



Technical Paper 5

Non-Indigenous cultural heritage impact assessment



Lindfield Substation

Statement of Heritage Impact

Report to Parsons Brinckerhoff

July 2014



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Executive Summary

Artefact Heritage has been commissioned by Parsons Brinckerhoff to conduct a Non-Indigenous Heritage Impact Assessment for the construction of a proposed traction power substation at a site in Lindfield in Sydney, NSW and ancillary electrical works, generally between Killara Station and the Clanville Road overbridge.

This Statement of Heritage Impact makes the following conclusions:

- The heritage significance of the majority of listed items adjacent to or within the study area will not be affected by the proposal.
- The exception to this is the Clanville Heritage Conservation Area (HCA), which is located to the south of the proposed Lindfield Substation site. There are some visual constraints in this location although the proposal is considered to have only a minor impact on the HCA. These minor impacts could be mitigated by introducing screening vegetation at the completion of works and taking care in the choice of sympathetic finishes and elevations.

The following recommendations have been made to mitigate any potential impacts of the proposal on the Clanville HCA:

- Care should be taken to make the substation building as unobtrusive as possible. This can be achieved by completing the roofing and walls in dark colours, sympathetic to the surrounding area.
- The lower the substation is in the landscape, the less visual impact it would have on the HCA, and the surrounding Lindfield area.
- Consideration should be given to introducing screening vegetation along the southern boundary of the proposed substation site at the completion of works.



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1.0 Introduction and background

1.1 Background

Artefact Heritage has been commissioned by Parsons Brinckerhoff to conduct a Non-Indigenous Heritage Impact Assessment for the construction of a proposed new traction power substation at a site in Lindfield in Sydney, NSW and ancillary electrical works generally between Killara Station and the Clanville Road overbridge.

The NSW Government has developed a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers into the future. The NSW Government has identified that Sydney's rail system is reaching the limits of its capacity.

In future, Sydney Trains (formerly RailCorp) intends to operate increasing train services on the North Shore Line. A new traction power substation is required to allow for an increase in the capacity along the North Shore Line to cater for these additional train services to be run and will support the delivery of the North West Rail Link.. Therefore, a new substation is proposed to be constructed at Lindfield to supply the North Shore Line (the proposal). The proposal also includes ancillary electrical works generally between Killara Station and the Clanville Road overbridge, Lindfield.

The aim of this Heritage Impact Assessment is to:

- Identify heritage items within the study area.
- Identify any potential constraints and impacts in regards to heritage buildings or archaeological remains.
- Recommend if further action is required to fulfil statutory heritage obligations.

This assessment has been undertaken in accordance with NSW Heritage Council guidelines. All heritage items within the study area have been investigated.

1.2 The study area

The substation site (where the substation will be constructed) is located on Lindfield Avenue at the intersection with Strickland Avenue in Lindfield, approximately 300 metres to the south of the Lindfield Railway Station. The substation site is located within the existing rail corridor, between the North Shore Line up-track (i.e. travelling towards the Sydney central business district (CBD)) and Lindfield Avenue. In addition, the study area comprises areas of ancillary electrical works, including the installation of aerial earth wires to existing power poles generally between Killara Station and Russell Avenue, Lindfield, and

Lindfield Substation



the realignment of existing overhead wiring generally between Russell Avenue and the Clanville Road overbridge, Lindfield (Figure 1).

The study area, for purposes of this report, is defined as the area of the proposed Lindfield substation and a 100 metre buffer on all sides, as shown in Figure 1. Heritage items within the buffer were included in this assessment to ensure that all potential impacts to the context and setting of items, resulting from the proposed substation, were taken into consideration.

Only those heritage items immediately adjacent to the rail corridor on the eastern side were assessed in the northern and southernmost extents of the study area (shown in Figure 1 as the dashed red line, and in Figure 2 and Figure 3 as the electrical works site area). As potential heritage impacts in these areas are minor, a larger buffer zone was not considered necessary.

The survey area covered both the site of the proposed substation, all heritage items within the 100 metre buffer surrounding the proposed substation site, and all heritage items adjacent to the eastern side of the rail corridor between Killara Station and the Clanville Road overbridge (the electrical works site area).

Figure 1: The area of proposed impact (red) and the surrounding 100 metre buffer (red shading). Base map SIX Maps.



Lindfield Substation



Figure 2: The northernmost extent of the study area.



Lindfield Substation



Figure 3: The southernmost extent of the study area



1.3 The proposal

The proposal is for the construction and ongoing use of a substation at a site in Lindfield and associated electrical works between Killara Station and the Clanville Road overbridge (as shown in Figures 2 and 3 above). The key features of the proposal are:

- Construction and operation of a new traction power substation at Lindfield in order to continue to power the Sydney Trains network (in particular the North Shore Line). Components of the substation would generally include:
 - Construction of two new rectifier transformers
 - Installation of switchgear room containing switchgear and switchboards, batteries and changers, voice and data communications equipment
 - Installation of the rectifier and reactor unit(s)
 - Office and associated facilities
 - Earthworks and construction of a retaining wall on the western side of the substation site, adjacent to the rail line
- Construction of a new driveway access to the proposed substation site from Lindfield Avenue and a paved surface area for car parking for approximately four vehicles within the proposed substation compound
- Security and permanent maintenance lighting within and external to the building
- Landscaping and vegetation surrounding the proposed substation building, generally to the east and south of the substation
- Realignment of the existing 33 kilovolt (kV) and 11 kV overhead wiring (OHW) to a new combined services route (CSR), generally between power pole P57 (to the south of Lindfield Station near the intersection of Russell Avenue, Lindfield) and power pole P49 (to the north of the Clanville Road overbridge)
- Relocation and installation of signalling and communication cable to the substation to connect with existing cables along the North Shore Railway Line
- Installation of feeder and return cabling to the OHW system on the North Shore Line
- Installation of an aerial earth wire to the top of the existing (Sydney Trains) power poles, generally between Killara Station and Russell Avenue, Lindfield.
- Relocation of street lighting and power routes to provide access to the substation for construction and maintenance (including future replacement of substation equipment).

Minor enabling works are expected to be undertaken in late 2014. Service relocation will commence in mid-2015 with construction of the substation expected to commence in early 2016, with testing and



commissioning anticipated in August 2017. The substation site is expected to be handed over to Sydney Trains in late 2017.

The architectural design of the substation building is intended to limit the impact of the building in the residential neighbourhood, to reduce its perceived scale and to provide a landscaped edge treatment between the building and the adjoining street. The landform/contours of the substation site have been used to reduce the overall height of the building by locating the tallest elements to the south, where they sit below natural ground level (Figure 4, Figure 5 and Figure 6).

The proposed substation building would consist of an aboveground structure, located within the rail corridor between the North Shore Line up-track and Lindfield Avenue at the intersection with Strickland Avenue, as shown in Figure 7 and Figure 8. The substation building would occupy most of the substation site and would be approximately 40 metres by 10 metres in size. Additional hardstand and driveway areas would be located towards the northern end of this site to allow for vehicle access and car parking spaces for approximately four vehicles. The building would be single storey (with a cable subfloor) with a height of approximately six metres.

The proposed substation building would be architecturally designed and constructed from concrete panels, with a metal clad roof and be rectangular in shape (Figure 9). The exterior of the building would be designed to minimise visual intrusion to the surrounding area (Figure 10). A range of metal louvers and roller shutters would also be required within the building façade to provide both access to, and ventilation for, the building. The final building materials and finishes for the proposed substation building would be determined during the detailed design phase of the proposal.

As part of the construction of the substation site, a retaining wall approximately three metres in height would be constructed along the western boundary of the substation site between the substation and the up-track of the North Shore Line. This wall would run for the entire length of the substation site.

Access to the substation site would be via a relocated driveway along Lindfield Avenue, approximately 20 metres to the north of the intersection of Lindfield Avenue with Middle Harbour Road.

The substation site would be surrounded with security fencing. This would comprise a three metre high palisade/security fence on all sides of the site. The fencing would be topped with barbed tape (or similar). All steel fence members would be galvanised and then finished in black powdercoat to blend with the environmental surrounds. Security fencing would be installed in a manner which would aim to minimise light spill to areas beyond the site boundary.

Lindfield Substation



Figure 4: Indicative elevation of the proposed Lindfield South substation.

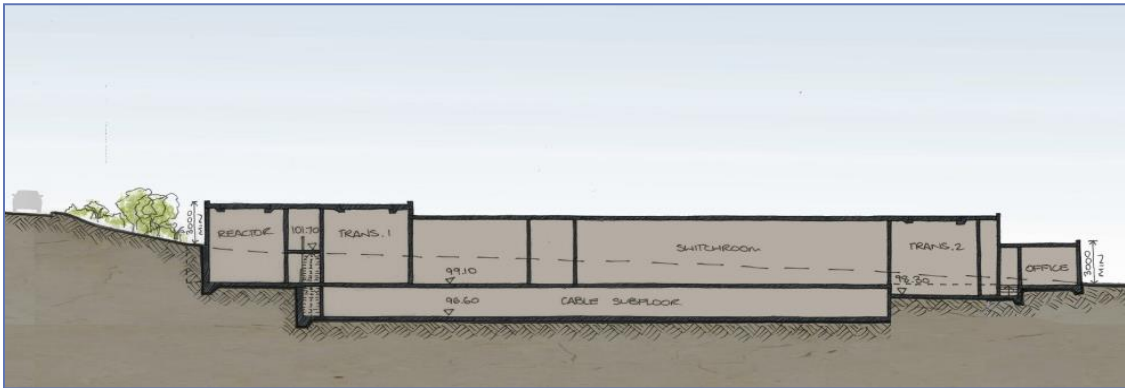


Figure 5: Indicative elevation of the proposed Lindfield South substation.

