7. ARCHAEOLOGICAL ASSESSMENT

The potential for a site to contain historical archaeology is assessed by identifying former land uses and associated features through historical research, and evaluating whether subsequent actions (either natural or human) may have impacted on evidence for these former land uses. The significance of those potential archaeological remains is then assessed using a framework based on the NSW heritage criteria.

This historical archaeological assessment is based on the following:

- review of heritage and archaeological site listings
- analysis of historical background and maps
- understanding of previous impacts
- assessment of archaeological significance.

7.1 Marrickville Station Catchment

7.1.1 Land use summary

The historical development of the Marrickville Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1850s) early land grants: land clearance, timber getting, farming, dairying, market gardens
- Phase 2 (1850s – 1890s) subdivision and industry: subdivision for country estates, Marrickville village and later residential development, market gardens and dairying give way to small-scale brickmaking businesses and other industry
- Phase 3 (1890s – 1920s) railway station: construction of railway station in 1894-5 with standard design, upgrades including Metropolitan Goods line in 1917, electrification in the 1920s
- Phase 4 (1930s – present) railway station: upgrades and continued use

Construction of the railway station and rail line in the late nineteenth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.1.2 Archaeological potential

The Marrickville Station CMP (David Scobie 2016) identified the following potential archaeological remains.

Table 85: Archaeological potential identified in CMP 2016

Station Element	Potential Archaeological Remains
Platform 1	• The remnants of the original stone copings on Platform 1 remain beneath the western end, as revealed in the 2015 excavations – confirmed relics and works with significance • Earlier alignment of the north side of the eastern end of the platform • The footscrapers at the door thresholds and buried services within the platforms concealed by later re-surfacing – a high potential for relics with significance; • Identified within the vicinity of the new lift and stairs are likely to be remnants of the original lever set. The manual set of levers for activating the points was demolished when the system was automated - a high potential for relics of significance in relation to signalling • The current concrete staircase replaced earlier stairs to the Illawarra Road bridge from Platform 1 – a high potential for works with low significance • The original bull nose canopies at the eastern and western ends of the Platform 1 building were replaced with extended skillion roofed canopies – a medium potential for works with low significance • Remnants of brick dwarf walls as part of the alignment of the eastern ends of the platforms running both north south and east west beneath the Platform 1 surfaces were revealed in the 2015 excavations for services – a high potential for works with low significance. • The Illawarra Road bridge replaced the original level crossing – a low potential for relics
Platform 2	• Potential for early works and relics at the western end • The Illawarra Road bridge replaced the original level crossing – a low potential for relics • The footscrapers at the door thresholds and buried services within the platforms concealed by later re-surfacing – a high potential for relics with significance
Platform 1 building	• One ceiling space has revealed an early water tank utilised to provide a head of pressure for the original toilets. Other ceiling and roof void spaces have the potential to reveal similar artefacts such as water tanks and redundant services; and • Areas within the building which have been subject to less substantial change have the potential to reveal early fabric and details which may have been concealed by later works such as fireplaces and chimney breasts.
Platform 2 booking office	• Archived drawings indicated that the building had been relocated and extended in 1945 to the current location at the western end of Platform 2. Simple brick footings and services connections were revealed at the last location. Similar footings with a concrete foundation were constructed in the new location.

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 86: Assessment of archaeological potential for Marrickville Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1850s)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with land clearance such as tree boles, evidence of dairy farming and market gardening including fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters.	Nil-low

Phase	Likely archaeological remains	Potential
2 (1850s – 1890s)	• No documentary evidence of specific activities such as brickmaking or residential development within the site. • Archaeological features associated with farming such as fence or shed postholes, field drains and isolated artefacts, drains or culverts associated with the former creek	Nil-low
3 (1890s – 1920s)	• Archaeological remains associated with the early phase of railway infrastructure such as ceramic service pits, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. • Identified remains of original stone copings, earlier alignment of platforms, footscrapers, buried services, original lever set, footings of former platform stairs, platform brick dwarf walls, and building footings. • Moderate potential for footings of former platform canopies • Low potential for former level crossing at the current Illawarrra Road overbridge • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.	Moderate-high
4 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate-high

7.1.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 87: Assessment of archaeological significance for Marrickville Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 3 former rail infrastructure would be able to contribute additional information not available from other historical resources.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and early twentieth centuries. Marrickville Station was built as part of the Bankstown Line between (1895-1939). The potential Phase 3 archaeological remains are associated with the historical development of Bankstown rail line and Marrickville Station.
Aesthetic or technical significance	• The potential archaeological remains are not likely to have aesthetic value. • Remains of former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains have potential to illustrate the early development of the railway station.

Criteria	Discussion
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Moderate to high potential for archaeological 'works'. • The potential Phase 3 and 4 archaeological remains are associated with the historical development of the Bankstown rail line and the Marrickville Station, although they are likely to be truncated. • Potential to reach the threshold for local heritage significance. Note that most potential remains identified by the CMP would be classified as works not relics.

7.1.4 Impact assessment

Proposed impacts within the Marrickville Station Catchment would include the construction of station platforms along the rail corridor, gas pipeline and CSR utility installation and trenching, the installation of drainage pipes, single grate drainage pits, gas pipelines and CSR utilities, the removal and replacement of the Illawarra Road overbridge, and the construction of a proposed noise wall along the southern boundary of the station between Riverdale Avenue and Charlotte Avenue overbridge. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are likely to be impacts to potentially significant archaeology as a result of these works.

7.1.5 Mitigation and management measures

The area within the Marrickville Station Catchment has been assessed as having low potential to contain archaeological remains associated with Phase 1 and 2 and moderate to high potential to contain archaeological remains associated with Phase 3 and 4 occupation of the site. The majority of potential archaeological remains are not considered likely to reach the threshold of local significance. However, remains associated with Phase 3 may reach the threshold for local significance if intact or substantial remains are found to exist within the project area.

The Marrickville Railway Station CMP (2016) identified a number of visible and potential remains that were discussed in terms of archaeology. While the majority of identified remains would be classified as works and would be managed archaeologically, a number such as the water tank in the celling cavity would be managed under the significant fabric salvage strategy (Section 10), as they would not be considered archaeological under the definition provided in the Heritage Act.

As there is potential for remains associated with Phase 3 occupation of the site to have local significance, it is recommended that an Archaeological Research Design be prepared to manage and mitigate impacts to the potential archaeological resource. Any items to be managed under the salvage strategy would be identified in an Archaeological Research Design prepared and implemented to identify the need for archaeological testing or monitoring.

Archaeological mitigation measures recommended in the archaeological research design would be carried out in accordance with Heritage Council guidelines, and where identified in the archaeological research design, would be supervised by a suitably qualified Excavation Director with experience in managing locally significant archaeology.

Where an archaeological research design is required, it would be prepared based on research information included in this report and would be supplemented by additional detailed historical research of each site with reference to the project design and proposed construction methods at each site. Based on the detailed literature review, the archaeological research designs would identify the need for and provide a detailed methodology for undertaking:

- Archaeological monitoring

- Investigation and recording archaeological remains identified in the CMP

7.2 Dulwich Hill Station Catchment

7.2.1 Land use summary

The historical development of the Dulwich Hill Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1840s) early land grants and the Petersham Estate: land clearance, timber getting, grazing, farming activity, deer hunting
- Phase 2 (1840s – 1890s) market gardening and subdivision: development of market gardening and orcharding, small scale industry such as brickmaking and potteries, and suburban subdivision
- Phase 3 (1890s – 1930s) railway station: construction of railway station in 1895, demolition of initial timber station buildings and construction of brick buildings, electrical and other upgrades in 1930s
- Phase 4 (1940s – present) railway station: upgrades and continued use

Construction of the railway station and rail line in the late nineteenth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.2.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 88: Assessment of archaeological potential for Dulwich Hill Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1850s)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with land clearance such as tree boles, evidence of estate farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters.	Nil-low
2 (1850s – 1890s)	• No documentary evidence of specific activities such as brickmaking or residential development within the site. • Archaeological features associated with farming and market gardening such as fence or shed postholes, field drains and isolated artefacts, drains or culverts.	Nil-low
3 (1890s – 1930s)	• Archaeological remains associated with the early phase of railway timber buildings such as postholes, drains and former surfaces, and early infrastructure such as ceramic service pits, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. • Evidence of former platforms that may remain within existing remodelled platforms. • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.	Low-moderate

Phase	Likely archaeological remains	Potential
4 (1940s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.2.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 89: Assessment of archaeological significance for Dulwich Hill Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 3 former timber station buildings, former platforms and rail infrastructure would unlikely contribute additional information not available from other historical resources. • It is unlikely that artefact-bearing deposits associated with the early timber station buildings accumulated or survived subsequent brick station building development.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and early twentieth centuries. Dulwich Hill Station was built in 1895 as part of the Bankstown Line. The potential Phase 3 archaeological remains are associated with the historical development of Bankstown rail line and Dulwich Hill Station.
Aesthetic or technical significance	• The potential archaeological remains are not likely to have aesthetic value. • Extensive and intact remains of former timber station buildings are not expected to be present. • Former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of Dulwich Hill or the early development of the railway station.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works' including former platforms. Though the potential Phase 3 and 4 archaeological remains are associated with the historical development of the Bankstown rail line and the Dulwich Hill Station, they are likely to be truncated and not contribute further information regarding these development phases. • Unlikely to reach the threshold for local heritage significance.

7.2.4 Impact assessment

Proposed impacts within the Dulwich Hill Station Catchment would include the construction of a station service building, retaining wall along the southern boundary of the station and abutments of the Dudley Street overbridge, construction of new station platforms along the rail corridor, addition of Metro South West running tracks (MSWs), installation of drainage pipes, single grate drainage pits, gas pipelines and CSR utilities and the construction of a proposed segregation fence along the northern boundary of the station. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are unlikely to be impacts to significant archaeology as a result of these works.

7.2.5 Mitigation and management measures

The area within the Dulwich Hill Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1 and 2 and low to moderate potential to contain archaeological remains of Phase 3 and 4 occupation of the site. Potential remains are not considered likely to reach the threshold of local or State significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. Therefore, it is recommended that an Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

7.3 Hurlstone Park Station Catchment

7.3.1 Land use summary

The historical development of the Hurlstone Park Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1860s) early land grants: land clearance, timber getting, grazing, farming activity associated with the Campbell estate
- Phase 2 (1860s – 1890s) subdivision, farming and brickmaking: subdivision for smaller farms, agricultural industry such as dairy farming and small-scale brickmaking businesses
- Phase 3 (1890s – 1920s) railway station: construction of railway station in 1894, construction of the Metropolitan Goods line and platform in 1911, demolition of initial timber station buildings and construction of brick buildings in 1915, electrical and other upgrades in c1920s
- Phase 4 (1930s – present) railway station: upgrades and continued use

Construction of the railway station and rail line in the late nineteenth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.3.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 90: Assessment of archaeological potential for Hurlstone Park Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1860s)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with land clearance such as tree boles, evidence of estate farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters.	Nil-low

Phase	Likely archaeological remains	Potential
2 (1860s – 1890s)	• No documentary evidence of specific activities such as brickmaking or dairying within the site. • Archaeological evidence of dairying or farming includes fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters.	Nil-low
3 (1890s – 1920s)	• Archaeological remains associated with the early phase of railway timber buildings such as postholes, former floor surfaces, and early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.	Low-moderate
4 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.3.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 91: Assessment of archaeological significance for Hurlstone Park Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 3 former timber station buildings and rail infrastructure would unlikely contribute additional information not available from other historical resources. • It is unlikely that artefact-bearing deposits associated with the early timber station buildings accumulated or survived subsequent brick station building development.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and twentieth centuries. Hurlstone Park Station (originally called Fernhill Station) was built in 1895 as part of the Bankstown Line. The potential Phase 3 archaeological remains are associated with the historical development of Bankstown rail line and Hurlstone Park Station.
Aesthetic or technical significance	• The potential archaeological remains are not likely to have aesthetic value. • Extensive and intact remains of former timber station buildings are not expected to be present. • Former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of Hurlstone Park or the early development of the railway station.

Criteria	Discussion
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 3 and 4 archaeological remains are associated with the historical development of the Bankstown rail line and the Hurlstone Park Station, they are likely to be truncated and not contribute further information regarding these development phases. • Unlikely to reach the threshold for local heritage significance.

7.3.4 Impact assessment

Proposed impacts within the Hurlstone Park Station Catchment would involve the construction of new station platforms along the rail corridor, construction of a retaining wall along the southern boundary of the station and rail corridor, addition of Metro South West running tracks (MSWs), installation of drainage pipes, single grate drainage pits, gas pipelines and CSR utilities and the construction of a proposed segregation fence along the northeast boundary of the rail corridor east of the Floss Street Overbridge. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are unlikely to be impacts to significant archaeology as a result of these works.

