



MEGGITT LTD FLOUR MILL (FORMERLY BRUNTON'S FLOUR MILL), GUNNEDAH.

STATEMENT OF HERITAGE IMPACT:

MEGGITT LTD FLOUR MILL

GUNNEDAH SECOND ROAD OVER RAIL BRIDGE

GUNNEDAH LOCAL GOVERNMENT AREA

DECEMBER 2014

REPORT PREPARED BY
OZARK ENVIRONMENTAL & HERITAGE MANAGEMENT PTY LTD
FOR KELLOGG BROWN & ROOT PTY LTD
ON BEHALF OF ROADS AND MARITIME SERVICES



**Environmental and
Heritage Management P/L**

OzArk EHM

145 Wingewarra St
(PO Box 2069)
Dubbo NSW 2830

Phone: (02) 6882 0118

Fax: (02) 6882 0630

jodie@ozarkehm.com.au

phil@ozarkehm.com.au

www.ozarkehm.com.au

DOCUMENT CONTROLS

| | | | |
|--|--|--------|------|
| Proponent | Roads and Maritime Services, Grafton | | |
| Client | Kellogg Brown and Root Pty Ltd | | |
| Project No / Purchase Order No | | | |
| Document Description | <i>Statement Of Heritage Impact: Meggitt Ltd Flour Mill. Gunnedah Second Road Over Rail Bridge, Gunnedah LGA NSW.</i> | | |
| | Name | Signed | Date |
| Clients Reviewing Officer | | | |
| Clients Representative Managing this Document | OzArk Person(s) Managing this Document | | |
| Wojtek Zborowski / Lara Mottee | Dr Jodie Benton | | |
| Location | OzArk Job No. | | |
| | 1129 | | |
| Document Status V2.4 DRAFT | Date | | |
| Draft V1.1 Author to Editor OzArk 1 st Internal (Series V1._ = OzArk internal edits) | V1.0 MW to JB Internal Edit 04/12/14 V1.1 JB Internal Edit 05/12/14 | | |
| Draft V2.0 Report Draft for release to client (Series V2._ = OzArk and Client edits) | V2.0 OzArk to KBR 05/12/14 V2.1 KBR Edits 19/12/14 V2.2 MW and JB Edits 23/12/14 V2.3 OzArk to KBR 23/12/14 V2.4 OzArk Edits 10/2/15 | | |
| FINAL V3._once latest version of draft approved by client | | | |
| Prepared For | Prepared By | | |
| Wojtek Zborowski / Lara Mottee Project Manager Kellogg Brown and Root Pty Ltd 201 Kent Street Sydney NSW 2000 P: 02 8284 2170 M: 0411 740 865 E: Wojtek.Zborowski@kbr.com Lara.Mottee@kbr.com | Morgan Wilcox Project Archaeologist OzArk Environmental & Heritage Management Pty. Limited 145 Wingewarra Street (PO Box 2069) Dubbo NSW 2830 P: 02 6882 0118 E: morgan@ozarkehm.com.au | | |
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EXECUTIVE SUMMARY

OzArk Environmental & Heritage Management (OzArk) was commissioned by Kellogg Brown and Root Pty Ltd (KBR; the Client) on behalf of the Roads and Maritime Service, Grafton (Roads and Maritime; the Proponent) to complete a Statement of Heritage Impact (SoHI) for the Meggitt Ltd Flour Mill for impacts associated with the proposed second road over rail bridge Optimized Option C (the Proposal), Gunnedah NSW, Gunnedah Local Government Area (LGA; **Figures 1–1 and 1-2**).

The Proposal will require works within the immediate surroundings of the historic Meggitt Ltd Flour Mill, listed as locally significant in the *Gunnedah Local Environmental Plan (LEP) 2012*. This SoHI has been prepared to determine the likely impact of the proposal to the heritage significance of the Meggitt Ltd Flour Mill, such that the appropriate management/mitigation can be developed and permits or exemptions obtained as required. This SoHI has assessed the following three impact concerns:

1. *Visual Amenity: The proposed road over rail bridge has potential to impact on views and vistas of Meggitt Ltd Flour Mill and its environs.*

There will be some alteration to the views of the Meggitt Ltd Flour Mill, however the proposed road over rail bridge is considered to have been designed sympathetically and have only a minimal impact on the visual amenity of the area and the heritage significance of the item. To minimise negative effects to visual amenity key built form and landscape design elements will be utilised. These include a simple configuration of the structure which is sympathetic to the rural setting and will not compete with the Mill, use of materials which visually relate to the Mill, buffers, spaces and strategic landscaping and visual screening (Ki Studio 2014: 25-30, 67).

2. *Physical Impacts (Direct): The proposal only infringes on the listed curtilage of the heritage item in the western-most corner of the property*

The proposed road over rail bridge will have a small, direct physical impact upon the western corner of the Meggitt Ltd Flour Mill property, where Roads and Maritime will acquire approximately 30 square metres of land. This will partially impact upon a brick spoon drain which has been assessed as having no heritage significance (OzArk 2013a: 17). Removal of a small portion of the drain will not impact on the historical values of the Mill site. A Section 140 permit is not required for these works. An appropriate level of mitigation would be for the photographic recording of portions of the drain to be impacted, and the recovery and return of any bricks removed from within the impact footprint to the owner of the Meggitt Flour Ltd Mill.

3. *Physical Impacts (Indirect): Sub-surface archaeological potential within the curtilage of the Meggitt Ltd Flour Mill has been acknowledged in relation to the proposed*

temporary use of land within the Mill grounds during the construction phase of the project

The sub-surface archaeological potential for former historical buildings within the curtilage of the Meggitt Ltd Flour Mill has been acknowledged in relation to the proposed temporary use of 821 square metres with the grounds of the Mill during the construction phase of the project. Mitigation measures as detailed in **Section 4.2.5** will be enacted to ensure that no ground surface disturbances are caused within these areas as a result of the Proponent's activities.

