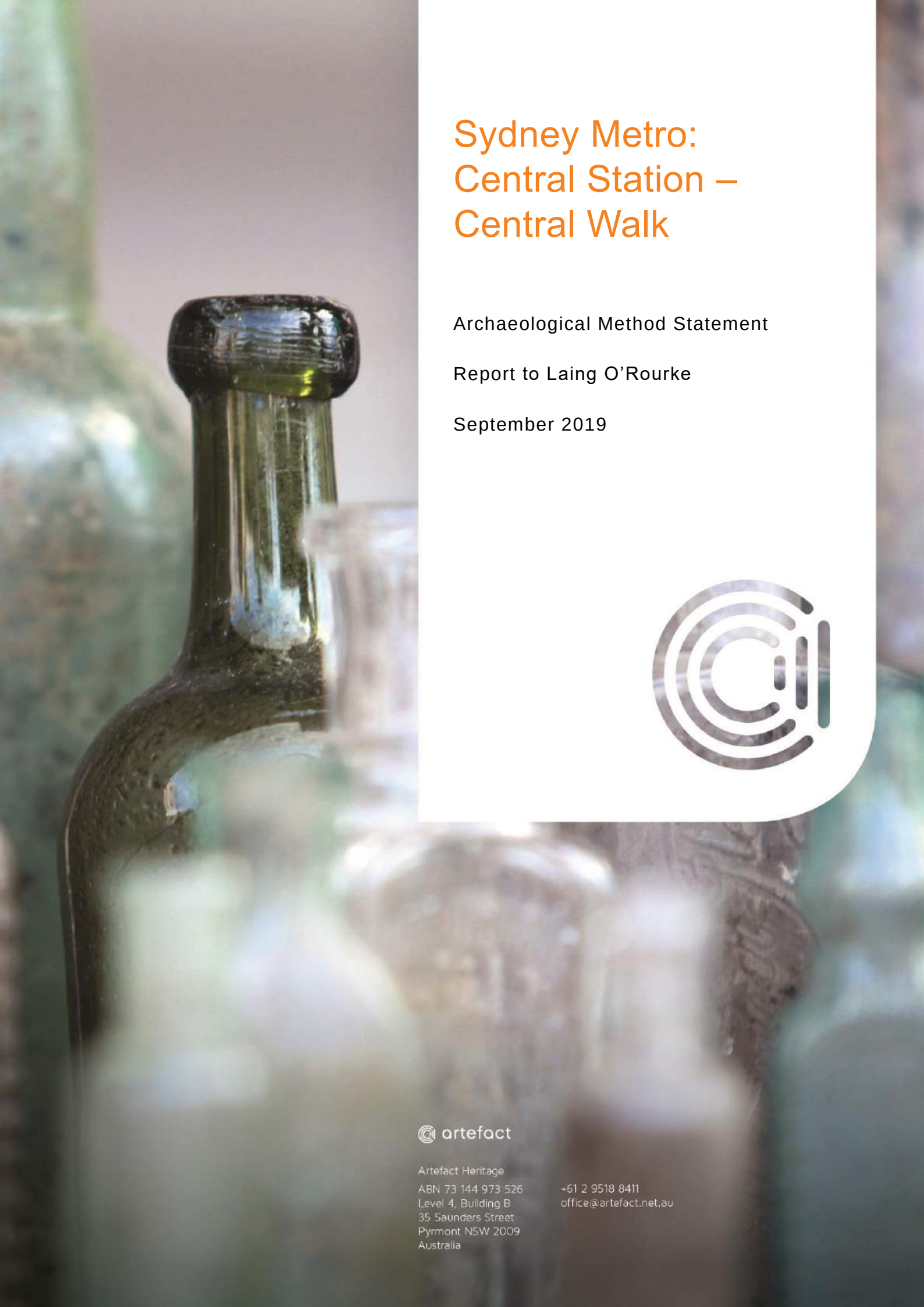

Sydney Metro: Central Station – Central Walk

Archaeological Method Statement

Report to Laing O'Rourke

September 2019

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EXECUTIVE SUMMARY

This Archaeological Method Statement (AMS) outlines the archaeological methodology to manage potential construction impacts to significant non-Aboriginal archaeological remains within the Central Walk study area, as required under the Minister's Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham project Critical State Significant Infrastructure (CSSI) approval (SSI15_7400).

A modification report for Central Walk was lodged with the Department of Planning and Environment and publicly exhibited from 21 June 2017 to 2 August 2017. The modification was approved under Section 115ZI of the EP&A Act on the 21 December 2017. Condition E17 of the Minister's Conditions of Approval for the CSSI states that an AMS must be prepared in consultation with the Heritage Council of NSW (or delegate) prior to the commencement of archaeological investigation. This AMS fulfils E17 and would be implemented in the construction phase, after Construction Environmental Management Plan (CEMP) approval.

Central Walk would involve the construction and operation of a new east concourse and a new eastern entry (from Chalmers Street), connecting the Metro Box North / South concourse with the Eastern Suburbs Railway (ESR) concourse and all the suburban platforms. Suburban platform works would also be carried out including suburban platform refresh and re-levelling, as well as the re-routing and introduction of a number of utilities.

Archaeological resources within the Central Walk site are potentially related to the Devonshire Street Cemetery, First and Second Railway Station expansion, Third Central Station and residences within an area formerly known as Railway Place.

The assessment of archaeological potential and significance provided in this AMS is based on the Archaeological Assessment and Research Design (AARD) prepared for the CSSI approval.[1] Where necessary these assessments have been amended to account for additional information obtained during the preparation of the AMS. The AMS also outlines the archaeological management approach based on the AARD and in response to the construction methodology and program. The recommended archaeological management approach is outlined in the following table:

Date	Archaeological resource	Potential	Significance	Management
1820 - 1865	Devonshire Street Cemetery	Low	State	Monitoring/salvage
c.1850 - 1902	Railway Place residences	Moderate	Local/state	Monitoring/salvage
1900 - present	Third Central Station	High	Local/no significance	Monitoring/Unexpected finds

[1] Artefact Heritage 2016a. *Sydney Metro City & Southwest - Chatswood to Sydenham Non-Aboriginal Archaeological Assessment and Research Design.* Report prepared for Jacobs / Arcadis / RPS.; and Artefact Heritage 2017. *Central Walk – Addendum Archaeological Assessment and Research Design.* Report prepared for JAR.

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1.0 INTRODUCTION

1.1 Background

Planning approval for Sydney Metro City & Southwest Chatswood to Sydenham was granted by the Minister for Planning under Part 5.1 of the Environmental Planning and Assessment Act 1979 (EP&A Act) on 9 January 2017.

This Archaeological Method Statement (AMS) outlines the archaeological methodology to manage potential construction impacts to significant non-Aboriginal archaeological remains at the Central Walk site as required under the amended Minister's Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham project Critical State Significant Infrastructure (CSSI) approval (SSI15_7400).

On 22 March 2017, the Premier of NSW and the Minister for Transport and Infrastructure announced Central Walk as the first step in revitalising Central Station. Central Walk would involve the construction and operation of a new east concourse and a new eastern entry (from Chalmers Street). Suburban platform works would also be carried out including suburban platform refresh and re-levelling. A modification report for Central Walk was lodged with the Department of Planning and Environment and publicly exhibited from 21 June 2017 to 2 August 2017. The modification was approved under Section 115ZI of the EP&A Act on the 21 December 2017.

A separate AMS for Aboriginal archaeological management at the Central Walk site has been prepared by Artefact Heritage, which refers to this AMS and is consistent with its methodology. A separate AMS has also been prepared to address impacts to potential archaeological resources associated with the construction of a Combined Services Route (CSR).

Several AMS's for pre-construction works have been prepared by Artefact Heritage for the project in consultation with the former Heritage Division of the Office of Environment and Heritage (OEH) as a delegate of the NSW Heritage Council (now Heritage, Department of Premier and Cabinet [DPC]). This AMS has been informed by, and is in accordance with, the following project assessment and management documents:

- Artefact Heritage 2016a. Sydney Metro City & Southwest - Chatswood to Sydenham Non-Aboriginal Archaeological Assessment and Research Design (ARD)
- Artefact Heritage 2016b. Sydney Metro City & Southwest - Chatswood to Sydenham Aboriginal Cultural Heritage Assessment Report (CHAR)
- Artefact Heritage June 2017 Central Walk – Addendum Archaeological Research Design
- Artefact Heritage April 2018 updated May 2018. Central Station Main Works – Early Works: Archaeological Method Statement (AMS)
- Artefact Heritage July 2018. Central Station Main Works – Platforms and Sydney Yard enabling works (AMS)
- Artefact Heritage May 2018 updated June 2018. Central Station Main Works – Early Works: Archaeological Method Statement for piling and Excavation (AMS)
- Artefact Heritage August 2018 Sydney Metro: Central Station Main Works –Station Box and Sydney Yards AMS
- Artefact Heritage September 2018. Sydney Yard Access Bridge Construction Project – Excavation Directors Report (results report)

- Artefact Heritage February 2019. Additional Archaeological Works, Central Station Main Works Station Box (advice memo)
- Transport for NSW 2019. Sydney Metro Unexpected Heritage Finds Procedure
- Transport for NSW 2019. Sydney Metro Exhumation Management Plan.

1.2 Project background

The Sydney Metro network consists of Sydney Metro Northwest (previously known as the North West Rail Link), Sydney Metro City & Southwest and Sydney Metro West. The Sydney Metro City & Southwest Chatswood to Sydenham project involves the construction of a new metro rail line between Chatswood and Sydenham. New metro stations will be provided along the line.

Central Walk is an 80m long, 19m wide walkway to be constructed underneath the suburban platforms of Central Station and will connect the Metro Box North / South concourse with the ESR concourse and all the suburban platforms (Figure 1 and Figure 2).

A new street-level entry point will be constructed at 20-28 Chalmers Street, providing direct access from Central Station to Surry Hills and a direct interchange for passengers from the CBD and South East Light Rail. Key elements of the project are summarised in Table 1.

Table 1: Key features of Central Walk works.

Component	Description of activities
East concourse	The concourse would provide an accessible connection to the suburban and metro platforms at a common floor level to cater for the growing demands at the station now and in the future. The east concourse would connect the existing T4 Eastern Suburbs Line concourse with the future metro concourse with new escalators and a lift to each of the aboveground suburban platforms.
Eastern entry	A new entry / exist would be provided to Central Station and the east concourse from Chalmers Street. This would provide direct interchange with light rail services. The eastern entry would be located at the site of the Bounce Hotel. A future connection to Randle Lane and / or Elizabeth Street would be safe guarded.
Suburban platform works	A general upgrade of lighting, signage and finishes and removal of platform clutter, and suburban platform raising / re-levelling to provide a consistent height and finishes across the platforms.

Central Walk will be constructed using each of the suburban platforms as work faces as well as the ESR concourse and Metro Box. The proposed construction activities for Central Walk broadly include:

- Demolishing / repurposing of buildings and relocating services;
- Excavation works and civil works, including excavation of the east concourse as well as excavation works to establish the eastern entry;
- Platform works such as removal or relocation of nominated items and structures, installation of new finishes, fixtures and tiling, modifications to overhead wiring (where attached to canopies), strengthening platform edges, provision of new openings within the platform canopies to enable installation of the proposed lifts, excavation for vertical transport (lifts and escalators) and concourse openings;
- Fit-out of the east concourse and eastern entry (vertical transport, services, etc.);

- Testing and commissioning.

Two temporary construction sites are being used to accommodate a site office, amenities, laydown and storage area for materials. These are:

- Sydney Yard – the existing land and other laydown areas within the rail yard are used concurrently with the Sydney Metro works and accessed primarily from Regent Street via the Sydney Yard Access Bridge, which has been constructed as part of the approved project;
- Eastern entry site – would provide access into the east concourse and eastern entry.

In addition, area located within the station would be temporarily used to store materials and support construction works (including the use of platforms and track areas occupied during rail possessions, and decommissioned stairwell areas).

1.3 Site location

The Central Walk works are occurring within Central Station, which is located within the City of Sydney Local Government Area (LGA) and in the Parish of Petersham. Works would also take place within Lot 118 DP1078271, a portion of Chalmers Street, and within 20-28 Chalmers Street. The site location is bound by, and within, an active rail corridor, platforms, rail buildings and rail infrastructure, in addition to portions of Chalmers Street and commercial buildings.

Central Railway Station is listed on the State Heritage Register (SHR) (SHR Item No. 01255), Railcorp Section 170 Heritage and Conservation Register (SHI No. 4801296), and Sydney Local Environmental Plan (LEP) 2012 (LEP Item No. I824) as an item of state significance (Figure 3). In addition, the new Eastern Entry to Central Walk is located within the former Bounce Hotel, which is locally listed on the Sydney LEP as ‘Former Metro Goldwyn Mayer including interior’ (LEP Item No. I1470; Figure 3).

Figure 1: Project overview and station locations

Figure 2: Key features of Central Walk

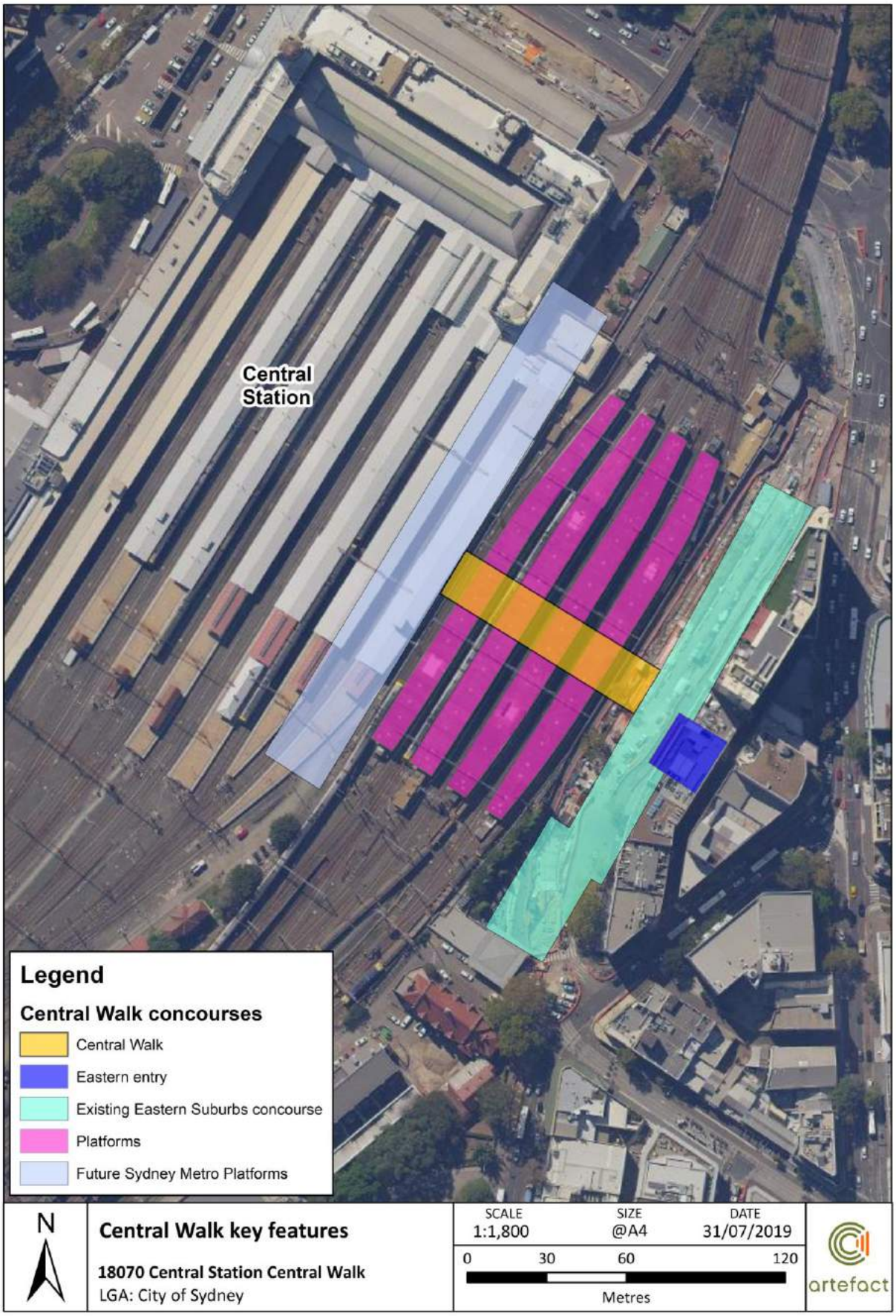


Figure 3: Heritage listings for Central Railway Station including Central Walk

1.3.1 Archaeological management zones

A plan of archaeological management for the Central Station site was prepared as part of the 2016 *Sydney Metro City & Southwest - Chatswood to Sydenham* AARD.[2] An Addendum AARD for the project as modified was also produced in 2017 to guide the Central Walk project.[3]

The Central Walk works are located within Archaeological Management Zones (AMZ's) CS 9, and CS 10. This AMS is based on the recommendations of the approved AARD and addendum AARD for archaeological management in these AMZs, with some revisions as a result of additional research and archaeological works to date.

The following table defines the extent of each AMZ. If additional works are required outside these management zones during construction, the closest management zone will be used as a comparison, or the Excavation Director will approve the most appropriate management measures consistent with similar impacts outlined in this AMS.

Table 2: Archaeological Management Zone and contemporary land use in the Central Station site

AMZ	Description of Area	Lot	Address
CS 9	Area coinciding with the Bounce Hostel at 20-28 Chalmers Street.	Lot 2 DP 1079279	20-28 Chalmers Street, Surry Hills NSW
CS 10	Area coinciding with Platforms 16-25 and intervening rail corridor; extending from Platform 16 to the eastern edge of Chalmers Street.	Lot 118 DP1078271	Central Station, Haymarket, NSW

1.4 Conditions of approval

The Minister's Conditions of Approval for the Sydney Metro City & Southwest Chatswood to Sydenham project were amended in December of 2017 to reflect the Central Walk project modification.

Amended condition E17 states that an AMS must be prepared in consultation with the Heritage Council of NSW (or delegate) prior to the commencement of archaeological investigation.

Under Amended condition E17 the final methodology must:

(a) Provide for the detailed analysis of any heritage items discovered during the investigations;
(b) Include detailed site specific archaeological management and artefact management strategies;
(c) Include cored soil samples for soil and pollen for the Pitt Street site within the Tank Stream Valley; and
(d) Provide for a sieving strategy

[2] Artefact Heritage 2016a. *Sydney Metro City & Southwest - Chatswood to Sydenham Non-Aboriginal Archaeological Assessment and Research Design.* Report prepared for Jacobs / Arcadis / RPS
[3] Artefact Heritage 2017. *Central Walk – Addendum Archaeological Assessment and Research Design.* Report prepared for JAR

This AMS satisfies amended condition E17 and will be provided for review to the now Heritage DPC (formerly NSW Heritage Division). Both the nominated Primary and Secondary Excavation Directors have reviewed and endorsed this AMS.

Condition E18 requires the nomination of an Excavation Director who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011). Information on the nominated Excavation Directors has been provided for comment to the Heritage Division as a delegate of the NSW Heritage Council. On 7 May 2018 the former Heritage Division responded to the nominations for Primary and Secondary Excavation Directors stating that they understood both nominated people had undertaken similar types of archaeological work previously. The Primary Excavation Director would oversee the archaeological excavations and advise on archaeological issues. The Primary Excavation Director would provide clearance once archaeological management has been completed in an area, as per the methodology outlined in Section 6.16. This meets the requirements of Condition E18.

Condition E19 requires an Unexpected Heritage Finds Procedure to be prepared in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage DPC (formerly OEH) and by a suitably qualified and experienced heritage specialist. The Sydney Metro Unexpected Heritage Finds Procedure has been prepared for the project and would be implemented for the Central Walk project works as per the archaeological methodology described in Section 6.11.

Condition E20 requires an Archaeological Relics Management Plan be prepared when an unexpected relic is discovered. It is noted that under E20 an Archaeological Relic Management Plan would only be required for archaeological remains of State significance that were not identified in the AARD or this AMS.

1.5 Authors

This report has been prepared by Jenny Winnett (Secondary Excavation Director – Historical Archaeology), Dr Iain Stuart (Primary Excavation Director – Historical Archaeology) and Dr Sandra Wallace (Project Director).

2.0 PROPOSED WORKS

2.1 Introduction

Central Walk is an 80m long, 19m wide walkway to be constructed underneath the suburban platforms of Central Station and will connect the Metro Box North / South concourse with the ESR concourse and all the suburban platforms. A summary of each of the primary elements of the project involving excavation work is included in Sections 2.2 to Section 2.4. A summary of the construction methodology is included in Section 2.5.

As noted above, the CSR is subject to a separate AMS and discussion of the construction methodology to be utilised will not be included in this document.

2.2 Central Walk

The Central Walk would be located below the existing suburban platforms (platforms 16 to 23), extending from the future north-south metro concourse, and connecting into the Eastern Suburbs concourse. Four escalators and one lift would link from the concourse to each island platform (platforms 16 to 21), and three escalators and one lift would link from the concourse to platforms 22/23.

The installation of vertical transport for the Central Walk would require the lift shafts to penetrate the existing platform canopies. Minor patching would be required in these locations.

2.2.1 Central Walk construction

Construction of the Central Walk would use a mined method to minimise the impacts to the platforms and platform canopies and the extent of work required during rail possessions. Construction of the Central Walk would involve surface works on the platforms and underground work beneath the platforms.

Surface platform works would include:

- Temporary support for the existing canopies
- Demolition of the existing stair openings from the platforms to the existing underground tunnels, include (as numbered from north to south) the fourth set of stairs on platforms 20-23, and supporting and re-arranging existing canopy foundations
- Piling and excavation of the new platform openings for escalators and lifts
- Providing necessary support (likely through pre-cast concrete elements) for the future canopy tube support (during underground works)
- Re-installing platform furniture
- Re-tiling and re-levelling of all the island platforms.

Underground works, supported by the proposed eastern entry construction site and accessed via the unused T4 Eastern Suburbs line platforms 26 and 27, would include:

- Installation of the canopy tube ahead of the excavation works. A canopy tube involves drilling a number of pipes or canopy tubes horizontally above the area to be excavated, which are then injected with grout, to establish a protective cover under which the tunnel can then be

excavated. This construction technique is regularly used where there is insufficient ground cover

- Construction of a track slabs between platforms 16 to 22 in a series of weekend possessions
- Excavation of the concourse under the tracks and platforms, with ground support
- Final excavation and connection of the future escalator and lift openings
- Progressive construction of the services tunnel with concrete elements to form the services tunnel roof and concrete base slab
- Construction of concourse walls and roof, concourse columns and walls of escalator shafts
- Installation of electrical and mechanical equipment in the services tunnel.

2.3 Eastern entry

A new eastern entry would be located at 20-28 Chalmers Street, on the site of the current Bounce Hostel. Two sets of three escalators and two lifts would provide vertical transport to and from the new east concourse. A new gate-line would be installed at the bottom of the vertical transport.

The connection of the eastern entry to the Eastern Suburbs concourse would require modifications to the existing concourse including remodelling of an existing staircase, removal of an existing ramp and installation of a new lift.

2.3.1 Eastern entry construction

The following activities would be required to construct the eastern entry:

- Excavation of a shaft to form the proposed entry. Excavation works would proceed down to the level unused platforms of the T4 Eastern Suburbs Line. Cut-and-cover excavation works would also be required through Randle Lane
- Civil and structural works (including structural supports for the entrance building on street level)
- Excavation of a new opening through to the unused platforms to provide access for the construction of the east concourse and facilitate the storage plant and installation of services
- Modification of the existing Eastern Suburbs Concourse (including demolition of existing back of house rooms, the existing ramp, widening of the existing stairs and installation of new lift).

2.4 Suburban platform works

2.4.1 Platform refresh

Platform refresh works would be carried out on the suburban platforms (16-23) to provide a consistent customer experience between the old and the new platform areas. The platform refresh works would include demolition of platform buildings, redundant staircases and services infrastructure; de-cluttering (i.e. removal of seating, bins and vending machines); new painting; installation of new signage, lighting and tiles; and provision of platform furniture. The platform refresh works would not require substantial in-platform excavation works.

