



Transport
for NSW

Croydon Station Upgrade Determination Report

Transport Access Program
REF-4656029

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Glossary and abbreviations

Term	Meaning
BCA	Building Code of Australia
BTS	Bureau of Transport Statistics
CEMP	Construction Environmental Management Plan
CoA	Condition of Approval
Contractor	The Contractor for the Proposed Activity would be appointed by TfNSW to undertake the detailed design and construction of the Proposed Activity.
CPTED	Crime Prevention Through Environmental Design
DDA	<i>Disability Discrimination Act 1992 (Cwlth)</i>
DSAPT	<i>Disability Standards for Accessible Public Transport (2002)</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW)</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000 (NSW)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
Infrastructure SEPP	<i>State Environmental Planning Policy (Infrastructure) 2007 (NSW)</i>
LGA	Local Government Area
NES	Matters of 'National Environmental Significance' under the EPBC Act
NSW	New South Wales
OEH	NSW Office of Environment and Heritage
Proponent	A person or body proposing to carry out an activity under Part 5 of the EP&A Act – in this instance, TfNSW
Proposed Activity	The construction and operation of the Croydon Station Upgrade
REF	Review of Environmental Factors
Roads and Maritime	NSW Roads and Maritime Services (formerly Roads and Traffic Authority)
SoHI	Statement of Heritage Impact
TfNSW	Transport for NSW (the Proponent)
TT&AIA	Traffic, Transport and Access Impact Assessment
VIA	Visual Impact Assessment

Executive summary

Overview of Proposed Activity

Transport for NSW (TfNSW) is responsible for improving the customer experience of transport services, transport policy and regulation, planning and program administration, procuring transport services, and infrastructure and freight.

TfNSW is the Proponent for the Croydon Station Upgrade (the 'Proposed Activity'), which is part of the Transport Access Program. The program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

The Proposed Activity involves construction of new infrastructure to provide a safe and accessible path to the station and platforms, upgrades to station amenities and improved bicycle facilities.

TfNSW, as the Proponent for the Proposed Activity, has undertaken a Review of Environmental Factors (REF) that details the scope of works and environmental impacts associated with the Proposed Activity. The REF was prepared by TfNSW in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

Modifications to the Proposed Activity

Consultation with the community and external stakeholders has resulted in a number of changes to the project to further mitigate impacts to heritage and the visual environment. The key changes include:

- reduction of the butterfly awnings at both station entrances (in pitch and length)
- reversal of the fall direction of the skillion roof of the new pedestrian bridge and a reduction in the height of the stair canopies
- removal of sections of the platform canopies to provide a visual break between the platform heritage buildings and new infrastructure
- increased glazing to the lift shafts and footbridge façade to reduce the visual bulk and increase the transparency.

The impacts associated with the design refinements have been considered in accordance with clause 228 of the EP&A Regulation.

Should further design modifications be required as a result of the detailed design process, these modifications would be assessed to determine consistency with the Approved Project, including significance of impact on the environment. Additional mitigation measures and/or consultation would be undertaken where necessary.

Purpose of this report

The purpose of this Determination Report is for TfNSW, as the Proponent of the Croydon Station Upgrade, to determine whether or not to proceed with the Proposed Activity. TfNSW must make a determination in accordance with the provisions of Part 5 of the EP&A Act.

Conclusion

Based on the assessments in the REF and a review of the submissions received from the community and stakeholders, it is recommended that the Proposed Activity be approved, subject to the mitigation measures included in the REF and the proposed Conditions of Approval. TfNSW will continue to liaise with the community and other stakeholders as the Proposed Activity progresses through detailed design and into the construction phase.

1 Introduction

1.1 Background

Transport for NSW (TfNSW) is the NSW Government's lead public transport agency that ensures planning and policy is fully integrated across all modes of transport in NSW. It manages a multi-billion dollar budget allocation for train, bus, ferry, light rail and taxi services and related infrastructure in NSW.

TfNSW is responsible for improving the customer experience of transport services, transport policy and regulation, planning and program administration, procuring transport services, infrastructure and freight.

On 23 April 2012, the Minister for Transport announced the Transport Access Program. The program provides a better experience for public transport customers across the State by ensuring infrastructure improvements are delivered in a co-ordinated and integrated way.

The Transport Access Program ensures the integrated planning and delivery of works with the aim of providing:

- stations that are accessible to people with a disability, those who are less mobile and parents with prams
- modern buildings and facilities for all modes that meet the needs of a growing population
- modern interchanges that support an integrated network and allow seamless transfers between all modes for all customers
- safety improvements including extra lighting, help points, fences and security measures for car parks and interchanges, including stations, bus stops and wharves
- signage improvements so customers can more easily use public transport and transfer between modes at interchanges
- other improvements and maintenance such as painting, new fencing and roof replacements.

TfNSW is the Proponent for the Croydon Station Upgrade (referred to as the 'Proposed Activity' in this document).

1.2 Review of Environmental Factors

A Review of Environmental Factors (REF) has been prepared by TfNSW in accordance with sections 111 and 112 of the *Environmental Planning and Assessment 1979* (EP&A Act), and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), to ensure that TfNSW takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposed Activity. The REF is included at Appendix A.

The Croydon Station Upgrade REF was placed on public display from 22 September 2015 to 19 October 2015, with 56 submissions received. Issues raised in these submissions are addressed in Section 2.3 of this report.

1.3 Determination Report

Prior to proceeding with the Proposed Activity, the Secretary for TfNSW must make a determination in accordance with Part 5 of the EP&A Act (refer Figure 1).

The purpose of this Determination Report is to address the following to allow for a determination of the Proposed Activity:

- assess the environmental impacts with respect to the Proposed Activity, which are detailed in the environmental impact assessment (and any proposed modifications, as detailed and assessed in this Determination Report)
- identify mitigation measures to minimise potential environmental impacts
- determine whether potential environmental impacts are likely to be significant
- address whether the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) apply to the Proposed Activity.

This report has been prepared having regard to, among other things, the objectives of TfNSW under the *Transport Administration Act 1988*:

- a) to plan for a transport system that meets the needs and expectations of the public
- b) to promote economic development and investment
- c) to provide integration at the decision-making level across all public transport modes
- d) to promote greater efficiency in the delivery of transport infrastructure projects
- e) to promote the safe and reliable delivery of public transport and freight services.

1.4 Description of the Proposed Activity in the REF

Croydon Station is located approximately nine kilometres west of Sydney's Central Station in the suburb of Croydon. The station straddles the Local Government Area (LGA) boundaries of Burwood and Ashfield Councils with the western portion of the station situated in the Burwood LGA and the eastern portion within the Ashfield LGA.

Croydon Station and the surrounding interchange area do not currently meet key requirements of the *Disability Standards for Accessible Public Transport 2002* (DSAPT) or the Commonwealth *Disability Discrimination Act 1992* (DDA). Currently there is no ramp or lift access to station platforms and there are non-compliant paths of travel from the surrounding footpath and roads. In addition, the station entrance is narrow, and there is no weather protection over the existing footbridge and stairs.

The specific objectives of the Croydon Station Upgrade are to:

- provide a station that is accessible to those with a disability, the ageing and parents/carers with prams
- improve customer safety and enhance pedestrian network links by creating more open entrances and wider paths of travel, along with a new station entrance from Hennessy Street
- improve customer experience and amenity through improved facilities including canopies for weather protection, a new Customer Information Window and Family Accessible Toilet at concourse level, Passenger Information Displays and new wayfinding in and around the station

- improve the transport interchange facilities with new accessible parking, kiss and ride and additional bicycle parking facilities.

An overview of the Proposed Activity, which is the subject of the Croydon Station Upgrade REF, is provided in the Executive Summary with full details set out in Chapter 3 of the REF. In summary, the Proposed Activity as outlined in the REF comprises:

- replacement of the existing station footbridge with a new raised and wider pedestrian bridge that would extend north to a new station entrance at Hennessy Street
- installation of new stairs to each platform and three lifts to provide access to the station platforms
- new canopies installed at both station entrances and along the new pedestrian bridge, stairs, lift landings and platforms
- widening of a section of the Paisley Road footpath and upgrade of the Paisley Road/Meta Street station entry plaza
- provision of two accessible parking spaces and up to three kiss and ride spaces in Paisley Road
- installation of new undercover bicycle racks installed on both sides of the station
- new station operations building at concourse level of the Paisley Road station entrance with new Family Accessible Toilet
- ancillary works including platform resurfacing/re-grading, services diversion and/or relocation, station power supply upgrade (including new substation), minor drainage works, adjustments to lighting, new ticketing facilities including additional Opal card readers, modifications to station communication and security systems with new or relocated infrastructure (including CCTV cameras and Passenger Information Displays) and wayfinding signage.

The need for, and benefits of the Proposed Activity are outlined in Chapter 2 of the REF.

Investigative works are planned for late 2015 with main construction works to commence from early 2016. Construction of the Proposed Activity would take approximately two years to complete.

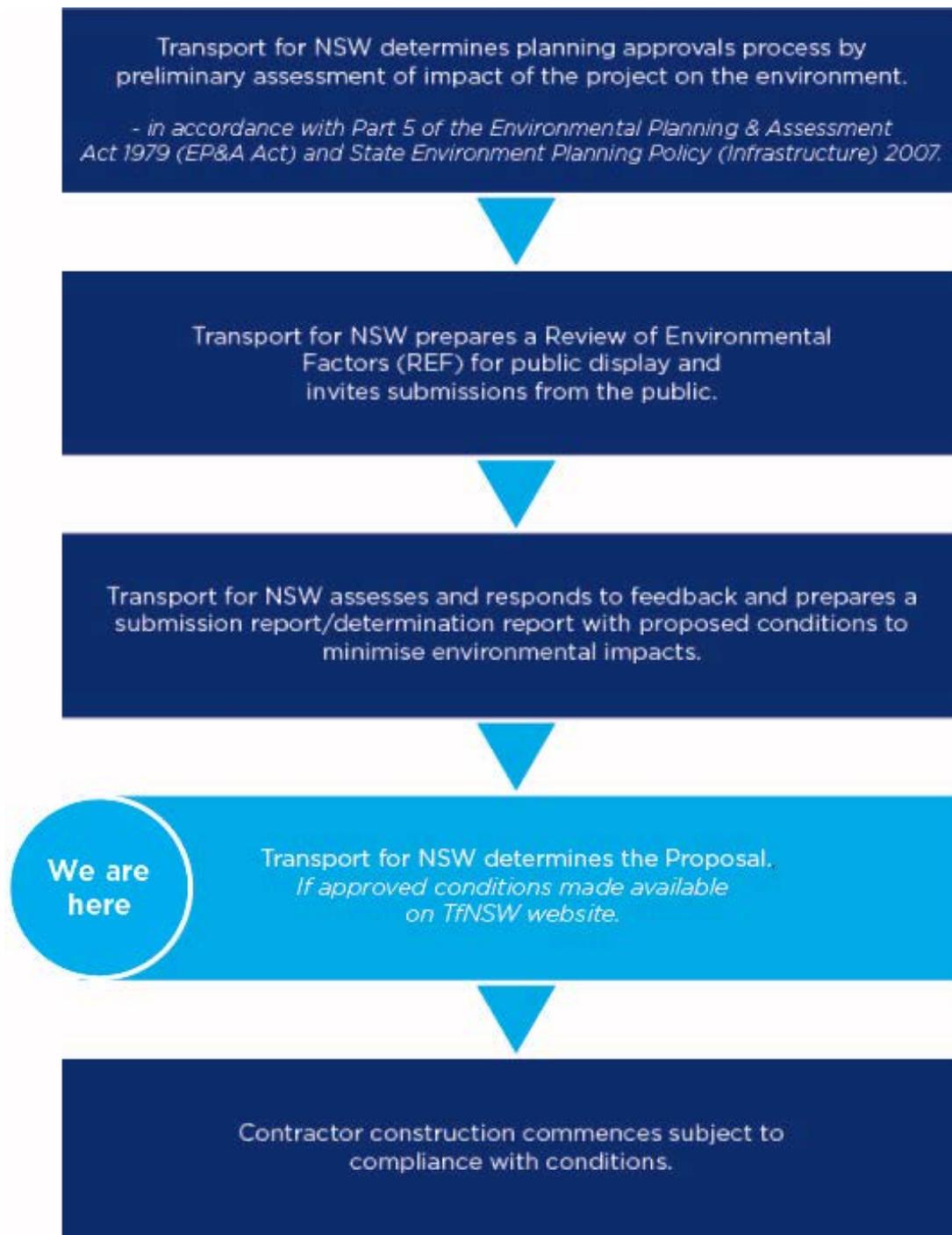


Figure 1: Planning approval process

2 Consultation and assessment of submissions

2.1 REF public display

The Croydon Station Upgrade REF was placed on public display from 22 September 2015 to 19 October 2015 at five locations, as well as on the [TfNSW website](http://www.transport.nsw.gov.au/projects-tap/current-works/croydon)¹ and the NSW Government [Have Your Say website](http://www.haveyoursay.nsw.gov.au)²

Community consultation activities undertaken for the public display included:

- distribution of 8000 flyers to customers at the station, nearby residents and businesses on 22 September
- installation of project signage at Croydon Station
- public display of the REF at the Ashfield and Burwood libraries, Ashfield and Burwood Council offices and the TfNSW Community Information Centre at 388 George Street, Sydney
- placement of advertisements in the Inner West Courier on 22 September 2015 and 13 October 2015
- door knocking of neighbouring local businesses adjoining the project
- placement of information on the TfNSW website
- a briefing to Burwood and Ashfield Councils on 8 October 2015
- a letter outlining the scope of the Proposed Activity, information on where to view the REF and technical studies on the TfNSW website, along with details on how to make a submission was sent to Ashfield Council and Burwood Council as per the consultation requirements under clause 13, 14 and 15 of the Infrastructure SEPP.

2.2 REF submissions

A total of 56 submissions were received by TfNSW, including one from Ashfield Council and one from Burwood Council. Submissions included feedback on a range of issues in relation to the Proposed Activity. The key issues raised in submissions were regarding:

- proposal need/alternatives
- consultation process
- traffic, transport and access
- heritage, urban design and visual amenity
- noise and vibration
- amenities
- street trees/vegetation.

¹ <http://www.transport.nsw.gov.au/projects-tap/current-works/croydon>

² <http://www.haveyoursay.nsw.gov.au>

2.3 Consideration and response to submissions

Community submissions

A summary of all issues raised and associated responses is provided in Table 1.

Table 1: Response to submissions received

No.	Submission no.	Issue/s raised	TfNSW response
1		General	
1.1	CR01 CR02 CR06 CR12 CR36	Support for the Proposed Activity.	Noted.
1.2	CR03 CR10 CR13 CR14 CR15 CR19 CR20 CR21 CR24 CR25 CR27 CR28 CR30 CR31 CR32 CR34 CR37 CR38 CR40 CR41 CR42 CR44 CR45 CR49 CR50 CR51 CR52 CR54	Support for improved access/amenity but concerned with or object to the design.	Noted. A number of design modifications are proposed in Chapter 3 to address a number of key concerns raised about the design.

