

Appendix C

VISUAL IMPACT ASSESSMENT



Clouston Associates



NEW INTERCITY FLEET EVELEIGH FACILITY PROJECT
VISUAL IMPACT ASSESSMENT

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Cover: Historic train carriage at the Australian Technology Park
This Page: The Carriageworks, Eveleigh

NEW INTERCITY FLEET EVELEIGH FACILITY PROJECT

VISUAL IMPACT ASSESSMENT

Prepared by

CLOUSTON Associates

Landscape Architects • Urban Designers • Landscape Planners
65-69 Kent Street • Sydney NSW 2000
PO Box R1388 • Royal Exchange NSW 1225 • Australia
Telephone +61 2 8272 4999 • Facsimile +61 2 8272 4998
Contact: Leonard Lynch
Email • sydney@clouston.com.au
Web • www.clouston.com.au

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The Carriageworks, Eveleigh



1.0 INTRODUCTION



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On 8th May 2014 it was announced by the NSW Premier and the Minister for Transport that Transport for New South Wales (TfNSW) is procuring a New Intercity Fleet (NIF) to serve the Central Coast and Newcastle, the Blue Mountains and the South Coast.

The NIF responds to a number of developing issues associated with the existing Sydney Trains and NSW TrainLink fleets, including increasing maintenance costs for ageing trains, anticipated increases in demand due to urban growth and lower levels of amenity associated with ageing trains.

The primary need for the proposal is a direct result of the procurement of the NIF trains themselves and the requirement to commission, maintain and stable these trains. The procurement of these trains is seen as an important step towards continuing to improve train facilities and services within NSW.

Modifications to the Eveleigh Rail Precinct would provide the required commissioning and maintenance facilities to introduce the fleet on schedule. The NIF Maintenance Facility at Kangy Angy is not projected to be completed prior to the arrival of the first NIF trains. As a result, testing, commissioning and early maintenance will need to be carried out at another location.

1.1 PURPOSE OF REPORT

CLOUSTON Associates has been commissioned by WSP | PB on behalf of TfNSW to prepare a Visual Impact Assessment (VIA) for the proposed upgrades to the Eveleigh Rail Precinct (hereafter, referred to as 'the Project').

Approval for the Project is being sought under Part 5 of the EP&A Act for which a Review of Environmental Factors (REF) is being prepared. The purpose of the VIA is to support the REF for the Project and is one of a number of technical reports for the Project.

1.2 STUDY CONTEXT

VIA aims to ensure effects of change and development in the landscape, views and visual amenity are taken into account. It is concerned with how the surroundings of individuals or groups of people may be specifically affected by change in the landscape, both quantitatively and qualitatively.

Judgement as to the significance of the effects is arrived at by a process of reasoning, based upon analysis of the baseline conditions, identification of receptors and assessment of their sensitivity, as well as the magnitude and nature of the changes that may result from any development.

This assessment is an independent report and is based on a professional analysis of the landscape and the Project at the time of writing. The current and potential future viewers (visual receptors) have not been consulted about their perceptions. The analysis and conclusions are therefore based solely on a professional assessment of the anticipated impacts, based on a best practice methodology.

VIA is by its nature not an exact science and consequently is subject to varied methodologies both in Australia and overseas. Potentially subjective assessment material and differences of opinion about how to best assess visual characteristics, qualities, degrees of alteration and viewer sensitivity often arise. As a consequence, and as identified by the NSW Land and Environment Court, the key to a robust process is to explain clearly the criteria upon which an assessment is made.

This assessment has been undertaken in accordance with the structure outlined in the Roads and Maritime Services (RMS) Environmental Impact Assessment Guidance Note EIA-N04 - *Guidelines for landscape character and visual impact assessment*. This methodology is considered the most relevant to the Project and is consistent with international best practice.

Further details on the methodology employed can be found within the relevant chapters.



Historic train carriage at the Australian Technology Park

1.3 LEGISLATIVE POLICY AND CONTEXT

The key legislative and planning instruments that have a bearing on the visual and amenity assessment and implications for the proposed development include;

- A. Environmental Planning and Assessment Act, 1979 (NSW)
- B. Sydney Local Environment Plan (City of Sydney LEP) 2012
- C. NSW State Heritage Register and Heritage Act 1977
- D. The Land and Environment Court's Planning Principles (for assessing views)

A. Environmental Planning and Assessment Act, 1979 (NSW)

The Environmental Planning and Assessment Act 1979 was passed in the Australian state of New South Wales. It is an 'Act to institute a system of environmental planning and assessment for the State of New South Wales'.

The act incorporates state and local levels of significance, requiring the relevant planning authority to take into consideration the impacts to the environment (both natural and built) and the community of proposed development or land-use change.

B. Sydney Local Environment Plan (City of Sydney LEP) 2012

This Environmental Planning Instrument contains provisions for guiding development and guiding planning decisions made by Council to facilitate new development that is compatible and appropriate with the preferred role and character of an area.

As shown in Figure 1A, the majority of the wider area surrounding the Project site is zoned as R1 - General Residential, B4 - Mixed Use and RE1 - Public Recreation.

The immediate Project site and surrounds are zoned 'Special Purpose Zone - Infrastructure', located within the State Significant Precincts SEPP (State Environmental Planning Policies). SEPPs deal with matters of State or regional environmental planning significance. They are made by the Governor on the recommendation of the Minister for Planning and may be exhibited in draft form for public comment before being published as a legal document.

The aims of the SEPP is to:

- facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State,
- to facilitate service delivery outcomes for a range of public services and to provide for the development of major sites for a public purpose or redevelopment of major sites no longer appropriate or suitable for public purposes.

The Project site is part of the Redfern to Waterloo Authority Site - refer Figure 1B.