7.3.5 Mitigation and management measures

The area within the Hurlstone Park Station Catchment has been assessed as having low potential to contain archaeological remains associated with Phase 1 and 2 and low to moderate potential to contain archaeological remains associated with Phase 3 and 4 occupation of the site. Potential archaeological remains are unlikely to reach the threshold of local significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. Therefore, it is recommended that an Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

7.4 Canterbury Station Catchment

7.4.1 Land use summary

The historical development of the Canterbury Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1841): Early land grants: Land clearance, timber getting, grazing, farming activity associated with the Canterbury Farm;
- Phase 2 (1841 – 1855) Establishment of Canterbury and the Australasian Sugar Company works: Subdivision for smaller farms, development of country estates, small scale industry such as timber cutting, wool washing and mining, establishment of the Australasian Sugar Company works and construction of associated structures and outbuildings (some within study area) and small scale residential settlement in form of cottages;
- Phase 3 (1855 – 1895): Urban development and closure of the Australasian Sugar Company works: Sugar works closed and site remains unoccupied, post office, public school and race course opened, further subdivisions;

- Phase 4 (1895-1943): Canterbury Station, resumptions and development: Land resumed for railway, including residential buildings, construction of railway station in 1895, expansion and construction of the Metropolitan Goods line in 1916, electrification upgrades in 1926 and track realignment in 1927, mill site used for Canterbury Bacon Factory and later 'Hutton's Bacon Factory', possible removal of earlier outbuildings west of the Old Sugarmill site;
- Phase 4 (1943 – present): Suburban and urban development: Railway station upgrades and continued use, industrial, commercial and residential development west of Canterbury Road and within grassed park bounded by Close Street and the railway line.

7.4.2 Impacts to archaeological resources

Construction of the railway station and rail line in the late nineteenth century would have included a considerable amount of ground disturbance and excavation, especially within the rail corridor. Track realignment, station upgrades and road construction throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

Contemporary redevelopment to the south of Canterbury Station would have removed archaeological remains of the former Goods siding, platform, shed and weighbridge. In addition, contemporary redevelopment associated with the construction of a building fronting onto Close Street may have impacted potential archaeological resources.

7.4.3 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 92: Assessment of archaeological potential for Canterbury Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1841)	• No documentary evidence of specific activities or development with the site; • Archaeological features associated with land clearance such as tree boles, evidence of estate farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters.	Nil-low
2 (1841 – 1855)	• Archaeological remains of outbuildings, landscape modifications, fence lines, drains and other structural remains associated with the Australasian Sugar Company works; • Evidence of small scale mining activities; • Archaeological evidence of farming includes fence line postholes, former shed postholes, brick or paved yard surfaces, field drains, isolated artefact scatters; • Archaeological remains of early residential cottages including wells, cisterns and refuse pits.	Moderate to High
3 (1855 – 1895)	• Archaeological remains of early residential cottages including wells, cisterns and refuse pits; • Archaeological remains of outbuildings, landscape modifications, fence lines, drains and other structural remains associated with the Blackett and Co Canterbury Engineering Works;	Moderate to High

Phase	Likely archaeological remains	Potential
4 (1895-1943)	• Archaeological remains and evidence of early railway construction including rails, refuse pits, drains and timber sleepers. • Archaeological remains associated with the early phase of minor railway buildings (such as toilets) prior to track realignment such as postholes, brick footings, former floor surfaces, and early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.	Moderate

7.4.4 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 93: Assessment of archaeological significance for Canterbury Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 would be present within the site. Any remains would be highly truncated or ephemeral and would not have research potential. • Potential archaeological remains associated with Phase 2 residential and industrial structures and activities (sugar works and mining) would have high research significance as they would yield information relating to the one of the earliest phases of development in Canterbury. Remains of the Old Sugarmill outbuildings could provide information relating to activities that took place around the mill, and the domestic lives of workers, if they were residing at the site. Remains of mining activities would provide insights into early small scale mining practices in the area. • If intact remains associated with Phase 3 residences and industrial activities (iron works) were located within the study area, they would have moderate research potential. They could yield information relating to domestic living conditions in Canterbury during the mid to late nineteenth century as well as providing insights into early iron works activities and the potential use of outbuildings or the surrounding landscape. • Potential archaeological remains associated with Phase 4 former structures and rail infrastructure would unlikely contribute additional information not available from other historical resources. • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.
Association with individuals, events or groups of historical importance	• The potential archaeological remains of Phase 2 occupation of the site are associated with the State significant ‘Canterbury Sugar Company works’ or ‘Old Sugarmill’. This site was associated with Robert Campbell, a prominent Sydney merchant. The establishment of the Old Sugarmill was highly influential on the subsequent development of Canterbury as a township in the early nineteenth century. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and twentieth centuries. Canterbury Station was built in 1895 as part of the Bankstown Line. The potential Phase 3 archaeological remains are associated with the historical development of Bankstown rail line and Canterbury Station.

Criteria	Discussion
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value, although exposed *in situ* archaeological remains may have distinctive/attractive visual qualities. • Extensive and intact remains of former station structures are not expected to be present. • Intact remains associated with the Canterbury Sugar Company works and/ Blackett and Co Canterbury Engineering Works have the potential to hold technical significance, as they would represent early technological advances and structures associated with threw respective industries. • Former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains associated with the Canterbury Sugar Company works and Phase 2 and 3 cottages may illustrate the historical development of Canterbury. If intact or substantial remains are found to exist within the project area, they have the potential to reach the threshold for State significance.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Moderate to high potential for remains of structures associated with the Canterbury Sugar Company works and outbuildings. These would have high research value and associative and historical significance at a local or State level depending on nature and intactness. • Moderate to high potential for remains of Phase 3 residential and industrial structures that once occupied land within the rail line. If intact remains were found, they would have moderate research potential and reach the threshold for local significance. • Low to moderate potential for archaeological remains of former 'works' associated with the railway. Though the potential Phase 4 archaeological remains are associated with the historical development of the Bankstown rail line and the Canterbury Station, they are likely to be truncated and not contribute further information regarding these development phases. • Remains associated with Phase 4 are unlikely to reach the threshold for local heritage significance.

7.4.5 Impact assessment

Proposed impacts within the Canterbury Station Catchment would involve the construction of new station platforms along the rail corridor, construction of a station service building, construction of a retaining wall along the southern boundary of the station and rail corridor, addition of Metro South West running tracks (MSWs), installation of installation of drainage pipes, single grate drainage pits, gas pipelines and CSR utilities and the construction of a proposed segregation fence along the northwest boundary of the rail corridor. These works would involve trenching and subsurface ground disturbance.

Although the location of the Canterbury Sugar Company works mill and former associated structures is outside of the study area, there is potential that remains of outbuildings and mining activities may exist within the rail corridor and compound site. These have the potential to reach the threshold for State significance, if intact or substantial remains are found to exist within the study area. There is also potential that remains associated with the Canterbury township Phases 2 and 3 (as shown in Figure 29 and Figure 30) may be present.

There is potential for impacts to occur to local and State significant archaeology within the Canterbury Station Catchment footprint and compound site.

7.4.6 Mitigation and management measures

The area within the Canterbury Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1 and moderate to high potential to contain archaeological remains associated with Phase 2 and 3 occupation of the site. Potential archaeological remains associated with Phase 2 occupation may have State heritage significance due to their association with the Canterbury township and SHR listed Old Sugarmill. Potential remains associated with Phase 3 may have potential to have local heritage significance. Potential remains associated with Phase 1 and 4 are not considered likely to reach the threshold of local or State significance.

As there is potential for remains of Phase 2 occupation of the site to have State heritage significance, and Phase 3 remains to have local significance, it is recommended that an Archaeological Research Design be prepared to manage and mitigate impacts to the potential archaeological resource.

An archaeological research design would be prepared and implemented to identify the need for archaeological testing or monitoring. Archaeological mitigation measures recommended in the archaeological research design would be carried out in accordance with Heritage Council guidelines, and where identified in the archaeological research design, would be supervised by a suitably qualified Excavation Director with experience in managing State or locally significant archaeology where relevant.

Where an archaeological research design is required, it would be prepared based on research information included in this report and would be supplemented by additional detailed historical research of each site with reference to the project design and proposed construction methods at each site. Based on the detailed literature review, the archaeological research designs would identify the need for and provide a detailed methodology for undertaking:

- Archaeological test excavation or test and salvage excavation
- Archaeological monitoring

7.5 Campsie Station Catchment

7.5.1 Land use summary

The historical development of the Campsie Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1890s) land grants and farming: land clearance, grazing and farming activity associated with the Campsie Farm
- Phase 2 (1890s – 1920s) railway station: construction of railway station and Goods line between 1895-1915, electrification upgrades in 1920s
- Phase 3 (1930s – present) railway station: upgrades and continued use

Construction of the rail line and railway station in the late nineteenth century and early twentieth century would have included a considerable amount of ground disturbance and excavation. Station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.5.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 94: Assessment of archaeological potential for Campsie Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1890s)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with land clearance such as tree boles, evidence of estate farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters.	Nil-low
2 (1890s – 1920s)	• Archaeological remains associated with the early infrastructure such as ceramic service pipes, brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track. • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.	Low-moderate
3 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.5.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 95: Assessment of archaeological significance for Campsie Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 would be present within the site. Any remains would be highly truncated or ephemeral and would not have research potential. • Potential archaeological remains associated with Phase 2 rail infrastructure would unlikely contribute additional information not available from other historical resources. • It is unlikely that artefact-bearing deposits associated with the early station accumulated or survived subsequent development and upgrades.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and twentieth centuries. Campsie Station was built between 1895 and 1915. The potential Phase 2 archaeological remains are associated with the historical development of Bankstown rail line and Campsie Station.
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value. • Former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of Campsie or the early development of the railway station.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 2 and 3 archaeological remains are associated with the historical development of the Bankstown rail line and the Campsie Station, they are likely to be truncated and not contribute further information regarding these development phases. • Unlikely to reach the threshold for local heritage significance.

7.5.4 Impact assessment

Proposed impacts within the Campsie Station Catchment would include the construction of an attenuation basin along the southern boundary of the station, north of Lillian Street, construction of new station platforms along the rail corridor, construction of a station service building, construction of a retaining wall along the southern boundary of the station and rail corridor, addition of Metro South West running tracks (MSWs), installation of drainage pipes, single grate drainage pits, gas pipelines and CSR utilities and the construction of a proposed segregation fence along the northwest boundary of the rail corridor. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are unlikely to be impacts to significant archaeology as a result of these works.

7.5.5 Mitigation and management measures

The area within the Campsie Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1 and 2 and low to moderate potential to contain archaeological remains associated with Phase 3 occupation of the site. Potential archaeological remains are not considered likely to reach the threshold for local significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. Therefore, it is recommended that an

Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

7.6 Belmore Station Catchment

7.6.1 Land use summary

The historical development of the Belmore Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1880) early land grants: land clearance, timber getting, grazing and farming activity
- Phase 2 (1880 – 1920s) subdivision and railway station: larger estates subdivided from 1880 into suburban blocks, limited in immediate vicinity of station, accelerated with the construction of railway station in 1895, extended to Bankstown in 1909, sidings extended in 1920s, substation and platform extension in 1925-26
- Phase 3 (1930s – present) railway station: upgrades and continued use

Construction of the railway station and rail line in the late nineteenth and early twentieth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.6.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 96: Assessment of archaeological potential for Belmore Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1880s)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with low intensity land use such as grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters.	Nil-low
2 (1880 – 1920s)	• No documentary evidence of specific activities such as residential development within the site. • Archaeological features associated with continued grazing and farming include fence line and shed postholes, field drains, isolated artefact scatters and drains or culverts • Archaeological remains associated with the railway station goods shed occupying land to the near today's Wortley Avenue and a goods platform to the south near Bridge Road.	Low -moderate
3 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.6.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 97: Assessment of archaeological significance for Belmore Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 and the beginning of Phase 2 would be present within the site. Any remains would likely be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 2 and 3 former rail infrastructure such as services and sidings would be unlikely to contribute additional information not available from other historical resources. • Potential remains associated with the goods shed has the potential to yield information regarding early railway storage practices and construction methods related to utilitarian structures.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and early twentieth centuries. Belmore Station was built as the first part of the Bankstown Line in 1895 which was extended to accommodate the remainder of the Bankstown Line between (1909-1939). The potential Phase 2 archaeological remains are associated with the historical development of the Bankstown rail lines.
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value. • Remains of former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains have the ability to illustrate the early development of the railway station particularly activities surrounding the goods shed and sidings.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works' such as sidings, drains, rails and sleepers. Though the potential Phase 2 and 3 archaeological remains are associated with the historical development of the Bankstown rail line and Belmore Station, they are likely to be truncated and not contribute further information regarding these development phases. • Low to moderate potential for the remains of a former goods shed to exist within the area. If intact and substantial remains of the goods shed were found, they would provide information relating to late 19th century railway building construction methods and activities surrounding the goods line. • If intact remains associated with later Phase 2 development associated with the goods shed were uncovered, they would have the potential to reach the threshold for local heritage significance. • Potential archaeological remains associated with Phase 2 and 3 may reach the threshold for local significance.

7.6.4 Impact assessment

Proposed impacts within the Belmore Station Catchment would include the construction of a new island platform within the rail corridor, construction of a station service building, construction of a retaining walls along the southern and northern boundary of the station and rail corridor, addition of Metro South West running tracks (MSWs), installation of drainage pipes, single grate drainage pits, gas pipelines and CSR utilities and the construction of a proposed segregation fence along the northwest boundary of the rail corridor. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There is potential that locally significant remains associated with the former goods shed may be impacted by the proposal.

7.6.5 Mitigation and management measures

The area within the Belmore Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1 and low to moderate potential to contain archaeological remains associated with Phase 2 and 3. The majority of potential archaeological remains are not considered likely to reach the threshold of local significance. However, remains associated with the goods shed may reach the threshold for local significance if intact or substantial deposits are found to exist within the project area.