No.	Submission no.	Issue/s raised	TfNSW response
1.3	CR37 CR50	Has there been a study on how to minimise the impact of the development on local businesses and surrounding residents? The REF fails to consider community and business impacts.	<p>The REF prepared for the Proposed Activity included an environmental assessment to consider potential impacts across a range of issues including socio-economic impacts (refer Section 6.6 of the REF). During construction, local businesses and residents are likely to experience temporary traffic, noise and visual impacts. A Construction Environmental Management Plan (CEMP) would be prepared during construction to manage impacts.</p> <p>During operation, the Proposed Activity would not result in any major changes to residents and businesses around the station.</p>
1.4	CR37	Interested to know if Council supports the proposed plans.	Ashfield and Burwood Council's feedback on the Proposed Activity is included in Table 2 and Table 3.
1.5	CR43	Concerned that TfNSW has completed all the reports necessary to show due diligence and justify the proposal but then applied the same design that has been applied across the region.	The concept design for the Proposed Activity has been prepared by Caldis Cook Group and has been developed to improve accessibility, meet the applicable standards, and respond to the heritage precinct and urban setting that characterises Croydon specifically. The planning documents have then been prepared to assess the proposed concept design tailored for Croydon.
1.6	CR45	There is inadequate information to be able to fully understand the design being proposed, especially the levels, entries and ramp arrangement. The practice of TfNSW only showing one simple diagram plan for station upgrades is inadequate and a non-transparent process. More detailed plans exist and they should be available if people want to appreciate and evaluate more technical aspects.	<p>TfNSW has undertaken an environmental assessment based on a concept design which comprises a set of architectural drawings, however for the purposes of the REF the design information has been summarised into a diagram so it can be easily understood by the wider community. If members of the community are interested in particular technical details, they may wish to request this information from TfNSW.</p> <p>The entry ramp at Paisley Road has been designed so that it meets the required 1:14 maximum grade to provide an accessible path from the station entry to the accessible parking. However, details of ramps and other infrastructure remain subject to detailed design.</p>

No.	Submission no.	Issue/s raised	TfNSW response
1.7	CR46	The environmental documents look like 'tick the box' exercises. The REF reads as if the local residents and commuters will have to be reminded from time to time that construction is underway. Disappointed a more objective document was not forthcoming.	The REF prepared for the Proposed Activity included an environmental assessment to consider potential impacts during construction and operation and relied upon independent assessments across a number of specialist areas.
1.8	CR46	No cost estimates are provided in the REF which is a significant omission. A benefits study would also be desirable.	<p>Cost estimates are not typically presented in the REFs for station upgrades as the purpose of the document is to provide an overview of the options development process and assess the environmental impacts of the activity.</p> <p>The preferred option assessed in the REF (Option 2) was taken forward as it was considered to be the option that represented value for money, provided a new station entrance from Hennessy Street, improved access to the station and across the rail corridor consistent with the objectives of the Proposed Activity. While the preferred option also included additional costs to construct a replacement footbridge, this addressed the issues associated with installing new lifts to the existing footbridge (Option 1) which would need to be replaced in the near future due to its deteriorating condition.</p> <p>It was also less expensive than Option 3 (new pedestrian bridge connected to the Meta Street road bridge) which would likely incur high design and construction costs to address the numerous regulatory and engineering constraints associated with connecting to the road bridge. More information on the options is provided in Chapter 2 of the REF.</p>

No.	Submission no.	Issue/s raised	TfNSW response
1.9	CR46	Stated that there is expected to be a 27 per cent growth in the usage of the station but no mention of the growth is provided. Will it be local (more flats?) and/or commuters bring their vehicles from elsewhere. This is relevant in developing an appropriate design approach.	Customer patronage estimates for 2036 are calculated for each station by the Bureau of Transport Statistics (BTS) and take into account a number of growth factors (find out more at the BTS website ³). Designing for future patronage + 15 per cent ensures that the infrastructure being provided now will still be suitable into the future. Journey to work and travel mode data for Croydon was also assessed to understand travel patterns which helped inform the design.
1.10	CR46 CR50	The construction time of two years seems to be overly conservative and every effort should be made to expedite construction.	Key construction activities such as the erection of the temporary footbridge, demolition of the existing footbridge and construction of the new pedestrian footbridge need to be undertaken during track possessions (which are scheduled closures of the rail network that occur regardless of the Proposed Activity), to ensure the safety of the workers and operational assets. Approximately 14-18 track possessions over a period of around two years would be required to facilitate these and other construction activities as outlined in Section 3.2.3 of the REF.
1.11	CR46	There is no explanation regarding the temporary walkway proposed at the eastern end of the station and this must be addressed in more detail.	The temporary footbridge (and stairs) would be provided to maintain the existing level of service to the station platforms and is located at the eastern end away from the construction works for the new pedestrian bridge and associated infrastructure and would be installed prior to the closure/demolition of existing facilities. The REF and specialists studies also considered temporary facilities, such as the temporary footbridge, in their assessments. The CEMP and construction Traffic Management Plan to be prepared and implemented by the Contractor would provide detail around the temporary works. The Community Liaison Plan would also detail notification and other consultation measures to inform the community of the changes.

³ <http://www.bts.nsw.gov.au/Statistics/Travel-Forecasts/Travel-Forecasts/>

No.	Submission no.	Issue/s raised	TfNSW response
1.12	CR46	The impacts of temporary construction works (parking, sheds, storage areas, stockpiles laydown areas etc.) have not been addressed.	Section 3.2.7 and Figure 5 of the REF discusses the proposed location for a construction compound, which would be used for temporary construction works. The impacts of these temporary works (such as changes to Paisley Road) were assessed as part of the REF and specialist studies.
2		Proposal need/alternatives	
2.1	CR18 CR39 CR42 CR43 CR44 CR46 CR48	A new station/major upgrade is a significant expenditure and a waste of tax payer's money which could be spent elsewhere. Even with the projected growth estimates, the existing station would not struggle to cater for this increase and only needs a few changes/upgrade.	To ensure value for money it is important that the proposed upgrade is able to cater for the expected future patronage at Croydon Station. The replacement footbridge, which is also required for structural and safety reasons, would then be constructed to meet these patronage numbers.
2.2	CR46	The development and comparison of options was not exhaustive and seems to have been only superficially considered.	The REF is intended to provide a high level overview of the options development process which has been undertaken by TfNSW and was the subject of a separate Concept Design Report prepared by Cardno in 2014. This report includes a detailed review of the needs and opportunities for Croydon Station, consultation with stakeholders, outcomes of the numerous workshops and multi-criteria analysis.
2.3	CR05 CR18 CR39 CR47	The proposed lift to Platform 1/2 does not represent value of money as this platform is rarely used by rail customers. Lift access to this platform should be removed/reconsidered.	A key consideration in determining the need for lifts is the requirements of the DDA and DSAPT, and to be DDA-compliant station would need to include a lift to any platform that may be used by the community (regardless of frequency). However, further investigation into the need for a lift on Platform 1/2 to be installed as part of this Proposed Activity will be undertaken during the next phase of design. If the Proposed Activity were to be modified to remove the lift as part of the scope, it would be in such a way that it would not preclude a lift from being installed on Platform 1/2 in the future.

No.	Submission no.	Issue/s raised	TfNSW response
2.4	CR41	The former footbridge connection to Hennessy Street should be reinstated which would remove the need to replace the footbridge.	It is not feasible to reinstate the connection from the existing footbridge to Hennessy Street as the structural and chemical condition of the footbridge is such that it needs to be replaced to ensure the safe operation in the long-term. However the new pedestrian bridge would also be extended to provide a new accessible path of travel from Hennessy Street which would also not be possible if the pedestrian bridge were extended from the existing height.
2.5	CR46	The proposed walkway down to the eastern end of the station seems to have some merit. It would reduce construction/demolition activities and the timeframes for the works. It would also provide a safe location for children to cross.	This option was considered as part of the options process (Option 2b) and was discounted primarily because of the longer travel distances for pedestrians from the major catchments (i.e. the schools and shops along The Strand) and one of the key objectives for the Proposed Activity is to improve access and encourage greater use of public transport.
2.6	CR05	Instead of a new pedestrian bridge and lifts, equitable access to station platforms could instead be provided by installing a new lift in the former newsagent space (to Platform 5) and on the western side of the existing footbridge (to Platform 3/4 and Platform 1/2, if necessary). A scaled-down version of the upgrade would save money.	Structural and chemical investigations into the existing footbridge undertaken by engineering firms Mott McDonald and Hyder have identified extensive carbonisation and limited remedial repair options. As such, to be able to safely provide lifts for equitable access, the footbridge needs to be replaced and also raised so that it meets operational requirements (including a sufficient vertical clearance of structures above the railway track to comply with current standards, horizontal clearances of the lift structure to the edge of the track and also allowing for suitable circulation space around the lift for wheelchair access). This height increase would also facilitate an accessible path of travel from Hennessy Street and Meta Street (which is a DDA requirement). Also refer to Section 3.1.2 of the REF for more information on design constraints.

No.	Submission no.	Issue/s raised	TfNSW response
2.7	CR22	The existing heritage booking office should be retained and new sections added to gain the desired access.	<p>The condition of the existing footbridge is such that it needs to be replaced (see Item 2.6) and also raised to meet operational requirements (i.e. sufficient vertical clearance of structures above the railway track). This height increase would also facilitate an accessible path of travel from Hennessy Street and Meta Street (which is a DDA requirement).</p> <p>It is also necessary to remove the existing booking office (a relatively new structure constructed in the 1990s and which does not comprise original fabric) as there are constructability and cost issues around retaining the booking office and building a new compliant pedestrian bridge. The new building would be configured so that it also better suits the operational requirements of Sydney Trains.</p>
2.8	CR41 CR43	Need for new station operations building questioned given there is already a public lavatory and if more space for station operations is required then the former shop could be utilised. Also if there is a move away from ticketing then why is a new ticket office required?	<p>The need for a new station operations building is largely driven by the need to replace the existing footbridge which in turn also requires the removal of the existing booking office with a new station operations building (also see Item 2.7).</p> <p>The new station operations building is not being developed as a ticketing office and would include a multi-purpose office, ambulant toilet and meal room for staff along with a Family Accessible Toilet for customers.</p>

No.	Submission no.	Issue/s raised	TfNSW response
2.9	CR43 CR44	<p>There is no need to raise the concourse and then provide ramps to provide access from the station operations building to street level (could install stairs instead).</p> <p>The station operations building should be set down into the space of the railway (like the current building which is camouflaged by the trees).</p>	<p>The need for a new station operations building is largely driven by the need to replace the existing footbridge which in turn also requires the removal of the existing booking office with a new station operations building (also see Item 2.7).</p> <p>The new pedestrian bridge and station operations building would be raised approximately 1.2 metres to meet operational requirements (i.e. sufficient vertical clearance of structures above the railway track to comply with current standards, horizontal clearances of the lift structure to the edge of the track and also allowing for suitable circulation space around the lift for wheelchair access). This height increase would also facilitate an accessible path of travel from Hennessy Street and Meta Street (which is a DDA requirement). The new ramp from the station operations building to the accessible parking is required to provide the required 1:14 maximum grade for equitable access.</p>
2.10	CR45	<p>The best approach to providing access would be to match the concourse level to the centre of the pedestrian crossing on Hennessy Street and level of the courtyard at the end of Paisley Road which would avoid the narrow ramp access points.</p>	<p>The condition of the existing footbridge is such that it needs to be replaced (see Item 2.6) and also raised to meet operational requirements (i.e. sufficient vertical clearance of structures above the railway track to comply with current standards). This height increase would also facilitate an accessible path of travel from Hennessy Street and Meta Street (which is a DDA requirement).</p> <p>The new ramp from the station operations building to the accessible parking is then required to provide the required 1:14 maximum grade for equitable access.</p>
2.11	CR45	<p>If the existing brick balustrade wall on the eastern side of Meta Street is heritage significant, then the separate concourse (pedestrian bridge) approach is appropriate. Alternatively the balustrade could be removed to create a much larger and open station entry.</p>	<p>The Meta Street road bridge forms part of the State Heritage listing for the station and is of heritage significance. The fabric of the road bridge would not be affected by the Proposed Activity.</p> <p>Options to incorporate the new pedestrian bridge with the road bridge were considered but discounted mainly due to the higher design and construction costs associated with addressing the numerous regulatory and engineering constraints required to connect to the Meta Street road bridge (refer Section 2.4 of the REF). This option would also likely result in impacts to the heritage fabric of the road bridge.</p>

No.	Submission no.	Issue/s raised	TfNSW response
2.12	CR31	TfNSW should provide at least one more alternative design for the public to consider. The alternative should incorporate materials/design themes/lines/curves that reflect the existing architecture of the station and village.	TfNSW considered a range of options for the upgrade which are summarised in Section 2.3 of the REF. From the options, a preferred option was developed into a concept design. This concept design has undergone some design refinements to reduce the visual and heritage impacts (refer Section 3.1) and would undergo additional refinements during the detailed design phase. Information would be provided to the community once the detailed design is complete and would form part of a project update notification.
3 Consultation process			
3.1	CR27	Was unable to access documents on the website and these systems need to be fixed.	The REF and specialists studies were available to view on the TfNSW website ⁴ throughout the public display of the REF, and will remain on the website into the construction phase, if approved. The website is regularly updated and checked for errors.
3.2	CR37 CR50	Shocked that adjacent property owners were not issued with an official notification of the proposed works. Why have the owners of surrounding buildings not been consulted as is the normal process during a development?	Consultation requirements differ between local development and development carried out by a public authority such as TfNSW. However TfNSW has engaged in a number of consultation activities as part of the public display of the REF and details of these are provided in Section 2.1. This included a letterbox drop of an information flyer on the Proposed Activity to nearby residents and businesses, and doorknocking of adjacent businesses on 22 September 2015.
3.3	CR37	Have adjacent business owners be notified of the plans and the proposed short and long-term changes to parking? In particular, has The Strand Café been notified of how the development would affect outdoor dining on the footpath?	As noted in Item 3.2 above, an information flyer was letterbox dropped to adjacent residents and businesses to inform them of the public display of the REF which provides an assessment of the potential environmental impacts of the Proposed Activity including traffic and socio-economic impacts. Should the Proposed Activity proceed, a Community Liaison Plan would be prepared prior to the commencement of construction which would detail consultation activities for adjacent businesses where issues such as impacts to outdoor dining would be addressed (refer Condition of Approval (CoA) 7).

⁴ <http://www.transport.nsw.gov.au/projects-tap/current-works/croydon>

No.	Submission no.	Issue/s raised	TfNSW response
3.4	CR38	Disappointed more time was not provided for the public display.	TfNSW placed the REF for the Proposed Activity on public display for a period of four weeks. Additional time was provided for the community to review planning documents due to the September school holidays.
3.5	CR42	Consultation process is flawed and has been based on signage at the station and a leaflet containing dot points. The process is off-putting and unwieldy.	The signage and leaflets were provided as a notification of the Proposed Activity and included information on where to access the planning documents and how to make a submission. A summary of all the consultation activities for the public display of the REF are summarised in Section 2.1.
3.6	CR50	The community should have been consulted prior to the development of design and impact statements.	The development of the concept design considered customer survey feedback that identified existing issues at the station. The public display of the REF then provides the community the opportunity to comment on the concept design, prior to it being approved. This then allows for community feedback to be incorporated during the next phases of design.
3.7	CR50	A community consultation group should be set up with regular meetings during the detailed design and construction period. Would also expect widespread consultation with the local community on the final design.	The community would be kept updated on the progress of the Proposed Activity, if approved, through regular updates on the website, notifications and other measures included in the Community Liaison Plan to be prepared and implemented by the Contractor.

No.	Submission no.	Issue/s raised	TfNSW response
4		Traffic, transport and access	
4.1	CR46	<p>The proposal does nothing to promote train travel or make it an accessible facility that can reduce reliance on car transport. The REF admits there are no bus stops, taxis or any other alternative/complimentary public transport. It is not providing any alternative transport solution but is focused on maintaining the status quo with respect to vehicular transport.</p>	<p>One of the key objectives of the Proposed Activity is to provide a station that is accessible. This would be achieved through the establishment of accessible parking in Paisley Road, an accessible path of travel to the new lifts to the station platforms, where currently there is no equitable access. In addition it is also proposed to provide other improvements to customer amenity through a new Family Accessible Toilet and canopies for weather protection along with improvements to signage, lighting and security cameras; all of which would improve the customer experience and encourage the greater use of public transport.</p> <p>The Proposed Activity also seeks to provide improved interchange facilities from the existing situation, within the existing site constraints, including new kiss and ride on Paisley Road and undercover bicycle racks on both sides of the station.</p>
4.2	CR12	<p>Solutions to fix the very large gap between the platforms and train carriages should be considered.</p>	<p>As part of the Proposed Activity, regrading to achieve compliant gradients for safety reasons (i.e. compliant crossfalls of maximum 1 in 40 where required) would be undertaken. Platform raising/widening to bridge the gap is not part of the scope for the Proposed Activity and is difficult to achieve given the different types of trains and curvature of the track, however to assist in boarding or alighting from a train safely, portable platform-to-train boarding ramps are available at all stations. The ramp can be used by customers with prams, those with mobility issues or any other valid need, on request.</p> <p>If assistance to board the train is required, customers should contact their departure station and advise staff of their requirements and travel plan, so they are ready to assist. Customers should arrive at the station well before their train is scheduled and make themselves known to staff.</p>
4.3	CR34	<p>The existing height and width of the steps are ideal and these measurements should be replicated in the new pedestrian bridge.</p>	<p>The design of the new pedestrian bridge and stairs would be undertaken in accordance with relevant standards.</p>

No.	Submission no.	Issue/s raised	TfNSW response
4.4	CR46	The Level of Service 'A' rating for the new pedestrian bridge may have to be revised to reflect the instantaneous loads from when a train comes in.	The Traffic, Transport and Access Impact Assessment (TT&AIA) undertook an analysis of the proposed pedestrian bridge for future patronage levels in 2036 + 15 per cent during peak periods, such as when customers are exiting the train (refer Section 4.3.1. of the TT&AIA). The assessment concluded that the pedestrian bridge would operate well over a 15 minute and one minute peak with a Level of Service 'A'.
4.5	CR45	The northern footpath at the top of Paisley Road (to the east of The Strand) is very narrow and parked cars extend over the footpath impeding access west to the Montessori childcare.	The Proposed Activity would involve the upgrade (widening) of the footpath from the station entrance at Paisley Road down to the intersection with Paisley Lane.
4.6	CR46	Egress from the Paisley Road end of the proposed walkway goes straight onto a crossing used by school children in peak hours with a nasty corner as there is turning and intersecting traffic.	There are no proposed changes to the existing pedestrian/traffic crossings around the station. Pedestrians traversing along the pedestrian bridge would exit via the station operations building into the existing Paisley Road plaza and then would access the existing signalised intersection to cross, similar to the existing arrangement. Also it is noted that the existing pedestrian crossing/s at the Hennessy Street/Meta Street entrance would be retained and no permanent traffic changes are proposed.
4.7	CR46	The proposed accessible parking at the western end of Paisley Road would be difficult to get into and out of.	Car parking spaces would be designed in accordance with the relevant standards. Further investigation into the operational vehicle movements in Paisley Road would be undertaken during detailed design and would consider opportunities to relocate the existing loading zone (or other measures) to provide a wider turning circle for vehicles (refer CoA 38).

