

# SECOND BRIDGE OVER RAIL

GUNNEDAH

urban design & landscape character / visual assessment report



March 2015 FINAL REPORT

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## ANALYSIS & OPTIONS ASSESSMENT REPORT

Issue	Date of Issue	Submission	Author	Review
A	21.02.13	Draft	MW	JvG
B	22.02.13	Draft	MW	JvG
C	03.05.13	Draft	MW	JvG
D	05.09.13	Draft (Informal Issue)	MW	JvG
E	11.09.13	Final Draft	MW	JvG
F	19.09.13	Final Draft	MW	JvG
G	24.01.14	Final Draft	MW	JvG
H	13.05.14	Final Draft	MW	JvG
I	27.03.15	Final Report	MW	JvG

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# 01 INTRODUCTION

## BACKGROUND

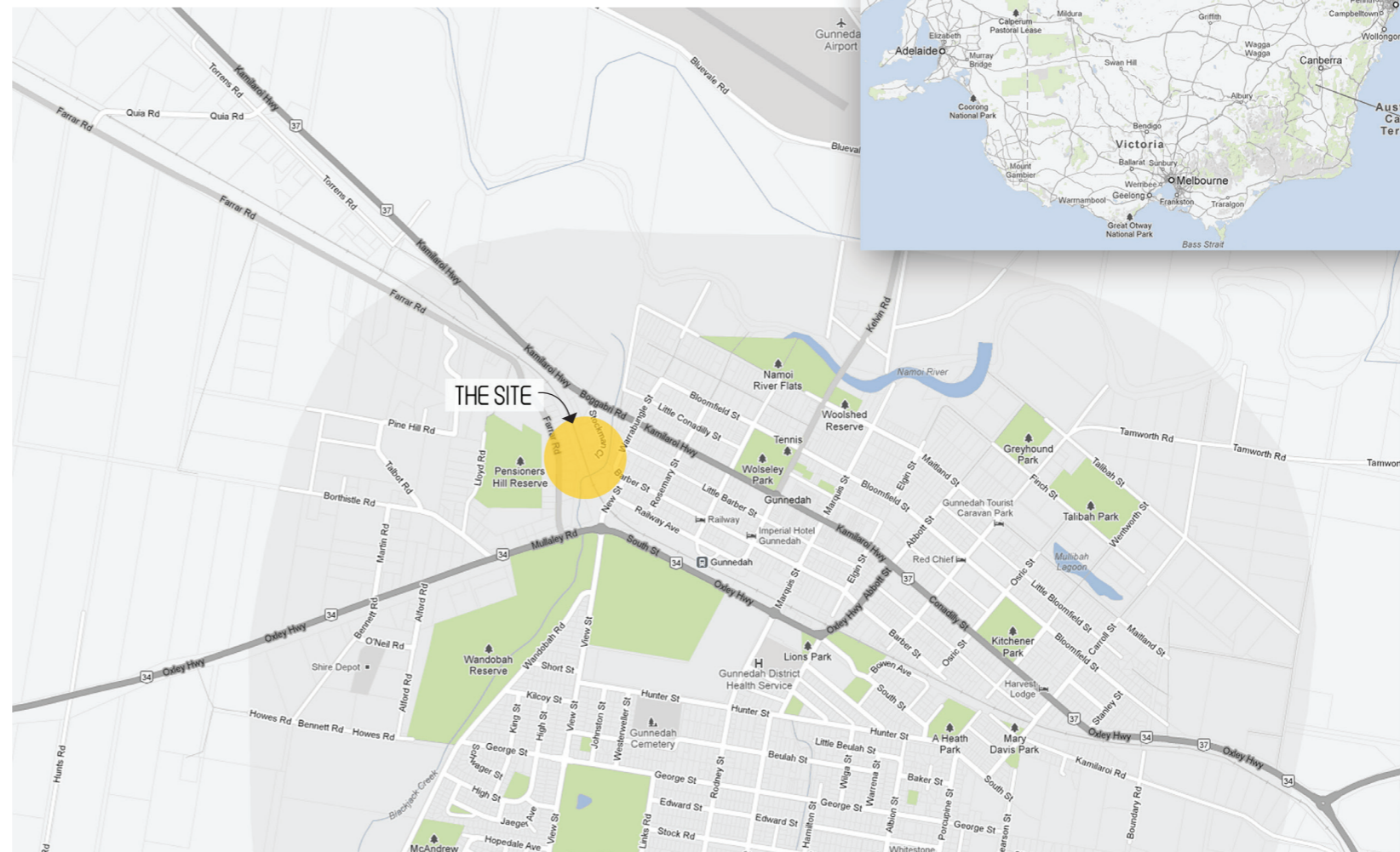
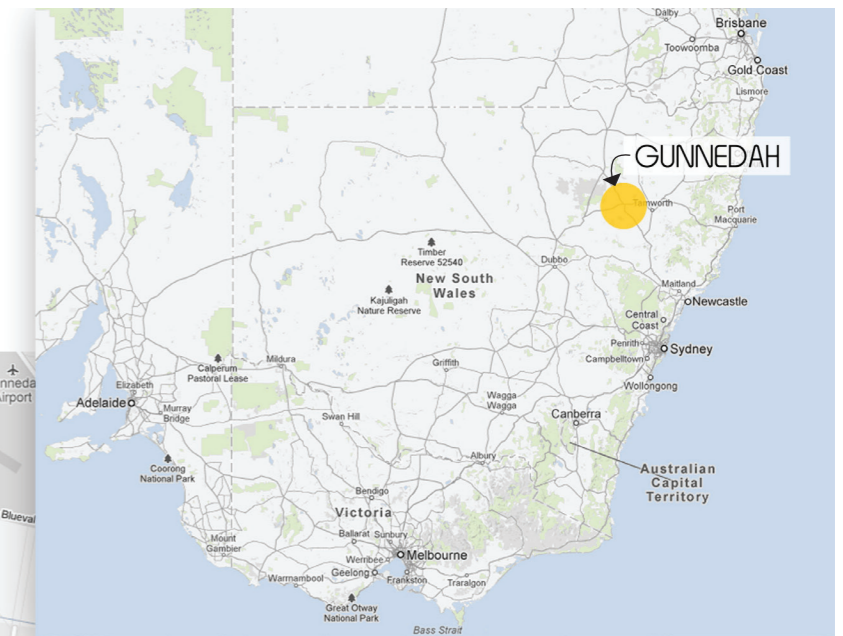
Roads and Maritime Services (Roads and Maritime) has commissioned Kellogg Brown & Root Pty Ltd (KBR) to undertake the development and assessment of concept options for the Gunnedah second road over rail bridge project.