As there is potential for remains associated with Phase 2 occupation of the site (former goods shed) to have local significance, it is recommended that an Archaeological Research Design be prepared to manage and mitigate impacts to the potential archaeological resource.

An archaeological research design would be prepared and implemented to identify the need for archaeological testing or monitoring. Archaeological mitigation measures recommended in the archaeological research design would be carried out in accordance with Heritage Council guidelines, and where identified in the archaeological research design, would be supervised by a suitably qualified Excavation Director with experience in managing locally significant archaeology.

Where an archaeological research design is required, it would be prepared based on research information included in this report and would be supplemented by additional detailed historical research of each site with reference to the project design and proposed construction methods at each site. Based on the detailed literature review, the archaeological research designs would identify the need for and provide a detailed methodology for undertaking:

- Archaeological test excavation or test and salvage excavation
- Archaeological monitoring

7.7 Lakemba Station Catchment

7.7.1 Land use summary

The historical development of the Lakemba Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1880s) early land grants: land clearance, grazing and farming activity
- Phase 2 (1880s – 1909) pioneer settlement: farming activity, homesteading, stables, tanneries, commercial nurseries, poultry farms and piggery
- Phase 3 (1909 – 1919) railway station and development: railway station constructed in 1909, suburban and commercial development follows
- Phase 4 (1919 – present) railway station upgrades: new brick station building replaces original timber structure, electrification of the line in 1926 and addition of footbridge and overhead booking office, continued use of railway.

Construction of the railway station and rail line in the twentieth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the second half of the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.7.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services, although potential remains of outbuildings associated with Lakemba may exist in the area.

Table 98: Assessment of archaeological potential for Wiley Park Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1880s)	• Initial land owners associated with moderately sized grants used for agricultural and pastoral purposes • Archaeological features associated with low intensity land use such as timber getting, grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters.	Nil-low
2 (1880s – 1909)	• Establishment of the Taylor House (Lakemba), stables and potential outbuildings • Archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts	Low
3 (1909 – 1919)	• Archaeological remains associated with the first timber island platform and initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, timber footings and postholes, sleepers and rail track.	Low to moderate
4 (1919 – present)	• Archaeological remains associated with station and rail corridor upgrades such as utilities and drainage	Moderate

7.7.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 99: Assessment of archaeological significance for Lakemba Station Catchment

Criteria	Discussion
Research potential	• It is unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential. • However, if intact or substantial remains associated with 'Lakemba' were found to exist, they may have the ability to yield information regarding early residential occupation in the area. • Potential archaeological remains associated with Phase 3 former rail infrastructure would unlikely contribute additional information not available from other historical resources.
Association with individuals, events or groups of historical importance	• The potential archaeological remains of 'Lakemba' are associated with Ben Taylor and his second wife Lucy Annie Johnston. Ben Taylor was a prominent local political figure, who was employed as an alderman, mayor and town clerk for the locality.
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value although exposed in situ archaeological remains may have distinctive/attractive visual qualities.

Criteria	Discussion
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains associated with structures or remains of 'Lakemba' have the ability to illustrate the historical development of the suburb of Lakemba. • The potential archaeological remains of the 1909 Lakemba Station platform have the ability to demonstrate past development phases associated with Lakemba Railway Station and changes to the suburb over time.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Potential remains of structures or deposits associated with • Remains associated with 'Lakemba' may have research and associative value. • Low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 3 archaeological remains are associated with the historical development of the Bankstown rail line. • Remains associated with former rail infrastructure are unlikely to reach the threshold for local heritage significance. • Remains associated with the 1919 Lakemba Station timber island platform have the potential to demonstrate early development phases within the suburb of Lakemba. • Potential remains associated with 'Lakemba' and the Lakemba 1909 timber island platform may have local heritage significance.

7.7.4 Impact assessment

Proposed impacts within the Lakemba Station Catchment would involve the construction of a new island platform within the rail corridor, construction of a station service building to the south of the rail corridor, construction of a retaining wall along the southern and northern boundary of the station, installation drainage pipes, single grate drainage pits, cess drain, gas pipelines and CSR utilities, addition of Metro South West running tracks (MSWs) and the construction of a security fence along the southern boundary of the rail corridor. These works would involve earthworks, trenching and subsurface ground disturbance.

There is a low potential for the potentially locally significant remains associated with 'Lakemba' to exist within the study area and be impacted by the proposal, and low to moderate potential for the potentially locally significant remains of the 1919 Lakemba island platform to be impacted.

7.7.5 Mitigation and management measures

The area within the Lakemba Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1, low potential to contain archaeological remains of Phase 2 and low to moderate potential to contain archaeological remains associated with Phase 3 and 4 occupation of the site. Potential archaeological remains associated with Phase 1, 2 and 3 may reach the threshold for local significance. Potential archaeological remains associated with Phase 4 are unlikely to reach the threshold for local significance.

As there is potential for remains associated with Phase 2 and 3 occupation of the site to have local significance, it is recommended that an Archaeological Research Design be prepared to manage and mitigate impacts to the potential archaeological resource.

An archaeological research design would be prepared and implemented to identify the need for archaeological testing or monitoring. Archaeological mitigation measures recommended in the archaeological research design would be carried out in accordance with Heritage Council guidelines, and where identified in the archaeological research design, would be supervised by a suitably qualified Excavation Director with experience in managing locally significant archaeology.

Where an archaeological research design is required, it would be prepared based on research information included in this report and would be supplemented by additional detailed historical research of each site with reference to the project design and proposed construction methods at each site. Based on the detailed literature review, the archaeological research designs would identify the need for and provide a detailed methodology for undertaking:

- Archaeological test excavation or test and salvage excavation
- Archaeological monitoring

7.8 Wiley Park Station Catchment

7.8.1 Land use summary

The historical development of the Wiley Park Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1860s) early land grants: land clearance, timber getting, clay pipe manufacturing, grazing and farming activity
- Phase 2 (1860s – 1930s) pioneer settlement: more woodcutters moved to the area, slab houses formed nucleus of settlement
- Phase 3 (1930s – 1940s) railway station: suburban development in the 1930s, railway station constructed in 1938
- Phase 4 (1940s – present) railway station: upgrades and continued use of railway

Construction of the railway station and rail line in the twentieth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the second half of the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.8.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 100: Assessment of archaeological potential for Wiley Park Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1860s)	• Initial land owners produced clay pipes, but no documentary evidence of this activity occurring specifically in the site. • Archaeological features associated with low intensity land use such as timber getting, grazing and farming include tree boles, fence line postholes, field drains and isolated artefact scatters.	Nil-low
2 (1860s – 1930s)	• No documentary evidence of specific developments such as residential development within the site. • Archaeological features associated with farming or timber getting such as fence or shed postholes, field drains, isolated artefact scatters, drains or culverts and unrecorded slab house remains	Nil-low

Phase	Likely archaeological remains	Potential
3 (1930s – 1940s)	• Little in the way of archaeological remains due to the stations more modern construction. • Archaeological remains associated with the initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, sleepers and rail track.	Nil-low
4 (1940s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.8.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 101: Assessment of archaeological significance for Wiley Park Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 3 former rail infrastructure would be unlikely to contribute additional information not available from other historical resources.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • Wiley Park Station was the last station built of the Bankstown Line in 1938 and is associated with the development of the Bankstown Line. However, because of its later construction date the archaeological remains are unlikely to have heritage significance.
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of Wiley Park or the development of the railway station.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 3 archaeological remains are associated with the historical development of the Bankstown rail line, their more recent date means there is likely to be little archaeological material as most of the original fabric is still extent today. • Unlikely to reach the threshold for local heritage significance.

7.8.4 Impact assessment

Proposed impacts within the Wiley Park Station Catchment would include the construction of new platforms along the rail corridor, construction of a station service building, construction of retaining walls along the southern and northern boundary of the station, installation gas pipelines and CSR utilities and the construction of a noise wall along the northern boundary of the rail corridor. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are unlikely to be impacts to significant archaeology as a result of these works.

7.8.5 Mitigation and management measures

The area within the Wiley Park Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1, 2 and 3 and moderate potential to archaeological remains associated with Phase 4 occupation of the site. Potential archaeological remains are not likely to reach the threshold of local significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. Therefore, it is recommended that an Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

7.9 Punchbowl Station Catchment

7.9.1 Land use summary

The historical development of the Punchbowl Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1870s) early land grants: land clearance, timber getting, grazing and farming activity
- Phase 2 (1870s – 1909) farming and subdivision: continued farming and grazing
- Phase 3 (1909 – 1920s) railway station: station and line extension opened in 1909, station building awning added in 1924, electric train depot opened nearby and Bankstown Line electrified in 1926, in 1929 an overhead booking office was built, the platforms lengthened and the stairway to the overbridge was removed
- Phase 4 (1930s – present) railway station: upgrades and continued use

Construction of the railway station and rail line in the twentieth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.9.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 102: Assessment of archaeological potential for Punchbowl Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1870s)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with low intensity land use such as grazing and farming include tree boles, fence line postholes, field drains, isolated artefact scatters and former road surfaces.	Nil-low

Phase	Likely archaeological remains	Potential
2 (1870s – 1909)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with continued farming and grazing such as fence or shed postholes, field drains, isolated artefact scatters and drains or culverts	Nil-low
3 (1909 – 1920s)	• Less potential for archaeological remains due to twentieth century construction. • Archaeological remains associated with the initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, sleepers, rail track and overbridge stairway.	Low
4 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.9.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 103: Assessment of archaeological significance for Punchbowl Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 and Phase 2 would be present within the site. Any remains would be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 3 former rail infrastructure would be unlikely to contribute additional information not available from other historical resources.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • Punchbowl Station was built in 1909 as part of the Bankstown Line. The potential Phase 3 archaeological remains are associated with the historical development of Bankstown rail line and Punchbowl Station.
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of Punchbowl or the development of the railway station.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 3 and 4 archaeological remains are associated with the historical development of the Bankstown rail line and the Punchbowl Station, they are likely to be truncated and not contribute further information regarding these development phases. • Unlikely to reach the threshold for local heritage significance.

7.9.4 Impact assessment

Proposed impacts within the Punchbowl Station Catchment would include the construction of new platforms along the rail corridor, construction of a station service building, construction of a retaining wall along the southern and northern boundary of the station and rail corridor, installation of a

concrete lined channel along the southern boundary of the rail corridor, installation of gas pipelines and CSR utilities and the addition of Up and Down MSWs within the rail corridor. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are unlikely to be impacts to significant archaeology as a result of these works.

7.9.5 Mitigation and management measures

The area within the Punchbowl Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1, 2 and 3 and moderate potential to contain archaeological remains associated with Phase 4 occupation of the site. Potential archaeological remains are not likely to reach the threshold of local or State significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. Therefore, it is recommended that an Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

7.10 Bankstown Station Catchment

7.10.1 Land use summary

The historical development of the Bankstown Station Catchment and surrounds can be divided into the following phases of activity:

- Phase 1 (1788 – 1900s) early land grants: land clearance, timber getting, saw milling, brick and pottery making, grazing and farming activity
- Phase 2 (1909 – 1920s) railway station: station opened and line opened in 1909, water tank erected in 1910 (removed in 1970s), pillar water tank and ash pit provided in 1920s, parcels office opened in 1915 (replaced in 1925), platform extended when line electrified in 1926
- Phase 3 (1930s – present) railway station: upgrades and continued use

Construction of the railway station and rail line in the twentieth century would have included a considerable amount of ground disturbance and excavation. Rail and station upgrades throughout the twentieth century would have resulted in high levels of ground impacts throughout the station catchment.

7.10.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post-railway structures and services.

Table 104: Assessment of archaeological potential for Bankstown Station Catchment

Phase	Likely archaeological remains	Potential
1 (1788-1900s)	• No documentary evidence of specific activities such brickmaking or residential development within the site. • Archaeological features associated with low intensity land use such as grazing and farming include tree boles, fence line postholes, field drains, isolated artefact scatters.	Nil-low

Phase	Likely archaeological remains	Potential
2 (1900s – 1920)	• No documentary evidence of specific activities or development with the site. • Archaeological features associated with continued farming and grazing such as fence or shed postholes, field drains, isolated artefact scatters and drains or culverts	Nil-low
3 (1909 – 1920s)	• Less potential for archaeological remains due to twentieth century construction. • Archaeological remains associated with the initial railway infrastructure such as brick drainage pits, electrical conduits and pits, stanchion bases, sleepers, rail track and overbridge stairway.	Low
4 (1930s – present)	• Archaeological remains associated with upgrades such as utilities and drainage	Moderate

7.10.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 105: Assessment of archaeological significance for Bankstown Station Catchment

Criteria	Discussion
Research potential	• It is highly unlikely that archaeological remains associated with Phase 1 would be present within the site. Any remains would be highly truncated and would not have research potential. • Potential archaeological remains associated with Phase 2 former rail infrastructure would be unlikely to contribute additional information not available from other historical resources.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • Bankstown Station was built in 1909 as part of the Bankstown Line. The potential Phase 2 archaeological remains are associated with the historical development of Bankstown rail line and Bankstown Station.
Aesthetic or technical significance	• The potential archaeological remains are not likely to hold aesthetic value.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of Bankstown or the development of the railway station.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Low to moderate potential for archaeological remains of former 'works'. Though the potential Phase 2 and 3 archaeological remains are associated with the historical development of the Bankstown rail line and the Bankstown Station, they are likely to be truncated and not contribute further information regarding these development phases. • Unlikely to reach the threshold for local heritage significance.

