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Foxground and Berry bypass

Princes Highway upgrade

Volume 2 – Appendix K

Technical paper:
Non-Aboriginal (historic) heritage

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Foxground and Berry bypass

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Roads and Maritime Services

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Cotter Dam, ACT, Feb 2008

This report is dedicated to the memory of Dr Lindsay Maxwell Smith (1950 – 2011), Archaeologist.

Lindsay was a valued member of the NOHC team from 2002 onwards. He conducted much of the research, (including a specific oral history program (NOHC 2009b & c)) on which this assessment is based

Shannon Ck, NSW, June 2002

Executive summary

The project

The Roads and Maritime Services (RMS) is seeking approval under Part 3A of the *Environmental Planning and Assessment Act 1979* for the upgrade of 11.6 kilometres of the Princes Highway, to achieve a four lane divided highway (two lanes in each direction) highway with median separation between Toolijooa Road north of Foxground and Schofields Lane, south of Berry (the project). The project would include bypasses of Foxground and Berry.

The project is one of a series of upgrades to sections of the Princes Highway which aims to provide a four lane divided highway between Waterfall and Jervis Bay Road, Falls Creek. This would improve road safety and traffic efficiency, including for freight, on the NSW south coast.

Methodology

The methodology for this assessment included:

- A literature and database review including former heritage studies and current statutory and non-statutory registers.
- Compilation of an historical overview.
- Archaeological survey and field inspection of the project area.
- Archaeological test excavation at one location (G2B H14).
- Documentation of survey and excavation results.
- Assessment of Significance and Impact according to NSW Heritage Branch guidelines.

Field inspection results

Forty field recordings occur within or near (within 200 metres) the project (G2B H10-30, 45, 47-63 and the Southern Illawarra Coastal Plain and Hinterland Cultural Landscape (SICPH CL).

Six of these recordings were not found to have heritage significance against the assessment criteria. These recordings consist of two cottages (G2B H10 and G2B H50), and four twentieth century highway remnants (G2B H12, G2B H18, G2B H24 and G2B H57).

The remaining 34 recordings were found to have heritage significance and are classed as heritage items. These consist of:

- Ten road sections or remnants (G2B H15, G2B H19, G2B H20, G2B H21, G2B H22, G2B H23 G2B H26 G2B H27, G2B H30 and G2B H55).
- One highway bridge (G2B H29).
- Twelve standing buildings or building groups (G2B H11, G2B H13, G2B H16, G2B H17, G2B H25, G2B H28, G2B H45, G2B H47, G2B H49, G2B H51, G2B H56 and G2B H58).
- Five confirmed or potential archaeological deposits comprising former building sites (G2B H14, G2B H48, G2B H52 G2B H53 and G2B H59).
- One quarried rock outcrop (G2B H61).
- One remnant dry stone wall (G2B H54).
- One tree avenue (G2B H62).

One public park (G2B H63).

- One item of movable heritage, a skid mounted work-site shed (G2B H60).
- One cultural landscape, the Southern Illawarra Coastal Plain and Hinterland (SICPH CL).

Eight of these heritage items are included on existing statutory heritage listings (G2B H16, G2B H29, G2B H45, G2B H47, G2B H54, G2B H58, G2B H62 and G2B H63).

The SICPH CL item defines the cultural heritage values of the landscape traversed by the project, and in particular the landscape context of the Berry township. This item relates to two previously defined landscape and conservation areas, the Berry Bolong Pastoral Landscape (from the Shoalhaven Heritage Study (Peter Freeman Pty Ltd 1998)) and the Berry District Landscape Conservation Area (from a recent National Trust Register citation).

Test excavation program

One of five potential archaeological deposits identified during the survey required further archaeological investigation in order to draft appropriate management strategies relative to assessed significance. This site was G2B H14, the location of former buildings at the northern end of the Broughton Creek village (now Berry).

Fifteen areas of test excavation were conducted across G2B H14. Excavation was undertaken using a by-hand methodology. The excavations demonstrated the presence of limited areas of relatively intact archaeological deposit from the turn of the nineteenth-twentieth century. Examples include a cobbled floor, a post hole, and burnt layers with associated artefacts. The northernmost portion of the site appears to be largely sterile below a cap of modern fill. Two hundred and ninety-four items, totalling almost five kilograms in weight, were recovered from the excavation. Material types comprised glass, ceramic, metal and miscellaneous (brick, shell, wood, plastic). The assemblage is broadly characterised by late nineteenth-century or early twentieth-century material culture, with some more recent roadside debris.

The test excavation program demonstrated the need to conduct salvage excavation across that portion of the deposit which would be subject to development impact.

Significance assessment

Of the forty field recordings:

- Six are considered to fall below the significance assessment thresholds inherent within the specified significance criteria (G2B H10, G2B H12, G2B H18, G2B H24, G2B H50 and G2B H57).
- Three cannot be given definitive assessments until the nature of predicted archaeological deposits are confirmed through test excavation. These items have been given indicative assessments of local context significance, subject to confirmation (G2B H48, G2B H52 and G2B H53).
- One is assessed as having State significance (Graham Park – former agricultural research institution).
- The remaining thirty items are assessed as having heritage significance within a local context, according to one or more of the specified significance criteria.

Summary of project impact

Of the 34 heritage items:

- Nineteen would not be directly impacted.
- Six would be partially impacted, and nine wholly impacted.
- Of those not directly impacted:
  - Thirteen occur within 50 metres of the construction footprint.
  - Eleven would be subject to indirect impacts relating to their landscape contexts.

The project would impact upon the heritage values of the SICPH CL by the imposition of a modern structural component onto the landscape. The scale and curvilinear nature of the bypass would contrast with the existing, and broadly nineteenth century character and features of the landscape.

In the general proximity of Berry, the bypass would:

- Impact upon the short and mid-distance view-sheds from the town streetscapes.
- Impose a contrasting and modern road form relative to those parts of the town structured on a grid pattern.
- Impact upon some remnant pastoral open space along the northern margin of the town grid. This margin provides a visually appealing contrast between the urban and rural and contributes towards a general pastoral character for the town.

A number of project aspects respect the heritage values of the surrounding landscape:

- Apart from substantial deviations across the Broughton Creek valley and around Berry, the project would generally follow the original corridor of the first European road constructed for vehicles between Berry and Gerringong – the 1856 Berry Estate Road. This provides a degree of historical and functional integrity to the bypass. It would remain a modern manifestation of an original mid nineteenth century access and transport corridor.
- The visual impact of the bypass from the northern margins of Berry would be mitigated by the construction of a four metre high reinforced soil noise barrier with a landscaped south-facing slope creating a ‘Ha-ha’ effect.
- The construction of a bypass of Berry avoids the need to widen and transform one of the town grid streets to accommodate the highway traffic. If the latter option was adopted it would irrevocably change the amenity and heritage character of the town, and require the full or partial demolition of many properties with heritage value.

Impact mitigation and management

All heritage items subject to direct impact are of an assessed local scale of significance. One site of State significance, the former Graham Park agricultural research station (G2B H51), occurs in close proximity to the project, and action would be taken to ensure that incidental or accidental direct impact does not occur.

The project would directly impact a large proportion of the remaining traces of the 1856 Berry Estate Road (G2B H19, G2B H22, G2B H23, G2B H30 and G2B H55). In most instances, the remains of this roadway consist of low ground-surface relief indicating the presence of a road platform, side ditches, and in some cases cutting and benching. In order to compensate for the loss of these remains, it is proposed to combine a program of archival recording and selective archaeological salvage, with the conservation and public interpretation of a high value and representative portion of the road situated away from the development zone at "Bink's Corner", Broughton Village (incorporating G2B H25, G2B H26, G2B H27 and G2B H52). In combination with an adjacent portion of the existing highway, and the proposed bypass, this location would showcase 150 years of highway construction and engineering. The impact mitigation and management actions proposed for heritage items affected by the project fall into five broad categories:

- No further action (one item).
- Avoid or minimise impact (five items).
- Manage indirect impacts (visual and contextual) only (nine items).
- Conduct archival recordings and/or archaeological excavations prior to impact (14 items).
- Conserve and manage as specified (five items).
- Manage cultural landscape values (one landscape item).

Recommendations

Indirect and accidental impact

1. It is recommended that measures be instigated to protect the following heritage items, or their remaining portions, from accidental impact during construction: G2B H13, G2B H14, G2B H15, G2B H16, G2B H17, G2B H25, G2B H28, G2B H29, G2B H45, G2B H47, G2B H49, G2B H51, G2B H54, G2B H56, G2B H59, G2B H62 and G2B H63. This may involve, but not be limited to, the erection of temporary fencing to define 'no-go' areas.
2. Where there would be impact to the visual and landscape context values of heritage places/items (this is classified as an indirect impact to the place or item), it is recommended that the design, construction and finishing of the project, in the vicinity of the place/item should be realised with the aim of minimising the visual impact to those values. Possible means to achieve this aim include: minimising the height of the road formation and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping. This strategy applies to: G2B H13, G2B H16, G2B H17, G2B H25, G2B H28, G2B H45, G2B H47, G2B H49, G2B H54, G2B H56 and G2B H62.

Nineteenth century road remnants

3. All heritage items comprising nineteenth century road remnants that would be directly impacted by construction, should be the subject of a co-ordinated archival recording program prior to any impact (G2B H19, G2B H22, G2B H23, G2B H30 and G2B H55). This program should include archaeological salvage excavation at selected and representative locations within sites G2B H19, G2B H23 G2B H30 and G2B H55, to record any ditch profiles, subsurface foundations or former surface treatments. The archival recording program should aim to present a researched and documented archival record of the road remnants and the transport systems they formed a part of. The degree and detail of recording required at each remnant will vary according to the nature and preservation of each item.

4. In order to compensate for the loss of a significant proportion of the remaining probable remnants of the former Berry Estate Road, it is recommended that the complex of road related remnants, G2B H26, G2B H27 and G2B H52, situated at 'Bink's Corner' Broughton Village, be permanently conserved, managed and interpreted as a site which illustrates the history of local road construction, function and economics. As part of this management strategy, a detailed recording of these items should be made with the aim of identifying the conservation and management requirements of the complex. Together with the completed project and the existing adjacent highway (known locally as 'the Big Dipper'), this grouping of highway platforms would present, within a limited area, 160 years of road and highway construction history, beginning with the original Berry Estate Road.

   The optimal format(s), location(s) and strategies for the public interpretation of this complex of roads and road remnants should be defined in a Heritage Interpretation Plan (HIP) to be developed as part of the project (refer recommendation 37).

   None of these heritage items would be subject to direct impact from the project. The recommended conservation management of these items is necessary to:

   a. Compensate for the loss of all remaining remnants of the Berry Estate Road within the project area, and
   b. Conserve the best of the remaining sections of the Berry Estate Road.

Twentieth century road remnants

5. A co-ordinated archival recording program should be conducted at heritage items, G2B H15 and G2B H21, prior to any impact. The scope of the recording at each item should be relative to the type and quality of information which can be recovered. This program may include excavation at selected locations, if and where necessary. These recordings should be incorporated into the archival recording report specified in recommendation three, with the aim of creating an integrated record of former highway construction and alignments for the local area.
6. Impact to G2B H15 (adjacent to *Mananga* homestead) should be limited to essential works. This remnant is an important element in the heritage context of the *Mananga* homestead. Direct impact to that portion of the road adjacent to the Mananga homestead should be minimised.
7. No further action is required at field recordings G2B H12, G2B H18 and G2B H24.

Potential archaeological deposits

8. In the event that construction related impacts would occur at the G2B H48 potential archaeological deposit (current location of *Greystanes Lodge*), it is recommended that an archaeological program of monitoring and/or salvage excavation, as appropriate, be conducted with the aim of recording and recovering any artefacts or other information which relates to the former Berry Estate tenant farm at this location.
9. In the event that demolition of the modern farmhouse (previously known as *Greystanes Lodge*), situated on site G2B H48 would be required, it is recommended that a program of archaeological monitoring by an archaeologist be conducted with the aim of recording and recovering any artefacts or information which relate to the former Berry Estate tenant farm.
10. The remnant tree plantings at G2B H48, which predate the modern farmhouse, should be conserved and protected from damage.

11. The potential archaeological site G2B H52, should be conserved and managed as part of the complex of road related sites outlined in recommendation 4.

12. Prior to the commencement of construction impact, a program of archival recording and archaeological salvage excavation, should be conducted at G2B H53, as appropriate, and as required by the nature and significance of the relics encountered.

Archaeological deposits

13. A program of salvage excavation should be conducted within the construction footprint at G2B H14, south of test pit C110. Where the vertical alignment of the existing highway carriageway within the G2B H14 area is to be lowered, the potential for impact to potential archaeological deposits below the current road platform should also be assessed, and salvage excavation conducted according to the determination of that assessment.

    The aim of the salvage excavations would be to recover as much information as possible regarding the history of site use, including the sequence of occupation, property boundaries and activity areas/site functions.

Standing buildings and structures

14. The concrete Broughton Creek bridge (G2B H29), should be conserved, protected from construction impact, and continue to function as a road bridge for the highway when it is converted to a service road following the opening of the project.

15. Subject to the findings of a Heritage Interpretation Plan (refer recommendation no.37), it is recommended that interpretive signage and visitor access, off the existing highway (when it becomes a service road) be installed at heritage item G2B H29 Together with this 1930s bridge and the new bridge proposed as part of the project, the interpretation of this site could include the original early nineteenth century ford crossing at this location, and the sequence of wooden bridges on the original Broughton Village road alignment 620 metres upstream.

16. Where and as feasible, direct development impact to the *Brookside* homestead (G2B H28) should be minimised. The standing structures with heritage value should be protected from construction impact as much as possible and continue to be used as a farmhouse complex or adaptively reused in such a way that heritage values can be maintained.

17. The natural character of Broughton Creek and its banks in the vicinity of the bridge immediately south of the *Brookside* homestead (G2B H28) should be maintained and enhanced as much as feasible. The aim of this strategy is to ameliorate impact to the landscape context by maintaining and reinforcing the visual quality of the creek corridor. This can be achieved by maintaining and augmenting native bank side vegetation, and maximising the distance between the banks and bridge abutments.

18. Prior to impact, an archival recording should be conducted at the *Brookside* homestead (G2B H28), inclusive of those features subject to direct impact, and the homestead building which incorporates structures previously moved from site G2B H59.

19. An archival recording should be conducted of *GlenDevan* (G2B H11) and its grounds prior to any development impact. This record should include documentation of construction methods and materials exposed during any demolition works. Ground disturbance in the area of G2B H11 should be monitored by an archaeologist with the aim of recording any features relevant to the archival recording, and recovering any significant relics.

20. The RMS should remain open to the possibility of a third party proposing to conserve all or part of the G2B H11 structure by moving it to a new location within or near Berry, at that party's expense. In the event of simple demolition, suitable materials (such as bricks and stone masonry) should be recovered and reused (with commemorative identification) in appropriate local infrastructure such as interpretive or entrance features, way-side stop facilities, landscaping or artwork.
21. Direct impact to the existing *Graham Park* (G2B H51) entrance structures (gates, pillars and sculpture of a bull) should be avoided. During construction, temporary fencing should be erected around the feature to identify a 'no-go' area.
22. It is recommended that the design of any access roadworks in the vicinity of the *Graham Park* entrance (G2B H51), should not exclude the capacity for visitors to pull over and safely inspect the entrance feature. If necessary, allowance should be made in the design for the potential future installation of interpretive signage.
23. No further action is required at sites G2B H10 and G2B H58.

Miscellaneous site types

24. Where feasible, direct impact to the remnant dry stone wall G2B H54 should be avoided, and the wall actively conserved and managed. In the event that direct impact to all or part of this site is anticipated then an archival recording of the wall should be conducted prior to any construction impact occurring. Any rock material displaced from the wall as a result of construction works should be retained for use in the repair and conservation management of the original wall.
25. An archival record should be compiled of the quarried rock outcrop, G2B H61, prior to impact.
26. The most northern Poplar tree in the tree avenue G2B H62, should be conserved in situ and would be situated within 10 metres of a proposed water quality pond. Temporary protective fencing should be erected around the root zone of the tree during the period of construction to define a no-go area. Any post-construction planting of the bypass easement in the area of Woodhill Mountain Road should aim to reinforce and replicate the existing landscape character created by the existing planted avenues of poplar trees.
27. Where feasible, the existing front yard plantings at G2B H17 (Hillview homestead) which would fall within the bypass easement (and particularly the Oak tree) should be retained. This may require a minor deviation of the proposed service road.
28. Construction impact to Mark Radium Park (G2B H63) should be minimised wherever feasible.
29. Direct impact to the Shed on skids, G2B H60, should be avoided. It is recommended that the structure be donated and relocated to an appropriate museum, where and if the capability to conserve and store the structure can be demonstrated.

The Southern Illawarra Coastal Plain and Hinterland (SICPH CL)

30. Where feasible, the construction and finishing of the project corridor, embankments and cutting faces should be conducted in such a way to minimise and ameliorate adverse visual impacts, and facilitate the re-establishment of vegetation.
31. The establishment of appropriate forms of vegetation along the project corridor and adjacent areas should be an important strategy in mitigating the broad scale landscape and visual impacts of the project corridor. This should be conducted with an awareness of maintaining important vistas from the project corridor, and the use of vegetation boundaries and alignments that conform to the rectangular patchwork of the surrounding landscape and serve to breakup or scatter the dominant curvilinear of the project corridor.

32. Where there is an opportunity to incorporate artistic elements in structures adjacent to the carriageway, (such as bridgework and retaining and noise abatement walls), it is recommended that designs derived from local cultural heritage themes be considered, especially at locations in close association to places of significance.

33. The design, construction and finishing of the project in the general vicinity of the Berry township should be realised with the dual aims of:

    a) Minimising and mitigating the visual obstruction caused by the project to views of the surrounding pastoral landscape and the Illawarra Range from the streetscape of the town. The construction of a landscaped noise barrier on the southern and eastern side of the bypass adjacent to Berry should form one strategy to realise this aim (refer details in Appendix I of the Environmental Assessment).

    b) Being sympathetic to the heritage values and character of the town and its streetscapes. The use of heritage related design elements and materials should be considered in the design of the town interchanges and adjacent noise barriers.

Ancillary facilities

34. The positioning of ancillary facilities and the conduct of ancillary functions should avoid direct impact to the following features: G2B H54 (dry stone wall on Toolijooa Ridge); significant fabric within G2B H49 (*Oakleigh* farmhouse); the mature tree plantings and potential archaeological deposits at G2B H48 (current location of *Greystanes Lodge*); and the skid mounted work-site shed at *Greystanes Lodge*, G2B H60.

General

35. All heritage items that would remain in whole, or in part, within the project corridor following the end of project construction, should be entered on the Section 170 Heritage and Conservation Register(s) compiled by RMS, and any conservation or management requirements determined and adopted.

36. In the event that unexpected cultural heritage finds are encountered during project construction then the Unexpected Finds Procedure or an RMS approved revised version, should be adopted and followed. The procedure should be included within a Construction Environmental Management Plan or equivalent document.

37. The cultural values of the project area should be promoted, interpreted and presented to current and future public audiences using formats, locations and strategies developed by, and defined in a Heritage Interpretation Plan (HIP). The HIP should be drafted with the involvement of relevant stakeholders, landowners and local Councils. Options to be considered should include interpretive signage, onsite public access and/or viewing points, educational materials, and supporting local museum displays. In particular, the HIP should address how best to provide for the public interpretation of the former Berry Estate road (and the surviving remnant G2B H27), and the Broughton Creek bridge (G2B H29).

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1 Introduction

1.1 Background

The Roads and Maritime Services (RMS) is seeking approval under Part 3A of the *Environmental Planning and Assessment Act 1979* to upgrade 11.6 kilometres of the Princes Highway between Toolijooa Road north of Foxground and Schofields Lane south of Berry, in New South Wales (NSW) (the project), to achieve a four lane divided highway (two lanes in each direction) with median separation. The project includes bypasses of Foxground and Berry.

The project is one of a series of upgrades to sections of the Princes Highway which aims to provide a four lane divided highway between Waterfall and Jervis Bay Road, Falls Creek. This would improve road safety and traffic efficiency, including for freight, on the NSW south coast.

This technical paper was commissioned by AECOM and presents an assessment of the potential environmental impacts on non-Aboriginal cultural heritage (historic heritage). It supplements the environmental assessment for the project as required under Part 3A of the *Environmental Planning and Assessment Act 1979*.

1.2 Project description

The project is located west of Gerringong, between the junction of the Princes Highway and Toolijooa Road, and the junction of the Princes Highway and Schofields Lane. The project traverses Toolijooa Ridge, Foxground, crosses Broughton Creek in three locations and bypasses the town of Berry. The project lies partly within the Kiama local government area (LGA) and partly within the Shoalhaven LGA.

The project comprises the following key features:

- Construction of a four lane divided highway (two lanes in each direction) with median separation (wire rope barriers or concrete barriers where space is constrained, such as at bridge locations).
- Bypasses of the Foxground bends and the Berry township.
- Construction of around 6.6 kilometres of new highway where the project deviates from the existing highway alignment at Toolijooa Ridge, the Foxground bends and the Berry township.
- Provision for the possible widening of the highway (if required in the future) to six lanes within the road corridor and, in some areas, construction of the road formation to accommodate future additional lanes where safety considerations, traffic disruption and sub-optimal construction practices are to be avoided.
- Grade-separated interchanges at:
  - Toolijooa Road.
  - Austral Park Road.
  - Tindalls Lane.
  - East of Berry at the existing Princes Highway, referred to as the northern interchange for Berry.
  - West of Berry at Kangaroo Valley Road, referred to as the southern interchange for Berry.
- A major cutting at Toolijooa Ridge (around 900 metres long and up to 26 metres deep).

- Six lanes (two lanes plus a climbing lane in each direction) through the cutting at Toolijooa Ridge for a distance of 1.5 kilometres.
- Four new highway bridges:
  - Broughton Creek bridge 1, a four span concrete structure around 170 metres in length and nine metres in height.
  - Broughton Creek bridge 2, a three span concrete structure around 75 metres in length and eight metres in height.
  - Broughton Creek bridge 3, a six span concrete structure around190 metres long and 13 metres in height.
  - A bridge at Berry, an 18 span concrete structure around 600 metres long and up to 12 metres in height.
- Three highway overbridges:
  - Austral Park Road interchange, providing southbound access to the highway.
  - Tindalls Lane interchange, providing southbound access to and from the highway.
  - Southern interchange for Berry, providing connectivity over the highway for Kangaroo Valley Road along its existing alignment.
- Eight underpasses including roads, drainage structures and fauna underpasses:
  - Toolijooa Road interchange, linking Toolijooa Road to the existing highway and providing northbound access to the upgrade.
  - Property access and fauna underpass in the vicinity of Toolijooa Ridge at chainage 8400.
  - Dedicated fauna underpass in the vicinity of Toolijooa Ridge at chainage 8450.
  - Property access underpass between Toolijooa Ridge and Broughton Creek at chainage 9475.
  - Combined drainage and fauna underpass in the vicinity of Austral Park Road at chainage 12770.
  - Combined drainage and fauna underpass in the vicinity of Tindalls Lane at chainage 13320.
  - Dedicated fauna underpass in the vicinity of Tindalls Lane at chainage 13700.
  - Property access underpass between the Tindalls Lane interchange and the northern interchange for Berry in the vicinity of at chainage 15100.
- Modifications to local roads, including Toolijooa Road, Austral Park Road, Gembrook Road, Tindalls Lane, North Street, Queen Street, Kangaroo Valley Road, Hitchcocks Lane and Schofields Lane.
- Diversion of Town Creek into Bundewallah Creek upstream of its confluence with Connollys Creek and to the north of the project at Berry.
- Modification to about 47 existing property accesses.
- Provision of a bus stop at Toolijooa Road and retention of the existing bus stop at Tindalls Lane.
- Dedicated u-turn facilities at Mullers Lane, the existing highway at the Austral Park Road interchange, the extension to Austral Park Road and Rawlings Lane.
- Roundabouts at the southern interchange for Berry and the Woodhill Mountain Road junction with the exiting Princes Highway.
- Two culs-de-sac on North Street and the western end of Victoria Street in Berry.

- Tie-in with the existing highway about 75 metres north of Toolijooa Road and about 440 metres south of Schofields Lane.
- Left in/left out only provisions for direct property accesses to the upgraded highway.
- Dedicated public space with shared pedestrian/cycle facilities along the southern side of the upgraded highway from the playing fields on North Street to Kangaroo Valley Road.
- Ancillary operational facilities, including permanent detention basins, stormwater treatment facilities and a permanent ancillary facility site for general road maintenance.

Construction activities as part of the project would include the following:

- Site preparation and establishment works.
- Temporary construction facilities, including construction compounds, stockpile sites, creek crossings, sediment control basins and haulage roads.
- Temporary works, including relocation/protection of services, tie-ins, traffic facilities and side tracks.
- Earthworks and bridge construction.
- Pavement construction.
- Drainage construction.
- Street furniture installation.
- Site restoration.

The project and the key features of the project are shown in **Figure 1.1**.

During detailed design, refinements could be made to the design features and construction methods (refer to Chapter 4 of the environmental assessment).

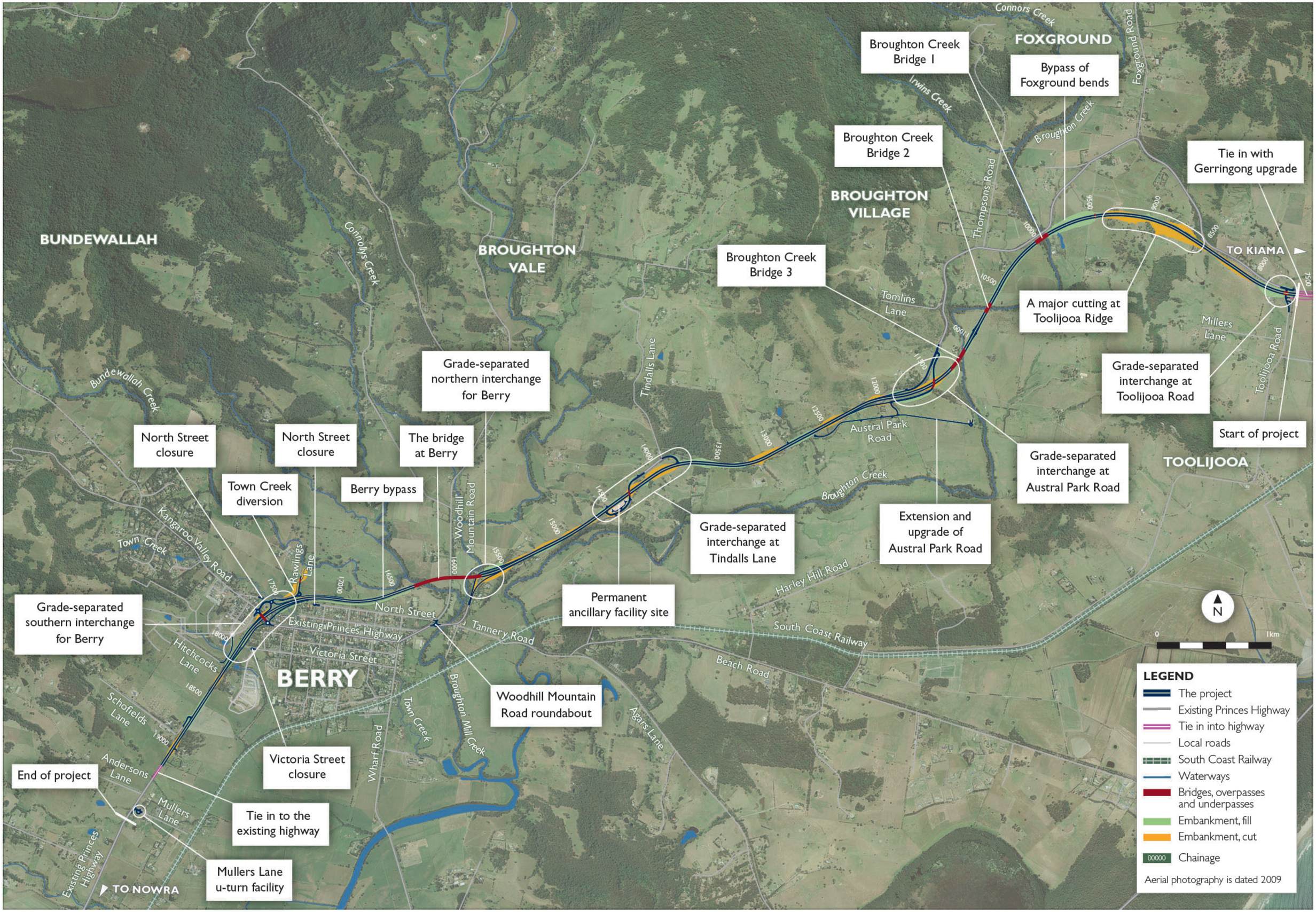


Figure 1.1: Concept design and key features of the project

1.3 Previous related heritage assessments

AECOM was engaged by RMS in December 2006 to carry out an Options and Route Selection Study, Concept Development and Environmental Assessment for the upgrade of the Princes Highway between Gerringong and Bomaderry on the South Coast of New South Wales. Following the Route Selection Study, the upgrade program was divided into three separate projects, of which the current project comprises the middle section of the original program.

The following non-Aboriginal cultural heritage assessments and studies were conducted as part of the Gerringong to Bomaderry assessment prior to the assessment outlined in this report:

- A preliminary Non-Aboriginal heritage assessment, conducted at the route options assessment stage. This study involved:
  - Literature and heritage database reviews.
  - Mapping of known sites.
  - Provision of a predictive model for Non-Aboriginal heritage sites (Navin Officer Heritage Consultants 2007b).
  - An oral history recording program (AECOM Australia 2009)

- A field survey and inspection of the project. The survey comprised:
  - Archaeological survey of surface features and structures.
  - Archaeological survey of the limited extent of ground surface exposures (most of which have occurred within the existing road reserve).
  - A predictive assessment of subsurface archaeological potential (Navin Officer Heritage Consultants 2011).

