

11 LANDSCAPE CHARACTER ASSESSMENT

The landscape character impact is based on the aggregate of an area's built, natural and cultural character and sense of place. In this regard, it is measured by the combination of the area's sensitivity and the magnitude (scale, character and distance).

The table below illustrates how the level of sensitivity and magnitude are combined to achieve an overall level of impact for both the landscape character impact and the visual impact in accordance with the Roads and Maritime's Environmental Impact Assessment Practice Note - *Guidelines for Landscape Character and Visual Impact Assessment* No. EIA-N04, "Version 2.0 Issue Date 28 March 2013.

It should be noted that the ratings are measured relative to each other rather than assigned through an absolute scale. Hence the resulting landscape character impact rating is project specific and identifies those areas with the highest and lowest impacts.

		Magnitude			
		high	moderate	low	negligible
sensitivity	high	high impact	high-moderate	moderate	negligible
	moderate	high-moderate	moderate	moderate-low	negligible
	low	moderate	moderate-low	low	negligible
	negligible	negligible	negligible	negligible	negligible

Landscape character and visual impact grading matrix

The sensitivity of each landscape character zone was assessed in Chapter 3, Landscape Character Analysis and is summarised in table below. The assessment identified that the areas surrounding the project site significantly contribute to the character of the township resulting in a predominant high sensitivity rating.

Within this section of the report the magnitude of impact of the proposal is identified for each landscape character zone and the resulting landscape character impact is outlined for each zone.

character zones	sensitivity
Industrial Fringe	low
Gunnedah Township	moderate
Recreation	high
Railway Corridor & South Street	high
Open Space & Flood way	high
Pensioners Hill	high
The Flour Mill	high

Option C (Refined)- modified preliminary Option 5, intrudes into the floodplain yet provides a generous buffer zone with the Mill and retains the important spatial relationship of the Mill with the town centre. This Option, predominantly follows the alignment set out in Option 5, except that its southern approach ties in with the existing roundabout and retains the existing at-grade railway crossing at New Street. The assessment of magnitude of impact and landscape character impact is outlined below.

Industrial Fringe

The magnitude of impact for this zone is considered low as the proposal would have limited impacts to the character of this area. As the proposal would improve vehicular connectivity, enhancing the functioning of the area, this results in a low landscape character impact.

Gunnedah Township

The proposal's alignment, settled within the floodplain and partially screened by the floodplain vegetation would have a limited dominance within the township. The closure of New Street across the railway line somewhat impacts the connectivity of the township with areas to the south, particularly for pedestrians and cyclists. However, the proposal would enhance connectivity for vehicular traffic and improve access to the town centre from the south. This is discussed further in the Traffic and Transport Impact Assessment prepared by GTA. Overall, a moderate magnitude of impact is assessed, resulting in a moderate landscape character impact.

Recreation

The proposal would provide improved accessibility to the show ground, particularly during major events. A low magnitude of impact is rated for this zone, resulting in a moderate landscape character impact. It should be noted, that this impact is positive and contributes to the overall functioning of the area by creating a safer railway crossing.

Railway Corridor & South Street

With the alignment situated within the floodplain and allowing a buffer zone between the Mill and the proposed bridge, the magnitude of impact for this zone is limited, as the presence of the proposal would be in the background. Hence, the overall character within this zone is not impacted except for contextual views towards the Mill. The introduction of a larger roundabout at South Street would create a more dominant element at this significant intersection, slightly formalising the intersection. Overall a moderate magnitude of impact is assessed, resulting in a moderate to high landscape character impact.

Open Space & Floodway

The magnitude of impact on this zone is considered high as the proposed structure would directly impact the floodplain setting and its character. This is particularly underpinned by the loss of vegetation and the location of the alignment. Hence a high impact has been assessed for this zone. It should be noted, that the proposed landscape design measures would assist in mitigating this impact through the re-introduction of floodway vegetation.

Pensioners Hill

The magnitude of impact on this zone is considered moderate as it would not fundamentally change the sense of place and character of Pensioners Hill or the overall panoramic vistas. The presence of the structure, would be a clearly visible built form element, yet the vastness of the views limits the overall magnitude of impact. The overall landscape character impact is rated as moderate to high.

The Flour Mill

The proposed alignment allows for a buffer zone between the Mill and proposal. This situation maximises the use of existing vegetative screening to limit impacts to viewsheds whilst allowing the Mill complex to stand as an isolated ensemble. Hence, a moderate magnitude of impact is assessed taking into account landscape design mitigating measures to further buffer the Mill from the proposal. This results in a moderate to high landscape character impact.