The conclusion of this SoHI is that the proposal would result in minimal impact on the heritage significance of the Meggitt Ltd Flour Mill. **Section 4** of this report demonstrates that the Proposal has appropriately mitigated impacts so that the Meggitt Ltd Flour Mill is not compromised by the proposed road over rail bridge and that the historical significance of the item is respected as much as feasible.

Recommendations concerning the Proposal are as follows.

1. The mitigation measures outlined in **Section 4.2** to reduce the impact on visual amenity should be employed to ensure the aesthetics of the area and the heritage significance of the Meggitt Ltd Flour Mill are not adversely impacted by the proposal.
2. In reference to the archaeological potential for former historical buildings within the curtilage of the Meggitt Ltd Flour Mill:
 - a. Ensure that appropriate mitigation measures, as outlined in **Section 4.2.5**, are applied so that the establishment and use of the area during the construction phase of works does not involve any ground surface disturbance.
 - b. The boundary of land to be temporarily used during the construction phase of works (as shown in **Figure 1-3**) should be appropriately cordoned with high visibility curtilage (i.e. high visibility flagging tape/bunting or similar) to ensure that activities are contained and no unnecessary impacts occur beyond this within the grounds of the Mill.
 - c. Should the proposed impacts of the Proponent change such that subsurface disturbance may occur, then an archaeological assessment will be required to determine whether a Section 140 permit may be necessary to excavate land within which relics may be present, or a Section 139(4) excavation exception if impacts are considered likely to be minor in nature or have an inconsequential effect.
3. A heritage induction should be provided to all workers before construction begins informing them of the location of heritage items within the vicinity of the project site and a briefing on the Roads and Maritime (2012) *Standard Management Procedure*:

Unexpected Archaeological Finds to follow if unanticipated heritage items or deposits are located during construction (as per **Section 5.4**).

4. All heritage items in the vicinity of the project site would be marked on site plans, and avoided.

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1 INTRODUCTION

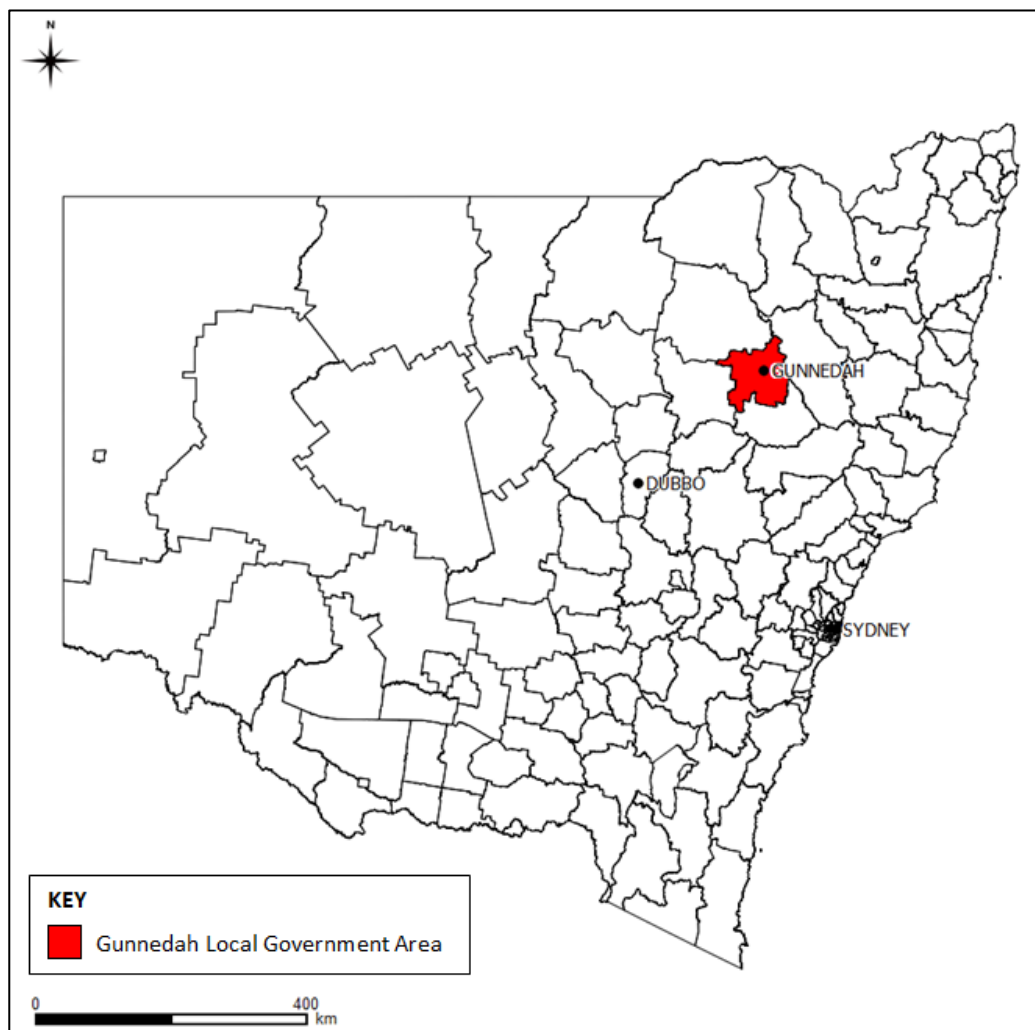
1.1 BRIEF DESCRIPTION OF THE PROPOSAL

OzArk Environmental & Heritage Management (OzArk) was commissioned by Kellogg Brown and Root Pty Ltd (KBR; the Client) on behalf of the Roads and Maritime Services, Grafton (Roads and Maritime; the Proponent) to complete a Statement of Heritage Impact (SoHI) for the Meggitt Ltd Flour Mill for impacts associated with the proposed second road over rail bridge Optimized Option C (the Proposal), Gunnedah NSW, Gunnedah Local Government Area (LGA;

Figure 1-1 and **1-2**).