7.10.4 Impact assessment

Proposed impacts within the Bankstown Station Catchment would include the construction of a new island platform along the rail corridor, construction of a station service building, construction of a retaining wall along the southern and northern boundary of the station and rail corridor, installation of

a concrete lined channel along the northern boundary of the rail corridor, installation of drainage channels, single grate drainage pits, gas pipelines and CSR utilities and the addition of tracks and Up and Down MSWs within the rail corridor. The majority of these works would involve trenching and subsurface ground disturbance within the existing rail and road corridor.

There are unlikely to be impacts to significant archaeology as a result of these works.

7.10.5 Mitigation and management measures

The area within the Bankstown Station Catchment has been assessed as having nil to low potential to contain archaeological remains associated with Phase 1, 2 and 3 and moderate potential to contain archaeological remains associated with Phase 4 occupation of the site. Potential archaeological remains are not likely to reach the threshold of local or State significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. Therefore, it is recommended that an Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

7.11 Rail corridor: Ancillary work and construction sites

7.11.1 Overview

The Bankstown Line was constructed in three stages between 1892 and 1939. Sydenham to Belmore was completed in 1895. The section to Bankstown was complete by 1909. The rail corridor cut through undeveloped country estate and farm land. Earthworks would have included areas of cut and fill with ballast to lay the track. Culverts and drainage channels were built where the rail line crossed over creeks. The line was electrified in 1926.

This section assessed archaeological potential and significance for the project area outside of the station catchments. The exception is the compound site located near the Canterbury Station Catchment. This area was assessed as part of the Canterbury Station Catchment.

Overall there was no particular areas of archaeological potential identified in the compound areas and worksites within and outside the rail corridor, or within the rail corridor itself, except where specified in the station catchment assessments.

7.11.2 Archaeological potential

Based on the history of the site and disturbance that has occurred in the area, archaeological remains are likely to consist of post- railway structures and services.

Table 106: Assessment of archaeological potential for the rail corridor

Phase	Likely archaeological remains	Potential
1 (1788-1890s)	• General background historical review and analysis of select historic maps indicates the rail corridor was constructed through undeveloped farm land. • Archaeological features associated with land clearance such as tree boles, and farming activities such as fence line postholes, former shed postholes, field drains, isolated artefact scatters.	Nil
2 (1890s – present)	• Archaeological remains associated with the early infrastructure such as culverts and drains (brick, stone or concrete), ceramic service pipes, brick drainage pits, electrical conduits and pits, sleepers and rail track. No	Low

Phase	Likely archaeological remains	Potential
	documentary evidence was found for former structures in additional compound sites and worksites.	

7.11.3 Archaeological significance

The following assessment of significance is based on the guidelines discussed in Section 2.3 of this report.

Table 107: Assessment of archaeological significance for the rail corridor

Criteria	Discussion
Research potential	• Archaeological remains associated with Phase 1 would not be present within the rail corridor considering the level of land modification to construct the track. • Potential archaeological remains associated with Phase 2 rail infrastructure would unlikely contribute additional information not available from other historical resources.
Association with individuals, events or groups of historical importance	• The potential archaeological remains are not associated with any particular individual of historical importance. • The development of the rail network facilitated economic development and suburban growth in Sydney in the latter half of the nineteenth and twentieth centuries. The potential Phase 2 archaeological remains are associated with the historical development of Bankstown rail line.
Aesthetic or technical significance	• The potential archaeological remains are not likely to have aesthetic value. • Former rail infrastructure may demonstrate changes in technology and rail engineering over time. However, they are not expected to demonstrate technical significance.
Ability to demonstrate the past through archaeological remains	• The potential archaeological remains are not considered to have the ability to illustrate the historical development of the rail line.
Statement of Significance	• Nil to low potential for archaeological remains associated with nineteenth century farming. Any remains unlikely to have research value. • Some potential for archaeological 'works'. Though the potential Phase 2 archaeological remains are associated with the historical development of the Bankstown rail line, they are not likely to contribute further information regarding this development • Unlikely to reach the threshold for local heritage significance.

7.11.4 Impact assessment

Proposed impacts within the rail corridor would involve the addition of tracks, Down and Up MSWs, CSR utilities, gas pipelines, drainage pipes, single and multi-grate drainage pits, retaining walls, noise walls and security and segregation fences along the rail corridor boundary. The construction of retaining walls would involve the removal of up to 1.2 m of top soil and detritus. Works associated with utilities and fencing would involve trenching and associated subsurface impacts.

Attenuation basins are proposed to be constructed near Marrickville, Dulwich Hill, Hurlstone Park and Campsie Stations, along the southern boundary of the rail corridor. The construction of these basins would involve excavations.

Traction substations are proposed to be constructed along the rail corridor at Dulwich Hill, Canterbury, Campsie, Lakemba and Punchbowl, also along the southern boundary of the rail corridor which would require excavation.

A number of construction sites are also proposed both within the rail corridor and outside it.

Depending on the depth of excavation for utilities and drainage, location of impacts within the construction sites (particularly the worksite area adjacent to the Old Sugarmill at Canterbury), ancillary works may have an impact on locally or State significant archaeological remains within the Canterbury Station Catchment locally or State significant archaeological remains within the Belmore and Lakemba Station Catchments. The Archaeological Research Design document would specify management zones in these station catchments that would be implemented dependant on the nature and depth of excavation works. Management of utilities within the corridor and beyond would be governed by mitigation measures contained in a Utilities Management Strategy for the project. An outline for the utilities management strategy is included in Chapter 9 Project description – construction, of the Environmental Impact Statement.

7.11.5 Mitigation and management measures

The area within the Bankstown Rail corridor has been assessed as having nil to low potential to contain archaeological remains associated with Phases 1 and 2. Potential archaeological remains are not considered likely to reach the threshold of local significance.

However, there is potential for unexpected archaeological remains of structures and activities associated with earlier phases to exist within the area. It is therefore recommended that an Unexpected Finds Policy be implemented during the proposed development to manage and mitigate potential impacts to the potential archaeological resource.

8. CONSTRUCTION COMPOUND ASSESSMENT

The section below provides a description of the proposed construction compounds that would be used during the construction phase of the project. A general description is provided followed by descriptions and impact assessments to heritage items within each individual station catchment. Mitigation and management measures are also provided which relate specifically to construction site impacts. It is assumed the entire project area is a worksite for the purposes of the heritage assessment. Worksites have not been assessed separately as any impacts to built heritage would be temporary and related to construction activities described in this impact assessment. Archaeological impacts to construction sites are discussed in Section 7.0 and not repeated in this section.

8.1 General description

The project area includes all areas required to construct the project. The majority of construction would be located within the rail corridor between east of Marrickville and west of Bankstown.

Within the project area, a number of construction compounds would be required to support construction activities, at stations, and at other key locations where civil works are required.

In addition to construction compounds, a number of worksites would be required outside the rail corridor to facilitate construction of certain project elements. For the purposes of the Environmental Impact Statement, it is assumed that construction activities would occur along the entire length of rail corridor within the project area.

Construction compounds would be required at each station to support construction activities and other associated works at the stations. A summary of each compound is provided in Table 108.

Construction compounds would generally include site offices, worker amenities (such as toilets, change rooms, meal rooms, shower facilities and first aid facilities), workshops, material storage and lay down areas (including dangerous goods storage), plant and vehicle parking, and spoil lay down, loading and removal areas, and site security facilities.

Compounds would generally be located on RailCorp owned land, mainly located in the existing rail corridor. Some compounds would need to be located on land outside of the rail corridor on public land (i.e. owned by a government agency such as a local council).

Table 108: Construction compounds

Reference	Location	Existing use	Duration of use
C1	Victoria Road, Marrickville	Rail corridor	Long term
C2	Station Street, Marrickville	Retail	Long-term
C3	Ewart Lane, Dulwich Hill	Rail corridor, parking	Long-term
C4	Floss Street, Hurlstone Park	Roads reserve	Long-term
C5	Broughton Street, Canterbury	Rail corridor and rail uses, open space	Long-term
C6	Charles Street, Canterbury	Rail corridor, parking	Long-term

Reference	Location	Existing use	Duration of use
C7	South Parade, Campsie	Rail corridor	Long-term
C8	North Parade/Wilfred Avenue, Campsie	Rail corridor, road reserve with parking	Long-term
C9	Lilian Street, Campsie	Rail corridor, parking	Long-term
C10	Tobruk Avenue, Belmore	Rail corridor, open space	Long-term
C11	Redman Parade, Belmore	Parking	Long-term
C12	Railway Parade, Belmore	Rail corridor, open space	Long-term
C13	Bridge Road, Belmore	Sydney Trains maintenance facility	Long-term
C14	The Boulevarde, Lakemba	Rail corridor, parking	Short-term
C15	Railway Parade, Lakemba	Rail corridor, parking	Short-term
C16	The Boulevarde, Lakemba	Rail corridor, parking	Short-term
C17	The Boulevarde, Wiley Park	Rail corridor, road verge	Long-term
C18	Urunga Parade, Wiley Park	Rail corridor, road verge	Long-term
C19	Urunga Parade, Punchbowl	Rail corridor	Long-term
C20	Urunga Parade, Punchbowl	Rail corridor, road reserve	Long-term
C21	The Boulevarde, Punchbowl	Parking	Long-term
C22	Bruest Place, Punchbowl	Rail corridor, school	Long-term
C23	South Terrace, Bankstown	Rail corridor	Long-term
C24	North Terrace, Bankstown	Rail corridor, road reserve	Long-term

Note 1: short-term: area is to be used for up to about 18 months, long-term: area is to be used for over 18 months and potentially for the entire construction period.

8.2 Site locations

The maps below show the location of construction sites for the project. Where construction compounds are located away from listed items (generally outside the station catchments) they have not been mapped and assessed in this section.

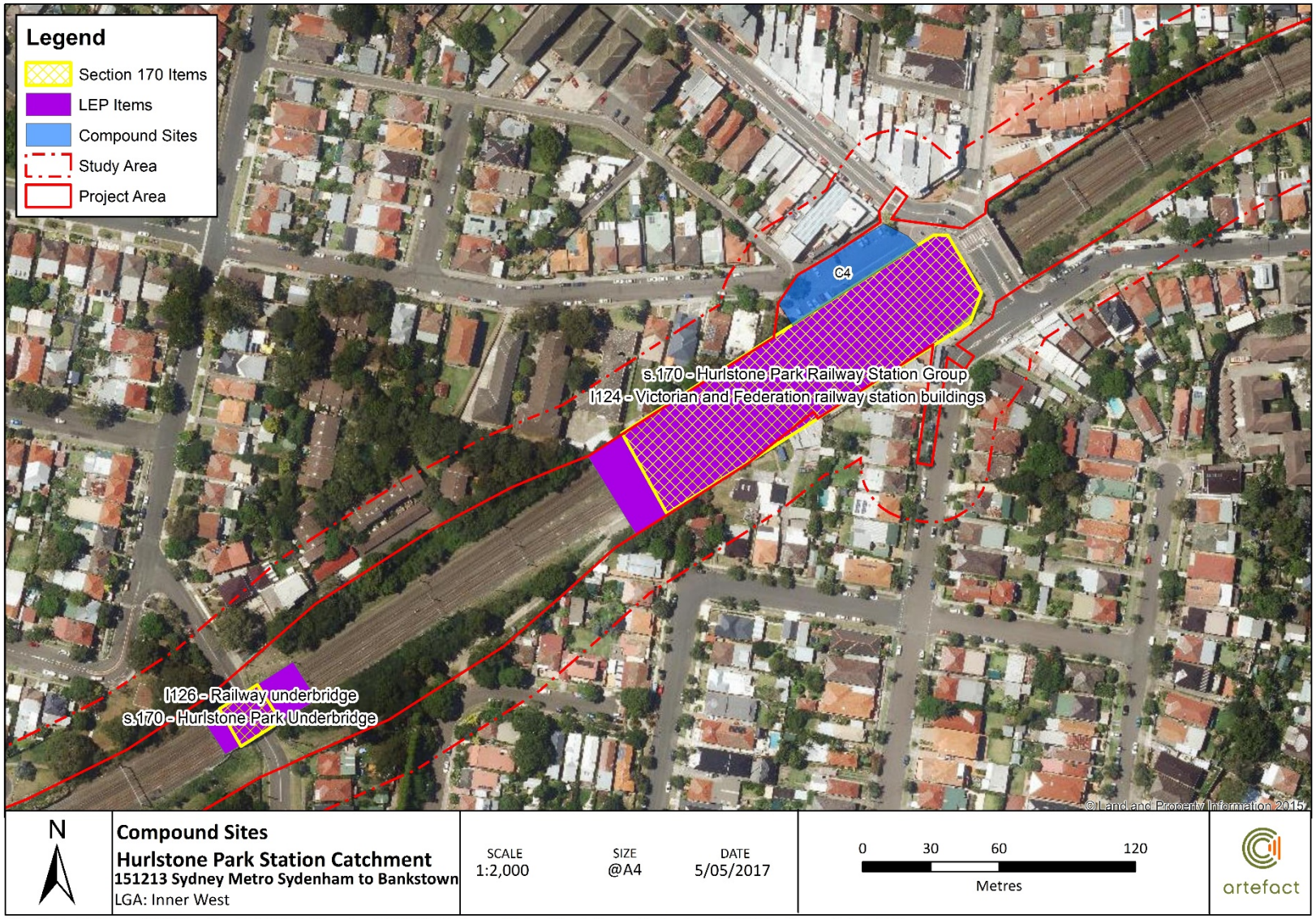
Figure 293: Construction compounds within study area: Marrickville Station Catchment