The concept design upon which the current assessment is based, was developed and refined with consistent reference to known and potential cultural heritage constraints. As a consequence, the design now avoids many items which would have been impacted in earlier versions. The following is a summary of these design revisions:

- The proposed location of the bridge over Broughton Mill Creek at Berry has been moved upstream to avoid direct impact to the Mananga homestead property (G2B H16), and to avoid close proximity and visual impact to buildings belonging to the Pulman Street Conservation Area, notably ‘Constables Cottage’ or “Wyndree” situated at the northern boundary of the conservation area.
- A proposed round about at the intersection of the (current) Princes Highway with Tannery Road has been replaced with a roundabout at the intersection with Woodhill Mountain Road. The Tannery Road option was situated within the Pulman Street conservation area and would have impacted upon the contextual landscape values of this area.
- The intersection of Schofields Lane and the upgraded highway has been revised to avoid impact to the entrance feature and remaining driveway at Graham Park, a former agricultural research institution with State significance (G2B H51).
- The proposed alignment of the Foxground bypass in the area of Broughton Village was moved to the east to avoid direct impact to the Sedgeford homestead (G2B H25), and a potential archaeological deposit at (former) ‘Greystanes Lodge’ (G2B H48), and to minimise impact to the outbuildings and property at Brookside (G2B H28).
- The concept design allows the retention of the current highway bridge over Broughton Creek (G2B H29) as part of a future service road. This bridge is listed on the RMS Section 170 Heritage and Conservation Register.

1.4 Legislative approval and requirements

The project is being assessed under the *Environmental Planning and Assessment Act 1979.* The Director-General's requirements (DGRs) for the project were issued on 11 February 2011 by the Department of Planning and Infrastructure and are addressed in the environmental assessment. The DGRs relevant to non-Aboriginal heritage are provided in **Table 1.1** and are addressed in this report.

Table 1.1: DGRs for non-Aboriginal heritage

Director-General's requirements
Aboriginal and historic heritage – including but not limited to:
An assessment of the impact of the project on historic heritage values, in particular impacts on the historic township of Berry.

1.5 Report outline

This report:

- Describes the environmental setting of the study area.
- Provides a background of local and regional archaeology and history for the study area.
- Describes previously recorded or registered heritage items within or near the project.
- Describes the results of the field survey.
- Provides heritage significance assessments and statements of significance for all heritage items.
- Identifies the potential and anticipated impact of the project on heritage items.
- Provides impact mitigation and management recommendations for all potentially affected heritage items.

2 Study methodology

2.1 Literature and database review

A range of archaeological and historical data relevant to the project was reviewed. This literature and data review was used to determine if known historical sites were located within the area under investigation, to facilitate site prediction on the basis of known regional and local site patterns, and to place the project within an archaeological and heritage management context. The review of documentary sources included heritage registers and schedules, local histories and archaeological reports.

Sources of historical information included regional and local histories, heritage studies and theses; parish maps; newspaper articles, local museum displays and websites, and where available, other historical maps, such as Crown survey plans.

Navin Officer Heritage Consultants (NOHC) greatly appreciate the assistance in local historical research provided by members of the Berry and District Historical Society Inc.

Searches were undertaken of the following statutory and non-statutory heritage registers and schedules (updated July 2012):

2.1.1 Statutory lists

World Heritage List

- The National Heritage List (Australian Heritage Council).
- The Commonwealth Heritage List (Australian Heritage Council).
- The State Heritage Register (NSW Heritage Branch, Office of Environment and Heritage).
- Section 170 Heritage and Conservation Register compiled by the Roads and Maritime Services.
- Section 170 Heritage and Conservation Register compiled by Rail Corp.
- Existing and draft Heritage Schedule(s) from the Shoalhaven and Kiama Local Environmental Plans.

2.1.2 Non-statutory lists

- Australian Heritage Database (Department of Sustainability, Environment, Water, Population and Communities).
- The State Heritage Inventory (NSW Heritage Branch, Office of Environment and Heritage).
- Australian National Shipwreck Database (Department of Sustainability, Environment, Water, Population and Communities).
- The Register of the National Estate (Australian Heritage Council).
- Register of the National Trust of Australia (NSW).
- Australian Institute of Architects, Heritage Buildings List.
- Royal Australian Institute of Architects Twentieth Century Register of Significant Buildings.
- Engineers Australia (Engineering Heritage Recognition Program).

2.2 Consultation with statutory authorities

Consultation with the Heritage Branch (OEH) undertaken to date includes:

- Formal notification of the project by RMS.
- A meeting with the Heritage branch of OEH on 2 August 2012 to present the project and discuss the assessment and its outcomes.

Additionally, information has been accessed from the State Heritage Inventory, State Heritage Register and Minutes of the State Heritage Register Committee.

Commensurate with the local level of significance of all the heritage items subject to potential impact from the project, the majority of consultation with government authorities has occurred with heritage staff of the Shoalhaven City and Kiama Municipal Councils. This has included the provision of heritage schedule and heritage inventory information, discussions regarding the status of unlisted items, and the provision of information updates on fieldwork and findings.

2.3 Archaeological survey

An archaeological field survey and inspection was conducted over a period of three months (February to April) in 2009 in multiple survey events according to property access availability and local weather conditions. This program was conducted as part of a wider survey extending between Bomaderry and Gerringong. Isolated and supplementary inspections, specific to the project, have also occurred in 2010 and 2011.

The survey involved inspection both on foot and via vehicle, depending on property access and ground visibility constraints. The intensity of the survey varied according to an appreciation of ground surface visibility, archaeological potential, historical research, and the interpretation of historical mapping and aerial photography.

The field assessment involved the inspection of standing structures, surface and above ground archaeological remains, and an assessment of the potential for subsurface archaeological material.

The area subject to archaeological survey and cultural heritage assessment consisted of the corridor of the preferred route for the project, defined as 200 metre either side of the alignment centreline (**Figure 1.1**).

General location mapping of all recordings is presented in Appendix A.

2.4 Recording codes and heritage item definition

All items recorded in the field (field recordings) have been given a recording code with the prefix G2B H (standing for Gerringong to Bomaderry – Historical), and a consecutive number based on all recordings made across the three Princes Highway upgrade projects between Gerringong and Bomaderry. As a consequence, the numbering sequence in any of the separate projects may be discontinuous. This system originates from the commencement of these projects as a single project.

For this assessment, a distinction has been made between *field recordings* and *heritage items*. A *field recording* refers to any recorded item or site, regardless of its assessed heritage significance. A *heritage item* refers to an item or site which is assessed to have heritage significance which satisfies or exceeds the threshold for significance within a local context (as defined in the NSW *Heritage Act 1977,* refer Section 7.1). Field recordings which were not found to be heritage items have not been considered further in impact identification and mitigation analysis.

The terms *site, item*, and *recording* when used in isolation, may refer to both heritage recordings and heritage items.

2.5 Archaeological test excavation

Five potential archaeological deposits were identified as a result of the archaeological survey (G2B H14, G2B H48, G2B H52, G2B H53 and G2B H59 (see Appendix A)). It was determined that only one of these locations required further archaeological investigation in order to draft appropriate management strategies relative to assessed significance. This site was G2B H14, the location of former buildings at the northern end of the Broughton Creek village (now Berry). Of the remaining four potential archaeological deposits, two would not be subject to direct impact and the others would not require further investigation in order to determine an appropriate management strategy.

Excavation of test pits at site G2B H14, Berry, was conducted by hand, and carried out over a period of two weeks during May and July 2011.

A detailed account of the excavation procedure and artefact treatment employed is at Appendix C.

A 120 metre x six metre section of the site was pegged out along the western margin of G2B H14. An alphanumeric grid of one metre x one metre squares was established across this area (aligned to a bearing of 16 degrees) with each grid square allocated a number between '1' and '120' from south to north, and 'A' to 'F' from west to east (**Figure 2.1** and **Figure 5.1**). Each of these one x one metre grid squares was further divided into 50 centimetre x 50 centimetre quadrats identified by roman numerals (northwest: I, northeast: II, southwest: III and southeast: IV).

The site was recorded using an automatic level in conjunction with a tape and compass survey and detailed photographic recording.

The test excavation was undertaken using shovels (including a lightweight pneumatic jack hammer fitted with a shovel-head), trowels and handpicks. Soil recovered from the excavation was 'dry-sieved' through metal sieves with four millimetre meshed apertures (**Figure 2.2**). The excavated area was backfilled with soil recovered from the excavations, and the whole area was re-covered with grass, soil and stones removed from the surface of the site before excavation.

Excavation proceeded in two primary ways:

- Careful excavation following stratigraphic contexts in order to determine the nature of fine scale relationships between artefacts, features and individual contexts.
- Sectioning through stratigraphic contexts in order to obtain an appreciation of broader site formation sequences.

Through these combined techniques, once the presence of layers such as modern introduced fill had been identified, removal of overburden was undertaken utilising tools such as a jack hammer. The archaeological deposits below were then excavated in finer detail by trowel and brush, in keeping with the nature of the questions being tackled in any given excavation area.

Figure 2.1: Layout of excavation grid at G2B H14 (Base image - Google Earth 2011)

Figure 2.2 Sieve station at G2B H14

2.6 Project personnel

The archaeological survey was conducted by archaeologists Kelvin Officer, Kerry Navin and Deirdre Lewis-Cook. Background and historical research was conducted by Lindsay Smith, Kelvin Officer and Caroline Plim.

The test excavation program was directed by Rebecca Parkes. Archaeologists Kelvin Officer, Sam Harper, Damian Tybussek, Emily Cobbald, Mirani Litster and Tom Knight undertook the excavation, with assistance from field assistants Jo Dibden, Glenda Hyde, Phil Price and Alexis Schlegel.

The report was written by Kelvin Officer and Rebecca Parkes.

2.7 Recording parameters

Historical archaeology refers to the 'post-contact' period (at and following the start of the written record) and includes: domestic, commercial and industrial sites as well as most maritime sites. It is the study of the past using physical evidence in conjunction with historical sources. The primary types of places or items that may form part of the historical archaeology context include:

1. Below ground evidence, including building foundations, occupation deposits, features and artefacts.
2. Above ground evidence, including buildings, works, industrial structures and relics that are intact or ruined.
3. Areas of land that display evidence of human activity or occupation.
4. Shipwrecks, deposits and structures associated with maritime activities.

Within these broad parameters, an historical archaeological site may include:

- Topographical features and evidence of past environments (ie resident in pollens and diatoms).
- Evidence of site formation, evolution, redundancy and abandonment (ie features and materials associated with land reclamation, sequences of structural development, demolition/deconstruction, and renewal).
- Evidence of function and activities according to historical theme(s) represented (eg an industrial site may contain diagnostic evidence of process, products and by-products).
- Evidence associated with domestic occupation including household items and consumables, ornaments, personal effects and toys.
- Evidence of diet including animal and fish bones, and plant residues.
- Evidence of pastimes and occupations including tools of trade and the often fragmentary signatures of these activities and processes.
- Methods of waste disposal and sanitation, including the waste itself which may contain discarded elements from all classes of artifact as well as indicators of diet and pathology.
- Any surviving physical evidence of the interplay between site environment and people.

The information found in historical archaeological sites is often part of a bigger picture which offers opportunities to compare and contrast results between sites. The most common comparisons are made at the local level, however, due to advances in research and the increasing sophistication and standardisation of methods of data collection, the capacity for wider reference (nationally and occasionally, internationally) exists and places added emphasis on identification and conservation of historical archaeological resources.

3 Environmental context

3.1 Broad scale context

The project consists of an 11.6 kilometre traverse across the valley floors and fringing spurs and slopes of the Southern Illawarra Coastal plain.

The coastal plain consists of the rolling hills, littoral zone and valley floor topography situated downslope and downstream of the basal ranges and spurs of the Cambewarra Range (a southern extension of the Illawarra Escarpment). The boundary between the foothills and the coastal plain is not distinct and an approximate cut-off would be the 100 metre to 140 metre contour (Above Height Datum (AHD)).

The basal slopes bordering the coastal plain have formed from the Berry Formation (siltstone, shale and sandstones), the Broughton Tuff (tuff and tuffaceous sandstone), and the Bombo Latite. The former two are metamorphic sedimentary formations, the latter a series of igneous lava flows. The Bombo Latite has formed the watershed ridges and higher ground that subdivide the various catchments and valley floors in the Kiama and Gerringong region. It dominates the higher relief of the eastern portion of the project, notably the crest and upper slopes of Toolijooa Ridge and the mid-range of the western slopes of the Broughton Creek valley adjacent to Broughton Village. The lower slopes of Toolijooa Ridge are comprised of the Kiama Tuff (trachytic tuff). Elsewhere across the western half of the project, basal slopes and watershed ridges have formed from the Berry formation.

The valley floor of the coastal plain presents a low relief topography of quaternary fluvial sedimentary deposits which typically includes a suite of depositional landforms such as colluvial fans, flood plain, terrace sequences, current and former streambeds (including palaeochannels), wetland basins and old delta deposits. Quaternary fluvial deposits are encountered on the floor of the Broughton and Broughton Mill Creek valleys.

The majority of the fluvial valley deposits were laid down some 20,000 to 30,000 years ago and the high terrace levels probably date to around 29,000 years ago (Walker 1962). There has been a marked increase in water runoff and the rate of sediment discharged from major Illawarra streamlines in the last 100 years (Wollongong City Council 1976). The increase in sedimentation is attributable to the great disruption of vegetative cover, and the consequent erosion caused by European clearing and agriculture. A consequence has been the deposition of sediment layers across the surface of the plain's basins and fans, causing pre-historic land surfaces to be buried and obscured. Another impact is increased rates of erosion and bank failure.

The town of Berry is situated at a point where the fluvial deposits of the Broughton Mill Creek valley (including Bundewallah Creek) interface with the former estuary embayment of the lower Shoalhaven. Upon entering the estuary, these streams would have dumped their sediments, and formed a small delta which extended progressively from north south into the embayment, prior to its infilling by about 4000 years ago (Wearne 1984:Fig 6.1, Woodroffe et al. 2000).

The sedimentary facies of the coastal margin are dominated by marine and aeolian sediments deposited as a result of prograding coastlines after high sea levels. These consist of estuarine deposits, as well as former sand barriers, dune and beach ridges. Around 8000 years ago, the sea was more than 10 metres below the present level, and reached its present level between 6000 to 6500 years ago. This is known as the post glacial marine transgression (Roy 1994, Thom and Roy 1985, Woodroffe et al. 2000).

Following stabilisation of the former, and the current sea level, sand barriers formed across drowned valley embayments, creating a series of estuarine environments along the eastern seaboard, which subsequently and variously filled with sediment (Roy 1994). The plains of the lower Shoalhaven River are a large scale example of this process. They demonstrate an evolution from a brackish water estuarine environment to freshwater alluvial plains. When the sea reached its present level, most of the plains were flooded to form a large coastal embayment. Following the incipient formation of a sand barrier (of which Comerong Island is an evolved remnant), a coastal lagoon and estuary, similar in extent to Lake Illawarra must have been formed. This lagoon received fluvial input from Broughton Creek to the north and the Shoalhaven River to the west. The gradual infilling of the estuary then proceeded, with a pattern characterised by sedimentation around the periphery and gradual infill in the centre of the flood basin. Most of the plains adjacent to Broughton Creek were infilled between 5000 and 4000 years ago. Infill of the estuary basin was largely complete by 3000 years ago (Woodroffe et al. 2000).

During the last 2000 to 3000 years, the Shoalhaven River appears to have been channelized within levee deposits for most of its course across the plain. Isolated flood basins have persisted to the north and south (Woodroffe et al. 2000).

3.2 Small scale context

The project traverses a series of ridge and spurline slopes, interspersed by valley floor flats and fringing toe slopes. The far eastern end consists of a traverse of the east facing slopes of the Toolijooa Ridge. This forms the watershed between the Crooked River and Broughton Creek catchments, and is the highest point of the project reaching approximately 100 metres AHD. The ridge is a locally dominant, bedrock based, topographic feature which bisects the coastal plain. It extends from Currys Mountain (about 320 metres AHD), two kilometres to the north of the project, to within one kilometre of Seven Mile Beach, four kilometres to the southeast.

West of Toolijooa Ridge, the project traverses obliquely across the basal slopes and floor of the Broughton Creek valley. Broughton Creek is a major drainage line and the largest catchment of the southern Illawarra coastal plain north of the Shoalhaven. The project crosses the creek three times. The localities of Broughton Village and Broughton are situated within this valley, along the historical corridor of the highway. Broughton Village remains a loose concentration of residential buildings and small lot farm holdings, which boasts a history with a higher population and former public and community buildings.

From Tindalls Lane, the project follows the crest of a low spurline which forms the watershed between Broughton Creek to the east, and Broughton Mill Creek to the west. The project traverse of this spurline descends from around 50 metres, to less than 10 metres AHD, at the crossing of Broughton Mill Creek.

The project then traverses the fluvial sedimentary deposits, flats and palaeochannels of the Broughton Mill Creek, and Bundewallah Creek (a tributary of the former), to the north of the Berry township, before crossing a low bedrock formed spurline at the western end of the town (Berry Mountain Road). From this point the project turns southwest, paralleling the current highway corridor and traversing a series of unnamed minor tributary drainage lines and low interfluve spurs, which drain 800 metres downslope (southeast) to a former wetland basin which form part of the lower flood plain of Broughton Creek.

4 Historical context

4.1 Historical overview

4.1.1 Municipalities

The project study area lies within the administrative boundaries of the Kiama and Shoalhaven municipalities.

The Kiama jurisdiction was determined in the recent past on 11 June 1954. This area originated from the aggregation of smaller town and village-based municipalities, which in turn began as a result of European pastoral activities centred on a number of sizeable land grants in the region as early as the 1820s. By 1850, Alexander Berry had consolidated his estate, which extended close to the southern and western limits of Gerringong. Before the 1820s, except for a few intrepid cedar cutters, the district was mostly unknown to Europeans.

Local Government in the Shoalhaven began on 26th October 1868 with the incorporation of two new Municipal Councils north of the river, Broughton's Creek and Bomaderry and Numbaa on the south side. This achievement by local petitioners for the privilege of establishing their local Councils followed the abortive attempt of James Graham to set up the Municipal Council of Shoalhaven. This Council was proclaimed on 22nd September 1859, but Alexander Berry objected to his lands being included in the Municipality and applied to the Supreme Court for an injunction. Mayor James Graham appealed to the Privy Council, which delivered its findings, in favour of Berry in 1865. The Council became defunct.

Over the next few years the demand for Local Government by residents of the widely scattered settlements saw other Municipal areas declared. These smaller Councils amalgamated into one council, the Shoalhaven Shire Council in 1948. The Shire of Shoalhaven was proclaimed the City of Shoalhaven on 1st August 1979 (Robyn Florance n.d.).

4.1.2 Early exploration

In April 1770, Captain James Cook was the first European to sight the eastern shores of the region while sailing north towards Botany Bay. Cook named Pigeon House Mountain, Cape St George and noted the entrance of what seemed to be a bay (Jervis Bay), the inner north head of which he named Longnose Point, before passing Kiama's shore and on to further exploration.

Nothing more of the area was recorded until after the settlement of Sydney in 1788. On 27 July 1791, Captain Weatherhead of the Matilda discovered Jervis Bay, which he named Matilda Bay after his ship, but the name was not retained. Following his visit to the bay on 18 August 1791, Naval Lieutenant Bowen provided the name 'Port Jervis' in honour of Sir John Jervis. Whaling ships immediately began calling there for shelter and water.

The district was first crossed overland by Europeans when Clarke and the remaining surviving sailors of the Sydney Cove, which was wrecked in Bass Strait and again at Point Hicks in May 1797, passed through it in April of that year. Later in 1797, The Cumberland was wrecked south of Jervis Bay in 1879 and the survivors also made their way overland to Sydney.

In December 1797, George Bass, during his voyage of coastal exploration in a whaleboat with a crew of six seamen, landed in a sheltered bay, later named Kiama Harbour, and followed around the bight of Seven Mile Beach to discover the mouth of a river, which he named Shoals Haven. He spent three days examining the river, noting the fertile banks that he thought would not be subject to flooding (Bayley 1975:15-16, 1976:15).

Knowledge of the area was advanced when on 10 March 1805, Lieutenant Kent of HMS Buffalo returned to Sydney after examining the district overland 18 miles north from Jervis Bay with James Meehan, the assistant Surveyor-General. Information from that expedition confirmed that the area was originally covered with rainforest, brush cedar, soft and hardwoods and a variety of bushes, palms, vines and ferns.

Independent cedar getters were in the Shoalhaven from at least 1811. After grounding on the shoals, the Speedwell managed to bring the first recorded cargo of cedar from the Shoalhaven River to Sydney in December 1812. The timber industry then grew in scale, exploiting the patches of cedar on the rivers and creeks, but the main concentration was in the Long Brush, which stretched from Kiama to Jamberoo (Peter Freeman Pty Ltd 1998:11).

A cedar party comprising George Wood, Jones and Dawson was lost in early 1815 and a search located one body, said to be that of Wood, all having been killed by Aborigines. Following that episode, Governor Macquarie forbade the cedar cutters from visiting the district.

Exploration from landward began in February 1818 when Dr Charles Throsby and James Meehan set out from Sydney to find an overland route to Jervis Bay. The party reached Kangaroo Valley, crossed the Shoalhaven and reached Jervis Bay but found the route to be impractical. To find a better route in 1819, two surveyors, John Oxley and James Meehan, explored Jervis Bay, Currambene Creek and the site of Nowra. From there Meehan went due north; however, that inland section did not offer a feasible route for wheeled vehicles.

The need for a better route from the Southern Highlands was met, to an extent, in 1821 by a new route pioneered by Hamilton Hume and Charles Throsby through Tallaganda Shire, which Hume reported could be made along a line of where he marked the trees. However, the route was not developed until the 1840s when The Wool Road from Braidwood via Nerriga, Sassafras and Wandandian was created.

No sooner had Hume returned from that expedition when, in January 1822, he left Sydney in the Snapper with Lieutenant Johnston and Alexander Berry to explore the coastal rivers, sailing up the Clyde and trudging inland to the Pigeon House. Although it was a government sponsored voyage it appears that Berry’s purpose was to seek out land on which he could make a settlement after an adventurous life of roving in his early days (Bayley 1975:20).

4.1.3 Nineteenth-century estates in the Foxground and Berry bypass study area

The Berry Estate

After a brief stay in Sydney in 1808 during his early career as an international merchant, Alexander Berry returned to London in 1812 by way of Cadiz. In Cadiz Berry met Edward Wollstonecraft, who subsequently became Berry's London agent, and later his partner when they decided to start a business in Sydney. Berry returned to Sydney in July 1819, and Wollstonecraft arrived in September. While Wollstonecraft supervised their George Street business, Berry visited England in March 1820, carrying Governor Macquarie’s dispatches, one of which described him as 'an eminent merchant of this place'. In 1827, Berry married Wollstonecraft's sister Elizabeth.

Like other merchants Berry and Wollstonecraft often had to accept stock in payment of debts, and Berry sought a grant of land on which to accommodate the stock. Macquarie refused, as Berry was about to leave for England, but promised him a grant when he took up permanent residence. While he was away Wollstonecraft obtained a grant and located part of it on the North Shore where he built a cottage, ‘Crow's Nest’.

On Berry's return he sought a site for the grants made to him and Wollstonecraft, travelling widely even in unsettled districts because 'Everybody was flocking to the Hunter River, Bathurst, and other places and all were elbowing one another. But we neither wished to elbow any one nor to be elbowed'. Berry first visited the Shoalhaven in January 1822, taking the cutter *Snapper* into Crook Haven (formerly Shoals Haven) from which he proceeded overland to examine the country on either side of the river. The rich alluvial soils and natural grassy 'meadows' led him to choose the Shoalhaven as the site for an estate and he returned in June 1822 to occupy it.

In February 1822, Berry and Wollstonecraft had jointly applied for a grant of 10,000 acres under the regulation introduced by the Governor that those accepting grants should maintain, free of expense to the crown, one convict for each 100 acres of the grant. This grant was approved by Governor Brisbane, though the deed was not issued until 1830. It was located on the southern side of the river between the Shoalhaven and Crookhaven Rivers, but Berry established his headquarters at the foot of Mount Coolangatta on the northern side of the river.

The grant to 'Messrs Berry and Wollstonecraft', "Coolloomagatta", was between Broughton Creek and the government reserve along the beach to Black Head and Crooked River, to which was added a 2,000 acre grant on the south side at "Numbaa".

In July 1822, Berry decided that his station would be built at the southeastern foot of Mount Coolangatta. He called it "Cullengatty Farm". A store and huts were erected on the lower slope of Mount Coolangatta and the flat at Numba was prepared for cultivation, becoming the first farm on the Shoalhaven. His residence was begun in 1823 and completed in 1824, by which time he had 120 acres under wheat, 40 under maize, three acres under barley and three as a garden with an orchard planted at Numba, where 250 acres were already cleared. He had 600 cattle, 14 horses and 235 pigs on his estate. A barn was completed in 1830 at Upper Numba or Jindiandy where it may still be seen.

The development of the estate to 1827 is shown on a pencil map, probably drawn by Berry himself. It shows the country north of and including the Shoalhaven River to the head of Broughton Creek. It marks Pig Island, Broughton Creek, 'Bombadara' Creek and shows the western side of Broughton Creek as a 'Large Swamp'. It shows 'Muroo Hut', New Stock Yard' west of and beside the swamp, 'Bangley Creek' with 'Bangley' as its source, 'Good Dog' and a high peak 'Broughton's Rump'. **Figure 4.1** shows a map of Berry's holdings in 1837.

Berry secured additional grants of two lots each of 4000 acres north of the first grant and one lot of 4000 acres west of Broughton Creek. West of the latter, John Berry (one of Alexander's younger brothers) later secured 3225 acres at Bunberra north of Pig Island and several grants surrounding it. On his death in 1848, John Berry's grants passed to Alexander.

Other grants in the area were:

- 1920 acres at Tooliia (Toolijooa) called "Richardson's Farm" promised to J. G. Richardson 23 March 1830 (granted to A. Berry 11 February 1837).
- 1000 acres called "Hyndeston" near Gerringong promised to Thomas Hyndes 24 July 1824 (granted to A. Berry 18 Oct 1839).
- 4000 acres called "Broughton Head Farm" promised to Aspinall and Brown 27 May 1829 (granted to A. Berry 29 May 1838).
- 1280 acres called "Cumbewarra Farm", promised to Charles Staples 27 January 1830 (granted to A. Berry 20 May 1837).
- 1280 acres called "Meroo Farm" promised to Richard Mutton 22 June 1829 (granted to A.Berry 28 November 1837).

By 1840, all had passed to Alexander Berry in whose name the grants were issued. In 1842, Berry also secured 2560 acres called “Burke’s Farm” promised to John Burke (granted to A, Berry 15 February 1842) along Seven Mile Beach (Bayley 1975:24-26, Organ and Doyle 1994).

By the early 1840s, purchases of land from the crown and private individuals increased the size of the estate to about 32,000 acres, and to more than 40,000 acres by 1863. **Figure 4.2** shows a map of Berry’s holdings around 1844.

The total holdings of the Berry Estate, from grants and purchases, north and south of the Shoalhaven River, amounted to 57,000 acres. This included 14,480 acres from nine grants to others which were “bought out”, by Mr Berry. Some or all of these may have already been occupied by their original grantees (Organ and Doyle 1994).

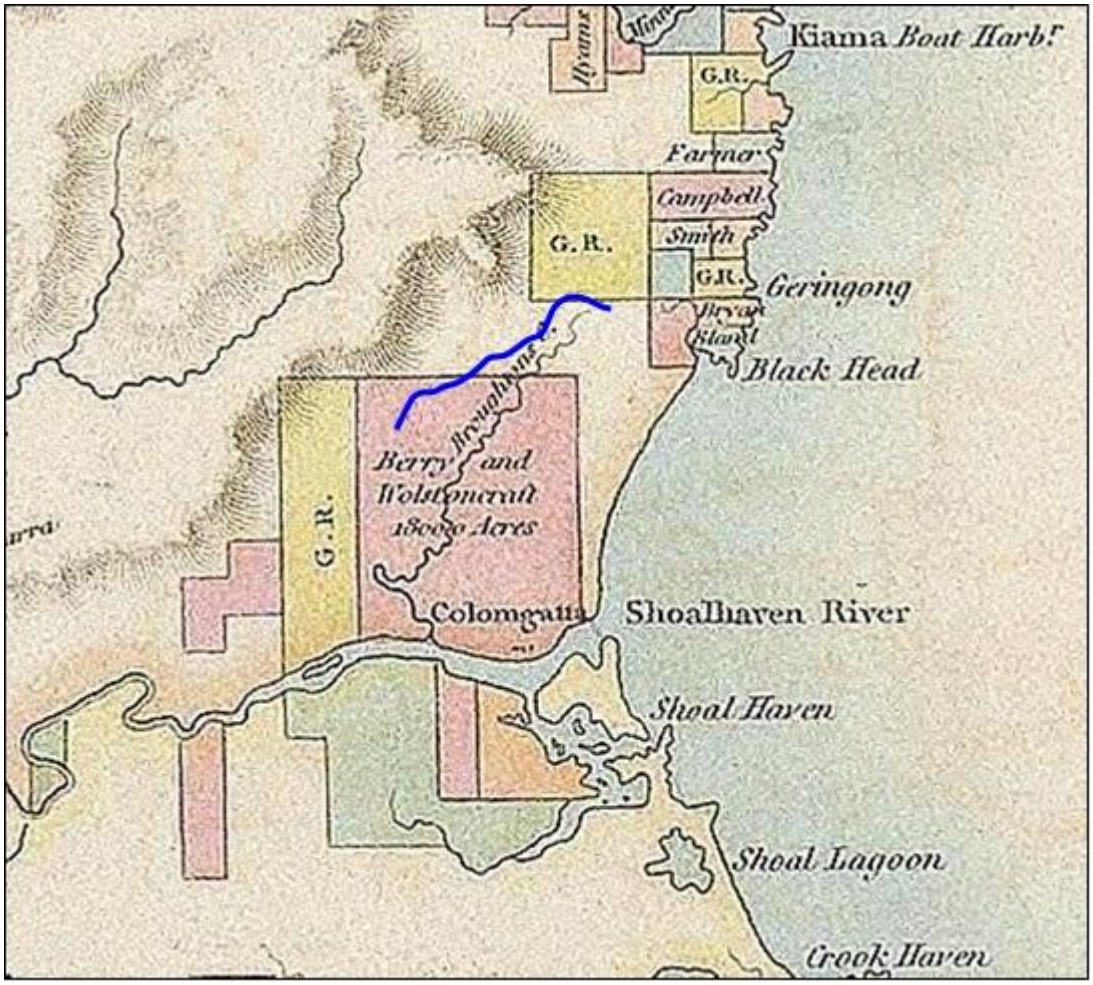


Figure 4.1: Extract from Robert Dixon’s 1837 map of the Colony of NSW showing early land grants and the approximate location of the project – solid blue line (State Library of NSW).