The table below, provides an overview of the resulting landscape character impact for each zone. The overall proposal is likely to have a moderate to moderate-high landscape character impact. In a number of situations, the impacts are considered positive, as the proposal would enhance safety and connectivity and improve traffic flow.

The zone with the highest impact is the floodplain, as the proposed bridge would become a dominant element within this setting and detract from the natural quality of the floodplain.

In the case of the other zones with a high to moderate impact, their sense of place and attributes would not greatly change. The relative high magnitude of impact assessed is driven by sensitive viewsheds that contribute to the overall character of Gunnedah. This, combined with the high sensitivity of these zones resulted in the moderate to high rating.

character zones	sensitivity	magnitude	impact
Industrial Fringe	low	low	low
Gunnedah Township	moderate	moderate	moderate
Recreation	high	low	moderate
Railway Corridor & South Street	high	moderate	moderate-high
Open Space & Floodway	high	high	high
Pensioners Hill	high	moderate	moderate-high
The Flour Mill	high	moderate	moderate-high

Landscape Character Impact - Summary table

12 VISUAL IMPACT ASSESSMENT

In order to assess the visual impact, a Visual Envelope Map (VEM) of the proposal's visual catchment from the surrounding area has been prepared. The visual catchment is defined either by topographical features, built form elements or screening vegetation.

The proposal would have a limited visual exposure due to the screening effect of buildings and existing and proposed vegetation. The most exposed areas would be along the floodplain, railway corridor, Pensioners Hill and the Mill.

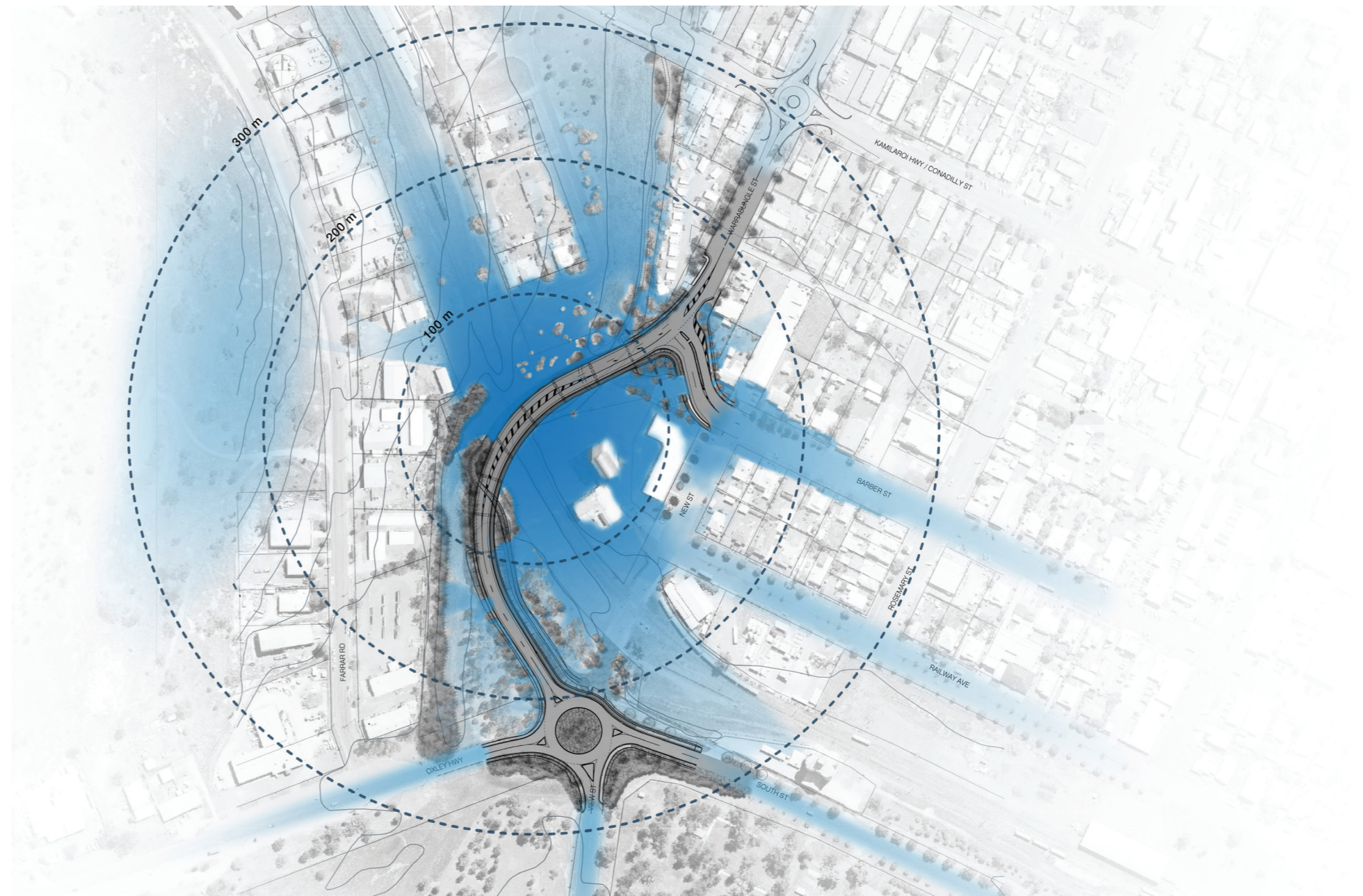
The visual impact assessment has been based by selecting representative viewpoints from various locations within the general project area. The adjacent map illustrates the visual envelope of the proposal and includes the location of representative viewpoints surrounding the project used for the visual impact assessment.