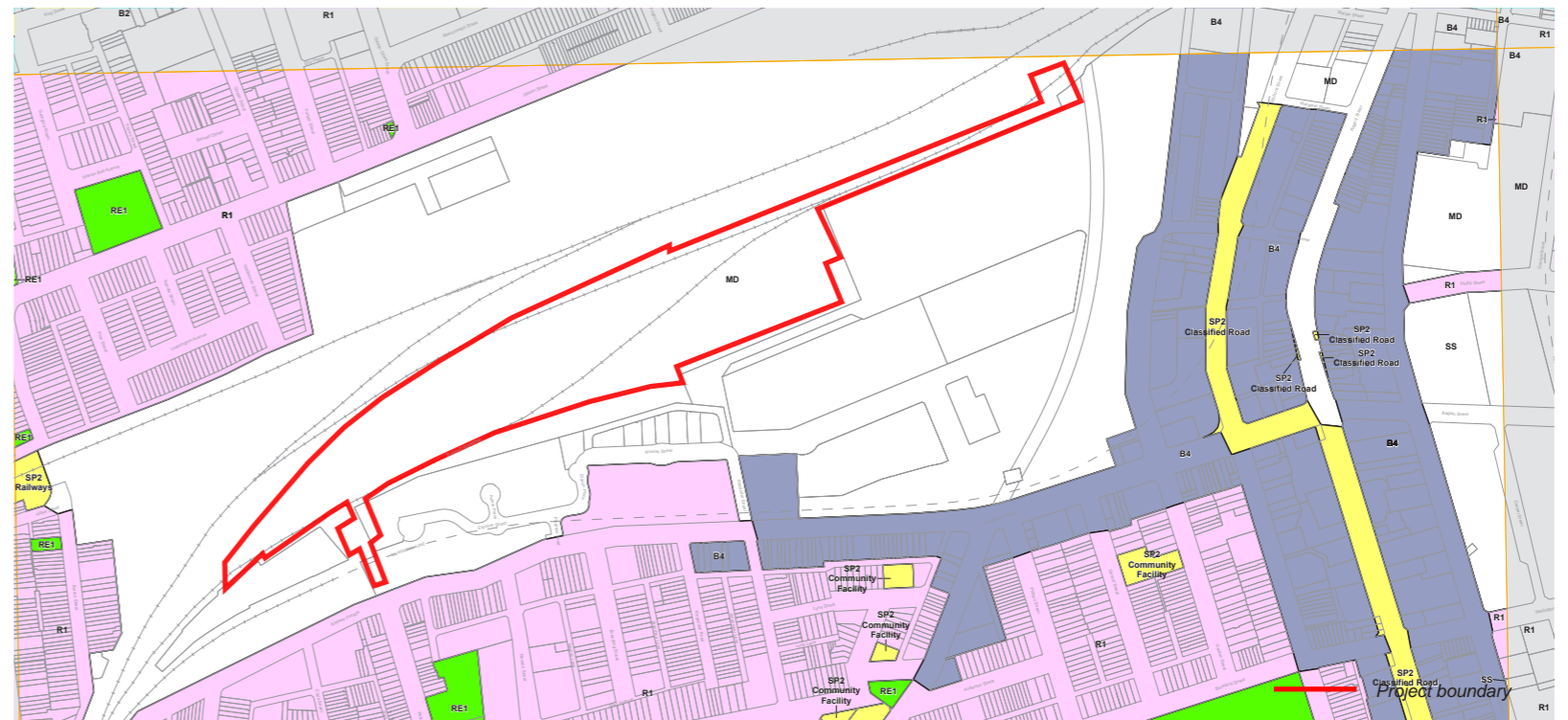


Figure 1A - Sydney LEP zoning map

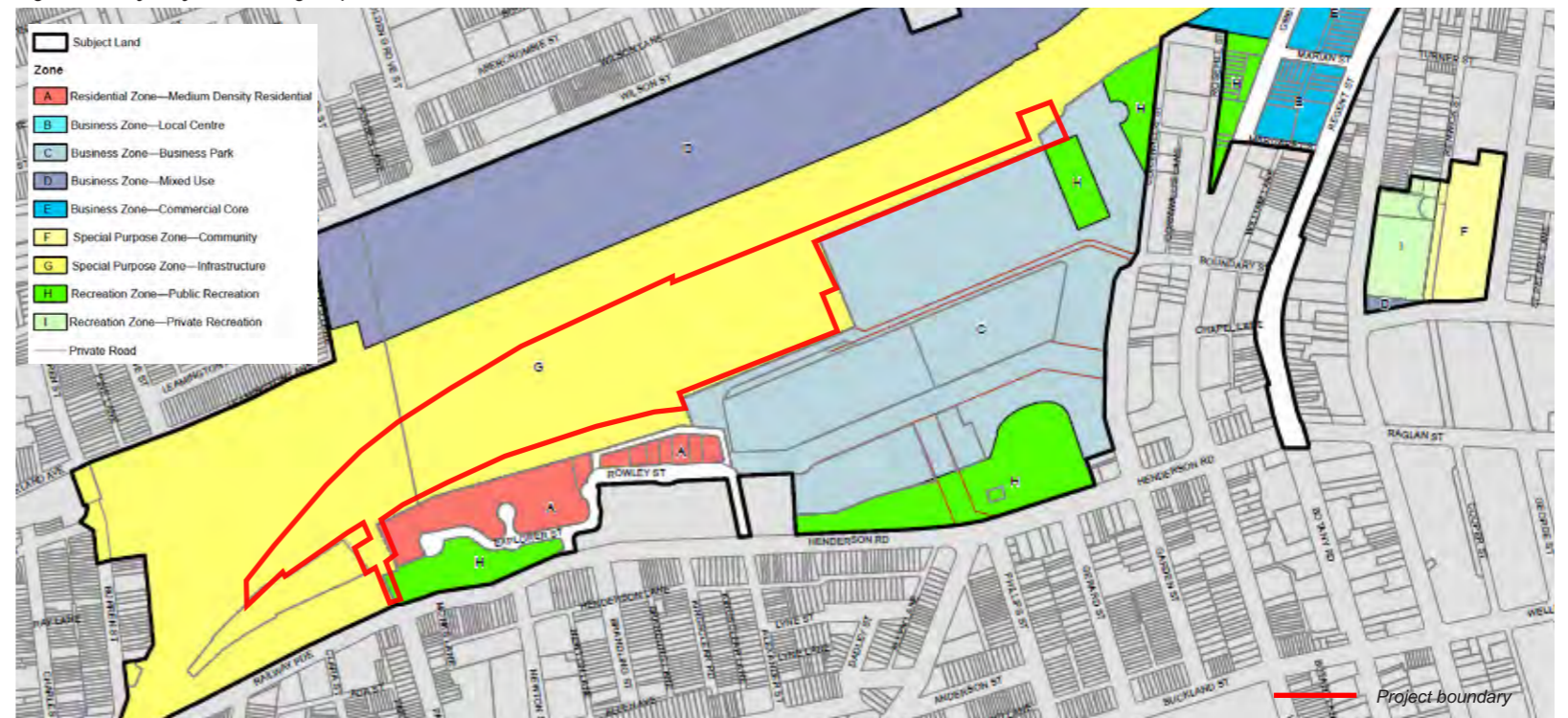


Figure 1B - Redfern-Waterloo zoning map

This subject land is set to alter dramatically in the near future as part of the redevelopment of the Central to Eveleigh rail corridor. The development plan envisages a vibrant cultural, business and residential precinct that provides jobs, quality housing and services.

The majority of Project works are located within Zone G - Infrastructure and are compatible with the existing and proposed land use in this area. A small part of the upgrade works extend into zone B - Business Local Centre, located adjacent to land zoned H - Public Recreation. This section of the works has the potential to have a greater impact on visual amenity due to the increased sensitivity of the land use.

C. NSW State Heritage Register and Heritage Act 1977

The Project site and surrounding area have significant heritage value, including the Eveleigh Railway Workshops complex for its major contribution to the establishment, operation and growth of the NSW railways.

The Eveleigh Railway Workshops are listed on the NSW State Heritage Register (listing no.01140).

The areas to the north and south of the Project site are part of various Heritage Conservation Areas (HCAs) - refer Figure 2A. HCAs are areas recognised and valued for its special historical and aesthetic character. Important elements that contribute to the heritage significance of a HCA include the architectural style of buildings, fences, trees and gardens.

Six buildings within the SEPP Major Projects site are listed as heritage items - refer Figure 2B. The SEPP (Major Projects) Amendment No. 7 relates specifically to the Redfern-Waterloo Authority Sites.