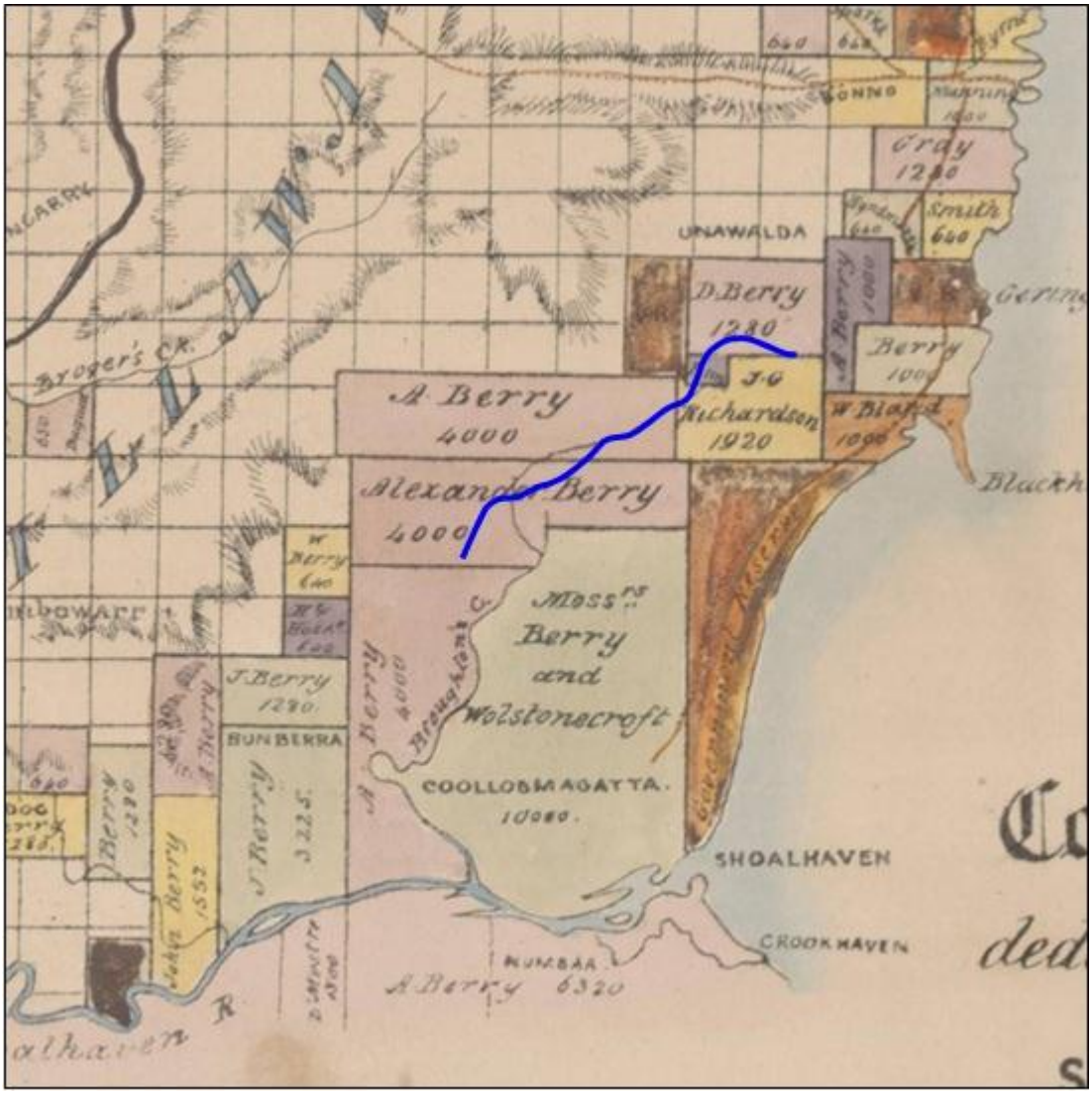


Figure 4.2: Extract from Baker's Australian County Atlas (County of Camden) 1843 - 1846 showing early land grants and the approximate location of the project – solid blue line (NLA)

Unlike other Sydney merchants who took up land but seem to have kept their mercantile and pastoral activities separate, Berry and Wollstonecraft set out to integrate the two, and during its early years the Shoalhaven estate was the source of much produce sold in the George Street store. When the Blanch returned to Sydney after establishing the settlement at Coolangatta she carried a cargo of hay and cedar from the Shoalhaven.

The partners' effort to enlarge their estate at every opportunity was probably to secure the cedar growing in the district, for by the 1820s the supply of cedar from the Illawarra and the Hunter River valley was nearing exhaustion. Maize, tobacco, wheat, barley and potatoes were planted and marketed in Sydney; pigs were also reared and cattle were brought to Shoalhaven from the Illawarra over a road made for the purpose. Besides buying a ship to provide transport between Sydney and Shoalhaven the partners built a sloop and began to drain the extensive swamps included in their grants. Barron Field feared that 'these grants will hardly ever repay Messrs. Berry and Wollstonecraft for their outlay upon them', but they did, and handsomely, if only because of the profit on the cedar cut on them. None the less the partners had difficulty.

The estate was a cause for considerable criticism of Berry he was publicly accused of negligence in his care of convict servants and of ill-treating them; it was said that a government tax on cedar cut on crown land was engineered to give Berry and Wollstonecraft a virtual monopoly, and that a tax on imported tobacco was introduced for their benefit. By 1846, Berry wrote that he had lost interest in the estate and 'would gladly part with it upon any terms'; this feeling grew as labour became scarcer after the abolition of transportation and the discovery of gold. In the 1850s, Berry began to let farms on clearing leases, and with this occupation by tenant farmers the real development of the Shoalhaven district commenced.

After his wife's death in 1845, Alexander Berry (**Figure 4.1**) became a recluse in his Crow's Nest House. After his brother David took charge of the Shoalhaven estate in 1836 he appears to have rarely visited it. He died at 'Crow's Nest' on 17 September 1873.

Berry had no children and his property passed to his brother David (Perry 1965:92-95).

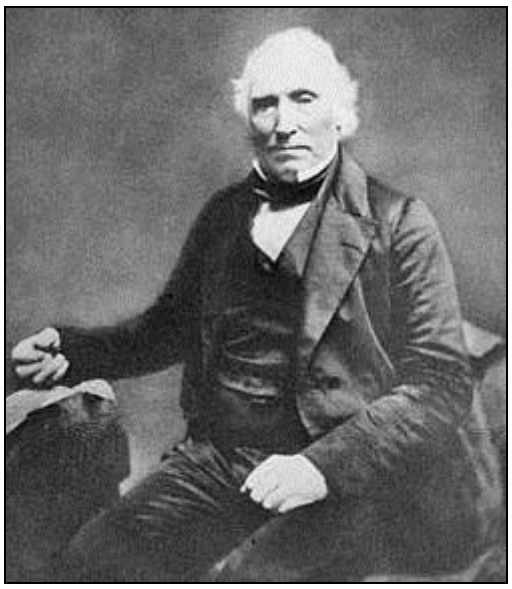


Figure 4.3: Alexander Berry (1781–1873) (Source: State Library of NSW).

David Berry, with his brothers John and William and his sisters Janet and Agnes, put into effect a long-held idea to join their eldest brother Alexander in NSW. They arrived at Sydney in July 1836 went at once to Coolangatta, the Shoalhaven property which, at Wollstonecraft's death in 1832, had passed entirely to Alexander.

Until John Berry died in 1848 he and David jointly managed the property. The greater part of the land was undeveloped and most of the work force was convict. The number of their assigned servants appears to have increased from an original 100 to some 300 in the 1840s. The main source of income was the breeding of cattle and horses, which were scientifically improved by imported blood. After John's death David began leasing some of the land. By 1850, he had 36 tenants, who paid 20 shillings an acre for cleared ground and were allowed five years without rent in order to clear timbered land. When convict labour ceased, David Berry decided to trial Chinese labourers and of German families hired in Hamburg. The Chinese did well as dairymen and house servants but in general Berry considered their usefulness was limited. Leasing was continued and by 1863 he had almost 300 tenants, who occupied some 8650 acres (3500 ha) or about a sixth of Coolangatta and paid an aggregate rent of about £6,000.

Figure 4.4 presents an extract from a map of the County of Camden, NSW, 1866, showing land tenure around that time.

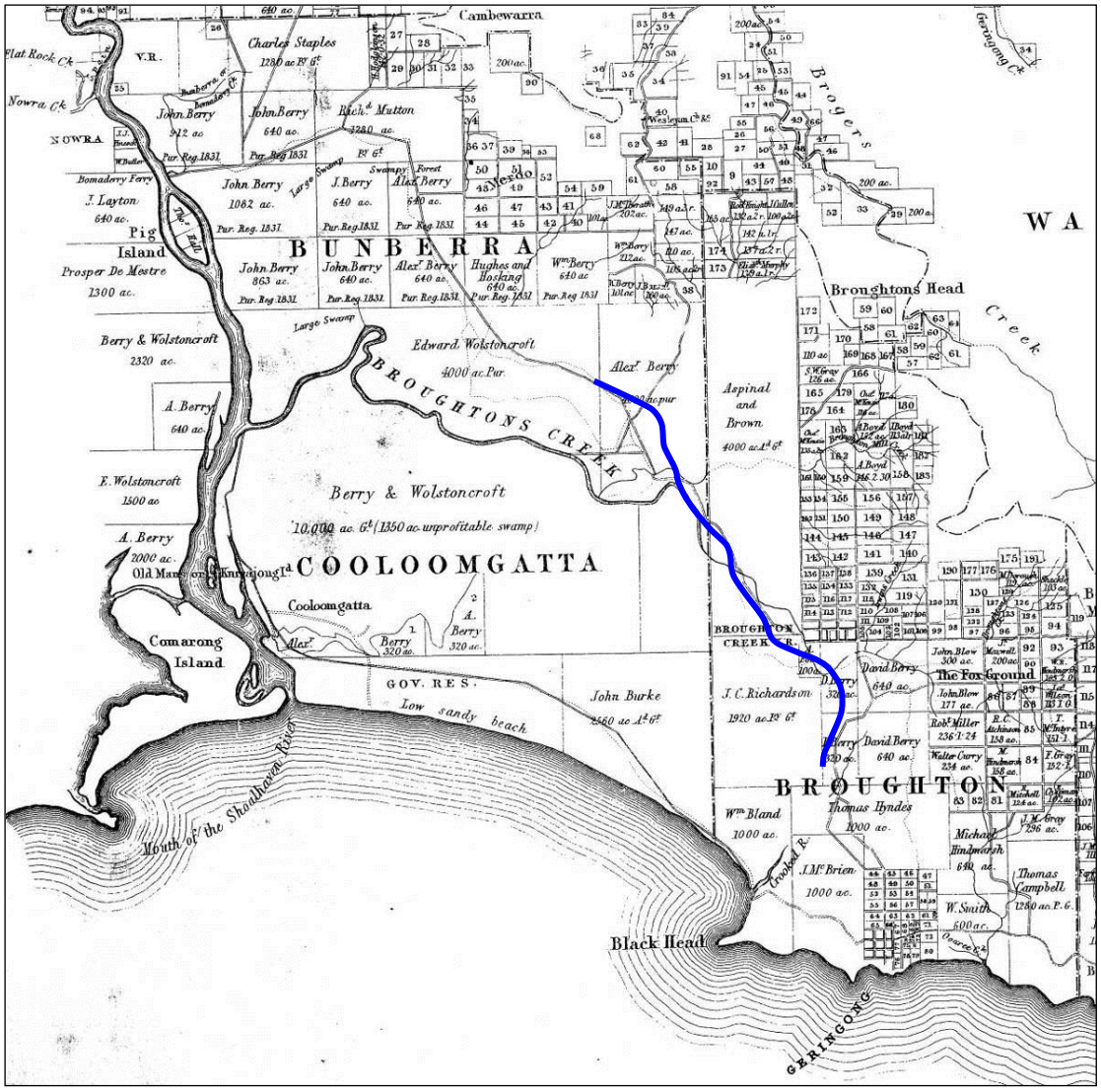


Figure 4.4: Extract from map of County of Camden, NSW, 1866, showing land tenure and the approximate location of the project – solid blue line (NLA)

When David Berry inherited the estate from Alexander, it was valued at £400,000 and consisted of 60,000 acres at Shoalhaven and 500 acres at North Sydney. William Berry died in October 1875, also leaving a will in David's favour. He continued to lease the Shoalhaven land on terms considered more than lenient. Berry also introduced the practice of share farming with land, implements and materials provided by the estate and labour by the farmer, the profits to be shared on an agreed basis.

After 1883, the management of the Shoalhaven estate passed increasingly to Berry's cousin, (Sir) John Hay. When David Berry died unmarried at Coolangatta in 1889 he left an estate valued at £1,250,000. Hay was the principal beneficiary of his will (Stephen 1969:149-151). Hay died without issue at Rose Bay in 1892. Most of his estate of almost £59,000 was left to the children of his brother James (Martin 1972:361-362).

The enormous bequests by David Berry to the University of St. Andrews (Scotland) and to the Endowment of a hospital at Berry, amounting to a quarter of a million pounds, made it necessary for the Trustees to sell the Estate. They immediately set about a comprehensive plan of improvements before selling. Among these the reclamation of the swamp areas took a prominent place.

The entire area of the estate at that time amounted to around 100 square miles. Of that area 40 square miles consisted of alluvial flat land. In its natural state that land consisted of a series of freshwater marshes with surfaces in their lowest, some three or four feet below the flood level of the district in which they lay. Therefore, this area of flat land had to be protected from the influx of possible tidal floods by a system of drains and sluices. Another leading feature of the marsh-reclamation scheme was the freedom of floods when they rose above the natural banks of the Shoalhaven River and Broughton Creek to flow freely into the reclaimed basins. Consequently, at all places where the river banks either from erosion or other causes had fallen below their normal crest-level, levees (or embankments) were employed to restore them (Antill 1982:354).

On 29 March 1892 the sale of the Berry (Shoalhaven) Estates began and continued for three days. The entity was divided into three for the purpose of the sale; first, the Gerringong farms of which there were four and totalled 175 acres; next came the sale of the whole township of Bomaderry followed on 30 March by the Numbaa estates, which consisted of between 5000 and 6000 acres. This was included in the Municipality of Numbaa, which had been incorporated in 1868.

The sale terms were all standardised at 25 per cent deposit, 15 per cent within two years and the balance over five years with an interest rate of five per cent per annum. In all cases preference was given to tenant farmers to secure the land they had formerly farmed many of the present family holdings date their freehold from that date. The disposal by sale of the estates in Shoalhaven and North Sydney began in 1892 and was not completed until 20 years later in 1912 (Sealy 2000: 120-121).

Figure 4.5 presents an extract from a map of the County of Camden, NSW, 1895, showing land tenure and the growth of settlement centres, including Berry, Bomaderry and Gerringong, at that time.

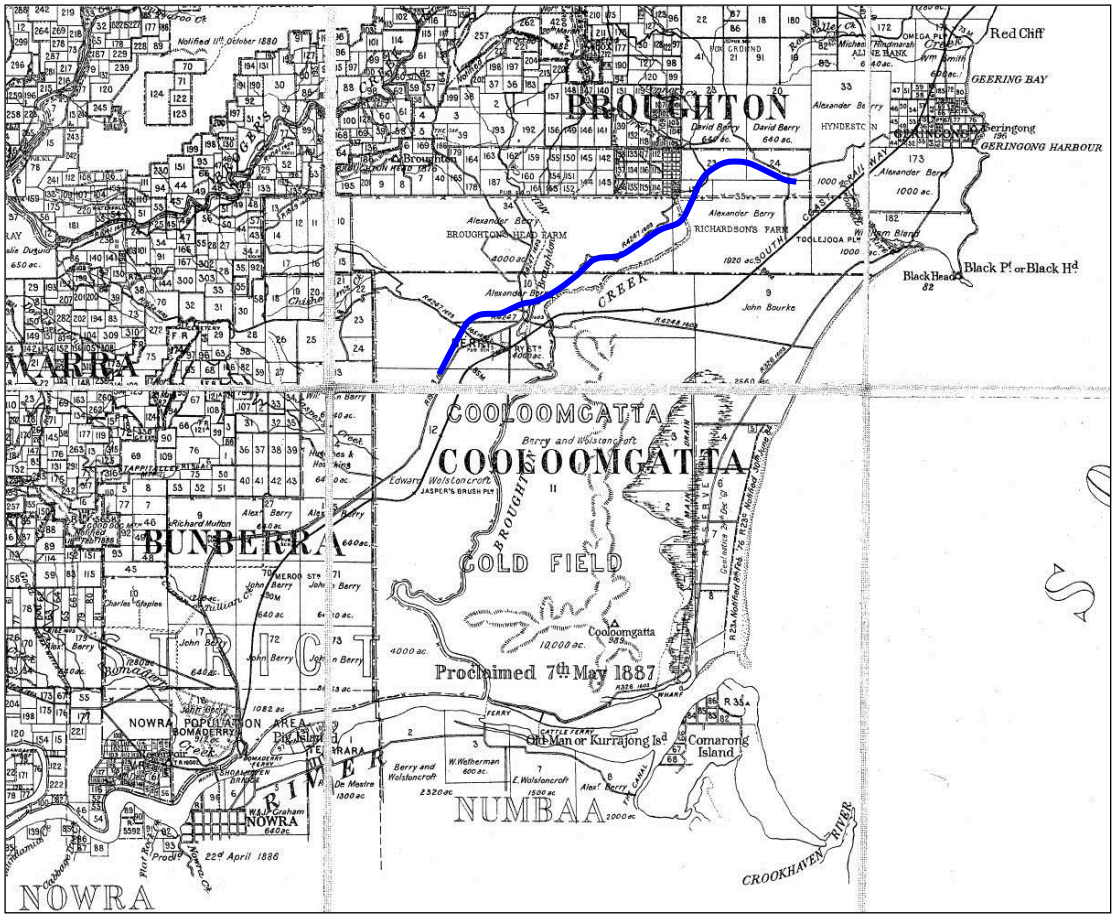


Figure 4.5: Extract from map of County of Camden, NSW, 1895, showing land tenure and the approximate location of the project – solid blue line (NLA)

4.1.4 Settlement and the development of townships

Broughton Creek (Berry)

Until 1899, the town of Berry was known as Broughton's Creek, Broughton Creek, or simply 'The Crick'. It was originally a station of the great Berry Estate.

The place was named after Broughton (c.1798-c.1850) an Aboriginal guide, tracker and constable, who was born at Boon-ga-ree, which became known from 1822-1888 as Broughton Creek and subsequently as Berry. Broughton, whose Aboriginal name was rendered as Toodwick, Toodood or Toodwit, accepted and strove to adapt to the new society introduced by the colonists. By 1818 he was working for Dr Charles Throsby of Liverpool, who probably named him after his friend William Broughton. The trusted Aboriginal served as a guide and translator on several of Throsby's explorations to the south and at least once for John Oxley.

In 1822, Broughton started work for Alexander Berry, whose grant incorporated Boon-ga-ree, setting up Berry's farm, Coolangatta, recruiting Aboriginal labour, keeping the peace, capturing bushrangers, droving cattle and providing his own labour. He became a favourite of Berry, who called him 'my Landsman' and later 'my oldest surviving Black friend' and who presented him with a rectangular breastplate inscribed 'Broughton Native Constable of Shoalhaven 1822'. The names of Broughton and his brother Broger (Brogher) survive in several physical features and localities in the Shoalhaven. Brogers Creek is named after the latter. After the former there is Broughton Creek, Broughton's Head, Broughton Vale, Broughton Village, and Broughton Mill Creek (Campbell 2005:48 -49). Contrary to this conventional allocation, a 1935 newspaper article notes some alternative possibilities: William Broughton, of the 1821 Hume expedition; and Minne Broughton a little girl who figured in a shipwreck (Sydney Morning Herald 25 June 1935 p12).

Broughton Creek was strategically sited on the northern part of Alexander Berry's Coolangatta Estate. With a double wharf on the junction of Broughton Creek and Broughton Mill Creek, a water powered sawmill and a tannery by 1860, the embryonic town proved a focal point for the farming hinterland.

The milling of timber on the estate appears to have begun as an open saw pit site in 1827. In late 1826, a number of 'free' sawyers signed an agreement to saw at Broughton Creek, and the following year, James Smith, described as the Overseer of the timber establishment at Broughton Creek, was measuring the timber on hand. In the early 1830s, a sawmill was erected on the site to replace the saw pits of earlier days (Antill 1982:350). It was in operation from at least 1836 as during a tour of Berry's estate James Backhouse noted in his journal on Saturday 1 October 1836, "*A Black came from a sawing establishment of Alexander Berry's where he has learned to work* …".

On 3 October 1836, when leaving 'Coolangatta' Backhouse further noted, "*A circuit of about six miles over grassy forest hills between two marshes brought us to Alexander Berry's sawing establishment at Broughton Creek, which is under the superintendence of Alexander Pattison [or Patterson], a respectable Scotchman, with a wife and numerous family*" (Beale et al 1991: 34-35). In January 1840, the Reverend W. B. Clarke also recorded visiting the sawmill noting, "*We came about 5 o'clock to a river, which we crossed, then to the saw-mill established by Mr Berry, which we visited. The machinery is simple and washed by water in the American plan,"* (Organ 1990:250-253). The sawmill was leased to a tenant to cut cedar and hardwood for use on the Estate between 1842 and 1850 (Antill 1982:350).

Figure 4.6: Photograph of the tannery, Berry, c.1875 (Mabbutt nd:6)

At the time of establishing the saw pit site in 1827, Alexander Berry devised a scheme for tanning all the leather required on his establishment (Antill 1982:350). The tannery was a natural adjunct to the sawmill, where the tannin-rich bark stripped from felled timber was used to prepare hides for shipping down Broughton Creek to the Sydney market (Mabbutt n.d.: 6). **Figure 4.6** shows a photograph of the tannery in c. 1875.

James Wilson was a ferryman at Back Forest who was later appointed manager of the tannery and ran a general store there. After the tannery buildings were badly damaged in the severe floods of the 1860s and 1870s, Wilson opened a new store on higher ground on the corner of Pulman Street in nearby Broughton Creek Village (Mabbutt n.d.: 9). **Figure 4.7** gives a photograph of Wilson's Store in Pulman Street, c. 1875.

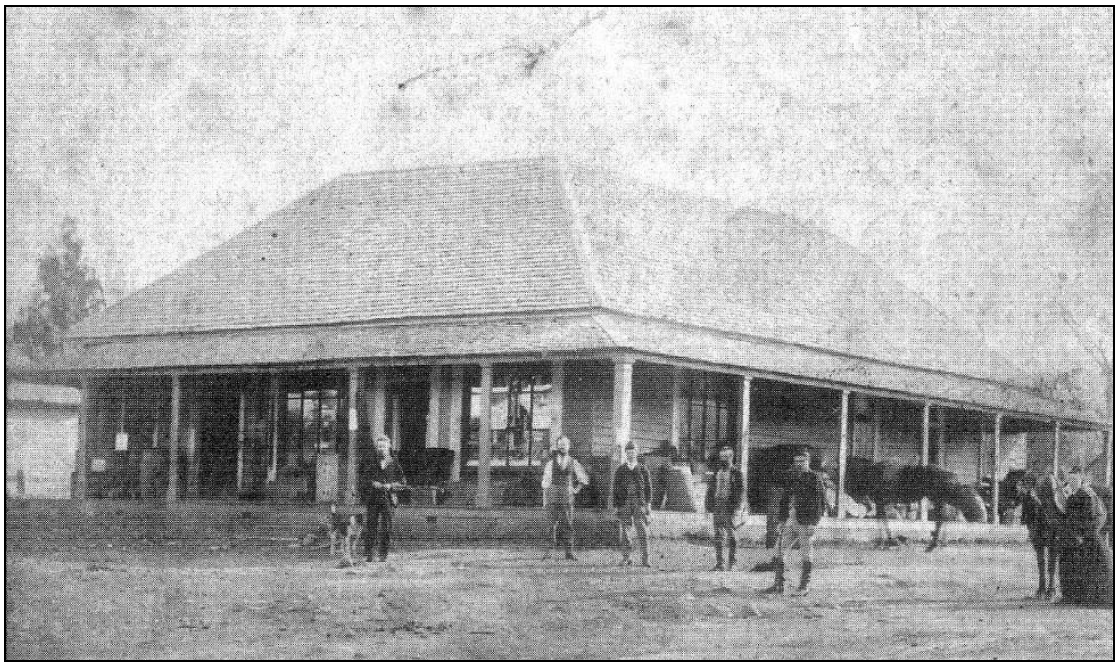


Figure 4.7: Photograph of James Wilson's store, Pulman Street, Berry, c.1875 (Photographer: Henry Toose, Mabbutt n.d.:9)

The village had a schoolhouse provided by Alexander Berry in 1861 and a postmaster from the same date. By 1866, there were 300 people in the immediate vicinity. Although the sawmill had closed, the tannery flourished. There were two stores, a smithy, a saddlery and a hotel (Bayley 1975).

Figure 4.8 gives a sketch of Broughton Creek Village in the 1870s, looking southwest towards modern day Pulman Street. When in 1868 the municipality of Broughton Creek and Bomaderry was created, contrary to Berry's wishes, it was administered by Broughton Creek.

As the land was opened up first by Berry estate tenant farmers, and in the 1860s, by settlers under the Robertson Land Act, Broughton Creek became the port of a very large area where dairy farms were established. **Figure 4.9** shows a photograph of the (second) wharf at Berry in 1896 – the first wharf was at the 'Crooked S', the junction of Broughton Creek and Broughton Mill Creek (Berry Museum n.d. 2). Farmers from Broughton Vale, Broughton Village, Jaspers Brush, Brothers Creek, Woodhill and even Kangaroo Valley, took their butter and other produce to the wharf at Broughton Creek. From the wharf it was taken to the ocean steamer at Greenwell Point or drogher, until 1871, when Alexander Berry provided a flat bottomed steamer, the *Coolangatta.*

Despite the Berry estate's insistence on yearly tenancies in the area, more stores and shops were built in the 1870s and in 1879, six years after Alexander Berry's death, Broughton Creek was surveyed and a plan for a town was made on the higher land on the right (west) bank of the creek.

