Waxing Annex.	<ul style="list-style-type: none"> Amenities addition will be of light-weight construction clad externally in timber. Its form and roof will be below the eaves line of the Factory building.
New amenities and loading area to the north of Factory building	<ul style="list-style-type: none"> These are located within and in proximity to the former ancillary buildings and adjacent to the Waxing Annex. The Waxing Annex will be retained.
Re-roofing and re-cladding <ul style="list-style-type: none"> New roof sheeting. New wall cladding as required. New timber vertical fins at south-eastern and south-western sides of the building. 	<ul style="list-style-type: none"> Roof sheeting and wall cladding are of low heritage significance. Replace roof sheeting to match existing – in material, profile and pattern. Reclad as required – in material, profile and pattern to match existing. New contemporary treatment to sections of exterior walls – treatment is distinguished as a contemporary addition.

Proposed change to heritage item	Heritage Impact Assessment
New services <ul style="list-style-type: none"> ▪ Details not provided. 	<ul style="list-style-type: none"> ▪ Services are to be sensitively placed so that the items of high significance (e.g. interior structure) are not impacted or concealed.
Fire upgrading <ul style="list-style-type: none"> ▪ New entrance door provided for egress compliance. ▪ Overall measures not provided. 	<ul style="list-style-type: none"> ▪ Wall cladding of low significance. ▪ New entrance door is located between the column structure, with contemporary glazed doors.
BCA Section J requirements Provision of insulation to internal face of external walls and underside of roof sheeting – to comply with Section J requirements	<ul style="list-style-type: none"> ▪ Insulation to comply with BCA Section J will be required, with internal face lined. ▪ Ensure cast iron columns are revealed in the implementation. ▪ Roof insulation is to ensure that the trusses maintain their visual and physical integrity.
New external works New car parking area.	<ul style="list-style-type: none"> ▪ New car parking area located within existing external spaces of no heritage significance. ▪ Existing setback area to the south – utilised as an external garden centre with an outdoor nursery and café/ restaurant. ▪ Retention of the Pillar Water Tank – relocated from the central portion of the site. ▪ Proposed uses do not impact on the visual or physical curtilage of the former Factory building.

5.3 Assessment of Heritage Impacts – Specific Items

Assessment of the impacts of the proposed works on the specific building elements is outlined as follows:

Item	Origin	Significance	Heritage Impact Assessment
Cast iron columns	19 th century from the Sydney Yard & reconstructed at Enfield c.1925	High significance Concrete plinths around base of eastern columns are intrusive, but should not be removed.	Cast iron columns are retained. No disturbance to footings.
Lattice truss beam	19 th century from the Sydney Yard & reconstructed at Enfield c.1925	High significance	Lattice truss beams are to be retained.
Howe truss		High significance – being element of the original building	Steel trusses are to be retained

Item	Origin	Significance	Heritage Impact Assessment
Waxing Room Annex	From the Sydney Yard and reconstructed at Enfield	Medium significance	<ul style="list-style-type: none"> Retention of existing structure. Refurbishment of windows with replacement of panes. Refurbishment of external columns. Replacement of external cladding to match existing.
Windows	Original on the west Replacement on the east (some)	Medium significance	Refurbishment/ replacement of existing windows, with use of timber frames.
Roofing – corrugated iron	Original	Low significance	Replacement of roof with corrugated iron roof to match existing.
Exterior cladding – corrugated iron	Original	Low significance <ul style="list-style-type: none"> Eastern side appears in fair to good condition. Western, northern and southern facades rusted, portions damaged or graffitied 	<ul style="list-style-type: none"> Refurbishment of external corrugated cladding that could be retained. Replacement of external cladding, damaged, rusted or graffitied with corrugated sheeting to match existing.
Doors		Low significance – replaced and/ or altered	<ul style="list-style-type: none"> Replacement of doors. Provision of new glazed doors to new entrances and shop front entrances.
Internal toilets and amenities	Altered – mid 20 th century	Low significance – timber framed building in disrepair with no roof or wall cladding	<ul style="list-style-type: none"> Demolition of existing amenities building. Replacement with new amenities addition at the southern side of building, externally clad in timber.
Pillar Water Tank	Tank relocated from central portion of site	High significance (listed heritage item on s170 Register)	Tank to be retained.
Lighting fixtures – upgraded		Low significance	<ul style="list-style-type: none"> Removal of existing remaining fittings. Provision of new electrical works and fittings.