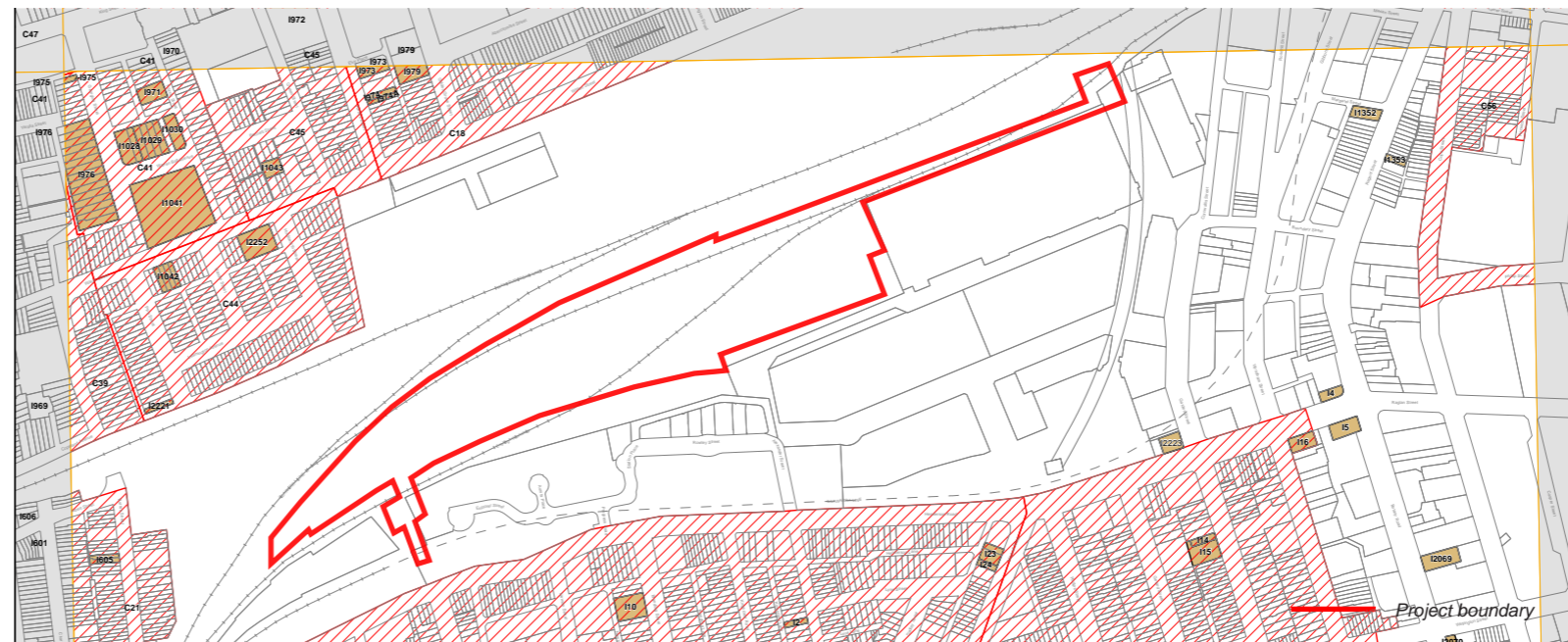


Figure 2A - Sydney LEP Heritage Conservation Area

Sydney
Local Environmental
Plan 2012

Heritage Map - Sheet HER_010



Heritage
 Conservation Area - General
 Item - General
Cadastral
 Cadastral 08/03/2016 © City of Sydney



Figure 2B - SEPP Major Development Redfern-Waterloo Heritage Items

NSW **Planning & Infrastructure**
GOVERNMENT
State Environmental Planning
Policy (Major Development) 2005
Redfern-Waterloo Authority Sites—
Heritage Map

Sheet HER_001

 Subject Land
 Heritage Item

D. The Land and Environment Court Planning Principles

The Land and Environment Court of New South Wales was established in 1980 by the Land and Environment Court Act 1979. Relevant principles have been developed in visual assessment case judgments to guide future decision-making in development appeals. These include separate but related principles for private and public domain views.

The principles set out a process for assessing the acceptability of impact. The two relevant cases are:

- Private views - Tenacity Consulting v Warringah Council (2004)
- Public domain views - Rose Bay Marina Pty Limited v Woollahra Municipal Council (2013)

Planning Principle for Private views - Tenacity Consulting v Warringah Council (2004)

The key points from this principle include:

Assessment of views to be affected

- Water views are valued more highly than land views.
- Iconic views (eg of the Opera House, the Harbour Bridge or North Head) are valued more highly than views without icons.
- Whole views are valued more highly than partial views, e.g. a water view in which the interface between land and water is visible is more valuable than one in which it is obscured.

What part of the property the views are obtained

- The protection of views across side boundaries is more difficult than the protection of views from front and rear boundaries.
- Sitting views are more difficult to protect than standing views.

Extent of the impact

- The impact on views from living areas is more significant than from bedrooms or service areas.
- It is usually more useful to assess the view loss qualitatively as negligible, minor, moderate, severe or devastating.

Reasonableness of the proposal

- With a complying proposal, the question should be asked whether a more skilful design could provide the applicant with the same development potential and amenity and reduce the impact on the views of neighbours. If the answer to that question is no, then the view impact of a complying development would probably be considered acceptable and the view sharing reasonable.

Planning Principle for Public domain views - Rose Bay Marina Pty Limited v Woollahra Municipal Council (2013)

The assessment process from this principle includes:

Identification Stage

Identify the nature and scope of the existing views from the public domain:

- the nature and extent of any existing obstruction of the view
- relevant compositional elements of the view
- what might not be in the view - such as the absence of human structures in the outlook across a natural area
- is the change permanent or temporary.

This is followed by identifying the locations in the public domain from which the potentially interrupted view is enjoyed and the extent of obstruction at each relevant location. The intensity of use of this locations is also to be recorded. Finally, the existence of any documents that identifies the importance of the view - ie. international, national, state or local heritage recognition is ascertained.

Analysis of impacts

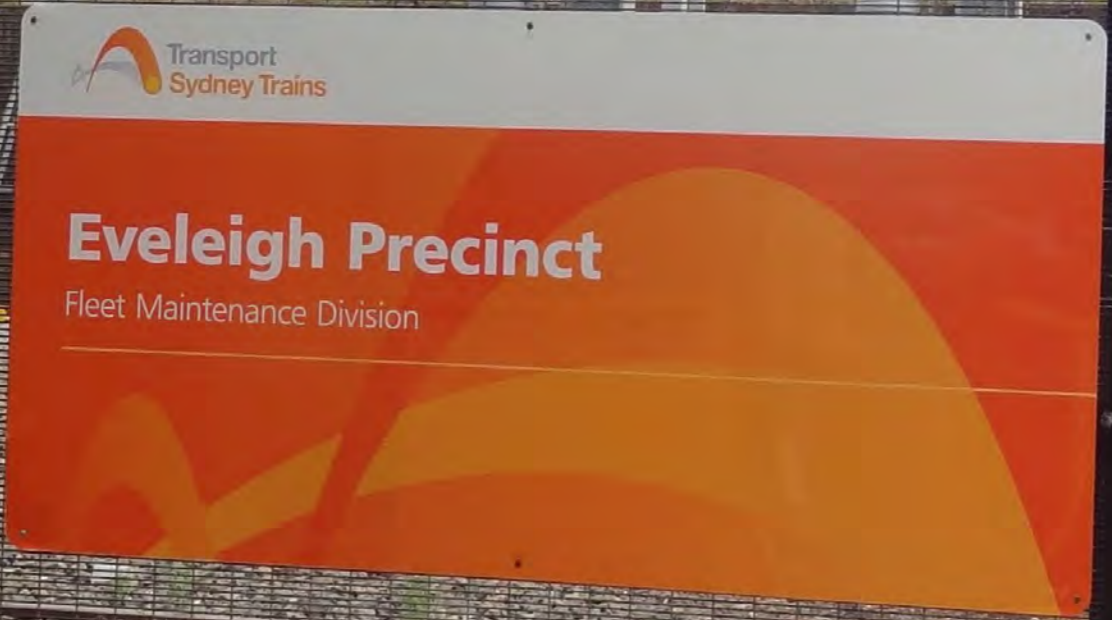
- The analysis required of a particular development proposal's public domain view impact is both quantitative as well as qualitative.
- A quantitative evaluation of a view requires an assessment of the extent of the present view, the compositional elements within it and the extent to which the view will be obstructed by or have new elements inserted into it by the proposed development.
- In the absence of any planning document objective/aim, the fundamental quantitative question is whether the view that will remain after the development (if permitted) is still sufficient to understand and appreciate the nature of and attractive or significant elements within the presently unobstructed or partially obstructed view. If the view remaining (if the development were to be approved) will be sufficient to understand and appreciate the nature of the existing view, the fundamental quantitative question is likely to be satisfied.
- The outcome of a qualitative assessment will necessarily be subjective. However, although beauty is inevitably in the eye of the beholder, the framework for how an assessment is undertaken must be clearly articulated. Any qualitative assessment must set out the factors taken into account and the weight attached to them. Whilst minds may differ on outcomes of such an assessment, there should not be issues arising concerning the rigour of the process.
- As with Tenacity, a high value is to be placed on what may be regarded as iconic views (major landmarks or physical features such as land/water interfaces).

Other factors to be considered in undertaking a qualitative assessment of a public domain view impact include:

- Is any significance attached to the view likely to be altered?
- If so, who or what organisation has attributed that significance and why have they done so?
- Is the present view regarded as desirable and would the change make it less so (and why)?
- Should any change to whether the view is a static or dynamic one be regarded as positive or negative and why?
- If the present view attracts the public to specific locations, why and how will that attraction be impacted?
- Is any present obstruction of the view so extensive as to render preservation of the existing view merely tokenistic?
- However, on the other hand, if the present obstruction of the view is extensive, does that which remains nonetheless warrant preservation (it may retain all or part of an iconic feature, for example)?
- If the change to the view is its alteration by the insertion of some new element(s), how does that alter the nature of the present view?

The principles established by the Court from both cases have been integrated into the approach adopted for this evaluation.

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2.0 THE PROJECT





2.0 THE PROJECT

2.1 PROJECT DESCRIPTION

The New Intercity Fleet comprises approximately 520512 cars which would progressively come into service. The first trains are expected to be delivered in early 2019/2018, with the remainder of the fleet being delivered through to 2024/2022. Commissioning will commence in late 2018/early 2019, with the first train entering into service in mid-2019.