In order to determine the visual impact, sensitivity values have been assigned to the various viewpoints. The sensitivity rating combined with the visual magnitude of impact rating determines the visual impact for each viewpoint and is based on the same matrix as shown in Chapter 1.

The assessment is based on *Roads and Maritime's Environmental Impact Assessment Practice Note - Guidelines for Landscape Character and Visual Impact Assessment No. EIA-N04, "V" version 2.0 Issue Date 28 March 2013.*

Due to the limited accessibility into private properties, the particular viewpoints are not within these properties but along the road verges, local streets and reserves. The viewpoints discuss the likely visual effects these properties would experience as a result of the proposal.

It should be noted, that the selected viewpoints focus on areas with a likely higher visual impact. The assessment includes three dimensional model images of the same viewpoints to provide a better comparison of the magnitude of impact. The representation of the three dimensional model viewpoints do not include all urban and landscape design measures proposed, but rather an indication of the overall engineering structure proposed.





View looking south along the floodplain from the Kamilaroi Highway



Indicative photomontage

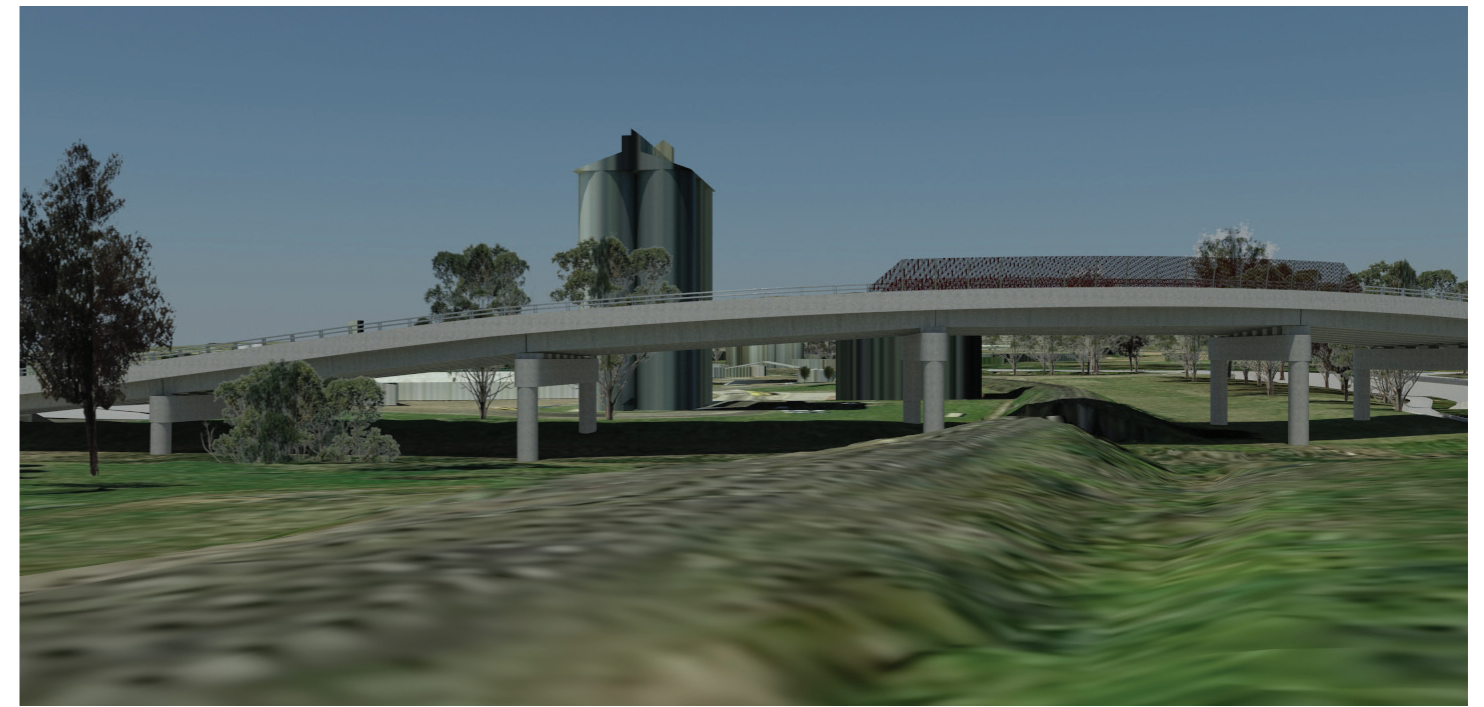
VIEWPOINT 1

Description of the setting	View looking south along the floodplain from the Kamilaroi Highway.
Element visible of the proposal	Northern abutment and main bridge spans.
Category of viewer	Pedestrians, cyclists and vehicular traffic.
Nature of impact	Adverse.
Visual sensitivity	Low due to the nature of the viewer.
Magnitude of impact	High, due to the presence of the structure and its interference with viewsheds towards the Mill.
Overall rating of visual impact	Moderate.
Comment / mitigation measures	Complementary planting within the floodplain would help to settle the structure in its setting.





View looking south from one of the commercial properties along Farrar Road



Indicative model image

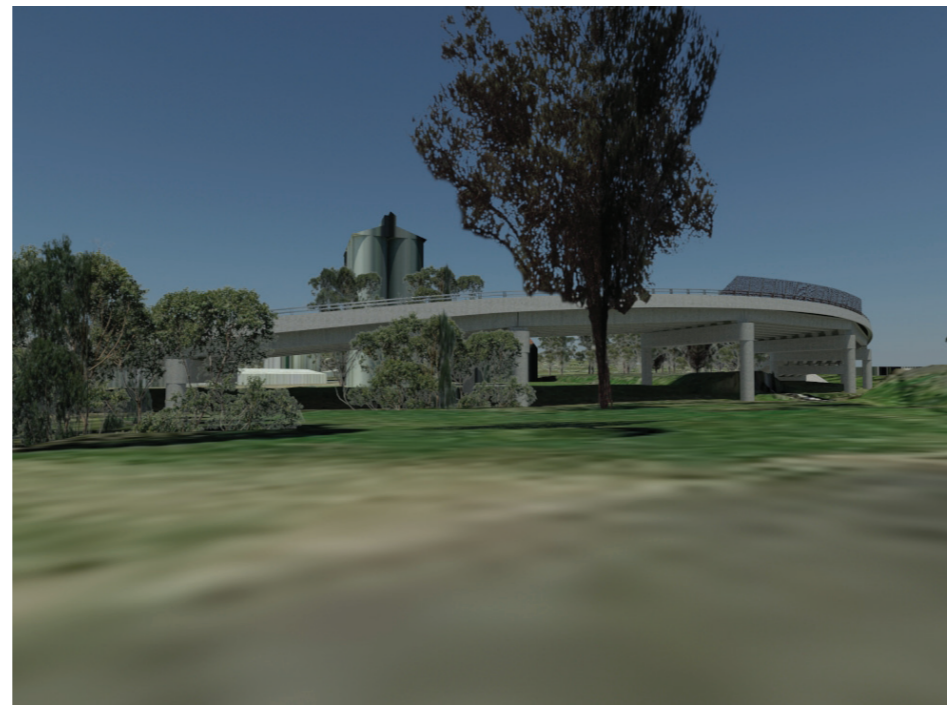
VIEWPOINT 2

Description of the setting	View looking south from one of the commercial properties along Farrar Road.
Element visible of the proposal	Northern abutment and main bridge spans.
Category of viewer	Employees and visitors.
Nature of impact	Adverse.
Visual sensitivity	Low due to the viewers location within the premise (parking).
Magnitude of impact	High, due to the presence of the structure.
Overall rating of visual impact	Moderate.
Comment / mitigation measures	Screen planting would limit the presence of the structure.





