

**STATE SIGNIFICANT INFRASTRUCTURE  
ASSESSMENT:**

***North West Rail Link  
Windsor Road Bridge, Rouse Hill  
(SSI-5414 MOD 1)***



***Replacement of Approved Viaduct Crossing of Windsor Road  
and a Cable Stayed Bridge.***

Secretary's Environmental Assessment Report  
Section 115ZA of the  
*Environmental Planning and Assessment Act 1979*

May 2014

## ABBREVIATIONS

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The Department	Department of Planning & the Environment
DPI	Department of Primary Industries
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
Minister	Minister for Planning
NWGC	North West Growth Centre
NWRL	North West Rail Link
Proponent	Transport for NSW
RNP	Road Noise Policy (DECCW, 2011)
RHTC	Rouse Hill Town Centre
SEPP	State Environmental Planning Policy
Secretary	Secretary of Planning and Environment
SSI	State Significant Infrastructure
Stage 1 EIS	Environmental Impact Statement Stage 1-Major Civil Construction Works Incorporating Staged Infrastructure Modification Assessment (SSI-5100)
Stage 2 EIS	Environmental Impact Statement – Stage 2 – Stations, Rail Infrastructure and Systems (SSI-5414)
TTLG	Transport and Traffic Liaison Group

Cover Photograph: Impression of Proposed Windsor Road Bridge (TfNSW Windsor Road Modification Report 2014)

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## EXECUTIVE SUMMARY

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Transport for NSW (the Proponent) is seeking approval for a modification to Stage 2 of the North West Rail Link – Stations, Rail Infrastructure and Systems, State Significant Infrastructure Approval (SSI-5414) under Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This modification seeks to replace the approved viaduct rail crossing over Windsor Road with a cable stayed bridge.

The North West Rail Link (NWRL) is a priority rail transport infrastructure project for the NSW Government and is considered be one of nine 'city shapers' and an integral component of *Sydney's Rail Future*. The project will feature single deck rapid-transit trains that will provide high frequency travel along the length of the NWRL.

The then Minister for Planning and Infrastructure granted approval for the NWRL in the following stages:

- Stage 1 – Major Civil Construction Works (SSI-5100) on 25 September 2012;
- Stage 2 - Stations, Rail Infrastructure and Systems (SSI-5414) on 8 May 2013;
- Rapid Transit Rail Facility (RTRF) (SSI-5931) on 15 January 2014.

The proposed modification would replace the approved viaduct over Windsor Road with a cable stayed bridge supported by two towers, approximately 45 m in height. The proposed bridge will consist of three main spans at 78 m, 131 m and 60 m in length. The bridge towers and cables will be illuminated by light-emitting diode (LED) lighting.

The Proponent has justified the proposed modification by emphasising that the removal of previously required support piers on Windsor Road will increase safety, reduce traffic disruptions and minimise the need for permanent road reconfiguration. The Proponent has also justified the modification by indicating the potential for the cable stayed bridge to become an urban marker to support the importance of the Rouse Hill Town Centre.

The Proponent's Modification Report was placed on public exhibition from 12 February 2014 to 26 February 2014. During this time a total of six submissions were received; five from agencies, including Blacktown City Council and one from the owners of the Rouse Hill Town Centre. The key issues raised in the submissions and identified by the Department were:

- visual amenity; and
- heritage.

The Department has assessed the application and considers that the proposed Windsor Road Bridge will reduce the need for piers within the Windsor Road median and provide a landmark to the integral infrastructure of the NWRL. As such, the Department of Planning and Environment recommends approval of the modification.

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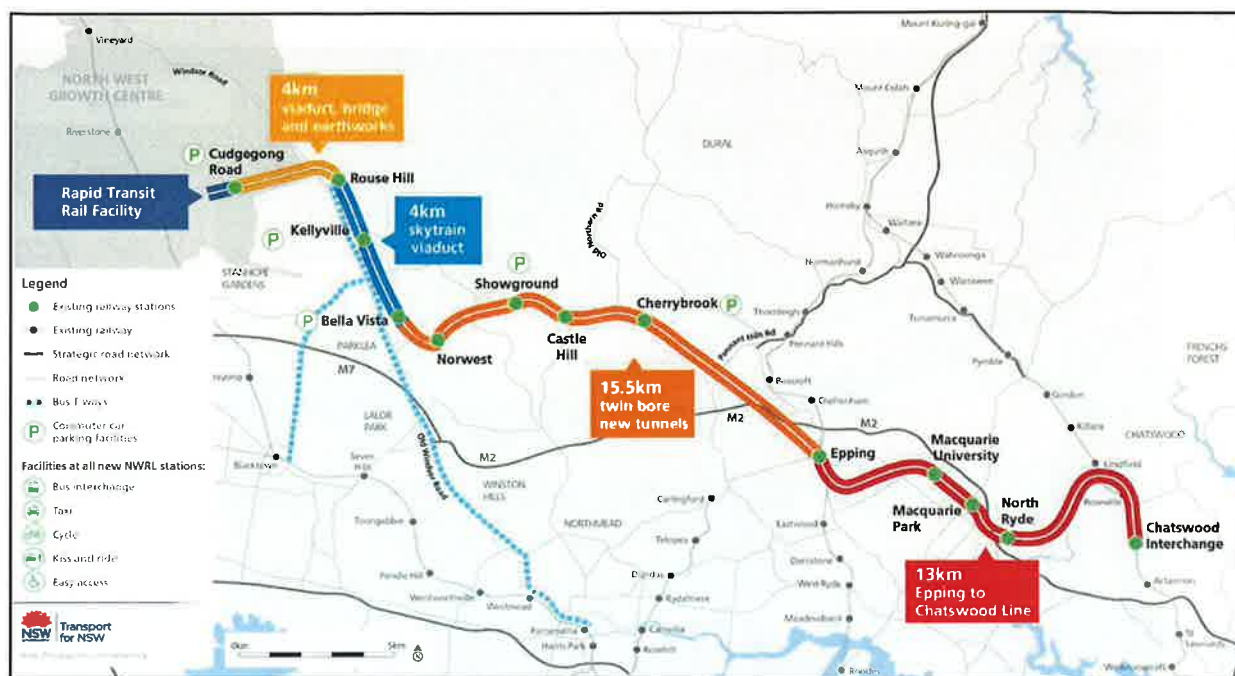
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## 1. BACKGROUND