Commissioning, stabling and maintenance of the New Intercity Fleet will be undertaken on Maintenance Roads 5-109 within associated with the Millennium Shed. To accommodate the New Intercity Fleet, track, civil, overhead wiring, signalling and signage modifications to the existing infrastructure in the Precinct are required. These modification works would also allow the required configuration of Short New Intercity Fleet (SNIF) and Long New Intercity Fleet (LNIF) trains to be stabled. LNIF trains would will operate as 10-car sets with a train length of approximately 205 metres, while the SNIF would will operate as 8-car sets with a train length of 164 metres. The modification works would allow stabling and maintenance for 9.5 New Intercity Fleet trains (comprising 4.5 SNIF and 5 LNIF).

The project involves modifications to three main areas, being:

- **Engineering Roads 1 and 2:** extension of both tracks by approximately 49 metres to accommodate decanting of a LNIF train on both tracks. This would involve scope of works necessitates the relocation of the existing Welder's Facility equipment within the Welding Qualifications Centre to another building/location within the Precinct and demolition of the Welding Qualifications Centre
- **Millennium Shed:** extension of the OHW for the full length of Roads 6 and 7 in the Millennium Shed and other works such as aligning safety isolation equipment OHW isolation switches and lock-out signals located at the Sydney end of the Millennium Shed to ensure the full length of the New Intercity Fleet trains can be accommodated under a separate electrical section
- **Eastern Siding:** extension of the Eastern Siding by approximately 26 metres to allow a accommodate a LNIF train to be stabled and allow other trains to move throughout the Eveleigh Facility without restriction/clear of the insulated rail joint Point 659. This would require the permanent acquisition of approximately 275 square metres of land within the Australian Technology Park.

The project is located on disturbed land and an existing hardstand area and will not require any vegetation removal to facilitate the works.

2.1.1 Operation

Train maintenance operations associated with the intercity fleet would essentially remain unchanged as a result of the project as maintenance of the NIF at Eveleigh would continue to involve minor Level 1 and Level 2 maintenance works.

Whilst Eveleigh does have the capabilities to undertake more rigorous routine Level 3 maintenance works such as bogie replacements/overhauls using the existing drop table in the Millennium shed, these are expected to be undertaken at other train maintenance facilities such as Auburn and the proposed new facility at Kangy Angy on the Central Coast. Notwithstanding this, Level 3 maintenance operations may be undertaken from time-to-time as they currently are.

Other operations undertaken at the Eveleigh Rail Precinct would remain unchanged as a result of the project. The Eveleigh Rail Precinct would continue to operate as a train stabling and maintenance facility for the suburban fleet operated by Sydney Trains, the intercity fleet operated by NSW TrainLink and the heritage trains operated by 3801 Limited.



Rail tracks adjacent to the Project area

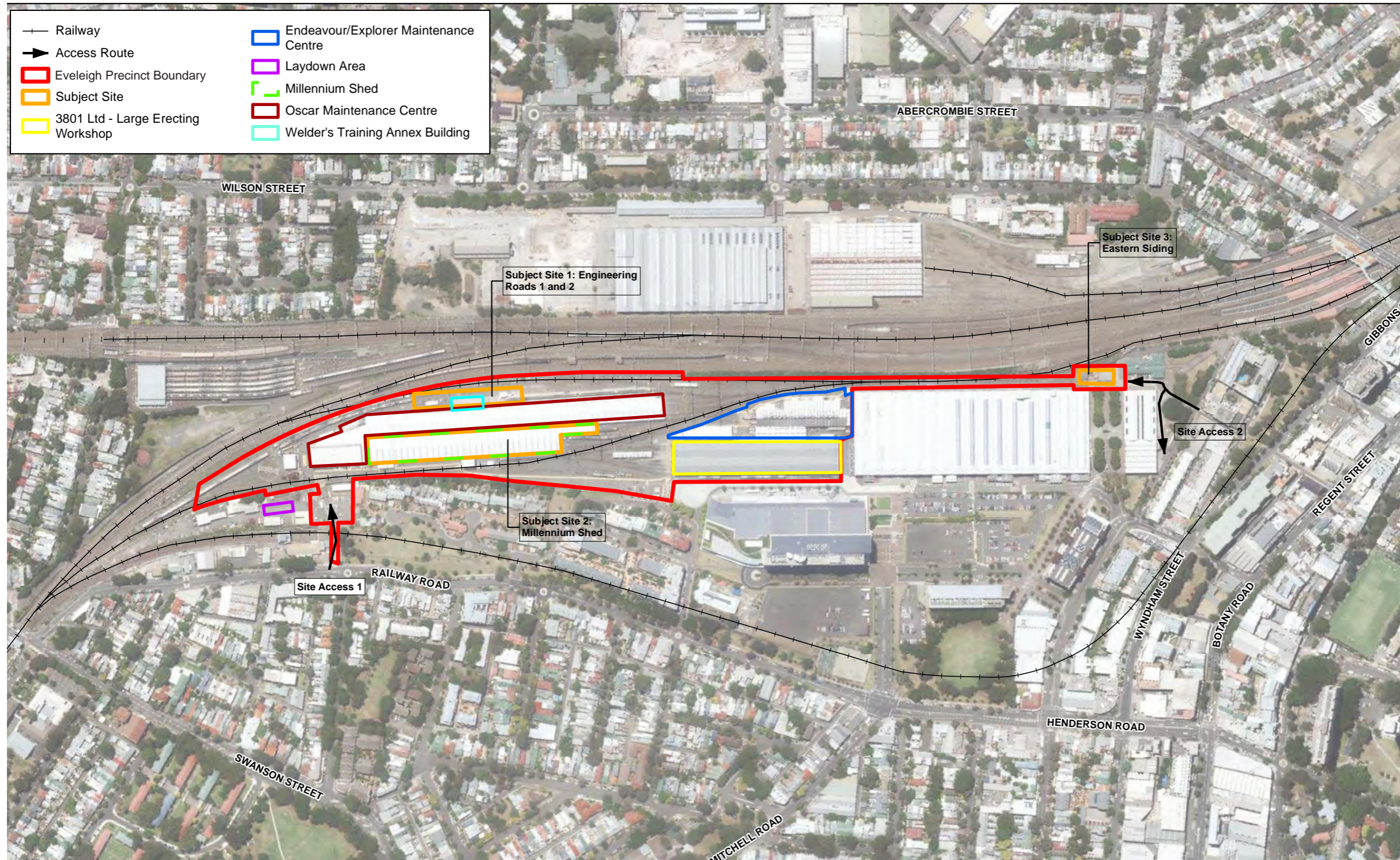


Figure 3 - Project area

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DANGER
IF LIGHT IS FLASHING
RAIL VEHICLES MUST
NOT BE MOVED
PAST TRAVERSER

3.0
SITE CONTEXT





3.0 SITE CONTEXT

3.1 SITE LOCATION

The Project area is part of the Eveleigh Rail Precinct complex and is located in the inner city immediately to the south of Sydney's CBD and Central Station - refer Figure 4.

The site comprises two main building groups known as the Carriage Workshops (now known as Carriageworks) and the Locomotive Workshops, which are situated on either side of the main southern and western rail lines, between Redfern, Erskineville and Macdonaldtown Stations and between Darlington to the north and Alexandria to the south.

The area bounded by Wilson Street and the rail corridor and associated with the Carriage Workshop building, also including the former Macdonaldtown gasworks site, is referred to as the 'North Eveleigh Rail Precinct'.

The area on the other side of the rail corridor associated with the Locomotive Workshops is referred to as the 'South Eveleigh Rail Precinct', within which the Australian Technology Park site (ATP) is situated. The area between the North and South sides is the railway corridor and has 6 running lines, some small hut structures and dives.

3.1.1 Study Area

The study area specific to the visual impact assessment comprises the area of land surrounding the Project site that could be potentially visually affected by the external Project works.

Through a desktop analysis and rigorous site visit, a study area of approximately 500m offset from the centre of the Eveleigh Rail Precinct was identified based on topography, vegetation, built form, receptor location and viewing distance.