View looking south from the cul-de-sac of Stockman Close towards the Mill



Indicative model image

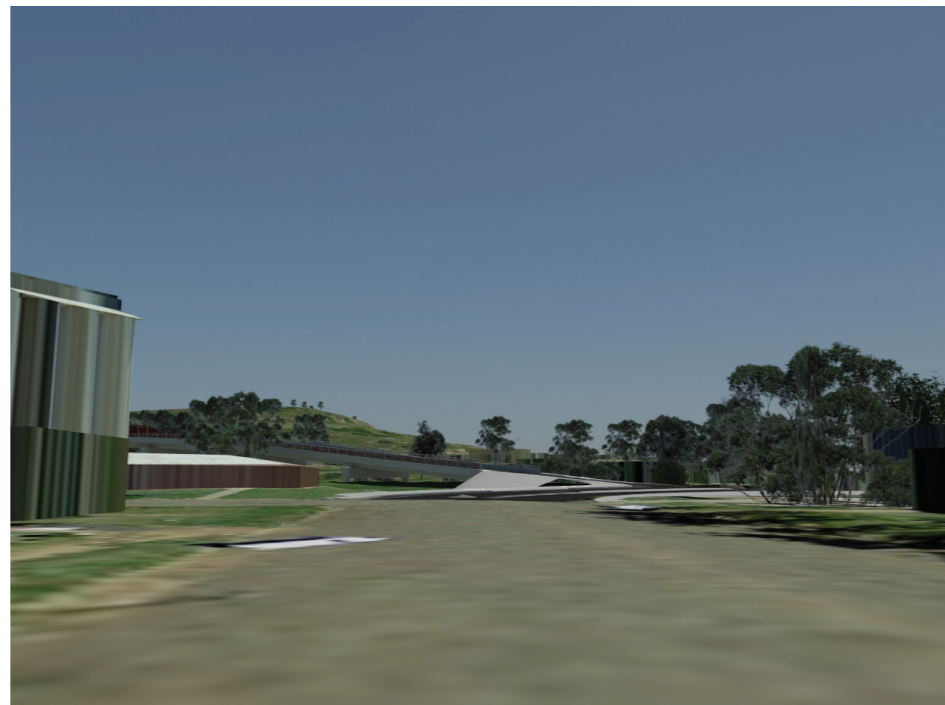
VIEWPOINT 3

Description of the setting	View looking south from the cul-de-sac of Stockman Close towards the Mill.
Element visible of the proposal	Main span would dominate the foreground.
Category of viewer	Residences of Stockman Close.
Nature of impact	Adverse.
Visual sensitivity	High due to the nature of the viewers.
Magnitude of impact	High, due to the presence of the structure.
Overall rating of visual impact	High.
Comment / mitigation measures	Proposed plantings would provide visual mitigation north of the Mill.





View looking east along Barber Street looking towards the intersection with Warrabungle Street