2.4.2 Platform raising / re-levelling

To achieve a consistent finish and height across the suburban platforms a topping would be applied and the platform coping (edges) would be raised so that there is a slope back towards the centre of the platform. This may also involve localised structural repairs to the existing platforms edges. Platform re-levelling would not be undertaken where significant structural works would be required to achieve a consistent height. A strip drain would also be installed in the centre of the platform to collect rainfall which would then connect to the existing platform drainage.

2.5 Construction methodology

2.5.1 Central Walk

Central Walk will be constructed using each of the suburban platforms as work faces as well as the ESR concourse and Metro Box. The sequence of construction is in principal as outlined below:

1. An Advance tunnel is excavated from within the Metro Box in the location of the Central Walk service corridor (same level as B1 in the Metro Box). The tunnel will be 80m long and will connect the Metro Box to the ESR Ghost Platform. The tunnel will be approximately 6m wide and 4.5m high with a spoil disposal volume of approx. 2000m^3.

2. From within this advance tunnel a shaft will be constructed to connect each of the suburban island platforms with the advance tunnel. These shafts will be constructed to the north of the advance tunnel and will be 2.5m by 3.5m in plan. This will be approximately 400m^3. The purpose of these shafts and tunnel is to allow logistics movements for materials and spoil from the island platforms to the Metro box without the need for night time track possession works.

3. The next part of the construction process from Central Walk is to install the track slabs between the Metro Box and platform 22. There are four track slabs that will be constructed under track 16, 17/18, 19/20, 21/22. These works will be undertaken on weekend possessions. The tracks slab construction involves the removal of the track over the top of Central Walk and excavating approximately 1.3m from track level between platforms over a 24m length. A precast unit and precast concrete plank slab approx. 1.5m thick will then be constructed before reinstating the ballast, track and rails. Approximate total volume of excavation for the track slabs will be 1400m^3.

4. Following the above hoarding will be installed on each of the suburban island platforms over the footprint of central walk to allow the excavation of the platforms down to approx. 5m below existing platform level. The spoil from this excavation work will be disposed of through the access shafts to each platform and removed through the Metro Box. The volume of this excavation will be approximately 4000m^3.

5. The next stage is to excavate under the platform walls to construct a concrete beam to connect the platform edge beams with the already constructed track slabs between the Metro Box and platform 22. Total excavation volume will be approx. 750m^3.

6. From platform 23 to the Eastern Suburban Railway (ESR) box canopy tubes need to be installed instead of a track slab due to constraints at the surface. These canopy tubes will be installed from within the platform 22/23 suburban platform excavation as per stage 4 above. Approximately 50 canopy tubes will need to be installed to provide the crown support to central walk in this location.

7. Following the installation of the canopy tubes a concrete beam will be cast under platform 23 to connect the canopy tubes to the platform edge beam. On the ESR side the ESR perimeter wall will be demolished in the location of Central Walk and 1.5m of excavation of the full cross section of central walk will be slowly excavated and removed in bulk bags through the adit by use of the hoist in the ESR. The volume of excavation is approx. 160m^3. A concrete portal frame including canopy tubes will then be constructed within the above excavated area to support the ESR side of the canopy tubes and enabling the excavation of central walk.

8. Following the works detailed above the excavation of Central Walk will commence progressively working from the Metro Box towards the ESR concourse. The sequence of excavation is controlled to manage the transfer of loads from the existing ground to the new track slab and canopy tube support systems. The total approx. volume of excavation will be 8500m^3.

9. With Central Walk substantially excavated the last part of excavation is for the escalator adits from platform level to the new Central Walk concourse. There are two adits to excavate on each island platform. The adits will be excavated from within the central walk excavation and all material removed through the Metro Box. Each of the adits has approx. 300m^3 of excavation giving a total volume of excavation of the escalator adits as 2400m^3.

10. Following this all the remaining works involve the construction of the concrete frame, installation of escalators and lifts, installation of electrical and mechanical services and finishes.

In principal most of the excavation would be carried out in normal day shift or night shift hours without the need for track possessions. The sequence of excavation is very specific to control the movement of the ground and the existing infrastructure.

Where excavation is carried out on weekend possession, such as for the platform edge beams and track slabs, there will be no opportunity to carry out substantial archaeological excavation works other than basic surveying and recording of items if identified. The primary focus of the possession would be reinstating the railway tracks at the end of the weekend. Therefore, should archaeological remains be identified during track possessions the monitoring archaeologist and Excavation Director would determine whether archaeological salvage can be completed in the limited time available. Should significant remains be identified archaeological salvage may need to be halted, the remains protected, and excavation completed at another time. This methodology is included in Section 6.2.3.

The above works will take place from the middle of 2019 to the middle of 2022.

3.0 HISTORICAL CONTEXT

The following section provides historical context for the Central Walk study area only, and therefore focuses on the Devonshire Street Cemetery, the third phase of Central Railway Station, and the occupation of Railway Place.

This history has been adapted and summarised from the AARD with additional new information and figures added as relevant.[4] Historical background of the Devonshire Street Cemetery has been adopted from the archaeological results memo produced by Artefact Heritage on 8 February 2019.[5] For a complete historical overview of the Central Station site, refer to the documents referenced in Section 1.1.

3.1 The Devonshire Street Cemetery

By 1820 the Old Sydney Burial Ground, located on George Street at the corner with Druitt Street (now occupied by Sydney Town Hall), had reached capacity, was overgrown and used as an informal dumping ground. A second cemetery was proposed for the southern outskirts of town. The new site had been reserved by Governor Macquarie in 1818 and was chosen due to the remote location of the cemetery at the edge of town, beyond the cattle and hay markets. Located at the farthest outer limit of the town past the Brickfields, the cemetery was situated at a suitable distance to avoid inconveniencing the gentrifying township and was significant in that there were allotments for various religious denominations.

The new burial grounds, originally called the Sandhills Cemetery due to its landscape of a steep sand ridge, and later, the Devonshire Street Cemetery following the formation of Devonshire Street, were officially consecrated in 1820. The government Order issued on the 29th January 1820 closed the Sydney burial ground and opened the Devonshire Street Cemetery. The Central Walk study area is primarily located with the Roman Catholic burial ground (Figure 5) The cemetery was encompassed by a high sandstone and brick wall (Figure 4).[6]

Elizabeth Street formed the eastern boundary of the Devonshire Street Cemetery and at that time it was known as Elizabeth Street South. Elizabeth Street ran over the sand ridge on which the cemetery was situated. By all accounts it was a steep rise “a hill-not a mole-bill but a mountain”.[7] Public agitation from local residents was for Elizabeth Street to be lowered and this seems to have occurred around 1841 once more properties were developed, although the precise date has yet to be established. This excavation seems to have caused the cemetery wall and sides of the cutting to collapse.

By 1900, the grounds had become neglected with a Citizen’s Vigilance Committee member stating ‘*a thick, disorderly, and in some places almost impenetrable scrub covers most of the ground; and tombstones lie scattered in careless confusion all over the place*. *Where standing, they present grotesque attitudes like a party of a drunken men crossing a field*’.[8]

On 11 December 1900, an Act of Parliament passed enabling the construction of Central Railway Station. Two proposals for this station had been considered – the first at Hyde Park and the second over the Devonshire Street Cemetery. The latter proposal was adopted and the clearing of the

[4] Artefact Heritage 2016a
[5] Artefact Heritage ‘Memo – DRAFT Additional Archaeological works, Central Station Main Works Station Box’ 8 February 2019
[6] Keith A Johnson & Malcolm R Sainty, *Sydney burial Ground 1819-1901: Elizabeth and Devonshire Streets and History of Sydney’s Earliest Cemeteries from 1788,* Library of Australian History, Sydney, 2001. p, 205.
[7] "ANATOMY OF LATEST BRITISH AND FOREIGN INTELLIGENCE." The Sydney Gazette and New South Wales Advertiser (NSW : 1803 - 1842) 10 March 1836: 2
[8] Joseph Waugh, ‘The Sydney Burial Ground’*, The Deacon’s Treasure No. 25,* December 1998, p. 27, citing the Citizen’s Vigilance Committee.

Devonshire Street Cemetery, along with the demolition of the Benevolent Asylum, Carters Barracks and the Police Barracks and other buildings commenced in 1901.

On the 17 January 1901, the government issued notices declaring that representatives of any deceased in the Devonshire Street Cemetery must remove their relatives' remains and monuments within two months[9]. The exhumations were conducted under the supervision of the Department of Public Works with detailed records kept by the State Records. It became apparent that due to the large number of graves identified under paths and various other objects, trenching was required over the entire area at a depth of several feet to retrieve the remains. By 1902, most of the remains had been exhumed. Relatives of the deceased had collected approximately 8500 remains, whilst the approximate remaining 30,000 remains and 2800 monuments were transported to the new Bunnerong Cemetery at Botany, today known as the Pioneer Memorial Park within the Eastern Suburbs Memorial Park.

Accounts of the exhumation work filled the Sydney newspapers in 1901. There appears to have been no plan and the Government was rapidly forced to begin the work by clearing the vegetation to allow relatives to actually find the graves they were looking for. That being completed individual exhumations began with families and undertakers involved. Finally, a process of trenching was undertaken. The Evening News described the work as

> *It is gruesome to watch the men at work in the trench. They dig forward, and as they draw out a spadeful, turn it over, and the bones are picked up and put into a sieve near by; then the earth is shaken off and they are placed, carefully in a coffin that stands near.*[10]

However, newspaper reports suggest that the work of exhumation may not have gone all that smoothly. The sensationalist newspaper Truth published "the gruesome facts which have recently been brought under our notice" The allegations were that only the Anglican and the Jewish sections of the cemetery were properly trenched to a depth of 9 feet and the remaining areas were not properly exhumed with claims that excavations barely reached 4 feet below the surface "while all descriptions of bones are strewn among the sand and earth without any attempt being made to gather them for conveyance and burial at La Perouse."[11]

Archaeological investigation undertaken as part of the CSMW has since identified that numerous graves, many including skeletal material, were not removed during these works. The survival of such remains appears to be related primarily to the topography of the former sandhills and is not consistent throughout the station site. This has been discussed further in Section 4.3.1.

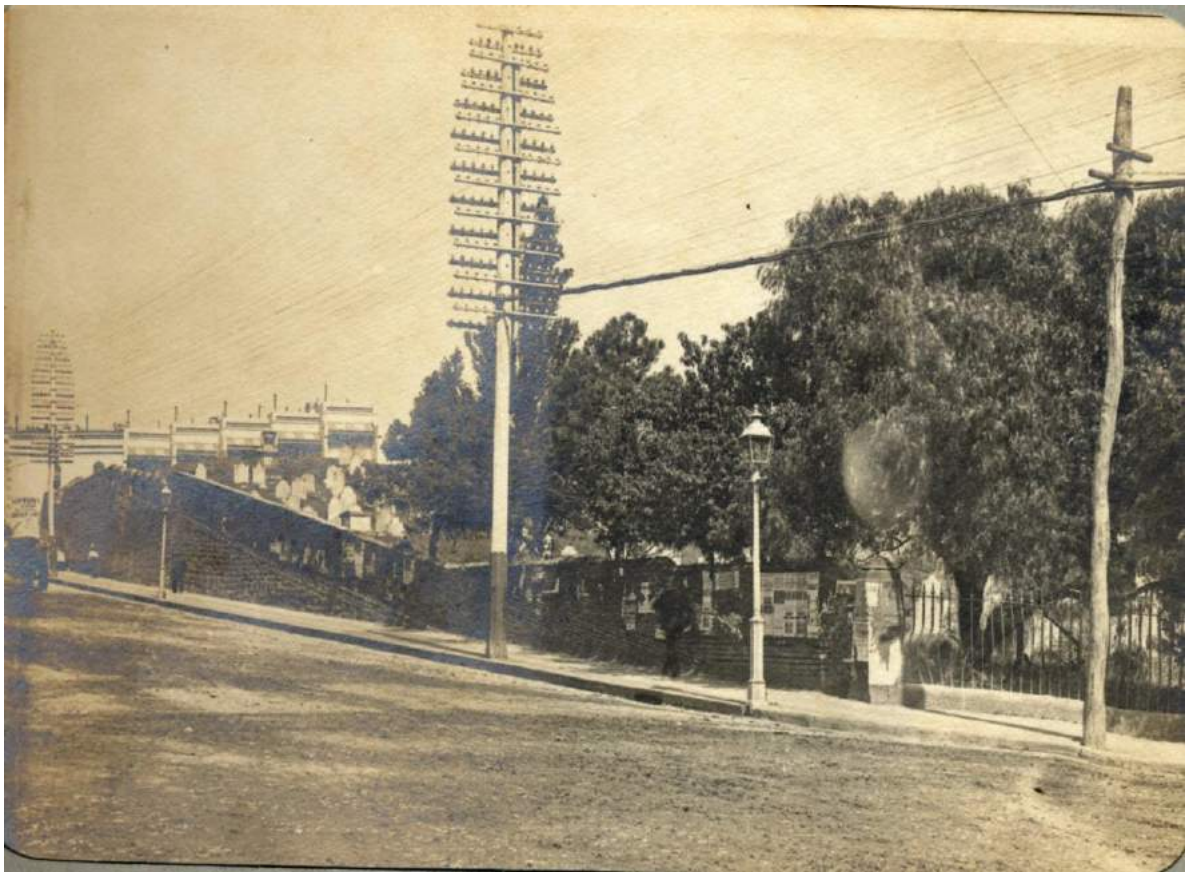
The sand hills were noted as being significantly higher than the level of the existing station line on the eastern side, with infill required to create a level platform on the western side. In addition to the land resumptions of the Devonshire Street Cemetery and the Benevolent Asylum, the Central Railway Station project required the resumption of the steam tram depot at the corner of Pitt Street and Garden Road, the Convent of the Good Samaritan on Pitt Street, the Sydney Female Refuge, the Police Superintendent's Residence on Pitt Street, the Christ Church parsonage on Pitt Street, the Police Barracks on Garden Street, along with various residential properties along Railway Parade (see Section 3.2 for discussion of Railway Place).

To the south of Devonshire Street (today represented by the alignment of the Devonshire Street tunnel) was an area of named the Cleveland, or Government, Paddocks (named after the Cleveland estate to the east). This was reportedly the location of an Aboriginal camp until the mid-nineteenth

[9] The Devonshire-street Cemetery Act, 1901 formalised this procedure later in 1901.
[10] "Nobody's Friends at Devonshire Street Cemetery." Evening News (Sydney, NSW : 1869 - 1931) (Sydney, NSW), 06 July 1901 1901, EVENING NEWS SUPPLEMENT, 1
[11] The Cemeteries Scandal

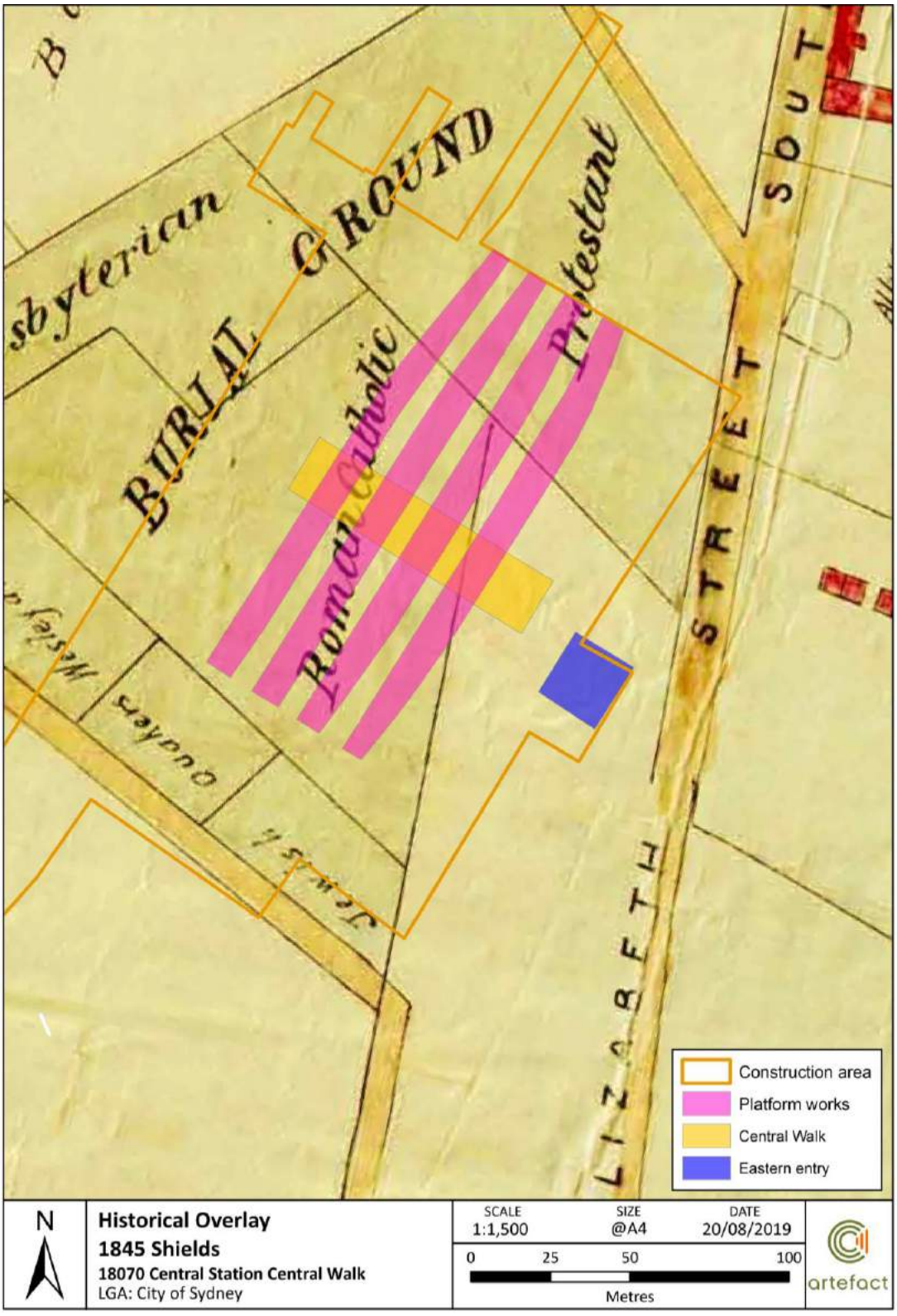
century.[12] The surviving portion of this space is today known as Prince Alfred Park (Figure 6).[13] These paddocks were owned by the government and used ostensibly for public recreation and pasturage. Their location at the outer edge of the town, and the perceived insalubriousness of the area around the Benevolent Asylum, led to complaints of robbery and theft in the paddock by the 1840s.[14] Sketches from this time show that the paddock consisted of undulating sand dunes with thin grass where on dark nights the "ditches and holes serve effectually to conceal any footpads."[15]

Figure 4: View of the eastern boundary wall of Devonshire Street Cemetery in 1901[16]



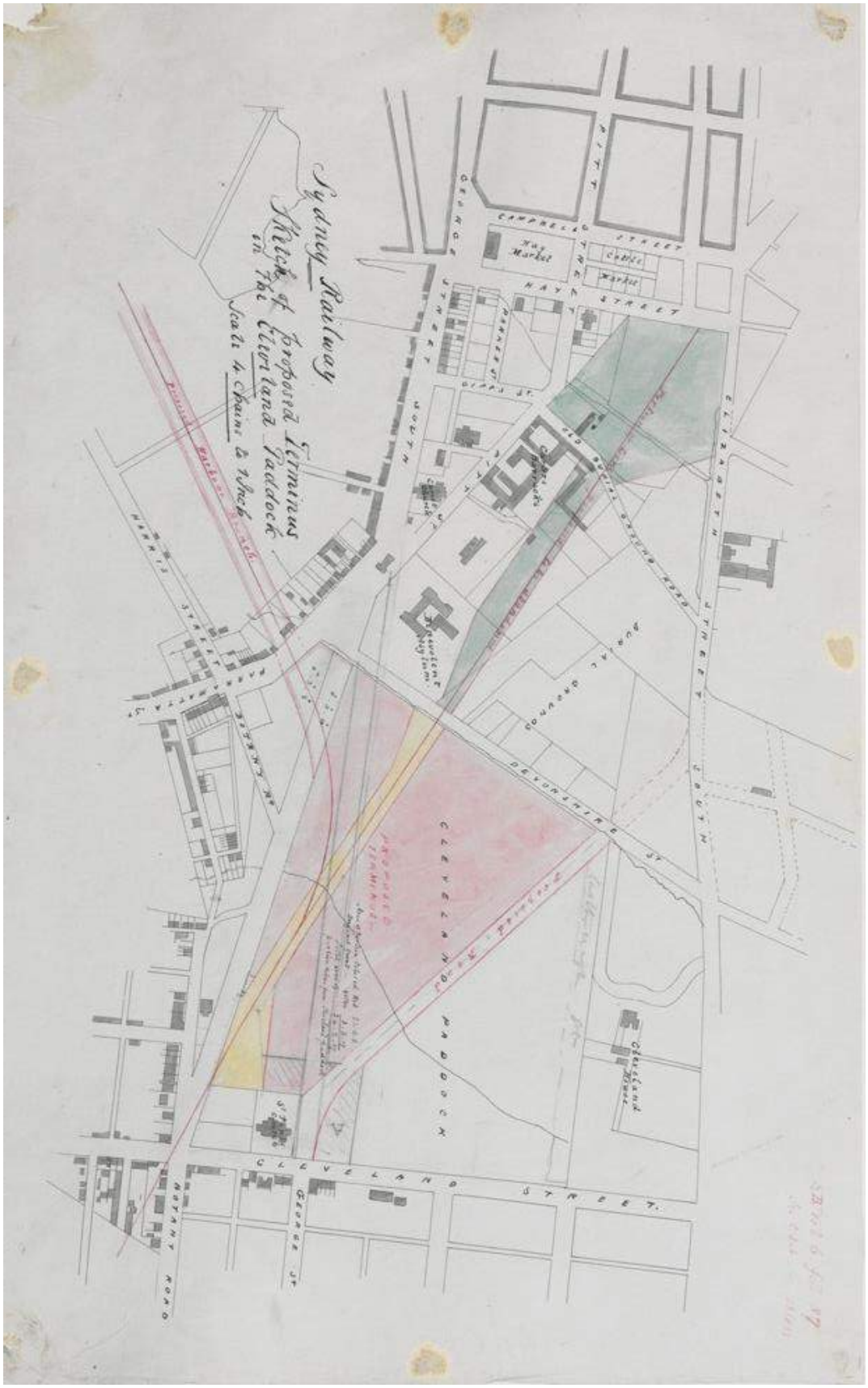
[12] City of Sydney, Prince Alfred Park (Cleveland Paddocks), 2013, http://www.sydneybarani.com.au/sites/prince-alfred-park-cleveland-paddocks/, viewed 2 May 2018.
[13] Rappoport Pty Ltd & NSW Government Architects Office. 2013. *Central Station Conservation Management Plan*. pp. 32 – 35.
[14] *The Australian Magazine* 15 May 1847
[15] *Ibid.*
[16] RAHS

Figure 5: The Devonshire Street Cemetery c.1845[17]



[17] Detail from Assistant City Surveyor Frances Webb Sheilds' 1845 survey of the City of Sydney, version produced in 1896-1897, copied from the 1845 plan. Accessed via the City of Sydney Council's 'Historical Atlas of Sydney' on 10 May 2019 https://atlas.cityofsydney.nsw.gov.au/maps/city-of-sydney-sheilds-1845/

Figure 6: Sydney St Lawrence - Sydney Railway, Sketch of proposed Terminus in the Cleveland Paddock 01 Jan 1853[18]



3.2 Railway Place

The Eastern Entry study area was originally part of the grounds of Cleveland House until the mid-1850s. After the death of Daniel Cooper in 1853, the estate was sold and subdivided in 1855. A portion of the former estate, located to the south and east of the Devonshire Street Cemetery, was acquired by John Cooper, the nephew of Daniel Cooper, and managed under the terms of Daniel Cooper's will.