It is important to note that some elements of the Project may be visible from areas beyond the nominated study area (such as elevated residential towers within Redfern) however given the small scale of the Project works, a discernible impact on visual amenity is not expected from these locations.

3.2 SITE CHARACTER

3.2.1 Urban Form

The Project area is mostly made up of industrial railway buildings, offices and infrastructure related to its historic use as a carriage and locomotive building and maintaining workshops.

The site's immediate surroundings contain densely developed residential suburbs, typically situated within a number of heritage conservation areas, and mixed commercial and industrial areas.

The ATP is a business and technology centre that spreads over 13.9 hectares of land. The Park primarily houses start-up hi-tech companies, especially biotech firms, and spin-offs from university research.

It was created in 1995, by the Government of New South Wales, the University of Sydney, University of Technology, Sydney and University of New South Wales, and operates under the control of the Redfern Waterloo Authority.

3.2.2 Future Development

A corridor of land running from Central Station to Eveleigh has been selected for re-development in the short to mid-term. UrbanGrowth NSW is the lead agency for the development corridor, working with the community and stakeholders to prepare an urban transformation strategy with a vision, planning and design principles, and a delivery framework to guide future development. The Project is currently in a masterplanning phase.

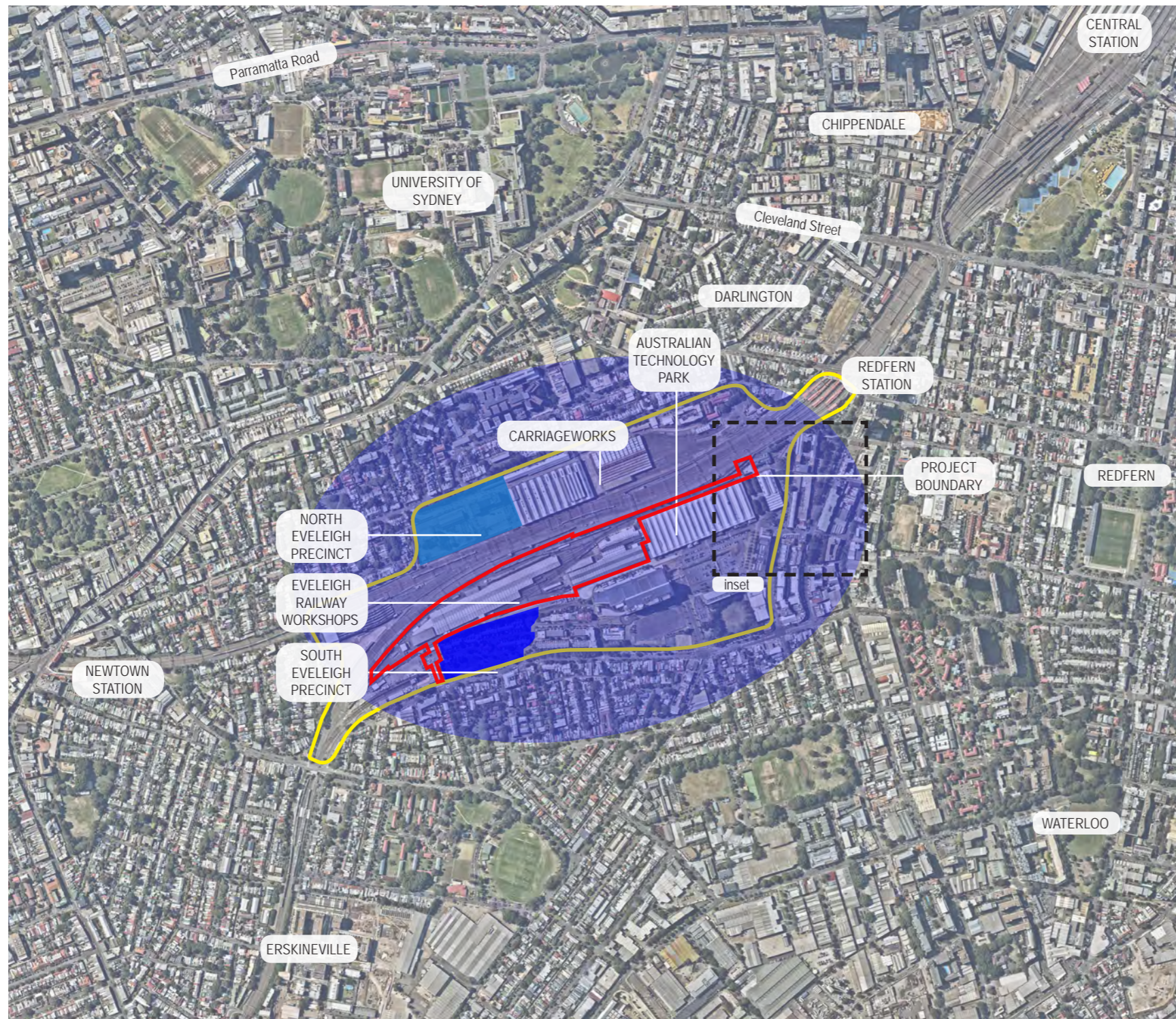
Two sections of the future development are likely to be situated to the north and the south of the Project area. These include the 'North Eveleigh' and 'South Eveleigh' precincts - refer Figure 4.

The northern precinct would feature up to 700 new apartments with a maximum building height of 20 stories. 88 affordable homes have already been constructed within this precinct.

The southern precinct is likely to be a mainly residential area centred around a park, community facilities and neighbourhood scale shops. A diverse range of apartment buildings is possible with taller residential buildings adjacent to the rail corridor and lower buildings on the precinct edges to provide a transition to the existing neighbourhood.



Artist impression of development within the North Eveleigh precinct adjacent to the rail corridor Source: UrbanGrowth NSW



Inset - Australian Technology Park






-  Eveleigh Rail Precinct
-  Project boundary
-  Study area

Figure 4 - Site context (not to scale)

3.2.3 Public Open Space

Public open space within the area is limited to a small pocket park along Wilson Street to the north of the Project site and a tree lined boulevard known as Innovation Plaza within the ATP to the immediate east of the Project site.

This space is shaded by large Plane trees and includes several moveable heritage items, interpretative signage and seating opportunities.

3.2.4 Heritage Items

The Eveleigh Railway Workshops complex is of heritage significance to the state of NSW for its major contribution to the establishment, operation and growth of the NSW railways.

Several heritage items are visible within close proximity to the eastern Project upgrades. These include:

- a historic 'Red Rattler' carriage within the Australian Technology Park, managed by 3801 Limited, a not-for-profit rail heritage company run by volunteers that preserves, maintains and operates historic steam locomotives and carriages.
- new locomotive workshop
- work managers office
- locomotive workshop



Historic train carriage within Innovation Plaza



Looking north across Innovation Plaza towards the historic train carriage



Landscape detail within Innovation Plaza with the locomotive workshop behind



4.0

VISUAL IMPACT ASSESSMENT

4.0 VISUAL IMPACT ASSESSMENT

4.1 VISUAL ENVIRONMENT

4.1.2 Private Domain

A high density of residential and commercial receptors are spread throughout the study area. Vegetation and built form obscures many longer distance views towards the Project site.

Visual accessibility to Project works may be possible from existing elevated apartments adjacent to the Carriageworks within the 'North Eveleigh' development precinct, as well as a limited section of the Australian Technology Park to the east of the Project site.

4.1.3 Public Domain

Public open space with visual accessibility to the Project works is limited to a section of the Australian Technology Park known as Innovation Plaza. The local road network is unlikely to have views towards any Project elements.

4.2 REPRESENTATIVE VIEWPOINTS

The following representative viewpoints have been chosen for further analysis - refer Figure 5. The visual receptors encompassed by these viewpoints have the potential to contain views of the infrastructure to be modified as part of the Project.

The locations identified are:

Key Viewpoints

1. Carriageworks entry, Codrington Street, looking south
2. Existing and future residential apartments next to Carriageworks, looking south towards Eveleigh Railway Workshops
3. Wilson Street/Carriageworks Way intersection, looking south east
4. Innovation Plaza, looking north
5. Outside Works Managers' Office, Innovation Plaza, looking west

4.3 VISUAL ANALYSIS

The following section assesses the visual impact of the Project on each of the selected viewpoints. This includes a description of the current view from each viewpoint followed by a discussion of the potential visual impacts of the Project on that view. Each viewpoint is accompanied by a location map and photograph of the current view.