No.	Submission no.	Issue/s raised	TfNSW response
4.8	CR41	There is no need for kiss and ride spaces and it would remove three parking spaces (including one accessible parking space) from use.	<p>Informal kiss and ride activity has been observed around the station and providing a safe area for this would help to encourage greater use of public transport.</p> <p>It is proposed to install up to three kiss and ride spaces on the southern side of Paisley Road, near the intersection with Paisley Lane. Opportunities to establish the kiss and ride in peak times only would help to reduce parking impacts and the need to retain the accessible parking space (adjacent to the medical centre) would also be investigated further during detailed design (refer CoA 38).</p>
4.9	CR46	The area around the station is gridlocked in the morning and afternoon peak and the talk of functional kiss and ride is fanciful.	<p>The location of the kiss and ride has been selected with consideration for existing traffic flows. The proposed location would allow vehicles to travel along Paisley Road, stop in the kiss and ride and then continue with a left turn into Paisley Lane (rather than locating it on the northern side of Paisley Road, or further west past the intersection with Paisley Lane).</p> <p>Further investigations into the operation of the kiss and ride would be undertaken during detailed design and in consultation with Ashfield and Burwood Councils (refer CoA 38).</p>
4.10	CR46	The REF should adequately address traffic impacts which is virtually ignored and proposed unworkable mitigative measures. To state that the construction impacts are not known at this time is unprofessional.	<p>The REF presented a summary of the TT&AIA prepared by GTA Consultants for the Proposed Activity. The construction impacts were assessed in more detail in Chapter 5 of the TT&AIA and considered impacts to the road network, access to the station, parking and other impacts.</p> <p>A summary of the key traffic mitigation measures were included in Section 6.1 of the REF and a more detailed list was included in Table 16. Once the detailed design is progressed and the construction methodology is better understood the Contractor would be required to prepare and implement a construction Traffic Management Plan to address and manage traffic impacts which would be developed in consultation with Ashfield and Burwood Councils (refer CoA 33).</p>

No.	Submission no.	Issue/s raised	TfNSW response
4.11	CR46	Proposed construction traffic routes are fanciful, especially during peak hours. In particular, Fredrick Street and Thomas Street are not suitable for large vehicles, access via Edwin Street North is just about impossible and what about impacts of traffic spill to Heighway Avenue. Also the exit from Paisley Road to Thomas Street presents risks for those turning left and real danger for those turning right.	<p>The proposed construction routes presented in the TT&AIA and REF were developed by GTA Consultants with consideration of road restrictions, Roads and Maritime approved routes and school zones to provide an indication of how access to the site could be obtained. Construction routes would be detailed in the construction Traffic Management Plan to be prepared and implemented by the Contractor and would consider existing traffic constraints and safe vehicle movements (refer CoA 33).</p> <p>The predominant access to the site would be from the south/Paisley Road – however during some instances access to the rail corridor would be required via the RailCorp gates off the intersection of Hennessy Street and Edwin Street North.</p>
4.12	CR46	Would ramps be provided as part of the temporary access or just stairs?	The temporary footbridge would comprise stairs only to maintain the existing level of service currently provided.
4.13	CR37 CR42 CR50	Would like to know how local businesses will be able to accept deliveries and where their customers will be able to park.	<p>The loading zone in Paisley Road would be affected during construction and an alternative nearby location would be determined and arranged as part of the preparation and implementation of a construction Traffic Management Plan.</p> <p>Parking in Paisley Road would also be affected during construction however visitors to the Croydon area would still be able to park on nearby streets and in the council car park off The Strand. The TT&AIA considered that the construction activities would have only minor or negligible impacts beyond Paisley Road.</p>
4.14	CR40	Hennessy Street has recently been affected by construction works for underground cabling and works for the school. Paisley Road should instead be used for the parking of equipment and machinery.	<p>During some periods there may be traffic/parking impacts to Hennessy Street to allow for construction works of the station entrance/pedestrian bridge. The rail corridor may also occasionally be accessed from Hennessy Street/Edwin Street North and may also be affected by construction traffic.</p> <p>The temporary compound for the Proposed Activity would be established in Paisley Road which would be the main area for the storage of equipment and machinery</p>

No.	Submission no.	Issue/s raised	TfNSW response
4.15	CR36 CR45 CR50	<p>Traffic along Meta Street is busy and it is difficult to cross Hennessy Street. Are there plans for some traffic flow control or traffic lights?</p> <p>A level crossing should be created on Hennessy Street and the hump in Meta Street in front of the Presbyterian Ladies College is unnecessary and should be removed.</p>	<p>The Proposed Activity does not include any scope for permanent traffic changes to Meta Street/Hennessy Street which are owned and managed by Burwood Council/Ashfield Council.</p>
4.16	CR11	<p>Parking around the station must be retained for residents and shoppers, not commuters.</p>	<p>Impacts to parking around the station, which is used for a variety of purposes, would be minimised as much as practicable.</p> <p>During construction, there would be temporary changes to parking, which would include removal of short-term and long-term parking on Paisley Road to allow for a construction compound and construction activities (up to 27 spaces may be affected). At some times a small amount of parking may be affected in Hennessy Street to allow for the construction of the station entrance/pedestrian bridge.</p> <p>In the longer-term there would be some reconfiguration of parking in Paisley Road which would include the removal of up to three short-term parking spaces to allow for accessible parking and up to three long-term parking spaces for kiss and ride. Opportunities to establish the kiss and ride in peak times only to help to reduce parking impacts would be investigated further during detailed design (refer CoA 38).</p>
4.17	CR42 CR50	<p>Concerned about the loss of 27 parking spaces on Paisley Road during construction and the impacts to small businesses and impacts on weekends. This impact has not been assessed.</p>	<p>The impacts to Paisley Road during construction, including the temporary removal of up to 27 parking spaces for a construction compound and other temporary works is included in Section 6.1 of the REF and Section 5.5 of the TT&AIA.</p> <p>The CEMP and construction Traffic Management Plan to be prepared and implemented by the Contractor would detail the areas to be affected which would be minimised as far as practicable. It is possible that not all parking spaces on Paisley Road would be affected for the duration of the construction and would likely be most impacted during weekend track possessions (refer CoA 33).</p>

No.	Submission no.	Issue/s raised	TfNSW response
4.18	CR46 CR50	To say those construction workers vehicles will not extend past Paisley Road is ludicrous. Alternate parking arrangements for construction workers should be sought on nearby vacant sites (e.g. road reserve along Fredrick Street).	The TT&AIA and REF noted that the removal of parking in Paisley Road is to facilitate construction (i.e. compound, deliveries, laydown areas) and is not intended to be used as an area for parking for construction staff. The construction Traffic Management Plan to be prepared and implemented by the Contractor would detail arrangements for staff parking and staff would be encouraged to use public transport and car pool (refer CoA 33).
4.19	CR09	Bicycle racks are not a priority, and what is essential is the inclusion of a commuter car park.	Providing facilities at transport interchanges to encourage cycling to stations is an objective of the NSW Government Bike and Ride Initiative. It is possible to provide additional bicycle parking on both sides of the station within the existing space constraints. The scope of the Proposed Activity does not include additional car parking for rail customers.
4.20	CR46	Bike racks are not currently used, and the new bikes are not considered to be significant component of the project and their impact would be negligible.	Providing facilities at transport interchanges to encourage cycling to stations is an objective of the NSW Government Bike and Ride Initiative and the additional 40 bicycle parking spaces around the station is proposed to further encourage the use of bicycles.
4.21	CR50	Secure bike lockers not bike racks should be provided.	As per <i>Sydney's Cycling Future</i> bicycle racks are appropriate for high visibility areas such as station entrances (TfNSW, 2013). Lockers are generally installed at quieter (less busy) interchanges.
5		Heritage, urban design and visual amenity	
5.1	CR03 CR04 CR05 CR07 CR08 CR10 CR13 CR14 CR15 CR16 CR17 CR19 CR20 CR21 CR22 CR23	The design of the station is not consistent with the heritage setting and/or the local feel and village character of the existing station (cottage-like booking office and footbridge) and surrounds (e.g. The Strand, Presbyterian Ladies College and adjacent heritage conservation areas). A modern/contemporary design is not appropriate	<i>The Design In Context – Guidelines for Infill Development in the Historic Environment</i> (NSW Heritage Office, 2005) provides information on design criteria that are used in assessing development applications for new buildings affecting a heritage item or within a heritage conservation area. Importantly, designing in context does not mean imitation and copying the architecture of existing buildings. Equally as important, however, is that the new development must make reference to the established and valued setting of which it is to be located within. It must link the past to the present and project into the future. In addition, the guideline also advises that a contemporary

No.	Submission no.	Issue/s raised	TfNSW response
CR24		within the heritage setting.	design solution is also a valid approach.
CR25		In some submissions, the lifts installed at Summer Hill Station were referred to as a good example of an upgrade that was in keeping with the local context. Other examples included Newtown Station and Waverton Station.	For the Proposed Activity, a concept design has been developed by Caldis Cook Group with the input of their heritage architect. The approach for the upgrade was to provide a modern and contemporary design that would also provide an opportunity for historical interpretation of the various stages of the station's development where previously there has been no interpretation. In addition to the proposed interpretation (summarised in Section 6.5.3 of the REF) which includes signage, retention of heritage elements such as newel posts and pavement markers in the location of the concrete trestles to be removed, the design includes modern materials in the new pedestrian bridge, station entrances, station operation building and lifts, such as glazing so that the new elements are light and visually recessive and do not detract from the existing station platform buildings and also the buildings in the adjacent heritage conservation areas. In response to feedback from the community, councils and the Heritage Division, OEH a number of design refinements have been adopted for the Proposed Activity to further improve these new elements within the heritage context. These are outlined in Chapter 3 and were focused on further reducing the bulk and scale of new elements, providing visual separation between new and old fabric and increasing the transparency of the footbridge and lifts through increased glazing. An approval under section 60 of the <i>Heritage Act 1977</i> was issued by the Heritage Council on 4 December 2015, subject to a number of conditions to ensure the design and construction of the Proposed Activity is carried out with regard for the heritage values (refer CoA 20 and Appendix C). This includes the preparation and implementation of a Heritage Interpretation Plan which would develop interpretation that would consider the station in the wider context of the Croydon village and identify opportunities to provide information/signage about the local area.
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No.	Submission no.	Issue/s raised	TfNSW response
5.2	CR35	The urban design is not in keeping with the significance of The Strand and associated Malvern Hill Conversation Area. This area has local and potentially state heritage significance as evidence of one of the first planned subdivisions to comply with the <i>Local Government Act 1906</i> (the first Planning Act and a predecessor for the EP&A Act) and is not an acceptable heritage impact on this basis.	<p>Information on the setting of the Proposed Activity in the local surrounds is provided in Item 5.1 with further consideration into materials and finishes to be managed through the preparation and implementation of an Urban Design and Landscaping Plan (refer CoA 36).</p> <p>An approval under section 60 of the <i>Heritage Act 1977</i> was issued by the Heritage Council on 4 December 2015, subject to a number of conditions to ensure the design and construction of the Proposed Activity is carried out with regard for the heritage values (refer CoA 20 and Appendix C).</p>
5.3	CR04 CR17 CR21 CR31 CR33 CR35 CR37 CR48 CR50	<p>Other buildings/developments in the area have been required to maintain heritage elements or be sympathetic to the heritage area and adhere to heritage requirements in council's planning instruments (e.g. Presbyterian Ladies College, former Pavlova shop at 76 Edwin Street North, The Strand Café). The station upgrade needs to meet the requirements of council's Local Environmental Plans (LEPs) and Development Control Plans (DCPs).</p>	<p>The approval process for the Proposed Activity differs to local developments that are approved by the council. As per the provisions of the Infrastructure SEPP which allows public authorities to carry out certain activities without development consent, the Proposed Activity has been assessed under Part 5 of the EP&A Act. However, the Proposed Activity has been developed with regard to the local planning instruments.</p> <p>The Proposed Activity also requires works within the curtilage of the station which is listed on the State Heritage Register and therefore requires approval from the Heritage Council under section 60 of the <i>Heritage Act 1977</i>.</p> <p>To obtain this approval, Caldis Cook Group has prepared a concept design that is sympathetic with the existing heritage values of the station and surrounds. A Statement of Heritage Impact (SoHI) was also prepared by an independent heritage consultant that assessed the heritage impacts of the Proposed Activity and was also submitted as part of the heritage application.</p> <p>In response to feedback from the community and the Heritage Division, OEH a number of design refinements have been adopted for the Proposed Activity to further improve the new elements in the heritage context.</p> <p>An approval under section 60 of the <i>Heritage Act 1977</i> was issued by the Heritage Council on 4 December 2015, subject to a number of conditions to ensure the design and construction of the Proposed Activity is carried out with regard for the heritage values (refer CoA 20 and Appendix C).</p>

No.	Submission no.	Issue/s raised	TfNSW response
5.4	CR37 CR50	Concerned this proposal may set a future precedent for development on The Strand to move away from maintaining its heritage appeal.	Any future development in the local area would be subject to the approvals under relevant legislation, and which would require an assessment of the potential heritage impacts.
5.5	CR19 CR45	Has the design been developed with the input of an experience urban designer/architect? A heritage architect should be engaged to ensure the design is more sympathetic.	The concept design presented in the REF was developed by architectural firm Caldis Cook Group with the input of a heritage architect. The Proposed Activity (including the design) was then assessed by an independent heritage consultant in the SoHI. The involvement of a heritage consultant during the detailed design is a CoA of the section 60 approval under the <i>Heritage Act 1977</i> (refer Appendix C).
5.6	CR54	Plans do not detail the reinstatement or reuse of the iron newel posts and cast iron balustrades from the stairs.	The Heritage Interpretation Strategy prepared by Caldis Cook Group identified an opportunity to reuse some of the heritage elements such as the newel posts. The Heritage Interpretation Plan to be prepared for the Proposed Activity would provide additional details around the reuse and would include the relocation of the newel posts to the bottom of the new stairs. The cast iron balustrades are not in a suitable condition to be reused.
5.7	CR19 CR22 CR25 CR39 CR40 CR43 CR48 CR49	Concerned about the removal of the (heritage-listed) booking office which sits well within the existing environment in terms of its form and materials.	The existing booking office at the Paisley Road entrance, although part of the listing is not of state-heritage significance as it replaced the original booking office in the 1990s and none of the fabric from the original booking office remains. Given this, and the constructability and cost issues around retaining the booking office and building a new compliant pedestrian bridge – a replacement station operations building to meet Sydney Trains’ operational requirements is proposed. It is also necessary to remove the existing booking office as there are constructability and cost issues around retaining the booking office and building a new compliant pedestrian bridge. The new building would be configured so that it better suits the operational requirements of Sydney Trains.