File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_Marrickville

Figure 294: Construction compounds within study area: Dulwich Hill Station Catchment

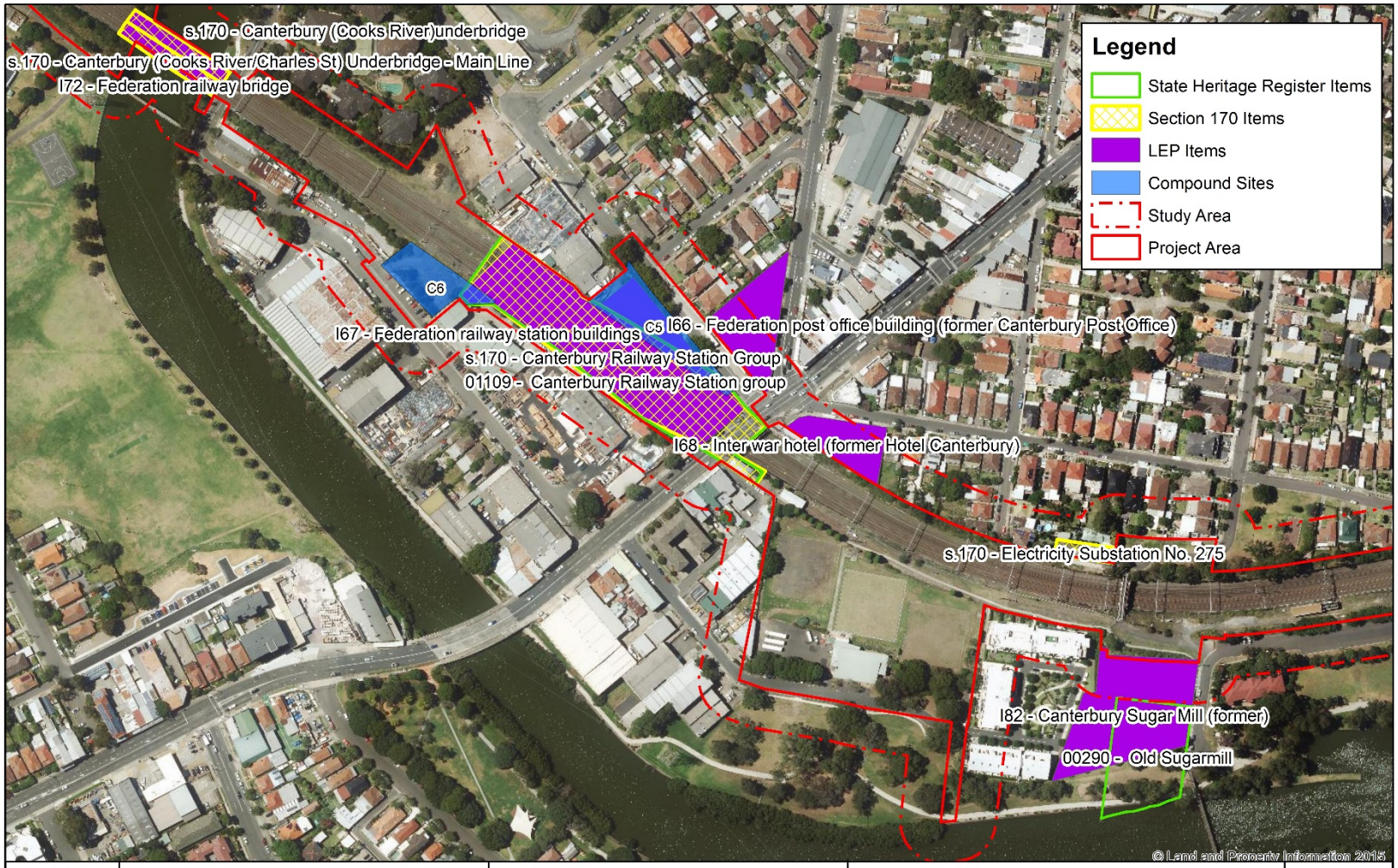
File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_DH

Figure 295: Construction compounds within study area: Hurlstone Park Station Catchment



File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_HP

Figure 296: Construction compounds within study area: Canterbury Station Catchment

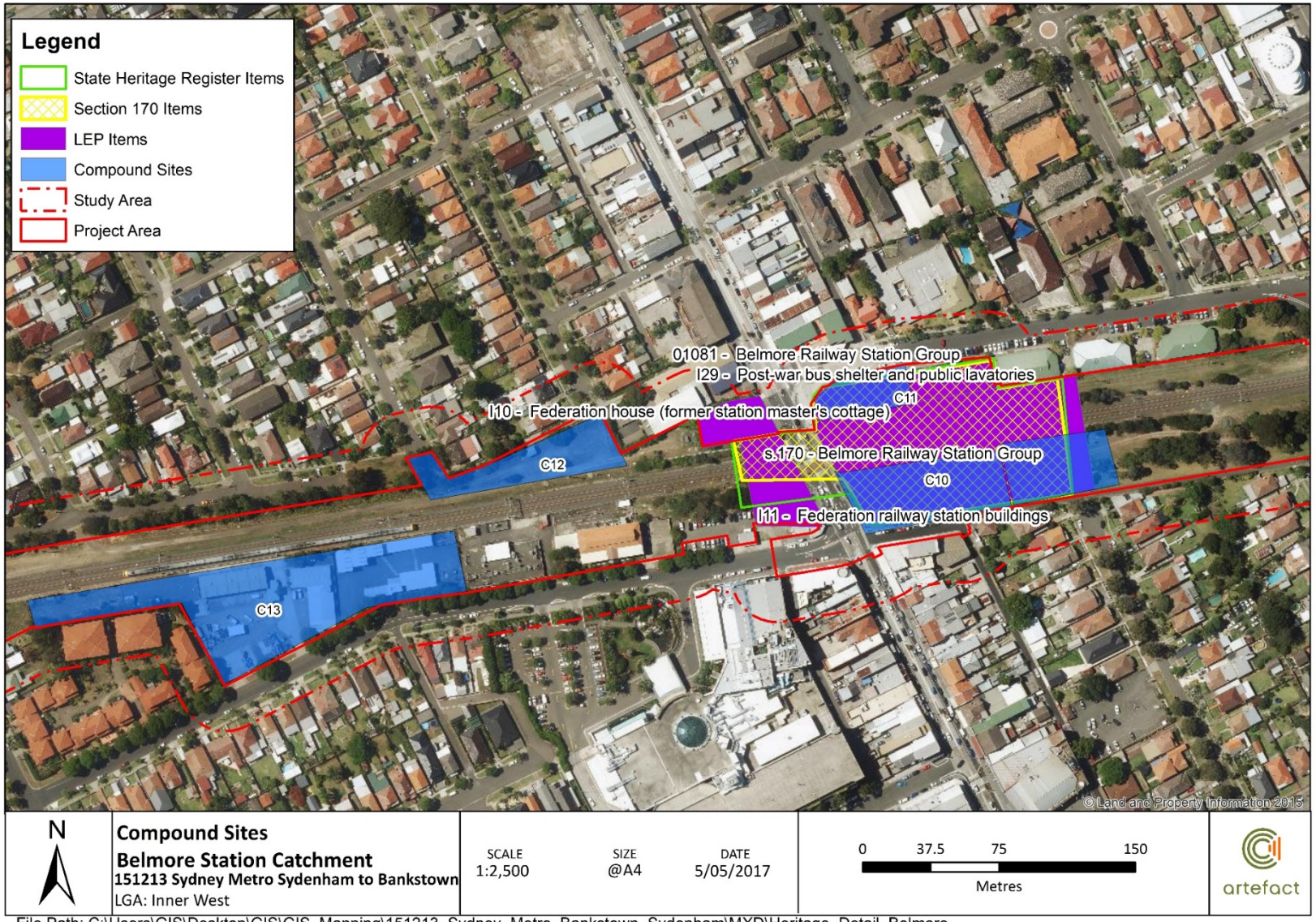


File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_Canterbury

Figure 297: Construction compounds within study area: Campsie Station Catchment

File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_Campsie

Figure 298: Construction compounds within study area: Belmore Station Catchment



File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_Belmore

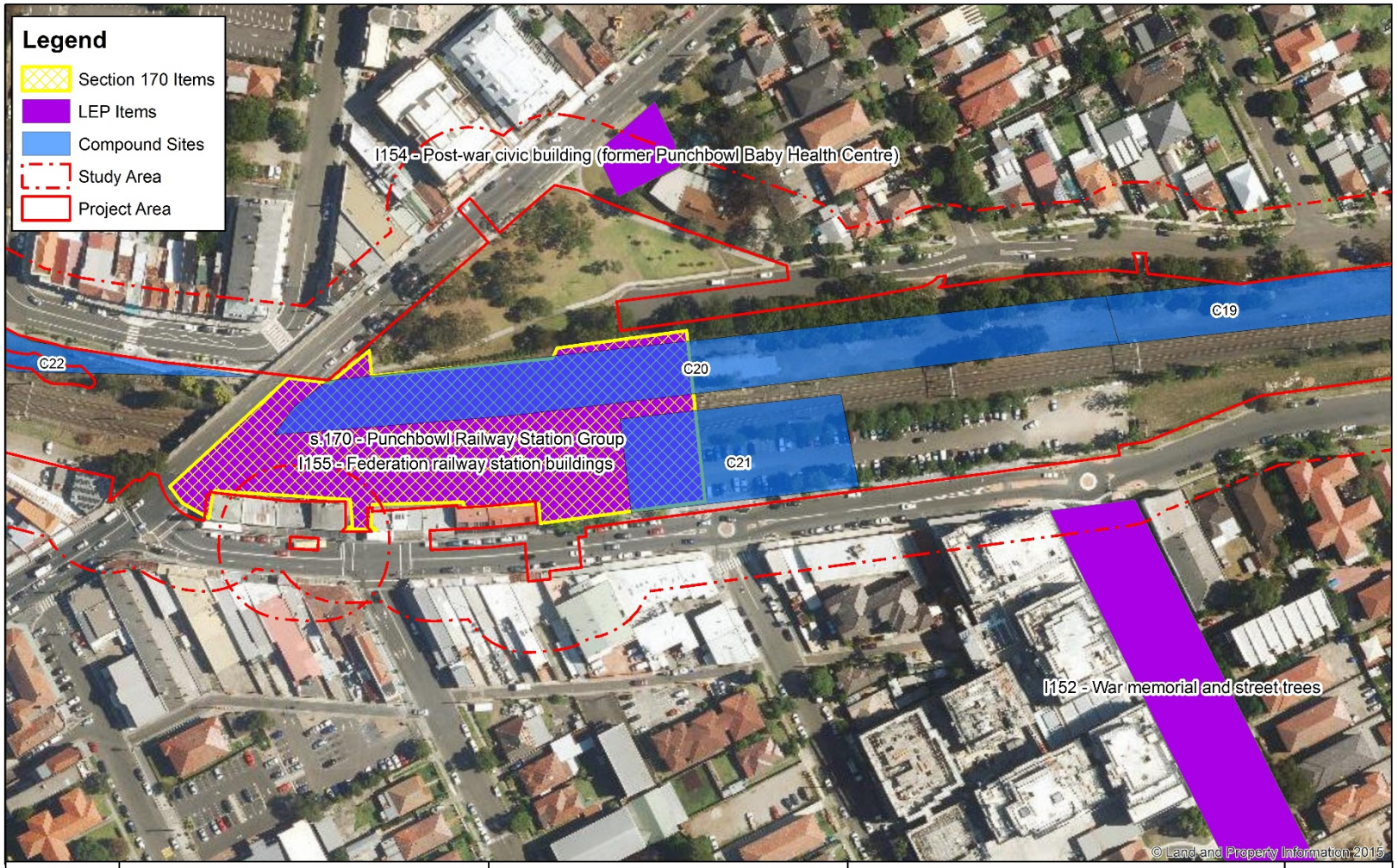
Figure 299: Construction compounds within study area: Lakemba Station Catchment

File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_Lakemba

Figure 300: Construction compounds within study area: Wiley Park Station Catchment

File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_WP

Figure 301: Construction compounds within study area: Punchbowl Station Catchment



File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_Punchbowl

Figure 302: Construction compounds within study area: Bankstown Station Catchment

File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Detail_BT

8.3 Built heritage impact assessment

8.3.1 Marrickville Station Catchment

Description

The entire rail corridor within Marrickville Station Catchment would be used as a worksite. Construction compound 1 (C1) would be located to the north-east of Marrickville Station and would result in a minor encroachment upon Marrickville Station curtilage. Construction compound 2 (C2) would also extend into the station curtilage.