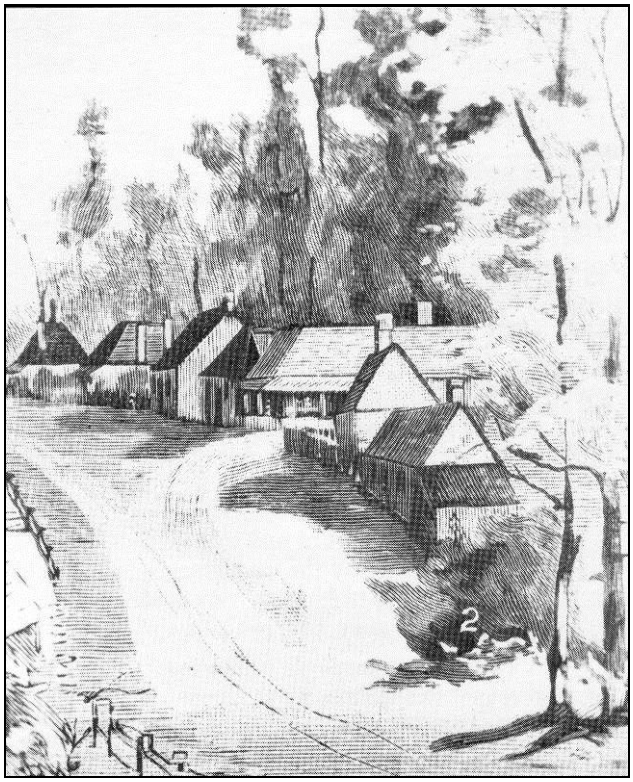


Figure 4.8: Broughton Creek Village along the ridge at Pullman Street in the 1870s (Bayley 1975: 74)

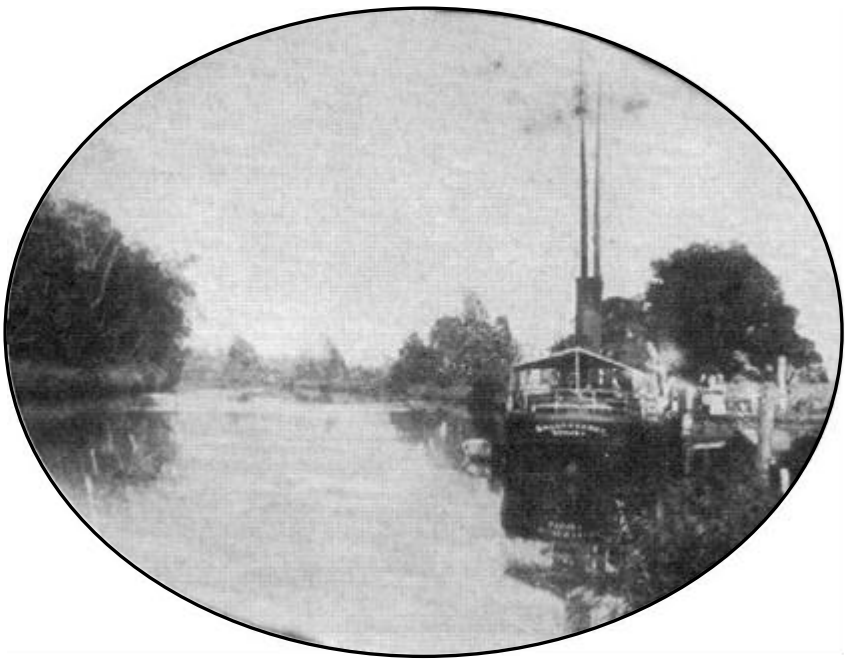


Figure 4.9: Photograph of the SS Coomonderry at the (second) Berry wharf, 1896 (Mabbutt n.d.: 58)

Figure 4.10 shows an extract of an old map (probably the 1870s) of Broughton Creek prior to the survey of the current town grid. The group of buildings shown in **Figure 4.8** are indicated in the middle of the map. When a new town survey established the modern street grid in the 1880s, most of the existing buildings were out of alignment with the new streets, and, in some cases new premises had to be erected in front of the old ones. However the tenants were given longer leases, up to 25 years, and later it was made possible to buy the land.

After David Berry's death in 1889, the name of the township was changed from Broughton Creek to Berry in his honour.

The Illawarra rail line (now the South Coast line) was opened as an isolated line as far as Bombo in 1887. The Bombo to Bomaderry section was opened in 1893 (www.nswrail.net).

The town of Berry continued to flourish as a service centre for a predominantly saw milling and dairying district. The population was 1,300 in 1884, with additional town blocks enlarging the town site from that laid out in 1883. **Figure 4.9** shows a sketch plan of Broughton Township in 1883. Today, Berry continues to provide basic service needs of the community, but the 1980s saw it transformed into a tourist town, with tea rooms, antique and gift shops (Clark 1993:5, Cousins 1994:260-263, Peter Freeman Pty Ltd 1998:20, Lidbetter 1993:4).

Figure 4.12 gives a map of present day Berry showing locations of historic sites, including Pulman Street, the tannery and the two wharf sites.

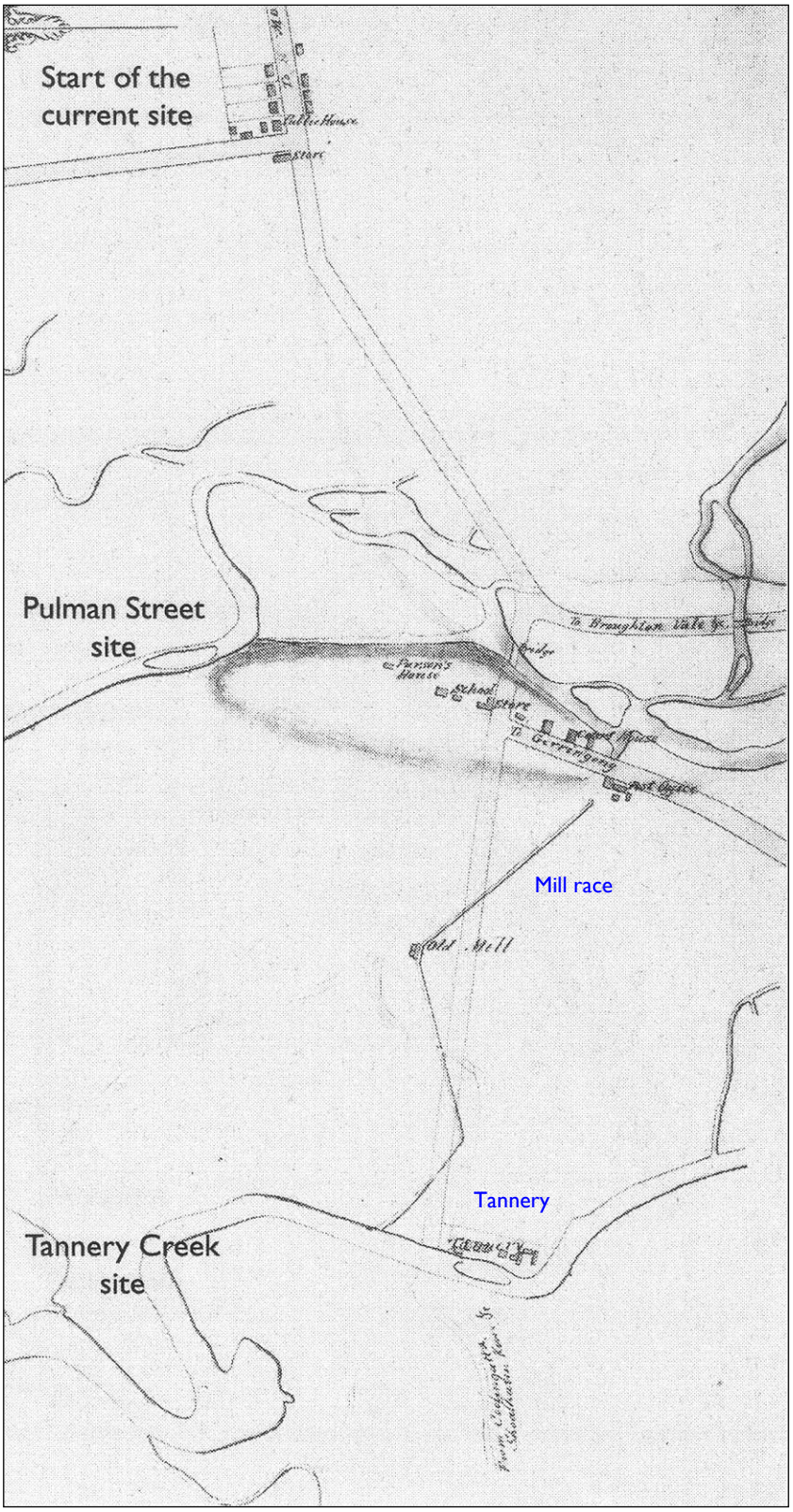


Figure 4.10: Early map of Broughton Creek Village area, probably 1870s (Berry Museum n.d.: 15)

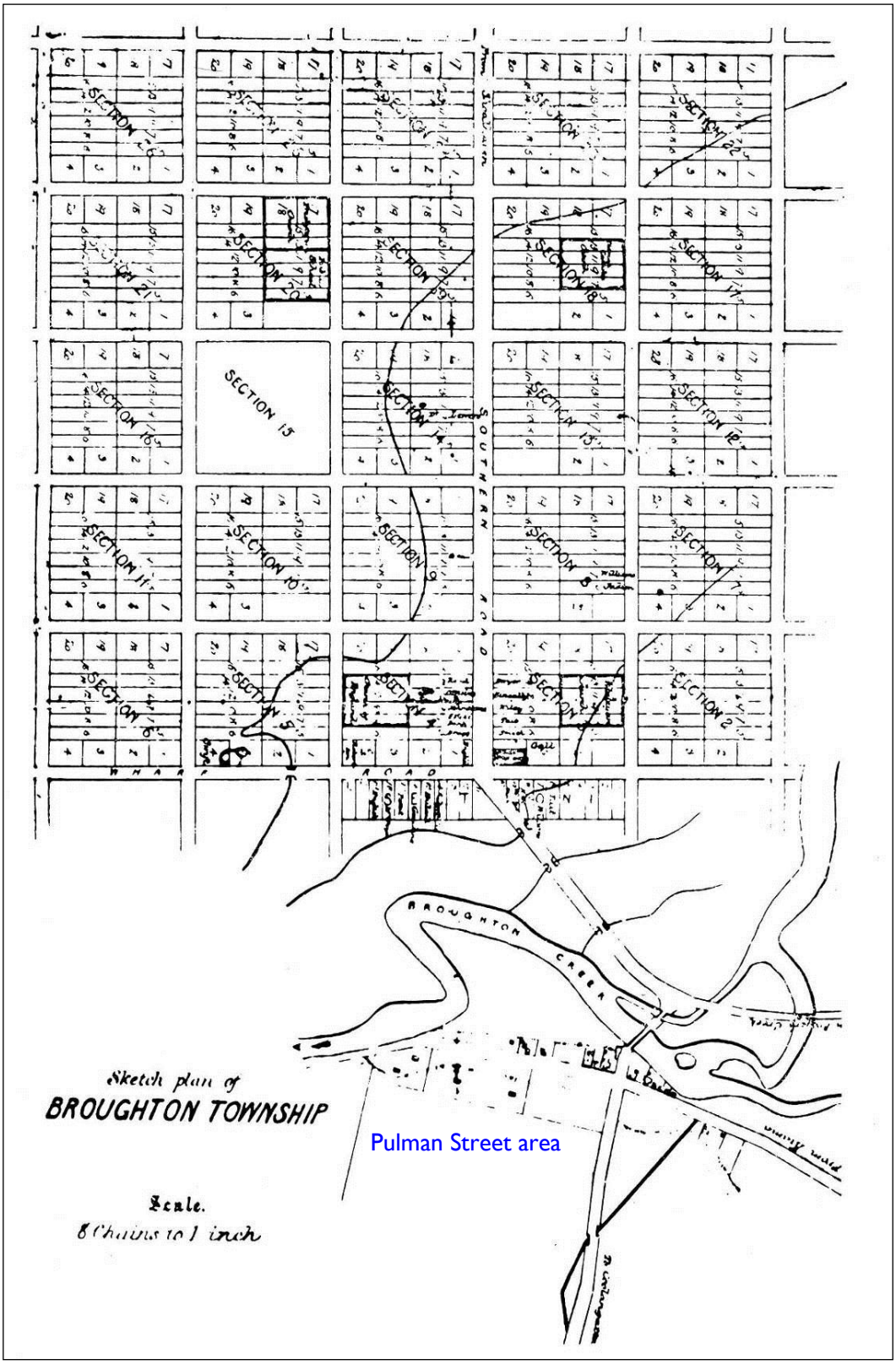


Figure 4.11: Sketch plan of Broughton Township 1883 (Lidbetter 1993:18)

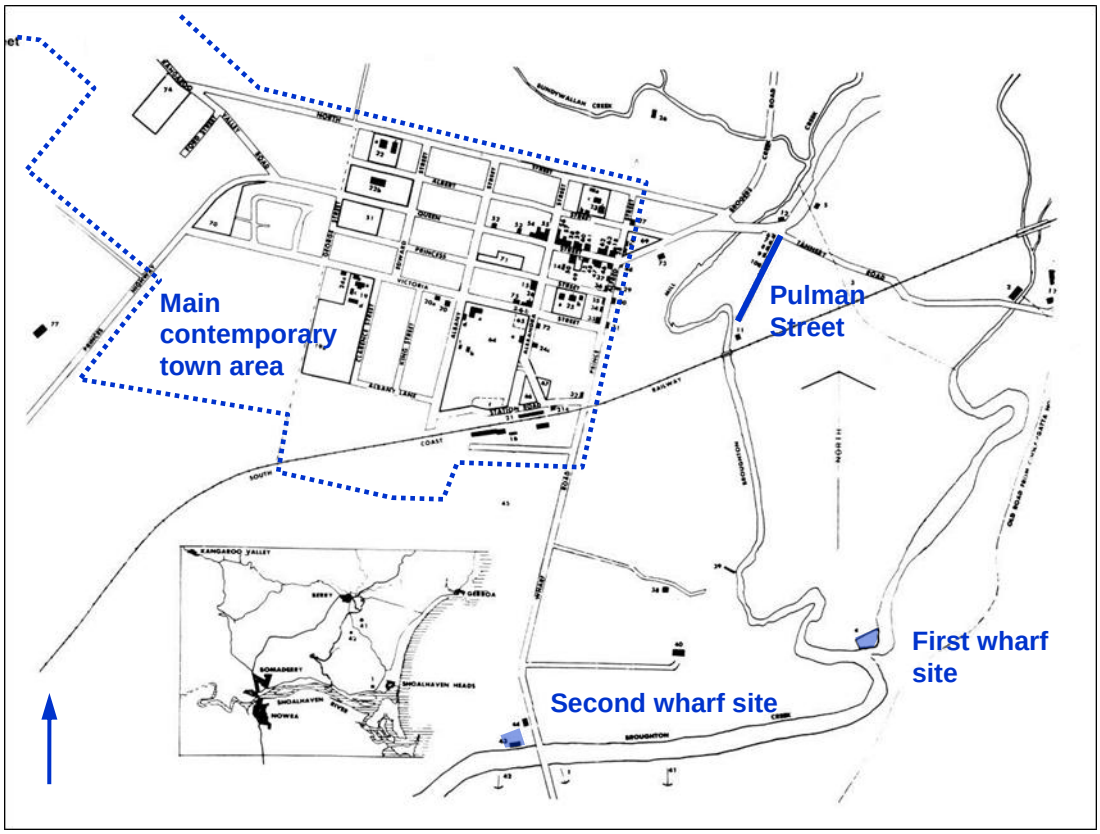


Figure 4.12 Map of present day Berry showing locations of historic sites, including Pulman Street, the tannery and the two wharf sites (after Lidbetter 1993:75)

Broughton Village

Broughton Village is situated on the floor and western basal slopes of the Broughton Creek valley half way between Gerringong and Berry. Today, it consists of a loose grouping of small and larger rural holdings and residences, with no obvious civic centre or buildings. In the past, however, this hamlet included two churches and a school (Elliott 2009).

Since the first land grants on the Shoalhaven, a large rectangular area of land to the west of David Berry's land grant on the upper Broughton Creek was set aside for a village (**Figure 4.13**). The village was surveyed as a government town in 1855 (**Figure 4.14** and **Figure 4.15** Bayley 1975). The surveyed village grid provided for 40 x 2.5 acre blocks and 12 x 25 acre blocks **(Figure 4.14**). Government land sales were held in Kiama in 1856 (Elliott 2009, The Empire 13 June 1856:p4).

A Mutual Improvement Society was established in 1868. A provisional school began in 1867 and became a full public school in 1871 (Fletcher and Burnswoods 1983). The Church of England building was erected in 1872 (Bayley 1975). The formation of the Broughton Village Dairy Company was reported in 1888 (Sydney Morning Herald 15 Sep 1888: p14), and a butter factory was opened in the following year (Bayley 1975:151).

The 1855 town allotment plan shows all but two of the 36 urban allotments owned by George Tate. Tate called his property *The Pines*. An 1873 description of Broughton Village is dominated by the farm of Mr G. Tate, which is described as "*200 acres of fine land, a homestead worthy of inspection and praise… all artificially grassed and cleared – at present devoted to the rearing and fattening of stock"* (Sydney Morning Herald 26 Aug 1873:p3). The 1855 village plan shows a Church situated 110 metres northwest of the current intersection of Thompson Road and the Princes Highway (GDA reference: 294234.6152832). By 1900, George Thompson is noted as the occupier of most of Tate's land holdings in the village (Crown Survey 6721-1603).

The school closed in 1901 (Fletcher and Burnswoods 1983) and the building used as a school of arts (Bayley 1975). Bayley notes that the passing years saw a gradual decline in the village (Bayley 1975:116). The highway bypassed the northern portion of the village grid in 1936.

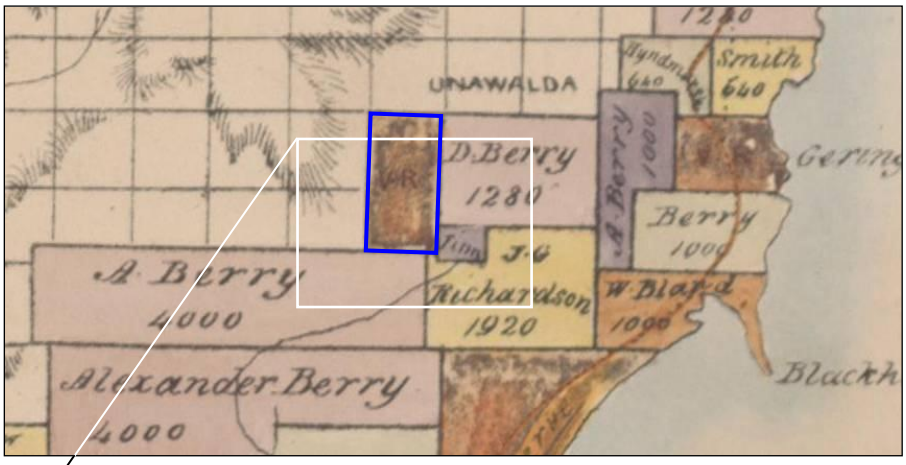


Figure 4.13: Extract from Baker's Australian County Atlas (County of Camden) 1843 – 1846, showing Village Reserve (V.R.) in the area of the future Broughton Village (boundary shown in blue), situated on the edge of the Berry and Richardson land grants. Note the Finn land grant at southeastern end of Village reserve (NLA)

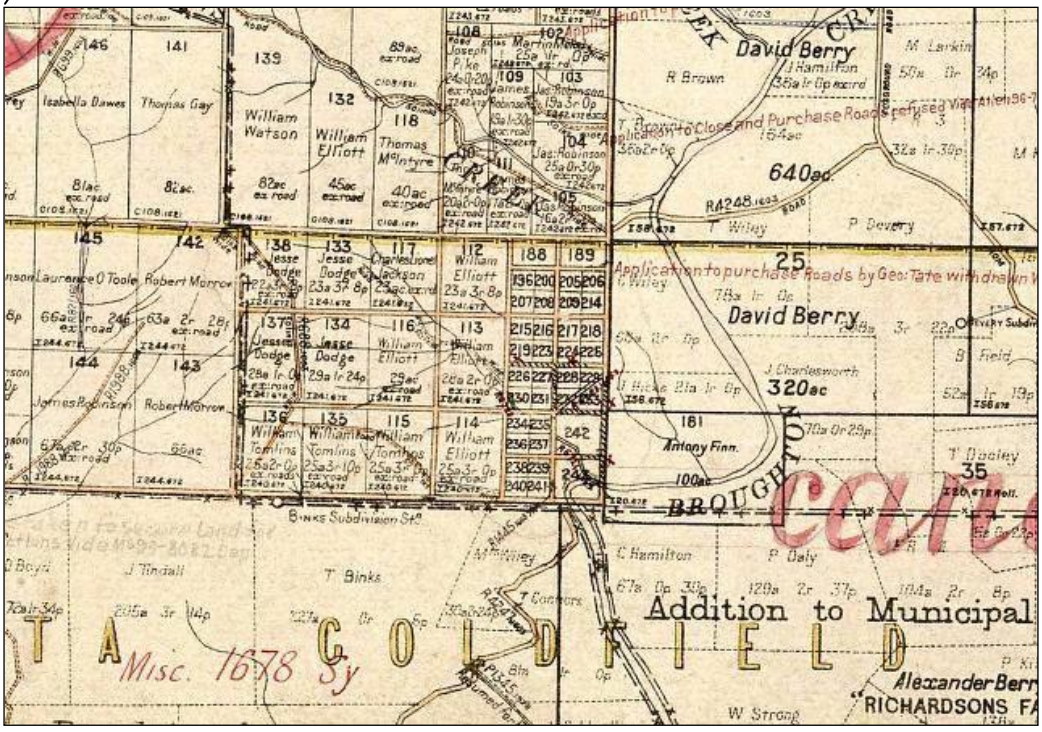


Figure 4.14: Extract from the Fourth edition (1893) of the Parish map for Broughton, County of Camden, showing the area of small land portions adjacent to the Berry land holdings which constituted the Broughton Village (Land and Property Management Authority, Parish Map Preservation Project Image no. 10353801, http://parishmaps.lands.nsw.gov.au/pmap.html)

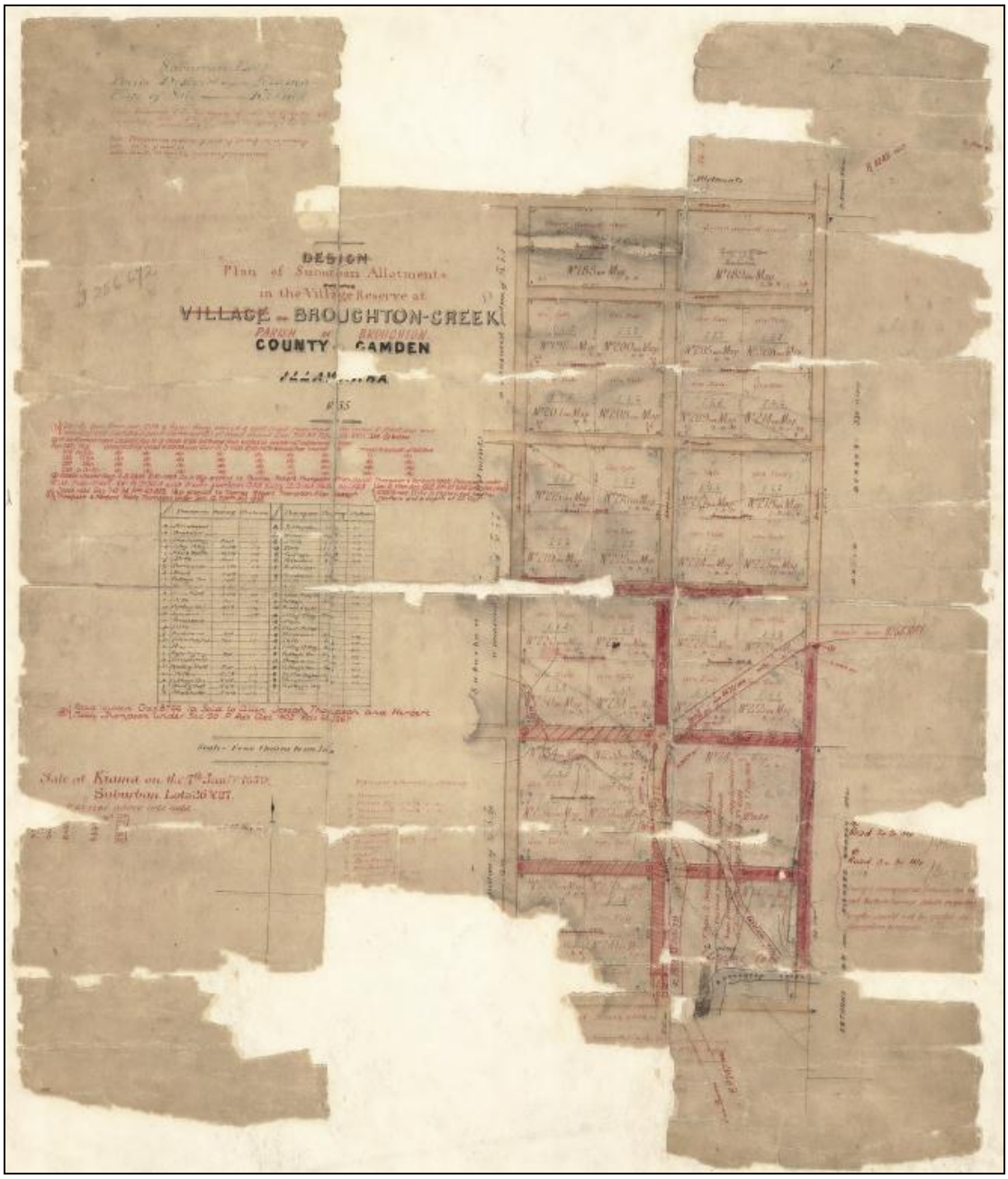


Figure 4.15: 1855 Plan of Subdivision Allotments in the Village Reserve at Village of Broughton Creek (Dept of Lands, Crown Survey 256-672)

4.1.5 The dairy industry

Alexander Berry, being the first in the area to create the concept of a farming village community, also became the first to set up a dairy on the South Coast. Within two years of his arrival, he recorded that, “a shipment of farm produce to Sydney … included in this shipment 78 lbs of butter and 20 cheeses”. So, by the end of 1824 his first dairying trade with Sydney Town has begun.

Within another 10 years or so the dairying herd at ‘Coolangatta’ had increased in quantity and quality. While the first dairy structures were hurriedly installed and crudely made from packed mud, as the brickfield production improved, later buildings were more substantial. A large dairy was developed on his grants south of the river at Jindiandy, close to Upper Numbaa and strategically placed three miles from the river bank so as to reduce the risk from flooding.

After his arrival in 1836, John Berry, who managed the Shoalhaven Estate, changed its emphasis from agriculture to stock breeding and the production of beef. He was said to have lived on horseback and was eventually thrown from his horse on April 15, 1848, dying from injuries four days later. With John Berry’s death and in 1849 the introduction of tenant farmers, the early days of the Shoalhaven being a breeding ground for young stock drew to a close.

Twenty acre plots were leased rent free on the condition that they were cleared and fenced by the end of two to five years. By 1850, the leasing of the Estate started and the tenant farmers began to establish dairying as the chief industry of the Shoalhaven district. By the 1870s most of the cedar had been cut out and the clearing leases had given way to farms - originally for wheat production. Eventually wheat growing was replaced by dairying (Bayley 1975:34-37, Sealy 2000:107).

Bayley (1976: 89) contends that Kiama was the birthplace of dairying in Australia; it was the centre that first tried to export butter to England and it pioneered the system of factory production. A Butter Export Co-operative Co. was formed in 1870 and efforts were made to export butter to London and India, with an initial measure of success. The Kiama Pioneer Co-operative Dairy Factory was officially opened on 18 June 1884 and was the first of its kind in Australia. It was situated near Spring Creek on the Jamberoo Road. A monument commemorating the Butter Factory now stands at that location.

Further south, other dairy factories were established between 1884 and 1894. These were the Kangaroo Dairy Co. (1888) on Sawyers Creek one kilometre south of the Berry Road along Factory Road; the Barrengarry Butter Factory (1888 to 1925); the Kangaroo River Dairy Co. (1890); and the Upper River Butter Factory on the eastern bank 16 km south of the Gerringong Creek junction (1894-1901).

When it was opened in September 1895, the Berry Central Creamery was described as the ‘largest and most complete butter factory in the colony’. At that time it was noted that 1,075 tons of butter were produced annually in the Berry district from 12,800 cattle, the product of which could be treated by the Berry Central Creamery. The registered trade mark was a bunch of berries (Lillipilli). In 1911, a group of dairymen purchased the Creamery from the Berry Estate and formed a co-operative, which subsequently became the Berry Rural Co-operative Society Ltd. The milk market continued to grow and in 1958 butter manufacture ceased. A peak annual milk intake was reached in 1976-77 but a downward trend developed in the 1980s. From 1991, milk was collected from farms in the Cooperative’s tankers and delivered direct to the Australian Co-operative Foods Limited Factory at Bomaderry (Lidbetter 1993:14-15).

The sub-division of the Berry estate over the 40 years following the death of David Berry created many small dairy farms on both sides of the Shoalhaven. Examples of the style of dairyman’s weatherboard house, bails and other outbuildings survive from the period around 1900, such as Knapp’s property at 680 Bolong Road, Bomaderry, conveniently close to a dairy factory and the railhead (Peter Freeman Pty Ltd 1998:23).

During the last decade of the nineteenth century, when Alexander Hay was the Manager of the late David Berry's 'Coolangatta Estate', a more scientific approach was adopted towards dairying in the Shoalhaven. Following an investigative trip to Europe by Alexander, the Trustees of the Estate erected the above mentioned Butter Factory at Berry and established a select herd of imported pure bred dairy cattle on a stud farm at Coolangatta.

At that time, two public institutions of importance to the dairy farmers of the district were established at Berry. At the urging of Alexander Hay, a Bill was passed through the NSW Parliament to vary the will of David Berry to the extent that a Stud Farm and an Experimental Farm should share in the endowment bequeathed by him for a Cottage Hospital established at Berry. That was agreed upon and a transfer of Port Jackson foreshores belonging to the Estate and judged to be equal in value to the endowment was satisfactorily arranged. The Crown then assumed the Trusteeship of all three institutions (the Hospital, Stud Farm and Experimental Farm) and established them at Berry (Antill 1982:355).

The Berry Experiment Farm opened near the river beside the road to Coolangatta in October 1899, being the first of its kind on the coast. It continued under the Department of Agriculture until in April 1934 it was taken over by the Child Welfare Department. It was remodelled with the provision of a dining room, dormitories and other facilities with cottages to house 40 boys to take farm training. In 1939, additional buildings were added, together with more modern farming facilities. In the 1970s the Child Welfare Training Farm closed and re-opened as a holiday home for the underprivileged and was later transferred to the Department of Sport and Recreation (Bayley 1975:206, Berry Museum 2006:2).

In 1903, the Government Stud Farm at Berry was described as, 'the most important institution on the coast from the dairymen's point of view. It is well situated, and is within two miles of the town. On one side it has a mile frontage to the deep, navigable waters of Broughton Creek, and the new Moeyan Bridge connects it with Berry and the railway' (Town and Country Journal, 11 February 1903). The Experiment and Stud Farms were co-located on the east side of the Berry - Coolangatta Road (Wharf Road), either side of Broughton Creek, between one and two kilometres south of the present town of Berry.