The North West Rail Link (NWRL) is a priority rail transport infrastructure project by the NSW Government and is considered be one of nine 'city shapers' and an integral component of *Sydney's Rail Future*. The project will feature single deck rapid-transit trains that will to provide high frequency travel along the length of the NWRL.

Comprising 23km of new two-track alignment from Epping to Rouse Hill, the NWRL will include eight new stations and ancillary services and facilities. Stations will be located at Cherrybrook, Castle Hill, Showground, Norwest, Bella Vista, Kellyville, Rouse Hill and Cudgegong Road and stabling and maintenance facilities at Tallawong Road, Rouse Hill. The alignment and location of stations along the NWRL are shown in **Figure 1**.



**Figure 1: The approved alignment and location of stations along the NWRL corridor. The location of the proposed skytrain viaduct is marked in blue (Windsor Road Modification Report 2014)**

In accordance with clause 16 and Schedule 5, clause 2 of State Environmental Planning Policy (State and Regional Development) 2011, the NWRL has been declared Critical State Significant Infrastructure (SSI). The then Minister for Planning and Infrastructure gave approval for Stage 1 – Major Civil Construction Works (SSI-5100) on 25 September 2012, and Stage 2 - Stations, Rail Infrastructure and Systems (SSI-5414) on 8 May 2013. The Rapid Transit Rail Facility (RTRF) which includes train stabling and maintenance facilities, was approved by the then Minister on 15 January 2014.

## 2. PROPOSED MODIFICATION

### 2.1. Modification Description

Transport for NSW (the Proponent) is seeking approval from the Minister for Planning to modify the Stage 2 – Stations, Rail Infrastructure and Systems (SSI - 5414) project approval to replace the section of the approved viaduct crossing Windsor Road with a 270m long cable stayed bridge. The approved viaduct, excluding the Windsor Road crossing, will remain as approved. The cable stayed bridge is supported by two towers approximately 45m in height. The bridge would be approximately 270 m long consisting of three main spans of 78m, 131m and 60m in length (Refer **Figure 2**). The structure will integrate with the viaduct at the elevated Rouse Hill Station. The towers and cables of the bridge will be subtly illuminated with the operation of light-emitting diode (LED) lighting.