The proposed construction sites maps relevant to the station catchment are provided in Figure 293.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 109: Construction compounds assessment for Marrickville Station Catchment

Item	Significance	Construction compounds impacts
Marrickville Railway Station Group	State	C1 would be partly located within the heritage curtilage of the item to the north-east of the existing island platform. The impact area is an unkempt grass area and does not contain elements of significance. The direct impacts of the site on the item would remain minor. There would be temporary moderate visual impacts on the item as a result of the construction and use of C1. C2 is located along the southern boundary of the rail corridor and would result in a minor encroachment on the heritage curtilage of the item. The direct impacts on the item would remain negligible. The site would include part of Station Street and involve the removal of existing properties to the south of the item. There are no significant views to and from the item and the properties to be removed. This would result in a neutral impact on the item. Provided that the site is remediated to minimise visual impacts on the item post-construction, this site would result in a temporary minor impact on the item. Impacts of construction compounds on the item would be minor.
Sewage Pumping Station 271	State	There are no construction compounds in the vicinity of this item therefore no impacts are expected
Stone house, including interiors	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected
Stonewalling, terracing and street planting	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected

8.3.2 Dulwich Hill Station Catchment

Description

The entire rail corridor within Dulwich Hill Station Catchment would be used as a worksite. Construction compound 3 (C3) would be partly established within the curtilage of Dulwich Railway Station along the rail corridor on the southern side of the heritage item.

The proposed construction sites map relevant to the station catchment is provided in Figure 294.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 110: Construction compounds assessment for Dulwich Hill Station Catchment

Item	Significance	Construction compounds impacts
Dulwich Hill Railway Station Group	Local	C3 would be partly established within the curtilage of Dulwich Hill Station along the rail corridor on the southern side. It would be located in areas of little significance on the edge of the heritage curtilage. The site would not impact significant fabric of the item. Provided that the impact area is remediated post-construction, the direct impacts of the site on the item would be minor. It would result in a temporary moderate visual impact on the item. Impacts of construction compounds on the item would be minor.
South Dulwich Hill Heritage Conservation Area	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Inter-War Heritage Conservation Area Group	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Gladstone Hall, including interiors	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.

8.3.3 Hurlstone Park Station Catchment

Description

The entire rail corridor within Hurlstone Park Station Catchment would be used as a worksite. Outside the rail corridor, construction compound 4 (C4) would be located along the northern boundary of Hurlstone Park Station on the eastern side outside its heritage curtilage within the existing car park.

The proposed construction sites map relevant to the station catchment is provided in Figure 295.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 111: Construction compounds assessment for Hurlstone Park Station Catchment

Item	Significance	Construction compounds impacts
Hurlstone Park Railway Station Group	Local	C4 would be located along the northern boundary of the heritage item on the eastern side outside its heritage curtilage. There would be some views onto the site from the heritage item. This would result in a temporary minor visual impact on the item.
Hurlstone Park Railway Underbridge	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected

8.3.4 Canterbury Station Catchment

Description

The entire rail corridor within Canterbury Station Catchment would be used as a worksite. Outside the rail corridor, construction compound 5 (C5) would be located along the northern boundary of Canterbury Station opposite the existing platform. This site would encroach slightly on the northern boundary of the heritage curtilage. Construction compound 6 (C6) would be located directly to the west of the station and would extend slightly into its curtilage. A worksite would be located between Canterbury Station and the Old Sugarmill within an existing park. The area would primarily be used for laydown.

The proposed Construction compounds map relevant to the station catchment is provided in Figure 296.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 112: Construction compounds assessment for Canterbury Station Catchment

Item	Significance	Construction compounds impacts
Canterbury Railway Station Group	State	C5 would be located along the northern boundary of the heritage item and encroach slightly on the northern boundary of its curtilage. The site would be located within a grassed area and would not impact significant fabric of the heritage item. Provided that the impact area is remediated post-construction, the direct impacts of the site would remain negligible. There would be views onto the site from the heritage item. This would result in a temporary moderate visual impact on the item. C6 would extend slightly into the western curtilage of the item. Impacts of construction compounds on the item would be minor.
Canterbury (Cooks River) underbridge	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected
Canterbury (Cooks River/Charles St) Underbridge - Main Line	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected
Old Sugarmill	State	A worksite (primarily for laydown) would be located in the vicinity of the heritage item, to the west. There would be some views onto the site from the item. This would result in a temporary minor visual impact on the item. Limited views onto the sites would result in a temporary negligible visual impact on the item. Views onto the sites would be obstructed by existing development to the north and west of the item. Impacts of worksite on the item would be minor.
Inter-War Hotel (former Hotel Canterbury)	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Federation Post Office Building (former	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.

Item	Significance	Construction compounds impacts
Canterbury Post Office)		
Electricity substation no. 275	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.

8.3.5 Campsie Station Catchment

Description

The entire rail corridor within Campsie Station Catchment would be used as a worksite. Outside the rail corridor, construction compound 8 and 9 (C8 and C9) would be located partially within the curtilage of Campsie Railway Station along the northern and southern boundaries.

The proposed construction sites map relevant to the station catchment is provided in Figure 297.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 113: Construction compounds assessment for Campsie Station Catchment

Item	Significance	Construction compounds impacts
Campsie Railway Station Group	Local	C8 and C9 would be located partially within the curtilage of the heritage item on the northern and southern boundaries. The sites would be located within grass and car parking areas along the boundaries of the station and would not impact any significant fabric of the heritage item. Provided that the impact areas are remediated post-construction, the direct impacts of the sites would remain negligible. There would be views onto the sites from the heritage item. This would result in a temporary moderate visual impact on the item. Impacts of construction compounds on the item would be minor.
Federation commercial building– Coffill's Buildings	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Inter-War Commercial Building– Station House	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Inter-War Court House (former) Campsie Court House	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
War Memorial Clock Tower	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Federation house	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.

Item	Significance	Construction compounds impacts
Federation villa	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.

8.3.6 Belmore Station Catchment

Description

The entire rail corridor within Belmore Station Catchment would be used as a worksite. Outside the rail corridor, construction compounds 10 and 11 (C10 and C11) would be located partially within the curtilage of Belmore Railway Station along the northern and southern boundaries. Construction compounds 12 and 13 (C12 and C13) would be located to the west of Belmore Railway Station.

The proposed construction sites map relevant to the station catchment is provided in Figure 298.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 114: Construction compounds assessment for Belmore Station Catchment

Item	Significance	Construction compounds impacts
Belmore Railway Station Group	State	C10 and C11 would be located partially within the curtilage of the heritage item along the northern and southern boundaries, and would make a minor encroachment on the northern boundary of the heritage item. The sites would be located within grass and car parking areas along the edges of the station and would not impact any significant fabric of the heritage item. Provided that the impact areas are remediated post-construction, the direct impacts of the sites would remain negligible. There would be views onto the sites from the heritage item. This would result in a temporary moderate visual impact on the item. C12 and C13 would be located in the broader vicinity of the item along the rail corridor to the west. There would be limited views onto the site from the heritage item. This would result in a temporary negligible visual impact on the item. Impacts of construction compounds on the item would be minor.
Post-war bus shelter and public lavatories	Local	C11 would be located within the curtilage of the heritage item. The site would utilise the existing car parking area in the eastern portion of the item. The Post-war bus shelter and public lavatories are located in the western portion of the heritage item outside the proposed site location. No significant fabric of the heritage item would be affected by the site. Provided that the impact areas are remediated post-construction, the direct impacts of the site would be negligible. There would be views onto the site from the heritage item. This would result in a temporary moderate visual impact on the item. C10 would also be located in the vicinity of the item across the rail corridor to the south. Views would be partly obstructed by existing development within the station catchment. This would result in a temporary minor visual impact on the item Impacts of construction compounds on the item would be minor.
Federation House (former station master's cottage)	Local	C12 and C13 would be located in the vicinity of the heritage item opposite Burwood Road and across the rail corridor. There would be some views onto the sites from the item. This would result in a temporary minor visual impact on the item. Impacts of construction compounds on the item would be minor.

8.3.7 Lakemba Station Catchment

Description

The entire rail corridor within Lakemba Station Catchment would be used as a worksite. Outside the rail corridor, construction compounds 15 and 16 (C15 and C16) would be located partially within the curtilage of Lakemba Station. C15 would be located along the rail corridor in the northern portion of the item and extend into the northern curtilage, and C16 would make a minor encroachment along the southern boundary of the heritage curtilage of the station. Construction compound 14 (C14) would be located along the rail corridor on the other side of Haledon Street overbridge.

The proposed construction sites map relevant to the station catchment is provided in Figure 299.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 115: Construction compounds assessment for Lakemba Station Catchment

Item	Significance	Construction compounds impacts
Lakemba Railway Station Group	Local	C15 and C16 would be located partially within the curtilage of Lakemba Railway Station. C15 would be located along the rail corridor in the northern portion of the item and would extend into the northern section of the curtilage, C16 would make a minor encroachment along the southern boundary of the heritage curtilage of the station. The sites would be located on grass areas and would not impact any significant fabric of the heritage item. Provided that the impact areas are remediated post-construction, the direct impacts of the sites would remain negligible. There would be views onto the site from the heritage item. This would result in a temporary moderate visual impact on the item. C14 would be located on the other side of the Haledon Street overbridge to the east. There would be limited views onto the sites from the heritage item. This would result in a temporary minor visual impact on the item. Impacts of construction compounds on the item would be minor.
Federation weatherboard house	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.
Inter-War post office building - Lakemba Post Office	Local	C16 would be located in the vicinity of the heritage item opposite The Boulevarde. There would be some views onto the sites from the item. This would result in a temporary minor visual impact on the item. Impacts of construction compounds on the item would be minor.
Electricity Substation no. 143	Local	C14 would be located opposite the heritage item opposite the rail corridor. There would be views onto the sites from the item. This would result in a temporary minor visual impact on the item. Impacts of construction compounds on the item would be minor.

8.3.8 Wiley Park Station Catchment

Description

The entire rail corridor within Wiley Park Station Catchment would be used as a worksite. Outside the rail corridor, construction compounds 17 and 18 (C17 and C18) would be located within the curtilage of Wiley Park Railway Station along the rail corridor on grassed areas.

The proposed construction sites map relevant to the station catchment is provided in Figure 300.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 116: Construction compounds assessment for Wiley Park Station Catchment

Item	Significance	Construction compounds impacts
Wiley Park Railway Station Group	Local	C17 and C18 would be located within the curtilage of Wiley Park Railway Station along the rail corridor. The sites would be located on grassed areas and would not impact any existing significant fabric of the heritage item. Provided that the impact areas are remediated post-construction, the direct impacts of the sites would remain negligible. There would be views onto the sites from the heritage item. This would result in a temporary moderate visual impact on the item. Impacts of construction compounds on the item would be minor
Inter-War water pumping station– Lakemba Pumping Station (WP0003)	Local	C17 would be located opposite the heritage item across The Boulevarde on the southern side of the rail corridor. There would be views onto the cpmpound from the item. This would result in a temporary minor visual impact on the item.

8.3.9 Punchbowl Station Catchment

Description

The entire rail corridor within Punchbowl Station Catchment would be used as a worksite. Outside the rail corridor, construction compounds 20 and 21 (C20 and C21) would be partially located within the curtilage of Punchbowl Station along the rail corridor on grass and car parking areas. Construction compound 22 (C22) would be located along the rail corridor on the western side of the Punchbowl Road overbridge.

The proposed construction sites map relevant to the station catchment is provided in Figure 301.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 117: Construction compounds assessment for Punchbowl Station Catchment

Item	Significance	Construction compounds impacts
Punchbowl Railway Station Group	Local	C20 and C21 would be located within the curtilage of Punchbowl Railway Station along the rail corridor. The sites would be located on grass and car parking areas and would not impact any existing significant fabric of the heritage item. Provided that impact areas are remediated post-construction, the direct impacts of the site would remain negligible. There would be views onto the sites from the heritage item. This would result in a temporary moderate visual impact on the item. C22 would also be located along the rail corridor on the other side of the Punchbowl Road overbridge. There would be limited views onto the site from the heritage item. This would result in a temporary minor visual impact on the item. Impacts of the construction compounds on the item would be minor.
War Memorial and street trees	Local	C19 and C20 would be located opposite the heritage item across The Boulevarde on the northern side of the rail corridor. There would be some views onto the sites from the edge of the heritage curtilage of the item to the north. However, the War Memorial and street trees would be located outside the visual catchment of the site. This would result in a temporary negligible visual impact on the item.

Item	Significance	Construction compounds impacts
		The impacts of C20 and C19 on the item would be negligible.
Post-war Civic Building (former Punchbowl Baby Health Centre)	Local	There are no construction compounds in the vicinity of this item therefore no impacts are expected.

8.3.10 Bankstown Station Catchment

Description

The entire rail corridor within Bankstown Station Catchment would be used as a worksite. Construction compounds 23 and 24 (C23 and C24) would be located in close vicinity of Bankstown Station along the rail corridor on grass and car parking areas, with C24 making a minor encroachment on the heritage curtilage of the station to the south-east.

The proposed construction sites map relevant to the station catchment is provided in Figure 302.

Impact assessment

The following table provides an impact assessment in relation to construction compounds for each heritage item located within the station catchment.

Table 118: Construction compounds assessment for Bankstown Station Catchment

Item	Significance	Construction compounds impacts
Bankstown Railway Station Group	Local	C23 and C24 would be located in close proximity of Bankstown Railway Station along both sides of the rail corridor. C24 would make a minor encroachment on the heritage curtilage in the south-east corner. The sites would be located on grass and car park areas and would not impact any significant fabric of the heritage item. Provided that the impact areas are remediated post-construction, the direct impacts of the site would remain negligible. There would be views onto the sites from the heritage item. This would result in a temporary moderate visual impact on the item. Impacts of construction compounds on the item would be minor.
Bankstown Parcels Office (former)	Local	C23 would also be located opposite the heritage item across the rail corridor to the north. There would be some views onto the site from the item. This would result in a temporary minor visual impact on the item. C24 would be located in close proximity of the heritage item to the east along the rail corridor. There would be views onto the site from the heritage item. This would result in a temporary moderate visual impact on the item. Impacts of construction compounds on the item would be minor.
Shop	Local	C23 and C24 would be located opposite the heritage item across Bankstown City Plaza and North Terrace, being located opposite the rail corridor. There would be some views onto the sites from the heritage item. This would result in a temporary minor visual impact on the item. Impacts of construction sites on the item would be minor.