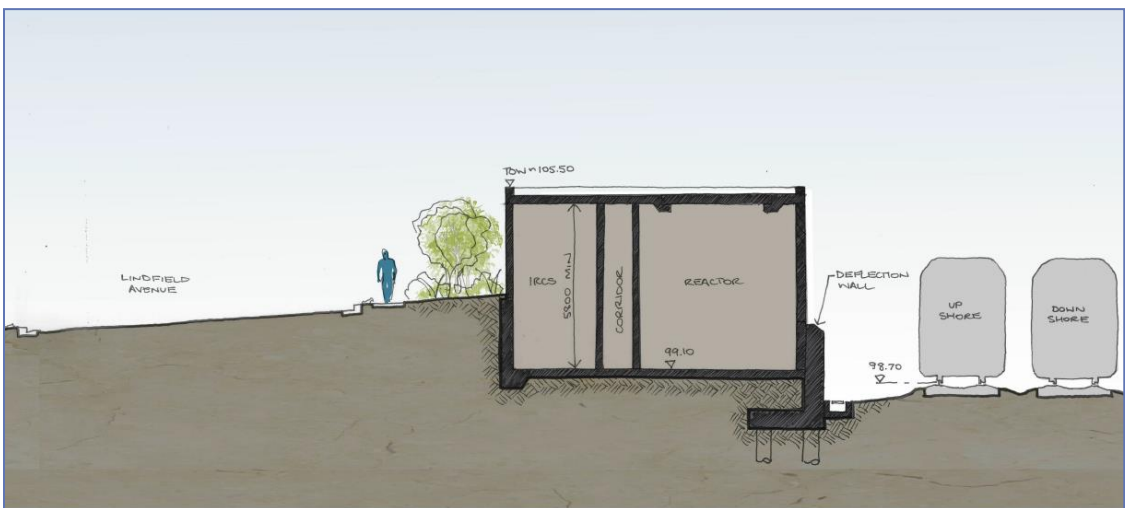
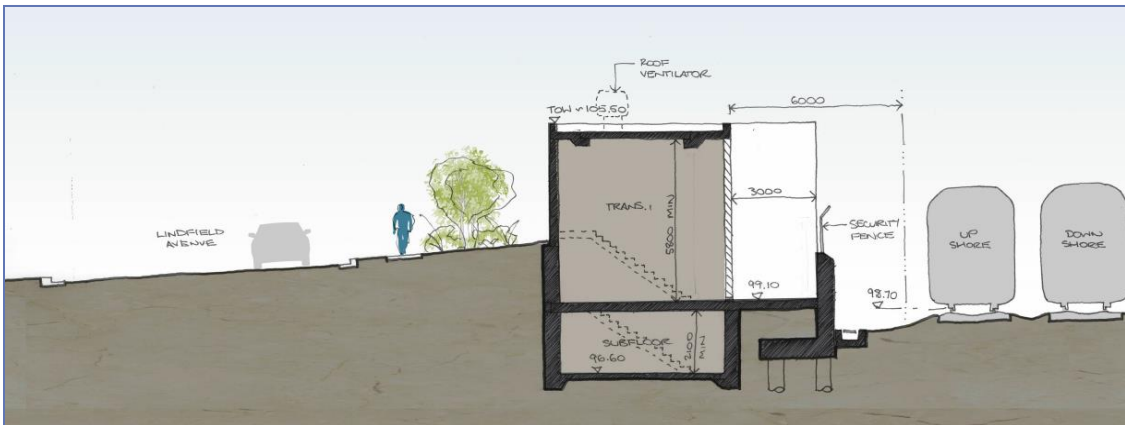


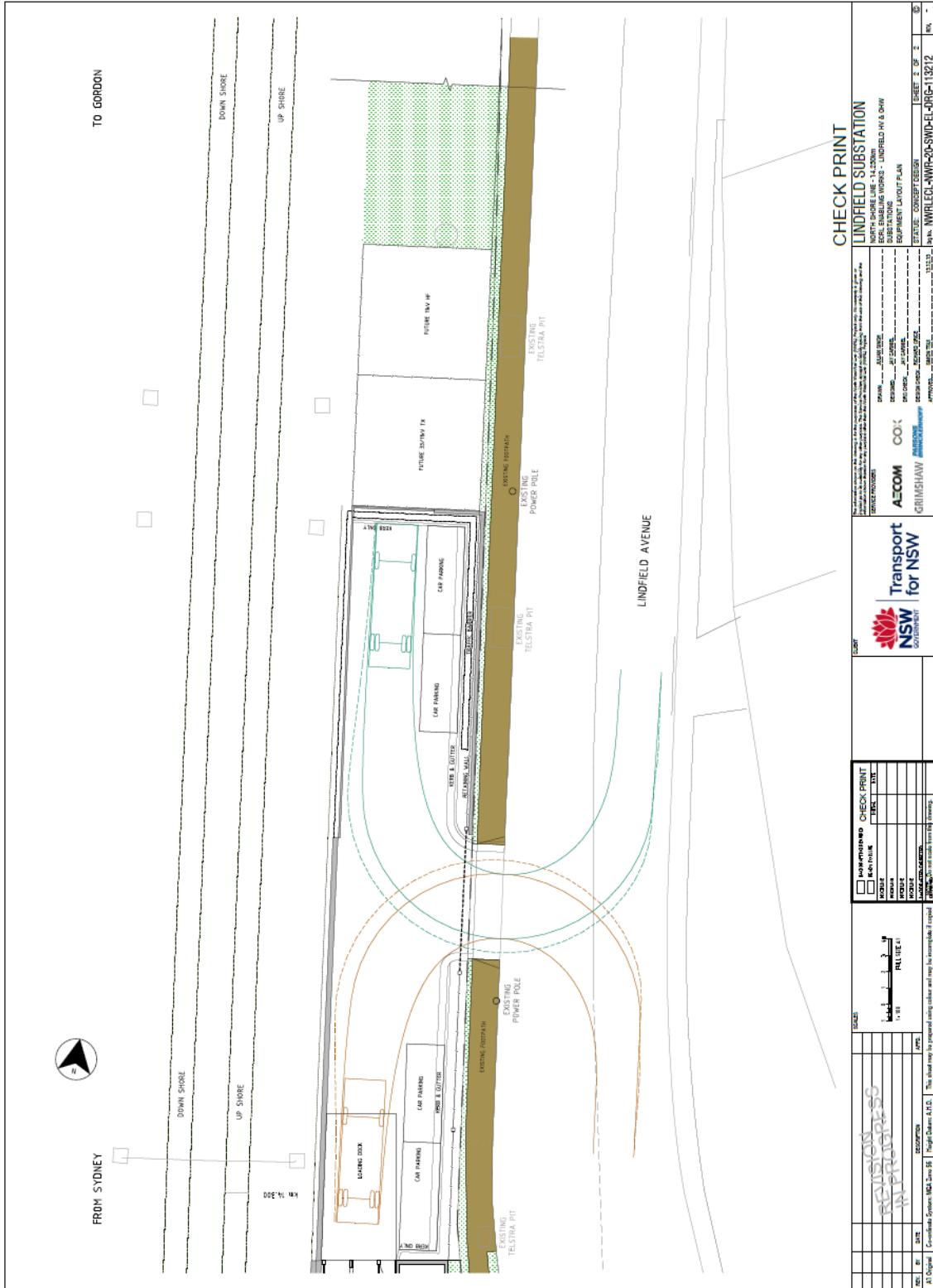
Figure 6: Indicative elevation of the proposed Lindfield South substation.



Lindfield Substation



Figure 8: Lindfield substation location and layout.



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LINDFIELD SUBSTATION NORTH SHORE LINE - 14.250km SUBSTATION WORKS - LINDFIELD HV & SWH SUBSTATION EQUIPMENT LAYOUT PLAN		SHEET 2 OF 2 No. NWRLEC-NWR-20-SWD-EL-DRG-113212
PROJECT NO: 14.250km DRAWN: [Name] CHECKED: [Name] APPROVED: [Name]	CLIENT: [Name] CONTRACT NO: [Number] PROJECT NO: [Number]	STATUS: CONCEPT DESIGN DATE: 2023/01/12
PROJECT MANAGER: [Name] PROJECT ENGINEER: [Name] PROJECT COORDINATOR: [Name]	DESIGNER: [Name] CHECKER: [Name] APPROVER: [Name]	DATE: 2023/01/12
PROJECT NO: 14.250km DRAWN: [Name] CHECKED: [Name] APPROVED: [Name]	CLIENT: [Name] CONTRACT NO: [Number] PROJECT NO: [Number]	STATUS: CONCEPT DESIGN DATE: 2023/01/12



Figure 9: Photomontage of the proposed substation, view to the north from the Clanville HCA.



Figure 10: Photomontage of the proposed substation, view to the south from the far side of Lindfield Avenue.





1.4 Limitations and Constraints

This document deals with non-Aboriginal heritage only, and includes an assessment of historical archaeological potential, and a review of the heritage significance of potential heritage items within the study area. Many of the heritage items on the *Ku-ring-gai Local Environmental Plan 2012* (Local Centres) and the *Draft Ku-ring-gai Local Environmental Plan 2013* are incompletely listed on the State Heritage Inventory (SHI).

1.5 Report authorship

Senior Heritage Consultant Jenny Winnett prepared this report with management input from Dr Sandra Wallace.

2.0 Statutory Context

There are several items of State legislation that are relevant to the study area. A summary of this legislation and the implications for the proposed development follow.