Indicative model image

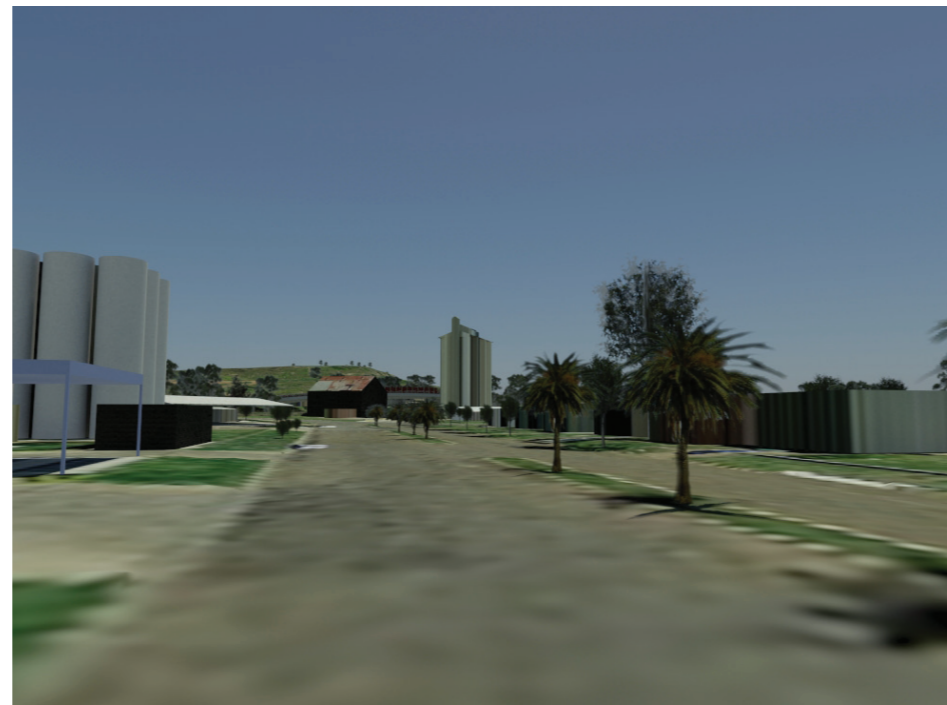
VIEWPOINT 4

Description of the setting	View looking east along Barber Street looking towards the intersection with Warrabungle Street in the mid-ground.
Element visible of the proposal	Northern approach and abutment.
Category of viewer	Residences and road users.
Nature of impact	Adverse.
Visual sensitivity	Low due to the transient nature of the viewers.
Magnitude of impact	Moderate, as there is a limited visual exposure of the structure.
Overall rating of visual impact	Moderate to low.
Comment / mitigation measures	For local residences the impact in most cases would be negligible due to the limited visual exposure to the proposed works from private properties. The project would provide a positive contribution for the long term development of the town centre in context with the increase in commercial land use.





View looking east along Railway Avenue with the Mill in the background



Indicative model image

VIEWPOINT 5

Description of the setting	View looking east along Railway Avenue with the Mill in the background.
Element visible of the proposal	Minimal elements visible of the proposal.
Category of viewer	Residences and road users.
Nature of impact	Adverse.
Visual sensitivity	Low due to the transient nature of the viewers.
Magnitude of impact	Low, as there is minimal visual exposure of the structure.
Overall rating of visual impact	Low.
Comment / mitigation measures	For local residences the impact in most cases would be negligible due to the limited visual exposure to the proposed works from private properties.