8.4 Mitigation and management measures

Site remediation

Site remediation measures related to construction sites would be incorporated within the Urban Design and Landscape Plan for the project. The objective of the scheme would be to minimize long-term impacts on the visual amenity of the items by recreating a sympathetic environment. In particular, a landscape scheme would be prepared for the Old Sugarmill to re-instate planting within the curtilage and in proximity of the curtilage of the item. The scheme would consider appropriate period plants and trees. Any boundary wall treatment would be designed in consultation with a heritage architect.

Construction Environmental Management Plan (CEMP)

Methodologies would be developed to minimise unforeseen impacts as a result of works in proximity of heritage items. A Construction Environmental Management Plan (CEMP) would provide specific management measures for heritage items in proximity of construction sites and for compound areas which extend outside the rail corridor.

9. CUMULATIVE IMPACT ASSESSMENT

9.1 The Bankstown Line

9.1.1 Overview of Impacts

A summary table of direct, visual, potential direct and archaeological impacts is provided below for each railway heritage item located on the Bankstown Line within the project area. An assessment is provided of whether the overall significance level of the heritage item is retained following the impacts (would it still meet the threshold for local or State significance). All items are listed on the RailCorp S.170 Heritage and Conservation Register. There are no RailCorp S.170 items listed within the buffer zone of the project area.

Table 119: Summary of Heritage Impacts for the Bankstown Line

Item	Significance level	Direct	Visual	Potential direct	Construction sites	Significance level retained?
Marrickville Railway Station Group	State	**Major**	**Moderate**	Minor	Minor	Yes
Dulwich Hill Railway Station Group	Local	**Major**	**Major**	Minor	Minor	Yes
Hurlstone Park Railway Station Group	Local	**Major**	**Major**	Minor	Minor	Yes
Hurlstone Park Railway Underbridge	Local	Negligible	Negligible	Negligible	Neutral	Yes
Canterbury Railway Station Group	State	**Moderate**	**Moderate**	Minor	Minor	Yes
Canterbury (Cooks River) underbridge	Local	**Moderate**	Minor	Negligible	Neutral	Yes
Canterbury (Cooks River/Charles St) Underbridge - Main Line	Local	**Moderate**	Minor	Negligible	Neutral	Yes
Campsie Railway Station Group	Local	**Moderate**	**Moderate**	Minor	Minor	Yes
Belmore Railway Station Group	State	**Moderate**	**Moderate**	Minor	Minor	Yes
Lakemba Railway Station Group	Local	**Moderate**	**Moderate**	Minor	Minor	Yes
Wiley Park Railway Station Group	Local	**Major**	**Major**	Minor	Minor	**No**
Punchbowl Railway Station Group	Local	**Major**	**Major**	Minor	Minor	**No**
Bankstown Railway Station Group	Local	**Moderate**	**Moderate**	Negligible	Minor	Yes
Bankstown Parcels Office (former)	Local	Neutral	Neutral	Minor	Minor	Yes

9.1.2 Statement of Heritage Impact

Impact summary

The Bankstown Line was constructed in three stages between 1880 and 1939. The Sydenham to Belmore section was first constructed between 1880 and 1895. The second phase of development of the line was between 1896 and 1909, where the rail corridor cut through undeveloped country estate and farm land to Bankstown. The early twentieth century saw the addition of platform buildings, overhead booking offices, footbridges and overbridges at existing railway stations. The line was electrified in 1926, marking a significant change in the railway network system. The third phase of development of the line occurred between 1928 and 1939 when it reached Regents Park via Yagoona and Birrong. Wiley Park opened in 1938 as an infill station on the Sydenham to Bankstown section and Dulwich Hill Station was redeveloped in 1935, both stations representing examples of Inter-War railway architecture. The development of the line can be recognised across the line as a whole, with phases of building, platform and station types. It can also be appreciated within a single station, such as at Dulwich Hill which has retained layers of development.

Each railway station within the project area is listed as a heritage item at a State or local level as well as being listed under the RailCorp Section 170 Heritage & Conservation Register. Marrickville, Canterbury, and Belmore railway stations are listed on the State Heritage Register. Other heritage items listed under the RailCorp s170 register within the project area include underbridges at Hurlstone Park and Canterbury and the parcels office at Bankstown. All railway stations include several elements of significance including wayside or island platforms, platform buildings, overhead booking offices, footbridges and overbridges. A few stations include a parcels office, evidencing the role of rail in transportation. A signal box is located at Canterbury station.

Among the ten heritage railway stations located on the Marrickville to Bankstown section of the Bankstown Line, the project would result in major direct impacts to five stations, one of which is listed on the SHR, Marrickville. There would be moderate direct impacts to five stations, two of which are listed on the SHR: Canterbury and Belmore. Four stations would be subject to major visual impacts. Five stations would be subject to a moderate visual impact, three of which are listed on the SHR: Marrickville, Canterbury and Belmore. Two locally-listed stations, Wiley Park and Punchbowl, would no longer meet the threshold for local significance and would likely be delisted. All SHR stations would continue to meet the threshold for State significance under more than one significance assessment criteria.

Overall, all ten stations would be subject to moderate to major direct and visual impacts. Direct and visual impacts to three railway underbridges would be negligible to moderate. There would be major direct impacts to the Illawarra Road overbridge at Marrickville, which is within the station's SHR curtilage. As there would be impacts to significant elements at all listed stations along the line, conservation management plans (CMPs) for SHR listed stations and Conservation Management Strategies (CMS) for s170 items of local significance would be prepared by the Metro Operator. These documents would address any changes to the item including updated assessment of significance of elements and recommendations on curtilage changes, for example a possible reduction in curtilage at Marrickville Station as a result of impacts to the Illawarra overbridge. The CMP would also provide suggested site specific exemptions or management policies.

Station types

The ten railway stations within the project area could be divided into three main station types: the first layer of development of the Bankstown Line: Marrickville, Dulwich Hill (although fully redeveloped), Hurlstone Park, Campsie, Canterbury and Belmore; the second layer of development of the line: Lakemba, Punchbowl and Bankstown; and the inter-war development phase with the infill station at Wiley Park and the fully redeveloped Dulwich Hill station.

Stations constituting the first layer of development of the line would generally be retained, Dulwich Hill being excluded from this group as it was fully redeveloped in 1935. All platform buildings and general station configurations would be conserved at Marrickville, Hurlstone Park, Campsie, Canterbury and Belmore, but for the Platform 1 building at Hurlstone Park which would be removed.

Stations constituting the second layer of development of the line would mostly be conserved in their existing states. Lakemba and Bankstown's island platform configurations and platform buildings would be retained. Punchbowl Station would be subject to greater impacts as it would be fully redeveloped.

The inter-war layer of the Bankstown Line would be impacted with Wiley Park Station being fully redeveloped, constituting the loss of the only example of Inter-War Railway Domestic station on the line. The inter-war phase of redevelopment of Dulwich Hill station would also be altered with the loss of the overhead booking office and major visual impacts on the station building, although the latter, and the island platform configuration would be conserved.

The most significant stations on the line at Marrickville, Canterbury and Belmore dated from the first phase of development would retain their significant near-identical brick buildings of exceptional significance. The intermediate stations of the first phase of development have more modest brick buildings dated 1915 including Campsie and Hurlstone Park station. Campsie would retain its original configuration and buildings whilst Hurlstone Park would be subject to greater impacts with the more prominent of two platform buildings being removed. The configuration of two stations at Punchbowl and Wiley Park would be fully modified from island platforms to wayside platforms. The configuration of Bankstown Station would be retained and the station extended to the east.

Station elements

The Bankstown Line would conserve examples of each significant platform building type found on the Marrickville to Bankstown portion of the line. Examples of 1895 Type 11 buildings of exceptional significance would be conserved at Marrickville, Canterbury and Belmore stations. Several examples of 1911-1919 Type 11 buildings would be conserved at Marrickville, Hurlstone Park, Canterbury, Campsie, Lakemba and Bankstown to evidence the second historical layer of the line. Evidence of the transitional style of Inter-War railway architecture would be retained at Dulwich Hill, although the Inter-War domestic style buildings at Wiley Park would be lost.

A good example of an overhead booking office would be conserved at Belmore, whilst good to fair examples included in a TfNSW study of overhead booking offices would be removed at Dulwich Hill, Wiley Park and Punchbowl stations[152]. The platform booking office would be retained at Marrickville. A significant portion of original footbridges already impacted would be removed to meet the requirements of the new Metro concourses. A footbridge assessed to be of high significance within the NSW railway collection in a Sydney Trains' footbridge conservation strategy would be removed at Dulwich Hill, as would three footbridges of moderate significance at Hurlstone Park, Canterbury, and Wiley Park. [153]

Original platforms along the line would be removed to meet accessibility and operational requirements for straight platforms, except for the platforms at Bankstown Station which would be mostly retained. This would result in a substantial loss of curved wayside and island platforms, and of brick vertical and battered platform walls along the Bankstown Line. General platform configuration would be

[152] Australian Museum Consulting 2014. Railway Overhead Booking Offices Heritage Conservation Strategy. Prepared for Transport for NSW.
[153] NSW Government Architect's Office Heritage Group 2016. Railway Footbridges Heritage Conservation Strategy. Prepared for Sydney Trains.

retained apart from at Punchbowl and Wiley Park where original island platform configuration would be changed to two wayside platforms.

Overbridges on the line have generally been impacted over time. The majority of the overbridges would be conserved for upgrade and continued use, with the exception of the Illawarra Road overbridge at Marrickville which would be removed and replaced.

Archaeological impacts

Overall the study area has a nil-low potential to contain significant archaeological remains. There was limited development across the study area prior to development of the rail line. Construction of the railway stations and rail line in the late nineteenth and early twentieth century would have required a considerable amount of ground disturbance and excavation.

There are four locations that have the potential to contain significant archaeological remains, the Marrickville Station Catchment, the Canterbury Station Catchment and worksite, the Lakemba Station Catchment and Belmore Station Catchment. Other locations across the line may contain archaeological 'works' such as remains of culverts, former platforms (within existing remodelled platforms), and infrastructure such as drains.

Marrickville Station Catchment
There is a moderate-high potential for potentially local significant archaeological remains associated with the railway station to be impacted by the proposed works. These remains are generally works and former railway infrastructure as identified in the Marrickville Station draft CMP (Scobie 2016).

Canterbury Station Catchment and construction site
Although the location of the Old Sugarmill and former associated structures is to the east of the station, there is a moderate – high potential that remains associated with this period of occupation may also extend into the station catchment and worksite to the south of the rail line adjacent to the Old Sugarmill SHR item. These remains would have local or State significance depending on their nature and intactness.

The former Canterbury Township is located to the east of Canterbury Station. Any subsurface works within the rail corridor and worksite have a moderate – high potential to impact any associated intact archaeological remains. These remains would have local significance.

Lakemba Station Catchment
There is a low potential for locally significant archaeology associated with the early settlement of Lakemba including structures associated with the Taylor House (Lakemba) such as outbuildings and stables and archaeological features associated with farming activities, domestic and agricultural structures, refuse pits and drains or culverts. Works within the station catchment have the potential to impact any associated intact archaeological remains.

Belmore Station Catchment
There is a low-moderate potential for locally significant archaeological remains associated with the railway station goods shed and goods platform to be impacted by the proposed works.

Construction compounds impact

The construction compounds impact assessment considered impacts of temporary construction compounds on the heritage items located within the project area. Overall, impacts of construction sites would be minor and temporary. Provided that mitigation measures are implemented to remediate the sites following the completion of the project, overall impacts from the construction of the project on the current Bankstown Line would be negligible.

Conclusion

The contrasting contemporary design of the Metro stations would generally be distinguishable from the heritage character of the historic stations and provide enhanced views of significant platform buildings. The new Metro line would be read as the latest phase of development of the Bankstown Line and would enable the line to function in its original use within a modern railway infrastructure context. The continued use of the stations in their historic function, the retention of a majority of platform buildings for re-use and enhanced views of significant buildings would constitute positive heritage impacts in the context of the project and its requirements.

9.2 The Study Area

9.2.1 Overview of impacts

A summary table of direct, visual, potential direct and archaeological impacts is provided below for each heritage item located within the study project area. An assessment is provided of whether the overall significance level of the heritage item is retained following the impacts.