The Heritage Act 1977

The NSW *Heritage Act 1977* (hereafter Heritage Act) provides protection for items of 'environmental heritage' in NSW. 'Environmental heritage' includes places, buildings, works, relics, movable objects or precincts considered significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. Items considered to be significant to the State are listed on the State Heritage Register (SHR) and cannot be demolished, altered, moved or damaged, or their significance altered.

The Heritage Act also provides protection for 'relics', which includes archaeological material or deposits. Section 4 (1) of the Heritage Act (as amended in 2009) defines a relic as:

...any deposit, artefact, object or material evidence that:

- (a) Relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*
- (b) is of State or local heritage significance*

Section 139 to 145 of the Heritage Act prevents the excavation or disturbance of land known or likely to contain relics, unless under an excavation permit. Section 139 (1) states:

A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance is carried out in accordance with an excavation permit.

Excavation permits are issued by the NSW Heritage Council or a Delegate of the NSW Heritage Council under Section 140 of the Heritage Act for relics not listed on the SHR or Section 60 for relics listed on the SHR. An application for an excavation permit must be supported by an Archaeological Research Design. Minor works that will have a minimal impact on a heritage item may be granted an exception or exemption under Section 139 (4) of the Heritage Act.

An application for an Exception to Section 139(4) may be made where the impact is considered to be in accordance with the following categories:



- (1A) An archaeological assessment, zoning plan or management plan has been prepared in accordance with Guidelines published by the Heritage Council of NSW which indicates that any relics in the land are unlikely to have State or local heritage significance.
- (1B) The excavation or disturbance of land will have a minor impact on archaeological relics including the testing of land to verify the existence of relics without destroying or removing them.
- (1C) A statement describing the proposed excavation demonstrates that evidence relating to the history or nature of the site, such as its level of disturbance, indicates that the site has little or no archaeological research potential.

In addition, under the Heritage Act all government agencies are required to identify, conserve and manage heritage items in the ownership or control. Section 170 requires all government agencies to maintain a Heritage and Conservation Register that lists all heritage assets and an assessment of the significance of each asset. They must also ensure that all items inscribed on its list are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the Government on advice of the NSW Heritage Council. These principles serve to protect and conserve the heritage significance of items and are based on NSW heritage legislation and guidelines.

The NSW *Environmental Planning and Assessment Act 1979*

The NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits. The EP&A Act also requires that Local Governments prepare planning instruments (such as Local Environmental Plans [LEPs] and Development Control Plans [DCPs]) in accordance with the Act to provide guidance on the level of environmental assessment required.

Local Environmental Plans (LEP's)

An LEP is a legal instrument that imposes standards to control development. LEP's are also used to reserve land or protect heritage items. The main purpose of an LEP is to achieve the objectives of EP&A Act and to implement strategies.

The study area falls within the boundaries of the Ku-ring-gai Local Government Area (LGA) and is subject to the Draft Ku-ring-gai LEP 2013 and the Ku-ring-gai LEP (Local Centres) 2012.

3.0 Methodology

Statutory registers provide legal protection for heritage items. In NSW the Heritage Act, and the EP&A Act give legal protection. The SHR, the s170 registers, and heritage schedules of LEPs are statutory listings. Places on the National Heritage List are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. In addition, a number of the heritage items are also listed on non-statutory heritage registers. Listing on these registers does not have any statutory implications, but does further demonstrate the recognised heritage value of the items.

Previously identified heritage items in the study area were located through a search of heritage registers. This search was undertaken in December 2013. The search included the following heritage registers:

- World Heritage List – The World Heritage List is maintained by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and includes items of international heritage significance.
- National Heritage List - The National Heritage List has been established to list places of outstanding heritage significance to Australia. It includes natural, historic and Indigenous places that are of outstanding national heritage value to the Australian nation.
- State Heritage Register - The SHR is a list of places and objects of particular importance to the people of NSW and is administered by the Heritage Branch of the Department of Planning and Infrastructure. The register lists a diverse range of over 1500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW.
- Section 170 Registers – Section 170 (s170) Registers are created by government bodies and are registers of all heritage listed items that are owned, occupied or managed by those bodies.
- The Ku-ring-gai Draft LEP 2013 and the Ku-ring-gai LEP (Local Centres) 2012 include a schedule of local heritage items and zoning maps that show the curtilages of heritage items.
- Register of the National Estate - The Register of the National Estate is a list of natural, Indigenous and historic heritage places throughout Australia. It was originally established under the *Australian Heritage Commission Act 1975*. Under that Act, the Australian Heritage Commission entered more than 13,000 places in the register. Following amendments to the *Australian Heritage Council Act 2003*, the Register of the National Estate (RNE) was frozen on 19 February 2007, and ceased to be a statutory register in February 2012. The RNE is now maintained on a non-statutory basis as a publicly available archive and educational resource.



- Register of the National Trust - The Register of the National Trust was established in 1949 and is maintained by the National Trust of Australia. It is a non-statutory register.

Documentary research was conducted to research the general history of the locality, as well as the history of the study area itself, and of heritage listed items within it. The following libraries and archives were consulted:

- State Library of NSW.
- National Library of Australia:
 - Maps (accessed through www.nla.gov.au/digicoll/maps.html).
 - Newspaper archives (accessed through www.trove.nla.gov.au/ndp/del/search?adv=y).
- Land and Property Information Division:
 - Parish Map Preservation Project.
 - Aerial Photographs.

Following this research, a site inspection was conducted to ground truth the desktop assessment and to identify and inspect any visible heritage items. A site inspection was undertaken by Josh Symons and Jenny Winnett on 4 of December, 2013, and by Jenny Winnett on 20 March 2014 and 24 June 2014. The site inspections were undertaken in accordance with best practice standards.

Based on information obtained through the above procedures, assessments of significance for each of the heritage items within the study area were prepared in accordance with the NSW Heritage Assessment Guidelines. These guidelines are included in the *NSW Heritage Manual* and are founded on the NSW heritage assessment criteria, which aim to minimise ambiguity and maintain consistency in the assessment process. The criteria encompass the four values identified in the Australia ICOMOS Burra Charter: historical significance, aesthetic significance, scientific significance, and social significance. They also include consideration of rarity and representativeness values. The criteria are summarised in Table 1 below. The heritage assessment guidelines also include two thresholds (state or local) for assessing the relative level of significance of heritage items.

Table 1: NSW heritage assessment criteria

Criteria	Description
A – Historical Significance	An item is important in the course or pattern of the local area's cultural or natural history.
B – Associative Significance	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history.
C – Aesthetic Significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area.
D – Social Significance	An item has strong or special association with a particular community or cultural

Criteria	Description
	group in the local area for social, cultural or spiritual reasons.
E – Research Potential	An item has potential to yield information that will contribute to an understanding of the local area’s cultural or natural history.
F – Rarity	An item possesses uncommon, rare or endangered aspects of the local area’s cultural or natural history.
G – Representative	An item is important in demonstrating the principal characteristics of a class of NSWs (or the local area’s): <ul style="list-style-type: none"> - cultural or natural places; or - cultural or natural environments.

3.1 Heritage listings

World Heritage List

There are no items within the study area listed on the World Heritage List.

National Heritage List

There are no items within the study area listed on the National Heritage List.

The State Heritage Register

A single item within the study area is listed on the SHR.

- “Woodlands” is listed on the SHR (No 01762)

Section 170 Registers

There are no items within the study area listed on section 170 registers.

The Ku-ring-gai Planning Scheme Ordinance (PSO) (amended 14 February 2014)

The Ku-ring-gai PSO covers those areas not covered by the Ku-Ring Gai LEP 2012 (Local Centres). The PSO contains a schedule of heritage items, listed by address, and Heritage conservation Areas. Ten heritage items listed on the PSO are located within the study area.

- 1-21 Lindfield Avenue (commercial block)
- 23 Stanhope Road
- 29 Stanhope Road
- 1 Werona Avenue
- 6 Waimea Road



- 55a Lindfield Avenue
- 4 Waimea Road
- Clanville Heritage Conservation Area
- Oliver Grant Heritage Conservation Area
- Springdale Heritage Conservation Area

The Ku-ring-gai Local Environmental Plan (Local Centres) 2012

Four heritage items listed on this LEP are located within or adjacent to the study area (Figure 11):

- Item No. I41 Commercial Block
- Item No. I42: “Laurabada”, dwelling house
- Item No. I55: St Alban’s Anglican Church
- Item No. C27 Blenheim Road Heritage Conservation Area

The Draft Ku-ring-gai Local Environmental Plan 2013 (LEP)

The Draft Ku-ring-gai LEP 2013 will replace the Ku-ring-gai LEP 2012 (Local Centres) and the Ku-ring-gai PSO (amended 14 February 2014). The study area contains 10 items of heritage significance listed on the draft LEP 2013 (Figure 12):

- Item No. I1106 Killara Railway Group
- Item No. I407 Killara Post Office
- Item No. I391 Dwelling House at 23 Stanhope Road
- Item No. I393 “Mooralbeck” Dwelling House at 29 Stanhope Road
- Item No. I405 “Woodlands” Dwelling House at 1 Werona Avenue
- Item No. I483 Dwelling House at 6 Waimea Road
- Item No. I482 Dwelling House at 4 Waimea Road
- Item No. C92: Clanville Heritage Conservation Area
- Item No. C26 Oliver Grant Heritage Conservation Area
- Item No. C21 Springdale Heritage Conservation Area

Lindfield Substation



Figure 11: Detail of the heritage map from the Ku-ring-gai LEP (Local Centres) 2012 with the study area in red and the proposed substation and 100 metre buffer shaded. North is to the top of the page.