For residential receptors, access was not always possible to the property itself and so a photograph was taken at the closest publicly accessible point. The description of visual impact is estimated from the property's main dwelling area.

4.4 METHODOLOGY

This report has adopted the Guidelines for Landscape Character and Visual Impact Assessment as published by RMS. The overall impact rating of the Project on any given receptor is based on factors of magnitude and sensitivity.

Sensitivity

Each visual receptor type has an inherent and varied sensitivity to change in the visual scene based on their personal context in which the view is being experienced. This would have a direct bearing on the perception of visual impact experienced by the receptor and qualifies the quantitative impacts. Table 2 describes the levels of sensitivity for each receptor type.

Magnitude

The magnitude of the visual effects of the development within the landscape. A series of quantitative assessments are studied, including distance from development, quantum of view, duration of view and scale of change. Table 2 describes the ratings assigned to these quantitative assessments.

Overall impact rating

The severity of these impacts is calculated using matrix Table 1 - based on a combination of magnitude and sensitivity.

		MAGNITUDE			
		HIGH	MODERATE	LOW	NEGLIGIBLE
SENSITIVITY	HIGH	HIGH	HIGH - MODERATE	MODERATE	NEGLIGIBLE
	MODERATE	HIGH - MODERATE	MODERATE	MODERATE/LOW	NEGLIGIBLE
	LOW	MODERATE	MODERATE/LOW	LOW	NEGLIGIBLE
	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE

Table 1: Visual Impact Rating as a combination of Sensitivity and Magnitude. Source: RMS Guidelines for Landscape Character and Visual Impact Assessment



	FACTOR	DESCRIPTION	NEGLIGIBLE	LOW IMPACT	MODERATE IMPACT	HIGH IMPACT
QUALITATIVE SENSITIVITY	Viewer Sensitivity	<p>Each visual receptor type has an inherent and varied sensitivity to change in the visual scene based on the personal context in which their view is being experienced. This sensitivity has a direct bearing on the perception of visual impact experienced by the receptor and qualifies the quantitative impacts.</p> <p>Number of viewers also has a bearing on sensitivity. Viewpoints have a varied number of potential receivers depending on whether the viewpoint is public or private, the popularity of the viewing location and its ease of accessibility. Views from public reserves and open space are often given the highest weighting due to the increased number of viewers affected.</p>	Vacant lot, uninhabited building, car park.	Minor roads, service providers.	Residential properties with limited views, commercial properties, scenic public roads (eg official tourist routes).	Public open space, public reserves, living areas or gardens/balconies of residential properties with direct views of Project.
QUANTITATIVE MAGNITUDE	Quantum of View	The quantum of view relates to the openness of the view and the receptor's angle of view to the scene. A development located in the direct line of sight has a higher impact than if it were located obliquely at the edge of the view. Whether the view of the Project is filtered by vegetation or built form also affects the impact, as does the nature of the view (panoramic, restricted etc.). A small element within a panoramic view has less impact than the same element within a restricted or narrow view.	Only an insignificant part of the Project is discernible.	An oblique, highly filtered or largely obscured view of the Project or a view where the Project occupies a very small section of the view frame.	A direct view of the Project or its presence in a broader view where the Project occupies a moderate proportion of the view frame.	A direct view of the Project or its presence (sometimes in a very narrow or highly framed view), where the Project occupies the greater proportion of the view frame.
	Distance of View	The effect the Project has on the view relating to the distance between the Project and the visual receptor. The distances are from the site boundary.	Over 2,000m	Viewing distance of between 1,000m and 2,000m.	Viewing distance between 100m and 1,000m.	Viewing distance between 0 and 100m.
	Period of View	The length of time the visual receptor is exposed to the view. The duration of view affects the impact of the Project on the viewer - the longer the exposure the more detailed the impression of the proposed change in terms of visual impact.	Less than 1 second	1 to 10 seconds: often from a road or walking past.	1 to 5 minutes: usually from a road/driveway entrance, walking past.	Significant part of the day: usually residential property.
	Magnitude of Change	Scale of change is a quantitative assessment of the change in compositional elements of the view. If the proposed development is largely similar in nature and scale to that of existing elements in the vicinity, the scale of change is low. If the development radically changes the nature or composition of the elements in the view, the scale of change is high. Distance from the development would accentuate or moderate the scale and variety of visible elements in the overall view and hence influence this rating.	Project barely discernible	Elements and composition of the view would remain largely unaltered.	Elements within the view would be at odds with existing features in the landscape	Elements within the view would greatly dominate existing features in the landscape

Table 2 - Assessment Criteria

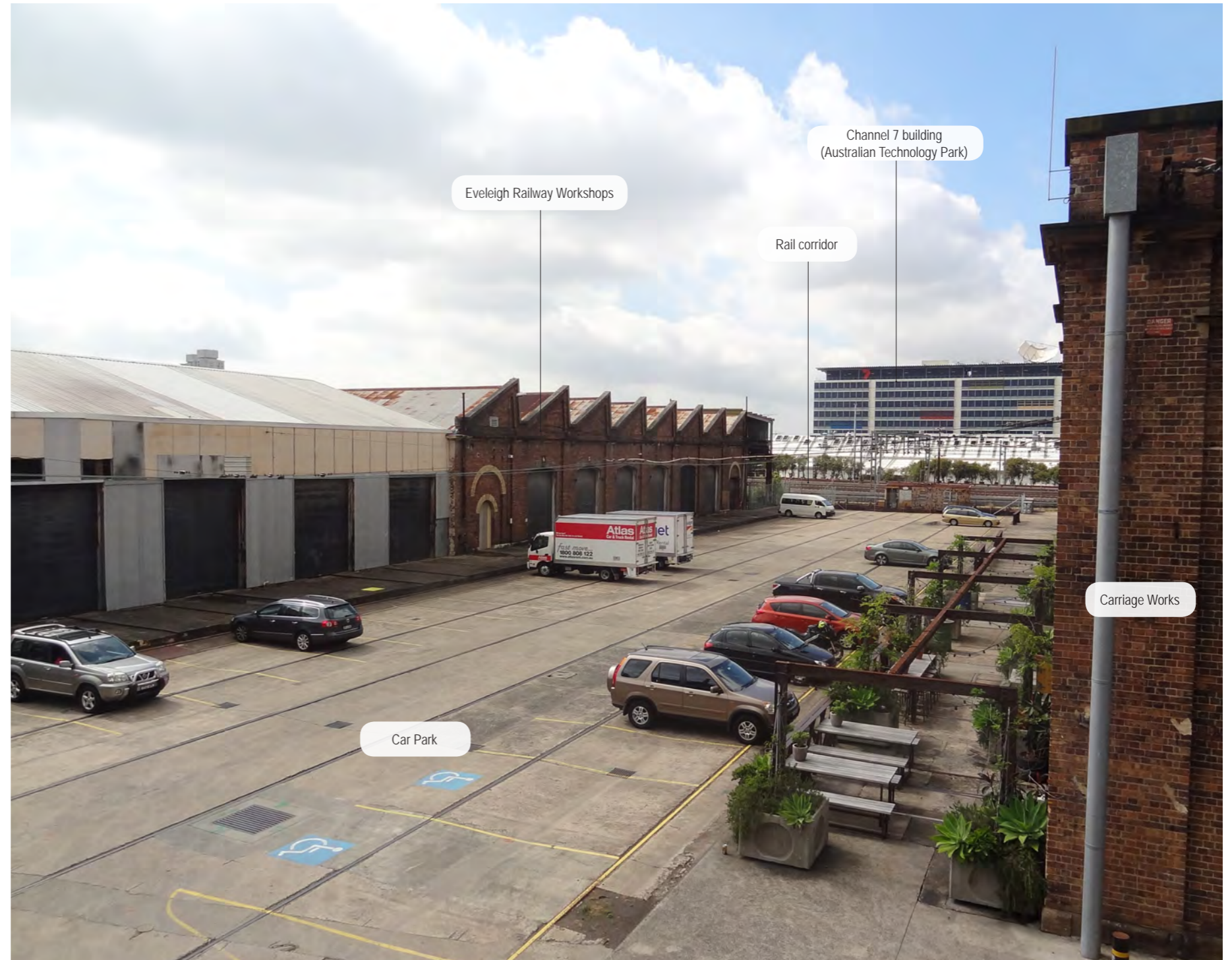


Figure 5 - Visual catchment and viewpoint location

VIEWPOINT 1



Viewpoint location map



Viewpoint 1: Looking south from the Codrington Street entry over Carriageworks towards the Australian Technology Park

LOCATION

Carriageworks entry, Codrington Street, looking south

Distance to nearest Project element

320 metres

Receptors

Users of Carriageworks and associated buildings/public spaces

Current View

From the Carriageworks entry on Codrington Street there are elevated views across the Carriageworks that include a car park and outdoor dining area. Glimpses through a gap in the buildings are available to rail infrastructure (associated with the Eveleigh Railway Workshops) and the Channel 7 building behind.