No.	Submission no.	Issue/s raised	TfNSW response
5.8	CR17 CR42 CR43 CR50	The raising of the new station operations building is unnecessary. The hipped roof form of the proposed station operations building is also domineering.	<p>The height of the station operations building is similar to the existing booking office and has been designed to meet building standards, however, the overall height of the pedestrian bridge and station operations building would need to be raised by approximately 1.2 metres to meet operational requirements (i.e. sufficient vertical clearance of structures above the railway track to comply with current standards).</p> <p>The Visual Impact Assessment (VIA) prepared by Envisage Consulting has considered the visual impacts associated with the Proposed Activity and noted that the large Plane tree to be retained would help to block views of the new station operations buildings. It is also proposed to provide additional tree replacement planting at this location to soften the appearance of the station operations building.</p>
5.9	CR50	The roof of the new station operations building is flat and blocky and does not complement the surrounding buildings. The hip roof claimed to be present in the documentation is not evident.	The photomontages for the Proposed Activity in the VIA and REF included a hipped roof for the station operations building however this was obscured at the angle from Paisley Road (viewpoint B) by the butterfly awning. Since the public display, the butterfly awning has been modified and the pitch and length of the awning has been reduced. An updated photomontage is provided at Figure 5 and the proposed hipped roof is now visible.
5.10	CR35	It is inappropriate on heritage grounds to apply visual links to the existing 1990s brick and weatherboard booking office. However the proposed design should be revised with particular consideration of the Heritage Branch, Department of Planning Guideline "Context in Design" (2009).	<p>The concept design presented in the REF was developed with the input of a heritage architect and with consideration of the OEH Guidelines <i>Design In Context – Guidelines for Infill Development in the Historic Environment</i> (NSW Heritage Office, 2005).</p> <p>It was considered appropriate to apply a hipped roof design to the station operations building, similar to the existing booking office, as this sits well within the surrounds. Applying butterfly awnings at each station entrance as a new modern element also helps to delineate the station entries.</p>

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5.11	CR48	Photos showing the original station should be obtained from the archives at the State Library to see how beautiful the station was and perhaps even use some of the lines of those buildings in the new building.	Historical drawings and photographs were reviewed by the heritage architect from Caldis Cook Group, and by AECOM when preparing the SoHI for the Proposed Activity. The detailed design supported by the Heritage Interpretation Plan will consider original images to enhance the interpretation.
5.12	CR11 CR38 CR43 CR44 CR50 CR53 CR54	The butterfly awnings at the station entrances are inappropriate and make the building appear too high in a low rise area. Its angular shape is in contrast to the curved alignment of buildings on The Strand.	The design of the butterfly awnings at the station entrances has been modified in response to feedback from the community, councils and the Heritage Division, OEH (refer Chapter 3). The pitch has been reduced to lower the overall height. The angular shape has been retained but shortened to provide a modern feel while delineating the station entrances and also distinguishing them from the heritage buildings. A contemporary design is considered appropriate and is consistent with the principles contained in the <i>Design In Context – Guidelines for Infill Development in the Historic Environment</i> (NSW Heritage Office, 2005).
5.13	CR35	The changes to the footbridge and station, as they are currently proposed, will materially affect the significance of the Croydon Station Railway Group (listed on the State Heritage Register). This is because the concrete type, date and form which were used to construct the footbridge contribute to the state heritage significance. However it is noted that the fabric of the existing footbridge is affected to a large degree by concrete carbonisation.	The heritage impacts of the Proposed Activity, which includes removal of the existing footbridge, have been assessed in the SoHI, which also considered the findings of Mott McDonald's bridge investigation reports (see also Item 2.6). A Heritage Interpretation Strategy has been prepared by Caldis Cook Group for the Proposed Activity as a way to partially mitigate the impacts to heritage (such as the removal of the existing footbridge). The strategy includes providing pavement markers on the platforms to show the outline/location of the concrete trestles and other signage.

No.	Submission no.	Issue/s raised	TfNSW response
5.14	CR35	<p>The Statement of Heritage Impact indicates that there is an additional discrepancy in the application about viable heritage options considered for the footbridge and supporting justification. The second option proposed in the Mott McDonald remedial repair investigation (Appendix A of the SoHI) considered the retention of steelwork from the footbridge and which the SoHI does not support as it argues the steelwork is "not significant". However the SoHI presents no justification for this statement in Section 6.0.</p>	<p>The structural steelwork of the footbridge was determined as non-significant fabric in Section 5.2 of the Stage 2 Mott McDonald report. This was confirmed and supported in the peer review by Hyder (Section 3.3.6) and the SoHI (Section 4.2.7). The steel in itself is not of heritage significance – only as a means of holding together the form of the footbridge as a whole. As such this remedial option was discounted as it would not allow for retention of heritage significant fabric.</p>
5.15	CR35	<p>No alternative options on heritage grounds for the footbridge, beyond the three remedial repair options assessed by Mott McDonald in their report (Appendix A of the SoHI) have been reasonably proposed by Mott McDonald, Hyder, AECOM or TfNSW.</p> <p>There is no option which considers moving the trestle on Platform 5, or adapting the design for a new footbridge that incorporates the existing state significant fabric (perhaps not in a structural capacity) around constructing the new footbridge around it. This may require appropriate mitigation (although costly) to further the life of this element with treatment until a new technique or treatment becomes available to reverse or halt the carbonisation.</p>	<p>Other options to retain some or all of the concrete trestles as non-structural elements as part of the new pedestrian bridge were investigated during the development of the design. Section 6.3 of the SoHI discusses these options and why they were discounted.</p> <p>TfNSW has also sought additional advice from Mott McDonald in October 2015 to consider options to relocate some or all of the concrete trestles. The advice noted that only trestle 4 (on Platform 5) and trestle 3 (on Platform 3/4) could be relocated subject to significant craning and bracing. It was also noted that while trestle 3 was in better condition than the other trestles, it was also likely to exhibit cracking potentially within five years. Given the structural conditions, it has not been proposed as part of the design to relocate any of the trestles as it was felt that it would not provide a meaningful interpretation. This position was supported by the heritage architect and independent heritage consultant for the Proposed Activity.</p>

No.	Submission no.	Issue/s raised	TfNSW response
5.16	CR35	The Hyder report (Appendix A of the SoHI) indicates that the concrete trestle on Platform 5 (trestle 4) was less affected by concrete carbonisation however this is not discussed or addressed in the SoHI, or in the three remedial repair options considered proposed by Mott McDonald. It is also relevant to understand whether some of the entire footbridge should be demolished for “safety reasons”.	TfNSW has also sought additional advice from Mott McDonald in October 2015 to consider options to relocate some or all of the concrete trestles. The advice noted that only trestle 4 (on Platform 5) and trestle 3 (on Platform 3/4) could be relocated subject to significant craning and bracing. It was also noted that while trestle 3 was in better condition than the other trestles, it was also likely to exhibit cracking potentially within five years. Given the structural conditions, it has not been proposed as part of the design to relocate any of the trestles as it was felt that it would not provide a meaningful interpretation. This position was supported by the heritage architect and independent heritage consultant for the Proposed Activity. Advice from Sydney Trains maintenance has also been sought which also indicated ongoing issues with the existing footbridge and associated safety risks.
5.17	CR34	Could the arched concrete supports of the existing footbridge be replicated in the new pedestrian footbridge?	The design of the new supports for the pedestrian bridge do not replicate the existing arched trestles as it was felt that this would not provide a meaningful interpretation. Instead, the new pedestrian bridge has been designed to be a modern structure, and through the application of glazing on the facades would be transparent and visually recessive to contrast the heritage elements with the station and surrounds. In addition, the design of the new pedestrian bridge (including column supports) needs to be constructed efficiently in a rail environment (i.e. with major construction activities taking place during rail track possessions). A Heritage Interpretation Strategy has been prepared by Caldis Cook Group for the Proposed Activity as a way to partially mitigate the impacts to heritage (such as the removal of the existing footbridge). The strategy includes providing pavement markers on the platforms to show the outline/location of the concrete trestles and other signage.

No.	Submission no.	Issue/s raised	TfNSW response
5.18	CR35 CR54	The new pedestrian footbridge will re-link the footbridge to Hennessy Street which is appropriate, in principle, as the work in the 1990s removed this link and caused harm to the significant footbridge at that time by cutting the fabric and replacing the former ticketing office with a new structure.	Noted. The replacement pedestrian bridge also has positive accessibility outcomes by providing an alternate station entrance point and a cross-corridor link.
5.19	CR35 CR43	The installation of new lifts and new pedestrian bridge is not a sympathetic addition to the station as it would result in the removal of significant fabric and the replacement design does not appear to be suitable and considerate of the local character of the area.	<p>The condition of the existing footbridge is such that it needs to be replaced (see Item 2.6) and also raised to meet operational requirements (i.e. sufficient vertical clearance of structures above the railway track to comply with current standards, horizontal clearances of the lift structure to the edge of the track and also allowing for suitable circulation space around the lift for wheelchair access).</p> <p>The removal of the significant fabric would be partially mitigated through the adoption of the mitigation measures included in the Heritage Interpretation Strategy prepared by Caldis Cook Group. An archival recording of the footbridge and other elements would also be undertaken prior to commencement of construction.</p> <p>The concept design presented in the REF was developed with the input of a heritage architect and the Proposed Activity has adopted a contemporary approach to the design (see also Item 5.1).</p>

No.	Submission no.	Issue/s raised	TfNSW response
5.20	CR35	The proposed design is not recessive, for example, the design for the canopy over the footbridge and current materials is inappropriate on heritage grounds.	<p>The modified design as presented in Chapter 3, incorporates additional glazing along the façade of the pedestrian bridge and upper sections of the lift shafts on Platforms 1/2 and 3/4, to further increase transparency and to create a structure that is visually recessive.</p> <p>The design of the roof along the footbridge has also been altered and the fall direction has been reversed which also helps to provide a visual break to the stair canopies – again to help achieve a visually recessive design. Sections of the proposed platform canopies have also been removed in order to provide a visual and physical separation of the new elements from the platform heritage buildings.</p> <p>Other materials and finishes for the Proposed Activity would be further considered during detailed design but the materials and finishes proposed (in greys and browns) were selected for their recessive nature.</p>
5.21	CR46	No details of the walkway are provided so there can be no comment on the heritage or visual impacts of this structure.	<p>Details of the pedestrian bridge are included in Section 3.1.1 of the REF and would comprise concrete base and steel frame. The materials for the external structure (façade) would comprise a steel frame, with glazed walls (as part of the design refinements) and louvres on the eastern side. The roof would comprise a steel framed structure with Colorbond roof sheeting. The lifts would be constructed from precast concrete and painted structural steel frame, with glazing.</p> <p>The heritage and visual impacts of the Proposed Activity were assessed by AECOM and Envisage Consulting (and summarised in the REF) and these studies are available on the TfNSW website⁵. Design modifications since the public display have been assessed in Chapter 3.</p>

⁵ <http://www.transport.nsw.gov.au/projects-tap/current-works/croydon>

No.	Submission no.	Issue/s raised	TfNSW response
5.22	CR44	<p>No visual rendering of the platform canopies is provided in the REF to show how they will interact with the platform canopy buildings.</p> <p>The canopy should finish short of the platform building and not be like other canopies with a pole every couple of feet.</p>	<p>In response to feedback from the community and the Heritage Division, OEH a number of design refinements have been adopted for the Proposed Activity to further improve these new elements within the heritage context. These are outlined in Chapter 3 and include reducing the extent of the platform canopies which will extend to just over the platform stairs and around the lifts to provide a visual and physical separation from the platform heritage buildings. A visual rendering has been prepared and is included at Figure 6.</p>
5.23	CR35 CR36	<p>The current design does not recommend opening up the former 1890s subway located at the eastern end of the station and which links directly to each of the platforms. Reopening this section would reconnect Edwin Street South and North and the public safety issue can also be resolved with security cameras and better lighting. It would also return this significant heritage element to the station.</p>	<p>The reuse of the subway as a pedestrian tunnel was not taken forward during the development of viable options for the upgrade. In addition to the inherent Crime Prevention Through Environmental Design (CPTED) issues that are associated with tunnels, there were a number of other key constraints:</p> <ul style="list-style-type: none"> • the subway was backfilled most likely to mitigate risk of collapse and there would likely be significant work to reinforce, strengthen and replace key structural components (such as the track slab) to make the subway safe to use and provide the required design life • there are considerable issues associated with complying with DDA standards including that the former access ramp would not comply with current grade requirements and is also too narrow to cater for future patronage growth. Any new ramp would not be viable as there would be insufficient space to achieve the required grades and resultant length of run • the former stairs (from the subway to platforms) would also not be suitable for reuse due to non-compliances with the Building Code of Australia (BCA).

No.	Submission no.	Issue/s raised	TfNSW response
5.24	CR11 CR20 CR25 CR31 CR37 CR38 CR42 CR50 CR53	Use of steel, concrete, aluminium, glass and other modern materials is not appropriate in an historic setting. Instead, new elements should 'blend in' with the existing streetscape and utilise similar materials (e.g. brick).	<p>Steel and concrete are materials required for construction of the structural elements such as the pedestrian bridge. These materials also need to comply with the current codes and standards around impact protection and safety.</p> <p>Modern materials and finishes (such as glazing, and cladding in grey and brown) have been proposed for the façades of the pedestrian bridge and station operations building so they provide a contrast and do not detract from the existing heritage buildings.</p> <p>Further consideration of materials and finishes would be undertaken during the detailed design phase, with the input of a heritage architect.</p>
5.25	CR16	Key construction should be in brick to suit the pedestrian bridge, platform buildings and The Strand buildings and any pillars should be constructed from wrought iron.	<p>Modern materials and finishes (such as glazing, and cladding in grey and brown) have been proposed for the façades of the pedestrian bridge and station operations building so they provide a contrast and do not detract from the existing heritage buildings.</p> <p>Further consideration of materials and finishes would be undertaken during the detailed design phase, with the input of a heritage architect.</p>
5.26	CR07 CR17 CR24 CR34 CR38 CR50 CR54	<p>Modern materials for the new station operations building (i.e. Colorbond, aluminium cladding panels and aluminium framed windows) are not appropriate.</p> <p>Alternatives that should be considered include weatherboard, 'red and blue' heritage bricks, iron roof with terracotta tiles etc. i.e. built in Federation style/similar to the existing.</p>	<p>Modern materials have been chosen for the station operations building and in colours which are visually recessive so they do not detract from the existing heritage buildings.</p> <p>Further consideration of materials and finishes would be undertaken during the detailed design phase, with the input of a heritage architect.</p>

No.	Submission no.	Issue/s raised	TfNSW response
5.27	CR45	Design should be as open as possible and use contemporary materials such as glass and steel lift design, fine edges. Blue colour is not a good choice.	The use of modern materials is considered appropriate for the Proposed Activity. The design of the lift has been modified further following the public display, and now incorporates additional glazing and louvres on the eastern side only to minimise the visual impact. The façade of the new pedestrian bridge also has additional glazing to improve the transparency and 'openness'. This has also resulted in the removal of the 'Mist Grey' (blue) aluminium panels from the façade of the pedestrian bridge.
5.28	CR36	Would like to know if the archived (historical) photographs of the station could be displayed once the upgrade is complete.	The Heritage Interpretation Strategy prepared for the Proposed Activity recommends the use of historical images as part of the interpretation and the photos shown in the SoHI would be considered. This would be developed further as part of the Heritage Interpretation Plan to be prepared.
5.29	CR37 CR38 CR50	Concerned with the statement included in the VIA that "over time as viewers become more familiar with the changes, it is suggested that it would become a more integrated and compatible part of the overall character and one appreciated as a modern facility".	The VIA acknowledged that there would be a moderate magnitude of change associated with the Proposed Activity from key viewpoints which related in part to the modern appearance (which is discussed more in Item 5.1). The VIA also stated that the design visually delineates these from the heritage elements (which is to assist with the wayfinding/identification of a public transport facility), while at the same time focuses on retaining the key essence of the built character and the relationship of the station to the main streets.
5.30	CR38	Figure 13 of the REF is taken down the hill from The Stand/Paisley Road intersection instead of at the intersection where construction would be more conspicuous. Trees that are to be removed are left in the artistic impression.	The location of the photomontage in Figure 13 of the REF is shown on an aerial map in Figure 9 and is situated close to the intersection and was chosen as a representative viewpoint from Paisley Road (west). The two bottle brush trees to be removed at the station entrance have been replaced in the photomontage with new trees as it is intended to undertake replanting around the station entrance (refer mitigation measure 18 in the REF and also CoA 19). The large Plane Tree (to be retained with some lopping) is shown in both Figure 12 (without leaves) and in Figure 13 (with leaves).

No.	Submission no.	Issue/s raised	TfNSW response
5.31	CR38	Figure 15 of the REF has been used to show the 'low' impact on The Strand. However it portrays what the station would look like from the extreme end of the street and is likely to be a view from Malvern Avenue.	<p>Figure 9 in the REF shows the location of the eight viewpoints that were assessed as part of the VIA, which included one from The Strand (viewpoint B), which is located about half way down the street and is not a view from Malvern Avenue.</p> <p>This viewpoint was also selected for the preparation of a photomontage to provide an indication of what the Proposed Activity may look like from this location on The Strand and was included as Figure 15 in the REF. As can be seen in the photomontage, the new infrastructure associated with the Proposed Activity would not be highly visible from this location which informed the assessment of a 'low' impact in the VIA.</p>
5.32	CR38 CR46	The REF/VIA does not include photomontages from the mid-point of The Strand or from the historic Post Office.	<p>A photomontage from the Strand (viewpoint B) was included as Figure 15 in the REF. Also see Item 5.31.</p> <p>A photomontage from the Post Office on The Strand was not prepared as part of the VIA, as photomontages are typically prepared from only one or two locations. However views of the Proposed Activity from this location have been considered in the VIA and are presented in Table 7 as viewpoint B and were assessed as moderate.</p>
5.33	CR38	The visual impact has been assessed as either low or moderate but is based on poor evidence and is made by reference to images and impressions from distant or low profile locations.	The VIA prepared by Envisage Consulting for the Proposed Activity adopted an accepted methodology with reference to industry guidelines for the assessment. This includes the application of a visual impact matrix which considers visual sensitivity (i.e. the type of receiver) and the visual magnitude (i.e. the nature of the change, the scale and bulk of the new structure etc.) of the Proposed Activity from each viewpoint. The visual impact is then determined by combining the visual sensitivity and the visual magnitude (also refer Chapter 2 of the VIA for more information). To assist in the assessment, photomontages from key viewpoints were prepared to help show what the Proposed Activity may look like once complete.