In the 1920s, a Pasture Research Unit was established off Wharf Road, Berry, by the Department of Agriculture. In the 1950s, the first Artificial Insemination Breeding Station (AIBS) in New South Wales was established at that location, and in 1958, it was moved to Graham Park, southwest of Berry on the Princes Highway. The AIBS, which was established by the NSW Milk Board, occupied a total area of approximately 75 hectares, including bull yards, buildings and a quarantine area from which the semen collection and processing occurred. In the 1990s, the Centre closed and the buildings were used by Wollongong University, until new premises were built for them in 2000 in Nowra (Berry Museum 2006:2).

4.1.6 The development of the main road between Kiama and Bomaderry

Although not supported by direct European historical observations, it is highly probable that the local Aboriginal people used and maintained trails across the southern Illawarra coastal plain. These are likely to have taken advantage of natural corridors, such as creeks and rivers, ridge and spurline crests, and the elevated ground between swamp basins. Other factors which may have influenced Aboriginal cross-country routes, were the incidence of thick 'brush' or lowland rainforest, and the location of saddles and passes providing passage across the Cambewarra Range (NOHC 2007, 2009a).

The purposes and destinations which would have governed an Aboriginal network of trails would not have corresponded with the differing economic and communication interests of the early European inhabitants. However, it is probable that where Aboriginal trails coincided with European interests, trails would have been used and quickly formalised into bridle trails and later into paths and tracks. There is some limited evidence for this process across the Illawarra Ranges where natural passes and interconnecting routes became important for inland communication, and the movement of stock and early diary produce (Officer 1991a, Griffith 1978).

The first European established roads were most probably sawyers' tracks, which allowed the hauling of felled red cedar logs from the hinterland forests to points of maritime access such as coastal ports and navigable streams. This activity would have commenced with the first cedar harvesting in 1812. Trails are likely to have followed terrain and gradients of least resistance, such as ridge and spur crests, as well as the level ground of the valley floors and associated meadows. Some examples of the informal trails which developed prior to the construction of formal roads are shown on the 1866 County map for Camden (**Figure 4.16** and **Figure 4.17)**.

The regular maritime transport of logs to Sydney provided as a secondary function, a means of transport and communication for European settlement, and the sea corridor dominated regional transport well into the late nineteenth century.

An alternative to inland trails was provided by a rough coastal track which developed informally to link the coastal settlements from Bulli, south to Kiama. The 'track' consisted of a series of headland traverses that allowed access onto the intervening beaches. Creek, river and estuary mouths were a hazard that could be crossed depending on local conditions and the depth of sand barriers.

European settlement followed the initial incursions of the cedar getters, and as this occupation extended beyond maritime access points, centres of habitation became linked by informal trails which developed into tracks with continued use. Following the steady alienation of crown lands via government grants and sales, the use of such early tracks became an increasing source of dispute, across the Illawarra, as the rights of private landholders began to be asserted. Amongst the complaints were those of Alexander Berry who stated that his property was being trespassed upon for want of a proper road (J.M.E. 1951:76). Increasing pressure from landholders to survey and establish public roads resulted in an expedition by Surveyor-General Mitchell which, by 1834, had formalised a road route between Appin and the northern Illawarra via Broughtons Pass and Mount Keira. In addition to a northerly extension to Bulli, the road was extended southwards '*as far as Saddleback Mountain to connect some miles inland with a line marked from Kiama to Bong Bong by Surveyor Hoddle in 1830' (J.M.E. 1951:77).*

Mitchell begged '*to observe that the continuance of a great road further south than the Nurrima Range [Saddleback Mountain] should be considered with reference to the passage of the Shoalhaven River and the best direction for a thoroughfare through the Coast Country of St Vincent'. Mitchell was 'of the opinion that the valley of Broughton's Creek would be the best direction for it to cross*...' (in JME 1951:77).

In 1841 a petition by Gerringong residents to Governor Gibbs stated:

> '*That your Petitioners grievously labouring under the many disadvantages arising from the Want of a practicable Road on the south side of Kiama do humbly pray your Excellency That you may be pleased to allow a continuation of the Jamberoo Parish Road to be surveyed through Kiama as far as Gerringong...'* (in JME 1951:78).

A meeting at Kiama, in 1841, to discuss extending the road from Saddleback Mountain to the Shoalhaven, failed to result in any official action (JME 1951:81). Fifteen years later, in 1856, Surveyor Shone was required to mark a line from Gerringong to Broughton Valley and to report on the expediency of extending the line to Bomaderry. Following further official inaction, Alexander Berry took the initiative, and privately constructed a road across his estate lands from Gerringong to Broughton Creek (Berry) in 1856 and later to Bomaderry by 1858 (JME 1951:81; Cousins 1948:105).

It is this private road that is shown on an 1866 map of the County of Camden (**Figure 4.16** and **Figure 4.17**). The alignment of this road established a transport corridor which has been retained to the present day, with many sections of the Princes Highway retaining the original alignment. The Berry Estate road was distinctive in its use of long straight sections, which often traversed steep spurs and ridges without apparent regard for the consequentially steep gradients. The straight and sometimes steep nature of the road may be explained by:

- The need to minimise length and consequential costs.
- Pressure to establish a road link in a minimal time period.
- The absence of cadastral or land ownership limitations that would otherwise have required deviations and bends.
- The predominant early use of bullock teams to convey produce, and thus a greater tolerance of moderate gradients.

James Wilson is reported to have surveyed and pegged the first "track" from Broughton Creek to the present Foxground area and on to Gerringong (SFHS 2003:vol 2 p.113).

On the 9th August 1858, the *Illawarra Mercury* reported that a road was to be proclaimed from Gerringong to the head of Broughton Creek. It was to be maintained at the expense of the parishes which it traversed. Bayley (1975) notes that the road from Gerringong to Broughton Creek was gazetted by the government in 1858 and Berry sent men to open the road from Gerringong to Bumaderry Creek (Bayley 1975:51).

In August the following year the *Illawarra Mercury reported* that:

> *'Mr. David Berry is also busy in the march of progress. He is opening the new road from Bumaderry [Bomaderry] to Broughton's Creek, and from the number of men employed quarrying stone, and brick making at Bumaderry, Mr. Berry appears at last to have an eye to the future advancement of the district.' (8th August 1859).*

In September 1859 a Municipal Council of Shoalhaven was proclaimed and meetings of elected councillors commenced. Alexander Berry however objected to the inclusion of his estate lands within the boundary of the municipality, and following both a Supreme Court injunction and an appeal to the Privy Council, the area was declared illegal in 1865 and the Council become defunct.

On the 8th December 1859, the *Illawarra Mercury,* reported on the unanimous passing by Council of 'a resolution of Mr. Bice, 'as to the necessity for the immediate survey of the road from Bomaderry to Kiama,' which is very important to the district...'.

In the early 1860s the government provided 140 pounds to be spent on the road between Kiama and Broughton Creek, roughly ten pounds per mile (Cousins 1948:232).

Antill (1982) states that the road from Broughton Creek to Bomaderry was completed and opened for use in July 1869, despite many potholes left by the removal of tree stumps. Bridges over the creeks on the new road between Bomaderry and Gerringong were completed in October (Antill 1982:82).

Prior to Berry's Estate road via Broughton Creek, terrestrial travel southwards had been via Seven Mile beach, with a crossing of the Crooked River near modern Gerroa. Further travel was via the north bank of the Shoalhaven, past Berry's Coolangatta homestead, to a ferry crossing at Numbaa. Following the completion of the Berry Estate road, the ferry service was moved to Bomaderry. A government ferry commenced operation at the Bomaderry crossing in May of 1866 (Shoalhaven Heads website).

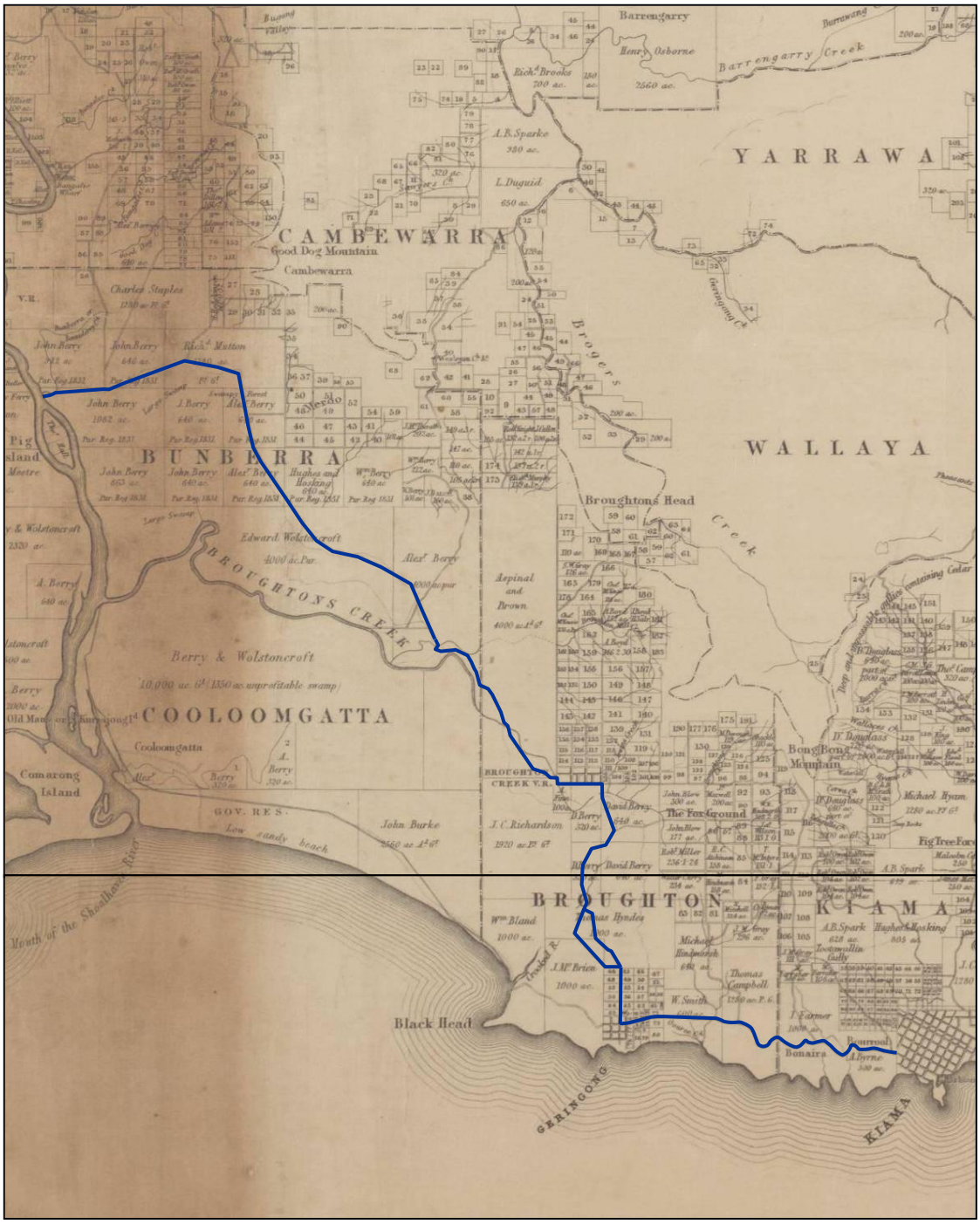


Figure 4.16: Extract from an 1866 map of the County of Camden, showing the location of roads between Kiama, Gerringong, Broughton Creek (Berry) and Bomaderry, highlighted in blue. Note the alignment of the Berry Estate Road between Gerringong and Bomaderry which comprises many straight sections with minimal bends and deviations (County of Camden, New South Wales, 1866 compiled by Messrs Braddock & Baly, & engraved by John L. Ross. National Library of Australia 1866. MAP RM 1798. Part 2; http://nla.gov.au/nla.map-rm1798-s1-sd-cd)

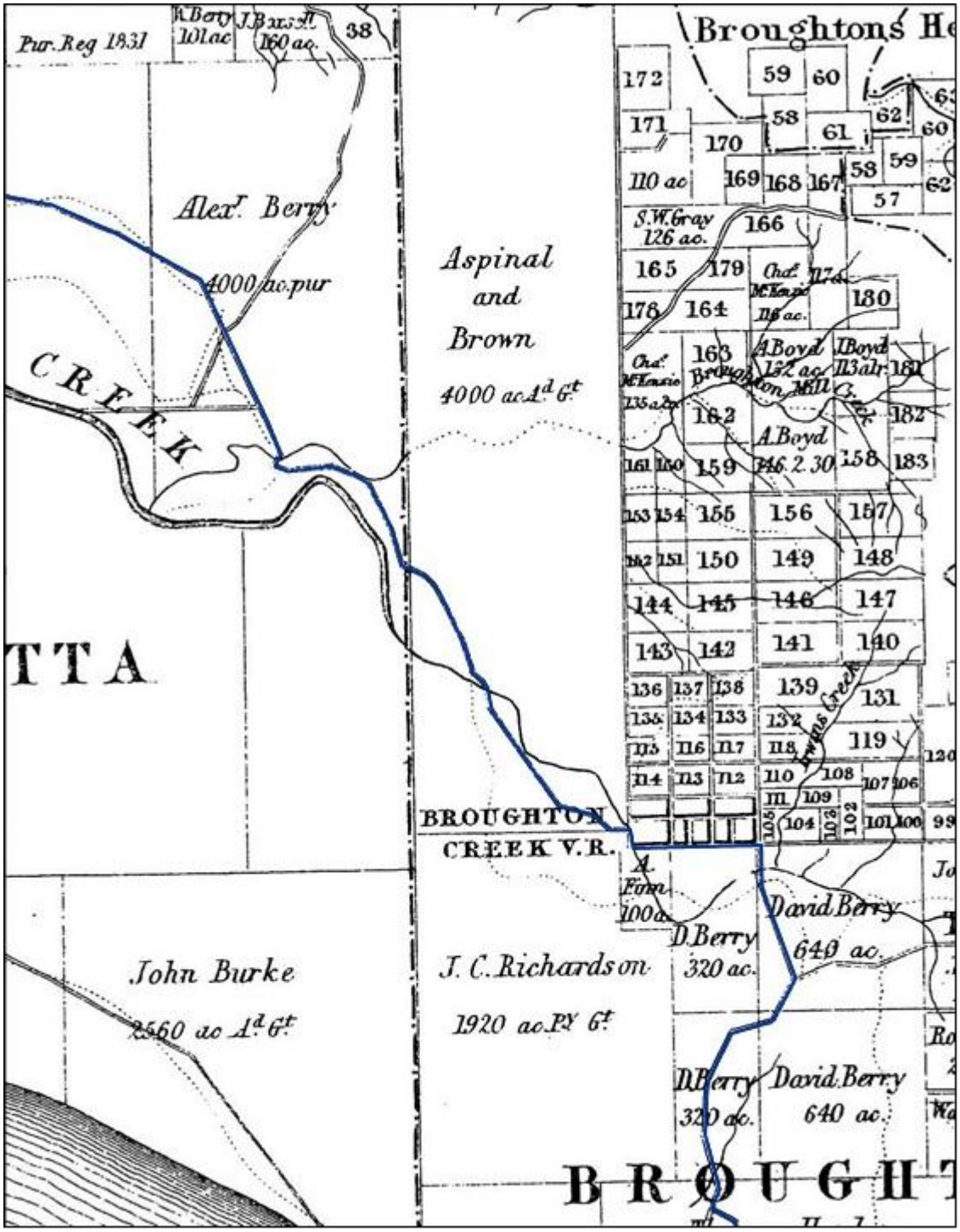


Figure 4.17: Enlarged detail from extract of 1866 map of the County of Camden, showing the location of tracks (black dotted lines) and roads (continuous black lines) in the vicinity of the project. Note the location of the original Berry Estate road (blue overlay) which approximated the alignment of the current Princes Highway and the FBB (County of Camden, New South Wales, 1866 compiled by Messrs Braddock & Baly, & engraved by John L. Ross. National Library of Australia 1866. MAP RM 1798. Part 2; http://nla.gov.au/nla.map-rm1798-s1-sd-cd)

Following the cessation of the Shoalhaven Council, two alternative Municipalities of Numba, (south of Shoalhaven) and of Broughton Creek and Bomaderry (north of the river) were proclaimed in 1868. Many of the roads and bridges constructed by the Berry Estate served as the region's main transport corridors, and consequently came under the jurisdiction of the new Councils. These roads were proclaimed, prior to the Councils commencing systematic clearing and stumping, together with the construction of small bridges and culverts. Much of this work had to be done on the Gerringong road and contracts were let in different sections, some at 15 shillings, some at 17 shillings and some at 19s 6d, a chain. Bridges across some of the creeks were also constructed, one for 23 pounds 7s 6d, and another for 16 pounds (Shoalhaven News in Cousins 1948:266; JME 1951:81).

In 1872, a correspondent to *The Sydney Mail* described the road in the following way:

> *'The road from Jerringong to Broughton Creek is a very hilly one, and, in parts, rough and unformed, though much has been done towards the making and completion of it; and the bridges and culverts are as excellent as they are numerous. Almost the whole of it runs through Mr Berry's estate, over ridge and valley, among pasture farms and comfortable homes, and by tall dead trees rising against the sky, white and ghastly, but relieved by the waving plumes of the cabbage trees that are largely intermixed with them...'*
>
> *'.. and a good deal of "corn" is grown in places; but from the crossing at Upper Broughton Creek until a view is gained at the big rich valley of Broughton Creek proper, few homesteads are visible. The "bush' is still in a comparatively wild state, though there are "clearings" on either side that cannot be perceived from the road.'*
>
> *'...From Broughton Creek to the Shoalhaven at Bomaderry ferry, the road is still less formed than that leading to the Creek; but it has the advantage of being comparatively level, and is in course of improvement, It is lined almost throughout with splendid trees, straight as a ship's mast, and far taller; the size and closeness of these make the task of clearing the land a very heavy one; but even here there are "clearings" and some of the most luxuriant corn in the district.' (The Sydney Mail May 4 1872:p558).'*

The first road constructed by the Broughton Creek and Bomaderry Council was a new line between Broughton Creek (Berry) and Broughton Village in the late 1870s. The new alignment was laid to avoid many of the steep gradients involved in the original alignment which was laid out by Surveyor Mann. Once abandoned, the old alignment was known as "Mann's Folly" (Bayley 1975:131). The works continued to the end of 1877 and included the construction of bridges, culverts and drains. The new road was reportedly surveyed by the Council's Mayor, James Wilson (Robson and Knevitt 2008:9).

In September of 1874 *The Sydney Mail* noted that Mr Morton, an agent to Mr David Berry, met with the Mayors of Broughton Creek and Broughton Vale, 'to mark out and define the lines of road, recently very kindly granted by Mr Berry'. One of the lines is described as 'serviceable for such as have business to Gerringong and Kiama' and almost certainly refers to the estate road initially established in the 1850s.

By 1878 it was reported that:

> *'The Broughton Creek Municipal Council is forming a very good, though circuitous road between Broughton Village and Broughton Creek. There is about twelve chains of road, known as Tates Hill, under the control of the Gerringong Council urgently needing attention.' (Sydney Morning Herald May 4 1878:619).*

The first bridge over Broughton Creek is thought to have been constructed at about the same time, in the 1870s (BDHS website), with a subsequent timber truss bridge probably being erected in the 1890s (RTA s170 register, Broughton Creek bridge citation). However a news article in May 1878 notes that 'the Broughton Creek bridge is dangerous and needs extra support so also does the bridge at Broughton Village; if a flood occurs, both will most likely be swept away' (Sydney Moring Herald May 4 1878:619). A news item in the Sydney Morning Herald on August 27 1889 notes the final availability of funds from the Department of Works for the proposed bridge over Broughton Creek, just north of Broughton Village.

Figure 4.18: "A Sketch of the Broughton Creek Road" (Illustrated Sydney News 21 November 1885:p14 & 16), " not far distant from Broughton Creek [Berry]"

The second main road bridge to span Broughton Mill Creek at Broughton Creek (Berry) was opened in 1888 at a cost of 1856 pounds (Bayley 1975:136; Shoalhaven Heads website).

In August 1888 The Sydney Morning Herald reported that the Minister of Works had assured the Gerringong Municipal Council that a sum of 1000 pounds would be provided, and that:

> *'...on the strength of that assurance an important piece of work at the place known as Brown's Hill will be commenced forthwith. The Brown's Hill is the only acclivity of much importance on the main road between Broughton Village and Gerringong, and when the proposed improvements are erected this line of road will be one of the best on the South Coast, the Council having recently made two or three similar alterations at a cost of several hundred pounds, where the hilly nature of the country presented difficulties to travellers' (Sydney Morning Herald Aug 11 1888:312).*

In January 1889, the Department of Works granted the Gerringong Municipal Council 500 pounds to recoup in part 'money expended with carrying out certain deviations on the main road between Gerringong and Broughton Vale' (Sydney Morning Herald Jan 29 1889:7).

In July of the same year it was noted that the Department of Works:

> *'was about to commence the erection of a bridge over the creek north of Broughton Village, for which a special sum of one thousand pounds was voted some time since. The new bridge is not to be on the present main road but some distance down the creek, which will necessitate the making of about a mile of new road by which the worst hill between Gerringong and Berry will be avoided' (Sydney Morning Herald 16 Jul 1889:p7).*

In the following year it was noted that 'the survey and plan of the proposed alteration in the main south road near Broughton Village will soon be completed (Sydney Morning Herald May 10 1890:1060).

In the period between Berry's original construction of the estate road from Gerringong to Bomaderry in the late 1850s, and the 1890s, the further development of the road by the local Councils resulted in a longer and more angular alignment, involving switch-backs and deviations around spurs. This is evident in a comparison of the 1866 and 1895 County Maps (**Figure 4.19** to **Figure 4.22**). The elaboration and revision of Berry's originally straight alignments appears to have been a consequence of establishing more gradual grades, suitable for horse drawn vehicles, and complying with various farm boundaries and related cadastre. By this time, most of the latter were now freehold title following the break up and sale of the Berry Estate.

Following the death of David Berry in 1889, the estate passed to his cousin John Hay. Hay developed a formal street grid for the town of Broughton Creek in the 1880s, on the western side of Broughton Mill Creek. This was surveyed in 1879 and well established by 1890 (Cousins 1948:262; RMS s170 register, Broughton Creek bridge citation). This provided for the future growth of the town beyond the limited area on the east of the creek where the original town had developed around the Pulman Street ridgeline (refer **Figure 4.10** and **Figure 4.11**). The new grid was orientated slightly differently to the existing emergent streetscape, and this resulted in many buildings being misaligned, necessitating their movement or realignment to the new pavements (Lidbetter 1993:19). Another consequence was that the existing road to Bomaderry which lead away from the town in a straight south westerly trajectory would be truncated by the new grid, and a new approach road would have to be developed at the north western corner of the grid. The current highway alignment follows this late nineteenth century revision (**Figure 4.23**).

In 1912 M.F. Morton officially opened a new replacement bridge over Broughton Mill Creek (Bayley 1975:168, Sydney Morning Herald 17 Aug 1912:p6).

The approximate route of the current Princes Highway was declared the 'Main South Coast Road' through the Local Government Extension act of 1906. However, in 1920, during a visit to Australia of the Prince of Wales, the National Roads Association secured approval from the Prince to name the coastal road after him. An opening ceremony was held at Bulli on 19 October 1920. The road was formally proclaimed the Prince's Highway (State Highway No.1) in 1928 under the *Main Roads Act*.

Figure 4.19 **Extract of an 1895 map of the County of Camden, showing the road between Gerringong and Bomaderry. Note how the development of the road by local councils, and following the break-up of the Berry Estates has introduced numerous bends and irregularities from Berry's original alignment (Map of the County of Camden, Eastern Division, NSW 1895 / compiled, drawn and printed at the Department of Lands, Sydney NSW. 24th June 1895. National Library of Australia http://nla.gov.au/nla.map-f262)**

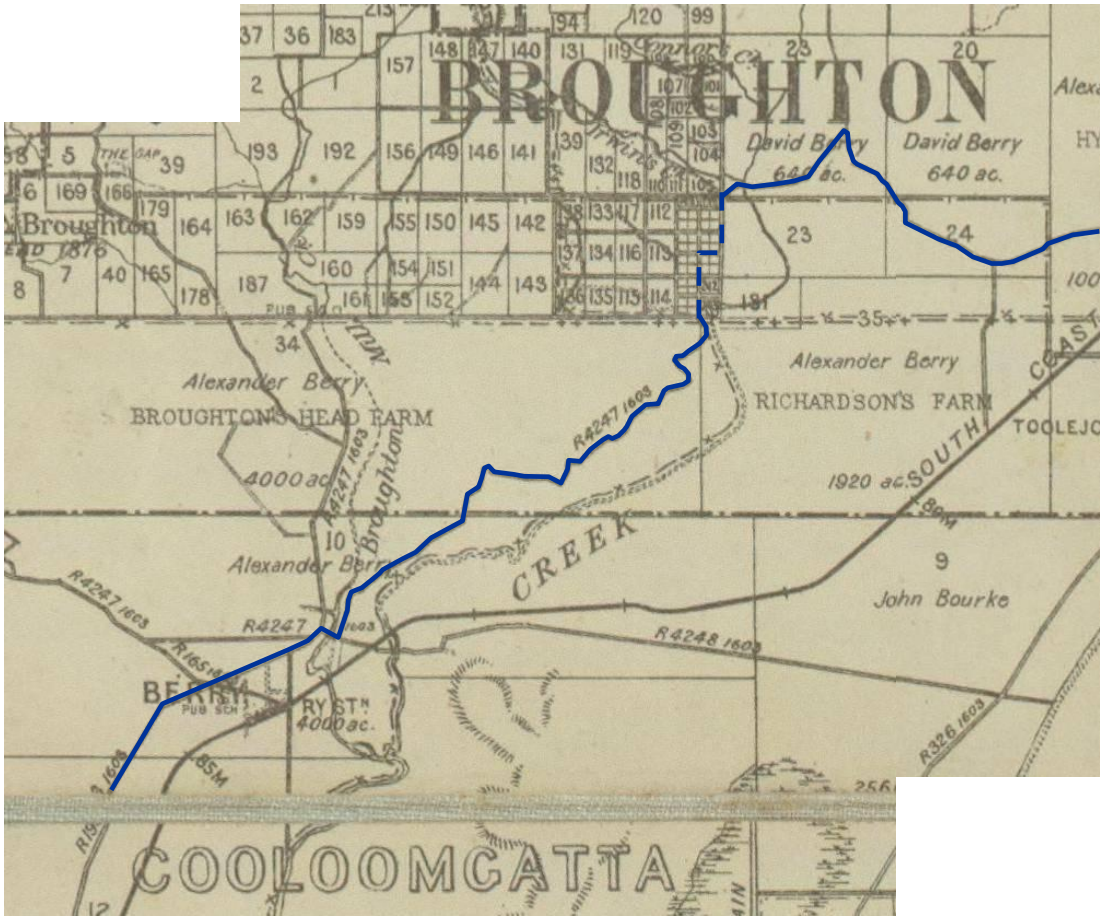


Figure 4.20: Enlarged detail from extract of 1895 map of the County of Camden, showing the location of the roads between Kiama, Gerringong and Broughton Village, the vicinity of the project

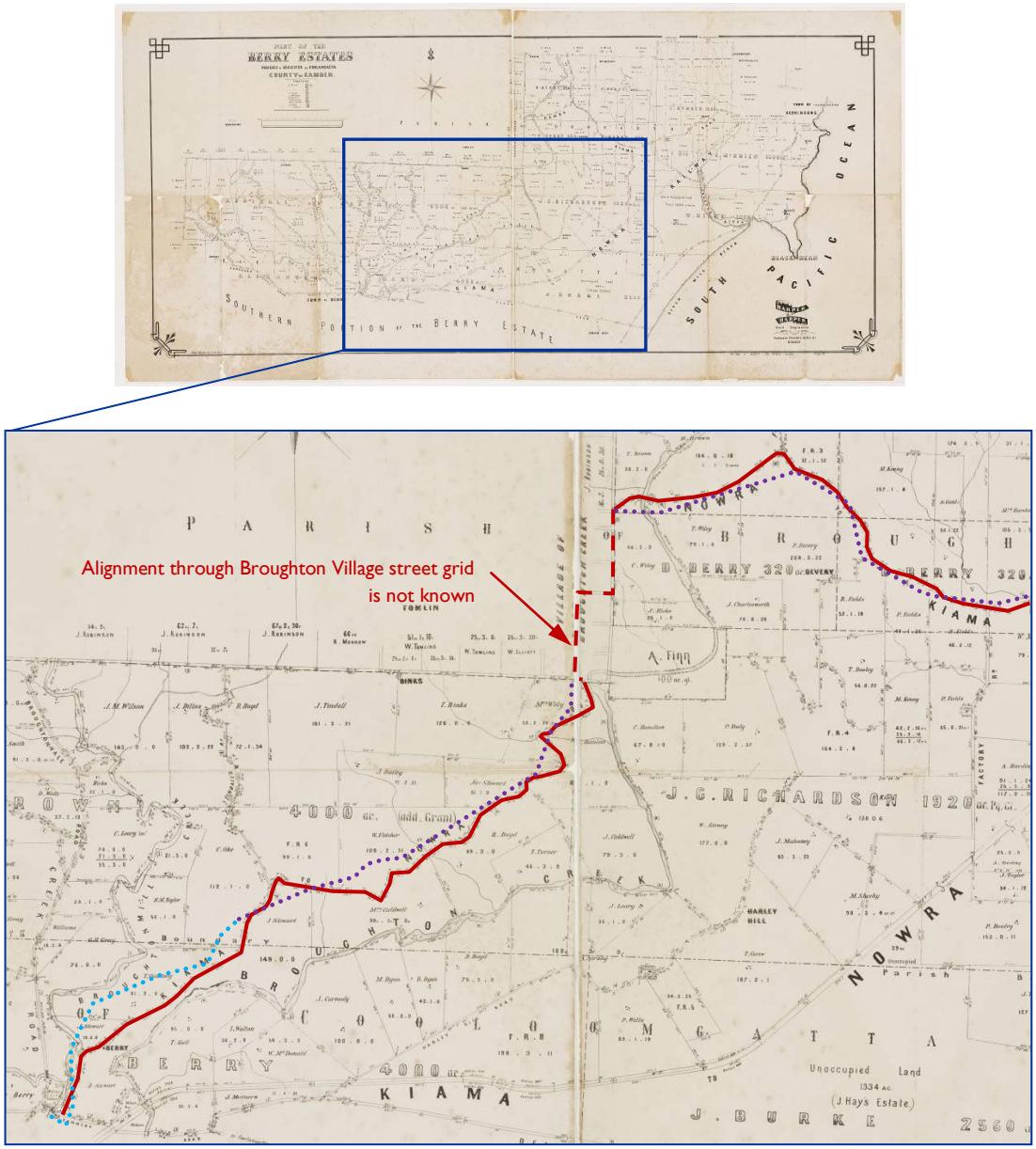


Figure 4.21: Extract from an early 1890s map of 'Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden', The map records the boundaries of former tenant farms, their associated homesteads, and the road between Gerringong and Berry (highlighted in brown). The dotted line is an approximate overlay of the road shown in the 1866 County map, and presumed to be the estate road constructed by Berry in the 1850s (Figure 4.16 and Figure 4.17). Note that the 1890s road avoids higher gradient slopes, and deviates around cadastral boundaries (Map printed by Gibbs Shallard & Co. Sydney for Harper and Harper Civil Engineers, original at State Library of New South Wales, M_Ser4_000_1_MLMSS315_Map 17).