By the end of 1856 John Cooper was offering building allotments in this area on 99-year 'building and improving' leases, as stated in Daniel Cooper's will. This included the newly created Railway Place and Randle Street.[19] Many of the first owners were builders and investors purchasing allotments to develop. These were tenanted or resold with the residual years of the leasehold and house numbering changed as additional properties were constructed. An 1864 advertisement directed to 'Small Capitalists' described a property in Railway Place as a new 'tastefully furnished,' two-storey, brick residence with a well of water. The leasehold had 93 years to run and was subject to a nominal rental of £6 10 shillings per annum.[20]

By 1865 the Trigonometric Survey of Sydney plans show a dense residential development at the eastern boundary of the Devonshire Street Cemetery called Railway Place (Figure 9). Phillip Ward Assessment Books for the City of Sydney Council indicate that in 1861 many of the allotments on the west side of Railway Place had been built on and occupied by the owners of the 99-year leases. The 1881 Sydney Water and 1888 Rygate & West plans also show this dense development (Figure 10 - Figure 11). These plans show that the development was part of a triangle of streets and lanes to the west of Randle Street which incorporates the current site of the present-day Bounce Hotel (20-28 Chalmers Street). Residences ranged from wood, brick and stone structures from between 1-2 storeys and 1-5 rooms; each with a rear yard and most containing at least one outbuilding or water closet (Figure 11). In addition, occupants were generally considered 'working-class' with a range of occupations including butchers, iron-moulders, stonemasons, and carpenters.[21]

Services were not immediately available in Railway Place and in 1869 Mr FT Smith a Railway Place resident requested that Sydney Council water mains be laid in the street. The street was paved with blue metal in 1873.[22] Council approved the extension of the sewer (a 12" stoneware line) to Randall St and nearby Railway Place in March 1882.[23]

Newspaper articles written prior to the resumption of Railway Place indicate confirm that the area was considered run-down and, in some parts, a slum. An article written by 'Tacktra' in the *Evening News* in 1901 described the type of housing within Railway Place and its surrounds as "very neat and clean in front…but their back views [are] tumble-down and dirty enough to be demolished…I see a quiet little narrow street running up hill, with many cottages and some two-storey houses – the former with narrow little verandahs, gable windows, and many irregular steps; the latter with no verandahs, and absolutely straight up and down fronts.'[24] This depiction of Railway Place is in agreement with the photographs and drawings of the residences (see Figure 8). In addition, Tacktra writes that the area

[18] [Sketch book 6 folio 87] State Records, NRS 13886
[19] Sydney Morning Herald, August 1898 p. 3
[20] Sydney Morning Herald 9 Jan 1864: 10.
[21] Sands Directory. 'Railway Place'. Accessed online 12 April 2019, https://www.cityofsydney.nsw.gov.au/learn/search-our-collections/sands-directory/sands-search
[22] Letter from FT Smith to the City of Sydney Council, Item No 26/97/635 Letters Received, NSCA; Correspondence, Item 26/120/280 Letters Received, NSCA.
[23] *SMH* 3 Apr 1880: 6; *SMH* 15 Mar 1882: 6.
[24] 'Roundabout the New Railway Station' (1901, August 10). *Evening News*. Accessed online 17 April 2019, https://trove.nla.gov.au/newspaper/article/114030983?searchTerm=%22railway+place%22+AND+resumption#

has 'no redeeming quality, narrow, dirty ways, propped up houses, broken chimneys and walls; ugly tiny houses huddled together, walls grimed with years of dirt and no breathing space.'[25]

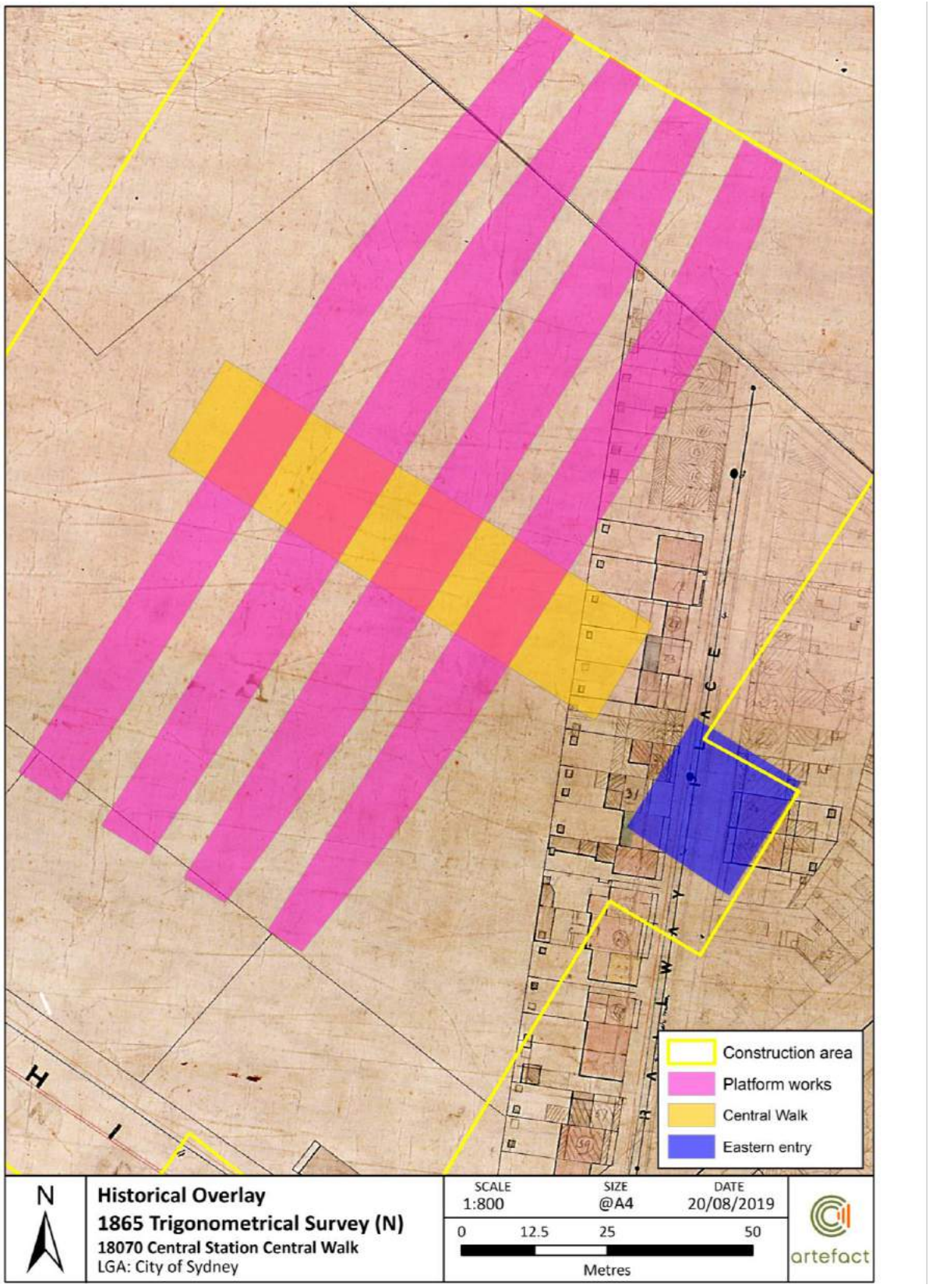
Additional articles from the late nineteenth up until the time of resumption similarly depict Railway Place as a dark and rundown area. Documented events within the street include instances of smallpox, accidental poisoning, various deaths, a number of suicides and several local pleas for improved public facilities. In May of 1867 a request to install kerbing and guttering in Railway Place was accepted, [26] and drainage was a particular issue, with requests for the installation of drainage adjacent to the burial ground wall submitted in January of 1871.[27]

Figure 7: View north, c.1900, showing the properties on the south-west corner of Railway Place and Randle Street[28]

Figure 8: View north down Railway Place from Randle Street, c.1900[29]

[25] 'Roundabout the New Railway Station' (1901, August 10).
[26] 'Sydney Municipal Council' (1867, May 13) *Empire.*
[27] 'Sydney Municipal Council' (1871, January 7) *The Sydney Mail.*
[28] Railway Place, c1900. Royal Australian Historical Society photonegative.
[29] Railway Place, c1900. Royal Australian Historical Society photonegative.

Figure 9: Detail of 1865 Trigonometrical Survey, showing Railway Place.[30]



[30] City of Sydney, 1865. 'Trigonometrical Survey 1855-1865. Accessed 12 April 2019, https://atlas.cityofsydney.nsw.gov.au/maps/city-of-sydney-trigonometrical-survey-1855-1865/city-of-sydney-trigonometrical-survey-1855-1865-block-r1/

Figure 10: 1881 Sydney Water plan showing structures at Railway Place.

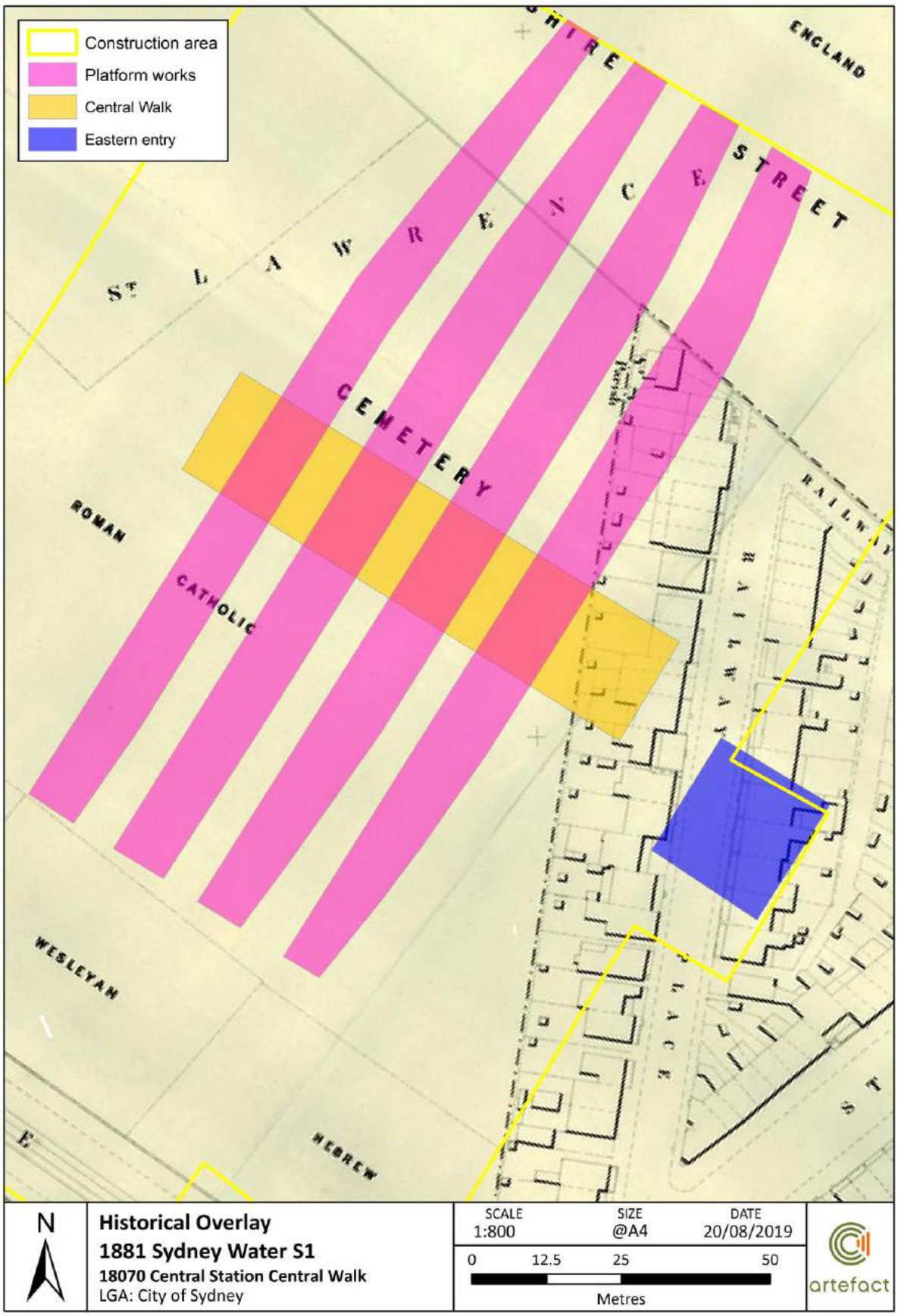
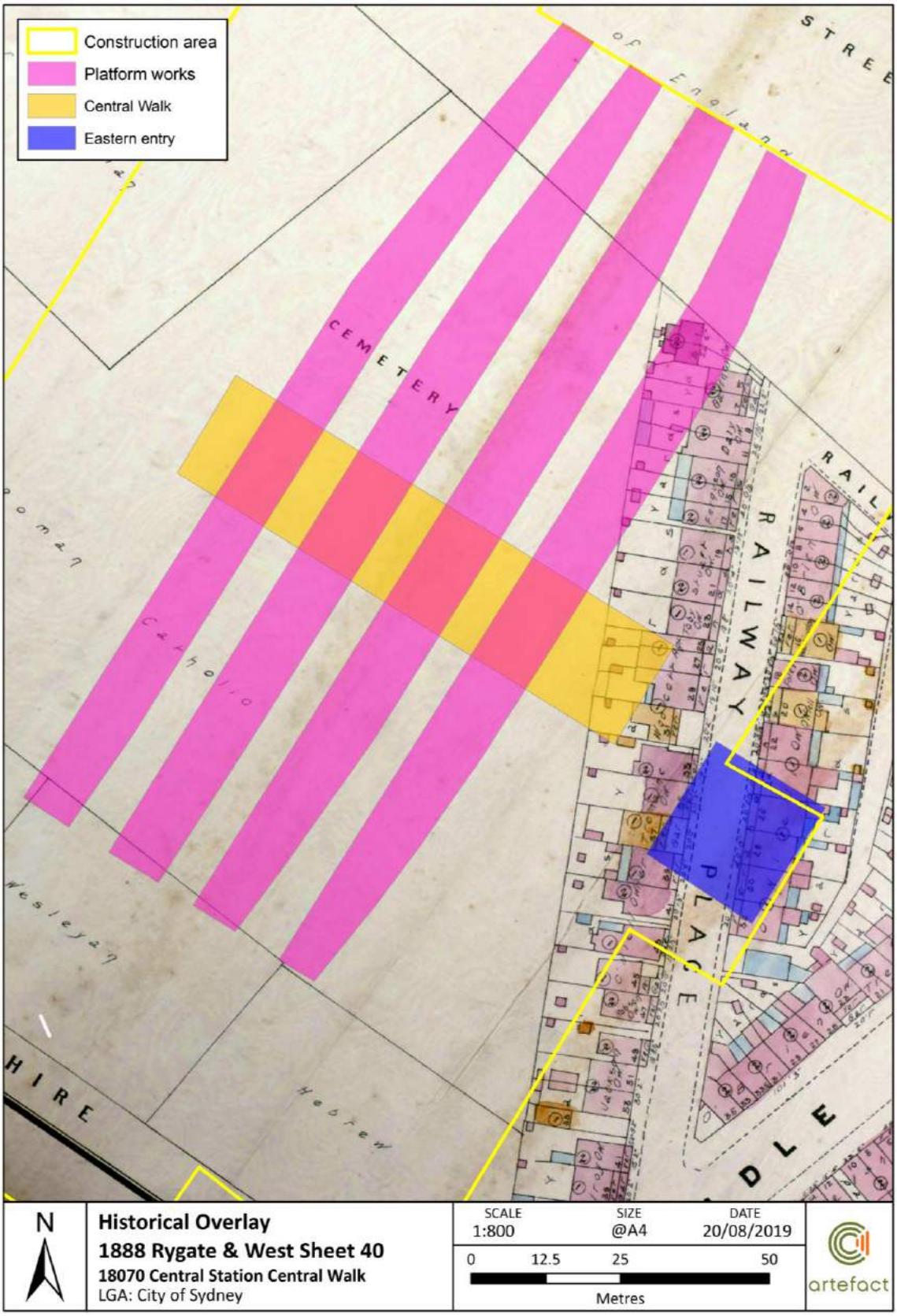


Figure 11: Detail of Rygate & West 1888 plan, showing Railway Place residences.[31]



[31] Rygate & West, 1888. 'Sheet 40'. Accessed 12 April 2019, https://atlas.cityofsydney.nsw.gov.au/maps/plans-of-sydney-rygate-west-1888/plans-of-sydney-rygate-west-1888-sheet-40/#map-info

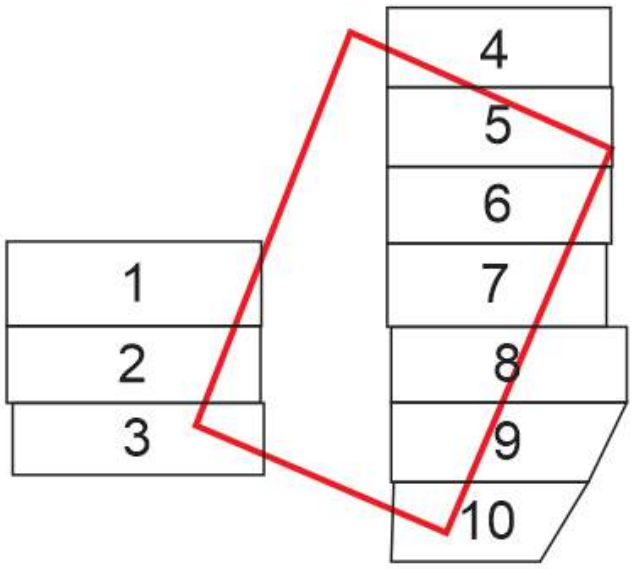
3.2.1 Analysis of individual properties within the study area

Housing numbers differ from year to year, as was common for central Sydney properties in the early 19th century as streets became established and residences were constructed. Leaseholders and owners names, as well as house descriptions, have been used to identify the property likely to correspond with the study area. The current-day Bounce Hotel site incorporates an area spanning approximately numbers 16 - 43 Railway Place (changes in property numbers have been summarised in Table 3) as well as a portion of the Railway Place road corridor. In the following sections the Railway Place properties within the study area have been given a generic lot number for simplicity (see A further consideration when undertaking historic research of the Railway Place residences is that the chain of titles only goes back to 1901, when the Government resumed the land. Prior to that the land was leased and although under the *Registration of Deeds Act* of 1843 leases for more than three years had to be lodged with the Registrar General, searching these in the Old System records is difficult. The notice of resumption in the Government Gazette does not refer to the lots specifically so the precise title information is almost impossible to search.

Figure 12). An overview of street numbers based on analysis of the Sands Directories[32] and the City of Sydney Assessment and Rates books for the area has been included in Table 3.

A further consideration when undertaking historic research of the Railway Place residences is that the chain of titles only goes back to 1901, when the Government resumed the land. Prior to that the land was leased and although under the *Registration of Deeds Act* of 1843[33] leases for more than three years had to be lodged with the Registrar General, searching these in the Old System records is difficult. The notice of resumption in the Government Gazette does not refer to the lots specifically so the precise title information is almost impossible to search.

Figure 12: Schematic illustration of the study area with corresponding generic lot numbers, with the Eastern Entry study area outlined in red.



[32] The firm of John Sands Ltd (Printers and Stationers) published their directory each year from 1858–59 to 1932–33 (except for 1872, 1874, 1878 and 1881)
[33] 7 Vic No 16.

Table 3: Overview of property addresses based on analysis of the Sands directories and the Phillip Ward Assessment Books for the City of Sydney

Sands date	Street No.									
	1	2	3	4	5	6	7	8	9	10
1865	29	31	33	20	22	24	26	28	30	32
1877	29	31	33	18	20	22	24	26	28	30
1880	29	31	33	20	22	24	26	28	30	32
1882	29	31	33	20	22	24	26	28	30	32
1888	31	33	35	16	18	20	22	24	26	28
1891	29	31	33	16	18	20	22	24	26	28
1895	31	33	35	16	18	20	22	24	26	28
1896	29	31	33	16	18	20	22	24	26	28
1901	31	33	35	18	20	22	24	26	28	30
1902	29	31	33	16	18	20	22	24	26	28

3.2.1.1 Lot 1, Railway Place

The City of Sydney Sands Directories identifies Lot 1, Railway Place as containing house No.'s 29-31 from between 1865-1902 (Table 3). James White owned the leasehold of the property from as early as 1863 when the City of Sydney Assessment and Rates Books have identified the structure as having been a 1-storey, 3-room brick residence with shingle roof from 1867. In 1863 Isaac Williams the tenant paid £20 per annum in rates. Tenants in 1867 and 1871 were Thomas Cotton, a painter, and John Stone. James White, a carpenter, occupied the house from c1874, possibly extending it before selling it. By 1877 David Baker was the leaseholder and occupant of the now four-roomed house.

By c1880, the residence had been modified to consist of five rooms with an iron roof. In addition, the recorded house value fluctuates from between £23-33 indicating building improvements made, including the changes in room numbers and roofing material. Like many other properties in the locality, the owners and tenants of the Railway Place properties changed frequently and Mrs Pierce was the owner-occupier in 1880. H C Wookey paid £260 at auction for the leasehold property in April 1880.

By 1882 George Wookey rented the property to George Turton. Harry Wookey lived there from c1884 to c1885. Sale advertisements for 39 Railway Place in 1885 describe the property with 75 years left to run on the leasehold as a,[34]

> *…Brick Cottage, containing verandahs front and rear, 4 rooms, bathroom, woodshed, city water and gas; yard; connected with the sewer. Land: 20 feet frontage, depth 60 feet.*[35]

Like many houses in the neighbourhood the brick cottage was built the full width of the site and had a verandah facing the street. A Public Work's Department Surveyor's Fieldbook dated c1884 indicates steps onto the verandah encroaching onto the footpath area.[36] An iron-roofed structure is attached to

[34] Sydney Morning Herald 2 May 1885: 15.
[35] Sydney Morning Herald 16 Sep 1885: 15.
[36] 'Sheet S1 City of Sydney,' PWD Surveyor's Field Book, FB No 546, [1884], Sydney Water. Appendix C.

the rear of the house, as are two brick extensions adjacent to the north and south boundaries. The rooms appear to have been added to the house after its original construction and not shown on earlier plans.[37]

A c1884 Public Works Department Surveyor's Fieldbook for Railway Place shows further details about the property with some variations to Rygate & West's 1887 plan, including recording the rear verandah and extensions as timber, rather than brick. A brick water closet is shown towards the western boundary. Phillip Ward Assessment Books record J Wright as the owner of the leasehold in 1891, and the tenant as T Thompson. John Barlow owned the house in 1896, renting it to Frederick James Maken. Tenants and owners changed frequently with Alfred Charlton renting it c1899-1900 and David Lipman in 1902. Thomas Barlow owned the house before it was acquired by the Railway Department for the extension of the railway.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 1, Railway Place contained one outbuilding within its yard, however, this outbuilding is situated outside the current study area.

3.2.1.2 Lot 2, Railway Place

The City of Sydney Sands Directories identifies Lot 2, Railway Place as containing house No.'s 31-33 from between 1865-1901 (Table 3). During this time, the directories also identify a number of residents including James Teare, a butcher, in 1867; Patrick Kelly in 1868; William Harrison in 1888; and C. Hempstead, an iron moulder from 1895-1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 1 Railway Place as having been a 2-storey, 5-room brick residence with slate roof from 1867. From 1867-1877, the residence is recorded as having been owned by the Smith family, during which time the house value ranged from £26-28. The Assessment and Rates Books show that the residence was demolished between 1877-1880, at which point the Donnolly family took ownership, constructing a 1-storey, 2-room wooden house with shingled roof. The house value remained at £26 from this point, although a number of changes were made including the addition of two extra rooms and an iron roof.

The historic plans depicted in Figure 9 to Figure 11 support the information provided within the Rates Books, showing that the first residence at Lot 2, Railway Place, shown within the 1865 Trigonometrical Survey (Figure 9), was demolished and a second rebuilt in its place, shown in both the 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11). In addition, the latter two plans show one outbuilding located within the residence's yard, however, this outbuilding is located outside the study area.