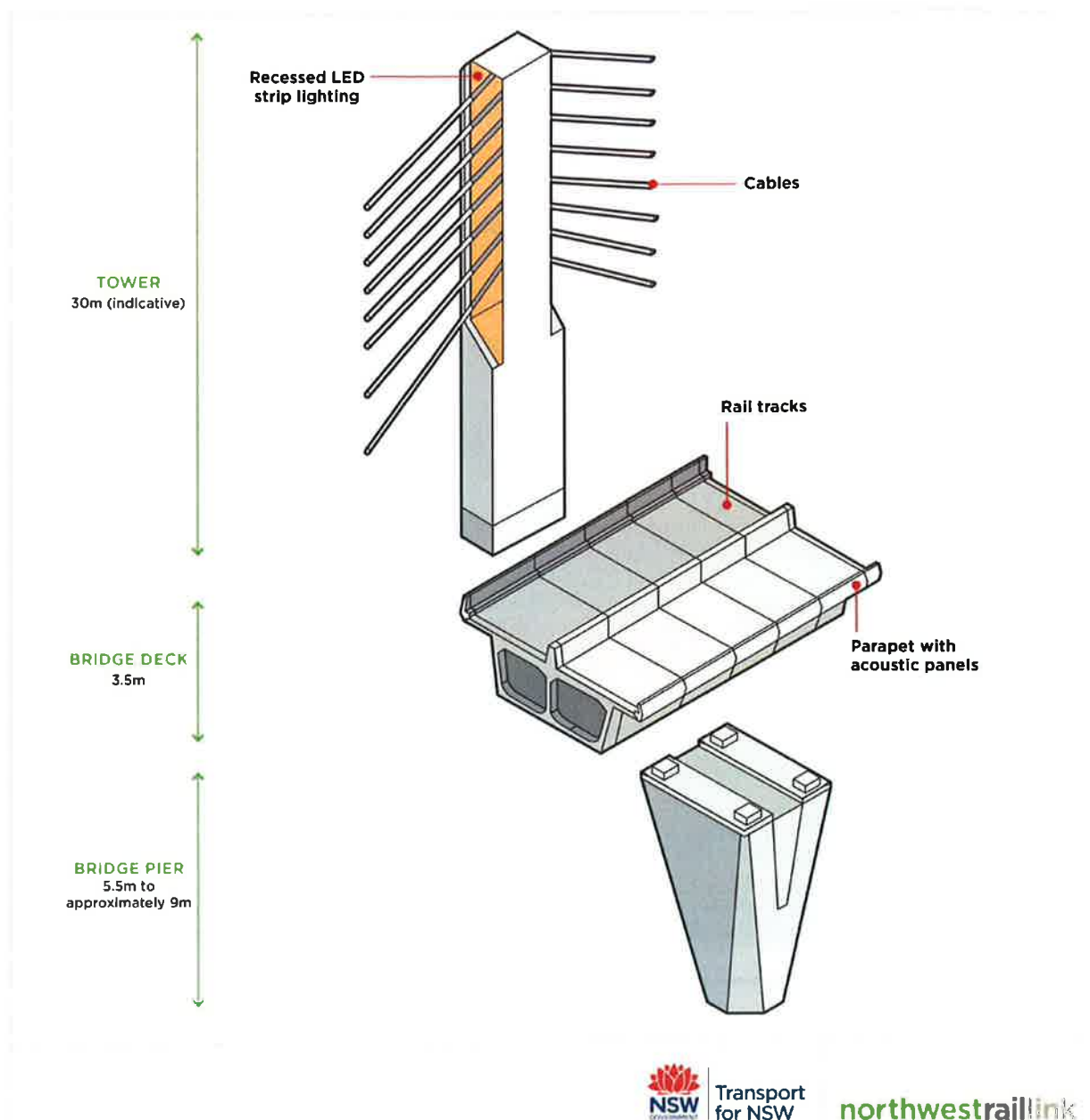


**Figure 2: Proposed indicative site layout (Windsor Road Modification Report 2014)**

The bridge deck would be a 15 m wide, 3.5 m deep dual carriageway to convey trains. The bridge piers would sit between the two carriageways. The eight cable stays will protrude from each direction of the towers to the bridge deck below. The design and construction of the bridge would meet Australian Standards (AS5100 – Bridge Design and where not specified AS1170 – Structural Design Actions) and will include a derailment kerb on the side of the rail and a deflection wall to protect the supporting cables from any potential derailment incidents (Refer **Figure 3**).

A summary of the approved project components compared to the proposed modifications is provided within **Table 1**.





Windsor Road Bridge Modification

Figure 3: Details of bridge tower, deck and piers (Windsor Road Modification Report 2014)

Table 1 Summary of approved project components and proposed modifications

Project Component	Approved Component	Proposed Modification
Bridge Span	Viaduct or bridge structure between 11m and 14m wide, approximately 15m above ground level with approximately 40m spans across the roadway.	270m long, cable stayed bridge with two support towers, 15m bridge deck width and 3.5m depth.
	Permanent piers to be placed in the central median of Windsor Road.	Two towers approximately 45m height from ground level.
	No significant vertical elements over the roadway. No lighting.	Removal of permanent piers within Windsor Road reserve. Light-emitted diode (LED) lighting incorporated into tower designs.

Project Component	Approved Component	Proposed Modification
Integration with viaduct and Rouse Hill Station	No change to viaduct at station. Support piers at regular intervals.	Bridge structure integrates with viaduct at Rouse Hill Station.

Construction site 15 as approved to support construction of the viaduct (Refer **Figure 4**) will remain unchanged.

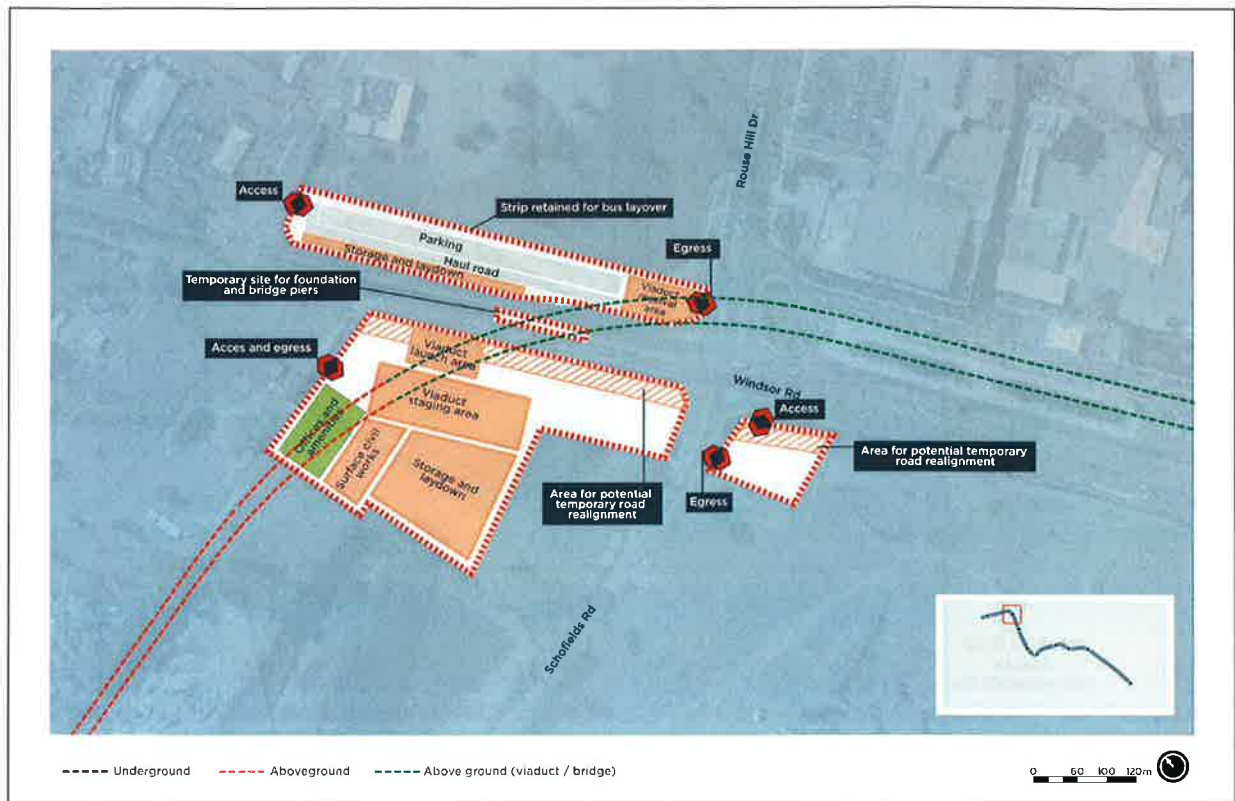


Figure 4 Indicative site layout of Construction Site 15 as approved in EIS 1 (approved 25 September 2012)

## 2.2. Justification

In June 2012 Transport for NSW announced a new rail plan for Sydney. *Sydney's Rail Future* is a long term plan to increase the capacity of Sydney's rail network through the provision of new services and the upgrading of existing infrastructure. In addition, the *NSW Long Term Transport Master Plan* outlines the NSW Government's commitment to increase the capacity of Sydney's rail network by introducing a rapid transit rail network. The NWRL is the first of Sydney's new rapid transit services and will be the first to feature single-deck trains.