Lindfield Substation

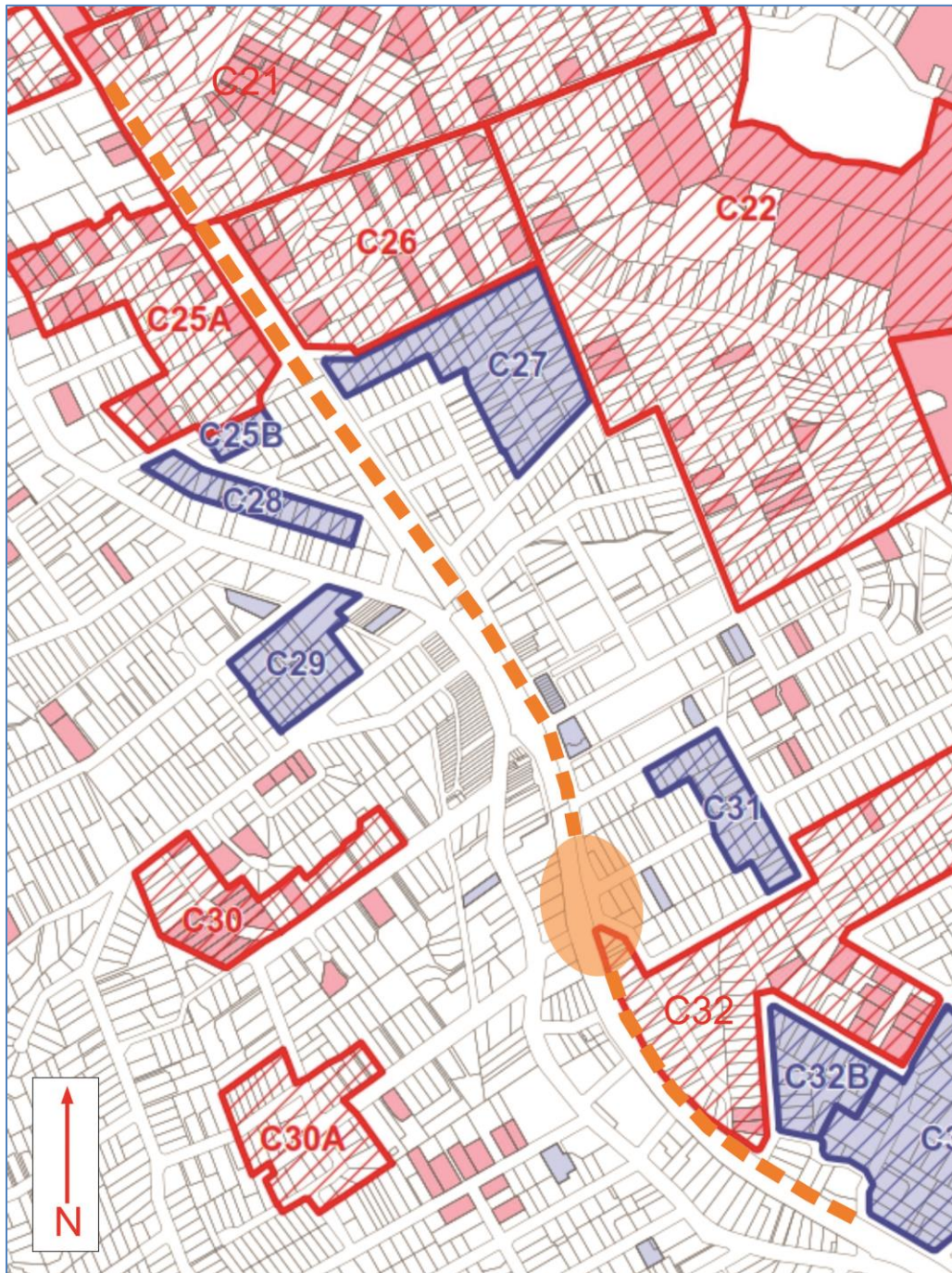


Figure 12: Detail of the heritage map from the Ku-ring-gai Draft LEP 2013 with the study area in red and the proposed substation and 100 metre buffer shaded. North is to the top of the page.





Figure 13: Heritage Conservation Areas on the Ku-ring-gai 2012 (local centres) LEP (blue) and Ku-ring-gai draft LEP 2013 (red).



Register of the National Estate

There are no items within the study area listed on the Register of the National Estate.

Register of the National Trust

There are no items within the study area listed on the Register of the National Trust.

4.0 Historical Context

The historical context of the subject land has been compiled from cartographic material, illustrations and aerial photographs. Written histories and the results of archaeological investigations were also used. Other records, held for example by the State Records Office, have the potential to provide information about the historical context of the subject land. Such detail would not alter the recommendations of this report, although its limitations are acknowledged.

4.1 Lindfield

Lindfield was originally the traditional land of the Kuringgai, or Guringai people.¹ The name of the suburb and Railway Station was taken from the name of a cottage constructed by an early settler in the region, Francis John List.

The focus of the suburb of Lindfield was originally on the Lane Cove River where a government convict timber-getting camp was established around 1810, known as the Lane Cover Sawing Establishment. The convict camp located at the river end of what is now Fiddens Wharf Road may have been established as early as 1805.² The timber was transported to the river and floated down to Sydney.

The population of the area increased from 1812, when the government encouraged settlement of the area by clearing timber from land. The first land grant was made in 1815. Daniel Dering Mathew was granted land in 1819 spanning what is now Roseville/Lindfield. Another early settler was William Henry, who occupied land on the Lane Cove River, Richard Archbold and George Cadby, who was granted 100 acres of land in 1831.³ Cadby's grant was located to the west of the study area, extending from present day Bent and Balfour Streets west to beyond Ivey Street.

Fruit trees and market gardens developed as the land in the area was cleared throughout the early 19th century. From 1840 fruit growing and farming gradually became the primary industries of the area.

The majority of early roads at Lindfield were created to provide access to the Lane Cove River and the highway only became the focus of the area in the mid-19th century. The railway line was established in 1890, increasing and diversifying the population as Lindfield began to be increasingly suburbanised. By the early 20th century Lindfield was an established suburb with a post office, churches, schools, cricket

¹ Rowland & Edwards, 2012, 'Lindfield' in *Dictionary of Sydney*, Accessed online.

² 'Lindfield' accessed online from the KU-Ring-Gai Historical Society <http://www.khs.org.au/local/lindfield.html>, 19/12/2013.

³ 'Lindfield' accessed online from the KU-Ring-Gai Historical Society <http://www.khs.org.au/local/lindfield.html>, 19/12/2013.

Lindfield Substation



and tennis clubs and retail shops and the suburb was advertised as offering a healthy lifestyle for families away from the city but accessible by rail.⁴

Figure 14: View of Lindfield Station looking north, date unknown. National Museum of Australia Collection.



Views of streets to the immediate east of the study area taken in the early 20th century show wide unsurfaced streets and numerous residential houses on large blocks (Figure 15).

Figure 15: Postcard depicting Middle Harbour Road, 1900 to 1927, to the east of the study area. Sydney & Ashfield: Broadhurst Post Card Publishers, SLNSW.



⁴ Rowland & Edwards, 2012, 'Lindfield' in *Dictionary of Sydney*, Accessed online.

4.2 The study area

The study area was part of a grant of 400 acres made to Daniel Dering Mathew in 1819. The original grant covered the area from the Pacific Highway to Archbold Road and from Boundary Street north to Tryon Road. Mathews named the area the Clanville Estate. Around 1830 Mathew sold the estate to Richard Archbold, his neighbour to the south. Archbold worked the estate for its timber and then planted the land with fruit trees. After Archbold's death in 1836 the farm was worked by his wife, Mary, using convict labourers, until her death in 1850.

On Mary's death the estate was divided between the Archbold children, Richard and Gerald. The study area is located in the northern estate of Richard Archbold, the eldest son. The timber and fruit of the Archbold estates had to be transported to Sydney for sale, and was taken to the Lane Cove River down a track known for a time as Dick's Road (now Grosvenor Road).

The Clanville Estate was one of the last in the area to be substantially subdivided. In 1893 and 1894 the estate underwent a series of subdivisions throughout the late 19th and early 20th centuries, with the area increasing in popularity with the establishment of the North Shore railway line in the early 1890s. This subdivision pattern continues to be reflected in the layout of the suburb of Lindfield, and the area immediately surrounding the study area, to the present day.

Figure 16: Detail from an undated plan of the Parish of Gordon, probably dating to the mid 19th century. The original Clanville grant is intact and Richard Archbold is most likely in ownership. A house he has constructed on the property has been labelled with his name. The approximate location of the study area is shaded in red. Historical Land Records Viewer, NSW Government Land & Property Information.



Lindfield Substation



Figure 17: Detail from an undated plan of the Parish of Gordon, most likely dating to the mid to late 19th century. The area is continuing to be developed with additional land grants to the east of the Clanville estate. Historical Land Records Viewer, NSW Government Land & Property Information.