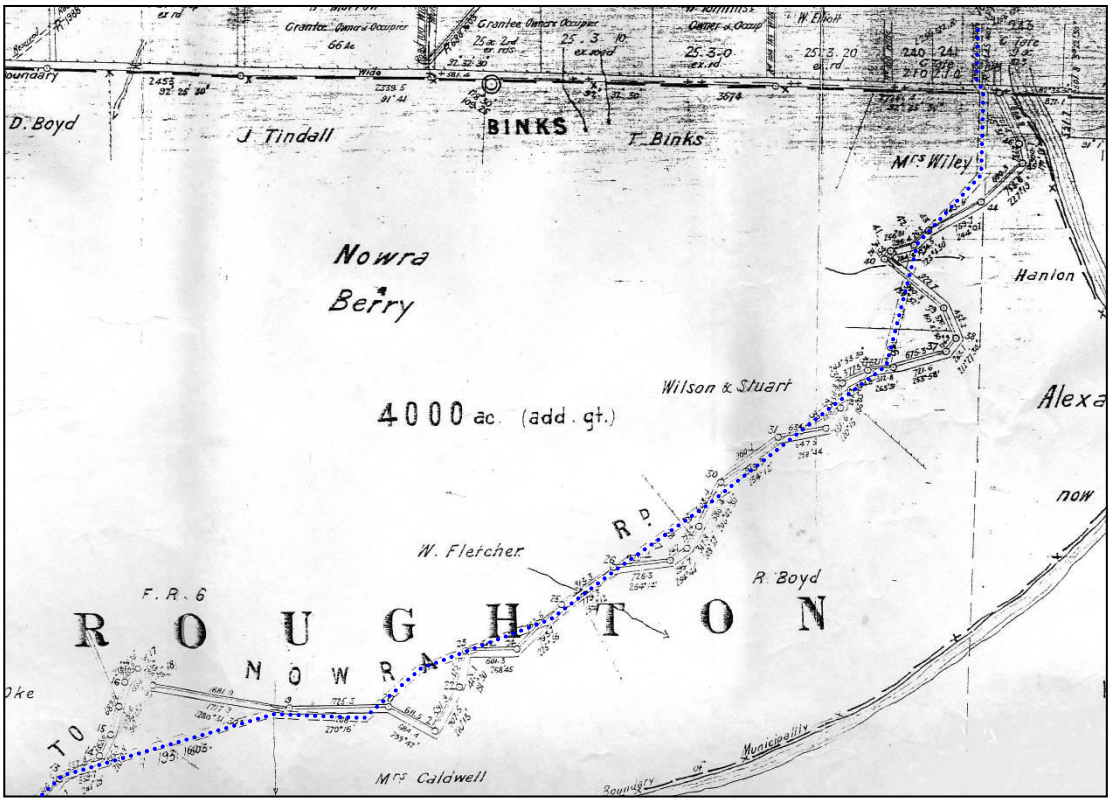
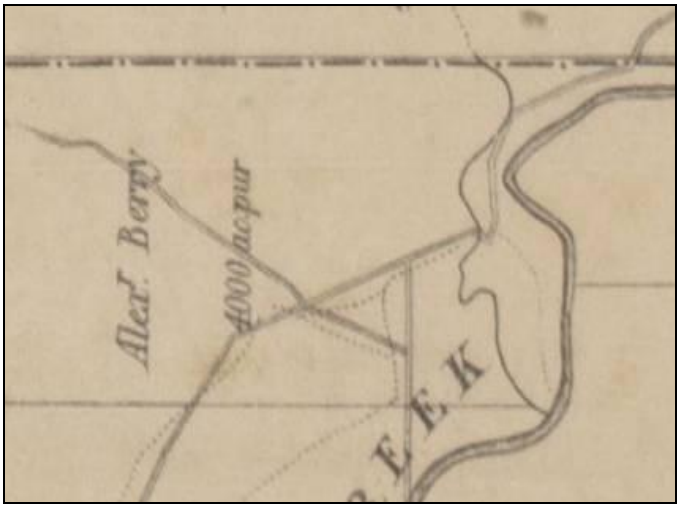
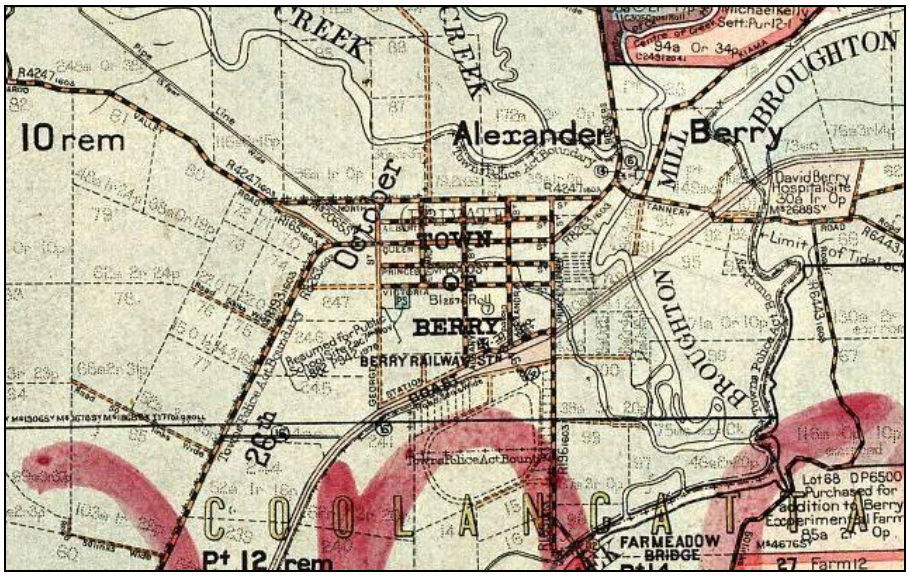


Figure 4.22: Extract from 1892 plan of 'Roads in the Berry Estates' showing interrelation of original 1856 Berry Estate road (blue dotted line overlay), and the later 1870s onwards highway alignment, between Binks Corner (Upper right) and Tindalls Lane intersection (lower left). (Courtesy of Mr Phil Bragg, Broughton).



County of Camden 1866

County of Camden 1895



Parish of Coolangatta 4th Ed

Figure 4.23: Extract from County and Parish maps showing the change in the orientation of the main south road through Broughton Creek (Berry), from a southwest to an east-west alignment occasioned by the establishment of a street grid in the 1880s.

From the passing of the *Local Government Act* in 1906, road maintenance and improvements were the responsibility of local Councils. This meant that highway works were uncoordinated and tended to be local in nature, and driven by local needs. Many of the municipalities along the road depended heavily on the volunteer support of local landholders in the upkeep of the road. The construction of bridges was the responsibility of the Department of Public Works. Following the Main Roads Act in 1924, the formation of the Main Roads Board in 1925 marked the beginning of an integrated approach to highway maintenance and reconstruction. At its formation, the Board found that the highway through the Shoalhaven area consisted of gravel, broken stone or plain earth surfaces (Bayley 1975:178). The Board immediately embarked on a Statewide programme of improving roads to a standard to suit high speed automobile traffic. The Board first arranged with a number of Councils for the urgent reconstruction or construction of portions of the Highway, and later assumed full responsibility for the whole length of the Highway to the Victoria border (excepting a short section through Wollongong), a length of around 342 miles.

Outside of new and reconstructed portions, a program of gradual improvement was pursued, funded by annual maintenance and improvement budgets. This program included works such as widening of existing formations and pavements, improvements to crests and curves, elimination of V-gutters by the construction of culverts, erection of safety fencing, guide posts, and the strengthening of pavements. By December 1932 the highway between Sydney and the Shoalhaven had been improved and most sections surfaced with a bituminous macadam. By 1951, the Highway had a continuous bituminous surface from Sydney to Moruya (JME 1951:84; OzRoads website; RMS s170 Broughton Creek bridge register).

Unemployment relief work was undertaken along the highway during the 1930s. The lookout at Mount Pleasant was constructed in 1935. In 1935-6 a new concrete bridge was constructed over Broughton Creek, on a short deviation, 650 metres downstream of the original timber structure **(Figure 4.24**). The cadastral street grid of Broughton Village was largely bypassed by the new alignment (**Figure 4.25**).

Figure 4.24: 1937 Photo, looking south, across the Broughton Village bypass, showing the original road alignment on the right (middle portion of photo), and new alignment and Broughton Creek bridge on the left (middle portion of photo) State Library of New South Wales.

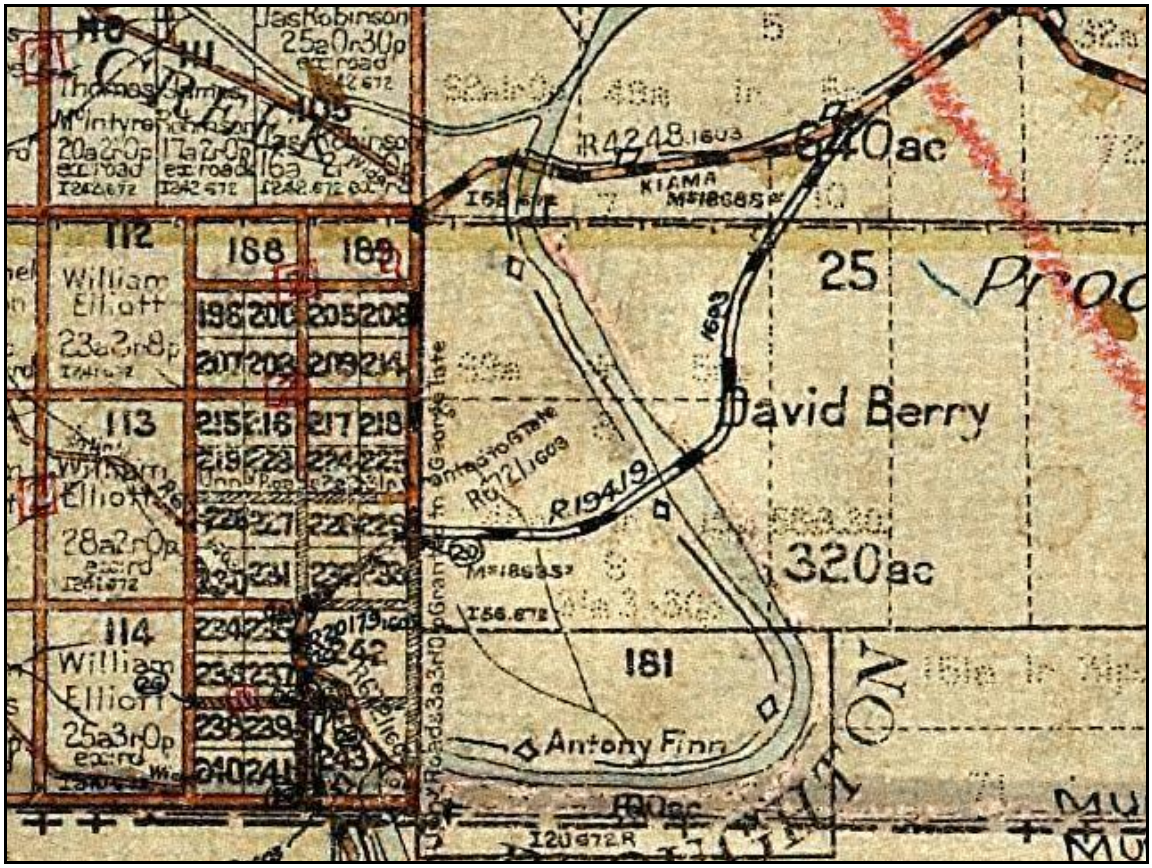


Figure 4.25: Extract from the sixth edition of the 6th Ed Broughton parish map, showing the new 1936 highway alignment which bypassed most of Broughton Village and required the construction of a new bridge.

1936 also saw the completion of a 1.7 kilometre deviation through steep country to the south of the creek **(Figure 4.26**, **Figure 4.27** and **Figure 4.28**). This section included what is now known as 'The Big Dipper', and cut off a tight bend known at the time as 'Binks' Corner (OzRoads website; Parish map of Broughton 6th edition 1916-1938).

Photos in the collection of the Berry and District Historical Society are referenced as depicting road construction at the big dipper around 1918 (refer **Figure 4.29** and **Figure 4.30**). This date is contrary to the documentary record of highway works, but appears consistent with the technology depicted - horse drawn carts and possibly also pneumatic drills (c.f. Lees n.d.). Potential explanations are that: the recorded location or date is wrong; or these excavations occurred prior to the 1936 deviation; perhaps as part of the 1870s construction of the Berry to Broughton Village road. The latter option would depend on the identification of pneumatic drills in the photos being incorrect.

The reconstruction of the highway was halted in 1941 due to the onset of war in the Pacific, with funds and manpower being transferred to major defence routes. One of these was the Mount Ousley Road which provided an alternative descent of the Illawarra Escarpment (OzRoads website). 1941 also saw the possessive form removed from the Highway name, which became simply the 'Princes Highway' (OzRoads website).

In 1954 the highway was included in the National Route system as part of National Route 1. Signage was erected along the length of the highway during June 1955 (OzRoads website).

Figure 4.26: View looking south across a straightened alignment of the Princes Highway, south of Broughton Village, completed in 1936. This road section is known locally as the 'Big Dipper' (State Library of NSW d1_27129r)

Figure 4.27: 'Binks Corner - old abandoned roadway 1937'. The section of former highway was bypassed by the new alignment pictured above in 1936. (State Library of NSW d1_27130r)

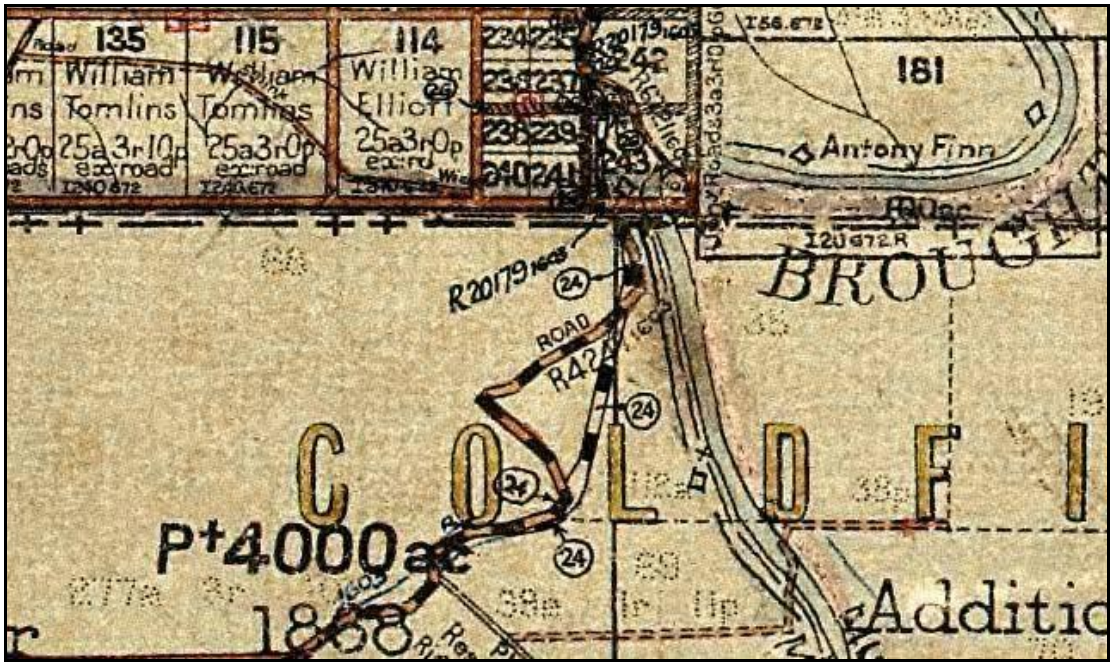


Figure 4.28: Extract from the parish map of Broughton (7th Edition) showing the deviation cutting off 'Bink's corner'

Figure 4.29: Road construction ca. 1918, stated to be in the area of the 'Big Dipper'. Note the apparent depiction of pneumatic drills by the two figures on the left embankment (National Library of Australia nla.pic-vn4607502-v)

Figure 4.30: Road construction at the 'Big Dipper'. This view has been taken of the same cutting, slightly higher and upslope of the picture above. (From collection of Berry and District Historical Society)

In 1955 an inspection of the Broughton Mill Creek Bridge at Berry was made by an appointed administrator of the Shoalhaven Shire, Keith Hawkshaw, who called for a report from the Council engineer on an innovative design of pile for a new bridge. Due to the difficult approach to the bridge, many accidents had occurred. Hawkshaw agreed with Berry residents that actions were required. A new concrete bridge on a new alignment was opened in 1958 (Bayley 1975:213; Robson and Knevitt 2008:48-49).

The 1960s brought the completion of the reconstruction and sealing plan that had been started in 1925. The bitumen finally reached the Victorian Border in 1965.

In 1980, a new three-lane bridge to carry northbound traffic was constructed immediately upstream and adjacent to the 1881 Shoalhaven River steel truss bridge which continued to carry two lanes of southbound traffic. The new bridge cost 2.9 million dollars.

In 1989 the roundabout at the intersection of the Princes Highway and Moss Vale Road (SR79) was installed.

Dual carriageways were completed through Bomaderry in December 1993.

4.2 Cultural heritage studies and inventory of listed heritage items

4.2.1 Statutory and non-statutory registers

The following statutory and non-statutory registers were searched for this assessment (updated July 2012):

Statutory listings:

- World Heritage List.
- The National Heritage List (Australian Heritage Council).
- The Commonwealth Heritage List (Australian Heritage Council).
- The State Heritage Register (NSW Heritage Branch, Office of Environment and Heritage).
- Section 170 Heritage and Conservation Register compiled by the RMS.
- Section 170 Heritage and Conservation Register compiled by Rail Corp.
- Schedule 7 (Heritage Conservation) Shoalhaven Local Environmental Plan 1985 (with amendments as at 21 Oct 2011).
- Schedule 5, Part 1 (Heritage Items, Environmental Heritage) Kiama Local Environmental Plan 2011 (as at 16 Dec 2011).
- Schedule 1 (Items of Environmental heritage) Illawarra Regional Environmental Plan No.1, gazetted 1986 and now deemed a State Environmental Planning Policy, (as at 7 Jan 2011).

Draft statutory listings:

- Schedule 5 (Environmental Heritage) Draft Shoalhaven Local Environmental Plan 2009.
- Kiama Heritage Inventory, Draft Kiama Local Environmental Plan 2010.

Non-statutory listings:

- The Australian Heritage Database (Department of Sustainability, Environment, Water, Population and Communities).
- The State Heritage Inventory (NSW Heritage Branch, Office of Environment and Heritage).
- Australian National Shipwreck Database (Department of Sustainability, Environment, Water, Population and Communities).
- The Register of the National Estate (Australian Heritage Council).
- Shoalhaven Heritage Inventory (includes data sheets on LEP listed items together with non listed items identified in previous Heritage studies and reports).
- Register of the National Trust of Australia (NSW).
- Australian Institute of Architects, Heritage Buildings List.
- Engineers Australia (Engineering Heritage Recognition Program).
- Royal Australian Institute of Architects Twentieth Century Register of Significant Buildings.

The searches found eight heritage items within 200 metres of the project which are included on existing statutory registers (refer **Table 5.1**). These are:

- The existing Princes Highway Broughton Creek bridge listed on the RMS section 170 Heritage and Conservation Register (identified as G2B H29 in this report).
- Six items are included on the Heritage Conservation Schedule (Schedule 7) of the Shoalhaven Local Environmental Plan (1985, with amendments as at 21 Oct 2011):
  - Avenue of Nine Poplar trees on Woodhill Mountain Road, Berry (identified as G2B H62 in this report).
  - *Mananga* Homestead and property, Berry (identified as G2B H16 in this report) .
  - Uniting Church Hall, Berry (identified as G2B H58 in this report).
  - St Patrick's Church, Convent and grounds, Berry (identified as G2B H47 in this report).
  - Mark Radium Park, Berry (identified as G2B H63).
  - Glenvale Homestead and property, Broughton identified as (2B H45 in this report).
- A dry stone wall located on Toolijooa Ridge (G2B H54), may be included within defined heritage schedule items in the Kiama LEP 2011 (Schedule 5, Part 1, Environmental heritage), and the Illawarra Regional Environmental Plan No.1 (Schedule 1, Items of environmental heritage). The LEP includes 'dry stone wall categories for the districts of Foxground (I28) and Kiama (I64), and the REP includes one item defined as 'dry stone walls, Jamberoo, Dunmore and Foxground Area, Kiama'). The inclusiveness of the Schedule definitions is open to debate, however the Kiama Municipal Council assume the REP listing is inclusive of all dry stone walls within the Kiama Local Government Area.

A revision of the Shoalhaven Local Environmental Plan is currently in progress by the Shoalhaven City Council. Public exhibition of a 2009 draft ended in October of 2011 and a revision for re-exhibition is currently in preparation. Schedule 5 (Environmental Heritage) of the Draft Shoalhaven LEP 2009 included the same items as those listed above and did not include any new proposed listings relevant to the project.

Both the Kiama Municipal Council and Shoalhaven City Council compile and maintain heritage inventories, based on NSW Heritage Branch software and data sheet proformas. Neither constitutes a statutory listing and entered items may be based on various received sources although most have been generated by previous Heritage Studies. The inventories serve to inform planning and management actions, but do not infer or define statutory constraints on included items. All or part of the current Kiama Heritage Inventory is included with Schedule 5 of the Kiama LEP 2011. The Shoalhaven Heritage Inventory contains many entries which are not included within either the current 1985, or Draft 2009, Shoalhaven LEP.

Three items are included on non-government registers with no statutory role. Two of these relate to the Berry District Landscape Conservation Area which is a broad scale, landscape based recording, originally defined by the National Trust of Australia (New South Wales). It is listed on the Trust's Register, and was also placed on the Register of the National Estate as an Indicative Place.

A recent addition to the Register of the National Trust is the Berry Township Urban Conservation Area. This listing incorporates three levels:

- A broad scale visual boundary which adopts the regional boundary of the Berry District Landscape Conservation Area.
- A subdivision boundary which relates to the closer urban settlement of the nineteenth century Berry town grid.
- A buffer zone which seeks to protect the immediate rural setting of the urban grid (Clark and Duyker 2010).

The *Mananga* homestead is included on the Royal Australian Institute of Architects 20th Century Register of Significant Buildings (no. 47022656). It is identified simply as a residence on the Princes Highway, with an approximate date of 1910. The presence of very elaborate gable treatment to the southern verandah is noted. This site is also on the Shoalhaven LEP Heritage Schedule.

For detailed descriptions of these recordings please refer to the relevant sections in Appendix G and to register extracts provided in Appendix B.

Table 4.1: Listed heritage items by type and individual heritage schedule, located within or near (within 200 m) the project. (Note, that items on the Shoalhaven Heritage Inventory (ShHI) are only shown on this table if also included on a statutory listing, refer section 4.2.2 for all relevant ShHI listings)

Item			Statutory and draft Statutory listings						Non-Statutory listings				
Project ID	**Name**	**Location**	**HR**	**RTA s170**	**Illaw. REP 1986**	**Shoal. LEP 85**	**Draft Shoal. LEP 2009**	**Kiama LEP 2011**	**RNE**	**SHI**	**NT (NSW)**	**RAIA**	**ShHI**
Equivalent to SICPH CL	Berry District Landscape Conservation Area (BDLCA)	Embraces the coastline south of Kiama some 30 km southward to Greenwell Point, the undulating coastal plain and the flood plain on both sides of the lower Shoalhaven River and including the steep, benched slopes rising up to the escarpment of the Illawarra plateau.							✓ (IP)		✓		✓
Equivalent to SICPH CL	Berry Township Urban Conservation Area	Three levels: *Visual boundary* - equates with BDLCA above. *Subdivision boundary* - comprises area of closer settlement in town C19th urban grid. *Buffer zone* – comprising of the immediate rural setting of the town									✓		
G2B H16	*Mananga* homestead and property	A40 Princes Highway, Berry				✓	✓					✓	✓
G2B H29	Broughton Creek Bridge (Bridge no. 704)	Princes Highway, Broughton Village		✓						✓			
G2B H62	Avenue of nine mature Poplar Trees	Woodhill Mountain Road, Berry				✓	✓						✓

Item			Statutory and draft Statutory listings						Non-Statutory listings				
Project ID	**Name**	**Location**	**HR**	**RTA s170**	**Illaw. REP 1986**	**Shoal. LEP 85**	**Draft Shoal. LEP 2009**	**Kiama LEP 2011**	**RNE**	**SHI**	**NT (NSW)**	**RAIA**	**ShHI**
G2B H63	Mark Radium Park	Cnr of Victoria St and Princes Highway				✓	✓						✓
G2B H45	*Glenval*e homestead and property	A371 Princes Highway, Broughton				✓	✓						✓
G2B H47	St Patrick's Convent, Church and grounds	80 North Street, Berry				✓	✓						✓
Includes G2B H54	Dry stone walls	All examples situated within Kiama LGA			✓*								
Possibly includes G2B H54	Dry stone walls	Foxground and Kiama districts						✓					
G2B H58	Uniting Church Hall (formerly Wesleyan Chapel)	69 Albert St (adj. to North St)				✓							✓

* *The extent to which the 'Dry Stone Walls' listing in Schedule One of the Illawarra Regional Environmental Plan is inclusive of all dry stone walls within the Kiama Local Government Area (LGA) is ill-defined. The inclusion of this listing as applicable to the project is based on the interpretation of the Kiama Municipal Council which considers that the Schedule listing relates to the whole LGA (pers. comm.. Andrew Knowlson, Director of Environmental Services, Kiama Municipal Council, 5 Oct 2011).*

Key

HR *= NSW Heritage Branch Heritage Register.*
SHI *= NSW Heritage Branch State Heritage Inventory.*
RTA s170 *= Roads and Traffic Authority section 170 Heritage & Conservation Register.*
Illaw. REP 1986 *= Illawarra Regional Environmental Plan (first gazetted 1986).*
Kiama LEP 2011 *= Draft Kiama Local Environmental Plan 2010 – Kiama Heritage Inventory.*
Shoal. LEP 85 *= Shoalhaven Local Environmental Plan 1985 – Schedule 7.*
Draft Shoal. LEP 2009 *= Draft Shoalhaven Local Environmental Plan 2009 – Schedule 5.*
ShHI *= Shoalhaven Heritage Inventory.*
RNE *= Register of the National Estate (R = Registered, IP = Indicative Place).*
NT *= Register of the National Trust of Australia (NSW).*
RAIA *= Royal Australian Institute of Architects 20th Century Register of Significant Buildings.*

4.2.2 Cultural heritage studies

The project is situated within the assessment areas of two previous Heritage Studies, the Shoalhaven City Council Heritage Study 1995-1998 (Peter Freeman Pty Ltd 1998) and the Kiama Heritage Study (Latona Masterman & Associates (1987).

The Kiama study has been augmented by a number of follow-up heritage reviews conducted by, or on behalf of, Kiama Municipal Council (Perumal Murphy Wu Pty Ltd 1994; Simpson Dawbin 2000; www.nsw.nationaltrust.org.au/sohkiama.html), and a study of stone walling around Kiama (Mayne Wilson and Associates 2000). This has culminated in the exhibition of a revised heritage inventory (refer listed items section above) as part of Draft Kiama LEP (2010).

A detailed review of heritage studies was prepared during the selection of the preferred route for the project (Navin Officer Heritage Consultants 2007b). The reader is referred to this study for detailed information on the subject.