3.2.1.3 Lot 3, Railway Place

The City of Sydney Sands Directories identifies Lot 3, Railway Place as containing house No.'s 33-35 from between 1868-1896 (Table 3). During this time, the directories also identify several residents including Edward Evesson, a painter, from 1867; John Doyle from 1868; Catherine Keenan from 1888, John Flanagan from 1895; and Herbert Wilson from 1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 1 Railway Place as having been a 2-storey, 3-room brick residence with slate roof valued at £30 in 1867. At this point, the residence was owned by James Edwards. From 1871-1882, the residence changed ownership to the Hobbs family, during which time, a number of modifications were made. In 1871, the residence is recorded as having four rooms; and in 1880, the house is recorded as having six rooms and a value of £44. The property changed ownership again in 1891, being sold to W. Tremain, during which time the residence was reduced to five rooms. Finally, the house come under the ownership of William Bulter from 1902 remaining a 2-storey, 5-room residence valued at £31.

[37] Trigonometrical Survey of Sydney, Section R, 1855-65, Historical Atlas of Sydney, NSCA.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 3, Railway Place contained one outbuilding within its yard, however, this outbuilding is situated outside the current study area.

3.2.1.4 Lot 4, Railway Place

The City of Sydney Sands Directories identifies Lot 4, Railway Place as containing house No.'s 16-20 from between 1865-1902 (Table 3). During this time, the directories also identify several residents including Matthew Ponton from 1868; John Flanaghan, a clerk, from 1888; and John Wright from 1895-1896 who died at the property from aconite poisoning on 16 April 1896.[38]

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 4 Railway Place as having been owned by Mathew Pontin (various spellings) from 1871-1880. The residence was recorded as being a 1-storey, 2-room wooden house with iron roof, valued at £18 in 1871. A third room was added in 1877. The property came under the ownership of Michael Daly in 1882 and by J Wright from 1891 during which time a fourth room was added to the residence resulting in a house value of £36.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 4, Railway Place contained a number of outbuildings within its yard, some of which are located within the current study area.

3.2.1.5 Lot 5, Railway Place

The City of Sydney Sands Directories identifies Lot 5, Railway Place as containing house No.'s 18-22 from between 1865-1896 (Table 3). During this time, the directories also identify several residents including John Bamfield, an engineer, from 1888; and Andrew Charles Bullivant from 1895-1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 5 Railway Place as having been a 1-storey, 3-room brick house with shingle roof, valued at £20. From between 1871-1882, the residence was owned by Patrick Kelly, during which time a fourth room was added. The property came under H. Foley's ownership in 1891 at which point the residence was either extended or replaced by a 2-storey, 3-room brick and stone house with iron roof. The property changed hands one final time from 1896-1902, owned by James Gibson.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 5, Railway Place contained one outbuilding within its yard, however, this outbuilding was located outside of the current study area.

3.2.1.6 Lot 6, Railway Place

The City of Sydney Sands Directories identifies Lot 6, Railway Place as containing house No.'s 20-24 from between 1865-1896 (Table 3). During this time, the directories also identify several residents including Mary Grindrod from 1868; John King from 1888; Patrick Purcell from 1895; and the property was recorded as vacant from 1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 6 Railway Place as having been a 1-storey, 5-room brick residence with shingle roof in 1871 valued at £28. From this point up until 1882, the property is recorded as being owned by Patrick Kelly, during which time a sixth room was added to the property. In 1882, the property is recorded as being a 2-storey, 4-room brick residence with shingled roof valued at £ 46, revealing that the original residence was either modified or replaced. In 1891, the property is recorded as being a 1 storey, 4-room brick and stone residence with iron roof owned by Nicholas Daly and valued at £33. This may also indicate significant alterations or building replacement. Daly maintained ownership up until 1902 at which point the residence was valued at £23.

[38] The Age 'Poisoned by Mistake, Sydney, Wednesday' 16 April 1896

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 6, Railway Place contained one outbuilding within its yard, however, this outbuilding was located outside of the current study area.

3.2.1.7 Lot 7, Railway Place

The City of Sydney Sands Directories identifies Lot 7, Railway Place as containing house No.'s 22-26 from between 1865-1896 (Table 3). During this time, the directories also identify several residents including Joseph Thompson, a stonemason, from 1867; William Nelson, a stonemason, from 1868; Edward Elliot, an ironworker, from 1888; and William Ireland from 1895-1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 7 Railway Place as having been a 1-storey, 4-room brick residence with single roof, owned by James White and valued at £30 in 1867. The property is recorded as having been owned by Mrs Greenwood between 1871-1877, during which time, an additional room was added. In 1880, ownership transferred to H Dickson, at which point the residence was either modified or replaced by a 2-storey, 6-room brick residence with shingle roof, valued at £44. In 1882, the rooms were reduced to 5 under Jane Hobbs ownership. The property was either modified or replaced again by a 1-storey, 4-room brick and stone residence with iron room in 1891 under K. O'Neil's ownership. Between 1896-1902 the residence changed ownership to the Barlow family during which time the residence was either modified or replaced by a 2-storey, 6-room brick residence with iron roof in 1896 and by a 1-storey, 5-room brick residence with iron roof in 1902.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 7, Railway Place contained one outbuilding within its yard, however, this outbuilding was located outside of the current study area.

3.2.1.8 Lot 8, Railway Place

The City of Sydney Sands Directories identifies Lot 8, Railway Place as containing house No.'s 24-28 from between 1865-1896 (Table 3). During this time, the directories also identify several residents including Andrew Burn from 1867-1868; Harry Hibbert from 1888; vacant property in 1895; and Michael Dilon in 1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 7 Railway Place as having been a 1-storey, 4-room brick residence with shingle roof owned by James White and valued at £30. The property remained under White's ownership up until 1871, during which time, a fifth room was added. The property remained largely unaltered under the Ewart (various spellings) family's ownership from 1877-1882. In 1891, ownership changed to K. O'Neil during which time the property was either modified or replaced by a 2-storey, 6-room brick and stone residence with shingle roof, valued at £44. The property remained largely unchanged under Charles and Miller's ownership from 1896, although the roof was replaced with iron. Finally, the property came under Thomas Barlow's ownership in 1902, at which point the property was again modified or replaced by a 1-storey, 6-room brick residence with iron roof valued at £29.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 8, Railway Place contained one outbuilding within its yard, however, this outbuilding was located outside of the current study area.

3.2.1.9 Lot 9, Railway Place

The City of Sydney Sands Directories identifies Lot 9, Railway Place as containing house No.'s 26-30 from between 1865-1896 (Table 3). During this time, the directories also identify several residents including Nicholas Daly from 1868; Charles Miller, a carpenter, from 1888; Carl Moller and John

Barton from 1895; and Carl Moller from 1896, who shot himself at the property on 8 February 1897 after complaining that the neighbours annoyed him.[39]

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 7 Railway Place as having been a 1-storey, 5-room brick residence with shingle room valued at £28 and under James White's ownership. The residence remained largely the same under the Ewart family's ownership from 1877-1882, although the residence was reduced to 4 rooms in 1882. The property was either modified or replaced in 1891 by a 2-storey, 6-room brick and stone residence with iron roof owned by Muller, valued at £44. The property appears to have been either modified or replaced again in 1896 under A. Lester's ownership by a 1-storey, 5-room brick residence with iron roof valued at £33. Finally, in 1902, the property transferred to James Nicholl during which time, a sixth room was added and the value dropped to £26.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 9, Railway Place did not contain outbuildings.

3.2.1.10 Lot 10, Railway Place

The City of Sydney Sands Directories identifies Lot 10, Railway Place as containing house No.'s 28-32 from between 1865-1896 (Table 3). During this time, the directories also identify several residents - Grace Edwards from 1888; Mrs Morrison from 1895; and George Munroe in 1896.

The City of Sydney Assessment and Rates Books have identified the structure at Lot, 7 Railway Place as having been a 1-storey, 5-room brick residence with slate roof owned by Timothy Toole and valued at £28. From 1877-1882, the property was owned by the White family, during which time the residence was reduced to 4 rooms. From 1891-1902, the property came under the ownership of the Lester family, remaining largely the same.

The 1865 Trigonometrical Survey (Figure 9), 1881 Sydney Water Plan (Figure 10) and the 1888 Rygate & West Plan (Figure 11) indicate that the residence at Lot 10, Railway Place did not contain outbuildings.

3.2.2 Railway Place in the early 20th century

Railway Place was resumed under the provisions of the Public Works Act 1900 and the City Railway Extension (Devonshire Street) Act of 1900. The resumptions took place in 1902 with 'several tons of earth to be removed…[for] commencing the foundations of the new station.'[40] This is discussed further in Section 3.3.1.

At this point, present-day Chalmers Street was an extension of Castlereagh Street, which extended from its current-day alignment, until the development of Belmore Park in 1905, at which point Chalmers Street was officially formed (Figure 13).[41] The block between Elizabeth and Devonshire Streets remained largely undeveloped. The United Dental Hospital, adjacent to the present-day Bounce Hotel, was built by the University of Sydney around 1910 at 14 Chalmers Street and by 1915, a number of other structures had begun to arise.[42]

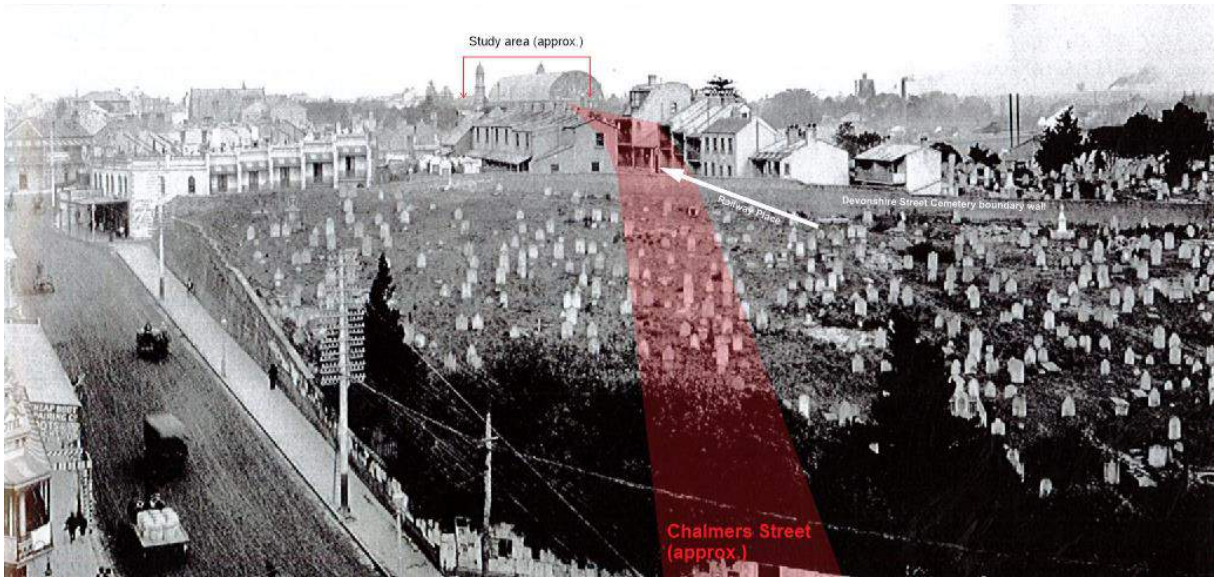
No. 20-28 Chalmers Street (the Eastern Entry) is located on Lots 7-11 of Section 1 of the Central Railway Station subdivision (Figure 14). This title resided with the Minister for Public Works at time of

[39] Evening News 'The Railway Place Suicide' 10 February 1897
[40] 'The New Central Station' (1902, January 2). *The Daily Telegraph*.
[41] City of Sydney, date unknown. *History of Sydney Streets.* Accessed online 17 April 2019, https://www.cityofsydney.nsw.gov.au/learn/sydneys-history/people-and-places/streets
[42] OEH, date unknown. 'Former Metro Goldwyn Mayer' Including interior'. Accessed online 17 April 2019, https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?id=2431125

resumption but was later acquired by Metro Goldwyn Mayer Ltd (MGM) in 1932.[43] The company submitted a building application in 1933. Building began and concluded within the same year; designed by Robertson & Marks, and constructed by Stuart Bros. Arthur Loew, son of one of the founding members of MGM, officially opened the building on December 19, 1933.

The University of Sydney acquired land to the north of its existing United Dental Hospital building in 1937 and constructed a six-storey building (Figure 16).[44] Following an influx of dental students in the 1970s, the University acquired 20-28 Chalmers Street as a short-term solution to cater for the extra students. In December 1972, the property title transferred to the Minister for Public Works and alterations to accommodate staff and service facilities were made to the building. By 1980, the MGM building and Dental Hospital came under the jurisdiction of the Health Commission of New South Wales and was incorporated into one. In 2006, the building was modified for use as a pub and backpacker hotel.[45]

Figure 13: Newly created alignment of Chalmers Street, with the approximate location of the Eastern Entry / 20-28 Chalmers Street marked.



[43] OEH, 2006. 'Former Metro Goldwyn Mayer including interior'. Accessed 12 April 2019, https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=2431125
[44] Ibid.
[45] Ibid.

Figure 14: Wade's 1904 subdivision plan showing new alignment of Castlereagh Street (Chalmers Street).[46]

[46] William Wade, cMay1904. 'Surry Hills Subdivision Plan'. Accessed 12 April 2019, http://digital.sl.nsw.gov.au/delivery/DeliveryManagerServlet?dps_pid=IE9116955&change_lng=

Figure 15: Crown Plan 4150-3000 October 1901

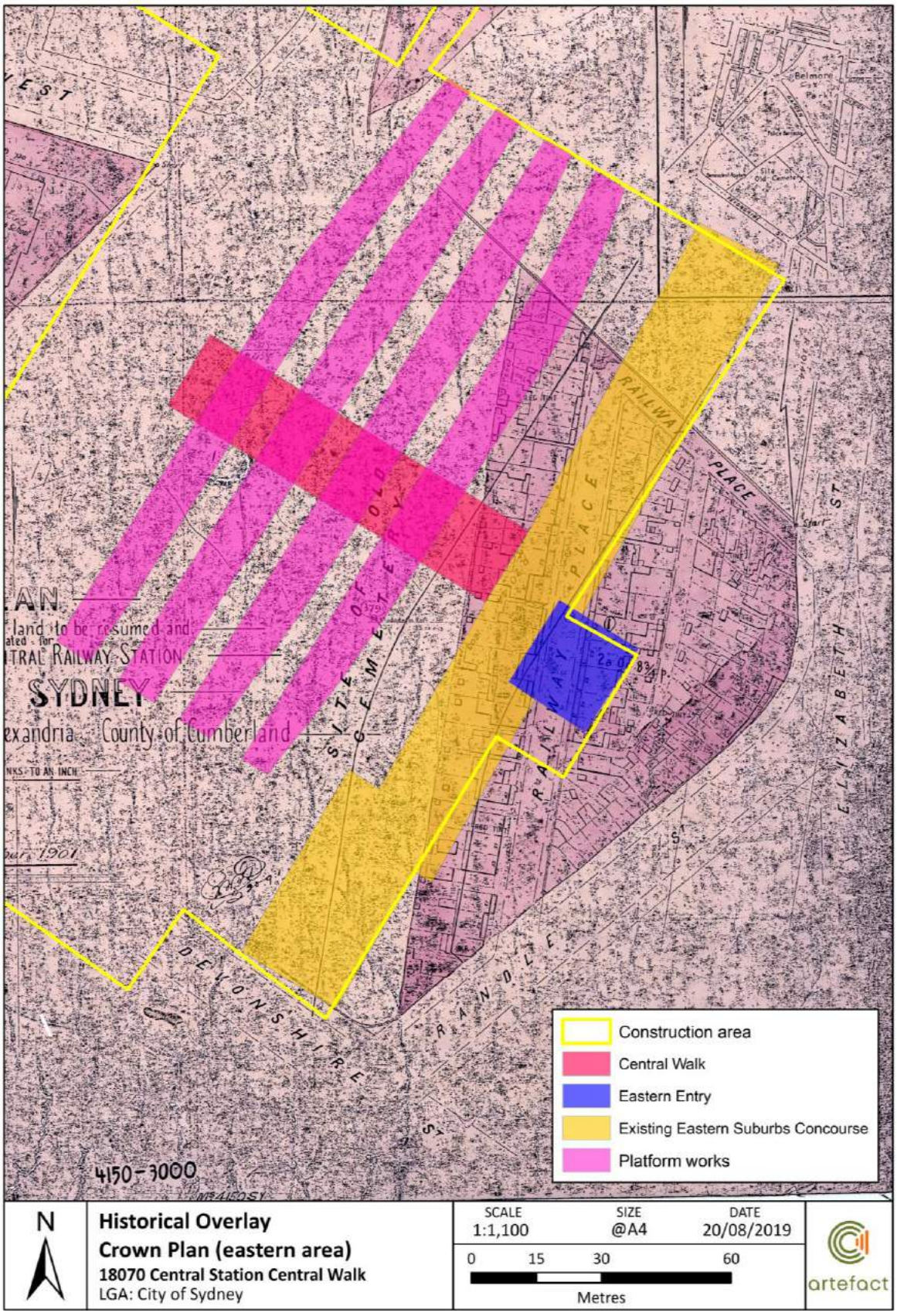
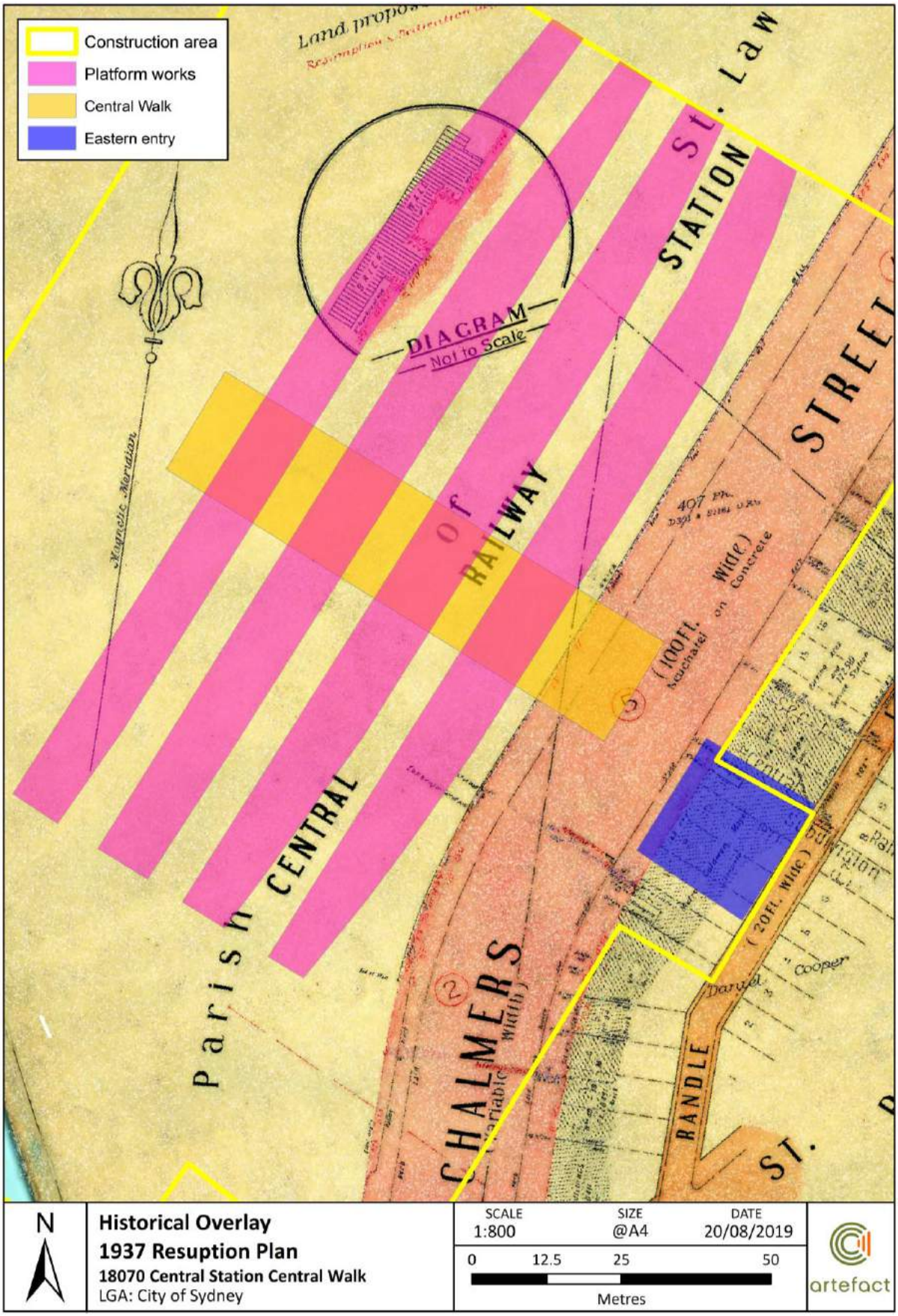


Figure 16: 1937 Resumption Plan.



3.3 Central Railway Station

3.3.1 Third station expansion (1901 – 1930)

The third station was designed by Government Architect Walter Liberty Vernon on the site of the former Devonshire Street cemetery. The foundation stone was laid on 30 April 1902 by Edward O'Sullivan, Minister for Public Works. The new railway terminus and main concourse level were completed in 1906.

Despite the new station the problem of access to the City remained. In order to rectify this, the City Rail project commenced in 1922. Electric trains operated along the Illawarra Line from June 1926. The city underground system opened later that year, connecting St James and Museum Stations to the network. The project included the advanced design feature of the 'flying junctions' or flyovers, which allowed trains to change tracks on approach to Central Station. In order to cater for the additional railway lines, Central Station had four additional double platforms constructed on its eastern side by 1926 (today's platforms 16 – 23; Figure 19). The construction of these new platforms resulted in the demolition of the existing three eastern platforms, rail sidings and goods sheds.[47]

3.3.2 Eastern Suburbs Railway (ESR)

With the rapid expansion of Sydney city, it became apparent that new ways of incorporating Central into the growing metropolis were required. Post WWII, the trams in Chalmers Street were removed and the line diverted via Randle Street. The reason for these changes was the first attempt to construct the Eastern Suburbs Railway line from 1948 to 1952.[48] An Eastern Suburbs Railway was one of those originally proposed by John Bradfield that was cut short by the financial problems of the Great Depression and shortages of World War 2. An initial alignment had been set in 1926 and a tunnel was partly built between Taylor Square and St James Station (though not reaching St James itself). Work then ceased.

Chalmers street seems to have been excavated from 1949 to at least 1951 (according to the aerial images). The 1951 aerial image seems to show a deep excavation abutting the project study area. With work ceasing in mid-1953 with the excavation was left open.

The third attempt to construct the railway began in 1967 when the New South Wales Government awarded the contract for the civil and structural design of the entire line to the Snowy Mountains Corporation. Construction was very slow hampered by legal challenges. The Eastern Suburbs line was finally opened on 23 June 1979 but leaving some platforms unused.