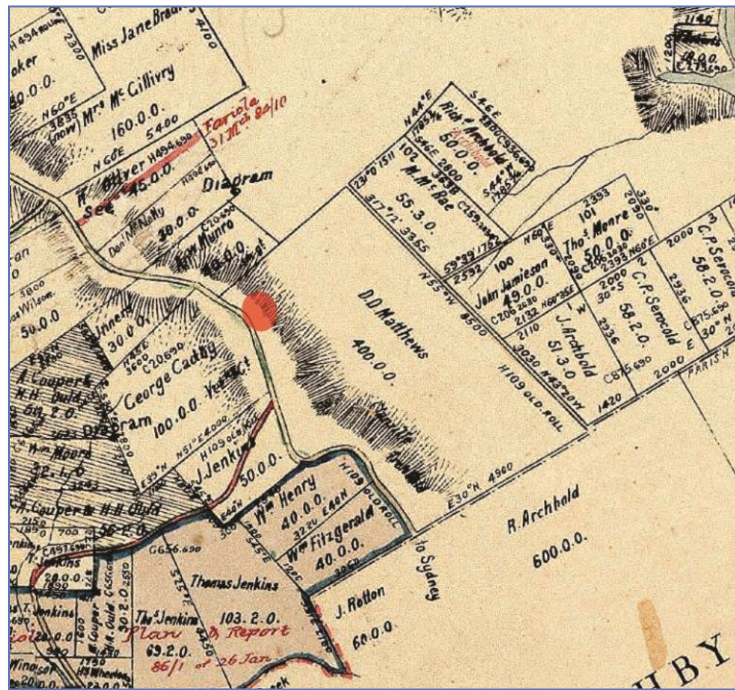
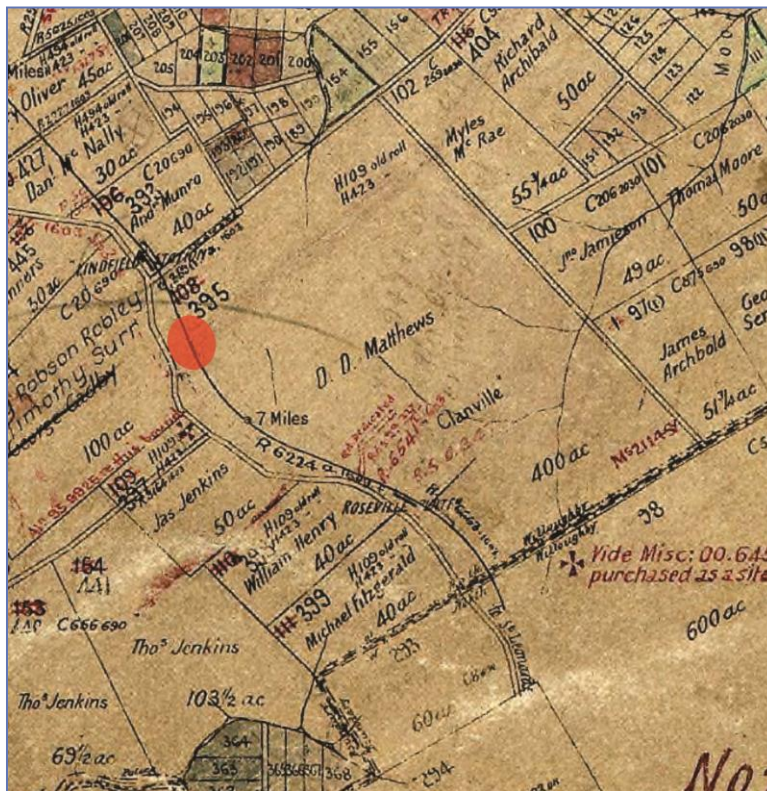


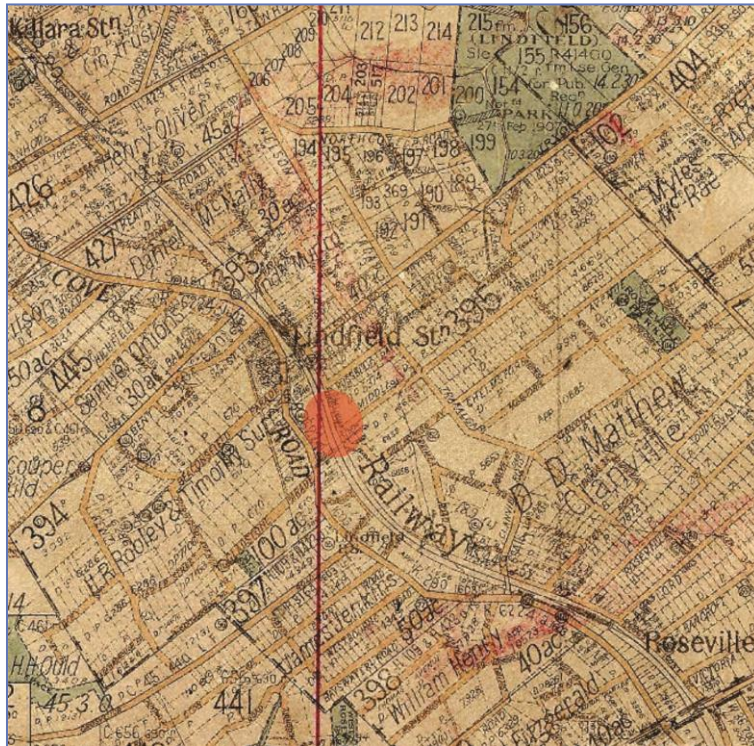
Figure 18: Detail from a plan of the parish of Gordon dating to 1893. The railway has been established in the west of the Clanville Estate. The approximate location of the study area is shaded in red. Historical Land Records Viewer, NSW Government Land & Property Information.



Lindfield Substation



Figure 19: Detail from a plan of the parish of Gordon in 1917. The area has been completely subdivided. The approximate location of the study area is shaded in red. Historical Land Records Viewer, NSW Government Land & Property Information.



5.0 Heritage Items

5.1 Commercial block, 1-21 Lindfield Avenue, Lindfield

The inventory sheet for the building, held by the Ku-ring-gai Council, is incomplete, as is often the case with older heritage listings. The building was constructed between 1921 and 1940 and was listed as being locally significant on social and architectural grounds.

Figure 20: A photograph of the block of commercial buildings in Lindfield, mid-20th century.



5.2 'Laurabada' dwelling house

5.2.1 History and description

'Laurabada' is located at 9 Middle Harbour Road, Lindfield, approximately 90 metres to the east of the study area. The house was probably built around 1920. The property was originally part of 400 acres granted to Daniel Dering Mathew in July 1819. By the early 20th century the site was part of land consolidated and subdivided by The Anglo, Australian Assets Company Ltd. In September 1906 the site (Lot 6) was purchased by Edward William Briscoombe. The property was again transferred in 1911.

'Laurabada' is a single storey Federation period Bungalow constructed of painted brick with a hip roof clad in terracotta tile, Dutch gable with timber vents at the apex and brick chimneys. The verandah roof is supported on timber posts with decorative timber screens and balustrades. The house is set back from the street frontage which features a timber post and picket fence and timber gate. A stone flagged path

and garden edging extends across the front of the house and the yard feature open lawn with perimeter plantings.

Figure 21: View of 'Laurabada' house.



5.2.2 Heritage significance

The statement of significance for 'Laurabada' as outlined in the Ku-ring-gai (Local Centres) LEP 2012 is as follows:

No. 9 Middle Harbour Road, Lindfield, has significance as part of the early residential development of the suburb of Lindfield during the second decade of the 20th Century when the subdivision of the larger holdings was at its peak. Although having undergone some modifications to the original building, the house remains largely intact externally with its original Federation Bungalow stylistic detailing. The largely intact and mature gardens at the front of the house contribute to the streetscape character as a significant curtilage to this early 20th Century residence.

5.3 St Albans Anglican Church

5.3.1 History and description

The heritage item includes the St Albans church complex, including the church, hall, offices and residence, at 1-5 Tryon Avenue.

Construction of the church began in 1920 but due to financial constraints it was not completed until 1942. The building is large Inter War Gothic style building constructed of dark brown brick and a stone base.



Darker bricks have been used to highlight detail elements such as the corners, strong courses and decorative elements and lighter cream coloured bricks are used in an unusual checker board pattern above the main windows at the top of the gable ends and at the top of the castellations. The roof is unlikely to be original.

The residence is located in Tryon Road, east of the church building. It is a good quality Inter War brick bungalow which appears to be externally intact. The c1960 hall is a large two storey height building with a gable roof, concrete roof tiles, brick walls and aluminium windows. It is linked to the church building at the rear of the building and has a separate entry via a stone clad entrance building to the northern side at the street elevation.

The subject site was originally part of a 400 acre grant to Daniel Dering Mathews in July 1819. By 1893 the Seldon Estate had been subdivided and offered for sale as 21 lots extending east from the railway line along Tryon Road. Lot 5, 6 and 7 were purchased by the church in 1894 and a simple timber structure built on the land in 1904. Construction of the current church commenced in 1920. It is likely that the brick residence was built around the same time and served as a dwelling using the timber church until the brick church had been completed.

Figure 22: St Albans Anglican Church, Lindfield. View to the south-east.



Figure 23: The brick residence in Tryon Avenue, with the church behind. View to the south west.



5.3.2 Heritage significance

The statement of significance for St Albans Anglican Church as outlined in the Ku-ring-gai (Local Centres) LEP 2012 is as follows:

The church building is a good representative example of a large Inter War Gothic Style brick church which has simplified medieval design details such as castellations to the bell tower and unusual triangular parapet detail. The building is of high quality workmanship particularly the brickwork and leadlight windows. The church is of landmark social and historical value to the local community in providing spiritual and religious services for 100 years. The site includes a good representative example an Inter War bungalow residence and a c1960 hall and office facilities. The complex of buildings makes a strong contribution to the Lindfield Town Centre and is located on a landmark site, opposite the Lindfield Railway Station and next to the retail and commercial precinct.

5.4 Blenheim Road Conservation Area

5.4.1 History and Description

The Blenheim Road Conservation Area encompasses all properties in Blenheim Road, with boundaries along Treatts Road, Kenilworth Road, Woodside Avenue and Nelson Road.

The Blenheim Road Conservation Area is a wide street, kerbed and guttered, with mature street tree planting. Single storey intact Federation Queen Anne and Inter-war California Bungalow style housing



predominates. House walls are predominantly brick and roughcast stuccoes with slate or unglazed terracotta tile roofs, and timber framed windows with casements or double-hung.