No.	Submission no.	Issue/s raised	TfNSW response
5.34	CR45	Public art/interpretation should be incorporated.	<p>This would be considered as part of the Urban and Design Landscaping Plan to be prepared for the Proposed Activity (refer CoA 36).</p> <p>In addition, a Heritage Interpretation Plan would be prepared that would develop opportunities for heritage interpretation further and would consider the station in the wider context of the Croydon village and identify opportunities to provide information/signage about the local area.</p>
6 Noise and vibration			
6.1	CR37	Would like to know how noise would impact businesses especially ones that rely heavily on outdoor dining.	<p>Noise impacts are considered in Section 6.3 of the REF and in the Noise and Vibration Impact Assessment prepare by GHD.</p> <p>During construction there would be exceedances of the noise management levels (prescribed in the <i>Interim Construction Noise Guideline</i>, DECC 2009) for receivers around the station, which includes nearby shops and cafes/restaurants. The Community Liaison Plan to be prepared and implemented by the Contractor would identify impacted stakeholders and outline mitigation measures (refer CoA 7).</p> <p>In addition, a Construction Noise and Vibration Management Plan would be prepared and implemented by the Contractor which would contain a number of strategies and measures to reduce construction noise, where reasonable and feasible (refer CoA 25).</p>
6.2	CR37	Would like to know how private properties would be protected during construction – in particular from vibration.	<p>A Construction Noise and Vibration Management Plan would be prepared and implemented by the Contractor which would contain a number of strategies and measures to minimise vibration impacts, such as safe working distances for vibration-intensive equipment.</p> <p>Property condition surveys for nearby properties would also be conducted (refer CoA 30).</p>
7 Amenities			
7.1	CR02	Lighting and security cameras within the station and station precinct should be part of the upgrade.	Lighting and security cameras are included in the scope of the Proposed Activity to improve safety in and around the station.

No.	Submission no.	Issue/s raised	TfNSW response
7.2	CR24	The existing toilets on the station platforms should be open without having to request a key from station staff.	The operation of the station toilets is the responsibility of Sydney Trains and is outside the scope of the Proposed Activity.
7.3	CR45	It would be good if the platform buildings could be used more for the public.	The Proposed Activity requires some internal modifications to the Platform 3/4 building for a communications room but it is not proposed to alter any of the other rooms/buildings, and the operation of the platform buildings would continue to be the responsibility of Sydney Trains.
7.4	CR41	There is sufficient shelter on the platforms. However, if TfNSW are concerned about providing shelters then they should open up the waiting rooms on the station platforms. The stairs do not require shelters but could have tactiles placed on and around them.	<p>The operation of the waiting rooms is the responsibility of Sydney Trains.</p> <p>Providing weather protection over stairs helps to reduce the risk of slips and falls. However the proposed canopies on the platforms are proposed to be removed from the design to allow for a visual and physical break between the existing heritage platform buildings and the new pedestrian bridge and stairs.</p> <p>Tactiles would be installed in accordance with the relevant standards.</p>
7.5	CR34	The existing wooden seats should be retained as they are much warmer to sit on in winter than metal seats.	Any seats to be impacted or altered by the Contractor as part of the Proposed Activity would be replaced in accordance with the current standards and the seat type reviewed in conjunction with the TfNSW Wayfinding Team.
7.6	CR42 CR50	The station entrances include very high butterfly awnings that face west which will result in high temperatures inside the building during summer and exposure to high wind and sleet in the winter.	The pitch and length of the awnings at both station entrances has been reduced to improve the visual amenity, and the design still meets weather protection and building standards.
7.7	CR50	The new ramp should not adversely affect the use of this area by locals or The Strand Café.	The arrangement of the station entrance has been considered as part of the urban setting and necessary access requirements. The new ramp would be installed in the location of the existing bottle brush trees (to be removed) and so would not encroach on the plaza and outdoor dining area.

No.	Submission no.	Issue/s raised	TfNSW response
7.8	CR50	Improvements to the public space outside the Post Office would benefit from additional treatment to improve its amenity.	It is not clear what types of improvements are suggested, however new bicycle racks would be provided in or adjacent to the car park next to the Post Office. Other works around the Post Office are not part of the scope of the Proposed Activity.
7.9	CR50	Weather protection should be provided at the kiss and ride area on Hennessy Street.	There would be weather protection at the Hennessy Street station entrance which is in close proximity to the existing kiss and ride on Hennessy Street and managed by Burwood Council. Opportunities to provide shelter at the kiss and ride would be investigated during detailed design.
7.10	CR45	A retail space should be incorporated but such that it does not impede pedestrian access.	The provision of any retail uses would be subject to a separate planning approval.
8		Street trees/vegetation	
8.1	CR10 CR37 CR50	Concerned about the removal of established trees on Paisley Road which provide shade and a visual buffer.	<p>It is proposed to remove two bottle brush trees from the Paisley Road entrance, two Plane trees on Paisley Road, with some lopping of the other Plane trees being retained. Any trees removed would require offset planning as per CoA 19.</p> <p>It is possible that once more detail around the construction methodology is known (i.e. the size of cranes) that there may be an opportunity to retain the Plane trees on Paisley Road. This would be investigated during the detailed design phase (refer mitigation measure 61 of the REF).</p>
8.2	CR11 CR50	No vegetation appears to be proposed at the front of the station to soften the appearance of the new buildings.	An Urban Design and Landscaping Plan would be prepared for the Proposed Activity and would detail landscaping around the station entrance. It is proposed to provide replacement trees at the Paisley Road entrance and these are shown indicatively in the photomontage/artist's impression included as Figure 13 in the REF (refer CoA 39).

No.	Submission no.	Issue/s raised	TfNSW response
8.3	CR45	Interested to know what is happening at the Paisley Road square and how the landscaped area would be affected.	<p>Two bottle brush trees would be removed at the Paisley Road entrance, and some lopping of the large Plane tree would also be required. Other landscaped elements may also need to be removed.</p> <p>However it is acknowledged that the Paisley Road plaza is an important public space and it is proposed to provide replacement trees/landscaping. The details of this would be developed further as part of an Urban Design and Landscaping Plan (refer CoA 19, 36 and 39).</p>

Council submissions

Table 2 outlines issues raised by Ashfield Council and their heritage advisor Robert Moore in their submission, along with TfNSW's response. Table 3 outlines issues raised by Burwood Council.

Table 2: Ashfield Council's submission

Issue no.	Issue/s raised	TfNSW response
1	General	
1.1	Ashfield Council supports the Croydon Station Upgrade project.	Noted.
1.2	Ashfield Council should be informed of all communications to the Ashfield Council community prior to their release and of the outcomes.	The Community Liaison Plan to be prepared and implemented by the Contractor would detail communication protocols (refer CoA 7).
2	Traffic, transport and access	
2.1	All permanent and temporary changes to traffic arrangements in Paisley Road (east) should be discussed with Council's officers and submitted to Ashfield Council for approval via the Local Traffic Committee.	The Contractor would be required to prepare and implement a construction Traffic Management Plan to address and manage traffic impacts/changes which would be developed in consultation with Ashfield and Burwood Councils (refer CoA 33). Operational traffic changes relating to traffic arrangements on local roads would also be discussed and developed in consultation with councils (refer CoA 38).
2.2	The construction vehicles routes and Construction Traffic Management Plans should be discussed with Council's officers and submitted to Ashfield Council for approval via the Local Traffic Committee prior to implementation.	The Contractor would be required to prepare and implement a construction Traffic Management Plan to confirm construction vehicle routes, which would be developed in consultation with Ashfield and Burwood Councils (refer CoA 33).
2.3	Risks in road safety for all road users (including pedestrians, cyclists, construction vehicles, general vehicles) particularly in the vicinity of the intersection of Paisley Road/Paisley Lane should be minimised.	One of the objectives of the Proposed Activity is to improve customer safety and enhance pedestrian links by creating more open station entrances, wider paths of travel and a new station entrance from Hennessy Street. Safety risks have also been considered during design development through workshops with the aim of mitigating risks as far as practicable. Risks to road users during the construction phase would be managed by the implementation of a construction Traffic Management Plan which would include measures for traffic/pedestrian management.

Issue no.	Issue/s raised	TfNSW response
2.4	Pedestrian and vehicle access/parking for customers to local business in the vicinity, particularly Croydon Medical Centre and Montessori Academy, should be maintained at all times during their business hours or that reasonable provisions provided.	Access to private property and business adjacent to the works would be maintained during construction, unless otherwise agreed by the relevant property owners. There would be some changes to parking in Paisley Road but the construction Traffic Management Plan to be prepared and implemented by the Contractor would detail measures to minimise impacts to the Croydon Medical Centre and Montessori Academy, where practicable (e.g. maintaining parking near these areas).
3	Heritage, urban design and visual amenity	
3.1	It is clear from the documentation that the review of possibilities for the footbridge and stairs has been appropriately thorough. For reasons of materials and construction, it would appear that the only way of retaining the structures would be to replicate them, as known techniques for concrete repair could not achieve their conservation. Replication would not be supported by current conservation methodology and theory as a reasonable and responsible approach.	TfNSW agrees that replication is not a responsible approach. The design of the new supports for the pedestrian bridge do not replicate the existing arched trestles as it was felt that this would not provide a meaningful interpretation. Instead the new pedestrian bridge has been designed to be a modern structure, and through the application of glazing on the facades would be transparent and visually recessive to contrast the heritage elements with the station and surrounds.

Issue no.	Issue/s raised	TfNSW response
3.2	<p>The loss of the footbridge and stairs will impact on the heritage values of the station and the aesthetic and historic significance will be adversely impacted. While interpretative materials may be of interest to some, and will have some value, the primary heritage value – the experience of the place – will be comprehensively changed. The interest of the older fabric, an indispensable part of its experience, will have been substantially and adversely affected.</p>	<p>The Proposed Activity would require the removal of heritage fabric however the condition of the existing footbridge is such that it needs to be replaced due to extensive carbonisation, limited remedial repair options and the associated safety risks (see also Item 2.6) and also raised to meet operational requirements (i.e. sufficient vertical clearance of structures above the railway track to comply with current standards, horizontal clearances of the lift structure to the edge of the track and also allowing for suitable circulation space around the lift for wheelchair access). This height increase would also facilitate an accessible path of travel from Hennessy Street and Meta Street (which is a DDA requirement).</p> <p>The removal of the significant fabric would be partially mitigated through the adoption of the mitigation measures included in the Heritage Interpretation Strategy prepared by Caldis Cook Group. The strategy includes providing pavement markers on the platforms to show the outline/location of the concrete trestles and other signage. An archival recording of the footbridge and other elements would also be undertaken prior to commencement of construction.</p>
3.3	<p>With respect to the new structures, it may be possible to achieve some further improvements in the response of the design to its heritage context – for instance, the stair awning, platform awnings and the “butterfly roof” canopy entrances are concerning, the last being particularly over elements of the scheme, given its context.</p>	<p>In response to feedback from the community, councils and the Heritage Division, OEH a number of design refinements have been adopted for the Proposed Activity to further improve these new elements within the heritage context. These are outlined in Chapter 3 and were focused on further reducing the bulk and scale of new elements, providing visual separation between and new and old fabric and increasing the transparency of the pedestrian bridge and lifts through increased glazing.</p>

Issue no.	Issue/s raised	TfNSW response
4	Street trees/vegetation	
4.1	<p>Council supports the removal of the ten Plane Trees in Paisley Road (east) along the rail corridor provided that the replacement tree plantings (including tree planting pits) are consistent with Ashfield Council's Street Tree Strategy.</p> <p>All changes to street trees in Paisley Road (east) should be discussed with Council's officers prior to commencing any activities, and consistent with Ashfield Council's Street Tree Strategy.</p>	<p>Based on the current design and construction methodology it is proposed to remove only two of the existing Plane trees in Paisley Road with some lopping of the other trees (refer Section 6.7 of the REF). Any additional tree removal, if required, would be subject to approval by TfNSW and undertaken in consultation with Ashfield Council.</p> <p>Details for tree replanting would be developed as part of the Urban and Design Landscaping Plan (refer CoA 19, 36 and 39) and would be undertaken in consultation with Ashfield Council/Burwood Council.</p>

Table 3: Burwood Council's submission

Issue no.	Issue/s raised	TfNSW response
1	General	
1.1	Council supports the improvement of access to Croydon Station.	Noted.
2	Heritage, urban design and visual amenity	
2.1	Croydon Station is listed on the State Heritage Register as well as Council's Local Environmental Plan. It occupies a position alongside the Malvern Hill Heritage Conservation Area which includes the traditional streetscape of the The Strand. The station is also alongside the heritage listed Presbyterian Ladies College and Ashfield Council's Edwin Street North Conservation Area. Croydon Station is at the centre of an important and valued heritage precinct.	<p>Noted. The Proposed Activity involves works within the curtilage of the station which is listed on the State Heritage Register and therefore requires approval from the Heritage Council under section 60 of the <i>Heritage Act 1977</i>.</p> <p>To obtain this approval, Caldis Cook Group has prepared a concept design that is sympathetic with the existing heritage values of the station and surrounds. A Statement of Heritage Impact (SoHI) was also prepared by an independent heritage consultant that assessed the heritage impacts of the Proposed Activity and was also submitted as part of the heritage application.</p> <p>An approval under section 60 of the <i>Heritage Act 1977</i> was issued by the Heritage Council on 4 December 2015, subject to a number of conditions to ensure the design and construction of the Proposed Activity is carried out with regard for the heritage values (refer Appendix C).</p>

Issue no.	Issue/s raised	TfNSW response
2.2	<p>There is a need for the design of the new station structures to complement the heritage character and village-feel of Croydon.</p> <p>Council has received a number of representations from concerned residents with the respect to the contemporary design and impact on the historic character of Croydon.</p> <p>Council advocates for a design for the new Croydon Station that would better complement the existing heritage character of the station. This could be achieved by referencing Council's Development Control Plan which encourages interpretation of built forms and materials found in the locality. It is noted that the Summer Hill Station Upgrade incorporated the use of bricked and more traditional built forms.</p> <p>The NSW Heritage Councils' "Design in Context" Guidelines support infill buildings which respond to the surrounding character, scale, form, siting, materials, colour and detailing. The guidelines state that that good infill buildings recognise characteristics materials, textures and colours used locally and in adjacent buildings, which are then re-interpreted and incorporated into new buildings.</p> <p>Council believes that a modern public facility need not come at the expense of the valued historic character of the Croydon precinct.</p>	<p>The <i>Design In Context – Guidelines for Infill Development in the Historic Environment</i> (NSW Heritage Office, 2005) notes that new development must make reference to the established and valued setting of which it is to be located within. It must link the past to the present and project into the future. In addition, the guideline also advises that a contemporary design solution is also a valid approach.</p> <p>For the Proposed Activity, a concept design has been developed by Caldis Cook Group with the input of their heritage architect. The approach for the upgrade was to provide a modern and contemporary design that would also provide an opportunity for historical interpretation of the various stages of the station's development where previously there has been no interpretation.</p> <p>In addition to the proposed interpretation (summarised in Section 6.5.3 of the REF) which includes signage, retention of heritage elements such as newel posts and pavement markers in the location of the concrete trestles to be removed), the design includes modern materials in the new pedestrian bridge, station entrances, station operation building and lifts, such as glazing so that the new elements are light and visually recessive and do not detract from the existing station platform buildings and also the buildings in the adjacent heritage conservation areas.</p> <p>In response to feedback from the community and the Heritage Division, OEH a number of design refinements have been adopted for the Proposed Activity to further improve these new elements within the heritage context. These are outlined in Chapter 3 and were focused on further reducing the bulk and scale of new elements, providing visual separation between and new and old fabric and increasing the transparency of the footbridge and lifts through increased glazing.</p> <p>Further, the Heritage Interpretation Plan to be prepared for the Proposed Activity would also develop interpretation that would consider the station in the wider context of the Croydon village and identify opportunities to provide information/signage about the local area.</p>

Issue no.	Issue/s raised	TfNSW response
2.3	<p>It is noted that Section 6.2.5 of the Croydon Station Visual Impact Assessment itself identifies the need for more complementary choices of colours and architectural elements, including the proposed metal louvres. It is not clear how the proposed materials of grey aluminium cladding panels, large-format ceramic tiled walls and long expanses of metal louvres respond to the surrounding precinct.</p>	<p>In response to feedback from the community, councils and the Heritage Division, OEH a number of design refinements including changes to the new lifts and pedestrian bridge have been made and which are explained in more detail in Chapter 3.</p> <p>The tiles and louvres of the upper lift shafts have been replaced with glazing and louvres on the eastern façade only to improve the visual aesthetic.</p> <p>On the new pedestrian bridge, louvres have been moved to the eastern side and the façade now comprises glazing with a narrow transom for the handrail and vertical structural steel supports to provide a more light and transparent design for the pedestrian bridge – the aluminium panels have also been removed. Materials for the louvres would be considered further during detailed design.</p>

3 Changes to the Proposed Activity

3.1 Summary of design changes

Following a review of the submissions received during the public display and consultation with Heritage Division, OEH a number of design changes have been made to the Proposed Activity to further address the visual and heritage impacts. A summary of the design changes to the Proposed Activity is provided in Table 4 and illustrated in the photomontages included in Figure 2 - Figure 6.