The Proposal will impact upon the immediate surroundings of the historic Meggitt Ltd Flour Mill, listed as locally significant in the *Gunnedah Local Environmental Plan (LEP) 2012*. This SoHI has been prepared to determine the likely impact of the proposal to the heritage significance of the Meggitt Ltd Flour Mill, such that the appropriate management/mitigation can be developed and permits or exemptions obtained as required.

Figure 1-1: Location Map - NSW Context.



1.2 PROJECT DESCRIPTION

The Proposal's *Review of Environmental Factors* (REF; KBR 2014) provides in depth detail of the design, engineering and construction methodology of the proposed works. The following provides a brief summary.

The Proposal connects the existing Oxley Highway roundabout with Warrabungle Street via a road over rail bridge on alignment Optimized Option C (refer to **Section 3.1**). As shown on **Figure 1-2**, the Proposal includes an upgrade of the existing Oxley Highway roundabout, the construction of the road over rail bridge to the west of the LEP Meggitt Ltd Flour Mill, a new intersection on Warrabungle Street to provide access to Barber Street and the construction of a new roundabout at the Kamilaroi Highway and Warrabungle Street intersection.

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; and
- Minimise the impact on the natural, cultural and built environment

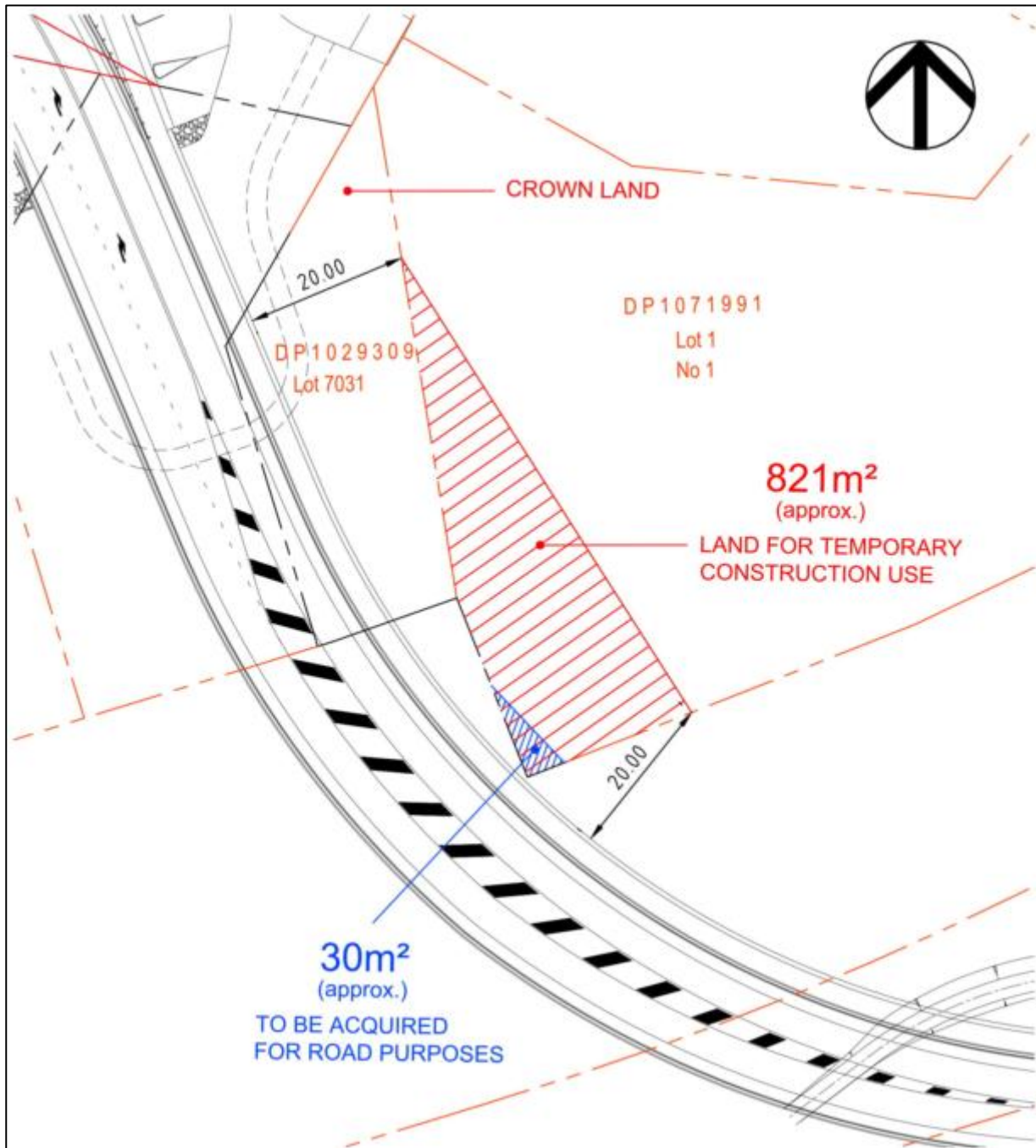
The key features of the Proposal are as follows:

- A seven span, 198 metre long bridge, with a width varying from two lanes and a shared path to three lanes and a shared path (approximately 15 metres to 19 metres);
- Bridge construction based on bored piles, pre-cast concrete girders approximately 30 metres long and cast in situ concrete piers and deck;
- Construction of a 70 metre long northern road approach and 200 metre long southern road approach;
- Establishment of temporary construction compound, stockpiles and material laydown within the Meggitt Ltd Flour Mill property (**Figure 1-3**);
- Upgrade of existing utilities as well as the installation of new utilities such as streetlights, overhead and underground electricity supply, water mains, drainage and communications;
- Installation of pedestrian paths;
- Upgrade of the existing Oxley Highway roundabout intersection;
- Acquisition of two residential properties to build the proposed Barber Street intersection;
- Minor acquisition of land from Meggitt Ltd Flour Mill and Marcroft Caravan Park (**Figure 1-3**).