Figure 24: Location map of Blenheim Road Conservation Area.

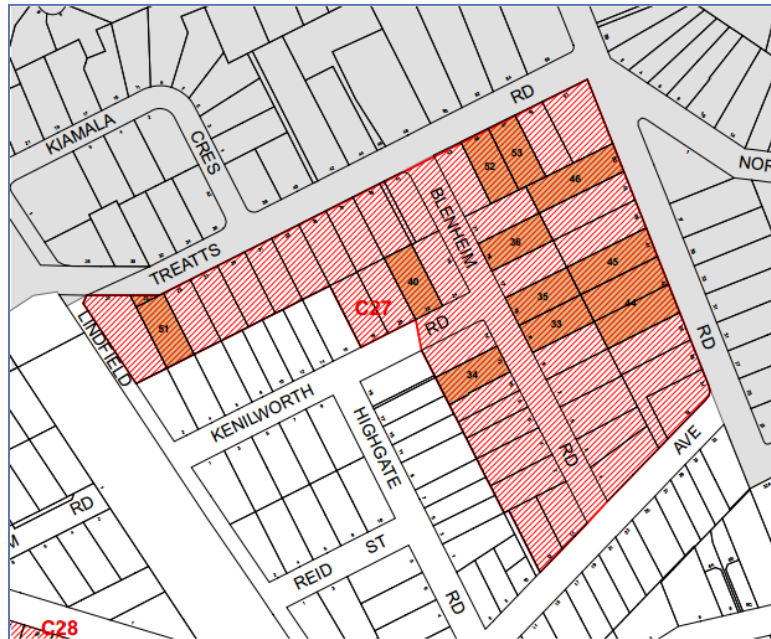


Figure 25: Example of housing within the Blenheim Road Conservation Area.





5.4.2 Heritage significance

The statement of significance for the Blenheim Road Conservation Area contained within Ku-ring-gai DCP 2012 is as follows:

The Blenheim Road Conservation Area has historical and aesthetic significance. The Blenheim Road HCA is of historical significance as an intact portion of the Heart of Lindfield subdivision auctioned in December 1911.

The Blenheim Road HCA is of aesthetic significance as a predominantly intact area of overwhelmingly single storey Federation and Inter-War housing.

5.5 The Killara Railway Station Group

5.5.1 History and Description

The Killara Railway Station is located in a suburban setting away from the Pacific Highway between Werona Avenue and Culworth Avenue. It is enclosed by mature trees that line both sides of these roads. The station consists of an early twentieth century station building, modern steel awnings, an island platform, footbridge, and a well maintained ornamental garden on the eastern side.

In 1887, tenders were called for construction of a branch line extending south from Hornsby to the North Shore. The 16.8km section between Hornsby and St Leonard's was opened on 1 January 1890. Stations provided at the opening of the line included Chatswood and St Leonard's. Killara Railway Station was opened between Lindfield and Gordon on 10 July 1899.

A single line was built from the outset, with the single platform constructed on the Down side of the line in such a way that it could easily be modified to become part of an island platform arrangement when duplication was carried out. A temporary timber building was provided initially, but a standard island platform type brick building was built in 1906 in anticipation of the future duplication.

5.5.2 Heritage significance

The statement of significance for the Killara Railway Station Group obtained from the SHI listing for the item is as follows:

Killara Railway Station has heritage significance at a local level. It is a typical suburban station with associated ornamental gardens, and one of the few stations in the region where there has been relatively little change to the appearance of the overall setting. It is one of a number of stations that demonstrate the significant impact of the railway in facilitating settlement in the northern suburbs of Sydney and is an important station on the first purely suburban line in NSW. The station has local



significance in terms of its association with the formerly prestigious Railway Stations Gardens Competition. It is one of the most important and intact railway gardens in the region. The grouping of the station building, platform and footbridge in their landscape setting, contribute to the characteristic nature of the North Shore line, with its homogenous early twentieth century station designs and garden settings. The replacement of the original roof form of the station building with a poorly designed substitute structure detracts from the overall setting and significance.

5.6 The Killara Post Office

The former Killara Post Office, along with the ornamental garden of the Killara Railway Station, forms part of small but significant suburban heritage precinct.

The inventory sheet for the building, held by the Ku-ring-gai Council, is incomplete, as is often the case with older heritage listings.

5.7 Dwelling House at 23 Stanhope Road, Killara

The heritage listing for this item is incomplete. It was constructed between 1901 and 1920.

The statement of significance for this item, taken from its inventory listing on the SHI states that that item has architectural, group value and municipal significance.

5.8 “Mooralbeck” Dwelling House

5.8.1 History and Description

The building occupying Lot 1, 29 Stanhope Road is a two storey, early twentieth century building, constructed in the Federation Arts and Crafts style and is referred to in the Heritage study area of the Municipality of Ku-ring-gai as Item No. 28:064.

It represents a fine example of Federation Arts and Crafts architecture and it remains in largely original condition both externally and internally. It may date from 1907.

The building features an upright styling with a steeply pitched, terra cotta tiles roof set behind prominent decorative gables. Large box windows feature on most elevations. Walls are of red face brickwork at the lower level and stuccoed in the Federation fashion above a stringer course.

A number of small out buildings exist on the site but these are not significant structures and most probably date from the period 1921-1938.

5.8.2 Heritage significance

The statement of significance for Moorlabek, obtained from a Statement of Heritage Impact for the property,⁵ is as follows:

The building is of historical significance for its links to the residential development of Killara after 1890. The building is of aesthetic significance as it is a fine example of a Federation Arts and Crafts period building which remains largely intact.

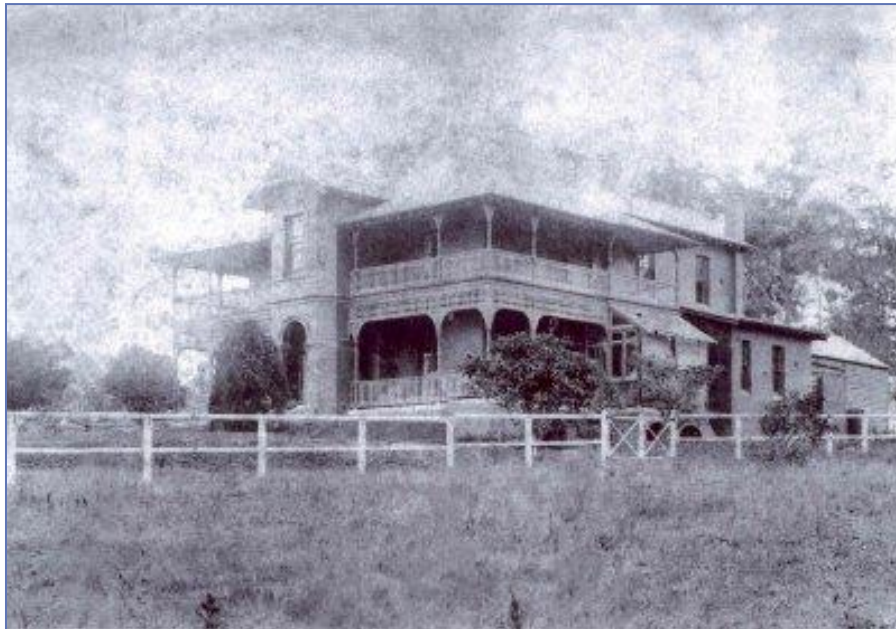
5.9 “Woodlands” Dwelling house

5.9.1 History and Description

“Woodlands” (formerly known as “Inglewood”) is situated on approximately 2113 metre square corner block (formed from 2 lots) bound by Kiamala Crescent to the north and Werona Avenue to the west. The house occupies a central position on the site with evidence of the original tennis court adjacent to the western side of the house. The original entrance is marked by two palm trees. Subdivision of the property has altered the original front boundary.

In its original form (circa 1800) the house was a two storey square brick building reminiscent of the Victorian Georgian style. The bricks were coated with stucco and marked to give the appearance of ashlar masonry.

Figure 26: Photograph of “Woodlands” taken in the late 19th century.



⁵ David Ives Heritage Architect, for P.G. Binet Pty Limited, October 2006.

5.9.2 Heritage significance

The statement of significance for “Woodlands” obtained from the SHR listing for the item is as follows:

The c.1884 “Woodlands” (originally known as “Inglewood”) is of State heritage significance for its historical association with the acclaimed Australian children’s author Ethel Turner (1870-1958) whose most famous literary work ‘Seven Little Australians’ was written during Turner’s occupancy of the property.

Ethel Turner lived at “Woodlands” with her family from September 1891 to December 1894. During this period she wrote three books: her first and most famous children’s novel ‘Seven Little Australians’, its sequel ‘The Family at Misrule’, and ‘The Story of a Baby’. ‘Seven Little Australians’ and its sequel were strongly influenced by the social and domestic environment of “Woodlands” and its natural surroundings creating a provocative portrayal of children and Australian identity in the late 19th century.

‘Seven Little Australians’ has been in print for well over 100 years. It has sold over several million copies in the English language. It has been translated into at least 13 languages, performed as stage play and been made into a film, a BBC television series in 1953, a 10 episode television series for the ABC in 1973 and a musical in 1988.

“Woodlands” is one of the earlier substantial Ku-ring-gai residences pre-dating the Hornsby to St Leonards railway line which opened in 1890. The two storey late Victorian Georgian style house demonstrates many aspects of the Federation Filigree style having been remodelled during the Federation period. It provides a rare example of the layering of the Victorian and Federation era styles in domestic architecture.

5.10 Dwelling house at 6 Waimea Road, Roseville

The heritage listing for this item is incomplete. It was constructed between 1901 and 1920.