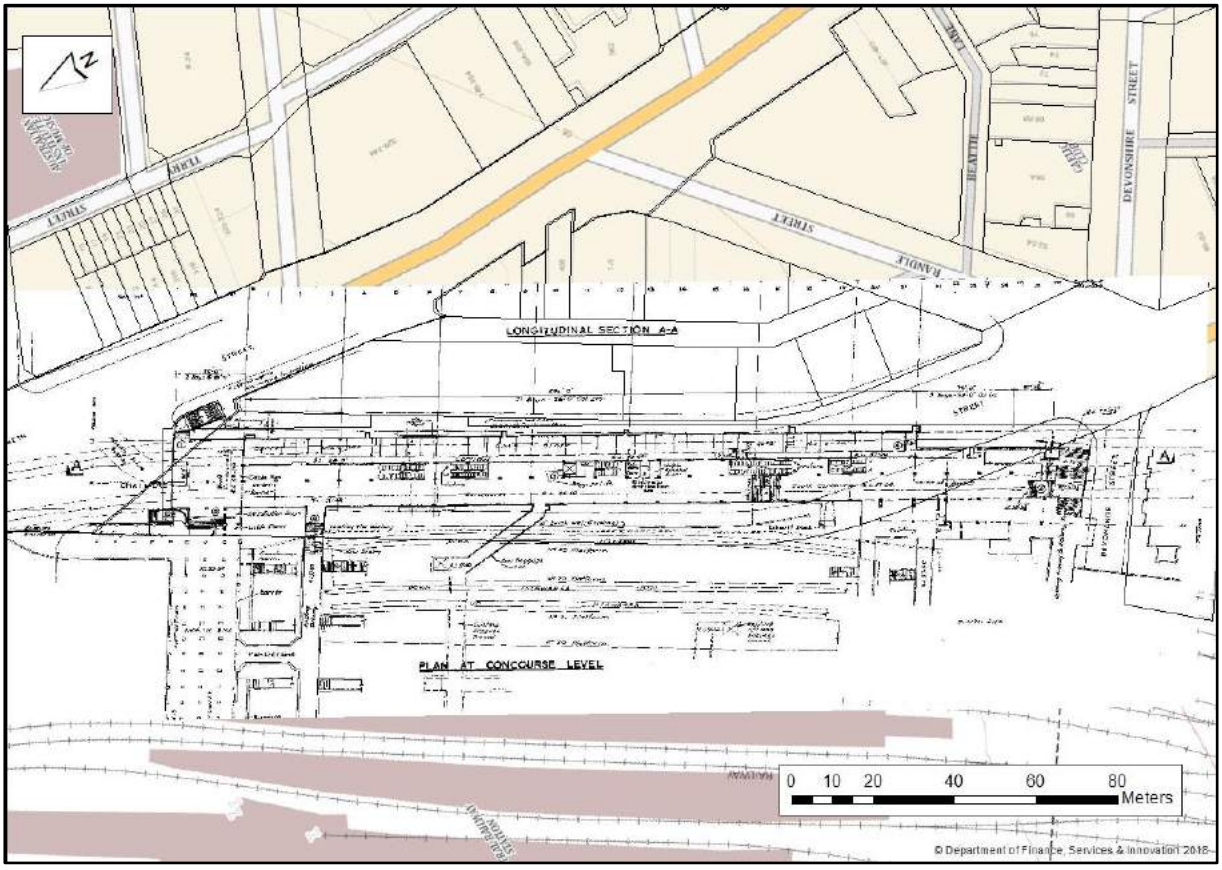
A second phase of works again for the Eastern Suburbs railway occurred in 1977- to 1979 and it is believed that the Devonshire Street subway from Central Station across to Elizabeth Street, under Chalmers Street was constructed at that time. In addition, the entrance to the Devonshire Street tunnel was reconstructed.

Currently, plans of the 1950s excavations for the Eastern Suburbs railway have not been located, however, a plan of the Eastern Suburbs Railway dating from 1979 has been provided by Acciona. This plan has been georeferenced and overlain on modern cadastral plans which has allowed the extent of the station to be shown (Figure 18) although it is unclear how much disturbance occurred during construction.

[47] *Ibid.* pp. 53 – 54.
[48] Rappaport Pty Ltd and the NSW Government Architects Office. 'Central Station Conservation Management Plan'. 2013: NSW Transport, Vol 2 :5.5.

Figure 17: Photograph showing excavation of the ESR, extending across the total width of Chalmers Street. Source: City of Sydney Archives late 1940s excavation Syd Ref Coll SRC136

Figure 18: Plan of the ESR. Central to Redfern, Central Station, General Arrangement, overlain on a modern base plan

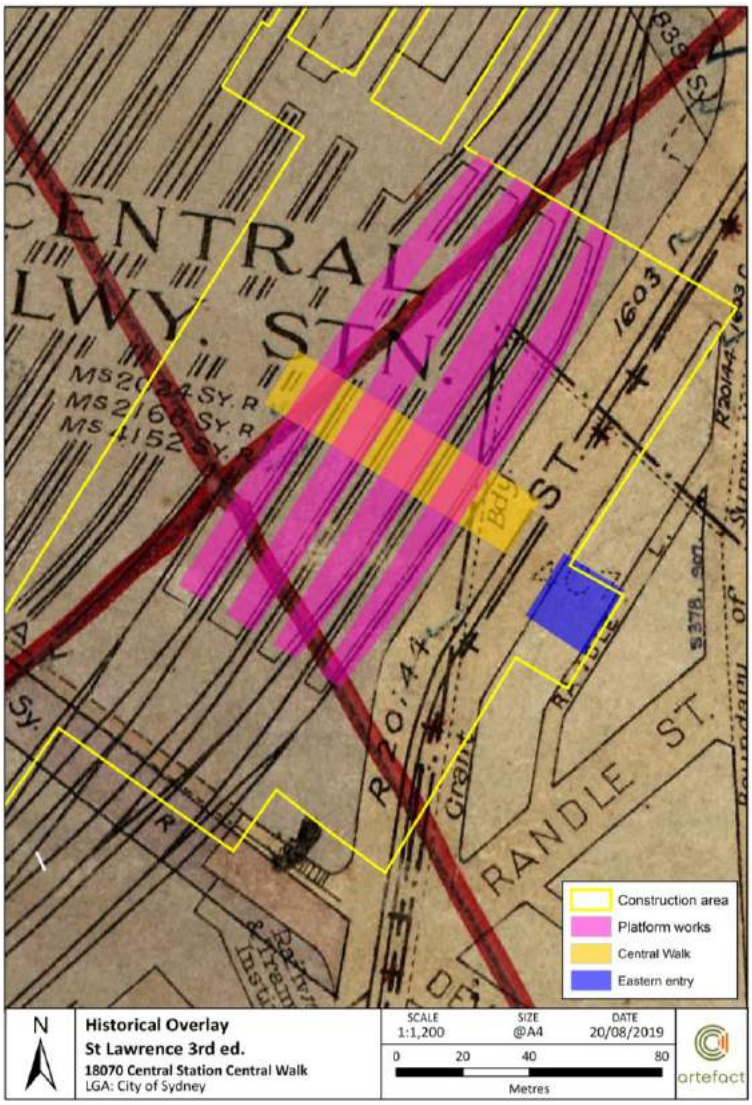


3.3.3 Twentieth century station modifications (1930 – present)

A number of renovations were made to Central Station after the completion of its primary facilities in 1926. With the rapid expansion of Sydney city, it became apparent that new ways of incorporating Central into the growing metropolis were required. The largest renovations were the incorporation of platforms 24 and 25 for the Eastern Suburbs Railway in 1979. The Eastern Suburbs Railway involved the excavation of new tunnels north of the station with two double platforms constructed underneath what is now the footpath on Chalmers Street. The platforms were constructed on top of each other although the lower platforms were never used and have no railway lines attached to them.[49]

Today, Central Railway Station is the busiest train station in NSW, averaging around 40,000 passenger station exits between 6:00am and 9:00am on an average work day.[50]

Figure 19: Central Railway Station in the mid-20th century. Detail from plan of the Parish of St Laurence, 3rd edition[51]



[49] Rappoport Pty Ltd & NSW Government Architects Office 2013. pp. 56 – 57.
[50] Transport for NSW, 2014. Train Statistics: Everything you need to know about Sydney Trains and NSW TrainLink.
[51] Undated plan of the county of St Laurence, Parish of Cumberland, 3rd edition. Accessed via NSW Lands and Registry Services, Historic Lands Record Viewer
http://www.nswlrs.com.au/land_titles/historical_research/parish_maps

4.0 ARCHAEOLOGICAL POTENTIAL

4.1 Recent archaeological investigations

Several recent archaeological investigations have taken place within and adjacent to Central Station. The results of these excavations indicate that archaeological evidence of the Devonshire Street Cemetery and the earliest phases of Central Railway Station can and do remain preserved. Some of these remains are far more intact than previously expected. The results of these excavations, some ongoing, have been included in the following sections, and illustrated in Figure 21.

4.1.1 Sydney Metro – Central Station Main Works – Artefact Heritage (ongoing)

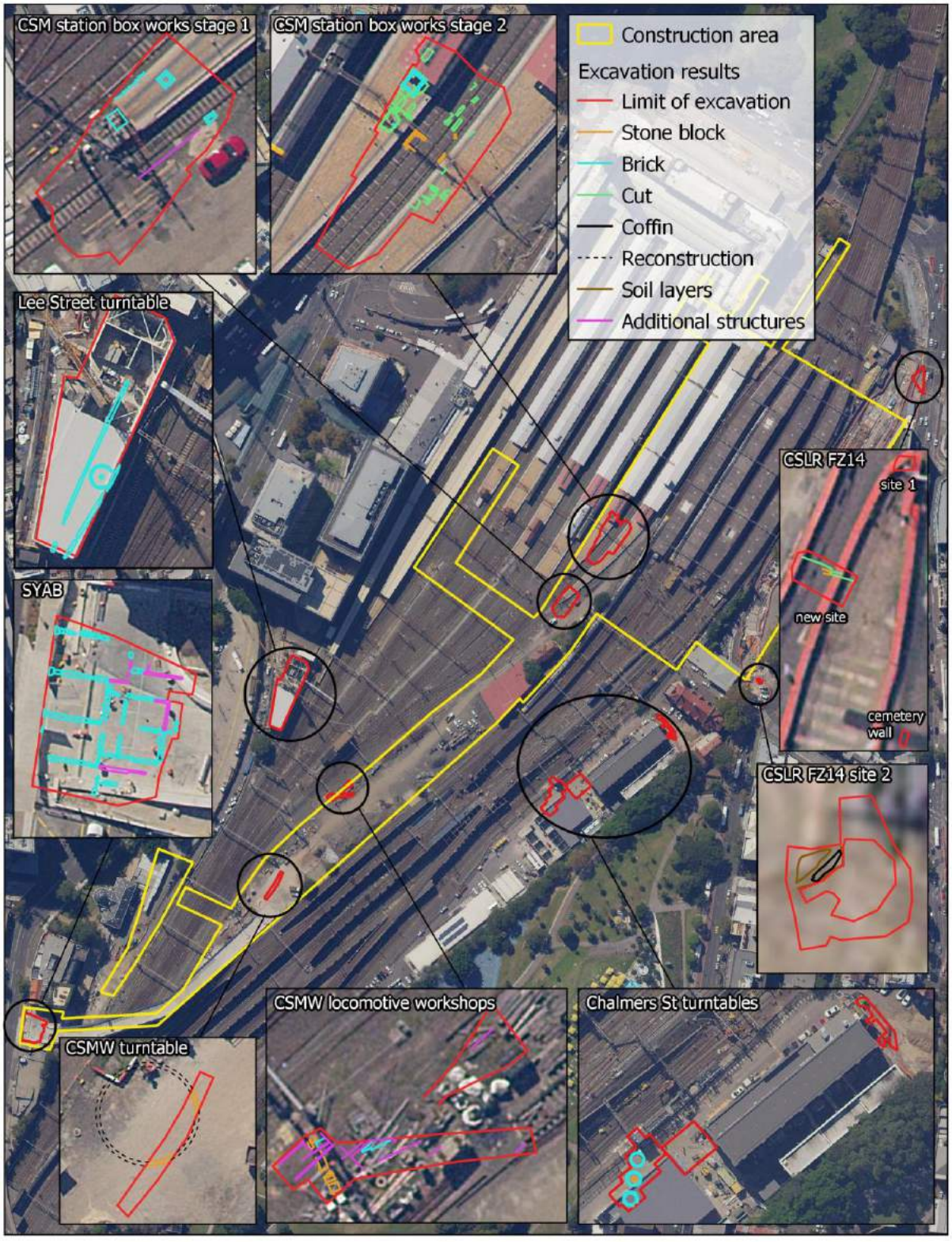
Artefact Heritage were engaged by Laing O'Rourke to archaeologically manage construction activities for the CSMW study area, which is part of the Sydney Metro City & Southwest – Chatswood to Sydenham project. The project works included excavations for a range of activities in the Sydney Yards, the platforms, and around Randle Lane and Chalmers Street, including the establishment of the station box, service investigations and installations, the removal of the platforms.

4.1.1.1 Randle Lane

In November 2018, service investigations were conducted on Randle Lane consisting of the excavation of four slit trenches. In all trenches natural shale was encountered at most 500mm below the ground surface where modern services had been installed. Where no services had been installed the shale was typically located 200-300mm below the surface. However, in one trench at the rear of 7-9 Randle Street revealed that the building footings were situated over sandstock footings three courses deep (Figure 20). These footings were founded on shale at a depth of 400mm. This suggests that structural remains of the former buildings may have survived beneath the current buildings.

Figure 20: Evidence of previous structures within Randle Lane. Artefact Heritage 2018.

Figure 21: Overview of known archaeological investigations undertaken within and adjacent to Central Station.



4.1.1.2 First Redfern station and second station expansion

In November 2018, during excavations for the installation of an elevator and stairs to access the Olympic Tunnel within Platform 22/23, a brick feature was identified within the hoarding. The feature consisted of a wall measuring more than 6m long, 480mm wide, and continuing to a depth of at least 1.5m. The feature was interpreted as possibly being the original platform surface prior to infilling and raising the platform to the current level.

On 31 January 2019, during archaeological monitoring of service investigation works, a brick wall was identified to the south of the construction site storage sheds. This wall was interpreted as being associated with the Locomotive Workshop (Second Station Expansion). A program of targeted test excavation was undertaken prior to the planned excavations for the stormwater drainage and feeder route (Figure 24). A program of targeted test excavations was also undertaken in the likely location of the First and Second Station Expansion turntables. The excavation identified well preserved subsurface elements of both the Locomotive Workshop and the Turntable (Figure 22).

4.1.1.3 Devonshire Street Cemetery

Archaeological monitoring of parallel to Platform 13 identified a sandstone structure in November 2018. This was determined to be a burial vault (referenced as 'Vault 1') and excavation commenced on 30 November 2018. To date, excavation has identified four vaults (three sandstone lined), a single sandstone lined grave cut and 72 grave cuts. Articulated and disarticulated human remains have been excavated. These are in the process of being analysed by Dr Denise Donlan.

Archaeological testing within an area north of the Devonshire Street tunnel was undertaken to investigate an area likely to contain re-deposited sands and thus potentially containing Aboriginal objects as well as archaeological remains from the former Devonshire Street Cemetery. During removal of an area of recent fill a brick structure was identified. Archaeological excavation focused on clearing the area and the structure was revealed to be rectangular in shape with evidence of partial filling by brick demolition rubble. A human pre-molar was found in the sieving reside on the 15th January 2019 and excavation ceased. This structure has been referenced as 'Vault 2'.

Further excavation in the area identified several grave cuts into the underlying natural clay (Figure 23). Wet sieving of material from Aboriginal test pit excavation throughout this area also identified human remains, in the form of small fragments of bone, mostly less than 1cm, captured in a 3mm mesh sieve. The fragmentary human remains were identified as having their origin in a light-grey sand deposit that appears to be a redeposited and highly disturbed remnant from the original Botany Sands that extends over much of the Stage 2 test area.

The sand overlies a yellow clayish sand which is a natural deposit. In turn this layer overlies a grey clay with extensive red mottles which rests on a shale deposit. This stratigraphic sequence occurs over the majority of the northern portion of the Station Box site. This possibly reflects the historic process of cutting down of the sandhills and levelling the Central Station site with fill (presumably from the sandhills) to make a level surface for the railway lines and platform[52].

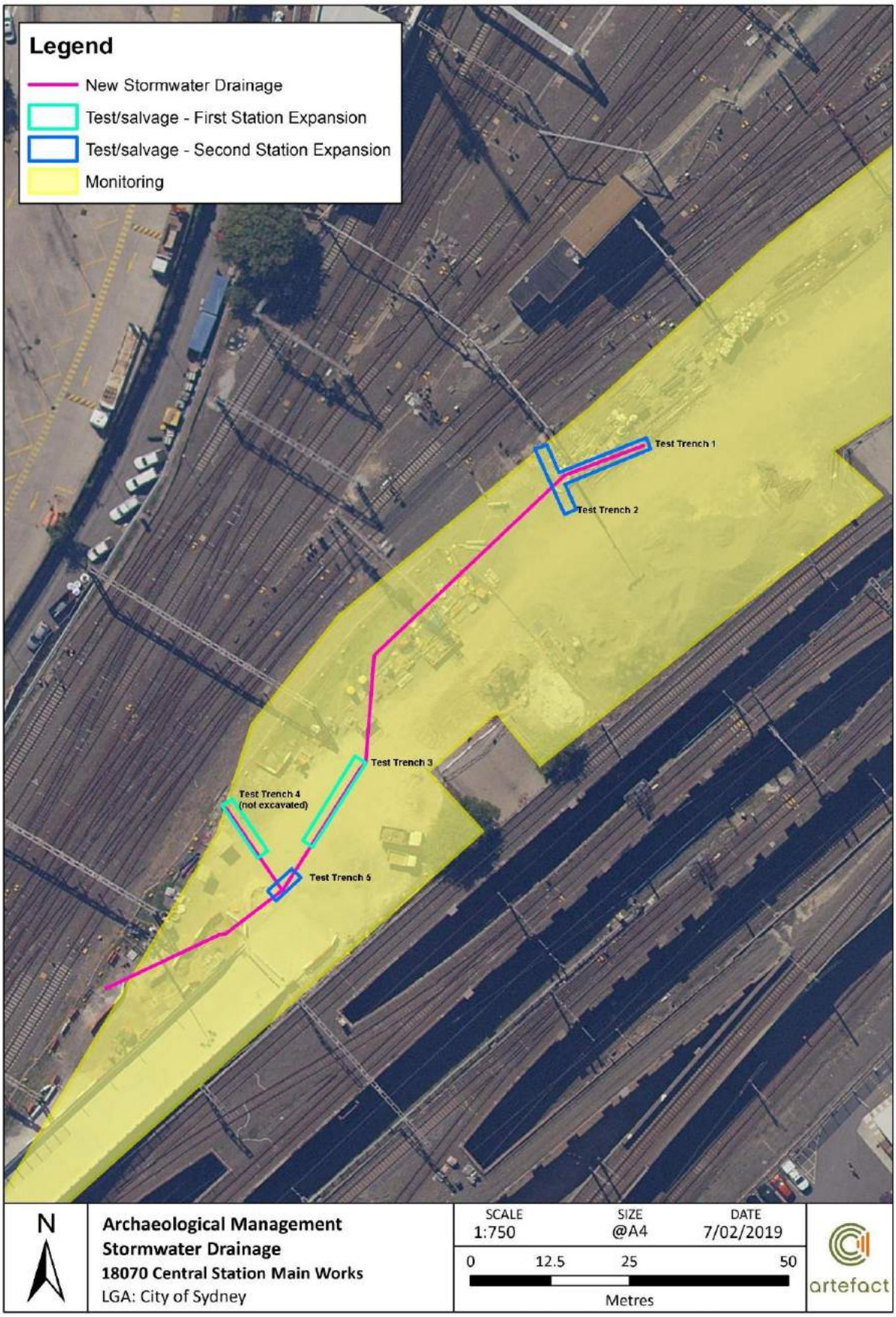
The results of the early archaeological investigations have further reinforced the assumption that the ground-surface within the former Devonshire Street Cemetery undulated considerably, and this has led to differentiating levels of preservation throughout the Central Station site.

[52] The project team includes Dr Sam Player, geomorphologist who is assisting in determining the stratigraphic sequence across the station box site.

Figure 22: Results of Test Trenches One and Two. G. Hazell 2019

Figure 23: Ortho of the excavations showing the base of grave cuts and excavated vaults. G. Hazell 2019

Figure 24: Location of testing undertaken for CSMW drainage works



4.1.2 Sydney Yard Access Bridge (SYAB) – Artefact Heritage

Artefact Heritage were engaged by Laing O'Rourke to archaeologically manage construction activities for the SYAB, which is part of the Sydney Metro City & Southwest – Chatswood to Sydenham project. The construction of SYAB involved excavations within Sydney Yard in AMZ CS 4. Monitoring works in November 2017 uncovered brick remains of a former structure, likely associated with the 'Railway Shop' which was part of the 'second station' development phase of Central Railway Station. The remains were recorded with only a minor portion removed (one course of bricks) and assessed as being of local significance. Access pits to drains and footings of stanchions associated with the third phase of construction of Central Station in the twentieth century were investigated, recorded, and removed. These were assessed as not meeting the threshold for local significance.[53]

4.1.3 CBD and South East Light Rail (CSELR) – Artefact Heritage and GML

Artefact Heritage were engaged by Acciona to archaeologically manage investigation and construction activities for the CSELR. The utility and civil works involved excavations within the Former Radio Workshop of Central Station, and within the road corridors of the surrounding streets.

In late October and early November 2018, two sets of human skeletal remains were unexpectedly discovered in Fee Zone 14. The first at the corner of Elizabeth Street and Chalmers Street, Surry Hills (Site 1), and the second near the junction of Chalmers Street and Randle Street, Surry Hills (Site 2). Upon discovery works in the area ceased and the loose remains were recovered and lodged with the NSW Coroners Court for assessment. Once it had been determined that the remains were likely associated with the Devonshire Street Cemetery a permit was approved to investigate and exhume additional potential remains. The investigations of the two sites were undertaken in March and April 2019. The investigations identified the remains of an *in situ* coffin at Site 2, containing additional skeletal remains. A possible grave cut was identified at Site 1, though no *in situ* remains were identified. Instead the soil primarily consisted of fill containing loose skeletal remains were recovered from the fill. To date no other skeletal remains have been uncovered outside of these two isolated areas.

The investigation at Site 2 identified an intact section of the Botany Sands, confirmed by geomorphologist Dr Sam Player. Although intact Botany Sands were not identified at Site 1, redeposited sands were evident in the fill. However, an inspection of the stratigraphy outside the buildings on the east side of Chalmers Street confirmed that no evidence of the Botany Sands was present, and the soil quickly came down onto virgin shale. This demonstrated that the Botany Sands likely only survives in discrete pockets in the area.

On 15 May 2019, on the western side of Chalmers Street, approximately 8m south of the pedestrian crossing from Chalmers Street to Elizabeth Street, a sandstone feature was identified that was preliminarily interpreted as being a possible burial (Site 3).[54] In addition to the sandstone feature (Figure 21) a human tooth was recovered during the sieving of the soil above it. Redeposited Botany Sands were also identified in the vicinity, further reinforcing the likelihood that the find is a burial associated with the Devonshire Street Cemetery.

In March 2018 a sandstone structure was identified on the west side of Elizabeth Street during trenching for the installation of a conduit alignment. The feature was identified as likely representing the remains of the boundary wall of the former Devonshire Street Cemetery. The remains were

[53] Artefact Heritage December 2017. *Memo – Archaeological monitoring summary report;* Artefact Heritage September 2018 *Sydney Yard Access Bridge Construction Project Excavation Directors Report*
[54] Artefact Heritage May 2019. *Memo – Section 146 Notification of Relics*

assessed as potentially being State significant and a s146 notification was provided to the former NSW Heritage Division (now Heritage DPC).

Archaeological work within Fess Zone 14 of the project has identified that pockets of Botany Sands survive along Chalmers Street. The sands have been located at 1.2m below the ground surface near the intersection of Chalmers Street and Devonshire Street and at 2m below the ground surface near the intersection of Chalmers Street and Elizabeth Street. Although the sands have only been found in isolated pockets in the vicinity of utility services, it does indicate that some remnants of them survive in the vicinity.

4.1.4 Lee Street Turntables and First Station archaeology – AMAC

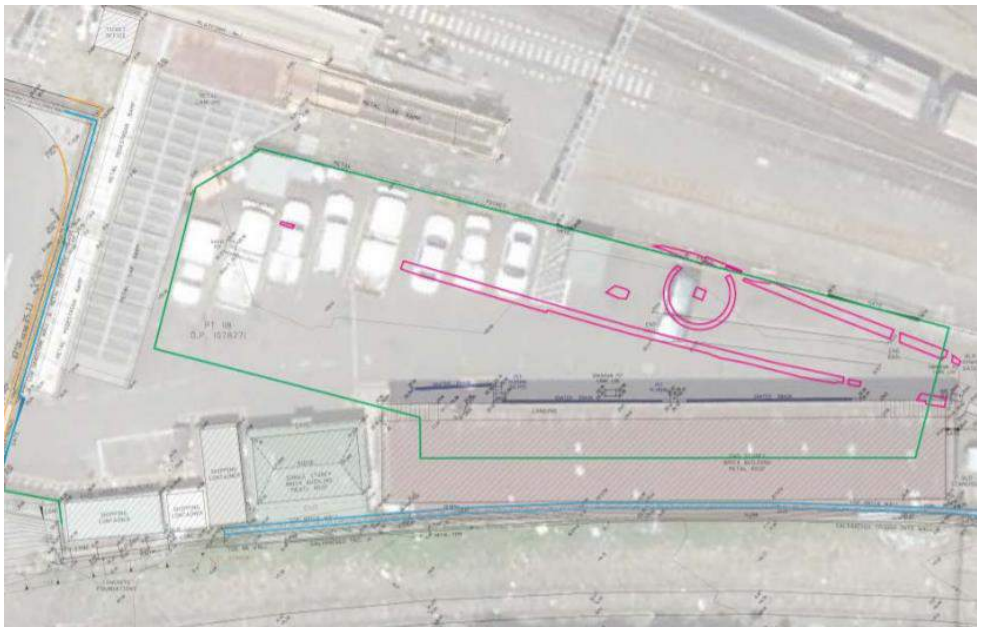
From September to November 2016 archaeological monitoring of excavation work undertaken for the Lee Street Substation site was conducted. Footings of a platform and remains of a turntable were identified.[55]

The key archaeological remains identified were parallel brick footings which seem to relate to an extension of the platform associated with the Second Sydney Station period and the expansion of passenger facilities c1880's. The platforms are shown on the 1884 City of Sydney Detailed Series map.