The Abbott Street Bridge on the Oxley Highway is a Higher Mass Limit (HML) deficient bridge. The provision of a second road over rail bridge in Gunnedah will facilitate a HML route through Gunnedah delivering an additional 660 kilometres for HML traffic.

With major coal development occurring in the Gunnedah basin, the length and frequency of coal trains has been increasing, causing extended delays at the existing New Street level crossing. With delays expected to continue and increase in the future, Roads and Maritime and the Gunnedah Shire Council (GSC) are committed to identifying a grade separated crossing that will improve both local and through traffic efficiency. By elevating road traffic to cross at a different level (grade) to the rail line, crossing delays at New Street will be eliminated.

## THE PROJECT

The town of Gunnedah is located in northern NSW, 70km northwest of Tamworth. The Hunter Valley Rail Corridor runs through the middle of the town, separating the CBD on the northern side of the line from the residential areas to the south.



General location map (not to scale)



A study area has been identified by Roads and Maritime which extends Farrar Road to Rosemary Street and from Kamilaroy Highway to the Oxley Highway/ South Street.

Key objectives of the proposal are to:

- Provide a grade separated crossing of the rail line to facilitate a Higher Mass Limit (HML) route through Gunnedah
- Improve local traffic efficiency
- Improve road safety
- Improve road transport productivity, efficiency and reliability of travel
- Minimise the impact on the natural, cultural and built environment
- Provide value for money.

## PURPOSE OF THIS REPORT

KI Studio Pty Ltd has been commissioned by KBR (Kellogg Brown & Root) to provide urban and landscape design input into the proposal, whilst simultaneously undertaking a visual and landscape character impact assessment.

The visual and landscape character impact assessment informs the design process by identifying potential visual impacts that the proposed project would have on the surrounding project area, identify strategies to improve the design and propose mitigation measures for the identified impacts.

The resulting urban and landscape strategy, combined with the visual and landscape character assessment, informs the project approval authority, other agencies and the community about the overall design and expected visual impacts of the proposal.

The proposal involves the development of preliminary options and an assessment of preferred options for further development, culminating in the identification of a preferred option in the vicinity of New Street rail crossing.

## METHODOLOGY

Preparation of this report has involved a desk-top analysis and a site visit. The assessment is based on Roads and Maritime Guidelines, specifically:

- Guidelines for landscape character and visual impact assessment No. EIA-N04, "Version 2.0 Issue Date 28 March 2013;
- Beyond the Pavement;
- Bridge Aesthetics;
- Landscape Design Guidelines.

The assessment is based on both the landscape character impact and the visual impact. 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). As part of the sensitivity assessment, public perception of the project, its absorption capacity and the area significance whether local, regional or national have been taken into account.

For example, commercial properties are generally considered less sensitive than private residences, and heritage properties are generally considered more sensitive than residential properties. Transient type spaces are generally considered less sensitive compared to spaces that people linger in.

The visual impact is based on specific viewpoints taking into consideration the sensitivity of the viewer as well as the visual effect or magnitude of the proposal based on scale, distance, contrast etc.

The table shown 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.

The methodology used to undertake the study is summarised as follows:

- Background review of the concept design and supporting material to gain an appreciation of the project
- Detailed site visit to identify sensitivities, views, visual catchments, magnitude of change etc
- Contextual analysis evaluating the characteristics of the site including land uses, scenic values, character zones and landform
- Determination of sensitivity levels based on the contextual analysis
- Determination of visual exposure
- In collaboration with the project team, identification of strategies that would improve the outcome of the proposal from an urban design, landscape character and visual impact point of view for the subsequent concept design phase
- Description of the design based on the urban design input and mitigation strategies
- Evaluation of the proposal's impact on the landscape character
- Selection of viewpoints within the visual catchment that are representative of the varying site conditions and the proposal
- Evaluation of the proposal's visual impact by comparing the sensitivity of existing viewpoints and the magnitude of impact of the proposal upon them
- Identification of any further mitigating measures that could be incorporated into the design.

		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

Table 1: Landscape Visual Impacts Rating Table - EIA Guidance Note EIA-N04