The statement of significance for this item, taken from its inventory listing on the SHI states that that item has architectural, group value and municipal significance.

5.11 Dwelling house at 4 Waimea Road, Roseville

5.11.1 History and Description

The heritage listing for this item is incomplete. It was constructed between 1901 and 1920.



The statement of significance for this item, taken from its inventory listing on the SHI states that that item has architectural, group value and municipal significance.

5.12 55a Lindfield Avenue (The Lindfield Club)

5.12.1 History and Description

The Lindfield Chess and Whist Club officially convened on 12 February 1901. In 1902 a small timber clubhouse was constructed in the Gordon Road (now the Pacific Highway), the building was moved to the present site in 1922 and placed behind the existing cottage.

The item consists of a small timber-framed clubhouse, with weatherboard clad walls and corrugated iron roofing.

5.12.2 Heritage significance

The statement of significance for 55a Lindfield Avenue, the Lindfield Club, obtained from the SHI listing for the item is as follows:

The Lindfield Club is a rare and unusually intact example of a small local society/club meeting room, or well-documented history and with very strong links to its surrounding community. It is of historical interest for its strong local associations and its sheer rarity as an intact example of its type; it retains an aesthetic value arising from its design and interior fitout, it is of research value for its capacity to illuminate the past history of the club and its district; it has social value arising from its significance to the local community, amongst whose elder residents the club draws most of its members, and for whom the building has been a focus of social life. While the building might be thought representative in all of these categories, its rarity makes it special indeed and it may be one of a few such examples left in the greater Sydney area and the State, possibly making it of State Significance.

5.13 Clanville Heritage Conservation Area

5.13.1 History and Description

Located to the south of Chelmsford Avenue, East Lindfield, only a small portion of the Clanville HCA is within the study area. Views from the conservation area into the proposed Lindfield substation site are largely obscured by existing vegetation.



5.13.2 Heritage significance

The statement of significance for the Clanville HCA contained within Ku-ring-gai Draft LEP 2013 is as follows:

The Clanville HCA has high historic significance as the David Dering Mathew grant of 400 acres called "Clanville", whose boundaries are evident through the following streets; Archbold Road, Boundary Street, Pacific Highway and Tryon Road. Successive subdivisions in the late nineteenth century were spurred by the development of the North Shore Railway Line in 1890 – 1893. This subdivision reflects improved transport connections due to the construction of the North Shore Railway Line. Further subdivisions took place in the early twentieth century.

The HCA has high aesthetic significance as a cohesive early twentieth century and Interwar development and for the high proportion of quality houses.

5.14 Oliver Grant Heritage Conservation Area

5.14.1 History and Description

The topography of the Oliver Grant HCA is generally elevated. The streets are perpendicular to the railway line. Lorne Avenue reflects the alignment of a creek to the North. The street grid is distorted by the alignment of Lorne Avenue. The lots are inconsistent due to this alignment and due to layers of re-subdivision.

5.14.2 Heritage significance

The Oliver Grant HCA forms part of the 45-acre Henry Oliver grant later divided into three farms. The grant boundaries are evident through the following streets: Stanhope Road, Pacific Highway and Treatts Road. The HCA has high historic significance for its early twentieth century subdivisions of Killara Park estate (1904) and Restholm Estate (1902). These subdivisions reflect improved transport connections due to the construction of the North Shire railway Line. The HCA has medium historic significance for the overlay of Interwar subdivision evidence in the lots on the southern side of Stanhope Road and some houses. This later subdivision reflects improved transport connections due to the construction of the Sydney Harbour Bridge and the electrification of the railway in 1927.

The HCA has high aesthetic significance as a reasonably intact late nineteenth century and early twentieth century development, and high aesthetic significance for the high proportion of quality houses.



5.15 Springdale Heritage Conservation Area

5.15.1 History and Description

The Springdale HCA consists of one and two-storey Interwar development with remnant of c1920 Federation houses.

5.15.2 Heritage significance

The Springdale Heritage Conservation Area has high historic significance as the 1839 160 acres of Jane Bradley's Springdale grant whose boundaries are evident through the following streets: Karanga Avenue, Locksley Street, Roseberry Road, Stanhope Road and the Pacific Highway. Jane Bradley married James McGillvray in 1830. The HCA has high historic significance as a late nineteenth century subdivision of the Springdale Estate evident in the lots and fine houses. The HCA reflects improved transport connections due to the construction of the North Shire Rail line and the opening of Killara Station in 1899 The consolidation of development reflects improved transport connections due to the electrification of the railway in 1927 and the construction of the Sydney Harbour Bridge. The HCA has high aesthetic significance as a cohesive late nineteenth and early twentieth century development for its high proportion of quality of houses.

6.0 Assessment of Archaeological and Research Potential

6.1 Background

Archaeological potential is defined as the potential of a site to contain archaeological relics, as classified under the Heritage Act. Archaeological potential is assessed by identifying former land uses and associated features through historical research, and evaluating whether subsequent activity may have impacted on evidence for these former land uses. The research potential of a site is its potential ability to contribute to knowledge of one or more aspects of local or NSW history.

Archaeological potential should essentially be understood as ‘what is the potential for remains to be present’ where as research potential should be understood as ‘how important or significant might those remains be?’ It is possible for an area to be of high archaeological potential but low research potential.

6.2 Known impacts in the study area

The study area has been occupied by the railway line and surrounding residential properties from the late 19th century. The study area is likely to have been subject to impacts that may have affected the potential archaeological resource. The impacts may include, but are not limited to, the following:

- Increasing residential density in the Lindfield area achieved through subdivision.
- The widening and formalisation of the Pacific Highway.
- Early 20th century construction impacts from the residences to the east and the south of the study area. This may have involved the excavation of footing trenches and ground levelling.
- The establishment of Lindfield Avenue in the early 20th century.
- The establishment of the North Shore railway line in the late 19th century. The construction of the line in the study area would have involved substantial excavation and ground modification that would have resulted in the displacement of any potential archaeological remains.
- The installation of the existing power lines and in-ground electrical services relating to the railway.

6.3 Assessment of archaeological potential

Archaeological potential is defined as the potential of a site to contain archaeological relics, as classified under the *Heritage Act 1977*. Archaeological potential is assessed by identifying former land uses and associated features through historical research, and evaluating whether subsequent actions may have impacted on evidence for these former land uses.



The proposed substation, and all works to the south of the substation site, are located within what was originally the Clanville estate. Granted in 1819, the estate was originally utilised for its timber resources. It is likely that this period of intensive timber felling lasted into the mid-19th century. After this resource had been exhausted, the property was planted with citrus. Therefore archaeological remains from this period of the estate are likely to include evidence of the types of plants established within the property (obtained through soil and pollen analysis), structural remains such as fencing, water managements systems (dams and channels) and evidence of landscape modification (vegetation clearance, earth movement). Archaeological remains associated with these types of activities tend to be extremely ephemeral.

Analysis of historic plans of Lindfield indicates that the Clanville estate remained relatively intact into the early 20th century. Figure 17 indicates that the Clanville estate contained a single structure in the early to mid-19th century, constructed during Richard Archbold's ownership of the property. This structure was located outside and to the south of the current study area. Later maps do not indicate that additional structures were located within the Clanville estate (although this is not uncommon in Parish maps, which do not tend to show structures), and it is likely that the study area did not contain any substantial structures until it was subdivided in the early 20th century. Therefore, the study area is unlikely to contain substantial archaeological remains associated with later residential occupation.

Due to the substantial impact caused by the construction of Lindfield Avenue and the railway line, and the unlikelihood of encountering ephemeral remains associated with earliest agricultural use of the Clanville estate, it is highly unlikely that archaeological remains will have survived within the study area.

The proposed works to the north of the proposed substation sites have no potential to impact on archaeological remains, as the works will be contained within a highly disturbed rail corridor, will affect overhead wiring only, or, in the case of new electricity poles, be located within areas of existing disturbance created when the current electricity poles were installed.

Overall, the proposed works will have little to no potential to encounter significant or substantial archaeological remains.

7.0 Statement of Heritage Impact

7.1 Description of the proposal

As outlined in section 1.3, the proposal will involve the following works:

- Construction and operation of a new traction power substation at Lindfield in order to continue to power the Sydney Trains network (in particular the North Shore Line). Components of the substation would generally include:
 - Construction of two new rectifier transformers
 - Installation of switchgear room containing switchgear and switchboards, batteries and changers, voice and data communications equipment
 - Installation of the rectifier and reactor unit(s)
 - Office and associated facilities
 - Earthworks and construction of a retaining wall on the western side of the substation site, adjacent to the rail line
- Construction of a new driveway access to the proposed substation site from Lindfield Avenue and a paved surface area for car parking for approximately four vehicles within the proposed substation compound
- Security and permanent maintenance lighting within and external to the building
- Landscaping and vegetation surrounding the proposed substation building, generally to the east and south of the substation
- Realignment of the existing 33 kilovolt (kV) and 11 kV OHW to a new CSR, generally between power pole P57 (to the south of Lindfield Station near the intersection of Russell Avenue, Lindfield) and power pole P49 (to the north of the Clanville Road overbridge)
- Relocation and installation of signalling and communication cable to the substation to connect with existing cables along the North Shore Railway Line
- Installation of feeder and return cabling to the OHW system on the North Shore Line
- Installation of an aerial earth wire to the top of the existing (Sydney Trains) power poles, generally between Killara Station and Russell Avenue, Lindfield.
- Relocation of street lighting and power routes to provide access to the substation for construction and maintenance (including future replacement of substation equipment).



7.2 Impact of the proposal on heritage items

With the exception of vistas and views to and from heritage items, the current proposal will have no direct impact on potential archaeological resources or heritage buildings within the study area. The potential visual impacts of the proposal on heritage items within the study area will be discussed below.