Based on stratigraphic evidence, the turntable dates from before the platform construction. The turntable appears to have been decommissioned prior to the construction of the Second Sydney Station in the 1880s.

The implications of these results are that archaeological remains from the first and second station eras can survive despite the main structures being demolished and built over by later railway infrastructure.

Figure 25: Overlay of the former survey plan, Six Maps aerial and the survey of archaeological results. J. Baloh for AMAC, November 2016.

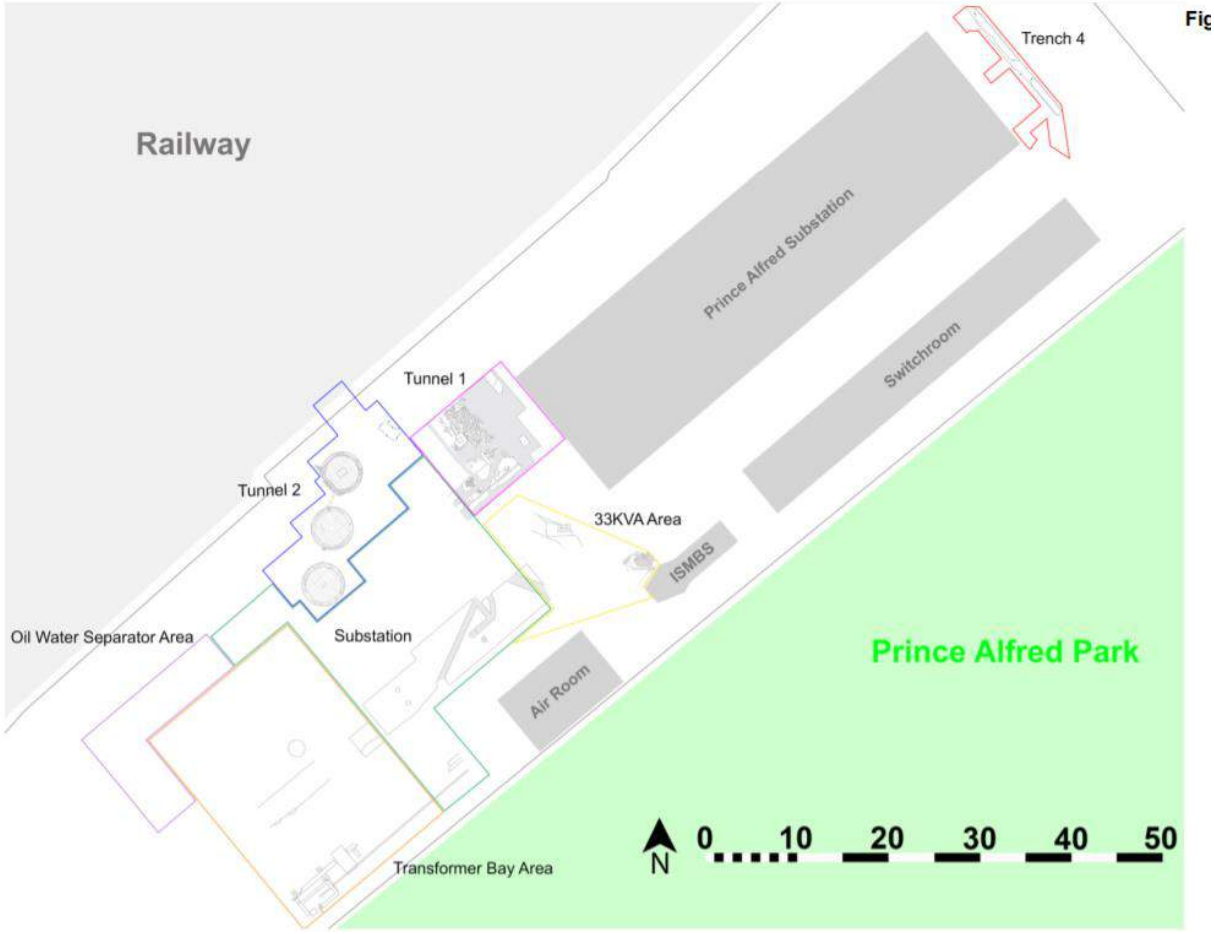


[55] AMAC Group 2016 Archaeological Assessment and s60 Permit Application Chalmers Street Substation, Report for Abergeldie on behalf of Transport for NSW

4.1.5 Chalmers Street Turntables – Archaeological Management & Consulting Group (AMAC)

AMAC undertook archaeological integrations within the Chalmers Street substation site between 2016 and 2019. The majority of the site was found to be heavily truncated and a vast number of services have left the archaeological record in a fragmentary state. Three c.1870 wagon turntable footings, a sandstone crane foundation and counterweight from the Second Sydney Station phase were salvaged. Other relics retained in situ were a c.1855 well shaft, c.1855-1865 culvert, pit and sandstone wall footings associated with the First Sydney Station phase. Second Station phase relics that were recorded and removed included macadam sandstone road base, late 19th century buffer stops and a disturbed sandstone footing for the 1870 Goods Shed (Figure 26).

Figure 26: Overview of archaeological results. Source: AMAC June 2019.



4.2 Geotechnical testing

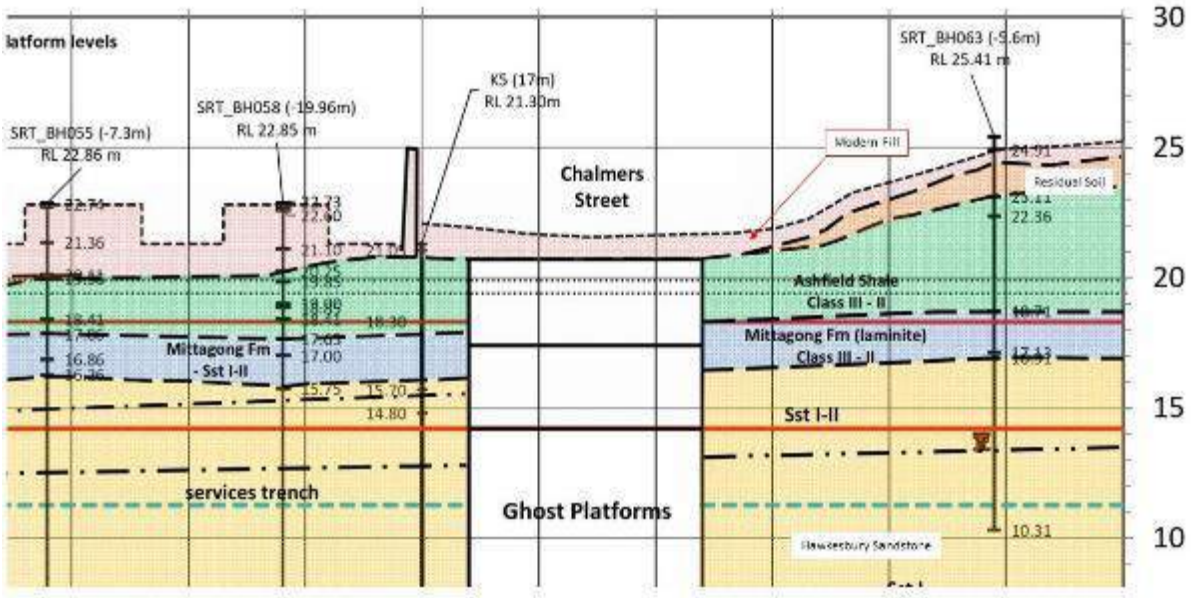
The Central Walk AARD stated that:

> *Geotechnical investigations conducted for the Sydney Metro project have shown that underneath the rail corridor between platform 15 and 16, local Quaternary sands are present at a depth between 0.6 metres and 1.7 metres. These sand deposits are up to 3.6 metres thick. The degree to which these sand deposits represent imported or redeposited local sand as fill or back-fill, or in situ Tuggerah sands, is unknown.*

Additional geotechnical works, with an extensive number of boreholes across the station box area were completed in 2018 and present an altered interpretation of the subsurface nature of the site.

On the eastern side of the footprint of the former cemetery, adjacent to the Central Walk study area, geotechnical investigations have shown that the area consists of modern fills directly overlying Ashfield Shale (Figure 27). Whilst unlikely, there is some potential that residual pockets of intact sand, with unexhumed burial remains, may exist. Excavation works for the construction of the east concourse would involve horizontal excavation to a depth of up to 6 metres below the Chalmers Street level.

Figure 27: Geological cross section of Central Station, detail of Central Walk study area, in the vicinity of the unused Eastern Suburbs Railway platforms.



4.3 Revised assessment of archaeological potential

Based on historical research and the results of previous archaeological work the following archaeological resources associated with the following phases of development have the potential to be located within the Central Walk study area:

- Devonshire Street Cemetery
- Former Railway Place residences.
- Third (current) railway station

4.3.1 Devonshire Street Cemetery

Historical sources indicate that burials within the former Devonshire Street Cemetery were exhumed prior to the construction of the Sydney Terminal in the early years of the twentieth century. Investigation of comparative examples, however, suggests that exhumation processes were often incomplete, leaving partial, and sometimes whole burials, *in situ*. Archaeological investigation undertaken by Artefact Heritage for the CSMW has confirmed that this is also the case for the Central Station resumptions, and has identified burial vaults, grave cuts, articulated skeletal remains and disturbed Botany Sands containing fragmentary skeletal material.

The results of this ongoing salvage excavation indicate that the Devonshire Street Cemetery was constructed on a sand ridge that ran approximately south-east by north-west between Elizabeth and

Pitt Streets (Figure 28). The ridge seems to have been comparatively flat along the Pitt Street frontage but rose steeply to reach the Elizabeth Street/Railway Parade area. Central Station, therefore, has been constructed on an undulating level created through excavation and infilling events, meaning that the potential for archaeological remains to be preserved below the current surface of the station varies throughout. Geological sections provided to Artefact Heritage for the CSMW project also indicate that the underlying Ashfield Shale rose to the north-west (i.e. it was undulating) and presumably the overlying sands rested on this substrate. Archaeological work has further refined the understanding of the resumption process, and indicates that the graves to the east and north of the CSMW study area, i.e. those originally on higher ground, are likely to have been more highly impacted by the resumption process than those originally excavated into the base of the dune. Archaeological investigations undertaken by Artefact Heritage for the CBD and South East Light Rail project have also identified discrete pockets of redeposited Botany Sands along Chalmers Street.

It has been established that the original dune surface sloped up towards Chalmers Street (Figure 28). As the cemetery was excavated into this undulating ground level (as evidenced by numerous contemporary photographs) the levelling of this area in the early 20th century is likely to have removed the majority of graves which would have been present further east. It is therefore assumed that the potential to encounter graves and human remains is reduced to the north-east of Central Station and increases to the west and near the Devonshire Street tunnel (see Figure 28). Archaeological excavation to date has revised the potential for the CSMW study area to contain intact cemetery remains (Figure 29). This revised assessment indicates that excavation for the Central Walk concourse has low potential to encounter remains associated with the Devonshire Street Cemetery (as illustrated in Figure 29).

Archaeological material associated with the Devonshire Street Cemetery may include structural remains such as former footings for the deconstructed burial ground walls, residual brick and stone tombs, and tombstones. Timber coffins, coffin furniture, human skeletal remains and associated artefacts may also be preserved. Personal artefacts could be present such as jewellery, and clothing including leather, fabrics, fasteners, and buttons. Evidence of exhumation may also be present, such as trenches into the clay, debris and backfill associated with the modification and levelling of the landscape.

Incidental rubbish deposited during the later days of the cemetery when it fell into disrepair may also be present in re-deposited soils or in lower areas that were backfilled. Fill may be dateable by artefacts associated with phases of use and decommissioning of the cemetery.

Figure 28: Approximation of the historical contours of the Devonshire Street Cemetery and Railway Place. Iain Stuart/Artefact Heritage 2018.

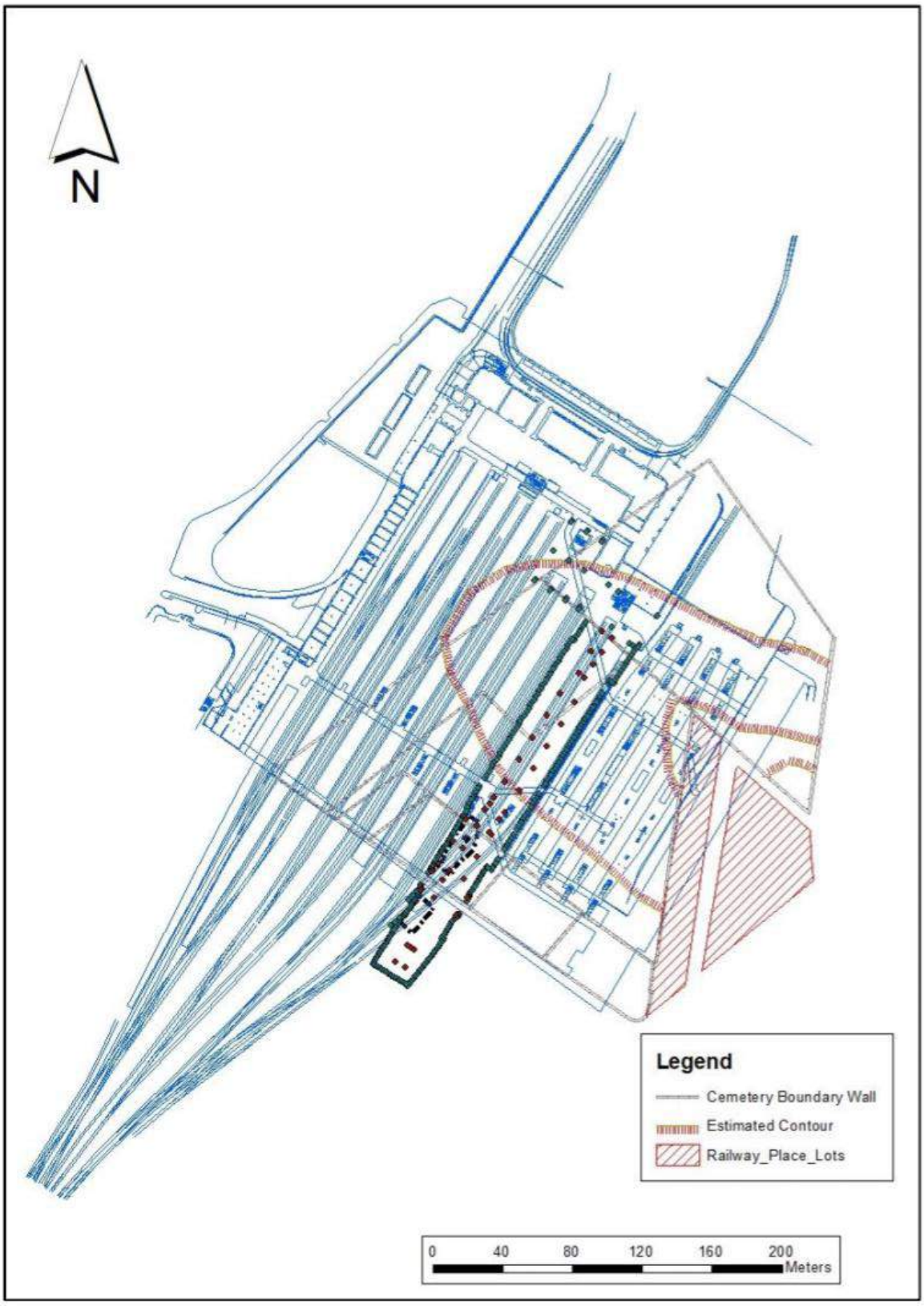
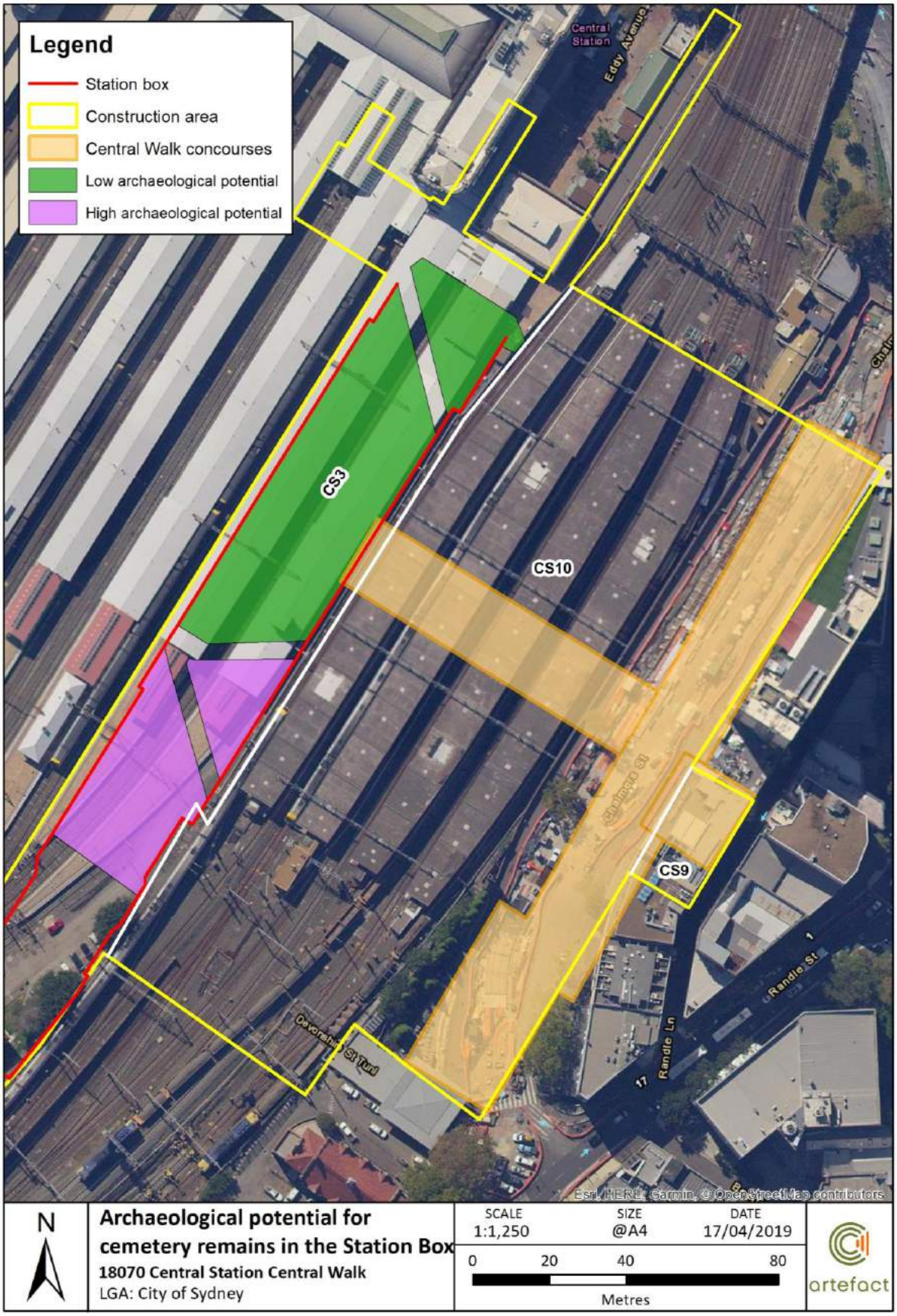


Figure 29: Archaeological potential of the Central Station Main Works station box in relation to the primary components of Central Walk



4.3.2 Railway Place residences

The area formerly known as Railway Place was resumed under the provisions of the Public Works Act of 1900 and the City Railway Extension (Devonshire Street) Act of 1900. 20-28 Chalmers Street, the location of the future Eastern Entry, is located on Lots 7 to 11 of Section 1 of the Central Railway Station subdivision. After resumption the title was vested in the Minister for Public Works, and was then privately conveyed to a series of individuals.

Analysis of historical images indicates that Railway Place was built on a topographically higher portion of the former sand ridge, within an area sloping to the north-west. Historical photographs suggest that the northernmost portion of the residential triangle was constructed at a lower level than the cemetery and bounded by the cemetery retaining wall. Overall, Railway Place appears to have been constructed on higher ground than much of its surrounds, and a reference from 1901 states:

> *I climbed up some steps into the quaintest of verandahs, with a little window in one end of it; and, by the kind of the owners, was enabled to look at a very peculiar and interesting scene. I found myself looking out over the whole of the northern end of the cemetery, several acres of the green side of the hill, dotted with grey weather-worn tombstones*[56]

During resumption of the cemetery, hoarding was erected against the boundary of Railway Place and the sand ridge excavated to some depth (Figure 30). During this resumption it was noted that the sand hills were significantly higher than the level of the existing station line on the eastern side, with infill required to create a level platform on the western side. An article in the Daily Telegraph from 1 January 1902 stated:

> *As the difference in the levels of Pitt-Street and the centre of the site was an is still very considerable gangs of laborers with carts are kept going continuously removing the sandy soil* [57]

An article from the 30 January 1902 also stated:

> *A start has already been made to cut out and level the new thoroughfare through Railway-place, along which the junctioning lines of the Elizabeth and Redfern trams will be taken. Practically all the houses on the western end eastern sides of Railway-place have been removed, and the department is not pulling down all the shops and tenements on the Randle-street (western) end. When these buildings have been removed, it will take only a few weeks to get the levels made, and the rails laid to complete the tramway connection* [58]

Following resumption of Railway Place, the land remained vacant until subdivision in the early 20th century. The Eastern Entry study area was obtained by MGM in 1932 and the theatre constructed remains extant on the site. The construction of this building is likely to have further impacted on archaeological remains, although these impacts are likely to be localised to some levelling and excavation for footings and other in-ground portions of the building.

[56] Evening News 'Roundabout the New Railway Station As It Is' 10 August 1901 p.1
[57] The Daily Telegraph 'Clearing the Cemetery Site: Railway Place Dismantled' 1 January 1902 p.4
[58] The Daily Telegraph 'The New Central Railway Station' 30 January 1902 p.3

In summary, the Eastern Entry portion of the Central Walk study area has the potential to contain an archaeological resource associated with the construction and habitation of portions of 10 residences, in addition to the Railway Place road corridor itself. Remains may consist of remnant footings and associated construction trenches, as well as postholes. There is some potential for deeper subsurface structural remains to be present, such as basements. These features may contain backfilled material from the early 20th century. As the area is likely to have undergone some level of truncation during resumption and construction of the ESR in Chalmers Street, the potential for intact artefact bearing deposits is considerably lessened.

Overall, the revised assessment of potential for the study area to contain archaeological remains is moderate, although the probable lack of in-situ artefact bearing deposits does reduce the ability of these remains to contribute meaningfully to research agendas as outlined in the ARD.

Figure 30: View of Devonshire Street Cemetery resumptions c.1902 with the westernmost line of Railway Place residence partially demolished in the background[59]

4.3.3 Earlier phases of the third (current) Central Railway Station (including remains within platform structures)

The expansion of Central Station in 1906 – 1926 involved extensive excavation works and the construction of the structures in use today. The present-day above-ground railway platforms were completed by the 1920s, although they have been subsequently altered and extended. Alterations include the excavation and construction of new utility services and several phases of resurfacing and platform elevation adjustment.