The NWRL provides an opportunity to integrate land use, transport and infrastructure planning in North-West Sydney and it is identified as a "City Shaper" under the *Draft Metropolitan Strategy for Sydney to 2031* because the change and investment opportunities created from the NWRL are critical for the growth of Sydney.

The NWRL will also support positive changes in travel behaviour as a result of the transport modal shift from road onto rail. The NWRL will facilitate reduced private vehicle movements reducing the capacity constraints on the road network and traffic congestion. The NWRL is consistent with the NSW 2021 goals to grow patronage and increase access to public transport and build liveable centres.



The replacement of the approved viaduct with the cable stayed bridge results in a more refined design as it removes piers previously proposed in the Windsor Road reserve. The removal of the piers removes the need for permanent road realignment during operation and improves road safety. The Proponent has also justified the modification by indicating the potential for the cable stayed bridge to become an urban marker to support the importance of the Rouse Hill Town Centre.

### 3. STATUTORY CONTEXT

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#### 3.1. Modification of the Minister's Approval

Pursuant to Section 115ZI of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) the Proponent is seeking approval from the Minister for Planning for the modification of the SSI-5414 Stage 2. A section 115ZI modification request is appropriate as the proposed modification is not consistent with the SSI approval, but does not represent a major change to the project.

#### 3.2. Delegated Authority

On 14 September 2011, the then Minister for Planning and Infrastructure delegated his powers and functions under section 115ZI of the EP&A Act to the Directors, Major Project Assessments Division, in cases where:

- the relevant local council has not made an objection;
- a political disclosure statement has not been made; and
- there are less than 10 submissions in the nature of objections.

As Blacktown City Council has not made an objection, no political disclosure statements have been made, and six submissions and no objections have been received, the Director, Infrastructure Projects may determine the modification request under delegated authority.

### 4. CONSULTATION AND SUBMISSIONS

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#### 4.1. Exhibition

Pursuant to 115ZI of the EP&A Act, the Department publicly exhibited the modification request for 14 days from 12 February 2014 until 26 February 2014 on the Department's website and at the following exhibition locations:

- **Department of Planning & Environment**, Information Centre, 23-33 Bridge Street, Sydney;
- **Transport for NSW**, Information Centre, 299 Old Northern Road, Castle Hill;
- **Nature Conservation Council**, Level 2, 5 Wilson Street, Newtown;
- **The Hills Shire Council (Council Offices)**, 3 Columbia Court, Baulkham Hills; and
- **Vinegar Hill Memorial Library**, 29 Main Street, Rouse Hill.

The Department also advertised the public exhibition in the Sydney Morning Herald, Daily Telegraph and the Hills Shire Times on 12 January 2014 and notified relevant State and local government authorities directly in writing. The Department received six submissions during the exhibition period including five submissions from public authorities and one submission from an organisation. A summary of the issues raised in submissions is provided below.

## 4.2. Public Authority Submissions

The key issues raised in public authority submissions are listed in **Table 2**.

**Table 2 Public authority submission summary**

<b>Agency</b>	<b>Items raised in submissions</b>
<i>Blacktown City Council</i>	<ul style="list-style-type: none"> <li>- Visual impact, particularly given the height of existing structures in the area;</li> <li>- Visual impact on views from Rouse Hill House and Farm;</li> <li>- Lower structure heights and more appealing design preferred; and</li> <li>- Concern regarding the nature of the support structure of western end span of bridge as it allows for a local road connection underneath.</li> </ul>
<i>NSW Roads and Maritime Services (RMS)</i>	<ul style="list-style-type: none"> <li>- Temporary and permanent construction phase traffic management to be managed through a Transport and Traffic Liaison Group (TTLG) similar to Condition C28 for SSI-5100;</li> <li>- Pier locations would not preclude upgrade of Rouse Hill Drive approach to Windsor Road to an ultimate at-grade configuration;</li> <li>- Pier locations would not preclude provision of additional storage capacity for left turn lane from Windsor Road into Rouse Hill Drive;</li> <li>- Recommend that the construction site (15) should be designed to meet RMS requirements; and</li> <li>- Requested that certified copies of civil, structural and traffic signal design plans be submitted to RMS before construction works commence to provide RMS with information regarding the works in and around the road network.</li> </ul>
<i>Office of Environment and Heritage</i>	<ul style="list-style-type: none"> <li>- Impacts on ecological values and indigenous heritage were not altered.</li> </ul>
<i>Department of Primary Industries</i>	<ul style="list-style-type: none"> <li>- No issues raised.</li> </ul>
<i>NSW Trade and Investment</i>	<ul style="list-style-type: none"> <li>- No issues raised.</li> </ul>

## 4.3. Public Submissions

The Department received one submission from the GPT Group, the current property managers of the Rouse Hill Town Centre. The issues raised are summarised in **Table 3**.