No heritage items were identified by the Kiama Heritage Study within or near (within 200 metres) the project. Eleven relevant items were identified by the Shellharbour Heritage Study (Refer **Table 4.2**). Seven of these are included within the Local Environmental Plan heritage schedule. The four remaining items consist of two buildings along North Street, one on Woodhill Mountain Road and a pastoral landscape recording for the Berry and Bolong district. All of these items are considered further as heritage items within this project assessment.

Table 4.2: Heritage items in or near (within 200 metres) the project identified in the Shoalhaven City Council Heritage Study 1995-1998

Project ID	Heritage Study ID	Name	Location	Level of Identified Significance	Shoalhaven LEP 1985
G2B H47	B004	St Patrick's Convent	80 North Street, Berry	Local	✓
G2B H47	B005	St Patrick's Church	80 North Street, Berry	Local	✓
G2B H58	B017	Uniting Church Hall (former Wesleyan Chapel)	69 Albert St	Local	✓
G2B H63	B061	Mark Radium Park	Cnr of Victoria St and Princes Highway	Local	✓
G2B H16	B087	*Mananga* Federation, Queen Anne Style Farmhouse	A40 Princes Highway, Berry	Regional	✓
G2B H13	B090	Farm Worker's Cottage	143 North Street, Berry	Local	
G2B H11	B093	Federation Farm House	77 North Street, Berry	Local	
Equivalent to SICPH CL	B094	Berry-Bolong Pastoral Landscapes	Roughly bounded by: • The Shoalhaven River in the S. • The coast in the SE. • The City Council boundary in the E. • The Cambewarra Range escarpment in the NE, N and NW (as far as Browns Mountain). • The northern and eastern margin of Tapitallee, Bangalee and Bomaderry.	Regional	

Project ID	Heritage Study ID	Name	Location	Level of Identified Significance	Shoalhaven LEP 1985
G2B H62	B095	*Populus nigra "italica"* (9 Lombardy Poplars)	Woodhill Mountain Road, Berry	Local	✓
G2B H45	B120	Glenvale (former Berry Estate Tenant's Cottage)	A371 Princes Highway, Broughton	Local	✓
G2B H49	B177	*Oakleigh* Farm House	59 Woodhill Mountain Road, Broughton Vale [Berry]	Local	

4.3 Predictive historical archaeology statement

Unrecorded historic sites and features of heritage significance that potentially may occur within or near the project are likely to comply with the following predictive statements:

- Buildings and structures would be focused in the town and along the early centres and corridors of occupation, agriculture, industry, travel and transport.
- Structures of historical interest and heritage significance may be standing, ruined, buried, abandoned or still in use.
- Standing commercial and public buildings are most likely to survive within the towns and urban landscapes.
- Nineteenth century structures, such as farm dwellings, outbuildings, selector's or tenant farmer cottages may survive as standing buildings, ruins or archaeological deposits and are most likely to survive on less developed rural properties, on early portion numbers, and in or near established farm building complexes.
- Former timber mills and associated infrastructure such as timber pole structures, remains of machinery, tracks and tramways may survive on the outskirts of the towns or adjacent to former or existing forested areas.
- Traces of agricultural and industrial processing or extractive sites such as mills, dairies, factories, and quarries may be found throughout agricultural lands on the valley floor and adjacent low ranges.
- Sites associated with early roads would be closely associated with early private estate and cadastral (public) road reserves, watershed ridgelines, and related to early river and creek crossing points.
- Archaeological sites such as the occupation remains of former dwellings including homesteads, houses and huts, would be distributed in close association with land settlement patterns and correlated with favourable agricultural lands, trading nodes and transport corridors.
- Transport and access routes such as bridle paths, stock routes, and highway alignments of varying forms and ages, may survive as abandoned remnants adjacent to modern transport routes, or as alignments now followed by more modern or upgraded road and track infrastructure.
- Old fence lines (such as dry stone wall and post and rail fencing) may occur along road easement boundaries and enclosed farmlands. Other indications of field systems, such as drainage channels and ridge and furrow ploughlands, may survive in low lying agricultural ground, especially in areas that are now used for grazing, rather than cropping.
- Shipwrecks and the submerged remains of other structures or deposits, such as from wharves, jetties and piers, may occur on river and creek banks and beds.

5 Field inspection results

This chapter provides a summary of Non-Aboriginal field recordings situated within, or within 200 metres of, the project. All previously listed items within the project area are included.

The locations of the recorded items are shown in **Figure 5.1** and Appendix A. Site specific, large scale location mapping is provided in Appendix I. An inventory and summary description of recordings and items is provided in **Table 5.1**. Detailed site descriptions, including site specific background information, are presented in Appendix D.

A description of cultural landscape values and relevant recordings is presented as a separate section (Section 5.3).

Please note that the numbering of the recordings is generated from an on-going inventory of romarchaeological survey results for the whole of the Princes Highway upgrade between Mount Pleasant (Gerringong) and Bomaderry (refer Section 2.4. As a consequence, the numbering sequence is discontinuous.

5.1 Summary of field recordings

Forty non-Aboriginal (European) field recordings have been recorded within or near (within 200 metres) the project (G2B H10-30, 45, 47-63 and SICPH CL).

Six of these recordings were not found to have heritage significance against the assessment criteria (refer section 7.0 and Appendix G). These recordings consist of two cottages (G2B H10 and G2B H50), and four twentieth century highway remnants (G2B H12, G2B H18, G2B H24 and G2B H57).

The remaining 34 recordings were found to have heritage significance and are classed as heritage items. These consist of:

- Ten road sections or remnants (G2B H15, G2B H19, G2B H20, G2B H21, G2B H22, G2B H23, G2B H26, G2B H27, G2B H30 and G2B H55).
- One highway bridge (G2B H29).
- Twelve standing buildings or building groups (G2B H11, G2B H13, G2B H16, G2B H17, G2B H25, G2B H28, G2B H45, G2B H47, G2B H49, G2B H51, G2B H56 and G2B H58).
- Five confirmed or potential archaeological deposits comprising former building sites (G2B H14, G2B H48, G2B H52, G2B H53, and G2B H59).
- One quarried rock outcrop (G2B H61).
- One remnant dry stone wall (G2B H54).
- One tree avenue (G2B 62).
- One public park (G2B H63).
- One item of movable heritage, a skid mounted work-site shed (G2B H60).
- One cultural landscape, the Southern Illawarra Coastal Plain and Hinterland (SICPH CL).

Eight of these heritage items are included on existing statutory heritage listings (G2B H16, G2B H29, G2B H45, G2B H47, G2B H54, G2B H58, G2B H62 and G2B H63).

5.2 Summary table of field recording descriptions

Table 5.1: Summary of non-Aboriginal field recordings within or near (within 200m) the project

ID	Name/location	Description	Statutory listing	MGA references		
				Mid/focal point	end point 1	End point 2
G2B H10	Cottage (72 North St. Berry)	Early twentieth century cottage, impacted by modern renovation		288592.6149727	-	-
G2B H11	*GlenDevan* Federation House (77 North St. Berry)	Federation house with a number of additions		288638.6149772	-	-
G2B H12	Remnant portion of C20th highway (Stewarts Hill cutting and wayside stop, northern entrance to Berry)	Ceased use as part of highway in 1955, now used as a landscaped wayside stop (170 metres)		290137.6149984	290206.6149987	290097.6149908
G2B H13	Burnett Estate Overseer's Cottage (143 North St. Berry)	Simple weatherboard cottage (c. 1917), former residence for agricultural estate worker		289329.6149710	-	-
G2B H14	Archaeological deposit (former C19th *Broughton Creek* town buildings)	A number of former town structures were located on the eastern side of the former highway alignment (G2B H15), roughly opposite *Mananga*, These include the Berry Butter Factory 1889, Overseers Cottage 1858, Court House 1870s, and the Council Chambers 1868, and a Carpenters Cottage		290041.6149820	290063.6149874	290019.6149750
G2B H15	Remnant portion of C20th highway (mid 1950s)	Ceased use as part of highway in 1955, now used as an access road for adjacent residential lots (195 metres)		290056.6149792	290085.6149872	290020.6149720
G2B H16	*Mananga,* Queen Anne style homestead complex and grounds, former Berry Estate Manager's residence (A40 Princes Highway. Berry)	Federation (1894) Queen Anne style homestead, possibly designed by Sydney architect Howard Joseland. Property includes portion of Berry Estate water mill race	SLEP 1985	290103.6149797	-	-

ID	Name/location	Description	Statutory listing	MGA references		
				Mid/focal point	end point 1	End point 2
G2B H17	*Hillview* homestead, former Berry Estate tenant farm (A111 Princes Highway Berry)	Former nineteenth century Berry Estate tenant homestead		290542.6150237	-	-
G2B H18	Remnant portion of C20th highway (mid 1930s)	Now resumed within adjacent dairy farm (150 metres)		291551.6150844	291610.6150911	291500.6150827
G2B H19	Remnant portion of C19th road	Poorly preserved remnant of the original Berry Estate Road (430 metres)		291745.6150873	291567.6150828	291987.6150902
G2B H20	Remnant portion of C20th highway	Now resumed within adjacent dairy farm (195 metres)		292397.6150800	292460.6150870	292324.6150850
G2B H21	Remnant portion of C20th highway	Remnant includes a 90 degree bend and upslope embankment, revegetated (120 metres)		292502.6150985	292567.6150985	292492.6150957
G2B H22	Remnant portion of C19th road	Remnant of original Berry Estate Road, includes shallow cutting (460 metres)		292534.6151013	292713.6151056	292296.6150888
G2B H23	Remnant portion of C19th road	Remnant of original Berry Estate Road (320 metres), road is evident as shallow relief and differences in grass cover		293038.6151225	293162.6151296	292911.6151149
G2B H24	Remnant portion of C20th highway	Poorly preserved, has been used extensively as a fill, gravel and materials dump (180 metres)		293508.6151439	293535.6151482	293405.6151406
G2B H25	*Sedgeford* homestead and grounds (A495 Princes Highway, Broughton Village)	Federation weatherboard homestead (1902) and gardens		293762.6151623	-	-
G2B H26	Remnant portion of C20th highway (“Bink’s Corner”)	This portion of highway formerly known as “Binks Corner”, consists of an angled descent and ascent across a small valley, and was bypassed when the ‘Big Dipper’ was constructed in 1936. It follows an1870s-80s alignment of the highway (total length around 612 metres)		293692.6151822	294008.6151962	293839.6151602

ID	Name/location	Description	Statutory listing	MGA references		
				Mid/focal point	end point 1	End point 2
G2B H27	Remnant portion of C19th road	This is a portion of the original Berry Estate Road which was superseded by the adjacent, more gradient sensitive 1870s-80s alignment (G2B H26). It includes three straight sections with two corners, including a well preserved cut and benched section of 260m (total length: 550 metres)		293913.6151961	293188.6152199	293742.6151753
G2B H28	*Brookside* homestead (A540 Princes Highway. Broughton Village)	Late nineteenth century to early twentieth century homestead. Buildings have been transported from other locations, also archaeological traces of former outbuildings. This recording includes a memorial tree and plot with the cremated remains of Mr William Chittick (died 2005), located 220 metres upstream of the homestead on the western side of the Creek		294107.6151865	-	-
G2B H29	C20th concrete bridge (Princes Highway. Broughton Creek)	RTA Bridge no. 704, Southern Region. Constructed in 1935, using standard concrete beam design, and widened in 1994	RTA s170	294861.6152838	-	-
G2B H30	Remnant portion of C19th road	A relatively well preserved section of road, situated within a pasture field, along the crest and shoulder of a prominent spurline. This remnant is a portion of the original Berry Estate Road. The road platform is evidenced by side ditches and variably shallow ground relief. Includes bordering gum trees at eastern end and descent to Toolijooa Road saddle (530 metres)		296440.6152555	296738.6152431	296277.6152706

ID	Name/location	Description	Statutory listing	MGA references		
				Mid/focal point	end point 1	End point 2
G2B H45	*Glenvale* homestead, former Berry Estate tenant farm (A371 Princes Highway. Broughton)	Former Berry Estate tenant farm, homestead includes vertical slab construction	SLEP 1985	292662.6151257	-	-
G2B H47	Former St Patrick's Convent (1921), St Patricks Church (1936), and grounds (80 North St. Berry)	Two story brick convent building, brick church, and grounds	SLEP 1985	288660.6149702 (convent) 288688.6149694 (Church)	-	-
G2B H48	Potential archaeological deposit, former Berry Estate tenant farm (now location of Greystanes Lodge)	Location of a former Berry Estate tenant farm, homestead, now redeveloped with modern farm buildings (*Greystanes Lodge*). Any remaining archaeological items are likely to be substantially disturbed		294547.6152597	-	-
G2B H49	*Oakleigh* farmhouse (59 Woodhill Mountain Rd. Berry)	Inter War Bungalow style Farmhouse		289727.6150118	-	-
G2B H50	*Clare Moy* Cottage (342 Princes Highway. Toolijooa)	Early twentieth century weatherboard farm cottage		296794.6152462	-	-
G2B H51	*Graham Park* former agricultural research institution (8, 9 & 13 Schofields Lane, Berry)	Former agricultural research station. The first Artificial Insemination Breeding Station (AIBS) in New South Wales was established at Berry in the 1950s, and was subsequently moved to Graham Park in 1958. The facility closed in the 1990s		287479.6148712	-	-
G2B H52	Potential archaeological deposit, former Berry Estate tenant farm (A441 Princes Highway. Broughton Village)	Potential archaeological deposit of a former Berry Estate tenant farm, situated on the angle in the 'Binks Corner' remnant highway section (G2B H26). The only such PAD where the original relationship between the structures and the 1870s-80s highway may survive		293659.6151844 (approx.)	-	-

ID	Name/location	Description	Statutory listing	MGA references		
				Mid/focal point	end point 1	End point 2
G2B H53	Potential archaeological deposit, former Berry Estate tenant farm structure (just east of the Toolijooa Ridge)	Potential archaeological deposit of a former Berry Estate tenant farm structure, site includes an indeterminate rock rubble alignment which parallels a former C19th road alignment (Berry Estate Road)		296227.6152738		
G2B H54	Remnant portion of C19th dry stone wall, (west side of current highway, just east of Toolijooa Ridge saddle)	Remnant dry stone wall, situated along former western boundary of highway easement, at least 100m in length, and possibly extending for a further 150 metres north (obscured by lantana growth)		296166.6152881	296197.6152799	296152.6153045
G2B H55	Remnant portion of C19th road (north of *Mananga* homestead)	Remnant of original Berry Estate Road (100 metres), evident as a cut and benched platform, impacted by modern cross drains		290207.6149941	290246.6149973	290172.6149916
G2B H56	*Broughton Mill* homestead and Dairy (both disused), former Berry Estate tenant farm, (117 North St., Berry)	Standing ruins of early twentieth century farmhouse, outbuildings, disused dairy, and yards		289005.6149857		
G2B H57	Remnant portion of C20th highway (intersection of Princes Highway and Tindalls Lane)	Small remnant, substantially impacted by more recent road works and the Eastern Gas Pipeline (30 metres)		291636.6150973		
G2B H58	Uniting Church Hall (formerly Wesleyan Chapel 1884-)	Timber frame and weatherboard church hall/chapel	SLEP 1985	289326.6149627		
G2B H59	Archaeological Deposit, and remnant plantings of former non-Berry Estate homestead, Broughton Village – (Finn/Wood/Grant/ Stewart/Dinning families)	Remnant tree plantings, garden plants and surface foundation stones are indicative of an archaeological deposit of a former early C19th farm residence		294612.6152138		

ID	Name/location	Description	Statutory listing	MGA references		
				Mid/focal point	end point 1	End point 2
G2B H60	Skid mounted work-site shed (movable item)	Portable (towable) timber frame and corrugated iron shed, currently located at *Greystanes Lodge,* Broughton Village		294536.6152562		
G2B H61	Quarried rock outcrop, Broughton	A small area of rock quarrying (evidenced by drill roles and fracture surfaces) on a small natural sandstone outcrop forming the bed of a tributary streamline. A nearby concrete highway culvert is situated immediately upslope. Quarrying may be related to an earlier phase of highway construction		292261.6150863	-	-
G2B H62	Avenue of Poplar trees (Woodhill Mountain. Rd, Berry)	Nine Lombardy Poplars, situated along the eastern side of Woodhill Mountain Road, between the current highway and just past the Bundewallah Creek bridge. Numerous younger Poplar plantings continue the avenue to the north, on both sides of the road, but do not form part of the SLEP listed item	SLEP 1985	289851.6149758	289862.6149907	289819.6149672
G2B H63	Mark Radium Park, Berry	Recreational and ornamental park and gardens (developed by Berry Apex Club), which commemorates a local Australian champion pony which held high jump records between 1938-1955	SLEP 1985	288189.6149433	-	-
SICPH CL	Cultural Landscape (Southern Illawarra Coastal Plain and Hinterland)	The cultural landscape of the Southern and eastern falls of the Southern Illawarra Range, and adjacent coastal plain		-	-	-

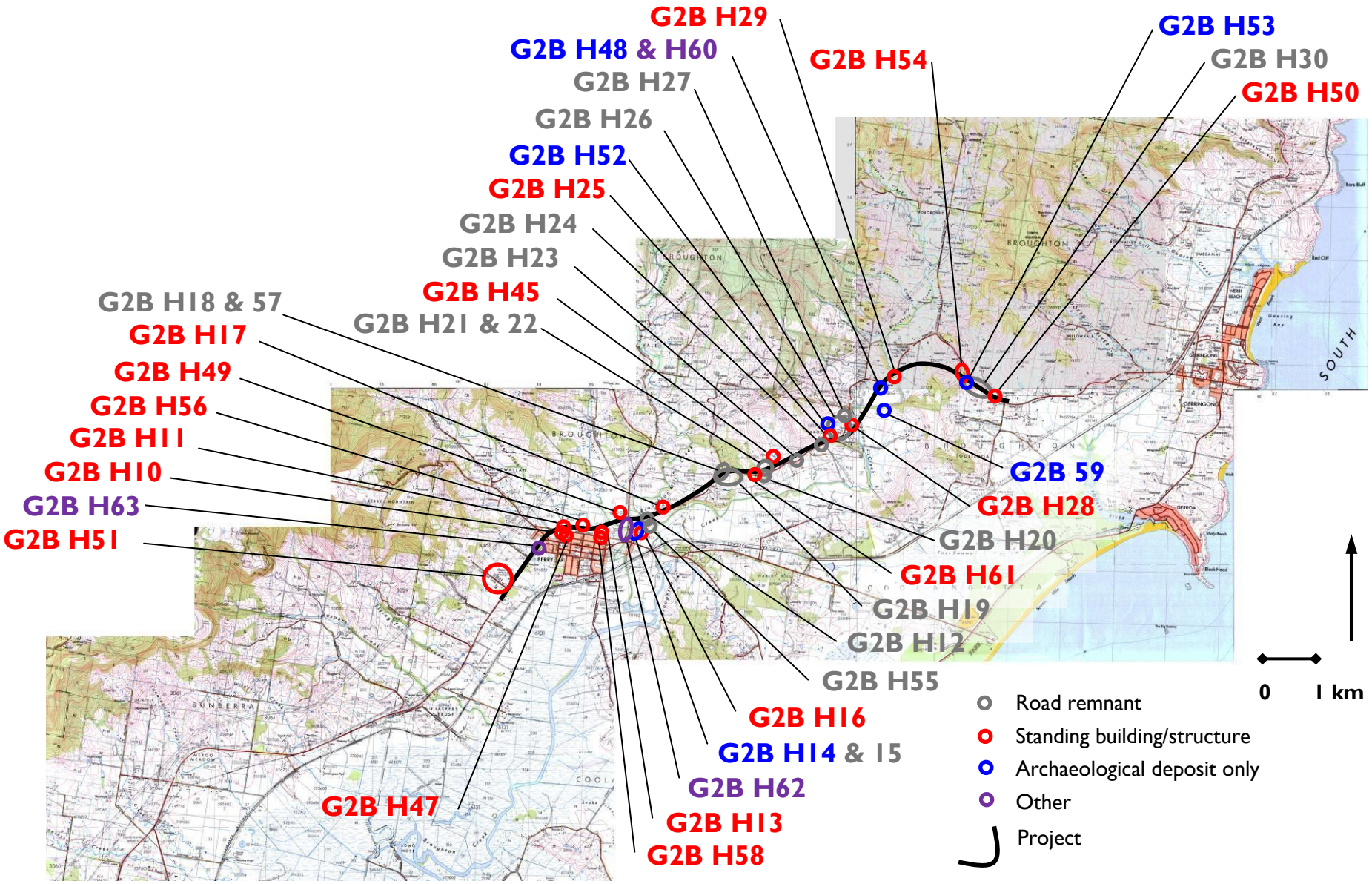


Figure 5.1: General location of non-Aboriginal field recordings (excluding SICPH CL, refer to Figure 5.6 for the location of this item) Base map compiled from extracts from the following 1:25,000 topographic maps published by the Central Mapping Authority of NSW: Berry (1988), Kiama (1985) and Kangaroo Valley (1986); and the Land Information Centre: Gerroa (1986).

5.3 Cultural landscape values

5.3.1 Southern Illawarra Coastal Plain and Hinterland Cultural Landscape (SICPH CL)

The predominantly pastoral landscape character of the coastal plain and basal slopes extending southwards from the Southern Illawarra Range, from Mount Pleasant in the east, to Browns Mountain in the west, and extending southwards to Greenwell Point, has been variously recognised as a landscape with significant heritage and conservation values (**Figure 5.2** to **Figure 5.6**). Previous recognition has been either limited to sub-regions and categories (such as the Berry-Bolong Pastoral Landscape), focused on contextual values relative to urban and town centres (such as the Berry Township Urban Conservation Area), or defined primarily in terms of natural and historical landscape characteristics (the Berry District Landscape Conservation Area).

The adoption, in this report, of a cultural landscape classification for this area seeks to recognise cultural heritage values as a consequence of the interplay between cultural practice and the physical environment. This provides for the management of such area's in terms of human processes and economies, as well as physical characteristics.
The area and boundary of the SICPH CL approximates those for the National Trust listing of the Berry District Landscape Conservation Area (**Figure 5.6**). A detailed analysis and definition of a boundary is beyond the scope of this assessment.

The Shoalhaven City Council Heritage Study recognised the western portion of this precinct, north of the Shoalhaven, as the *Berry-Bolong Pastoral Landscape* (Peter Freeman Pty Ltd 1998:44) (**Figure 5.6**). It was noted that the continuity of dairy farming across the region has contributed to the survival of an underlying nineteenth century and early twentieth century pastoral landscape. The development of this landscape has been structured by the evolution of the Berry Estates and surrounding villages and tenant communities, subsequent Free Selection across the surrounding slopes, the development and predominance of the dairying industry, development of the transport corridors, first by water and then by road and rail, and the drainage of the wetland basins across the Shoalhaven flood plain.

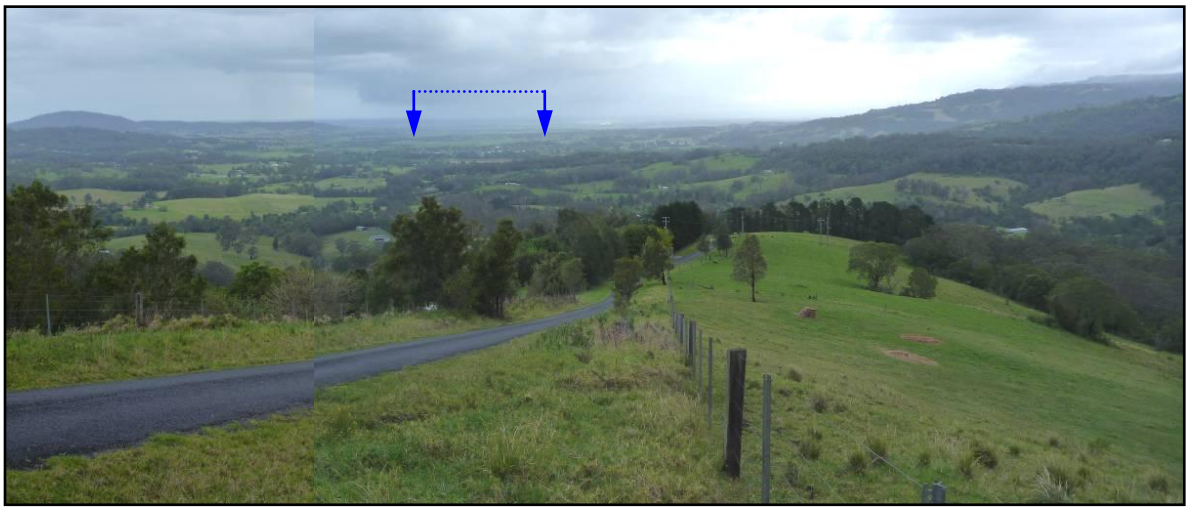


Figure 5.2: Distant view of Berry (indicated by blue arrows) and its landscape context, looking southwest from Tulloch Road. Note the coastal plain context framed by the Southern Illawarra Range escarpment and descending spurs from the far right, and the Coolangatta Mountain on the far left.

Gerroa and the Crooked River

Toolijooa Ridge and Palm valley

Broughton Creek, Broughton Village

Girrakool homestead

Turf farming, Woodhill Mountain Road

Poplars, Woodhill Mountain Road

Figure 5.3: A collection of views demonstrating some of the cultural and aesthetic cultural landscape values of the Southern Illawarra Coastal Plain and Hinterland cultural landscape

Bundewallah Creek

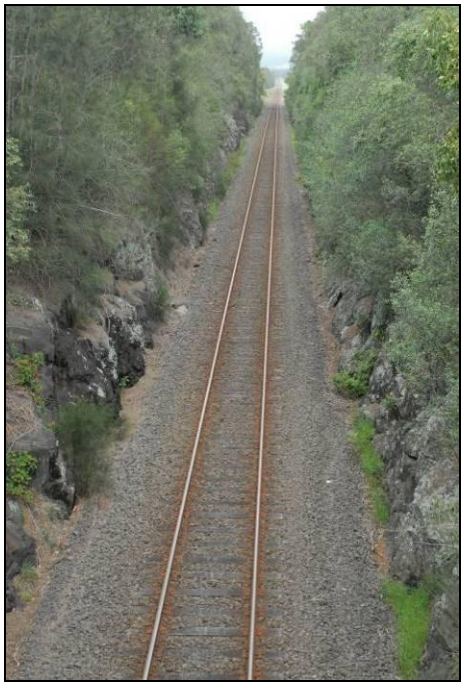
Bundewallah Creek

Valley floor, Broughton Village

Gate, Willow Springs Rd, Broughton Village

Figure 5.4: A collection of views demonstrating some of the cultural and aesthetic cultural landscape values of the Southern Illawarra Coastal Plain and Hinterland cultural landscape

Despite the decline of many smaller villages and communities, changes in population density, the diminishing viability of small farms, and the growth of rural subdivision, the region retains a fundamentally nineteenth century pastoral structure. This is evident as a patchwork of cleared and drained floodplains, cleared estates, vegetated boundaries, forested upper slopes, and a network of townscapes and valley settlements. All of these elements are aesthetically held together by the backdrop of the Illawarra Range, its top escarpment, and prominent ridgelines extending across the plain to the coast. This landscape includes examples of vernacular buildings, farmscapes, churches and public schools, nineteenth century plantings, Victorian residences and a range of buildings, silos, drainage schemes and structures which demonstrate settlement, landuse patterns and the archaeology of the agricultural development of the Southern Illawarra (Peter Freeman Pty Ltd 1998:45).



Railway cutting, Dooley Road, Toolijooa

Off Thompsons Road, Broughton Village

Highway alignment west of Sedgeford

Highway alignment west of Glenvale

Highway alignment at the 'Big Dipper', Broughton Village

Bridge (constructed 1955) over Broughton Mill Creek, Berry

Figure 5.5: A collection of views demonstrating some of the cultural and aesthetic cultural landscape values of the Southern Illawarra Coastal Plain and Hinterland cultural landscape

The vegetation of the region is also a critical component of the cultural landscape. Landscape elements include the continuous pastoral grasslands of the lowlands which extend up slope into a patchwork of smaller former dairy farm clearings, remnant patches of sclerophyll and regenerating rainforest, ribbons of riparian vegetation, and the widespread iconic incidence of often isolated cabbage fan palms, large spreading fig trees, and boundary plantings of Coral trees.

The National Trust (New South Wales) has recognised the cultural, aesthetic and natural values of the landscape values of the Southern Illawarra by defining the *Berry District Landscape Conservation Area* (BDLCA). This area includes the coastline south of Kiama to Greenwell Point, the lower Shoalhaven River plain, and the slopes leading up to and including the Illawarra escarpment **Figure 5.6**). This area is roughly equivalent to that of the SICPH CL. A description of this identified landscape has been entered onto the Register of the National Estate, as an Indicative Place (Place ID 1625), however no formal nomination or assessment was ever prepared (Refer Appendix B).