VISUAL IMPACT

This is a well used and important public space with a varied scheduled of events and activities. Built form obscures all views towards the Project works (extension of engineering roads 1/2 and demolition of the Welders Training Annex Building) from this viewpoint.

Overall a Negligible visual impact rating has been recorded.

RECEPTOR TYPE	RECEPTOR IDENTIFICATION	RECEPTOR SENSITIVITY	MAGNITUDE				
			DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	SUMMARY OF RATINGS
Public	1	H	M	N	N	N	N
Visual Impact Rating		NEGLECTIBLE					

From Table 2, using a combination of sensitivity and magnitude ratings.

VIEWPOINT 2



Viewpoint location map



Viewpoint 2: Looking south towards Eveleigh Railway Workshops from lot adjacent to the Carriageworks

LOCATION

Large lot adjacent to the Carriageworks, looking south towards Eveleigh Railway Workshops

Distance to nearest Project element

210 metres

Receptors

Existing and potential future residents of apartment buildings in the vicinity, including 'The Platform' apartments.

Current View

This view is from a car park/disused area adjacent to the Carriageworks and rail corridor. It is representative of the outlook that residents will have from existing and future apartments planned along Carriageworks Way as part of the redevelopment of the 'North Eveleigh' precinct.

The existing view south west looks over the rail corridor and associated rail infrastructure towards the Eveleigh Railway Workshops. Buildings associated with the Australian Technology Park are visible behind.

VISUAL IMPACT

The extension of engineering roads 1 and 2, additional trains and demolishing of the Welders Training Annex Building may be visible elements of the Project works from this location.

The elevated nature of the view from existing and future apartments will potentially provide a panoramic viewframe over the Project site, however the presence of extensive existing rail infrastructure and the limited scale of the Project works will lead to a Moderate/Low visual impact.

RECEPTOR TYPE	RECEPTOR IDENTIFICATION	RECEPTOR SENSITIVITY	MAGNITUDE				
			DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	SUMMARY OF RATINGS
Private	2	M	M	L	M	L	L
Visual Impact Rating		MODERATE/LOW					

From Table 2, using a combination of sensitivity and magnitude ratings.

VIEWPOINT 3



Viewpoint location map



Viewpoint 3: Looking south east across Carriageworks Way towards the Project site, visible between the Clothing Store building at left and vegetation at right

LOCATION

Carriageworks Way/Wilson Street intersection looking south east

Distance to nearest Project element

220 metres

Receptors

Users of public open space along Wilson Street as well as motorists/pedestrians

Current View

The current view from this intersection looks south east from a slightly elevated position. The built form of the Clothing Store and vegetation along the rail corridor obscures the majority of longer distance views towards the Project site.

Glimpses are available to the Eveleigh Railway Workshops and Australian Technology Park in the distance.

VISUAL IMPACT

While this view is slightly elevated and oriented towards the Project site, visual accessibility to any Project elements are blocked by built form and vegetation.

Further development as part of the 'North Eveleigh' precinct is likely to further block views south. Overall, a Negligible impact on visual amenity is expected in this location.

RECEPTOR TYPE	RECEPTOR IDENTIFICATION	RECEPTOR SENSITIVITY	MAGNITUDE				SUMMARY OF RATINGS
			DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	
Public	3	M	M	L	L	N	N
Visual Impact Rating		NEGLIGIBLE					

From Table 2, using a combination of sensitivity and magnitude ratings.

VIEWPOINT 4



Viewpoint location map



Viewpoint 4: Looking north to proposed extension of Eastern Siding - the 'Red Rattler' heritage carriage is proposed to be relocated

LOCATION

Innovation Plaza, looking north

Distance to nearest Project element

30 metres

Receptors

Users of Innovation Plaza including ATP workers and visitors

Current View

This view is available to users of Innovation Plaza and a commercial building to the south of the plaza with an elevated view corridor in the same direction.

The view is framed by heritage buildings associated with the Eveleigh Railway Workshops and an avenue planting of deciduous Plane trees. A historic 'Red Rattler' heritage train carriage can be seen at the far end of the Plaza and is an important feature of the view. This carriage is proposed to be relocated as part of the works. Some limited modern rail infrastructure is currently visible behind the heritage carriage.

VISUAL IMPACT
<p>The extension of the eastern siding by approx. 26m will be visible from this location including new rail tracks, ballast, fencing and trains. The heritage train carriage will need to be moved, increasing the visibility of the new infrastructure elements.</p> <p>The density of modern rail infrastructure will increase within the viewframe, although this is mostly consistent with current visual character of the wider area, containing both modern and historic rail elements.</p> <p>Overall, a Moderate visual impact is expected on views north along Innovation Plaza. The visual impact may be mitigated by relocating the train carriage to a nearby location, screening views of the Project works.</p>

RECEPTOR TYPE	RECEPTOR IDENTIFICATION	RECEPTOR SENSITIVITY	MAGNITUDE				
			DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	SUMMARY OF RATINGS
Public	4	M	H	M	M	M	M
Visual Impact Rating		MODERATE					

From Table 2, using a combination of sensitivity and magnitude ratings.

VIEWPOINT 5



Viewpoint location map



Viewpoint 5: Looking west to proposed extension of Eastern Siding, with the (Former) Locomotive Workshops at left and 'Red Rattler' heritage carriage in the centre of the view

LOCATION

Outside Works Managers' Office, looking west

Distance to nearest Project element
10 metres

Receptors

Users of Innovation Plaza (including ATP workers) and public open space to west of Cornwallis St

Current View

This view is available to users of the eastern section of Innovation Plaza and public open space further east, adjacent to Cornwallis St.

The existing view includes heritage buildings, the historic 'Red Rattler' train carriage and the existing rail siding behind. The train carriage is proposed to be relocated as part of the works.

VISUAL IMPACT
<p>The extension of the eastern siding by approx. 26m will be visible from this location including new rail tracks, ballast, fencing and trains. The heritage train carriage will be moved, increasing the visibility of the new infrastructure elements.</p> <p>This is an area of sensitive public open space, however the presence of similar existing rail infrastructure within the view somewhat reduces the magnitude of change associated with the Project works. The character of the view may alter to one of increased modern rail infrastructure.</p> <p>Overall, a Moderate visual impact is expected from this location.</p>

RECEPTOR TYPE	RECEPTOR IDENTIFICATION	RECEPTOR SENSITIVITY	MAGNITUDE				
			DISTANCE	QUANTUM OF VIEW	PERIOD OF VIEW	SCALE OF CHANGE	SUMMARY OF RATINGS
Public	5	M	H	M	M	M	M
Visual Impact Rating		MODERATE					

From Table 2, using a combination of sensitivity and magnitude ratings.

4.5 SUMMARY OF VISUAL IMPACTS

The visual impacts of the Project on the studied viewpoints range from Negligible to Moderate/High (refer Table 3 and Figure 6).

- Two viewpoints received an impact rating score of Negligible
- One viewpoint received a rating of Moderate/Low
- Two viewpoint received a rating of Moderate

4.5.1 Private Viewpoints

Despite a high density of residential and commercial receptors surrounding the Project site, visual accessibility to the external elements of the upgrade works are limited by topography, built form and screening vegetation.

Existing and proposed future apartments within the 'North Eveleigh' development precinct (viewpoint 2) may have views to the extended engineering roads 1 and 2 although the scale and magnitude of change will be Moderate/Low.