Table 4: Design changes

Items/aspect	Original design	Altered design
Butterfly awnings at station entrances	Butterfly awnings with a pitch of approximately 17 degrees located at each station entrance opening up to the western side.	The butterfly awnings would be reduced in length and also the pitch (by approximately half) so it is less dominant but still delineates the entrances (refer Figure 3).
Pedestrian bridge roof and facade	The pedestrian bridge encompassed a skillion roof that opened up to the western (Meta Street) side. The façade comprised louvres at the top (on the western side), a middle section of glazing and a lower parapet section comprising 'Mist Grey' aluminium panels. A number of vertical structural steel supports also extended across the façade.	The fall direction of the roof has been reversed so that it opens instead to the east, which has reduced the pitch, height and bulk from the western side (refer Figure 3). The louvres have been moved to the eastern side and the façade now comprises glazing with a narrow transom for the handrail and vertical structural steel supports to provide a more light and transparent design for the pedestrian bridge (refer Figure 3 and Figure 6). This has also resulted in the removal of the aluminium panels (replaced with glazing).
Lifts	The lifts on Platform 1/2 and Platform 3/4 that would be located on the western side and would be visible from Meta Street comprised an 'Oyster' (light brown) tile finish and louvres at the top of all external lift walls.	The lower section of the lifts has not changed but the upper section of the lifts has been replaced with glazing (to all faces and to the limits allowed by standard), and louvres on the eastern side only to reduce the visual bulk, increase the transparency and to also provide a visual separation from the form of the pedestrian footbridge (refer Figure 3). Note the final design of the louvres is subject to a mechanical engineering assessment of the ventilation requirements.

Items/aspect	Original design	Altered design
Stair canopies	The stairs to the platforms included canopies that extended in a continuous visual line from the butterfly awning down to each of the platforms (i.e. at the same angle as the butterfly awning).	The reversing of the fall direction of the pedestrian bridge roof has increased the opening on the eastern side allowing the stair canopy to tuck in under the awning of the pedestrian bridge roof at a different angle and extend down to each of the platforms. This change has resulted in a reduction in the overall height of the stair canopies, and also provides a visual break from the continuous canopy line presented in the original design (refer Figure 6).
Platform canopies	Canopies extended from the stair canopies through to the platform heritage buildings on Platform 3/4 and Platform 5 (with a glass interface to provide a visual separation from the platform heritage buildings).	The platform canopies on Platform 3/4 and Platform 5 have been reduced so that the stair canopies extend just beyond where the stairs land on the platforms and around the lifts. This allows for a visual and physical separation of the new elements from the platform heritage buildings (refer Figure 6).
Station operations building	The station operations building contained a large corner glass window on the western and southern sides.	The window has been removed and replaced with a new tile finish to the wall (refer Figure 5).
Advertising signs	The REF considered signage adjustments as part of the scope however the relocation of two larger advertising signs (approximately three metres by six metres each) from the southern side of Platform 5 between the platform stairs and platform heritage building, to the northern side of the rail corridor was not specifically addressed in the REF.	The proposed location is subject to detailed design but would likely be within the rail corridor, close to the intersection of Hennessy Street and College Street and the signage would face inwards for viewing from the station platforms.



Figure 2: View of Proposal from the corner of Meta Street and Hennessy Street (from REF)

Artist's impression prepared by Envisage Consulting for the VIA – subject to detailed design



Figure 3: View of revised Proposal from the corner of Meta Street and Hennessy Street

Artist's impression prepared by Envisage Consulting for the VIA – subject to detailed design, including the materials and finishes.

This impression helps to illustrate the changes to the butterfly awnings; increased glazing in the lifts with louvres on the eastern side only; along with the increased glazing for the pedestrian bridge façade (and removal of blue aluminium cladding and relocation of the louvres to the eastern side).



Figure 4: View of Proposal from Paisley Road (from REF)

Artist's impression prepared by Envisage Consulting for the VIA – subject to detailed design



Figure 5: View of revised Proposal from Paisley Road

Artist's impression prepared by Envisage Consulting for the VIA – subject to detailed design including the materials and finishes. This impression helps to illustrate the changes to the butterfly awnings which are now lower revealing more of the hipped roof of the station operations building, along with the removal of the corner window.



Figure 6: View of Proposal from Platform 5

Artist's impression prepared by Caldis Cook Group – subject to detailed design including the materials and finishes.

This impression was prepared by the architect to provide an additional view (from Platform 5) and shows the reduction of the platform canopies to allow for a separation from the heritage platform buildings to the new pedestrian bridge and stairs, and also the increased glazing on the pedestrian bridge façade.

3.2 Assessment of design changes

The design changes have been assessed as having generally positive heritage and visual impacts. The visual and heritage specialist reports for the Proposed Activity have been revised by AECOM and Envisage Consulting to reflect this assessment, with an outline of the changes provided in Table 4.

The revised SoHI (AECOM, 2015) summarised that the design refinements would further reduce the visual impact and increase the appreciation of the station's heritage values.

The VIA Addendum (Envisage Consulting, 2015) undertook an assessment of the design changes from four of the receiver viewpoints from the VIA which would have views of the changed elements (i.e. viewpoints A, B, C and G). While the changes were noted to be a positive improvement and would have a lower magnitude of visual change it was still considered to fall within the 'moderate' range and therefore remain as an overall 'moderate' visual impact (Envisage Consulting, 2015).

An assessment of the design changes is provided below. It is not considered that the changes would have impacts for other environmental and socio-economic aspects, unless otherwise mentioned.

Butterfly awning at station entrances

The butterfly awnings would be reduced in length and also the pitch (by approximately half) which would help to reduce the bulk and scale of the station entrances so they are less dominant and more sympathetic to the station and the setting of the Croydon village.

The revised SoHI also noted that the reduction of the butterfly awnings would help to ensure that they are in keeping with the surrounding low-rise streetscape. The VIA Addendum noted that the butterfly awnings would be less visually dominant from Meta Street/Hennessy Street, Paisley Road (west) and The Strand.

Pedestrian bridge roof and facade

The fall direction of the skillion roof of the pedestrian bridge has been reversed so that it instead opens up to the east (rather than the west) which reduces the height and pitch of the roof on the western side, and this in turn helps to reduce the bulk and scale of the pedestrian bridge so that it sits more appropriately within the village context and adjacent low-rise buildings. The reversal has also resulted in the relocation of the louvres to the eastern side, again reducing the 'visual clutter' from the western side.

The extension of glazing on the façade of the pedestrian bridge increase the 'openness' and transparency of the pedestrian bridge and allows for views down to the platform heritage buildings. The SoHI noted that the replacement of solid materials in the façade would improve the visual connection between heritage elements on the platforms, the new works and the surrounding pedestrian thoroughfares. The VIA Addendum considered that the pedestrian bridge would appear lightweight, and that at a lower height would lead to less of the structure being visible which reduces the visual magnitude of the pedestrian bridge.

Lifts

The replacement of tiles with glazing on the upper sections of the lifts on Platform 1/2 and Platform 3/4 and the reduction of louvres (on the eastern side only) would have positive visual and heritage impacts.

The revised SoHI stated that the additional glazing and increased transparency meant that the structures imposed less of a visual barrier to the station beyond. The reduction of louvres and

replacement of tiles with glazing was also noted as a positive improvement in the VIA Addendum.

Stair canopies

The design changes to the stair canopies would provide a visual break from the new pedestrian bridge and the reduction in height would also help to reduce the visual bulk which in turn would reduce impacts to the heritage setting of the station. This change was noted as a positive in the addendum to the VIA and SoHI.

Platform canopies

The removal of sections of the platform canopies from Platform 3/4 and Platform 5 (but still retained on the stairs and around the lifts) would have positive visual and heritage impacts helping to reduce the visual bulk and scale of the Proposed Activity, and also providing a visual and physical separation from the new infrastructure and platform heritage buildings within the State heritage-listed station. The revised SoHI noted that the removal of the platform canopies would ensure the immediate heritage setting of the heritage platform buildings is maintained and that sight lines, particularly from the pedestrian bridge and adjacent pathways, are preserved. The VIA Addendum identifies that the removal of the canopies would allow rail customers better views of the platform heritage buildings.

Another impact associated with the removal of the platform canopies is reduced weather protection, however the proposed canopies would remain along the new pedestrian bridge, stairs and lift areas which would help to reduce the risk of slips and falls. The existing platform heritage buildings/awnings would also be unaffected and provide weather protection for customers waiting for trains.

Station operations building

The large corner window of the station operations building would be replaced with a tiled finish as feedback indicated the window was too large and there was a risk that this would reveal 'back-of-house' office activities from the inside which would have a negative impact to the aesthetics of the building. This change is considered to have a positive aesthetic impact.

Advertising signs

The relocation of the advertising signs to the northern side of the rail corridor would require some vegetation removal and some minor excavation. The nominated area has already been assessed for tree/vegetation removal in the Ecological Impact Assessment (Biosis, 2015) and the nature of excavation is also consistent with that described in Section 6.8 of the REF. No additional assessment for these aspects is required.

Additional impacts include a potentially minor-positive impact to the heritage setting of the State-heritage listed station as the advertising signs are to be moved away from the platform heritage buildings providing a larger separation between old and new elements.

Visually the signage would remain primarily visible from the station platforms. The trees along Paisley Road would help to screen views of the signage in its new location from receivers on the southern side. For receivers on the northern side it is likely that the back of the sign would be partially visible above the rail cutting but would be painted/installed in a colour sympathetic to the surrounds (e.g. grey). The visual assessment presented in Table 7 of the REF for receivers from this location (viewpoint F) would remain the same (i.e. moderate visual sensitivity with a low magnitude of visual change resulting in an overall low visual impact).

3.3 Consultation regarding revised design and future consultation

The revised design has been prepared in response to community and council feedback received during the public display of the REF and concerns raised by Heritage Division, OEH. Heritage Division were consulted with regards to the proposed changes, which were subsequently approved by the Heritage Council as part of the section 60 application under the *Heritage Act 1977* (refer Appendix C).

Should TfNSW proceed with the Proposed Activity, consultation activities would continue, including consultation with Ashfield and Burwood Councils regarding design development. In addition TfNSW would notify residents, businesses and community members in the lead up to and during construction. The consultation activities would help to ensure that:

- local council has an opportunity to provide feedback on the detailed design
- the community and stakeholders are notified in advance of any upcoming works, including changes to pedestrian or traffic access arrangements and out of hours construction activities
- accurate and accessible information is made available
- a timely response is given to issues and concerns raised by the community
- feedback from the community is encouraged.

The [TfNSW email address](mailto:projects@transport.nsw.gov.au)⁶ and TfNSW Infoline (1800 684 490) would continue to be available during the construction phase. Targeted consultation methods, such as use of letters, notifications, signage and verbal communications, would continue to occur. The [TfNSW website](http://www.transport.nsw.gov.au/projects-tap/current-works/croydon)⁷ would also include updates on the progress of construction.

⁶ projects@transport.nsw.gov.au

⁷ <http://www.transport.nsw.gov.au/projects-tap/current-works/croydon>

4 Consideration of the environmental impacts

Environmental Planning and Assessment Act 1979

The REF addresses the requirements of section 111 of the EP&A Act. In considering the Proposed Activity, all matters affecting or likely to affect the environment are addressed in the REF and the Determination Report and associated documentation.

In accordance with the checklist of matters pursuant to clause 228(3) of the EP&A Regulation, an assessment is provided in Chapter 6 of the REF and Appendix 1 of the REF. While the design changes (as described in Chapter 3), would further reduce the heritage and visual impacts, the conclusions of this assessment remain unchanged.

In respect of the Proposed Activity an assessment has been carried out regarding potential impacts on critical habitat, threatened species, populations or ecological communities or their habitats, under section 112 of the EP&A Act.

The likely significance of the environmental impacts of the Proposed Activity has been assessed in accordance with the then NSW Department of Planning's 1995 best practice guideline [*Is an EIS Required?*](#)⁸ It is concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Accordingly, an environmental impact statement under Part 5.1 of the EP&A Act is not required.

Environment Protection and Biodiversity Conservation Act 1999

As part of the consideration of the Proposed Activity, all matters of national environmental significance (NES) and any impacts on Commonwealth land for the purposes of the EPBC Act have been assessed. In relation to NES matters, this evaluation has been undertaken in accordance with Commonwealth Administrative Guidelines on determining whether an action has, will have, or is likely to have a significant impact. A summary of the evaluation is provided in Chapter 6 and Appendix 2 of the REF and the conclusions of this assessment remain unchanged as a result of the design changes (as described in Chapter 3).

It is considered that the Proposed Activity described in the REF is not likely to have a significant impact on any Commonwealth land and is not likely to have a significant impact on any matters of NES.

Heritage Act NSW 1977

The Proposed Activity would be undertaken within the curtilage of the Croydon Railway Station Group which is listed on the State Heritage Register, RailCorp's Section 170 Heritage and Conservation Register and the heritage schedules of the *Ashfield Local Environmental Plan 2013* and *Burwood Local Environmental Plan 2012*.

⁸ Refer to the National Library of Australia's 'Trove' website
<http://trove.nla.gov.au/work/7003034?selectedversion=NBD11474648>

The potential heritage impacts of the Proposed Activity have been assessed in the SoHI (AECOM, 2015) and are summarised in Section 6.5 of the REF. The works would be undertaken in accordance with the approval and associated conditions issued by the Office of Environment and Heritage (Heritage Council) under section 60 of the *Heritage Act 1977*, dated 4 December 2015 (refer Appendix C).

5 Conditions of Approval

If approved, the Proposed Activity would proceed subject to the Conditions of Approval included at Appendix B.

6 Conclusion

Having regard to the assessment in the REF, consideration of the submissions received, and the design changes subsequent to the public display of the REF, it can be concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Consequently, an environmental impact statement is not required to be prepared under Part 5.1 of the EP&A Act.

It is also considered that the Proposed Activity does not trigger any approvals under Part 3 of the EPBC Act.

The environmental impact assessment (REF and Determination Report) is recommended to be approved subject to the proposed mitigation and environmental management measures included in the Conditions of Approval (refer Appendix B).

References

- AECOM, 2015, *Croydon Station Easy Access Upgrade – Statement of Heritage Impact*, Sydney
- Biosis, 2015, *Croydon Station Easy Access Upgrade – Ecological Impact Assessment*, Newcastle
- Caldis Cook Group, 2015, *Heritage Interpretation Strategy Croydon Railway Station Accessibility Upgrade Project*, Sydney
- Cardno, 2014, *Croydon Station Precinct Accessibility Upgrade – Concept Design Report*, Sydney
- Department of Environment and Climate Change, 2009, *Interim Construction Noise Guideline*, Sydney
- Envisage Consulting, 2015, *Proposed Croydon Station Easy Access Upgrade – Visual Impact Assessment (and Addendum)*, Newcastle
- GTA, 2015, *Croydon Station Easy Access Upgrade – Traffic, Transport and Access Impact Assessment*, Sydney
- Hyder, 2015, *Croydon Station Footbridge – Peer Review of Mott MacDonald's Stage 2 Investigation Report - Remedial Repair Recommendations*, Sydney
- Mott McDonald, 2014a, *Croydon Station Pedestrian Access Footbridge Stage 1 Report Originality and Condition Assessment and Remedial Repair Option Assessment*, Sydney
- Mott McDonald, 2014b, *Croydon Station Pedestrian Access Footbridge Stage 2 Report Remedial Repair Recommendations*, Sydney
- NSW Heritage Office, 2005, *Design In Context – Guidelines for Infill Development in the Historic Environment*, Sydney
- TfNSW, 2013, *Sydney's Cycling Future - Cycling for everyday transport*, Sydney

Appendix A Review of Environmental Factors

Please refer to the TfNSW website to access the Croydon Station Upgrade REF:

<http://www.transport.nsw.gov.au/projects-tap/current-works/croydon>

Appendix B Conditions of Approval

CONDITIONS OF APPROVAL

For Croydon Station Upgrade

Note: these conditions of approval must be read in conjunction with the final mitigation measures.