Figure 1-2: Optimized Option C Road over Rail Alignment (Ki Studio 2014: 66).



Figure 1-3: Meggitt Ltd Flour Mill Land Acquisition and Temporary Construction Compound.



2 LEGISLATIVE FRAMEWORK

2.1 RELEVANT LEGISLATION

2.1.1 State Legislation

Environmental Planning and Assessment Act 1979 (EP&A Act)

This Act established requirements relating to land use and planning. The framework governing environmental and heritage assessment in NSW is contained within the following parts of the EP&A Act:

- **Part 4:** Local government development assessments, including heritage. May include schedules of heritage items;
- **Part 4.1:** Approvals process for state significant development;
- **Part 5:** Environmental impact assessment on any heritage items which may be impacted by activities undertaken by a state government authority or a local government acting as a self-determining authority; and
- **Part 5.1:** Approvals process for state significant infrastructure.

The proposed *Gunnedah Second Road Over Rail Bridge* project falls under Part 5 of the EP&A Act. Although development consent is not required, under the Act the environmental impacts of the proposal still require identification and assessment. The form that assessment is to be undertaken is by way of a REF which is being compiled by KBR (2014).

State Environmental Planning Policy (SEPP 2007)

State Environmental Planning Policy assists the NSW Government, local councils and the communities they support by simplifying the process for providing infrastructure in areas such as education, hospitals, roads, railways, emergency services, water supply and electricity delivery. The Infrastructure SEPP outlines the planning rules for these works and facilities, including:

- Where such development can be undertaken;
- What type of infrastructure development can be approved by a public authority under Part 5 of the EP&A Act following an environmental assessment (known as 'development without consent');
- What type of development can be approved by the relevant local council or the Minister for Planning under Part 4 of the EP&A Act;
- What type of development is exempt or complying development; and
- The relationship of other statutory planning instruments to the Infrastructure SEPP.

2.1.2 Commonwealth Legislation

In terms of historic heritage, the principles of the *Burra Charter* (ICOMOS 2013) and the *Heritage Act 1977* should be considered.

Heritage Act 1977 (Heritage Act)

This Act established the Heritage Council of NSW. The Heritage Council's role is to advise the government on the protection of heritage assets, make listing recommendations to the Minister in relation to the State Heritage Register, and assess/approve/decline proposals involving modification to heritage items or places listed on the Register. Most proposals involving modification are assessed under Section 60 of the Heritage Act.

Automatic protection is afforded to 'relics', defined as 'any deposit or material evidence relating to the settlement of the area that comprised New South Wales, not being Aboriginal settlement, and which holds state or local significance' (note: formerly the Act protected any 'relic' that was more than 50 years old. Now the age determination has been dropped from the Act and relics are protected according to their heritage significance assessment rather than purely on their age). Excavation of land on which it is known or where there is reasonable cause to suspect that 'relics' will be exposed, moved, destroyed, discovered or damaged is prohibited unless ordered under an excavation permit.

The Burra Charter (Australia ICOMOS 2013)

Baseline principles for the conservation of heritage places and relics can be found in the *Burra Charter* (Australia ICOMOS 2013). The significance of such places may be embodied in fabric (physical material), environmental setting, contents, use or its meaning to people, and should be assessed through methodical data collection. Since its adoption in 1979, the *Burra Charter* has become the standard of best practice in the conservation of heritage places in Australia, and heritage organisations and local government authorities have incorporated the inherent principles and logic into guidelines and other conservation planning documents. The *Burra Charter* generally advocates a cautious approach to changing places of heritage significance, and recognises that there are places worth keeping because they can enrich our lives on many levels. This conservative notion embodies the basic premise behind legislation designed to protect our heritage, which operates primarily at a State level.

3 ASSESSMENT CONTEXT

3.1 PRIOR HERITAGE ASSESSMENTS AND SOHI REQUIREMENTS

The Meggitt Ltd Flour Mill (formerly Brunton's Flour Mill), is listed as heritage item I015 on the Gunnedah Local Environmental Plan (LEP; 2012). The curtilage of the site is listed as including Lots 1 and 2, DP 1071991 and adjoining land opposite Railway Avenue.

In 2012 Roads and Maritime engaged NSW Public Works (DPWS) to undertake a heritage assessment of the mill to inform the development of concept options for the new bridge (DPWS 2012). A supplementary historic heritage assessment was completed by OzArk in May 2013 to expand upon aspects of the mill that were previously unassessed (i.e. the interior of the mill building, and a brick spoon drain identified within the mill grounds; OzArk 2013a). The newly identified drain feature was assessed as having no heritage significance based on its date and not being part of original mill complex.