Archaeological remains relating to the original 1920s platforms would include brick former platform surfaces, brick retaining walls and footings for former canopy supports. Subsurface platform surface

[59] 'Box 11: Subject and Place File, Sydney NSW – Streets – Princes Street to Zig Zag Railway NSW ca. 1823-1935' by Charles H. Bertie SLNSW PXA/2127/Box 11, image no. 2.

and wall fabric are likely to have intruding fabric from subsequent concrete and brick platform modifications.[60] The CSMW archaeological program has observed that the platforms consisted of an arched concrete base with a brick superstructure forming the edges of each platform. The area between has then been in-filled. The platform structures archaeologically investigated to date have been constructed directly onto underlying natural deposits, at a higher level than the track areas to either side.

Early twentieth century services such as terracotta drain pipes which have been identified through NDD during the CSMW early works could also be present. Other archaeological remains could consist of twentieth century access pits to drains, rail infrastructure, stanchion pads, loose rail and sleepers, rail bolts, and disused signalling equipment.

4.3.4 Summary of potential archaeological remains

Archaeological potential is defined by the NSW Heritage Office Archaeological Assessment Guidelines[61] as 'the degree of physical evidence present on an archaeological site'. Based on historical information, land use data and evidence of sub-surface impacts, a summary of the potential archaeological remains in the Central Walk study area is provided in Table 4 below.

Archaeological potential can be subdivided into the following categories, based on the likely occurrence of archaeological material:

- High Potential - areas with known archaeological remains;
- Moderate Potential - areas that may have archaeological remains based on other lines of evidence such as maps or documents;
- Low Potential - areas that are likely to have minimal archaeological remains based on analysis of known or likely disturbance;

Table 4: Summary of potential archaeological remains at the Central Walk study area

Phase	Types of remains	Potential	Works with the potential to impact remains
Devonshire Street Cemetery	Area contained the Roman Catholic portion of the cemetery, and contained headstones and grave cuts, excavated into the original sloping dune surface. Potential archaeological remains such as skeletal material, coffin furniture, personal items such as jewellery and clothing, coffin timber, disarticulated human skeletal material and artefacts. Redeposited sands also have the potential to contain fragmented human remains and artefacts.	Low	In-ground works with low potential to encounter remains of the cemetery include: • Track slab excavation • Platform excavation
Railway Place residences	Evidence of the occupation of Railway Place including remnant brick and stone foundations and construction cuts associated with the building frontages. Potential for basements as	Moderate	In-ground works with low potential to encounter remains of the Railway Place residences include: • Excavation for the Eastern Entry

[60] Australian Museum Consulting, 2015. *Heritage Platforms Conservation Management Strategy*, report prepared for Sydney Trains. pp. 10 – 11.
[61] Heritage Office 2009

Phase	Types of remains	Potential	Works with the potential to impact remains
	well as remains associated with the construction and maintenance of the Railway Place road corridor		• Service diversion works in Randle Lane
Third Central Station	Potential archaeological remains would include brick former platform surfaces and retaining walls, and former footings for original canopy supports. Other archaeological remains could consist of twentieth century access pits to drains, terracotta pipes, rail infrastructure, stanchion pads, loose rail and sleepers, rail bolts, and disused signalling equipment.	High	In-ground works with high potential to encounter remains of the third station include: • Track slab excavation • Platform excavation

5.0 ARCHAEOLOGICAL SIGNIFICANCE

5.1 Assessment of significance

The following statements of archaeological significance have been adapted from the AARD. Archaeological results obtained since the preparation of the AARD have also informed the assessment of the level of significance of potential archaeological remains within the study area. A reassessment of significance would be provided in the Final Excavation Report once the nature of finds is known and the research question have been addressed.

5.1.1 Devonshire Street Cemetery

The Devonshire Street Cemetery was the second formal burial ground established in the colony in 1820 and continued in use until the 1860s. Despite the cemetery's exhumation and levelling in 1901 and 1902, as well as the lack of evidence that human remains have been located or recovered since the cemetery was exhumed, it is possible that some remnants of human remains, coffin furniture or headstones may be present, although most likely to be fragmentary and in re-deposited fill.

Archival records can supply some information on the identities of the people who were buried at the cemetery, however this record may not be complete. Pauper's graves and lacunae within the historical record may mean that some interments are incompletely documented. The division of the burials into separate congregational areas may have material distinctions between the burial evidence of the graves. Forensic, osteological and isotopic analysis of skeletal remains can yield information about the health and diet of the interred, information which is not available from other sources. Burial ornamentation such as tombstones and tomb structures provide valuable symbolic evidence of funerary practices and attitudes towards death. These types of symbolic values are understood for wealthier burials from historic records, however the large number of poor or historically unmentioned people in the early colony are not as clearly understood from archival records. Burials from the period of the early colony at around 1820, particularly during the convict period (before 1840), and up to 1865 when the cemetery closed, are rare and highly valuable archaeological resources.

Legible in situ archaeological remains associated with the Devonshire Street Cemetery would be State significant under Criteria A, D, E and F.

5.1.2 Former Railway Place residences

The archaeological remains of the former Railway Place residences have the potential to provide information relating to the early development of Surry Hills, as an urbanised suburb near the first and second railway stations and the centre of the city of Sydney. The analysis of remains would provide information related to the preferences and socio-economic standing of the occupants of Railway Place, traditionally considered to have been a 'working class' area.

Should intact occupation deposits containing artefactual evidence directly associated with the former residents of Railway Place be identified, these remains have the potential to reach the state significance threshold due to the rarity of the material, and the paucity of archaeological examples of a similar age in areas outside of The Rocks and Brickfields.

The archaeological remains of the former Railway Place residences would have local significance under Criteria A and E. There is some potential for highly intact remains to reach the state significance threshold.

5.1.3 Earlier phases of third (current) Central Railway Station

The original Central Station platforms were constructed as brick masonry walls with a vertical profile. In accordance with the Heritage Platforms Conservation Management Strategy[62], this type of platform design is not recognised as an uncommon or unique material design. Design plans of the original platform configuration for the third Central station are accessible. However, the sequence of platform modifications since their construction is likely to provide information on the alteration over time of the operation of Central Station. It is likely that portions of these former platform surfaces and walls are significantly intact.

Archaeological remains associated with buried infrastructural elements of the third railway station, are examples of the frequent upgrading of the technology and the continual alteration of the railway station. Former rail lines and building footings associated with post-1906 construction are unlikely to meet the threshold of local heritage significance.

Intact structures of the original platform surfaces for the third Central Station would meet the threshold of local significance (Criteria A and C).

5.2 Summary of archaeological potential and significance

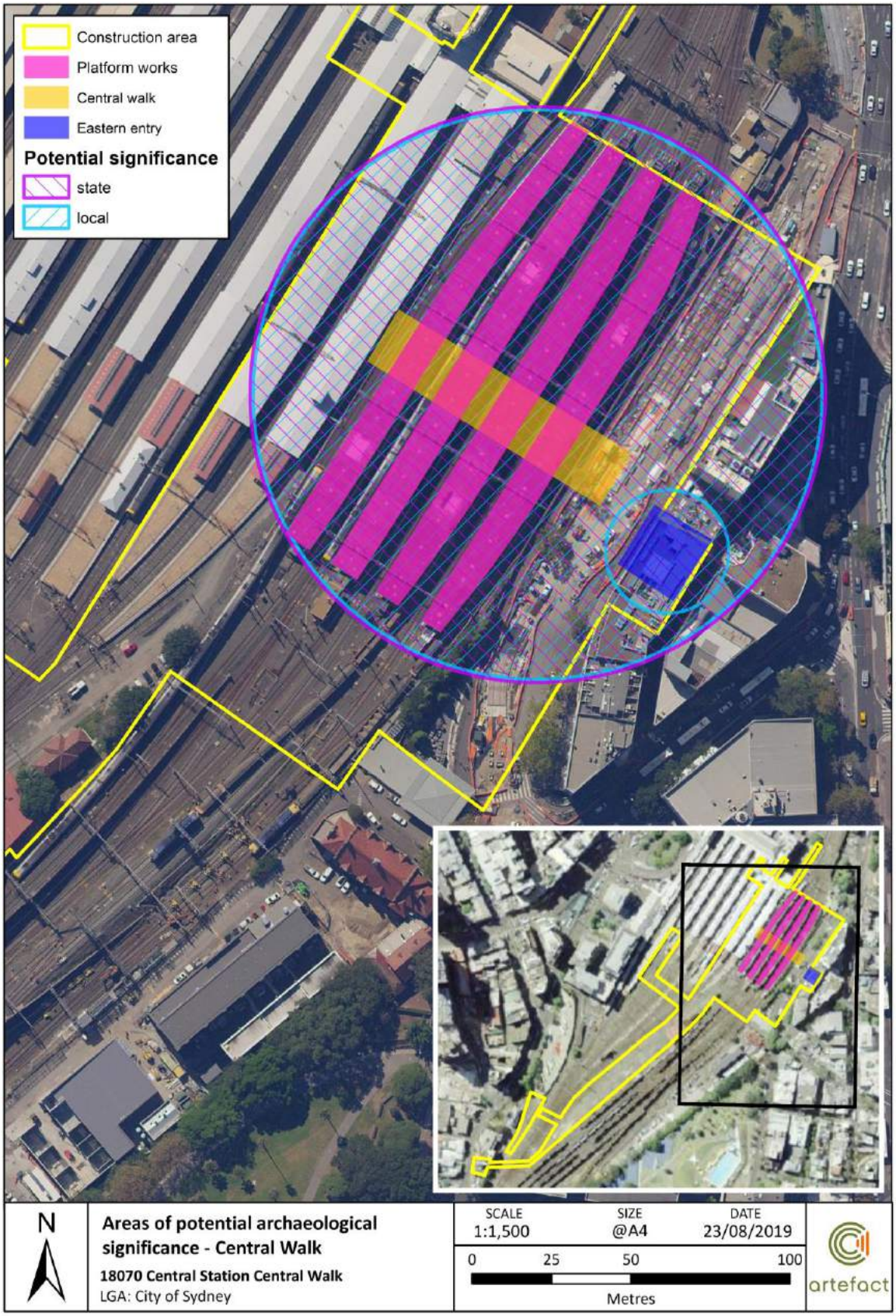
The Central Walk study area has the potential to contain archaeological remains outlined Table 5, and illustrated in Figure 31.

Table 5: Summary of significance of potential archaeological remains at the Central Walk study area

Date	Archaeological resource	Potential	Significance
1820 - 1865	Devonshire Street Cemetery	Low	State
c.1850 - 1902	Railway Place residences	Moderate	Local/State
1900 - present	Third Central Station	High	Local/no significance

[62] Australian Museum Consulting May 2015. *Heritage Platforms Conservation Management Strategy.*

Figure 31: Areas of potential significant archaeology within Central Walk excavation areas.



5.3 Research design

Archaeological resources within the study area have the potential to respond to a number of current research themes. Excavation for the Central Walk project has the potential to further refine our understanding of the development of the early landscape, the Devonshire Street Cemetery and Central Station. Additional research questions may be added if the archaeological resource allows for further, or more in-depth, investigation.

The archaeology within the study area has the potential to contribute to research areas such as:

- Social history and burial practices
- Environmental factors and scientific analysis
- Industrial archaeology
- Landscape archaeology

The ARD presented a number of research questions. As there is low potential for the Central Walk works to encounter intact remains associated with the Devonshire Street Cemetery, research questions relating to this phase have not been reproduced below. Refer to the ARD for these research questions.

Additional questions have been added in response to the potential archaeological resource within the Central Walk study area, primarily associated with Railway Place residences and data relating to the formation of the early 20th century landscape post-1903 resumption

5.3.1 Former Railway Place residences

The study area currently occupies the former Railway Place residences which were developed during the mid-nineteenth century. Archaeological remains associated with the residences would include building foundations, demolition rubble and fill and isolated artefact deposits. Evidence of the Railway Place residences within the study area would relate to the NSW Historic Theme of 'Industry', 'Accommodation' and 'Domestic Life'.

As the Railway Place residences were resumed in the early 1900s they are largely historically undocumented. Lands titles information is difficult to obtain. For this reason the archaeological resource is likely to be particularly valuable to our understanding of working-class life in Surry Hills, and a rare example of a mid-19th century slum outside the main working-class housing centres of The Rocks and Brickfields.

- Are archaeological remains of mid-nineteenth century terrace housing intact within the project area? Are the remains legible?
- Former nineteenth century housing was resumed and built over in the study area in 1900. To what extent has subsequent development (former MGM building construction, road and utility service works) impacted any archaeological remains?
- Are there archaeological remains associated with any intact artefact bearing deposits, such as yard scatters or potential underfloor deposits? Are cisterns, cesspits, tanks or wells intact, and are they artefact-bearing?
- Historical records from the 1860s show that the occupants of terraces on Railway Place were largely employed in industries related to the adjacent burial ground (stone masons,

carpenters, cartwrights). To what extent were these occupations practiced at their residences? Does the archaeology provide evidence of linkages with the Devonshire Cemetery site? Does archaeological evidence of these trades remain?

- Historical records from the 1880s show that the occupants of the residential terraces were largely railway workers, reflecting the growth of industry surrounding the second railway station after it was constructed in 1874. Can railway worker occupations be recognised from domestic archaeological remains in the study area? Can the change in occupations of the occupants show a material signature?
- How does the archaeology of the study area compare with other excavated 'slum' type residential areas, both in Surry Hills and the wider Sydney region? Are there similarities between this site, and those excavated in The Rocks or Brickfields i.e. around re-use of materials, material goods, food consumption and building technologies?

5.3.2 Third Station expansion

The study area currently occupies the third Central Station and has undergone continuous expansion and upgrades since it was constructed in 1906. Archaeological remains relating to the third station expansion may provide evidence of the rapid technological development of the rail industry in the early twentieth century. Evidence may include earlier platforms surfaces and structures, drains and culverts and footings and structural remains associated with earlier workshops, rail sheds and offices.

Evidence of the development of the rail industry within the study area would relate to the NSW Historic Theme of 'Industry', 'Technology', 'Transport', and 'Utilities'.

- Is there any evidence of former platforms located below or within the present-day station platforms?
- Can platform remnants provide information on design and construction techniques at Central Station which have not been previously recorded?
- Can original fabric of former platform remnants be identified, or are former platform remains heavily truncated or impacted by the developing use of the station over the last century?

5.3.3 Transformation of the landscape of the Cleveland Paddocks

At the end of the project, enough archaeological evidence should have been collected to document the transformation of the pre-colonial landscape which was known as the Cleveland Paddocks into Central Station and the Sydney Yard. The archaeological research aim would be to document this transformation utilising information collected in the course of the project to answer questions about the transformation of this landscape. Evidence of the transformation of the landscape of the Cleveland paddocks would relate to the NSW Historic Theme of 'Environment – cultural landscapes'.

- Was the original landscape sandhills, and how far did they extend?
- What was the original drainage and how were the creeks transformed?
- What evidence of excavation and transformation (such as levelling) is there?
- Is there any evidence of the original vegetation on the site?

6.0 WORK STAGE SPECIFIC ARCHAEOLOGICAL METHODOLOGY

6.1 Introduction

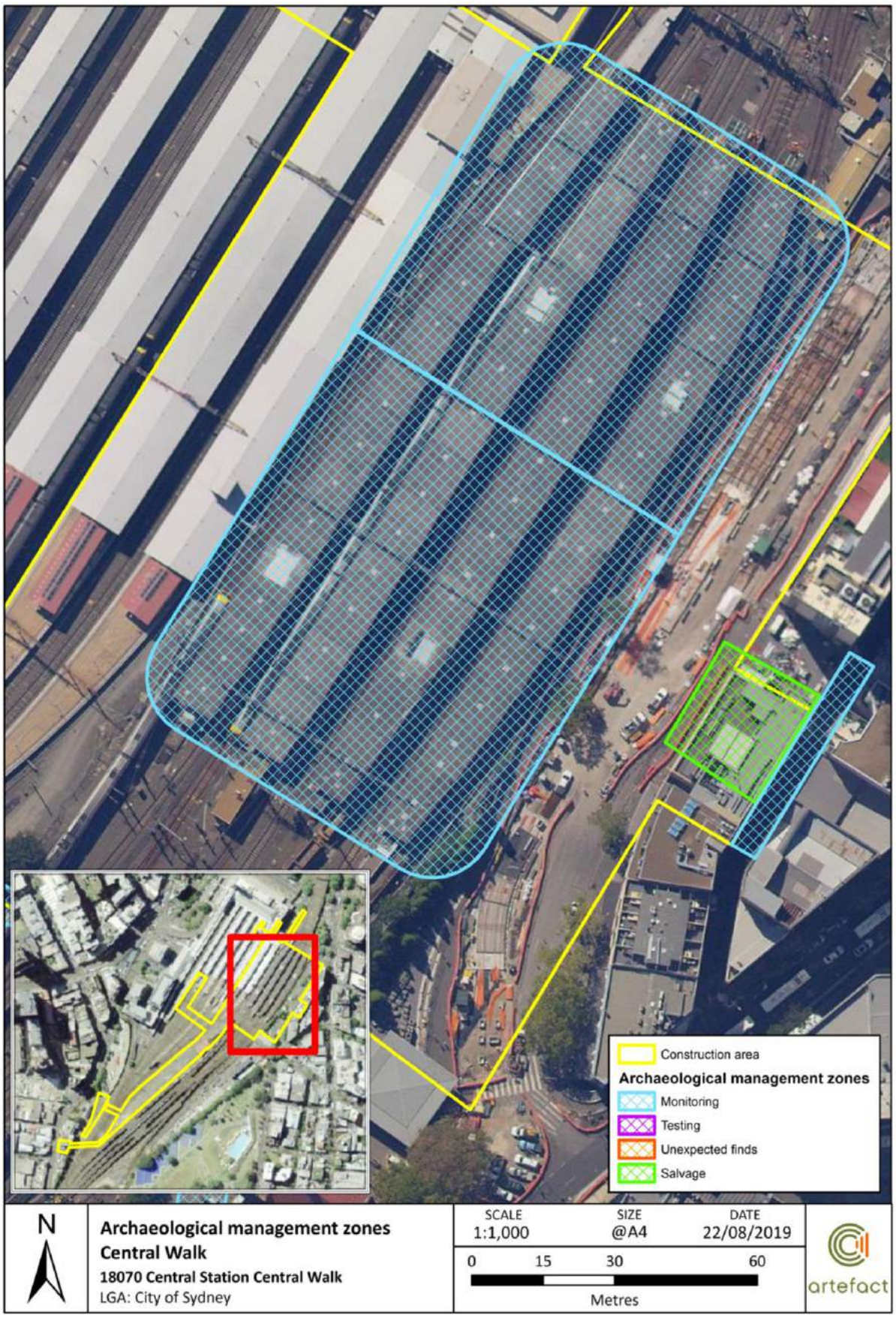
A complete series of archaeological methodologies for the approved project has been previously produced in the ARD.[63] The following section includes methodologies to be adopted during management of archaeological resources for the Central Walk project. These have been defined in Table 6, and illustrated in Figure 32.

Table 6: Definition of archaeological methodologies

Methodology	Definition
Monitoring and salvage	Archaeological monitoring is where an archaeologist is in attendance and supervising construction excavation work with potential to expose or impact archaeological remains. Monitoring is generally undertaken where there is lower potential for significant archaeological remains and/or where minor excavation work is in an area of archaeological sensitivity. If archaeological remains are identified during monitoring, they would be excavated and recorded by the site archaeologist
Test excavation	Archaeological test excavation is typically undertaken prior to impact, in areas where the survivability of the archaeological resource is unknown. The process of archaeological testing will involve the manual excavation of defined areas once overburden has been removed by machine. Manual excavation would be undertaken using hand tools, by a qualified archaeological team. On completion of archaeological testing, archaeological management of the area during excavation can be finalised i.e. movement to salvage excavation or a monitoring methodology
Salvage excavation	Archaeological salvage refers to open-area archaeological excavation under the control of the Excavation Director undertaken prior to impact. Salvage includes the horizontal excavation of the entire historical archaeological site. Manual excavation would be undertaken using hand tools, by a qualified archaeological team.
Sample recording	In the context of the Central Walk project, sample recording would be undertaken for those remains of which there are several similar examples. For example, impact of portions of the brick walls of platforms 16-23. This methodology is essentially a monitoring protocol, with the provision of time and access for detailed archaeological recording for one example of the item. This detailed recording would act as a sample, allowing the remainder of items to be impacted with limited archaeological intervention. This methodology has been detailed in Section 6.2.4.

[63] Artefact Heritage 2016a, chapter 12

Figure 32: Archaeological management for Central Walk north



6.2 Archaeological management of specific work stages

It is proposed that management of the potential archaeological resource include the following processes. These have been illustrated in Figure 32 and discussed further below.

- Archaeological monitoring and salvage of the Eastern Entry
- Archaeological monitoring and salvage of trenching within Randle Lane
- Archaeological monitoring of track slab excavation areas
- Sample recording of excavation below walls of platforms 16-23
- Monitoring of excavation within platforms 16-23
- Unexpected finds procedure for Central Walk tunnelling.

6.2.1 Archaeological monitoring and salvage excavation of Eastern Entry

The Eastern Entry site has been assessed as having moderate potential to contain truncated remains associated with approximately 10 residential building frontages. The overall extent of impact to earlier remains from 1903 resumption works is presently unknown. Archaeological investigation undertaken within the former sand hills/Central Station to date indicate that preservation of archaeological remains varies considerably from location to location.

As the integrity and significance of archaeological remains is unknown, archaeological supervision of all excavation works within the Eastern Entry site would be required. Archaeological management would commence after demolition of the MGM building, and prior to the removal of any in-ground footings.

Archaeological monitoring would commence on removal by machine of the current ground slab. This excavation work would be undertaken with care to avoid, where possible, impact to any underlying archaeological remains. For example, the ground slab would be removed in at least two sections to allow heavy machinery to operate on a solid surface and avoid impact to potentially shallow archaeological remains.

Should archaeological remains be identified during monitoring, these would be investigated by the on-site archaeologist. Should remains be found to be intact, and likely to be preserved throughout the study area, the larger archaeological team would mobilise to salvage the remains, as per the methodology outlined in Table 6. The excavation recording methodology would be as per Section 6.5.

Should hazardous materials or contaminants be identified during archaeological excavation, ground excavation would cease until appropriate controls or remediation is conducted by Laing O'Rourke.

6.2.1.1 Deep subsurface structural remains

Deeper structural remains dating to the 19th century, such as basements, may contain substantial amounts of backfilled material and artefactual remains. Artefacts find their way into these features through a number of actions, including deliberate placement and accidental loss. Structures of this type often contain a number of backfill or deposition events and are typically excavated using a combination of machine excavation and hand excavation at depth. Accumulated deposits are often useful for soil and pollen analysis. Should suitable deposits be identified the Environmental Sampling methodology outlined in Section 6.10 would be adopted.

If the study area is found to contain an archaeologically significant structure extending to a substantial depth complete excavation of the fill may not be possible due to Occupational Health and Safety requirements. In this situation fill would be removed to a safe depth to allow for the recording of the

structure and collection of a representative stratified sample of any fill or artefacts. It is possible that further excavation or monitoring of particularly deep structures, such as wells, may be able to be undertaken by machine at a later date. As this would involve the removal of substantial amounts of soil, the archaeological program would need to have been finalised in the immediate vicinity to avoid disturbance to any archaeological relics or deposits. Should any intact and deep structural features be encountered it may be necessary to remove any demolition or fill material within by mechanical excavation under the supervision of an archaeologist. Any material removed by excavator would be visually examined for artefacts by the archaeologists.

6.2.1.2 Occupation deposits

The study area has generally low potential to contain underfloor or occupation deposits that may have accumulated beneath flooring. Deposits of this type are sensitive and are investigated via a methodical system utilising grid squares, careful excavation with hand tools and sample sieving.

Intact underfloor deposits would be excavated in a grid system, either 50 centimetre or 1 metre depending on extent of deposit. Excavation would be by context if stratigraphic layers are identifiable. If the deposit is homogenised, excavation would proceed in 5 or 10 centimetre spits. Excavated material would be wet or dry sieved. The range and percentage of archaeological material collected would be in accordance with a sieving strategy developed by the Excavation Director.

This type of investigation can recover data that may be utilised in the analyses of interior spaces and in the identification of activities within those spaces.

The archaeological sieving strategy to be adopted in the event that intact occupation deposits are identified is included in Section 6.6.

6.2.2 Randle Lane utilities diversions

As archaeological remains were identified on the eastern side of Randle Lane during CSMW investigation works, initial excavation works in this area would be archaeologically monitored.