**Table 3 Summary of Issues Raised in Public Submissions**

<b>Agency</b>	<b>Items raised in submissions</b>
<i>The GPT Group (Rouse Hill) Pty Ltd</i>	<ul style="list-style-type: none"> <li>- Concerns with the latest intersection design at Rouse Hill;</li> <li>- Lack of clarity in the design of road and bus related works ;</li> <li>- Lack of noise modelling and design data available to GPT despite the number of potential sensitive receivers;</li> <li>- Impacts on local business and need for signage and business identification;</li> <li>- Visual amenity and visibility of the Rouse Hill Town Centre from key viewpoints to facilitate trade. Concerned that the modification may impede views;</li> <li>- Further information requested on night lighting and the impacts regarding the existing and proposed buildings in the Rouse Hill Town Centre;</li> <li>- Pedestrian and cyclists movements across Windsor Road;</li> <li>- Concerns there will be no significant changes to the construction impacts; and</li> <li>- Construction related issues, specifically timeframes, noise and vibration, traffic impacts, pedestrian and cyclist impacts, local business impacts, loss of signage and visibility, movement and establishment of temporary ancillary facilities.</li> </ul>

## 5. ASSESSMENT

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The Department considers that the proposed modification would have largely the same impacts as the approved viaduct. Notwithstanding, the Department has considered the items raised in submissions and has identified the following environmental aspects as requiring further consideration:

- visual impact; and
- heritage.

Other matters that have the potential to be altered by the modification, including traffic, noise, construction and local business impacts are summarised in **Table 5**.

### 5.1. Visual Impact

The existing visual character of the locality is predominantly rural and residential. This landscape is currently changing, with the further development of the North West Growth Centre, and the Rouse Hill Regional Centre forming the major centre of this region. The North West Rail Link Corridor Strategy aims to outline a plan to provide housing and employment in close proximity to a reliable public transport system. This has resulted in re-zoning of areas and will likely result in future changes to the landscape of the area.

It is expected that there will be views of both local and regional significance of the proposed bridge from surrounding areas. Nearby facilities considered to have views of local significance include the nearby Castlebrook Lawn Cemetery and Crematorium, Rouse Hill Town Centre and North-West T-way. The Rouse Hill House and Farm, a state-listed historic heritage item, is considered to have views of regional significance, despite its distance from the NWRL (over two kilometres).

The proposed cable stayed bridge includes the following visual elements:

- two towers approximately 45m above ground level;
- eight cable stays projecting from each direction from both towers to support the bridge deck; and
- light-emitting diode (LED) lighting within the towers with subtle illumination at night.

A summary of the visual impacts associated with the proposed bridge in comparison to the impacts anticipated of the approved viaduct are presented in **Table 4**.

#### **Department's Consideration**

The following views will be altered from those previously approved:

- Windsor Road, looking north and looking south;
- Castlebrook Lawn Cemetery and Crematorium; and
- Rouse Hill House and Farm.

#### **Windsor Road, Looking north and south**

Windsor Road is one of the oldest and most significant routes in the local area. The Proponent has indicated that the bridge would dominate the views along the road to the north and south in the vicinity of Schofields Road/Rouse Hill Drive. Given that the viaduct in isolation was considered to present a moderate adverse impact on the visual landscape, the Department does not support the Proponent's opinion that the proposed bridge would necessarily improve the viewshed and result in a moderate beneficial impact to the landscape. The Department appreciates that the proposed bridge would present a feature to the approved viaduct that will be easily seen, providing a reference to the location. However, it is considered likely that the appearance from this viewpoint would be one of bulky infrastructure and the refinements compared to the viaduct would be noticeable to the viewer.

### Castlebrook Lawn Cemetery and Crematorium

The Castlebrook Lawn Cemetery and Crematorium is a place of commemoration and remembrance and has a natural and landscaped setting. The facility is located on an elevated position with broad panoramic views. The approved viaduct would run across the view resulting in a reduction in local visual sensitivity during both construction and operation. The Windsor Road Bridge would be a much higher structure and as such, is likely to result in further alterations to the view given the additional height of the proposed bridge, its design and associated towers. The Proponent has indicated that this would result in an increase in the impacts from 'minor adverse impact' (viaduct) to a 'moderate adverse impact' (modification). The Department concurs with this assessment.



### Rouse Hill House and Farm

Rouse Hill House and Farm (Rouse Hill Estate), located approximately 2.5 kilometres from the proposed modification, is one of the most significant and substantial houses remaining from the Macquarie period (1810 to 1822). The Rouse Hill Estate is located on a small hill north of the proposed modification. Whilst the approved viaduct had visual minimal impact upon the Rouse Hill Estate, the proposed bridge would be visible as a result of the increased height of the modified structure.



The Proponent's design solution presented in the Stage 2 EIS includes solutions to minimise the bulk and scale of the structures. The Department considers that this is still relevant to the proposed bridge as this consideration during detailed design has the potential to minimise the visual impact. The Department is satisfied that conditions of the original approval, which require further detail of these measures and their implementation to be included as part of the wider Construction Operational Environmental Management Plans for the NWRL are appropriate to address this issue.



Both Blacktown City Council and GPT Group made comments relating to the visual impact of the proposed Windsor Road Bridge relating to the bulk and scale of the structure, the need for the Rouse Hill Town Centre to be visible from a number of viewpoints, and general view alteration from both the Rouse Hill Estate and Rouse Hill Town Centre. Blacktown City Council also noted that the views from Rouse Hill Estate were a factor in the planning for the Area 20 Precinct in the North West Growth Centre.