In September 2013 KBR, on behalf of Roads and Maritime, engaged OzArk to prepare a Preferred Option Report discussing any potential heritage issues of three options for the construction of the second road over rail bridge this bridge, each of which has a single and double stacking option (OzArk 2013b). Option B/C single stacking (**Figure 3-1**) was assessed as having the least impact on views and physical connections to and from the mill to the east and south, and is constructed furthest from the mill façade, retaining vegetation in front of the mill (OzArk 2013b: 12). The advantages of Option B/C were assessed as outweighing the small physical impact this alignment will have upon the western corner of the mill property and a portion of the brick spoon drain. Overall, all double stacking options scored lower than their single-stacking counterparts because the additional two metres of height would in all cases have had a more deleterious impact on the visual amenity of the mill.

In 2014, Roads and Maritime engaged Ki Studio to complete an *Urban Design Concept and Landscape Character / Visual Impact Assessment Report* to inform 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 (Ki Studio 2014: 2). This assessment resulted in the refinement of Option B/C, and design of the final concept design Optimized Option C (Ki Studio 2014: 65; **Figure 1-2**). The refined design responds to concerns raised by local traders and the Shire Council by making minor modifications to the overall alignment, shifting slightly to the west, and the introduction an intersection and northbound turning allowances (Ki Studio 2014: 65). Some land acquisitions are required for completion of the proposed works including a small portion of the western corner of the Meggitt Ltd Flour Mill property.

This SoHI has been prepared to determine the likely impact of the proposal to the heritage significance of the Meggitt Ltd Flour Mill, such that the appropriate management/mitigation can

be developed and permits or exemptions obtained as required. As the Meggitt Ltd Flour Mill has been subject to prior and recent heritage assessments there is no need for new historical research or revision to the current significance assessment.

The current proposal will requires three main areas of assessment:

1. **Visual Amenity:** The proposed road over rail bridge has potential to impact on views and vistas of Meggitt Ltd Flour Mill and its environs.
2. **Physical Impacts (Direct):** The proposal only infringes on the listed curtilage of the heritage item in the western-most corner of the property (**Figure 1-3**).
3. **Physical Impacts (Indirect):** Sub-surface archaeological potential within the curtilage of the Meggitt Ltd Flour Mill has been acknowledged in relation to the proposed temporary use of land within the Mill grounds during the construction phase of the project (**Figure 1-3**).

3.1.1 Database Search

A desktop search of heritage databases was conducted on 1 December 2014 to identify current listing status and any potential heritage issues. The Meggitt Ltd Flour Mill is listed on the Gunnedah LEP and the NSW State Heritage Inventory as an item of local heritage significance (**Table 3-1**).

Table 3-1: State Heritage Inventory Listing - Meggitt Ltd Flour Mill.

| | |
|-------------------------|---|
| Name of Item | Meggitt Ltd Flour Mill |
| Other Name/s | Brunton's Flour Mill |
| Type of Item | Complex / Group |
| Group/Collection | Manufacturing and Processing |
| Category | Mill Settlement |
| LGA | Gunnedah |
| Primary Address | 3 Barber Street, Gunnedah NSW 2380 |
| Curtilage | Lots 1 and 2, DP 1071991 and adjoining land opposite Railway Avenue |
| Significance | Local |
| Item Number | I015 |
| Gazette Date | 25/09/1998 |
| Gazette Number | 139 |
| Gazette Page | 7796 |

4 STATEMENT OF HERITAGE IMPACT

4.1 OVERVIEW

The NSW Heritage Manual poses a series of questions that comprise the minimum information to form a *Statement of Heritage Impact*, which is required to properly address proposals on/to heritage items that may result in some modification to them. This section will document these questions in relation to visual amenity and physical (direct and indirect) impacts to fabric and areas of archaeological potential.

4.2 PROJECT IMPACTS

As documented in detail in **Section 1.3** of this report, the project involves constructing a road over rail bridge adjacent to the Meggitt Ltd Flour Mill and will require the acquisition of 30 square metres from the grounds of the mill (Lot 1 DP1071991) with limited associated impacts to the brick spoon drain which runs along the mill property's southern boundary.

The following questions have been taken from the *Statements of Heritage Impact* guidelines for new developments adjacent to a heritage item (NSW Heritage Office 2002: 7):

4.2.1 How is the impact of the new development on the heritage significance of the item or area to be minimised?

The *Urban Design Concept and Landscape Character / Visual Impact Assessment Report* outlines key built form and landscape design elements which will minimise the impact of the new development on the heritage significance of the area including (Ki Studio 2014: 67-90):

- A single stack superstructure with clear lines that does not visually compete with the mill and retains a simple configuration of the overall structure to suit the rural setting (Ki Studio 2014: 25).
- Suitably scaled buffers and spaces, and strategic tree placement around the flour mill to ensure retention of key contextual views (Ki Studio 2014: 67).
- Provision of effective visual screening for residents and adjoining land uses to the west of the floodplain, to mitigate views of the new bridge (Ki Studio 2014: 67).

The proposal would result in minimal impacts on the heritage significance of the Meggitt Ltd Flour Mill. The Proposal has appropriately mitigated impacts so that the Meggitt Ltd Flour Mill is not compromised by the proposed road over rail bridge and that the historical significance of the item is respected as much as feasible.

4.2.2 Why is the new development required to be adjacent to a heritage item?

The Abbott Street Bridge on the Oxley highway is a Higher Mass Limit (HML) deficient bridge, restricting the transport network through Gunnedah. The provision of a second road over rail

bridge would remove a missing link in the HML network at Gunnedah, creating an unrestricted route for HML freight vehicles between the New England Highway and Newell Highway.

With major coal developments in the Gunnedah basin, the length and frequency of coal trains has been increasing, causing extended delays at the New Street level crossing. With delays expected to increase in the future, Roads and Maritime identified a grade separated crossing that would improve local and through traffic efficiency.

Sixteen preliminary options and three sub-options were identified by RMS for strategic improvements to traffic management at this existing location via a proposed road over rail bridge alignment. The impacts to heritage for the three sub-options have been assessed by OzArk (2013b), resulting in Option B/C being identified as having the least impact upon the physical and visual historical significance of the Meggitt Ltd Flour Mill.