View looking north from New Street towards the Mill complex



Indicative photomontage

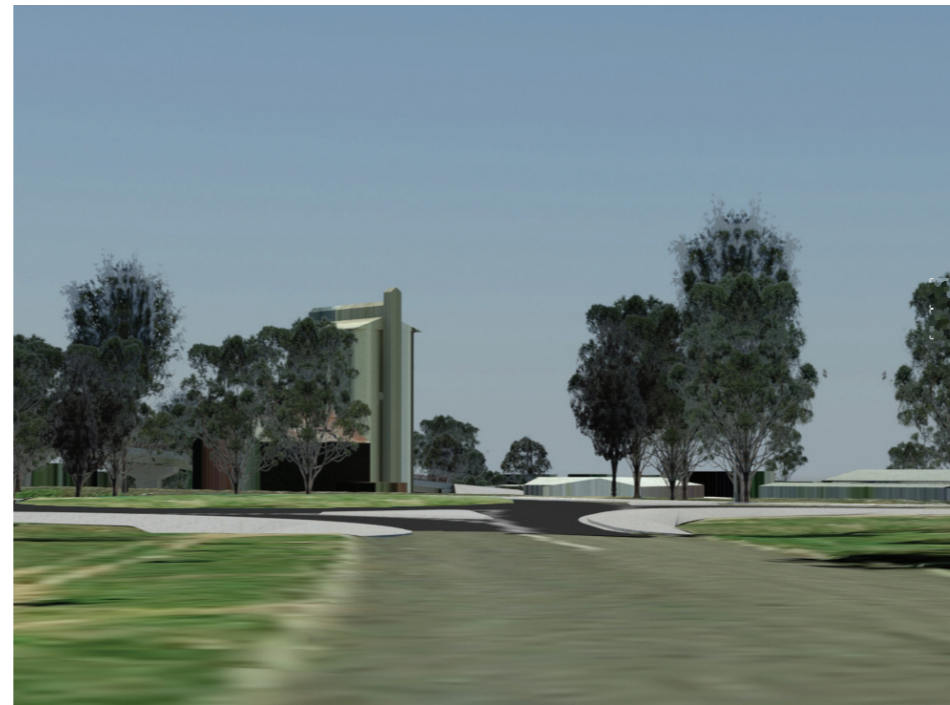
VIEWPOINT 6

Description of the setting	View looking north from New Street towards the Mill complex.
Element visible of the proposal	The proposal's main spans would be visible in the background.
Category of viewer	Road users.
Nature of impact	Adverse.
Visual sensitivity	Moderate as the roundabout intersection with South Street demarks a significant arrival sequence into the town.
Magnitude of impact	Moderate, the proposal would be visible in the background and maintains a spatial buffer zone with the Mill ensemble.
Overall rating of visual impact	Moderate..
Comment / mitigation measures	The Mill setting would retain its visual prominence as a key landmark of the town.





View looking north from Wandobah Road



Indicative model image

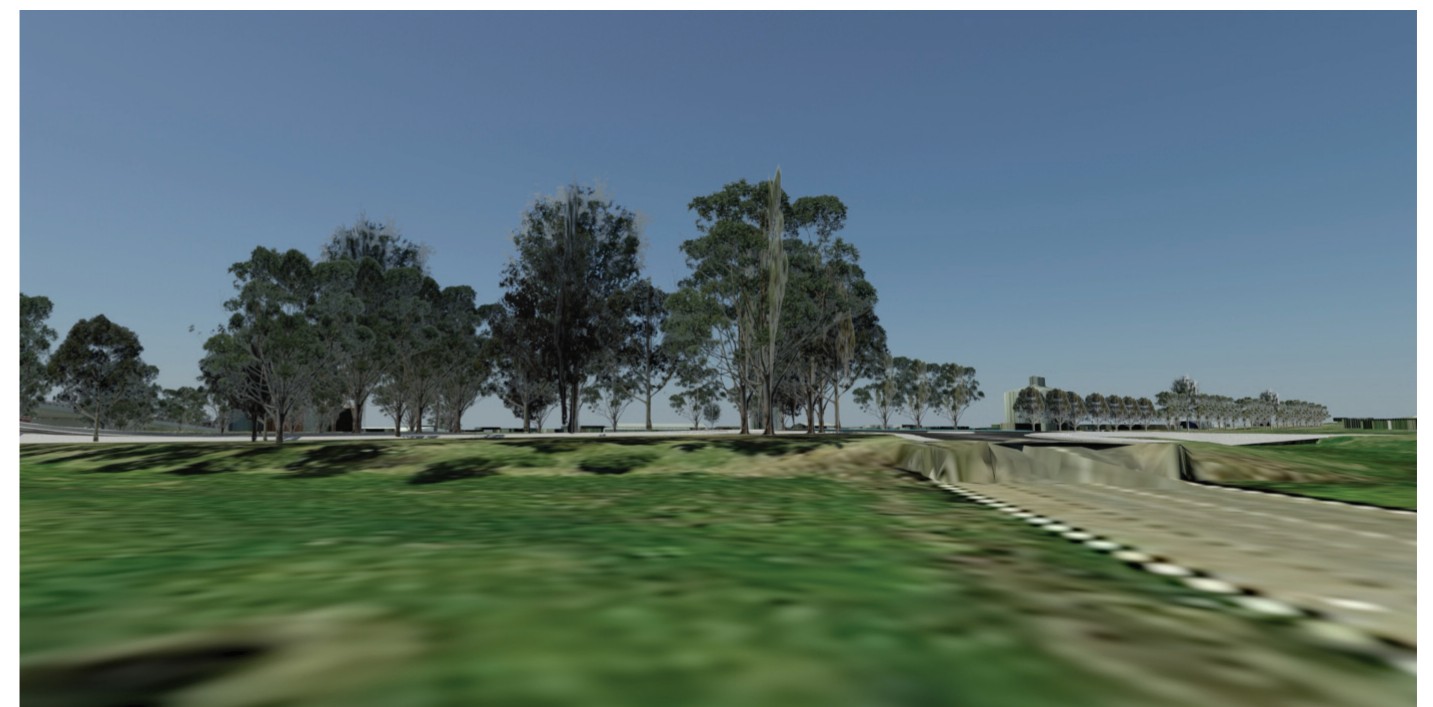
VIEWPOINT 7

Description of the setting	View looking north from Wandobah Road / View Street towards the intersection with South Street / Oxley Highway.
Element visible of the proposal	Roundabout at intersection visible with minimal to no exposure to proposed bridge structure.
Category of viewer	Road users.
Nature of impact	Adverse.
Visual sensitivity	Low due to the transient nature of the viewers.
Magnitude of impact	Low, as there is minimal visual exposure of the overall proposal.
Overall rating of visual impact	Low.
Comment / mitigation measures	There would be minimal visual impact south of the intersection of Wandobah Road / View Street and South Street / Oxley Highway.