Schedule of acronyms and definitions used:

Acronym	Definition
CECR	Construction Environmental Compliance Report
CEMP	Construction Environmental Management Plan
CLP	Community Liaison Plan
CoA	Condition of Approval
dBA	Decibels (A-weighted scale)
ECM	Environmental Controls Map
EIA	Environmental Impact Assessment
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPL	Environment Protection Licence issued by the Environmental Protection Authority under the <i>Protection of the Environment Operations Act 1997</i> .
EMS	Environmental Management System
ICNG	<i>Interim Construction Noise Guidelines</i> (Department of Environment and Climate Change, 2009)
ISO	International Standards Organisation
OEH	NSW Office of Environment and Heritage
OOHWP	Out of Hours Works Protocol
PCSR	Pre-Construction Sustainability Report
PECM	Pre-construction Environmental Compliance Matrix
POCR	Pre-Operational Compliance Report
PMEM	TfNSW Principal Manager Environmental Management (or nominated delegate)
PMS	TfNSW Principal Manager Sustainability (or nominated delegate)
RBL	Rating Background Level
REF	Review of Environmental Factors

Acronym	Definition
Roads and Maritime	NSW Roads and Maritime Service
TfNSW	Transport for NSW
TMP	Traffic Management Plan
UDLP	Urban Design and Landscaping Plan

Term	Definition
Construction	Includes all work in respect of the Project, other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys, or other activities determined by the PMEM to have minimal environmental impact such as minor access roads, minor adjustments to services/utilities, establishing temporary construction compounds (in accordance with this approval), or minor clearing (except where threatened species, populations or ecological communities would be affected).
Contamination	The presence in, on or under land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
Designated Works	Includes tunnelling, blasting, piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction, for Construction.
Emergency Work	Includes works to avoid loss of life, damage to external property, utilities and infrastructure, prevent immediate harm to the environment, contamination of land or damage to a heritage (indigenous or non-indigenous) item.
Environmental Impact Assessment (EIA)	The documents listed in Condition 1 of this approval.
Noise Sensitive Receiver	In addition to residential dwellings, noise sensitive receivers include, but are not limited to, hotels, entertainment venues, pre-schools and day care facilities, educational institutions (e.g. schools, TAFE colleges), health care facilities (e.g. nursing homes, hospitals), recording studios, places of worship/religious facilities (e.g. churches), and other noise sensitive receivers identified in the environmental impact assessment.
Project	The construction and operation of the Croydon Station Upgrade as described in the Environmental Impact Assessment.
Proponent	A person or body proposing to carry out an activity under Part 5 of the EP&A Act – in the case of the Project, Transport for NSW.
Reasonable and Feasible	Consideration of best practice taking into account the benefit of proposed measures and their technological and associated operational application in the NSW and Australian context. Feasible relates to engineering considerations and what is practical to build. Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and nature and extent of potential improvements.

CoA number	Type
General	
1	<p>Terms of Approval</p> <p>The Project shall be carried out generally in accordance with the environmental impact assessment (EIA) for this Project, which comprises the following documents:</p> <ul style="list-style-type: none"> a) <i>Croydon Station Easy Access Upgrade – Review of Environmental Factors</i>, (TfNSW, September, 2015) b) <i>Croydon Station Upgrade – Determination Report</i>, (TfNSW, December, 2015). <p>In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.</p>
2	<p>Project Modifications</p> <p>Any modification to the Project as approved in the EIA would be subject to further assessment. This assessment would need to demonstrate that any environmental impacts resulting from the modifications have been minimised. The assessment shall be subject to approval under delegated authority by TfNSW. The Proponent shall comply with any additional requirements from the assessment of the project modification.</p>
3	<p>Statutory Requirements</p> <p>These conditions do not relieve the Proponent of the obligation to obtain all other licences, permits, approvals and land owner consents from all relevant authorities and land owners as required under any other legislation for the Project. The Proponent shall comply with the terms and conditions of such licences, permits, approvals and permissions.</p>
4	<p>Pre-construction Environmental Compliance Matrix</p> <p>A Pre-construction Environmental Compliance Matrix (PECM) for the Project (or such stages of the Project as agreed to by the Principal Manager Environmental Management (PMEM)) shall be prepared detailing compliance with all relevant conditions and mitigation measures prior to commencement of construction. The PECM shall also include details of approvals, licences and permits required to be obtained under any other legislation for the Project.</p> <p>A copy of the PECM shall be submitted to the PMEM for approval, at least 21 days prior to commencement of construction of the Project (or within such time as otherwise agreed to by the PMEM).</p>

5 Construction Environmental Compliance Report

A Construction Environmental Compliance Report (CECR) shall be prepared which addresses the following matters:

- a) compliance with the Construction Environmental Management Plan (CEMP) and these conditions
- b) compliance with the *NSW Sustainable Design Guidelines - Version 3.0* compliance checklist (7TP-FT-249)
- c) compliance with any approvals or licences issued by relevant authorities for construction of the Project
- d) implementation and effectiveness of environmental controls (the assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP)
- e) environmental monitoring results, presented as a results summary and analysis
- f) details of the percentage of waste diverted from landfill and the percentage of spoil beneficially reused
- g) number and details of any complaints, including summary of main areas of complaint, actions taken, responses given and intended strategies to reduce recurring complaints (subject to privacy protection)
- h) details of any review and amendments to the CEMP resulting from construction during the reporting period
- i) any other matter as requested by the PMEM.

A copy of each CECR shall be submitted to the PMEM for approval. The first CECR shall report on the first six months of construction and be submitted within 21 days of expiry of that period (or at any other time interval agreed to by the PMEM). CECRs shall be submitted no later than six months after the date of submission of the preceding CECR (or at other such periods as requested by the PMEM) for the duration of construction.

6 Pre-Operation Compliance Report

A Pre-Operation Compliance Report (POCR) for the Project shall be prepared, prior to commencement of operation of the Project. The POCR shall detail compliance with all conditions of approval, licences and permits required to be obtained under any other legislation for the Project.

A copy of the POCR shall be submitted to the PMEM for approval at least one month prior to the scheduled operation of the Project (or such time as otherwise agreed to by the PMEM).

Communications**7****Community Liaison Plan**

A Community Liaison Plan (CLP) shall be prepared and implemented to engage with government agencies, relevant councils, landowners, community members and other relevant stakeholders (such as utility and service providers, bus companies and businesses). The CLP shall comply with the obligations of these conditions and should include, but not necessarily be limited to:

- a) details of the protocols and procedures for disseminating information and liaising with the community and other key stakeholders about construction activities (including timing and staging) and any associated impacts during the construction period
- b) stakeholder and issues identification and analysis
- c) procedures for dealing with complaints or disputes and response requirements, including advertising the 24 hour construction response line number
- d) details (including a program) of training for all employees, contractors and sub-contractors on the requirements of the CLP.

The CLP shall be prepared to the satisfaction of the Director, Community Engagement prior to the commencement of construction and implemented, reviewed and revised as appropriate during construction of the Project.

8**Community Notification and Liaison**

The local community shall be advised of any activities related to the Project with the potential to impact upon them.

Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc.) including the 24 hour construction response line number.

Construction-specific impacts including information on traffic changes, access changes, detours, services disruptions, public transport changes, high noise generating work activities and work required outside the nominated working hours shall be advised to the local community at least seven days prior to such works being undertaken or other period as agreed to by the Director, Community Engagement or as required by Environment Protection Authority (EPA) (where an Environment Protection Licence (EPL) is in effect).

9**Website**

The Proponent shall provide electronic information (or details of where hard copies of this information may be accessed by members of the public) related to the Project, on dedicated pages within its existing website, including:

- a) a copy of the documents referred to under Condition 1 of this approval
- b) a list of environmental management reports that are publicly available
- c) 24 hour contact telephone number for information and complaints.

All documents must be compliant with the Web Content Accessibility Guidelines 2.0.

**CoA
number**

Type

10

Complaints Management

The Proponent shall set up a 24 hour construction response line number.

Details of all complaints received during construction are to be recorded on a complaints register. A verbal response to phone enquiries on what action is proposed to be undertaken is to be provided to the complainant within two hours during all times construction is being undertaken and within 24 hours during non-construction times (unless the complainant agrees otherwise). A verbal response to written complaints (email/letter) should be provided within 48 hours of receipt of the communication. A detailed written response is to be provided to the complainant within seven calendar days for verbal and/or written complaints.

Information on all complaints received during the previous 24 hours shall be forwarded to the TfNSW Community Engagement Manager and PMEM each working day.

Environmental Management

11

Not used

12

Construction Environmental Management Plan

A Construction Environmental Management Plan (CEMP) shall be prepared prior to commencement of construction which addresses the following matters, as a minimum:

- a) traffic and pedestrian management (in consultation with the relevant roads authority)
- b) noise and vibration management
- c) water and soil management
- d) air quality management (including dust suppression)
- e) indigenous and non-indigenous heritage management
- f) flora and fauna management
- g) storage and use of hazardous materials
- h) contaminated land management (including acid sulphate soils)
- i) weed management
- j) waste management
- k) sustainability
- l) environmental incident reporting and management procedures
- m) non-compliance and corrective/preventative action procedures.

The CEMP shall:

- i) comply with the Conditions of Approval, conditions of any licences, permits or other approvals issued by government authorities for the Project, all relevant legislation and regulations, and accepted best practice management
- ii) comply with the relevant requirements of *Guideline for Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004)
- iii) include an Environmental Policy.

The Proponent shall:

1. consult with government agencies and relevant service/utility providers as part of the preparation of the CEMP
2. submit a copy of the CEMP to the PMEM for approval
3. review and update the CEMP at regular intervals, and in response to any actions identified as part of Project audits
4. ensure updates to the CEMP are made within seven days of the completion of the review or receipt of actions identified by any audit of the document, and be submitted to the PMEM for approval.

The CEMP must be approved by the PMEM prior to the commencement of construction work associated with the Project.

**CoA
number****Type****13****Environmental Controls Map**

An Environmental Controls Map (ECM) shall be prepared in accordance with TfNSW's *Guide to Environmental Controls Map* (3TP-SD-015) prior to the commencement of construction for implementation for the duration of construction, and may be prepared in stages as set out in the CEMP.

A copy of the ECM must be submitted to the PMEM for approval, at least 21 days (or within such time as otherwise agreed by the PMEM) prior to commencement of construction of the Project.

The ECM shall be prepared as a map – suitably enlarged (e.g. A3 size or larger) for mounting on the wall of a site office and included in site inductions, supported by relevant written information.

Updates to the ECM shall be made within seven days of the completion of the review or receipt of actions identified by any audit of the document, and be submitted to the PMEM for approval.

Contamination and Hazardous Materials**14****Unidentified Contamination (other than asbestos)**

If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of any contamination. The level of reporting must be appropriate for the identified contamination in accordance relevant EPA guidelines, including *Guidelines for Consultants Reporting on Contaminated Sites* (OEH, 2011).

A copy of any contamination report must be submitted to the PMEM for review for a minimum period of seven days. The PMEM shall determine whether consultation with the relevant council and/or EPA is required prior to continuation of construction works within the affected area.

Note: *In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Condition 14 and Condition 15.*

15**Asbestos Management**

If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA and WorkCover guidelines and include the proposed methodology for the remediation of the asbestos contamination. Remediation activities must not take place until receipt of the investigation report.

Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation methodology.

Note: *In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Condition 14 and Condition 15.*

**CoA
number****Type****16 Storage and Use of Hazardous Materials**

Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, TfNSW's *Chemical Storage and Spill Response Guidelines* (9TP-SD-066) and Australian and ISO standards. These measures shall include:

- a) the storage of hazardous materials, and refuelling/maintenance of construction plant and equipment to be undertaken in clearly marked designated areas that are designed to contain spills and leaks
- b) spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits are to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits are to be kept in close proximity to potential discharge points in support of preventative controls
- c) all hazardous materials spills and leaks to be reported to site managers and actions to be immediately taken to remedy spills and leaks
- d) training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.

Erosion and Sediment Control**17 Erosion and Sediment Control**

Soil and water management measures shall be prepared and implemented as part of the CEMP for the mitigation of water quality and hydrology impacts during construction of the Project. The management measures shall be prepared in accordance with *Managing Urban Stormwater: Soils and Construction – Volume 1*, 4th Edition (Landcom, 2004).

Flora and Fauna**18 Removal of Trees or Vegetation**

Separate approval, in accordance with TfNSW's *Removal or Trimming of Vegetation Application* (9TP-FT-078), is required for the trimming, cutting, pruning or removal of trees or vegetation where the impact has not already been identified in the EIA for the Project. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the conditions of that approval.

19 Replanting Program

All cleared vegetation shall be offset in accordance with TfNSW's *Vegetation Offset Guide* (9TP-ST-149). All vegetation planted onsite is to consist of locally endemic native species, unless otherwise agreed by the PMEM, following consultation with the relevant council, as required, and/or the owner of the land upon which the vegetation is to be planted.

Heritage Management**20****Protection of State Heritage Items**

Design and construction of the Project within the curtilage of the Croydon Railway Station group must be undertaken in accordance with the conditions of the approval granted under section 60 of the NSW *Heritage Act 1977* issued 4 December 2015, and the mitigation measures recommended in Chapter 8 of the Statement of Heritage Impact (AECOM, 29 Oct 2015, Rev F).

In the event of any inconsistency between the conditions of the section 60 approval and the Statement of Heritage Impact, the section 60 approval will prevail to the extent of the inconsistency.

21**Indigenous and Non-Indigenous Heritage**

If previously unidentified Indigenous or non-Indigenous heritage/archaeological items are uncovered during construction works, the procedures contained in the TfNSW *Unexpected Heritage Finds Guideline* (3TP-SD-115) shall be followed and all works in the vicinity of the find shall cease, and the PMEM shall be immediately notified to co-ordinate a response which may include seeking appropriate advice from a suitably qualified heritage consultant (and in consultation with the Heritage Division, OEH where appropriate). Works in the vicinity of the find shall not re-commence until clearance has been received from TfNSW and/or the heritage consultant.

Hours of Work**22****Standard Construction Hours**

Construction activities shall be restricted to the hours of 7.00am to 6.00pm (Monday to Friday); 8.00am to 1.00pm (Saturday) and at no time on Sundays and public holidays except for the following works which are permitted outside these standard hours:

- a) any works which do not cause noise emissions to be more than 5 dBA higher than rating background level (RBL) at any nearby residential property and/or other noise sensitive receivers
- b) out of hours work identified and assessed in the EIA or the approved Out of Hours Work Protocol (OOHWP)
- c) the delivery of plant, equipment and materials which is required outside these hours as requested by police or other authorities for safety reasons and with suitable notification to the community as agreed by the PMEM
- d) Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm
- e) any other work as agreed by the PMEM and considered essential to the Project, or as approved by EPA (where an EPL is in effect).

23

High Noise Generating Activities

Rock breaking or hammering, jack hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel and any other activities which result in impulsive or tonal noise generation shall not be undertaken for more than three hours, without a minimum one hour respite period unless otherwise agreed to by the PMEM, or as approved by EPA (where relevant to the issuing of an EPL), unless inaudible at nearby residential properties and/or other noise sensitive receivers.

Lighting

24

Lighting Scheme

All permanent lighting for the Project is to be developed by a suitably qualified lighting designer and prepared in accordance with AS 1158 *Road Lighting* and AS 4282 *Control of the Obtrusive Effect of Outdoor Lighting*. The lighting scheme shall address the following as relevant:

- a) consideration of lighting demands of different areas
- b) strategic placement of lighting fixtures to maximise ground coverage
- c) use of LED lighting
- d) minimising light spill by directing lighting into the station
- e) control systems for lighting that dim or switch-off lights settings according to the amount of daylight the zone is receiving
- f) motion sensors to control low traffic areas
- g) allowing the lighting system to use low light or switch off light settings while meeting relevant lighting Standards requirements, and
- h) ensuring security and warning lighting is not directed at neighbouring properties.

Noise and Vibration**25****Construction Noise and Vibration**

Construction noise and vibration mitigation measures shall be implemented through the CEMP, in accordance with TfNSW's *Construction Noise Strategy (7TP-ST-157)* and the EPA's *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). The mitigation measures shall include, but not be limited to:

- a) details of construction activities and an indicative schedule for construction works
- b) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers
- c) detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the environmental impact assessment)
- d) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints
- e) an Out Of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Condition 22 of this approval, including a risk assessment process which deems the out of hours activities to be of low, medium or high environmental risk, is to be developed. All out of hours works are subject to approval by the PMEM, or as approved by the EPA (where relevant to the issuing of an EPL). The OOHWP should be consistent with TfNSW's *Construction Noise Strategy (7TP-ST-157)*
- f) a description of how the effectiveness of actions and measures shall be monitored during the proposed works, clearly indicating the frequency of monitoring, the locations at which monitoring shall take place, recording and reporting of monitoring results and if any exceedance is detected, the manner in which any non-compliance shall be rectified.