The *Urban Design Concept and Landscape Character / Visual Impact Assessment Report* further informed the design process and resulted in the refinement of Option B/C, and design of the final concept design Optimized Option C, a single stacked western alignment (Ki Studio 2014: 65; **Figure 1-2**).

4.2.3 How does the curtilage allowed around the heritage item contribute to the retention of its heritage significance?

The proposal only infringes on the listed curtilage of the heritage item in the western-most corner of the property, impacting upon approximately 30 square metres of land, within which no features of historical significance have been identified. Furthermore, suitably scaled buffers and spaces will distance the proposal from the Mill's recognised boundary, and strategic tree placement will ensure retention of key contextual views (Ki Studio 2014: 67).

4.2.4 How does the new development affect views to, and from, the heritage item? What has been done to minimise negative effects?

There will be some alteration to the views of the Meggitt Ltd Flour Mill, however the proposed road over rail bridge is considered to have been designed sympathetically and have only a minimal impact on the visual amenity of the area.

Optimized Option C has been selected as the preferred alignment as it has the least impact on views and physical connections to and from the Mill to the east and south, along with the fact that it retains the vegetation in front of the Mill, hence being constructed further from the Mill facade.

The *Visual Impact Assessment Report* identifies six significant views and vistas that strongly contribute to the identity and sense of place of Gunnedah and form significant constraints in relation to visual and landscape character impacts (Ki Studio 2014: 10).

The report provides a visual representation of the proposed road over rail bridge Optimized Option C within the landscape, demonstrating the features designed to reduce negative impact on the visual amenity of the area (Ki Studio 2014: 80-90; **Plate 4-1**). Other alignment variants disconnected the visual and physical associations of the mill with the township as well as impacting on connections to the south, making them the least favourable in terms of potential impacts to heritage values.

As outlined above (**Section 4.2.1**), to minimise negative effects of the new development to the views to and from the Mill, key built form and landscape design elements have been developed that are sympathetic to the heritage significance of the area. This includes a simple configuration of the structure which is in keeping with the rural setting and will not compete with the Mill, use of materials which visually relate to the Mill, buffers, spaces and strategic landscaping and visual screening (Ki Studio 2014: 25-30, 67).

During construction, the positioning of the work site and the site compound would result in some short-term impacts on the visual amenity. Overall, the potential visual impacts of construction activities are considered to be minimal as the works would be temporary.

Plate 4-1: Indicative Photomontage (Ki Studio 2014: 80-90).



4.2.5 Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected?

No, the development is not sited on any known, or potentially significant archaeological deposits.

The proposed road over rail bridge will have a small, direct physical impact upon the western corner of the Meggitt's Ltd Flour Mill property, where Roads and Maritime will acquire approximately 30 square metres of land (**Figure 1-3**). Within this western corner the project will partially impact upon a brick spoon drain which has been assessed as having no heritage significance based on its date and not being part of original mill complex (OzArk 2013a: 17). Removal of a small portion of the drain will not impact on the historical values of the Mill site. A Section 140 permit is not required for these works. An appropriate level of mitigation would be for the photographic recording of portions of the drain to be impacted, and the recovery and return of any bricks removed from within the impact footprint to the owner of the Meggitt Flour Mill.

The proponent will utilise approximately 821 square metres of land within the current curtilage of the Mill, for a temporary construction compound (**Figure 1-3**). Alternative temporary construction sites have been investigated, however the temporary use of lands within the Mill property present as the only feasible option near the bridge location due to constraints posed by the railway corridor and the instability of landforms (i.e. boggy wetland) adjacent to Blackjack Creek.

The DPWS *Heritage Assessment* (2012: 33) identifies three areas of archaeological potential associated with the historic use of the Mill:

- (a) The former manager's cottage on the southern corner of the site fronting New Street and the railway line. This may present as brick or stone building footings, evidence of services and artefact deposits;
- (b) The former wheat sheds behind (to the north-west) of the brick mill building. Remains of the wheat sheds are likely to be ephemeral including post-holes and possibly some artefact deposits.
- (c) The three to four storey structure shown in historic photographs behind (to the west) of the mill building, which may have been for wheat storage and processing. This may present as building footings, equipment bases and artefact deposits.

The temporary construction activities of the Proponent have the potential to encroach upon areas of sub-surface archaeological deposit (b) and (c). No excavation will be conducted by the Proponent in these areas and the following measures will be applied to ensure against any ground surface disturbance:

- Laying of geotextile over areas to be utilised for the temporary work compound including access routes and the laying of crushed gravel to the following specifications:
 - 450mm across piling and crane equipment areas;

- 300mm over heavy vehicle/machinery access and delivery routes; and
- 50mm over access tracks and side tracks designated for light vehicle use only.
- Land to be temporarily used during the construction phase of works should be appropriately delineated (i.e. high visibility curtilage) to ensure that activities are contained and no unnecessary impacts occur within the grounds of the Mill
- Crushed gravel and geotextile will be removed at the completion of works and/or temporary use of the area

Should the proposed impacts of the Proponent change so as to require subsurface disturbance, then an archaeological assessment will be required to determine whether a Section 140 permit may be required to excavate land within which relics may be present or a Section 139(4) excavation exception if impacts are considered likely to be minor in nature or have an inconsequential effect.

4.2.6 Is the new development sympathetic to the heritage item? In what way (e.g. form, siting, proportions, design)? Will the additions visually dominate the heritage item? How has this been minimised?

A number of key built form and landscape design elements will be employed in construction of the proposed road over rail bridge in order to be sympathetic to Meggitt Ltd Flour Mill and minimise the impact of the new development on the heritage significance of the area (Ki Studio 2014: 65-77).