**Table 4** Summary of changed impact compared to the impact of the approved viaduct.

<b><i>Direction of view directly towards Windsor Road Bridge</i></b>	<b><i>Existing landscape</i></b>	<b><i>EIS2 Assessment (viaduct)</i></b>	<b><i>Proponent's Assessment of Modification</i></b>
Windsor Road, looking north from vehicle on Windsor Road.		Moderate adverse impact	Moderate beneficial impact
Rouse Hill Drive, looking west from the expanded town centre.		Minor adverse impact	Limited change



<b><i>Direction of view directly towards Windsor Road Bridge</i></b>	<b><i>Existing landscape</i></b>	<b><i>EIS2 Assessment (viaduct)</i></b>	<b><i>Proponent's Assessment of Modification</i></b>
Schofields Road, looking east from a vehicle on Schofields Road.		Negligible impact	Limited change
Windsor Road, looking south from vehicle on Windsor Road.		Moderate adverse impact	<b>Moderate beneficial impact</b>

<b><i>Direction of view directly towards Windsor Road Bridge</i></b>	<b><i>Existing landscape</i></b>	<b><i>EIS2 Assessment (viaduct)</i></b>	<b><i>Proponent's Assessment of Modification</i></b>
Castlebrook Lawn Cemetery and Crematorium, looking north from a pedestrian viewpoint at the cemetery and crematorium.		Minor adverse impact	Moderate adverse impact
Rouse Hill House and Farm, looking south from a pedestrian viewpoint at the cemetery and crematorium.		Negligible impact	Moderate adverse impact

<i><b>Direction of view directly towards Windsor Road Bridge</b></i>	<i><b>Existing landscape</b></i>	<i><b>EIS2 Assessment (viaduct)</b></i>	<i><b>Proponent's Assessment of Modification</b></i>
Withers Road, looking east		N/A	Negligible impact

\* Where visual impacts have changed from those anticipated within the approved Stage 2 EIS, they have been presented in **bold**.

\* Impact of proposed modification is compared to the impact of the approved viaduct and not the current landscape

The Department acknowledges that there will be a significant alteration to the visual landscape of the area with the introduction of the proposed bridge that has vertical elements that exceed the height of those associated with the approved viaduct. The existing landscape includes rural properties, roads, agriculture and residential properties. The ability of this landscape to accommodate visual change ranges from low to moderate-high depending on the topography, the surrounding land use and the proposed future land uses. The mitigation measures detailed in Stage 2 – Stations, Rail Infrastructure and Systems and the conditions of approval as imposed by the Minister, assist in minimising the visual impacts of the bridge, however the Department considers that the alterations to visual amenity should be further mitigated/managed.

The Department has assessed the proposed mitigation measures. These include:

- that the design process for the bridge would consider opportunities to review the proportions to ensure a proportionally elegant structure; and
- the bridge towers would be light and neutral in colour to minimise the contrast where they would be seen against the sky.

The proposed bridge results in additional height when compared to the approved viaduct and this additional height would be difficult to screen, irrespective of the measures approved within the Stage 2 EIS and those proposed above.

The Department notes that the bridge would be visible from a number of viewpoints, however does not consider the strategies proposed are sufficient to minimise the impacts to adjacent viewers, particularly in relation to the changing landscape and the present design stage of the bridge. As such, the Department has proposed a condition that the Proponent develop a Bridge Management Plan to detail the design of the Windsor Road Bridge and how the construction of the Windsor Road Bridge will be managed. This Plan shall include, but not be limited to:

- consultation with Blacktown City Council, owners and managers of Rouse Hill Town Centre, including consultation on traffic arrangements and associated way-finding signage during construction;
- consultation with Castlebrook Lawn Cemetery and Crematorium and the Historic Houses Trust regarding detailed design of the Windsor Road Bridge; and
- details of management measures to be carried out in relation to alterations to visual amenity during both construction and operation, including detailed methodology and strategies for maintaining views to items of local and regional significance.

## 5.2. Heritage

Heritage items in the vicinity of the proposed Bridge as identified by the Proponent include:

- Rouse Hill House and Farm (Rouse Hill Estate);
- The Battle of Vinegar Hill Memorial; and
- Former Royal Oak Inn (now the Mean Fiddler Hotel).

The Rouse Hill Estate is located approximately 2.5 km north of the proposed Windsor Road Bridge. Rouse Hill Estate is listed on the Register of the National Estate (non-statutory) and NSW State Heritage Register. The Rouse Hill Estate is of significance as it is one of the most significant and substantial houses of the Macquarie period which dates from 1810 to 1822. The Estate has the largest and most complete publically owned physical record of the occupancy and culture of a European-Australian family (Historic Houses Trust 1997:8).

The property is unique for its survival as a largely intact estate with an unbroken chain of occupancy, allowing the survival of major garden and interior elements of every period of its history to the present. This layering of artefacts and fashions is especially prevalent in the gardens where designs and physical details such as edging, fencing, planting containers, bed designs and paths provide a case history for the study of the development of garden practices in Australia. The Rouse Hill Estate is located on a small hill and the views of the

landscape from parts of the garden and farm area would likely be altered by the Windsor Road Bridge.

The Battle of Vinegar Hill Memorial is located 400m south of the proposed Windsor Road Bridge. The Battle of Vinegar Hill was a convict battle fought against British troops in 1804. The exact location of the Battle of Vinegar Hill is no longer known however, following an inquiry in 1982, it was agreed to commemorate the event with a memorial located within the Castlebrook Lawn Cemetery and Crematorium. The Memorial is located in an elevated location within the Castlebrook Lawn Cemetery and Crematorium and given that the site is 400 m south from the proposed bridge, there would likely be alterations to the views from this location.

The Former Royal Oak Inn (now the Mean Fiddler Hotel), is considered to be of State significance as a surviving inn of the 1820-40 period, with the main part of the original complex remaining intact. It is believed to be the site of one of the first inns on the Parramatta to Windsor/Richmond route and one of the earliest licensed premises in the colony, dating to 1830 (NSW Heritage Office, 2012). Tree removal along Windsor Road was approved as part of the Stage 1 EIS approval. The removal of these trees was considered to alter the views south along Windsor Road from the hotel which had the potential to impact upon the visual setting of the Royal Oak Inn. The visual setting of the Royal Oak Inn would be further altered by the presence of the Windsor Road Bridge as a result of the additional height and associated alteration to the view.