It is understood that initially a trench would be excavated parallel to the eastern side of the lane, to the extent of the Eastern Entry site. This trench would extend to an approximate depth of 1.5m, and be used to divert existing services.

Monitoring of the trenching would allow fo the extent of those remains identified during CSMW works, and any additional remains associated with the former Railway Place terraces, to be salvaged and recorded. On completion of initial ground opening works and archaeological recording, under the direction of the Excavation Director, Randle Lane would be handed over to the contractor to complete service diversions and perimeter piling.

6.2.3 Archaeological monitoring within track slab excavation areas

Areas requiring excavation for the installation of track slabs have low potential to contain state significant archaeology associated with the Devonshire Street Cemetery, and high potential to contain evidence of earlier phases of Central Station.

Although the overall potential for the works to encounter cemetery remains is low, due to the sensitivity and significance of remains of this type archaeological monitoring would be undertaken during track slab excavation works.

These works would occur during weekend track possessions. Due to critical nature of this timeframe, and the requirement to have railway track reinstated at the end of the weekend, excavation below tracks 16, 17/18, 19/20 and 21/22 would be managed under the following process:

- Archaeological monitoring of the ballast, slab and fills below the existing tracks. This monitoring would be undertaken by an archaeologist with considerable experience with a thorough understanding of the historical topography of the site and previously excavated archaeological remains in the vicinity
- Monitoring would take place until the entire area of excavation has been exposed to undisturbed natural, and it has therefore been confirmed that the area is devoid of archaeological remains
- Should potential archaeological remains be identified during monitoring, machine excavation in that area would cease, and the area be exposed by hand to determine the nature of the remains
- On identification of the potential nature and significance of remains, the monitoring archaeologist, in consultation with the Excavation Director, Laing O'Rourke and the track slab construction team, would determine whether complete salvage and recording of the remains during the possession timeframe is possible. Identification of a grave cut and/or burial is likely to trigger the following procedure:
    - All excavation in the vicinity of the find would cease
    - The find would be briefly recorded by survey and photographed
    - The find would be protected with geofabric and stabilised sand
    - The site would be backfilled and the tracks reinstated
    - The remains would then be excavated at a later date.

  Identification of infrastructure associated with earlier phases of Central Station may be able to be salvaged within the possession timeframe, although this would be determined by the monitoring archaeologist and Excavation Director.

Archaeological salvage of remains would involve the manual excavation of those areas identified as containing archaeological remains, and the detailed recording of those remains as specified in Section 6.5. The salvage of human remains would be undertaken in accordance with the Exhumation Management Plan for the project.

Should hazardous materials or contaminants be identified during archaeological excavation, ground excavation would cease until appropriate controls or remediation is conducted by Laing O'Rourke.

If Aboriginal objects are located, further testing focussed on Aboriginal archaeology would be required which would also require input from historical archaeologists to manage excavation of post-contact archaeological layers. Further information on this process has been included in the Aboriginal heritage AMS for the Central Walk project.[64] The historical archaeological management would continue in accordance with this AMS.

6.2.4 Sample recording of excavation below walls of platforms 16-23

It is understood that excavation works below platforms 16-23 will impact on in-ground portions of the platform walls. As it is anticipated that the foundations of these platforms will be similar in form, and

[64] Artefact Heritage August 2019

access to these excavation works will be limited, it is recommended that the archaeologists complete a detailed recording of one of these platform walls prior to impact.

This detailed recording would act as a sample, allowing the remainder of items to be managed through an archaeological monitoring protocol with limited archaeological intervention.

The requirements for management under archaeological monitoring may be downgraded to the management under the Sydney Metro Unexpected Heritage Finds Procedure at the discretion of the Excavation Director.

6.2.5 Monitoring of excavation within structural platforms 16-23

Excavation within platforms 16-23 would be subject to archaeological monitoring. This would allow the archaeologists to record the in-platform stratigraphy and identify any earlier remains in these locations.

The monitoring methodology outlined in Section 6.2.3 should be adopted for monitoring works within the structural platforms.

The requirements for management under archaeological monitoring may be downgraded to the management under the Sydney Metro Unexpected Heritage Finds Procedure at the discretion of the Excavation Director.

6.2.6 Sydney Metro Unexpected Heritage Finds Procedure

As tunnelling for Central Walk cannot be archaeologically managed through monitoring, this work would be managed under the Sydney Metro Unexpected Heritage Finds Procedure. Central Walk tunnelling will take place at a lower depth than archaeological remains identified during the CSMW and is highly unlikely to encounter remains of the Devonshire Street Cemetery or earlier phases of Central Station.

Central Walk tunnelling work would be occur at a depth of 13.5 RL, which is approximately 4.5m below the lowest extent of burial vault 1, this methodology is considered to be appropriate.

However, should testing of the track slab excavation (Section 6.3.2) identify a higher level of archaeological potential in these areas than currently anticipated, this methodology would need to be revised by the Excavation Director.

Monitoring or testing works would revert to Sydney Metro Unexpected Heritage Finds Procedure at the discretion of the Excavation Director where it was found that significant archaeological remains were not likely to be impacted.

6.3 Heritage induction

Archaeological heritage will be included in the general project induction for all personnel in consultation with the Excavation Director. At a minimum, this would include an overview of the project and employee obligations, archaeological management and the role of the archaeological team. Toolbox meetings will also be undertaken as and when required; covering specific environmental issues and heritage control measures as identified in the Cultural Heritage Management Plan (CHMP). Personnel directly involved in implementing heritage control measures on site will be given specific training in the various measures to be implemented. Records of all training are to be filed in accordance with the project filing system.

6.4 Contractor responsibilities

The contractor would set up site and then operate under the direction of the archaeologists during archaeological investigation. This would include but not be limited to:

- Provide a heritage site induction to contractors in consultation with the Excavation Director
- Demolish existing buildings (retaining in-ground foundations and ground slab) on the site and remove rubble and spoil material from site
- Set out and secure the work area for the construction and archaeological team
- Provide machine plant to assist the removal of fill where required under the supervision of the archaeological team
- Provide shoring, if required
- Provide pressurised water and a sieving area, if required.

6.5 Excavation recording methodology

A record of archaeological investigation would be made in accordance with the methodology outlined in the AARD.[65] The recording methodology includes the following:

- A site datum would be established
- Survey and scaled plans of the area, trench locations and any significant archaeological features uncovered in the monitoring, test and salvage program. The plans would include elevations recorded with a dumpy level. Should a large amount of archaeological resources be identified during the excavation, the site would be digitally surveyed and recorded
- Scaled section drawings where appropriate
- Photogrammetry where appropriate
- Digital photography, in RAW format, using photographic scales and photo boards where appropriate. A photographic record of all phases of the work on site would be undertaken
- A standard context recording system will be employed: The locations, dimensions and characteristics of all archaeological features and deposits will be recorded on a sequentially numbered context register. This documentation will be supplemented by preparation of a Harris matrix showing the stratigraphic relationships between features and deposits
- Artefact collection by context. Large or redundant artefactual materials from individual contexts would be sample collected. Hazardous material would not be collected.
- Registers of contexts, photos, samples and drawings would be kept.

6.6 Sieving strategy

Sands, residual clay spoils (intact and re-deposited), and intact occupation deposits within the study area have demonstrated considerable potential to contain human remains, historical archaeological

[65] Artefact June 2017, Section 7.8

remains and Aboriginal artefacts. The sieving strategy incorporates methodologies for both non-Aboriginal heritage and Aboriginal artefacts.

Soil and sand deposits retrieved from the excavation area would be hand sieved through a 3 mm mesh, by either wet or dry sieving. The Excavation Directors would determine whether to proceed with wet or dry sieving, or a combination of both throughout the excavation. All bone remains would be dealt with under the Sydney Metro Exhumation Management Plan. [66]

All recovered stone artefacts would be cleaned, dried and bagged with a brief analysis conducted in the field. This analysis would include logging artefact type, raw material, and dimensions. These items would then be taken off site to be analysed in detail by relevant specialists in consultation with Aboriginal stakeholder groups.

6.7 Artefact collection and recording methodology

Artefacts are likely to be uncovered during archaeological investigations. Artefacts from secure or in situ contexts would be collected and recorded (by context). Retrieval of artefacts should focus on diagnostic pieces and other items whose analysis would contribute to the research questions for this site are retained.

Should diagnostic or significant artefacts be present within the fill layers (out-of-context), a sample would be retained as part of the archaeological record.

Artefacts would be collected by context and bagged with a label recording their registered context number, site code, date and initials of the collecting individual/s. A record and description of relevant artefacts would be included in their corresponding context sheet and photographed where necessary.

6.7.1 Modern deposits

Artefacts from modern (post-1960) deposits would be sample collected to demonstrate the nature and context of the remains.

6.7.2 Historic fills and secondary deposits

Similarly, artefacts collected from historic fills and other bulk deposits that lack stratigraphic integrity will be recorded and a representative sample collected.

6.7.3 Primary deposits

All artefacts from primary deposits would be collected by context and bagged. Diagnostic or unique/fragile artefacts would be bagged separately under their corresponding context.

In addition:

All human remains or potential human remains should be collected, and

All Aboriginal objects or potential aboriginal objects should be collected

[66] Transport for NSW 2018. *Sydney Metro Exhumation Management Plan*

6.7.4 Building materials

Building and structural materials would be collected by type and sampled. For example, one full brick and one partial brick of the same type, two samples of mortar, stone, timber and plaster (bagged by context). All collected samples would be noted on their corresponding context sheet and recorded in a building material sample register.

6.7.5 Organic or fragile materials

Metal and fabric or organic materials such as timber, leather, bone or shell would be stored in plastic bags for conservation purposes under their corresponding context. If significant and diagnostic fabric or leather items are found, these would be submitted to a conservation specialist with two months of collection.

6.7.6 Hazardous materials

Artefacts manufactured from hazardous material such as asbestos or found within a contaminated deposit would not be collected, although their presence within the context would be recorded in their corresponding context sheet. Such artefacts be disposed of in an appropriate manner according to guidelines for dealing with hazardous waste.

6.8 Artefact discard guidelines

6.8.1 All deposits

Non artefactual material is not to be collected from sieves or the field unless in response to a targeted research question such as retention of soil samples. In the event that non artefactual material has erroneously entered artefact collections this may be disposed of at any stage without further recording. Non artefactual material includes:

- Hazardous material
- Modern material resulting from the demolition and excavation process (includes items such as dynabolts, geofab, food wrappers and containers, construction PVC)
- Fragments of construction material including railway ballast, broken bricks, pipes and tiles, metal items such as railway spikes
- Unmodified stones and rocks
- Metal items that have rusted to an unrecognisable form
- Items such as ceramic or glass that are smaller than 1cm x 1cm and which show no diagnostic features (visible pattern, decoration or makers mark)
- Pieces of wood that are not identifiable in form &/ are too small for species identification (5cm x 3cm)
- Items with no contextual ID (e.g. ‘cleanup near grave cut x’).
- Degraded items that cannot be identified.

6.8.2 Redeposited Botany Sands

This deposit has been recorded as 'grey sand fill' during excavation for the CSMW. Taking the AMS into account it should be noted that – the grey sand is not a primary deposit but rather a secondary deposit created by the process of exhumation c1901. Therefore, it would be considered under the category of Historic fills and secondary deposits. Secondary contexts are those in which identified disturbance to the archaeological record has taken place. Artefacts found within these contexts have a diminished capacity to inform on the history of the location. Fill deposits are a characteristic type of secondary deposit.

It is also noted that sieving has identified Densely Graded Base (DGB) mixed into the sand deposit – this material is a very modern deposit and can be discarded. A sample (~ 10 items) of each artefact type should be retained from the fill deposit. These items should be at least briefly catalogued.

As above:

All human remains or potential human remains should be collected, and

All Aboriginal objects or potential aboriginal objects should be collected

6.8.3 Discard after cataloguing

All artefactual material from primary contexts must be retained and must be catalogued. Items may be evaluated for discard based on the criteria provided in the CSMW Artefact Discard Policy (Artefact July 2019).

Discard other than of those non artefactual materials and excels to samples in secondary deposits should occur after cleaning and at a minimum cataloguing of the artefacts. Decisions around discard at this stage would be made around considerations such as adequate sample size, relevance to research questions and condition of the remains. Assessments and decisions to discard at this stage should be documented and decisions made by suitably experienced and qualified people under the direction of the Excavation Director. Note than non-archaeological material collected in error may be discarded during or prior to cleaning.

6.8.4 Integrity

No staff, volunteer, or immediate family of persons involved in these processes can benefit from any discarded object. Donations to other facilities in the public domain or returns to the project are permissible.

6.8.5 Occupational Health and Safety

Live ammunition, toxic or radioactive materials, or other hazardous substances should be disposed of appropriately according to appropriate guidelines.

6.8.6 Human Remains

Human remains (including potential human remains) must be treated with dignity and respect.

6.9 Artefact analysis methodology

Where possible artefact cleaning and preliminary cataloguing would occur on site, otherwise artefacts would be catalogued and stored off site at the Sydney Metro facility at Rosebery. Retained artefacts would be cleaned processed, catalogued and analysed by an archaeologist experienced in historical artefact assemblages. Artefact analysis would include production of a database in accordance with best practice archaeological data recording. The resulting information would be included in the final excavation report.

6.10 Environmental sampling methodology

A geomorphologist would be engaged to assist in identification and interpretation of the nature of soil deposits. On identification of intact sands, soil samples would be collected for analysis. A geomorphologist will be engaged to attend site during excavation, take soil and sediment samples where required, and provide detailed reporting for the excavation report. The geomorphologist can provide geomorphology reporting and Optically Stimulated Luminescence dating for archaeological excavations.

If natural soils are encountered, bulk samples of those deposits could be sent to a qualified specialist for analysis. Artefact will engage a specialist if the collection of such samples is found to be warranted. Examples of potential deposits suitable for sampling may include natural sands, accumulate deposits within wells and cesspits.

In order to prevent cross-contamination, the following sample collection and excavation process should be followed:

- The location, quantity and material of samples will be determined by the Excavation Director prior to its collection
- Samples would be stored in a safe, secure and climate controlled location while excavations are in progress. This would be chosen by the Excavation Director
- Each collected sample would be given a unique catalogue number and a sample register would be recorded throughout the excavation
- ‘Clean excavation’ procedures would be followed during the sample collection process. This would include:
    - Latex gloves would be worn by individuals excavating soil samples. Gloves would be changed for each sample to prevent cross-contamination
    - Excavation tools/brushes would be cleaned prior to and after the collection of each sample to prevent cross-contamination
    - All bags containing samples for analysis would be bagged and labelled appropriately to prevent cross contamination and ensure they are handled and stored correctly.

6.11 Unexpected Finds Procedure

Unexpected archaeological finds would be managed under the Sydney Metro Authority Unexpected Heritage Finds Procedure.[67] Unexpected finds would also apply to the identification of intact sand deposits during excavation works.

6.12 Archaeological Relic Management Plan

An Archaeological Relic Management Plan as require under E20 would be prepared if archaeological remains of State significance were located that were not described in the AARD or AMS. The Plan would be prepared in consultation with the NSW Heritage Council (or delegate). Works would not re-commence in the location until the requirements of the Plan have been implemented.

6.13 Exhumation Management Plan

Discovery of suspected human remains would be managed under the Sydney Metro Unexpected Heritage Finds Procedure and the Sydney Metro Exhumation Management Plan.[68] All suspected bone must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated.

If potential human skeletal remains are found during the project, works would cease immediately in that area and the remains would be managed under the Sydney Metro Exhumation Management Plan produced as per the Conditions of Approval (Condition E26 and E27) for the approved project.[69]

The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist and Sydney Metro Environmental Representative. This requirement will form part of the site induction. The Sydney Metro Exhumation Management Plan will be enacted, noting the special provisions that are in place for remains within Central Station that relate to the former Devonshire Street Cemetery. If these provisions as outlined in the Sydney Metro Exhumation Management Plan are met, notification to the Police, corner or NSW Health Department are not required.

Dr Denise Donlon is the nominated forensic anthropologist for the project. She would be consulted in the event of a discovery of suspected human remains.

6.14 Aboriginal archaeological methodology

The CSMW site is within Method Area 2 as outlined in the Aboriginal Cultural Heritage Assessment Report (CHAR). In accordance with the provisions for MA2 Aboriginal archaeological test/salvage excavation would be undertaken where intact natural soil profiles with the potential to contain significant deposits, or Aboriginal objects, are located during historical archaeological excavations. It should be noted that the CHAR states that identification of intact natural soil deposits would only be a trigger at Central Station if it was within the station box area.

Based on the results of the CSMW archaeological investigation, which identified that natural soils have been cut down in the northern area of the station, the Central Walk and Bounce Hotel section of the Central Walk study area are unlikely to have Aboriginal archaeological potential.

[67] Sydney Metro Authority 2019. *Sydney Metro Unexpected Heritage Finds Procedure*
[68] Transport for NSW 2017; Transport for NSW 2018
[69] Transport for NSW 2018. *Sydney Metro Exhumation Management Plan*

Soil profiles in the majority of the Sydney Yard are within the shale soil transition and intact sand contexts with the potential for deep Aboriginal archaeological deposits are unlikely to be present. The trigger for test or salvage excavation for Aboriginal archaeology would therefore be the identification of an Aboriginal object for areas outside the station box.

If suspected Aboriginal objects were identified in other sections of the CSMW site, the Aboriginal archaeological team would be notified by the Excavation Director and a qualified archaeologist experienced in Aboriginal archaeology would assess the find. If Aboriginal objects were identified the Registered Aboriginal Parties (RAPs) would be notified and would participate in test and salvage excavation as required under the CHAR.

6.15 Contaminated materials

Due to the potential for contaminants across the study area, the controlled archaeological excavation would also be undertaken in accordance with the specified work health and safety protocols established for the site, prior to the commencement of works on site. Should the discovery of contaminants on site likely result in the potential harm to archaeological staff working on site, there may be a requirement to deviate from the proposed archaeological methodology, in order to ensure the health and safety of onsite staff. This may include the use of protective clothing, face masks, and specified gloves, additional washing protocols, through to the need to cease hand excavation on site.

Should the requirement to employ mechanical excavation rather than hand excavation arise, archival recording of archaeological material would need to be taken in the form of photographic, and possibly 3D scanning, from a safe distance (as specified in the work health and safety requirements of the remediation specialists).

6.16 Clearance

A written clearance confirmation would be provided by the Primary Excavation Director to Laing O'Rourke once archaeological management has been completed in an area. Construction would continue under the Sydney Metro Unexpected Heritage Finds Procedure. [70]

6.17 Reporting

A preliminary findings report would be prepared following completion of the works outlined in this AMS in accordance with the AARD.[71] This report would outline the main archaeological findings, post-excavation and analysis requirements, and identify if further archaeological work would be required, or if results would be appropriate for public interpretation.

An archaeological excavation report for Central Walk would be prepared within two years following the completion of the program of archaeological works, as required under Condition E18 of the Minister's Conditions of Approval for the project. Progressive draft updates will also be submitted to Laing O'Rourke throughout the project. The final report would comprehensively describe and interpret the findings of the excavation program within the context of the research design. This would include artefact analysis, environmental and building material sample analysis, stratigraphic reporting and production of Harris Matrices, production of illustrations and detailed site plans interpretation of site plans and illustrations final excavation report detailing the archaeological program and results would be prepared. It would include photographs and plans, catalogue and analysis of artefacts, and also respond to the research questions. The report would also include a reassessment of archaeological

[70] Transport for NSW 2017. *Sydney Metro Unexpected Heritage Finds Procedure*
[71] Artefact 2016a:314

significance based on the investigation results. The report would be prepared in accordance with the standard conditions of archaeological permits issued under the Heritage Act:

a. An executive summary of the archaeological programme;

b. Due credit to the client paying for the excavation, on the title page;

c. An accurate site location and site plan (with scale and north arrow);

d. Historical research, references and bibliography;

e. Detailed information on the excavation, including the aim, the context for the excavation, procedures, treatment of artefacts (cleaning, conserving, sorting, cataloguing, labelling, scale photographs and/or drawings, location of repository) and analysis of the information retrieved;

f. Nominated repository for the items;

g. Detailed response to research questions (at minimum those stated in the approved Research Design);

h. Conclusions from the archaeological programme. The information must include a reassessment of the site's heritage significance, statement(s) on how archaeological investigations at this site have contributed to the community's understanding of the site and other comparable archaeological sites in the local area and any relevant recommendations for the future management of the site information and artefacts;

i. Details of how this information about this excavation has been publicly disseminated (for example provide details about Public Open Days and include copies of press releases, public brochures and/or information signs produced to explain the archaeological significance of the site).

6.18 Curation of archaeological material

Storage and curation strategies have been adapted from the Salvage and Storage Strategy of the Sydney Metro Integrated Management System.[72]

Collection of artefacts would be in the context of the AARD, which state that "retrieval of artefacts would focus on those whose analysis would contribute to research agendas or would be representative of the site".[73]

Following excavation, all collected artefactual material would be stored by Artefact Heritage in order to conduct post-excavation material analysis. Once post-excavation analysis and salvage excavation reporting has been completed, ongoing curation and long-term care of the collection would be at the discretion of Transport for NSW. Archaeological materials may be incorporated into interpretative or public display depending on the nature of recovered finds.

Large archaeological items, or items that require special care (i.e. material that is in danger of deterioration post-excavation), would be stored in appropriate facilities co-ordinated with and managed by Sydney Metro under the projects salvage strategy.

[72] Transport for NSW 2016a: 5 – 6
[73] Artefact 2016a:315

6.19 Public engagement

There is potential for significant archaeological remains within the study area, in particular the Devonshire Street Cemetery . There is opportunity to interpret the archaeology and engage the public with the significance and stories of Central Station's past.

Significant findings from the archaeological investigation program would be included in heritage interpretation for the project. Preliminary results reporting and final reporting would identify significant findings which should be considered as part of heritage interpretation.

There may also be opportunity for public engagement such as open days or media releases during archaeological investigations. This could include hoarding signage, pamphlets, media releases, information on the project website, social media and blog content during the excavation process.

If substantial archaeological remains are uncovered there would be an opportunity to publish the results.

6.20 SHR listing update

Prior to completion of the project, an updated Central Station listing nomination form must be prepared in consultation with all relevant stakeholders including Heritage DPC under the authority of the Heritage Council of NSW. Archaeological results obtained during the Central Walk, SYAB and CSMW projects would be included in the listing update.

6.21 Archaeological team

The archaeological team would be finalised based on availability at the time of excavation, but would comprise a combination of the below staff:

- Primary Excavation Director – Dr Iain Stuart (Principal, Artefact Heritage)
- Secondary Excavation Director – Jenny Winnett (Principal, Artefact Heritage)
- Site Director – Adele Zubrzycka (Senior Heritage Consultant, Artefact Heritage), Julia McLachlan (Heritage Consultant, Artefact Heritage), Jayden van Beek (Heritage Consultant, Artefact Heritage)
- Excavation Director (Aboriginal) – Dr Sandra Wallace (Director, Artefact Heritage)
- Forensic Anthropologist – Dr Denise Donlon (Senior Lecturer in Anatomy and Curator, Shellshear Museum, University of Sydney)
- Archaeologists – Jessica Horton, Duncan Jones, HollyMae Steane Price, Ryan Taddeucci, and others as needed.
- Archaeological Surveyors - Guy Hazell and Gala Hazell (ArcSurv)
- Environmental sampling – Sam Player and Dr Mike McPhail
- Artefact specialists - Jeanne Harris (Urban Analysts), Jenny Winnett, Michael Lever, and others as needed

The Excavation Directors meet the requirements of the AARD, CHAR and Condition E18.

The Primary Excavation Director would oversee the archaeological excavations and advise on archaeological issues. The Primary Excavation Director would provide clearance once archaeological

management has been completed in an area, as per the methodology outlined in Section 6.16. The Secondary Excavation Director would support the Primary Excavation Director where needed. The Aboriginal archaeological excavation director would manage Aboriginal archaeological test and salvage in accordance with the CHAR including co-ordinating appropriate consultation with the RAPs. The Forensic Anthropologist would respond to finds of potential human remains in accordance with the Sydney Metro Exhumation Management Plan. This would be in accordance with the CHMP and relevant conditions of approval (E18).

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