7.2.1 Commercial Block

The Commercial Block is located on the eastern side of Lindfield Avenue and is located in an area where the only impact will be the installation of an additional overhead wire to the top of the existing power poles. As the poles are existing, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the item.

7.2.2 'Laurabada' dwelling house

'Laurabada' is located over 100 metres to the east of the proposed substation building. Visual connections between the proposal and the heritage item are therefore limited. This view corridor is further obscured by the mature street plantings alongside the road corridor on Middle Harbour Road (Figure 27).

The proposal also adheres to the recommendations for management of 'Laurabada' outlined in the inventory sheet for the heritage item, included in the Ku-ring-gai (Local Centres) LEP 2012:

- Any redevelopment or, or additions to, the extant building should respect the existing character of the building and be located to have the least visual impact from Middle Harbour Road.
- Significant details such as the extant timber doors and windows, the roof tower element and timber verandah detailing should be retained intact in any future modifications to the building.
- The picket fence, the garden and ornamental plantings at the front of the house should be retained as an important contribution to the context of the house.

The proposal therefore has no impact on the heritage significance of 'Laurabada.'

Figure 27: View to the west along Middle Harbour Road toward the proposed substation site (far middle ground).



7.2.3 St Albans Anglican Church

The site comprising a complex of church, residence and hall has a high level of social, aesthetic and historical significance to the local community. The visual connections between the church complex and the proposed substation site, however, are extremely limited (Figure 28). Lindfield Avenue rises slightly to the south, which mostly obscures the study area. Mature street plantings further obscure this view corridor. The significant view corridor towards the church is to the south from the Lindfield Railway Station and town centre, located further north. The rear view of the church complex is heavily vegetated.

The proposal adheres to the to the recommendations for management outlined in the inventory sheet for the heritage item, included in the Ku-ring-gai (Local Centres) LEP 2012, that state

- New medium density development on neighbouring or nearby sites should respect the heritage significance of the building and have appropriate setbacks
- New medium development should not visually dominate the church
- New development on neighbouring land should not reduce views to or from the church or from the public realm.

The proposed substation would not visually dominate the church, or reduce views to or from the church, or from the public realm. The proposal therefore has no impact on the heritage significance of 'Laurabada.'

Figure 28: view to the south-west toward the proposed substation site from the corner of Russell and Lindfield Avenue.



7.2.4 Blenheim Road Heritage Conservation Area

The Blenheim Road is located on the eastern side of Lindfield Avenue, which separates the item from the study area and the railway corridor. It is located in an area where the only impact will be the installation of an additional overhead wire to the existing power poles. As the poles are extant, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the item.

7.2.5 The Killara Railway Group

The Killara Railway Group is located immediately north of the proposal study area. The only impact in this location will be the installation of an additional overhead wire to the existing power poles. As the poles are extant, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the item.

7.2.6 The Killara Post Office

The Killara Post Office is located on the eastern side of Werona Avenue, which separates the item from the study area and the railway corridor. It is located in an area where the only impact will be the installation of an additional overhead wire to the existing power poles. As the poles are extant, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the item.

7.2.7 Dwelling houses at 23 and 29 Stanhope Road and “Woodlands”

The heritage items are located on the eastern side of Lindfield Avenue, which separates them from the study area and the railway corridor (Figure 29). It is located in an area where the only impact will be the installation of an additional overhead wire to the existing power poles. As the poles are extant, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the items.

Figure 29: View east, from the study area towards “Woodlands”.



7.2.8 Dwelling houses at 4 and 6 Waimea Road

The houses at 4 and 6 Waimea Road are oriented to the south-west and towards the railway corridor; however, direct views towards are obscured by the high bank of the rail line in this location. The heritage items are located in an area where the only impact will be the removal of existing overhead power lines and their replacement with in-ground services.

The proposal would therefore have no impact on the heritage significance of the items.



7.2.9 55a Lindfield Avenue

The building at 55a, the Lindfield Club, is located behind 55 Lindfield Avenue and is accessed off Havilah Lane. There is no visual connection between the property and the study area. The proposal would therefore have no impact on the heritage significance of the item.

7.2.10 Clanville Heritage Conservation Area

The proposed location of the Lindfield substation site is to the immediate north of the Clanville Heritage Conservation Area (Figure 30). The proposed substation would be clearly visible from Strickland Avenue, where it crosses the railway line, which is immediately north of the HCA. There is a clear visual connection between the northernmost portion of the HCA and the southernmost portion of the proposed substation. The installation of security fencing and retaining wall, and the construction of the substation building itself, would be the most visually intrusive elements of the proposal. However, this view of the substation site would only affect the residence at the intersection of Lindfield and Strickland Avenues, which is screened from Strickland Avenue, and therefore the proposed substation site, by a substantial garden (Figure 31). The visual impact of the HCA is therefore considered to be acceptable if measures are taken to minimise visual impacts by establishing screening vegetation and using sympathetic finished where possible.

Figure 30: View to the north from Strickland Avenue, where it crosses the railway line. The Clanville HCA is immediately to the south of this image. Google Streetview.



Figure 31: Google streetview image looking south towards the residence at the intersection of Strickland and Lindfield Avenues. Note the substantial plantings. Google Streetview.



7.2.11 Oliver Grant Heritage Conservation Area

The conservation area is located on the eastern side of Lindfield Avenue, which separates the item from the study area and the railway corridor. It is located in an area where the only impact will be the installation of an additional overhead wire to the existing power poles. As the poles are extant, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the conservation area.

7.2.12 Springdale Heritage Conservation Area

The conservation area is located on the eastern side of Lindfield Avenue, which separates the item from the study area and the railway corridor. It is located in an area where the only impact will be the installation of an additional overhead wire to the existing power poles. As the poles are extant, there will be no additional visual impact on this heritage item.

The proposal would therefore have no impact on the heritage significance of the conservation area.

7.2.13 Overview of heritage constraints

Table 2 provides a summary of potential heritage constraints on the proposal. This includes impacts to heritage buildings and fabric, impacts to the potential archaeological resource within the study area and potential impacts on views and vistas.



Table 2: Potential heritage constraints of the proposal

Item Name	On heritage buildings/fabric	Potential heritage constraints On potential archaeology	On views and vistas
Commercial Block	None	None	None
'Laurabada' dwelling house	None	None	None
St Albans Anglican Church	None	None	None
Blenheim Road HCA	None	None	None
Killara Railway Group	None	None	None
Killara Post Office	None	None	None
Dwelling House at 23 Stanhope Road	None	None	None
"Mooralbeck"	None	None	None
"Woodlands"	None	None	None
Dwelling House at 6 Weimea Road	None	None	None
Dwelling House at 4 Weimea Road	None	None	None
55a Lindfield Avenue	None	None	None
Clanville HCA	None	None	The proposed substation, security fencing and retaining wall will all be clearly visible from the northern most portion of the HCA, although this is screened by existing plantings.
Oliver Grant HCA	None	None	None
Springdale HCA	None	None	None



7.3 Overall statement of Heritage Impact

Table 3 provides a Statement of Heritage Impact (SoHI) for the proposed works.

Table 3: SoHI

Development	Discussion
<p>What aspects of the proposal respect or enhance the heritage significance of the study area?</p>	<p>The proposal, as a whole, would not have a negative impact on the heritage items contained within the study area, on any potential archaeological remains, or on the heritage significance of the study area as a whole.</p> <p>There is extremely limited visual connection between the majority of heritage items and the proposed works. In instances where there is a visual connection between the railway corridor and the heritage item, the work proposed is minor and will involve the installation of an additional power line to existing power poles. In some instances visual outlook may be improved by the removal of power poles and the in-ground installation of electrical services.</p> <p>There is a visual connection between the northernmost portion of the Clanville HCA and the proposed substation site. However this view would only affect the residence at the intersection of Lindfield and Strickland Avenues, which is screened from Strickland Avenue, and the proposed substation site, by a substantial garden. The visual impact of the HCA is therefore considered to be acceptable if measures are taken to minimise visual impacts by establishing screening vegetation and using sympathetic finished where possible.</p>
<p>What aspects of the proposal could have a detrimental impact on the heritage significance of the study area?</p>	<p>The proposal is unlikely to have a detrimental impact on the heritage items included within the study area. There are no impacts to heritage fabric, and the study area does not have archaeological potential.</p> <p>Visual impacts of the proposal on the Clanville HCA are considered acceptable.</p>
<p>Have more sympathetic options been considered and discounted?</p>	<p>n/a</p>

8.0 Conclusions and Recommendations

This Statement of Heritage Impact makes the following conclusions:

- The heritage significance of the majority of listed items adjacent to or within the study area will not be affected by the proposal.
- The exception to this is the Clanville HCA, which is located to the south of the proposed Lindfield substation site. There are some visual constraints in this location although the negative impact of the proposal on the HCA is considered to be minor. These minor impacts could be mitigated by introducing screening vegetation at the completion of works and taking care in the choice of sympathetic finishes and elevations.

The following recommendations have been made to mitigate the potential impact of the proposal on the Clanville HCA:

- Care should be taken to make the substation building as unobtrusive as possible. This can be achieved by completing the roofing and walls in dark colours, sympathetic to the surrounding area.
- The lower the substation is in the landscape, the less visual impact it would have on the HCA, and the surrounding Lindfield area.
- Consideration should be given to introducing screening vegetation along the southern boundary of the proposed substation site at the completion of works



9.0 References

David Ives Heritage Architect, October 2006, *Statement of Heritage Impacts for Lot 2, 29 Stanhope Road, Killara*, Report for P.G. Binet Pty Limited.

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