### **Department's Consideration**

The Department notes that the views from the Rouse Hill Estate would be altered by the Windsor Road Bridge. The distance and undulating topography between the Rouse Hill Estate and the proposed bridge assist in minimising the direct impacts on the viewshed from the Rouse Hill Estate. Further, as the significance of the Rouse Hill Estate is predominantly in relation to the unbroken chain of occupancy and the associated garden and interior elements from every period of its history to the present, the Department considers that the Windsor Road Bridge would have an impact on the viewshed from the garden area of the Rouse Hill Estate; however, the heritage significance of the site would remain unchanged.

Views from the Battle of Vinegar Hill Memorial and Royal Oak Inn would be altered by the presence of the Windsor Road Bridge. The significance of the Memorial does not rely upon the viewshed, particularly since the exact location of the battle is no longer known. It is a place of reflection and therefore the presence of views of the bridge from the grounds, as a result of the additional height is unlikely to affect this function. Likewise, the heritage significance of the Inn is not considered to be altered by the presence of an altered viewshed.

Condition C27 of the Stage 2 EIS approval (SSI-5414) requires the Proponent to prepare and implement a Visual Impact Strategy to detail impacts and minimise impacts of the SSI on heritage items. Whilst the modification would not impact directly upon heritage items in the vicinity, *The Burra Charter: Australia International Council on Monuments and Sites (ICOMS) Charter for Places of Cultural Significance, 2013* (Burra Charter) advocates a cautious approach to change. The setting of each of these items would be altered as a result of the additional vertical bulk of the proposed Windsor Road Bridge. As such, the Department specified in the modified instrument that the visual amenity and views of local/regional significance from the Rouse Hill Estate, Battle of Vinegar Hill Memorial and Former Royal Oak Inn be considered in the development of the detailed design of the Windsor Road Bridge.



### 5.3. Other Matters

The Department's consideration of other minor issues identified in the assessment and in submissions is presented in **Table 5**.

**Table 5 Other Impacts**

Issue	Potential Impact and Consideration	Conclusion and Recommendation
Traffic	<p>The proposed modification would provide for a cable-stayed bridge over Windsor Road, Rouse Hill near the intersection with Schofields Road / Rouse Hill Drive. The proposed Windsor Road Bridge would not affect the use of existing transport infrastructure, specifically Windsor Road and the intersection of Schofields Road / Rouse Hill Drive. The increased span length of the bridge, when compared to the approved viaduct would remove the need for a pier in the median of Windsor Road. The removal of the pier is considered by the Proponent to enable more efficient intersection arrangements for any future grade separation of Windsor Road and Schofields Road / Rouse Hill Drive.</p>	<p>The submission received from RMS noted that the RMS entered into an Interface Management Plan with TfNSW to deliver integrated transport outcomes for the community. As part of this Plan, the temporary construction phase traffic management requirements would be managed through the proposed Transport and Traffic Liaison Group, which RMS participates.</p> <p>RMS note that the pier locations should be engineered to not preclude the upgrade of the Rouse Hill Drive approach to Windsor Road to an "ultimate" at-grade configuration and that the pier locations should not preclude the ability to provide additional storage capacity for the left turn lane from Windsor Road to Rouse Hill Drive.</p> <p>As the Windsor Road Bridge design is not yet finalised, the Department notes the need for ongoing consultation with RMS. The conditions within SSI-5414 and the continued participation in the Transport and Traffic Liaison Group would continue however the Department has also included a further condition requiring that any road infrastructure works or alterations to signalised intersections associated with construction site (as presented within the SSI-5100 EIS), meet RMS requirements.</p>
Noise	<p>The Windsor Road Bridge would be designed to comply with the noise emissions of the Stage 1 and Stage 2 EIS approvals. The design of the bridge would remain comparable to the approved viaduct with concrete box girders with concrete spans. The bridge parapets would include acoustic treatment.</p> <p>The Proponent has predicted that the bridge would comply with operational noise trigger levels at existing sensitive receivers and at future buildings along the western frontage of the Rouse Hill Town Centre.</p>	<p>The Department notes that the alterations to noise impacts from those approved as part of the Stage 2 EIS would be minimal. As such, the Department considers the requirements of the SSI-5414 approval to be adequate in managing noise impacts of the proposed modification.</p>

Issue	Potential Impact and Consideration	Conclusion and Recommendation
Construction	The Windsor Road Bridge would result in an altered construction process compared with the approved viaduct.	The Department notes that the proposed modification would result in an altered construction process, with the erection of significant towers and cable stays to support a bridge deck. The stakeholders impacted by the alteration should be consulted and provided regular updates on the construction program. Furthermore, the GPT Group, owners/managers of the Rouse Hill Town Centre should be consulted regarding traffic and access alterations and associated way-finding signage during construction.
Local Businesses	Operationally, the proposed modification is considered to result in limited change to local businesses with businesses still anticipated to benefit from enhanced accessibility and an increase in passing trade.	The SSI-5414 approval requires the Proponent to facilitate community/business-based forums. The Department acknowledges that the Proponent would continue to consult with stakeholders and businesses. Further, the Department recommends that the Proponent consult specifically with stakeholders impacted by the proposed modification including Blacktown City Council, Rouse Hill Town Centre, Castlebrook Lawn Cemetery and Crematorium, Historic Houses Trust regarding the construction process and the further detailed design of the bridge.