These measures include:

- A superstructure with clear lines that do not visually compete with the Mill and retain a simple configuration of the overall structure to suit the rural setting (Ki Studio 2014: 25-27, 65-77). Proposed measures include proportion and design considerations such as:
 - Lowest possible clearance of 5.15 m for ARTC single stack trains;
 - Ensuring any headstocks used are integral to the pier design;
 - An asymmetrical pier shape that will visually respond to the setting surrounding the Mill and make the piers appear more dynamic and frame the Mill setting;
 - Use of singular piers per span to create a clear and legible structure. The bridge would be composed of seven spans ranging from 28-30 metres to minimise impacts; and
 - Proportion spans in relation to height of columns to make a more elegant structure.
- Suitably scaled buffers and spaces, and strategic tree placement around the flour mill to ensure retention of key contextual views (Ki Studio 2014: 67).

Encroachment onto lands included within the curtilage of the historical item have been limited as much as possible to only 30 square metres, as shown on **Figure 1-3**, and activities contained within this area will not impact the historical values of the Mill site (OzArk 2013a: 17).

4.2.7 Will the public, and users of the item, still be able to view and appreciate its significance?

Yes the public and users will still be able to view and appreciate the significance of the Meggitt Ltd Flour Mill. It is relevant to note here that the most significant views to the Mill are those from the township of Gunnedah (DPWS 2012) and these were taken into account during the option selection process, which ultimately chose and then refined the option that least impacted these most significant views (OzArk 2013b).

5 CONCLUSION

The proposal would result in minimal impacts on the heritage significance of the Meggitt Ltd Flour Mill. **Section 4** of this report demonstrates that the Proposal has appropriately mitigated the following impacts listed in **Section 5.1** to **5.4** below so that the Meggitt Ltd Flour Mill is not compromised by the proposed road over rail bridge and that the historical significance of the item is respected as much as feasible.

5.1 VISUAL AMENITY IMPACTS

As outlined in **Sections 4.2.1, 4.2.4** and **4.2.6**, there will be some alteration to the views of the Meggitt Ltd Flour Mill, however the proposed road over rail bridge is considered to have been designed sympathetically and have only a minimal impact on the visual amenity of the area. To minimise negative effects of the new development to the views to and from the Mill, key built form and landscape design elements will minimise the impact of the new development on the heritage significance of the area. This includes a simple configuration of the structure which is sympathetic to the rural setting and will not compete with the Mill, use of materials which visually relate to the Mill, buffers, spaces and strategic landscaping and visual screening (Ki Studio 2014: 25-30, 67).

5.2 PHYSICAL IMPACTS (DIRECT)

As per **Section 4.2.5**, the proposed road over rail bridge will have a small, direct physical impact upon the western corner of the Meggitt Ltd Flour Mill property, where Roads and Maritime will acquire approximately 30 square metres of land. This will partially impact upon a brick spoon drain which has been assessed as having no heritage significance (OzArk 2013a: 17). Removal of a small portion of the drain will not impact on the historical values of the Mill site. A Section 140 permit is not required for these works. An appropriate level of mitigation would be for the photographic recording of portions of the drain to be impacted, and the recovery and return of any bricks removed from within the impact footprint to the owner of the Meggitt Ltd Flour Mill (should the owner wish to retain them).

5.3 PHYSICAL IMPACTS (INDIRECT)

The sub-surface archaeological potential for former historical buildings within the curtilage of the Meggitt Ltd Flour Mill has been acknowledged in relation to the proposed temporary use of 821 square metres with the grounds of the Mill during the construction phase of the project. Mitigation measures as detailed in **Section 4.2.5** will be enacted to ensure that no ground surface disturbances are caused within these areas as a result of the Proponent's activities have been provided.

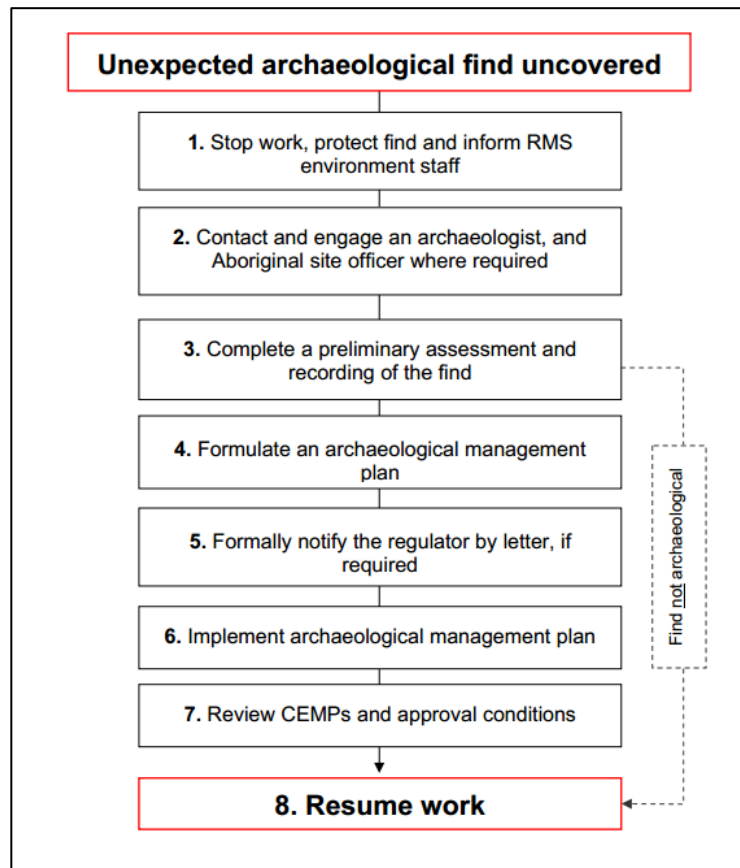
Should the proposed impacts of the Proponent change such as to require subsurface disturbance, then an archaeological assessment will be required to determine whether a Section 140 permit may be required to excavate land within which relics may be present or a Section 139(4) excavation exception if impacts are considered likely to be minor in nature or have an inconsequential effect.