Table 120: Summary of Built Heritage Impacts for the Study Area

Station	Item	Significance	Direct	Visual	Potential direct	Construction sites	Significance level retained?
Marrickville	Marrickville Railway Station Group	State	**Major**	**Moderate**	Minor	Minor	Yes
	Sewage Pumping Station 271	State	Neutral	Negligible	Minor	Neutral	Yes
	Stone house, including interiors	Local	Neutral	Negligible	Minor	Neutral	Yes
	Stonewalling, terracing and street planting	Local	Neutral	Negligible	Negligible	Neutral	Yes
Dulwich Hill	Dulwich Hill Railway Station Group	Local	**Major**	**Major**	Minor	Minor	Yes
	South Dulwich Hill Heritage Conservation Area	Local	Negligible	Negligible	Minor	Neutral	Yes
	Inter-War Heritage Conservation Area Group	Local	Neutral	Negligible	Minor	Neutral	Yes
	Gladstone Hall, including interiors	Local	Neutral	Neutral	Minor	Neutral	Yes
Hurlstone Park	Hurlstone Park Railway Station Group	Local	**Major**	**Major**	Minor	Minor	Yes

Station	Item	Significance	Direct	Visual	Potential direct	Construction sites	Significance level retained?
	Hurlstone Park Railway Underbridge	Local	Negligible	Negligible	Negligible	Neutral	Yes
Canterbury	Canterbury Railway Station Group	State	**Moderate**	**Moderate**	Minor	Minor	Yes
	Canterbury (Cooks River) underbridge	Local	**Moderate**	Minor	Negligible	Neutral	Yes
	Canterbury (Cooks River/Charles St) Underbridge - Main Line	Local	**Moderate**	Minor	Negligible	Neutral	Yes
	Old Sugarmill	State	Neutral	Negligible	Minor	Minor	Yes
	Inter-War Hotel (former Hotel Canterbury)	Local	Neutral	Neutral	Negligible	Neutral	Yes
	Federation Post Office Building (former Canterbury Post Office)	Local	Neutral	Neutral	Minor	Neutral	Yes
	Electricity substation no. 275	Local	Neutral	Negligible	Negligible	Neutral	Yes
Campsie	Campsie Railway Station Group	Local	**Moderate**	**Moderate**	Minor	Minor	Yes
	Federation commercial building–Coffill's Buildings	Local	Neutral	Negligible	Negligible	Neutral	Yes
	Inter-War Commercial Building–Station House	Local	Neutral	Negligible	Minor	Neutral	Yes
	Inter-War Court House (former) Campsie Court House	Local	Neutral	Neutral	Negligible	Neutral	Yes
	War Memorial Clock Tower	Local	Neutral	Neutral	Negligible	Neutral	Yes
	Federation house	Local	Neutral	Negligible	Negligible	Neutral	Yes
	Federation villa	Local	Neutral	Negligible	Negligible	Neutral	Yes

Station	Item	Significance	Direct	Visual	Potential direct	Construction sites	Significance level retained?
Belmore	Belmore Railway Station Group	State	**Moderate**	**Moderate**	Minor	Minor	Yes
	Post-war bus shelter and public lavatories	Local	Neutral	Minor	Negligible	Minor	Yes
	Federation House (former station master's cottage)	Local	Neutral	Negligible	Minor	Minor	Yes
Lakemba	Lakemba Railway Station Group	Local	**Moderate**	**Moderate**	Minor	Minor	Yes
	Federation weatherboard house	Local	Neutral	Neutral	Negligible	Neutral	Yes
	Inter-War post office building - Lakemba Post Office	Local	Neutral	Negligible	Negligible	Minor	Yes
	Electricity Substation no. 143	Local	Neutral	Neutral	Negligible	Minor	Yes
Wiley Park	Wiley Park Railway Station Group	Local	**Major**	**Major**	Minor	Minor	**No**
	Inter-War water pumping station– Lakemba Pumping Station (WP0003)	Local	Neutral	Negligible	Negligible	Minor	Yes
Punchbowl	Punchbowl Railway Station Group	Local	**Major**	**Major**	Minor	Minor	**No**
	War Memorial and street trees	Local	Neutral	Negligible	Negligible	Negligible	Yes
	Post-war Civic Building (former Punchbowl Baby Health Centre)	Local	Neutral	Negligible	Negligible	Neutral	Yes
Bankstown	Bankstown Railway Station Group	Local	**Moderate**	**Moderate**	Negligible	Minor	Yes
	Bankstown Parcels Office (former)	Local	Neutral	Neutral	Minor	Minor	Yes
	Shop	Local	Neutral	Negligible	Negligible	Minor	Yes

9.2.2 Statement of Heritage Impact

Impact summary

Five SHR items, thirty-two items of local significance and two heritage conservation areas are located within the study area. The project area includes three SHR items, thirteen local heritage items and one heritage conservation area. The buffer zone includes two SHR items, nineteen local heritage items and one heritage conservation area.

Assessment of heritage items within the project area considered direct, visual, and potential direct (vibration) impacts. An archaeological assessment and assessment of impact was provided for the entire project area. Assessment for heritage items in the buffer zone considered visual, and potential direct (vibration) impacts. All construction sites are included in the project area.

Among the five SHR items in the study area, it was assessed that the project would result in a major direct impact to one item (Marrickville Railway Station Group), moderate direct impacts to two items (Canterbury Railway Station Group and Belmore Railway Station Group), and neutral direct impacts to two items (Sewage Pumping Station 271 and Old Sugarmill). The project would result in moderate visual impacts to three SHR items (Marrickville Railway Station Group, Canterbury Railway Station Group and Belmore Railway Station Group), and negligible visual impacts to two items (Sewage Pumping Station 271 and Old Sugarmill). All SHR items would continue to meet the threshold for State significance.

Among the thirty-two local items and two heritage conservation areas in the study area, four would have major direct impacts and four major visual impacts. Among the four items of local significance to have major impacts, two would no longer meet the threshold for local significance and would likely be delisted. Among the heritage items and conservation areas located within the buffer zone, impacts would range from neutral to minor with a majority of impacts being neutral or negligible, and temporary as a result of operation of construction sites.

Residual impacts

Heritage impacts caused by the project would be mitigated by implementing management measures such as photographic archival recording, salvage schemes, interpretation and moveable heritage items strategies, archaeological management, Construction Environmental Management Plan (CEMP) and site remediation, as well as sensitive design and re-use/relocation or refurbishment of significant elements where possible. However, impacts assessed as major would not be fully mitigated and there would be some residual impacts.

Residual impacts would include items proposed for removal where the function and condition of the item would not easily enable re-use or interpretation in any meaningful way. More generally, the historic character of the line, a late nineteenth-century to early twentieth century railway line with layers of inter-war development, would be altered by the contemporary Metro infrastructure.

10. MITIGATION AND MANAGEMENT MEASURES

Mitigation measures identified in other technical papers and other chapters of the Environmental Impact Statement that are relevant to the management of potential heritage impacts include:

- Chapter 12 (Construction noise and vibration) and Chapter 13 (Operational noise and vibration) with respect to management of potential vibration impacts (Technical Paper 2 – Noise and vibration assessment)
- Chapter 19 (Landscape character and visual amenity) with respect to management of potential visual impacts during construction and operation (Technical Paper 7 – Landscape and visual assessment).

Mitigation and management measures are provided below and relevant heritage items concerned summarized for easy reference. These would be implemented to address heritage impacts on non-Aboriginal heritage sites and areas of archaeological potential within the study area.

Table 121: Mitigation and management measures

Measure	Guidelines	Would apply to
NAH1	Appropriate heritage interpretation would be incorporated into the design for the project in accordance with the NSW Heritage Manual, the NSW Heritage Office's Interpreting Heritage Places and Items: Guidelines (August 2005), and the NSW Heritage Council's Heritage Interpretation Policy.	• Each railway station in the project area • Hurlstone Park Railway Underbridge • Overbridge- Illawarra Road, • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge - Main Line • Post-war bus shelter and public lavatories • Bankstown Parcels Office (former)
NAH2	The appropriately qualified and experienced heritage architect who is part of the Sydney Metro City & Southwest Design Review Panel would provide independent review periodically throughout detailed design.	• Project area in relation to all heritage items
NAH3	The project design would be sympathetic to impacted items (including retained significant elements) and surrounding heritage items by minimising impacts to sight lines, views and setting. Detailed design would be carried out in accordance with the relevant specific element principles, including the significant fabric strategy, in the Design Guidelines.	• Project area in relation to all heritage items
NAH4	Except for heritage significant elements affected by the project, direct impact on other heritage significant items elements would be avoided.	• Project area in relation to all heritage items
NAH5	Where heritage significant items or elements are to be retained within the operational area, detailed design would consider appropriate retrofitting and reuse. As part of the design, retrofitting and reuse would be developed in consultation with a heritage architect and the Design Review Panel. Where retrofitting and reuse is not practicable for significant elements, justification would be	• Project area in relation to all heritage items

Measure	Guidelines	Would apply to
	provided to the Design Review Panel and for SHR items, to the NSW Heritage Council.	
NAH6	A moveable heritage item strategy would be prepared for the Bankstown Line. The strategy would be prepared by a suitably qualified heritage consultant in consultation with Sydney Trains, and include a comprehensive record of significant railway elements to be impacted. This would include items contained within station and platform buildings as well as of any other significant equipment within the curtilage of the heritage railway stations. The moveable heritage item strategy would form part of a broader interpretation strategy for the Bankstown Line.	• Bankstown Line: each railway station in the project area apart from Bankstown, and Bankstown Parcels Office (former)
NAH7	Fabric of high and exceptional significance of items proposed for removal would be identified and catalogued according to the significant fabric strategy prior to design development and would be re-used where possible in the design development phase. Where not re-used within the design of the project, the significant fabric strategy would indicate appropriate storage locations as well as appropriate types of buildings and structures where the salvaged elements may be reused in the future. Where large elements are impacted a sample of fabric may be appropriate.	• Marrickville Railway Station Group: Overbridge- Illawarra Road, • Dulwich Hill Railway Station Group: overhead booking office and access stairs • Hurlstone Park Railway Station Group: Platform 1 building • Campsie Railway Station Group: overhead booking office and Parcels office • Wiley Park Railway Station Group: Platform 1 building, Platform 2 building and overhead booking office • Punchbowl Railway Station Group: overhead booking office and footbridge
NAH8	Methodologies for the removal of existing structures and construction of new structures and installation of railway infrastructure would be developed to minimise direct and visual impacts to other elements within the curtilages of the heritage items or to heritage items located in the vicinity of works. These methodologies would be included within the overall Construction Environmental Management Plan (CEMP).	• Project area in relation to all heritage items
NAH9	Site remediation measures related to construction sites would be incorporated within the Urban Design and Landscape Plan. The objective of the remediation would be to minimize long-term impacts on the visual amenity of the items by recreating a sympathetic environment. In particular, a landscape scheme would be prepared for the Old Sugarmill to re-instate planting within the curtilage and in proximity of the curtilage of the item. The scheme would consider appropriate period plants and trees. Any boundary wall treatment would be designed in consultation with a heritage architect.	• Project area in relation to all heritage items • Old Sugarmill

Measure	Guidelines	Would apply to
NAH10	An archaeological research design would be prepared and implemented to identify the need for archaeological testing or monitoring. Archaeological mitigation measures recommended in the archaeological research design would be carried out in accordance with Heritage Council guidelines, and where identified in the archaeological research design, would be supervised by a suitably qualified Excavation Director with experience in managing State significant archaeology. An Unexpected Finds Policy would be implemented during the project to manage and mitigate potential impacts to the potential archaeological resource.	• Bankstown Line (Management framework for unexpected finds and management of 'works') • Marrickville Station Catchment (specific requirements) • Canterbury Station Catchment and worksite (specific requirements) • Belmore Station Catchment (specific requirements) • Lakemba Station Catchment (specific requirements)
NAH11	Ancillary works required by the project related to power supply, drainage facilities, railway tracks, overhead wiring and any other works would be designed and constructed to minimise impacts on heritage items and areas of archeological potential as much as feasible within the context of the project.	• Project area
NAH12	Photographic Archival Recording and reporting would be carried out in accordance with the NSW Heritage Office's How to Prepare Archival Records of Heritage Items (1998), and Photographic Recording of Heritage Items Using Film or Digital Capture (2006). The record would be prepared by a suitably qualified heritage consultant using archival-quality material. Records for SHR listed items would be held at the NSW Heritage Council and State Library. Records for LEP-listed items would be held by the local Council and local library. A copy of the record would be held by the owner of the asset.	• Each railway station in the project area • Overbridge- Illawarra Road, • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge - Main Line • Post-war bus shelter and public lavatories • Bankstown Parcels Office (former)
NAH13	Design and construction within the Marrickville Station State Heritage register curtilage would consider the recommendations of the 2016 Conservation Management Plan and the significant fabric strategy.	• Marrickville Railway Station Group
NAH14	A Conservation Management Plan (CMP) would be prepared by the Metro Operator for all SHR listed stations in accordance with NSW Heritage Council Guidelines. The CMP would address any changes to the item including updated assessment of significance of elements and recommendations on curtilage changes. The CMP would also provide suggested site specific exemptions and management policies.	• Marrickville Railway Station Group • Canterbury Railway Station Group • Belmore Railway Station Group
NAH15	A Conservation Management Strategy (CMS) would be prepared by the Metro Operator for all s170 register listed stations not listed on the SHR in accordance with NSW Heritage Council Guidelines. A CMS would not be required for Wiley Park and Punchbowl stations which would no longer reach the threshold of local significance. The CMS would address any changes to the item including updated assessment of significance of	• Dulwich Hill Railway Station Group • Hurlstone Park Railway Station Group • Campsie Railway Station Group

Measure	Guidelines	Would apply to
	elements and recommendations on curtilage changes. The CMP would also provide management policies.	• Lakemba Railway Station Group • Bankstown Railway Station Group

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SYDENHAM TO BANKSTOWN

ENVIRONMENTAL IMPACT STATEMENT

> Technical Paper 3 – Non-Aboriginal heritage impact assessment