## 6. RECOMMENDATION

The NWRL is a key priority rail transport infrastructure project by the NSW Government and the Windsor Road Bridge enables the NWRL to be executed as intended, with potentially less disturbance to the road network.

Following its assessment of the modification; submissions received from agencies, council and the public and the Response to Submissions Report; the Department has concluded that the design of the Windsor Road Bridge provides a landmark for the NWRL and that the affected stakeholders are to be consulted as part of the detailed design process including signage details and the alterations to the viewshed.

The Department believes that the above requirements, in addition to the existing conditions, ensure that the impacts on the surrounding environment are managed to acceptable levels. Therefore, it is recommended that the Director, Infrastructure Projects, approve the modification subject to the recommended modified conditions of approval.

  
**Director** 20.5.14  
**Infrastructure Projects**

## **APPENDIX A      MODIFICATION REPORT**

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See the Department's website for the EIS. The EIS is broken into three parts available at the links below.

<https://majorprojects.affinitylive.com/public/870a3818ed8b924babb7ecb127b06a19/1.%20Windsor%20Road%20Bridge%20Modification%20Report%20Final%2031Jan14.pdf>

Appendices are available within the 'Application' folder at:

[http://majorprojects.planning.nsw.gov.au/index.pl?action=view\\_job&job\\_id=6389](http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6389)

## **APPENDIX B SUBMISSIONS**

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See the Department's website for copies of the submissions received.

[http://majorprojects.planning.nsw.gov.au/?action=list\\_submissions&job\\_id=6389&title=Website%20Submissions&type=6](http://majorprojects.planning.nsw.gov.au/?action=list_submissions&job_id=6389&title=Website%20Submissions&type=6)

## **APPENDIX C    PROPONENT'S RESPONSE TO SUBMISSIONS**

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See the Department's website at for a copy of the Proponent's Response to Submissions Report. The report is available at:

[https://majorprojects.affinitylive.com/public/d9ec354ea90c027c430e4beaf269753a/Windsor%20Road%20Bridge%20ModificationSubmissions%20Report%20FINAL\(with%20Appendix%20A\).pdf](https://majorprojects.affinitylive.com/public/d9ec354ea90c027c430e4beaf269753a/Windsor%20Road%20Bridge%20ModificationSubmissions%20Report%20FINAL(with%20Appendix%20A).pdf)



## **APPENDIX D    RECOMMENDED CONDITIONS OF APPROVAL**

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# Modification of Minister's Approval

## Section 115ZI of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning under delegation executed on 14 September 2011, I approve the modification of the project application referred to in schedule 1, subject to the conditions in schedule 2.



Director – Infrastructure Projects  
DEVELOPMENT ASSESSMENT SYSTEMS AND APPROVALS

Sydney

20 May

2014

### SCHEDULE 1

**Project Approval:**

SSI-5414 granted by the Minister for Planning and Infrastructure on 8 May 2013.

**For the following:**

Construction works for the North West Rail Link (not subject to State Significant Infrastructure Approval SSI 5100) and operation of the railway, including the construction and operation of stations and wider precincts, services facilities and a stabilising facility at Tallawong Road, and rail infrastructure and systems.

**Modification:**

Modification to the NWRL Stage 2 State Significant Infrastructure approval (SSI-5414), associated with altering the approved viaduct structure with a cable stayed bridge over Windsor Road, Rouse Hill. Modifications include:

- Alteration to design, appearance, bridge spans and height of the bridge towers; and
- Integration with viaduct at Rouse Hill Station.

The bridge would include the following elements:

- Two towers on either side of Windsor Road which would have a maximum height of approximately 45m;
- Three main spans and overall length of approximately 270m; and
- Integration with the NWRL viaduct at Rouse Hill Station.

## SCHEDULE 2 CONDITIONS

1. Replacing existing requirement B1 with new requirement B1 as follows:

B1 The Proponent shall carry out the SSI generally in accordance with:

- a. SSI Application SSI-5414;
- b. *North West Rail Link: Environmental Impact Statement – Stage 2-Stations, Rail Infrastructure and Systems*, dated 25 October 2012;
- c. *Submissions Report, Stage 2 – Stations, Rail Infrastructure and Systems, Incorporating Preferred Infrastructure Report*, dated March 2012; and
- d. *North West Rail Link: Windsor Road Bridge, Rouse Hill – Modification Report*, dated February 2014;
- e. *North West Rail Link: Windsor Road Bridge, Rouse Hill – Response to Submissions*, dated March 2014; and
- f. conditions of this approval.

2. Insert the following requirement following condition E4, and the renumbering of subsequent requirements:

E5. Any proposed road infrastructure works, restoration works or alterations to signalised intersections located along the classified road system associated with Construction site 15 (as presented within the SSI-5100 EIS), shall meet RMS requirements. The certified copies of civil, structural and traffic signal design plans shall be submitted to RMS prior to commencement of works associated with this construction site.

3. Insert the following requirement following condition E34:

E35. a **Bridge Management Plan** to detail the design of the Windsor Road Bridge and how the construction of the Windsor Road Bridge will be managed. This Plan shall include, but not be limited to:

- a. consultation with Blacktown City Council, owners and managers of Rouse Hill Town Centre, regarding construction of the Windsor Road Bridge. This should include consultation on traffic arrangements and associated way-finding signage during construction. A summary of the outcomes of this consultation shall be provided to the Department;
- b. consultation with Castlebrook Lawn Cemetery and Crematorium, Historic Houses Trust and any other relevant stakeholders regarding detailed design of the Windsor Road Bridge. A summary of the outcomes of this consultation and any alterations to the design shall be provided to the Department;
- c. details of management measures to be carried out in relation to alterations to the visual amenity during both construction and operation, including detailed methodology and strategies for maintaining views to items of local and regional significance; and
- d. a description of how the effectiveness of these actions would be monitored.