4.5.2 Public Viewpoints

Public open space with visual accessibility to the Project works is limited to a section of the ATP known as Innovation Plaza (viewpoints 4 and 5).

These two viewpoints may have views to the extended eastern siding, trains and associated rail infrastructure. The relocation of the heritage carriage will also be discernible.

A Moderate impact can be expected in these locations as the viewframe will include additional modern transport infrastructure. The view corridor north along Innovation Plaza will be the most impacted element, which is currently dominated by a well vegetated streetscape and heritage items.

Views to the Project are not available from the Carriageworks or local road network (viewpoints 1 and 3) and a Negligible impact rating has been recorded on these viewpoints.

VIEWPOINT LOCATION	Receptor Identification	Receptor Sensitivity	MAGNITUDE					Impact Rating
			Distance	Quantum of View	Period of View	Scale of change	Summary of Ratings	
Carriageworks entry, Codrington St, looking south	1	H	M	N	N	N	N	NEGLIGIBLE
Apartments next to Carriageworks, looking south towards Eveleigh Railway Workshops	2	M	M	L	M	L	L	MODERATE/LOW
Carriageworks Way/Wilson St intersection, looking south east	3	M	M	L	L	N	N	NEGLIGIBLE
Innovation Plaza, looking north	4	M	H	M	M	M	M	MODERATE
Outside Works Managers' Office, Innovation Plaza, looking west	5	M	H	M	M	M	M	MODERATE

Table 3 - Summary of visual impacts of the Project across the study area

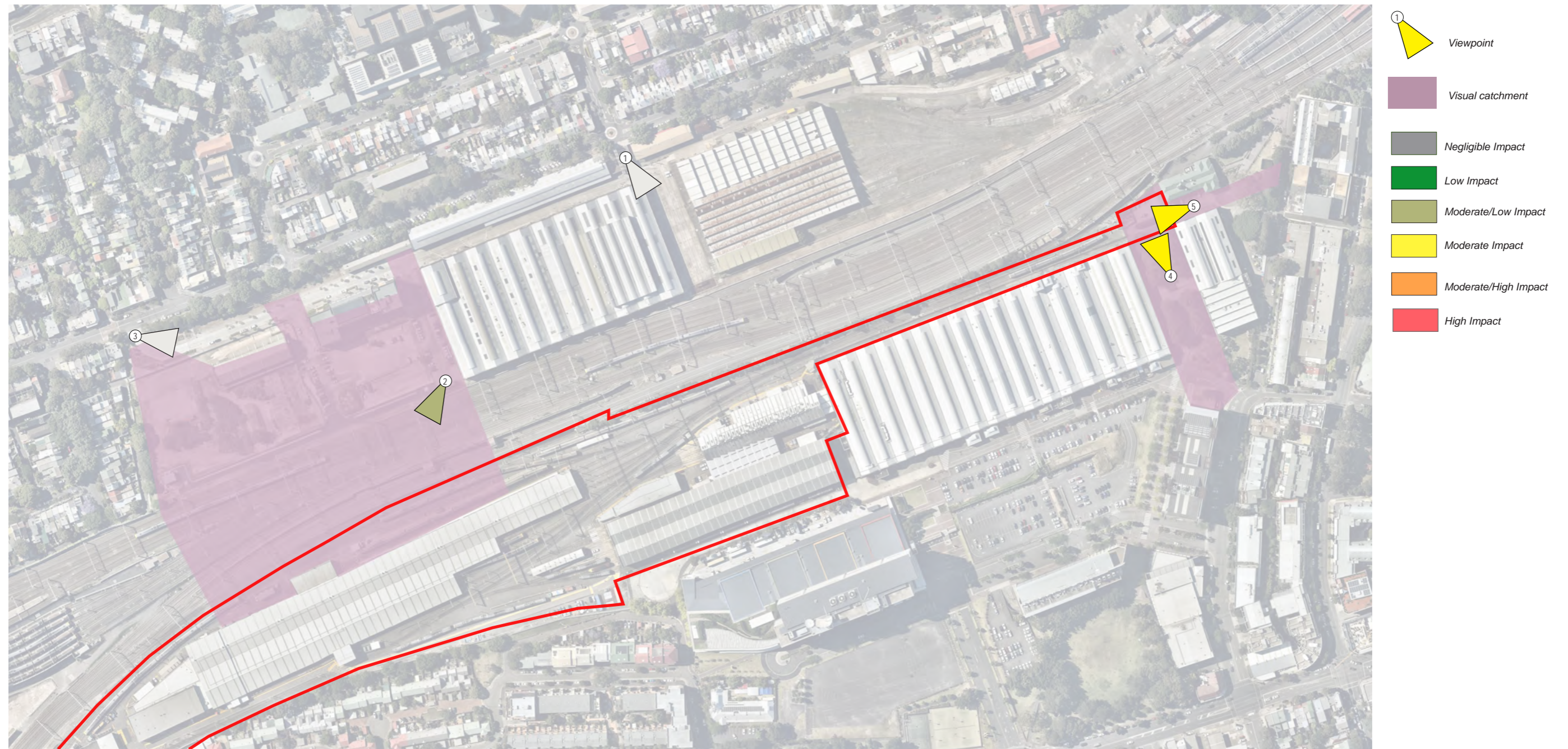


Figure 6 - Summary of visual impacts across the study area



5.0
MITIGATION



5.0 MITIGATION MEASURES

5.1 TYPES OF MITIGATION

5.1.1 Avoidance

The Project has been subject to significant analysis and location is key to the functioning of the Project. Other layouts have been considered which would require significantly more construction works. The proposed project requires the least amount of works to support the introduction of the NIF at Eveleigh and hence the least potential for visual impact.

5.1.2 Reduction

The principal forms of reduction are associated with refinements and modifications that address the siting and scale of built form. Recommendations include:

- if possible, relocating heritage items within Innovation Plaza to screen extended rail tracks
- locate storage areas, stockpiles and associated works in cleared or otherwise disturbed areas away from visual receptors

5.1.3 Alleviation

Options to alleviate impacts are associated with detailed design features such as materials, finishes, reflectivity and planting character. Consideration should be given to:

- selecting high quality materials and finishes to ensure the Project works adjacent to the heritage precinct are well integrated
- colour of elements to be selected to be visually recessive avoid reflective surfaces where possible
- consideration of screen planting to the northern end of Innovation Place to partially block views towards the extended rail track and associated fencing
- signage locations to minimise visual impact. Any new signage should be consolidated within built form elements rather than freestanding where possible. Dimensions of signs should be kept to a minimum and be complimentary to the heritage identity of the site.



Finishes and materials of upgrade elements to match heritage precinct character and colour scheme



Moveable heritage items within Innovation Plaza may be moved to assist in screening extended rail tracks



6.0 CONCLUSION



6.0 CONCLUSION

6.1 KEY FINDINGS

A comprehensive visual assessment of the Project and the surrounding area has been conducted. The assessment has identified and evaluated key viewpoints, distance zones and viewer sensitivity in accordance with best practice methodology and the Land and Environment Court Planning Principles.

The following conclusions have been drawn:

- the visual catchment of the Project works is highly constrained and limited to several viewpoints up to 500m from the centre of the Eveleigh Rail Precinct
- the presence of extensive rail infrastructure and the limited nature of the Project works has reduced the potential for major visual impacts
- private receptors with visual accessibility to the Project are limited to existing and proposed elevated apartment buildings within the 'North Eveleigh' precinct
- the Project will form a small and indistinct part of a wider viewframe from these apartments
- the level of sensitivity to visual change is greatest for public receptors within Innovation Plaza due to the presence of numerous heritage items and a well vegetated streetscape
- Moderate visual impacts on visual amenity are likely to be experienced by users of Innovation Plaza including visitors and ATP workers. Views of trains and rail infrastructure will be available from this location as well as the discernible removal of the heritage carriage
- the relocation of the carriage nearby may mitigate these visual impacts by screening Project works
- there are no views of Project elements from the Carriageworks.



CLOUSTON Associates
65-69 Kent Street • Sydney NSW 2000
PO Box R1388 • Royal Exchange NSW 1225 • Australia
Mobile + 0418 981 869
Telephone +61 2 8272 4999
Email • sydney@clouston.com.au