View looking east along the Oxley Highway with the floodplain in the foreground



Indicative model image

VIEWPOINT 8

Description of the setting	View looking east along the Oxley Highway with the floodplain in the foreground (left).
Element visible of the proposal	The proposal's southern approach and roundabout at Wandobah Road / View Street.
Category of viewer	Road users.
Nature of impact	Adverse.
Visual sensitivity	Moderate as the roundabout intersection with Wandobah Road / View Street demarks a significant arrival sequence into the town.
Magnitude of impact	Moderate, the proposal would be partially visible through floodplain vegetation. Roundabout would be a dominant feature in the foreground.
Overall rating of visual impact	Moderate..
Comment / mitigation measures	Reinstatement of floodplain vegetation would help settle the structure within its setting. The proposed roundabout would reinforce the arrival sequence into the township.





View looking Pensioners Hill towards the Mill and town below



Indicative photomontage

VIEWPOINT 9

Description of the setting	View looking Pensioners Hill towards the Mill and town below.
Element visible of the proposal	Northern and southern approaches, main bridge structure and filtered views of the roundabout at
Category of viewer	Visitors to Pensioners Hill.
Nature of impact	Adverse.
Visual sensitivity	High due to the local significance of the location offering panoramic views.
Magnitude of impact	Low as the general panoramic views will be retained. Minor local impact in the vicinity of the Mill / floodplain, where the structure would be partially visible.
Overall rating of visual impact	Moderate.
Comment / mitigation measures	The proposal would introduce another built form element and slightly detract from the dominance of the Mill. However additional planting within the floodplain would provide visual mitigation.



viewpoint	sensitivity	magnitude	impact
1	low	high	moderate
2	low	high	moderate
3	high	high	high
4	low	moderate	moderate - low
5	moderate	moderate	moderate
6	high	moderate	moderate-high
7	low	low	low
8	moderate	moderate	moderate
9	high	low	moderate

Visual impact summary

From the adjacent table, it can be concluded that the proposal has a limited visual impact. Although the proposal is significant in scale, its location within the floodplain setting allows for a better integration of the structure in its setting, complemented by landscape design strategies. This situation, limits the visual exposure of the structure, taking a rather 'background' role within its urban setting. This is underpinned by the views being minimally impacted from Pensioners Hill, from where the structure could easily be seen. It is the existing and proposed floodplain vegetation that achieves this visual integration of the structure.

The high impact of Viewpoint 3 is driven by the relatively high visual exposure of the structure combined with the sensitive nature of the viewer. In most cases, sensitive viewers are visually not exposed to the structure.

The overall proposal is considered to have a moderate visual impact.

13 CONCLUDING COMMENTS

The proposal has undergone a lengthy analysis and review process which carefully considered and prioritised a number of options, sub-options and refinements, taking into consideration stakeholder and community feedback to deliver a robust design that has taken numerous design parameters into consideration.

The concept design proposal delivers new infrastructure that balances functional performance, integration of the structure in its setting, considers safety and delivers value for money.

The design respects the landscape, integrates the structure better within the landscape setting and significantly reduces the overall cost of the project.

The proposed landscape design measures would mitigate visual and landscape character impacts by integrating the overall structure within the setting. Strategic planting design to screen certain areas such as the approaches to the viaduct, and sections of the curves of the viaduct would assist in mitigating the presence of the structure. In addition the planting scheme will reinforce the indigenous plant textures and forms of the landscape, thereby integrating the structure further.

The bridge design, exploits views from the deck towards the Mill and township, providing a 'new' visual sequence into town that reinforces its sense of place. The design resolution of the bridge reflects a robust, simple, yet carefully proportioned structure sympathetic to the setting qualities of Gunnedah.



Indicative photomontage looking north from New Street towards the Mill complex