Item	Origin	Significance	Heritage Impact Assessment
Original timber floor to the main building	Originally c. mid-19 th century. Removed and leaving dirt floor.	Alteration to the original appearance of the sheds	Replacement with new reinforced concrete timber floor.

6.0 RECOMMENDATIONS

6.1 Heritage Framework

The former Tarpaulin Factory (the subject building) and the Pillar Water Tank (located to the south-east of the building) is listed in the NSW Ports s170 Heritage Register under the *NSW Heritage Act 1977*. It is not listed in the NSW Heritage Register as an item of State significance or on *Strathfield Local Environmental Plan 2012*'s Schedule of Heritage Items.

The Project Approval for the Intermodal Logistics Centre, dated 5 September 2007 (File No: 9037344), states:

Condition 2.34:

Except for the necessary stabilisation works agreed in consultation with the NSW Heritage Office, the Proponent is not permitted to destroy, modify or otherwise physically affect the Tarpaulin Factory as part of this approval. Any proposal to destroy, modify, redevelop, relocate or otherwise physically affect the Tarpaulin Factory, except for agreed stabilisation works, shall be the subject of further assessment and approval in accordance with the Environmental Planning and Assessment Act 1979.

The proposed development application seeks to adaptively reuse the former Tarpaulin Factory for the purpose of a garden centre for the retailing of garden, landscape, pet and pool goods, and fruit and vegetables, with:

- Addition of new toilets adjoining the southern wall of the building.
- Provision of a new entrance along the central portion of the western façade.
- Removal of timber ancillary buildings at the northern side of the Factory building (Meal Room and Amenities) – that are currently unclad and unroofed.
- Refurbishment of exterior and interior, some modifications to windows for transmission of additional light and replacement of existing windows and cladding, if required.

The proposed adaptive reuse of the former Tarpaulin Factory has been evaluated to be able achieve heritage considerations required for this item.

6.2 Summary Heritage Assessment of Proposed Works

The proposed works:

- Retains the original form and exterior materials of the former Tarpaulin Factory.
- Demolishes only items of low heritage significance or intrusive.
- Provides an acceptable new use for the building that enables the items of heritage significance to be retained.
- Retains the physical and visual curtilage of the building.
- New additions are contemporary in expression, articulation and material use, and sensitively integrated with and subservient to the former Factory building and its roof form.

6.3 Recommendations

1. Refurbishment/ replacement of external cladding and roof sheeting – to be of material, profile and pattern to match existing.
2. Refurbishment of existing eaves gutter/ new gutters to match existing (Figures 31 and 32)
3. Replace existing PVC downpipes to be of cast iron (to match existing) or alternatively, paint PVC downpipes to be of same colour as the existing cast iron downpipe connections – located along the eastern and western walls (Figures 31 and 32).

4. Retain ventilation expressions on the existing roof.
5. Refurbish existing windows (if retained) and if required to be replaced – replace with timber windows of pattern to match existing.
6. New additions are to be subservient to the form of the former Factory building and of height to be below the eaves line of the main Factory building.
7. Internal linings and insulation (for BCA Section J requirements) are to ensure that cast iron columns, lattice beams and roof trusses (designated to be of high heritage significance) are revealed/ expressed (Figures 31 and 32).



Figure 31: Contemporary downpipe connected to original downpipe



Figure 32: Contemporary downpipe connecting to gutter

8. Retain and maintain existing Pillar Water Tank, located at the southern portion of the site (Figure 33 and 34).



Figure 33: Pillar Water Tank – relocated to south-eastern portion of site



Figure 34: Pillar Water Tank (heritage item in NSW Ports s170 register)

9. Explore an opportunity to interpret the former train track alignment in the external works. The rail track has been removed. Archival recording undertaken by Conybeare Morrison in 2008 illustrates their former existence (Figures 35 and 36).



Figure 35: Railway tracks along western side of site – noted in 2008 but not apparent/ visible in 2016



Figure 36: Railway tracks along western side of site (CM+ 2008)

10. Consider the consultation requirements of the Part 3A approval with key stakeholders – NSW Ports (undertaken) and the NSW Heritage Office.