5.4 UNANTICIPATED FINDS PROTOCOL

In accordance with the Roads and Maritime (2012) *Standard Management Procedure: Unexpected Archaeological Finds* the protocol to be followed in the event that a site, artefact or relic (as defined by the *Heritage Act 1977*) is identified during construction works:

1. All ground surface disturbance in the area of the finds should cease immediately the finds are uncovered.
2. The discoverer of the find(s) will notify machinery operators in the immediate vicinity so that work can be halted; and
3. The site supervisor will be informed of the find(s).
4. Gain a qualified opinion from an archaeologist as soon as possible.
5. No work would commence in the vicinity of the find until any required approvals have been given by the regulator.

Figure 5-1: Overview of Steps to be undertaken on the discovery of an unexpected archaeological find (Source: Roads and Maritime 2012: 8).



6 RECOMMENDATIONS

Under the Heritage Act, it is an offence to disturb, destroy or remove non-Aboriginal relics without the consent of the NSW Heritage Council. Accordingly, in the event that any non-Aboriginal relics are discovered during excavation or drilling, work will cease immediately at the specific location following the unanticipated finds protocol documented in **Section 5.4** and the NSW Heritage Council contacted for further directions.

Recommendations concerning the Proposal are as follows.

1. The mitigation measures outlined in **Section 4.2** to reduce the impact on visual amenity should be employed to ensure the aesthetics of the area and the heritage significance of the Meggitt Ltd Flour Mill is not adversely impacted by the proposal.
2. In reference to the archaeological potential for former historical buildings within the curtilage of the Meggitt Ltd Flour Mill:
 - a. Ensure that appropriate mitigation measures, as outlined in Section 4.2.5, are applied to ensure that the establishment and use of the area during the construction phase of works does not involve any ground surface disturbance.
 - b. The boundary of land to be temporarily used during the construction phase of works (as shown in **Figure 1-3**) should be appropriately cordoned with high visibility curtilage (i.e. high visibility flagging tape/bunting or similar) to ensure that activities are contained and no unnecessary impacts occur beyond this within the grounds of the Mill.
 - c. Should the proposed impacts of the Proponent change such as to require subsurface disturbance, then an archaeological assessment will be required to determine whether a Section 140 permit may be required to excavate land within which relics may be present or a Section 139(4) excavation exception if impacts are considered likely to be minor in nature or have an inconsequential effect.
3. A heritage induction would be provided to all workers before construction begins informing them of the location of heritage items within the vicinity of the project site and a briefing on the Roads and Maritime (2012) *Standard Management Procedure: Unexpected Archaeological Finds* to follow if unanticipated heritage items or deposits are located during construction (as per **Section 5.1.1**).
4. All heritage items in the vicinity of the project site would be marked on site plans, and avoided.

REFERENCES

- Australia ICOMOS 2013 International Council on Monuments and Sites 2013. *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013.*
- DPWS 2012 NSW Public Works, 2012. *Heritage Assessment: Former Brunton's Flour Mill, Gunnedah*, A report for NSW Roads and Maritime Services.
- Ki Studio 2014 Ki Studio Integrated Environmental Design 2014, *Second Bridge over Rail, Gunnedah: Urban Design Concept and Landscape Character / Visual Impact Assessment Report*, A report for KBR on behalf of Roads and Maritime.
- NSW Heritage Office 2002 NSW Heritage Office and Department of Urban Affairs & Planning, 2002. *Statements of Heritage Impact.*
- OzArk 2013a OzArk Environment and Heritage Management, 2013. *Historic Heritage Assessment – Gunnedah Second Road over Rail Bridge*, A report prepared for KBR on behalf of Roads and Maritime.
- OzArk 2013b OzArk Environment and Heritage Management, 2013. *Heritage Report – Gunnedah Second Road over Rail Bridge Preferred Option Report*, A report prepared for KBR on behalf of Roads and Maritime.
- Roads and Maritime Services 2012 *Standard Management Procedure: Unexpected Archaeological Finds*. July 2012.

APPENDIX 1

State Heritage Inventory Listing - Meggitt Ltd Flour Mill

(<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=1690015>)

▶ Meggitt Ltd Flour Mill

Item details

Name of item: Meggitt Ltd Flour Mill
Other name/s: Brunton's Flour Mill
Type of item: Complex / Group
Group/Collection: Manufacturing and Processing
Category: Mill settlement
Primary address: New Street, Gunnedah, NSW 2380
Local govt. area: Gunnedah

All addresses

| Street Address | Suburb/town | LGA | Parish | County | Type |
|----------------|-------------|----------|--------|--------|-----------------|
| New Street | Gunnedah | Gunnedah | | | Primary Address |

Description

Physical description: This old flour mill features a three-storey, brown brick building, and concrete silo structures.

Listings

| Heritage Listing | Listing Title | Listing Number | Gazette Date | Gazette Number | Gazette Page |
|--------------------------|---------------|----------------|--------------|----------------|--------------|
| Local Environmental Plan | | 15 | 25 Sep 98 | 139 | 7796 |
| Heritage study | | | | | |

References, internet links & images

None

Note: internet links may be to web pages, documents or images.

Data source

The information for this entry comes from the following source:
Name: Local Government
Database number: 1690015