26**Noise Impact on Educational Facilities**

Potentially affected pre-schools, schools, universities and any other affected permanent educational institutions shall be consulted in relation to noise mitigation measures to identify any noise sensitive periods (e.g. exam periods). As much as reasonably practicable noise intensive construction works in the vicinity of affected educational buildings are to be minimised.

27**Vibration Criteria**

Vibration (other than from blasting) resulting from construction and received at any structure outside of the Project shall be limited to:

- a) for structural damage vibration – German Standard DIN 4150:Part 3 – 1999: *Structural Vibration in Buildings: Effects on Structures*
- b) for human exposure to vibration – the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006).

These limits apply unless otherwise approved by the PMEM through the CEMP.

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number****Type****28****Non-Tonal Reversing BEEPERS**

Non-tonal reversing beepers (or an equivalent mechanism) shall be fitted and used on all construction vehicles and mobile plant regularly used on site (i.e. greater than one day) and for any out of hours work.

29**Piling**

Wherever practical, piling activities shall be completed using non-percussive piles. If percussive piles are proposed to be used, approval of the PMEM shall be obtained prior to commencement of piling activities.

Property**30****Property Condition Surveys**

Subject to landowner agreement, property condition surveys shall be completed prior to piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction (Designated Works) in the vicinity of the following buildings/structures:

- a) all buildings/structures/roads within a plan distance of 20 metres from the edge of the Designated Works
- b) all heritage listed buildings and other sensitive structures within 50 metres from the edge of the Designated Works.

Property condition surveys need not be undertaken if a risk assessment indicates that selected buildings/structures/roads identified in (a) and (b) will not be affected as determined by a qualified geotechnical and construction engineering expert with appropriate registration on the National Professional Engineers Register prior to commencement of Designated Works.

Selected potentially sensitive buildings and/or structures shall first be surveyed prior to the commencement of the Designated Works and again immediately upon completion of the Designated Works.

All owners of assets to be surveyed, as defined above, are to be advised (at least 14 days prior to the first survey) of the scope and methodology of the survey, and the process for making a claim regarding property damage.

A copy of the survey(s) shall be given to each affected owner. A register of all properties surveyed shall be maintained.

Any damage to buildings, structures, lawns, trees, sheds, gardens, etc. as a result of construction activity direct and indirect (i.e. including vibration and groundwater changes) shall be rectified at no cost to the owner(s).

Sustainability**31****Sustainability Officer**

The Proponent shall appoint a Sustainability Officer who is responsible for implementing sustainability objectives for the Project.

Details of the Sustainability Officer, including defined responsibilities consistent with the Proponent's sustainability objectives are to be submitted to the satisfaction of the Principal Manager Sustainability (PMS) prior to preparation of the PCSR.

32 Pre-Construction Sustainability Report

Prior to commencement of construction, a Pre-Construction Sustainability Report (PCSR) shall be prepared to the satisfaction of the PMS. The Report shall include the following minimum components:

- a) a completed electronic checklist demonstrating compliance with the *NSW Sustainable Design Guidelines – Version 3.0* (7TP-ST-114)
- b) a statement outlining the Proponent's own corporate sustainability obligations, goals, targets, in house tools, etc
- c) a section specifying any areas of innovation that will be explored and/or implemented on the Project during the course of the construction period.

The Proponent shall submit a copy of the PCSR to the PMS for approval, at least 14 days prior to the commencement of construction (or within such time as otherwise agreed to by the PMS).

Traffic and Access**33 Traffic Management Plan**

A construction Traffic Management Plan (TMP) shall be prepared as part of the CEMP and must address, as a minimum, the following:

- a) ensuring adequate road signage at construction work sites to inform motorists and pedestrians of the work site ahead to ensure that the risk of road accidents and disruption to surrounding land uses is minimised
- b) maximising safety and accessibility for pedestrians and cyclists
- c) ensuring adequate sight lines to allow for safe entry and exit from the site
- d) ensuring access to railway stations, businesses, entertainment premises and residential properties (unless affected property owners have been consulted and appropriate alternative arrangements made)
- e) managing impacts and changes to on and off street parking and requirements for any temporary replacement provision
- f) parking locations for construction workers away from stations and busy residential areas and details of how this will be monitored for compliance
- g) routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses
- h) details for relocating kiss and ride, taxi ranks and rail replacement bus stops if required, including appropriate signage to direct patrons, in consultation with the relevant bus operator. Particular provisions should also be considered for the accessibility impaired
- i) measures to manage traffic flows around the area affected by the Project, including as required regulatory and direction signposting, line marking and variable message signs and all other traffic control devices necessary for the implementation of the TMP.

The Proponent shall consult with the relevant roads authority during preparation of the TMP, as required. The performance of all Project traffic arrangements must be monitored during construction.

34

Road Condition Reports

Prior to construction commencement, the Proponent shall prepare road condition surveys and reports on the condition of roads and footpaths affected by construction. Any damage resulting from the construction of the Project, aside from that resulting from normal wear and tear, shall be repaired at the Proponent's expense.

35

Road Safety Audit

A Road Safety Audit shall be undertaken as part of the detailed design process and on completion of construction. The Road Safety Audit shall include a specific assessment of:

- a) the changes to Paisley Road and mitigation measures proposed.

The Road Safety Audit is to be submitted to and accepted by TfNSW. The findings of the Road Safety Audit shall be provided to Burwood Council and Ashfield Council for information.

Urban Design and Landscaping

36

Urban Design and Landscaping Plan

An Urban Design and Landscaping Plan (UDLP) shall be prepared which demonstrates design excellence in the essential urban design requirements of the Project, as evident in the following matters:

- a) the appropriateness of the proposed design with respect to the existing surrounding landscape, built form, behaviours and use-patterns
- b) materials, finishes, colour schemes and maintenance procedures including graffiti control for new walls, barriers and fences
- c) location and design of pedestrian and bicycle pathways, street furniture including relocated bus, taxi and kiss and ride facilities, bicycle storage (where relevant), telephones and lighting equipment
- d) landscape treatments and street tree planting to integrate with surrounding streetscape
- e) design detail that is sympathetic to the amenity and character of heritage items located within or adjacent to the Project site
- f) opportunities for public art created by local artists to be incorporated, where considered appropriate, into the Project
- g) total water management principles to be integrated into the design where considered appropriate
- h) design measures included to meet the *NSW Sustainable Design Guidelines - Version 3.0 (7TP-ST-114)*
- i) any other matters which the conditions require the UDLP to address.

The UDLP shall be:

- i) prepared prior to the finalisation of the Project's detailed design
- ii) prepared in consultation with councils and relevant stakeholders
- iii) prepared by a registered architect and/or landscape architect
- iv) accepted by TfNSW's Urban Design Team.

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Additional Conditions

37

Graffiti and Advertising

Hoardings, site sheds, fencing, acoustic walls around the perimeter of the site, and any structures built as part of the Project are to be maintained free of graffiti and advertising not authorised by the Proponent during the construction period. Graffiti and unauthorised advertising will be removed or covered within the following timeframes:

- a) offensive graffiti will be removed or concealed within 24 hours
- b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week
- c) graffiti that is neither offensive or highly visible will be removed or concealed within a month
- d) any unauthorised advertising material will be removed or concealed within 24 hours.

Site Specific Conditions

38

Detailed design of Paisley Road/Paisley Lane

Further investigation into options for the operational arrangement of Paisley Road shall be undertaken during detailed design and must at a minimum consider:

- a) the potential vehicle circulation and pedestrian/cyclist impacts associated with access to Paisley Road and the potential to relocate the existing loading zone to allow for improved vehicle circulation at the western end adjacent to the station entrance
- b) retention of the accessible parking space adjacent of the Croydon Medical Practice
- c) opportunities to establish kiss and ride during peak periods only.

The investigation should be undertaken in consultation with relevant councils, and a report prepared and issued to TfNSW prior to the finalisation of detailed design that details how these issues have been considered during the design process.

39

Landscaping of Paisley Road Plaza

The UDLP for the Project must detail landscaping for the Paisley Road Plaza and in particular the establishment of replacement trees at the station entrance (to replace the two bottle brush trees to be removed).

END OF CONDITIONS

Appendix C Section 60 Heritage Act Consent and Conditions of Approval



Job ID: DOC15/363976
File: SF15/29153

Mr Ben Groth
Transport Projects Division
Transport for NSW
Level 5, Tower A, Zenith Centre, 821 Pacific Highway
CHATSWOOD NSW 2067

Dear Mr Groth

RE: APPLICATION UNDER S60 OF THE *HERITAGE ACT 1977* – CROYDON RAILWAY STATION GROUP (SHR 01125)

Proposal: to modify the station with an easy access upgrade involving demolition and replacement of the existing footbridge, stairs, booking office and the provision of new canopies to station entrances, new footbridge and stairs along with associated works.

Section 60 Application No: 2015/S60113, received 15 September 2015

Information received with the s60 application: As per Condition No. 1

As delegate of the Heritage Council of NSW, the Heritage Council's Approval Committee considered the above Section 60 application at its meeting on 2 December 2015. Pursuant to section 63 of the *Heritage Act 1977*, the Heritage Council of NSW informs Transport for NSW that approval is granted subject to the following conditions:

APPROVED DEVELOPMENT

1. All work shall comply with the following information:

- a. **Croydon Station Easy Access Upgrade Statement of Heritage Impact Revision F prepared by Dr Susan Lampard, AECOM Australia Pty Ltd, date 29 October 2015 for Transport for NSW and Heritage Interpretation Strategy Issue C prepared by CCG Architects date 7 September 2015 (TAP-C3897-CD-AR-3710).**
- b. **Architectural Drawings prepared by CCG Architects for Transport for NSW, dated 28 October 2015:**
 - i. **Architectural Drawing List TAP-C3897-CD-AR-3600 Rev Fa**
 - ii. **Architectural Roof Plan TAP-C3897-CD-AR-3611 Rev Fa**
 - iii. **Architectural Concourse Plan TAP-C3897-CD-AR-3612 Rev Fa**
 - iv. **Architectural Platform Plan TAP-C3897-CD-AR-3613 Rev Fa**
 - v. **Architectural Street Elevations TAP-C3897-CD-AR-3614 Rev Fa**

- vi. Architectural Platform Elevations TAP-C3897-CD-AR-3615 Rev Fa
- vii. Architectural Stair and Canopy Sections TAP-C3897-CD-AR-3616 Rev Fa
- viii. Architectural Platform Canopies Sections TAP-C3897-CD-AR-3617 Rev Fa
- ix. Architectural Offices Floor and Roof Plans TAP-C3897-CD-AR-3625 Rev Fa
- x. Architectural Demolition Plan TAP-C3897-CD-AR-3681 Rev C
- xi. Architectural Images Sheet 1 of 3 TAP-C3897-CD-AR-3683 Rev E
- xii. Architectural Images Sheet 2 of 3 TAP-C3897-CD-AR-3684 Rev E
- xiii. Architectural Images Sheet 3 of 3 TAP-C3897-CD-AR-3685 Rev D
- xiv. Architectural Images Sheet 1 of 1 TAP-C3897-CD-AR-3686 Rev C
- xv. Civil Platform Regrading Compliance TAP-C3897-CD-CI-3050 Rev A
- xvi. Services Plan General Layout TAP-C3897-CD-MA-3808 Rev B
- xvii. External Finishes Schedule (7 sheets) TAP-C3897-CD-AR-3701 Rev D

EXCEPT AS AMENDED by:

2. DESIGN AND CONSERVATION

Final detailed design for the following must be resolved to the satisfaction of the Heritage Council's delegate, the Executive Director:

- a. Concrete support beam to the new footbridge, spanning the railway corridor. Design must minimise the edge thickness visible from the platforms.
- b. Footbridge and lift shaft glazing systems.
- c. Cladding systems to the new station operations building and lift shafts.
- d. Woven stainless steel mesh alternative to the proposed powdercoated prefinished welded steel mesh anti-throw screens to the stairs.
- e. Station name identity signage to entrances.
- f. Reinstatement of lamp post, planter box, and seating proposed on platforms 3 and 4. Reinstatement must restore existing character.
- g. Reinstatement of heritage stairs newel posts. Reinstatement must provide for heritage interpretation.
- h. Guidelines to implement the Heritage Interpretation Strategy as outlined in pages 6 - 9 of the Heritage Interpretation Strategy.

3. EXPERIENCED HERITAGE CONSULTANTS & TRADESPEOPLE

- a. The nominated heritage consultants are to provide site heritage inductions and inspect the works to ensure that impacts on significant fabric are consistent with this approval, and to manage the implementation of the conditions of approval.
- b. The Applicant's nominated archaeologist is to:
 - i. monitor excavations,
 - ii. record the extent of pedestrian subway,
 - iii. inspect removal of footbridge footings and remnant trestle footings,
 - iv. record, process and catalogue any artefacts recovered.
- c. The nominated heritage consultants and archaeologist are to notify the Heritage Council if any conditions of this approval are not being met.

4. SITE PROTECTION & WORKS

- a. All works shall be supervised by suitably qualified tradespeople with practical experience in similar heritage projects.
- b. Built elements to be retained or reinstated are to be adequately protected during the works from potential damage. Protection systems must ensure historic fabric is not damaged or removed, including the measures to be adopted during the demolition of the footbridge and trestles and building of new and temporary structures.
- c. New services and equipment shall be concealed where possible to minimise visual impacts. The installation of new services and equipment shall be carried out in such a manner as to minimise damage to or removal of historic fabric and shall not obscure historic features.
- d. All management recommendations made in the Statement of Heritage Impact Croydon Station Easy Access Upgrade, Revision F, prepared by Dr Susan Lampard, AECOM Australia Pty Ltd, date 29 September 2015 are to be carried out to mitigate any potential impacts associated with the proposed works.

5. ARCHAEOLOGY

a. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

b. Should any Aboriginal objects be uncovered by the work, excavation or disturbance of the area is to stop immediately and the Office of Environment & Heritage (Enviroline 131 555) is to be notified in accordance with Section 89A of the National Parks and Wildlife Act 1974 (NPW Act). Aboriginal objects in NSW are protected under the NPW Act. Unless the objects are subject to a valid Aboriginal Heritage Impact Permit, work must not recommence until approval to do so has been provided by the Office of Environment & Heritage.

c. Should any archaeological deposits or Aboriginal objects be uncovered by the work, then the State Heritage Register listing description and historical context should be updated to reflect the new works.

6. ARCHIVAL RECORDING

An archival recording including photographic recording and measured drawings of the affected internal and external elements is to be undertaken prior to the commencement of works, in accordance with the Heritage Division document entitled, *Photographic Recording of Heritage Items using Film or Digital Capture*. The original copy of the archival record shall be submitted to the Heritage Division.

7. DURATION OF APPROVAL

This approval shall be void if the activity to which it refers is not physically commenced within five years after the date of the approval or within the period of consent specified in any relevant development consent granted under the *Environmental Planning and Assessment Act, 1979*, whichever occurs first.

The above conditions have been imposed to ensure compatibility of the proposed work with the existing heritage qualities of the item and to ensure consistency with the *Environmental Planning and Assessment Act 1979*. Your attention is drawn to the right of appeal against these conditions.

It should be noted that an approval under the *Heritage Act 1977* is additional to that which may be required from other Local Government and State Government Authorities.

If you have any questions regarding the above matter please contact Ronald Brown, at the Heritage Division, Office of Environment and Heritage, at (02) 9873 8542 or via email at ronald.brown@environment.nsw.gov.au.

Yours sincerely



RAJEEV MAINI

Manager, Conservation

Heritage Division

Office of Environment & Heritage

As Delegate of the Heritage Council of NSW

4 December 2015

Appendix D Environmental Impact Assessment

Croydon Station Upgrade

APPROVAL

I, FIL CERONE, as delegate of the Secretary, Transport for NSW:

1. Have examined and considered the Proposed Activity in the Croydon Station Upgrade Review of Environmental Factors and the Croydon Station Upgrade Determination Report in accordance with section 111 of the *Environmental Planning and Assessment Act 1979*.
2. Determine on behalf of Transport for NSW (the Proponent) that the Proposed Activity may be carried out in accordance with the Conditions of Approval in this Determination Report, consistent with the Proposal described in the Croydon Station Upgrade Review of Environmental Factors as amended by this Determination Report.



Fil Cerone
A/Director, Planning and Environment Services
Infrastructure and Services Division
Transport for NSW

Date: 9/12/15