5.3.2 Berry as an integral component of the SICPH Cultural Landscape

The town of Berry is an integral component of the cultural landscape and its values identified in the SICPH Cultural Landscape recording, and its previously recorded subsets; the Berry Bolong Pastoral Landscape, and the Berry District Landscape Conservation Area. The importance of the town can be summarised by the following points:

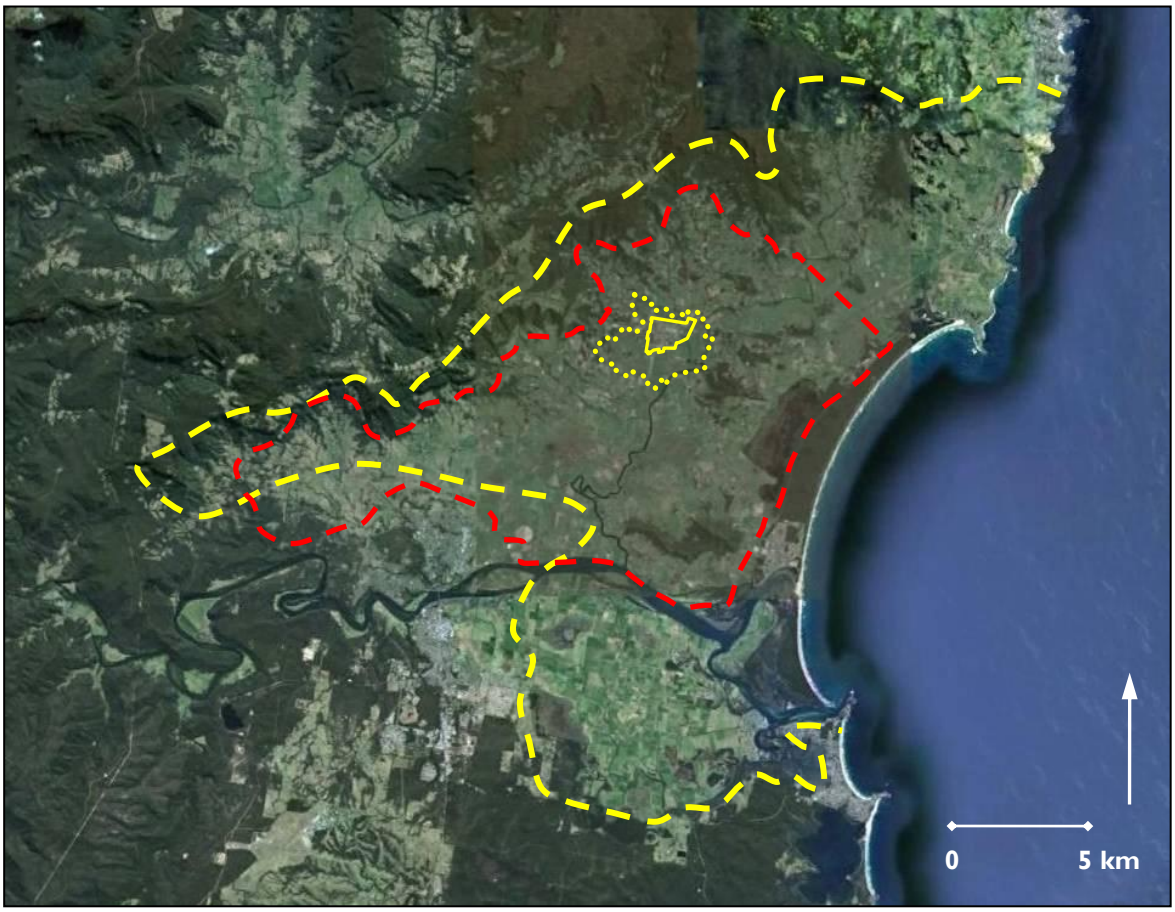
- It is the only town within the SICPH CL, and north of the Shoalhaven, which was founded as a private town, and as a part of the Berry Estate.
- It is the only non-coastal, nineteenth century town within the SICPH CL which has developed a viable urban presence, identity and civic centre.
- It demonstrates the historical progression from a private village, initiated and supported by the Berry Estate, to a public town governed by a local government authority.
- It has always been an important part of local district networking and in particular, infrastructure for communication, transport, industry, trade and administration.
- Its road and rail corridors endure as active elements, its maritime corridor (Broughton Creek) remains as an inactive component.
- Its institutions, industry and organisations have variously dominated and influenced the development, extent and structure of the surrounding region.
- It is centrally located within the SICPH CL and provides an aesthetic and cultural focus.
- Many of the nineteenth century traits of the town have not been replaced or overwhelmed by subsequent latter twentieth century urban or industrial development.
- The context of the town remains pastoral.

Many of these characteristics and values are a basis for the recent recognition, by the National Trust of Australia (NSW) of the *Berry Township Urban Conservation Area* (BTUCA). This area was listed on the Trust's Register in 2011 (refer Appendix B). The listing recognises the historic development of the town, and its distinctive urban character set within a rolling agricultural landscape. The following are identified as key components of the town both singly and in combination:

- The range of nineteenth and first half of the twentieth century (mostly single storey) pitched roofed public, commercial and residential buildings.
- The arrangement of buildings within a strict nineteenth century urban grid.
- The residential gardens and street tree plantings.
- The containment of town development within the grid and the abrupt boundary (and resulting contrast) with the adjacent rural lands.
- The views out from the townscape to the rural lands and the Illawarra escarpment.
- The views into the town.

The BTUCA listing incorporates three levels (**Figure5.6**):

- A broad scale visual boundary which adopts the regional boundary of the Berry District Landscape Conservation Area.
- A subdivision boundary which relates to the closer urban settlement of the nineteenth century Berry town grid.
- A buffer zone which seeks to protect the immediate rural setting of the urban grid (Clark and Duyker 2010).



Visual Boundary of the BTUCA, also the boundary of the *Berry District Landscape Conservation Area* (This boundary approximates that for the SICPH CL)

Buffer Zone of the BTUCA

Sub-division Boundary of the BTUCA

Boundary of *Berry – Bolong Pastoral Landscapes*

Figure 5.6: Previously defined landscape conservation areas which include the project: Three levels of the National Trust Berry Township Urban Conservation Area (BTUCA) are defined. (After Figure 13 in Clarke and Duyker 2010; and The boundary of the Berry – Bolong Pastoral Landscapes (Shoalhaven Heritage Inventory) (base image: Google Earth Pro 2009).

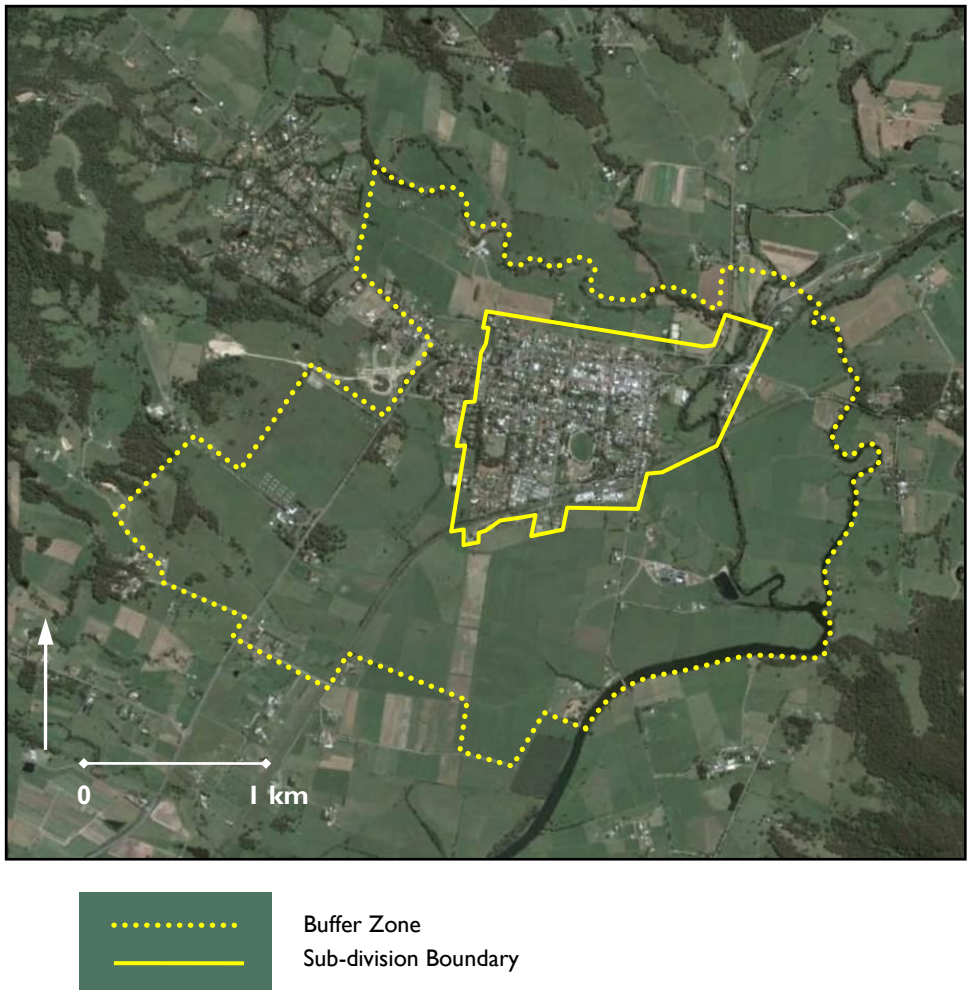


Figure 5.7: Detail of the Sub-division boundary and fringing Buffer Zone for the National Trust defined Berry Township Urban Conservation Area (After Figure 13 in Clarke and Duyker 2010) (Google Earth Pro 2006).

An analysis of the urban and townscape of Berry was conducted by Conybeare Morrison & Partners (1999). Key elements were found to be:

- The town relationship with the surrounding valleys, foothill and ridges.
- The structure of the urban area, including:
  - The earlier, linear topography determined, town development on the spurline east of Broughton Mill Creek.
  - The rectangular grid, established in the 1880s to the west of Broughton Mill Creek, and south of Bundewallah Creek, (and extended towards the rail line in the 1890s).
  - The smoothing of the squared road intersections along the northern town approach which resulted from upgrading of the highway in the 1950s.
  - To these elements can be added the mid to later twentieth century development areas to the west and southwest of the town (**Figure 5.8**).
- Vistas to and from the town, including how the street grid and surrounding landscape reveal, frame or conceal view scapes.

- Urban texture, including the rapid change in the space of two blocks, from a pastoral landscape with vernacular buildings, to the urban Victorian character of the commercial and public buildings along the main street.
- The surrounding pastoral landscape and its interrelation with the town, especially to the north of the town where the boundary is distinct and vistas allow urban and pastoral elements to be juxtaposed.

A visual analysis of the chronological development of the Berry township and its urban structure is provided in **Figure 5.8**. A number of key points can be made from the analysis:

- There have been four major developmental structural influences:
  - The mid to late nineteenth century commercial and civic focus of the 'Broughton Creek" town along the spurline east of Broughton Mill Creek.
  - The establishment of the current town centre and associated urban grid from the 1880s.
  - The imposition of the diagonal rail corridor and associated development across the southeastern corner of the town grid.
  - Urban development outside of, or inconsistent with the grid, from the 1950s onwards. This has focused on elevated topographies to the west and south of the grid. Factors influencing the location of these estates have been the avoidance of low-land subject to flooding, vehicle access, and proximity to the town. These developments have obscured any spatial or visual separation between the town's nineteenth century grid structure and the surrounding pastoral landscape.
- The sharp boundary between urban and pastoral landscape along the north and southern sides of the town grid, noted in both the National Trust and Conybeare Morrison & Partners descriptions, has only become well defined in the second half of the last century (Figure 5.9). This is due to the confinement of urban development in these areas to within the established town grid. Prior to this, the edge of town was far less distinct, with pastures and farmhouses occurring within the grid. The 1949 aerial photograph demonstrates this. It shows a 'porous' edge to the town with much of the current urban grid consisting of pasture (Figure 5.8).
- The survival of the urban-pastoral contrast along northern and eastern edges of the grid is probably a combined consequence of avoiding development on flood prone land, and on the future highway town bypass, anticipated since 1966 to be along North Street.

Conybeare Morrison & Partners (1999) identified a number of significant vistas to and from the town which manifest in the interrelation of heritage and landscape values identified in their analysis (**Figure 5.10**). Consistent with the factors outlined in this review, the vistas relate to the northern and southern margins of the town grid:

- Views from the town grid to the north, as framed from the north-south street alignments (Figure 5.13).
- Views to the west and south from the spurline descent into Berry from the north.
- Views along Pulman Street.

To these can be added:

- Views westwards along North Street, and to the north generally from North Street Figure 5.11 and Figure 5.12).

Figure 5.8:

Comparison of 1949 and 2006 aerial images of Berry township, showing the progressive evolution of three main built environment precincts (SVY 552/Nowra 5164 Run2 (155-166) 4/04/1949; and Google Earth Pro. 2006)

Figure 5.9: Distant view of the northern edge of Berry, looking east from Ben Dooley Rd, Berry Mountain. Note the distinct boundary along North Street (indicated by dotted blue line) between the urban and pastoral landscape.

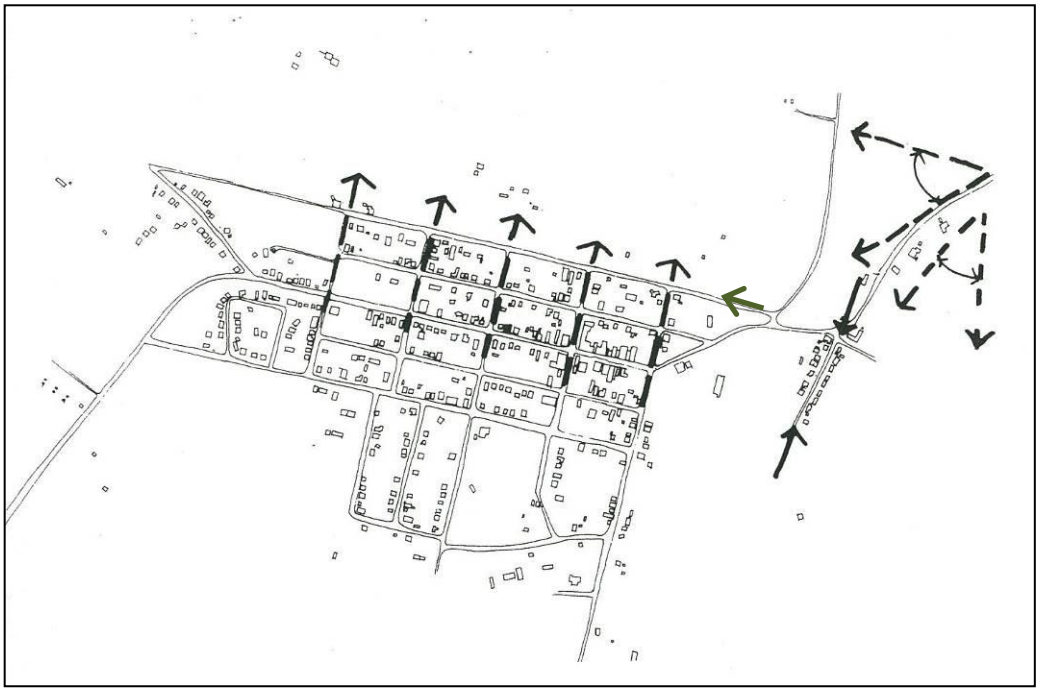


Figure 5.10: Key vistas to and from the Berry township which relate to the heritage and aesthetic values of the town and its interrelation with the surrounding pastoral landscape (after Conybeare Morrison & Partners 1999: Figure 7, green arrow added by authors)

Figure 5.11: Panoramic view, looking west to northeast, from just east of the intersection of Alexandra St and North Street, Berry, showing the pastoral landscape which extends from the North Street easement, and the distant views of the Southern Illawarra Range.

Looking east along North Street, from just east of intersection with the George Street easement

Looking east along North Street, from near intersection with Albany Street

Looking west along North Street, from intersection with Albany Street

Looking west along North Street from near intersection with Alexandra Street

Figure 5.12: Views along North Street, Berry, showing the distinct boundary between the urban and pastoral landscape, and the pastoral context and character afforded to this edge of the town.

Looking north along George Street easement

Looking north from near the end of the George Street easement

Looking north along Edward Street

Looking north from near the end of Edward Street

Looking north along Albany Street

Looking north from near the end of Albany Street

Looking north along Alexandria Street

Looking north from near the end of Alexandria Street

Figure 5.13: Views from the town of Berry which would be impacted by the project, looking north along the north-south aligned town-grid streets.

6 Test excavation program at G2B H14

6.1 Requirement for test excavation

Five potential archaeological deposits were identified as a result of the archaeological survey:

- G2B H14, former C19th Broughton Creek town buildings, Berry
- G2B H48, former Berry Estate tenant farm (now location of Greystanes Lodge, Broughton Village
- G2B H52, former Berry Estate tenant farm, Broughton Village
- G2B H53, former Berry Estate tenant farm structure, Toolijooa Ridge, and
- G2B H59), former non-Berry Estate homestead, Broughton Village.

It was determined that only one of these locations required further archaeological investigation in order to draft appropriate management strategies relative to assessed significance. This site was G2B H14, the location of former buildings at the northern end of the Broughton Creek village (now Berry). Of the remaining four potential archaeological deposits, two would not be subject to direct impact and the others would not require further investigation in order to determine an appropriate management strategy.

6.2 Site description - G2B H14

GDA Grid References midpoint: 290041.6149820
end point 1: 290063.6149874
end point 2: 290019.6149750

The site G2B H14 extends for approximately 130 metres north-south by 15 metres east-west (at its widest point), along the eastern margin of the current Princes Highway alignment, where it diverges from the former pre 1955 alignment, on the northern approach into Berry. The site comprises potential archaeological deposits from former nineteenth and twentieth century Broughton Creek town buildings that were located along the western side of the former highway alignment (G2B H15), roughly opposite *Mananga*. Based on historical research compiled by members of the Berry and District Historical Society, the following structures are known, or reliably predicted, to have occurred in this area:

- The Berry Butter Factory (1889).
- Court House (1870s).
- Roman Catholic Church (1866).
- The Council Chambers (1868).
- Overseers Cottage (1858).
- A Carpenter's Cottage.

An approximation of the possible relative locations of these structures is provided in **Figure 6.1**, which is based on information gathered by the Berry Historic Museum.

It is not clear where exactly these structures were located, or whether any of the earlier buildings were still in existence when the Berry Butter Factory was constructed in 1889.

The site currently comprises a relatively level grassed area with a row of five plane trees planted at 20 metre intervals along a north-south alignment (**Figure 6.1**, also refer Appendix G Figures G.189-G.191). A "Welcome to Berry" sign is located at the northern end of the site (**Figure 6.2** and **Figure 6.3**), approximately 10 metres north of the northernmost plane tree.

An isolated piece of a dressed sandstone block is situated adjacent the current highway verge, towards the southern end of the site. It is unclear whether this item is *in situ*. There are no other identifiable surface features to provide clues to the location of prior structures.

Aerial photography for this location shows that, in the 1940s (**Figure 6.4**), there was at least one structure opposite *old Mananga*, immediately to the southwest of the potential archaeological deposits identified at G2B H14. This building had disappeared by the 1950s (**Figure 6.5**), when the new highway alignment was shifted to the west. Overlays of the various highway alignments and the location of the structure from the 1940s are provided in **Figure 6.6**. It can be seen from these overlays that the structure present in the 1940s was set back approximately 10 metres from the edge of the highway. This translates to about 30 feet, which was a relatively common width for frontages in NSW towns in the nineteenth and early twentieth-century; indeed, the buildings along the main street in Berry were all situated a similar distance from the road.

Figure 6.1: Approximate and indicative location of structures that may have once occupied the area at G2B H14 (Base image - Google Earth 2011)

Figure 6.2: **Archaeological hand excavation at test pit D/E100 in front of the Berry entrance sign (Sam Harper pictured).**

Figure 6.3: **Archaeological recording of features within test pit D/E100 in front of the Berry entrance sign at the northern end of G2B H14, looking south (Dr Rebecca Parkes and Sam Harper pictured).**

Assuming that all the buildings in the vicinity of G2B H14 were set back approximately 10 metres from the road verge, it would appear that the current highway alignment runs through the probable locations of any previous structures. As such, the area of identified potential archaeological deposits to the east of the existing highway is likely to relate to building frontages (pedestrian and/or delivery areas) and possibly the margins of building locations across some of the wider sections of the site.

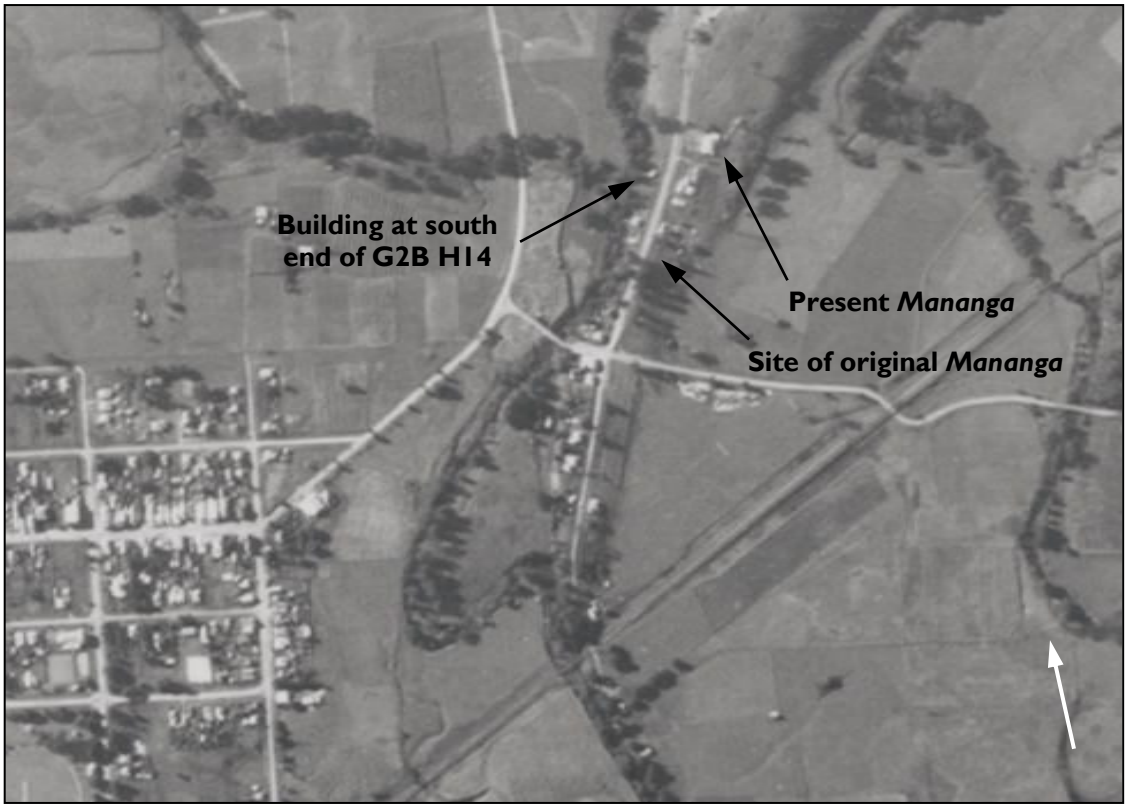


Figure 6.4: 1944 aerial photograph showing the relative locations of the old Princes Highway, *Mananga* homestead and a building at G2B H14.

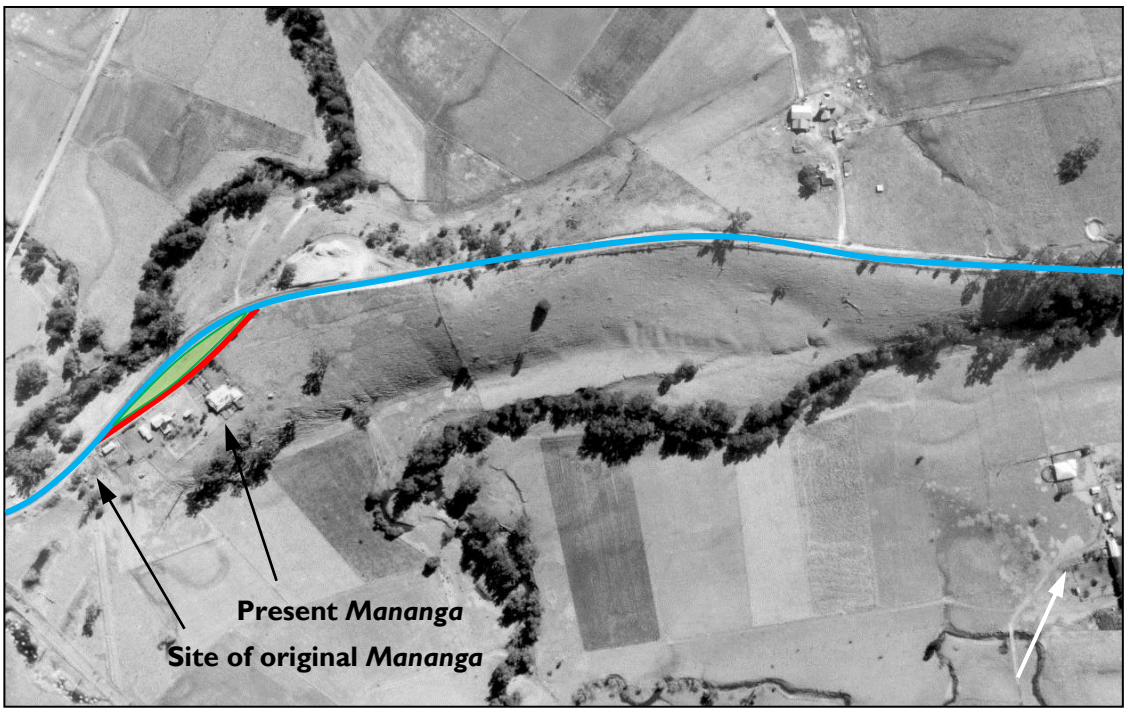


Figure 6.5: 1958 aerial photograph showing the changes in highway alignment: blue is the current alignment, red is the previous alignment. G2B H14 is shaded green.

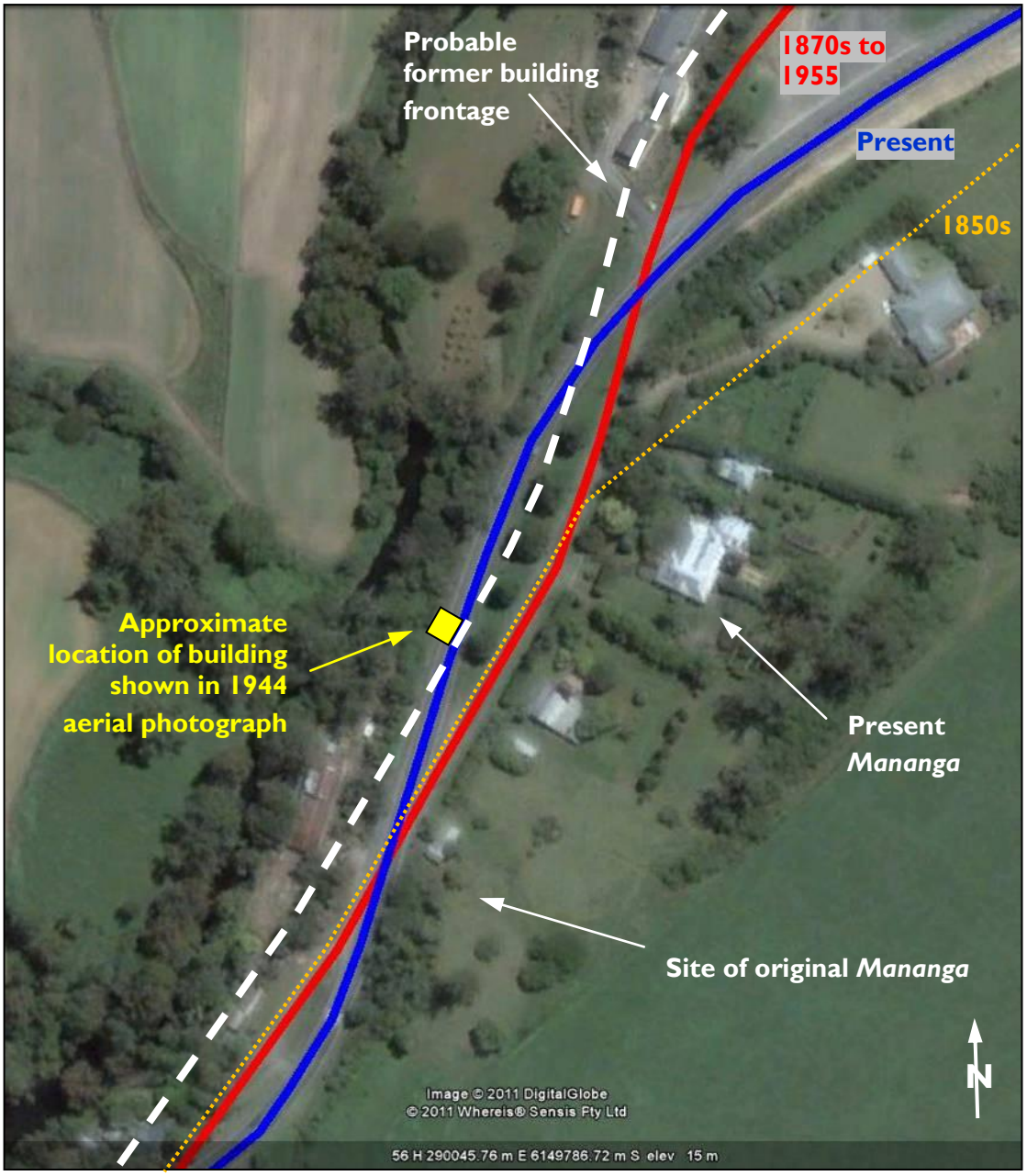


Figure 6.6: Overlay of current and former highway alignments in the area of G2B H14 and an approximation of the probable former building frontage (dashed white line) (Base image – Google Earth Pro 2011).

6.3 Excavation results

6.3.1 Overview

Investigation began with a series of one metre by one metre test pits excavated at 10 metre intervals along the eastern margin of the existing Princes Highway alignment. These pits were then expanded upon, or abandoned, on the basis of the stratigraphy and artefacts contained therein.

Excavation was undertaken by hand (see **Figure 6.2**), using trowels, mattocks, shovels and a pneumatic jack hammer. Individual units included excavation of stratigraphic contexts and excavation of sections with arbitrary contexts.

A summary of the excavation by square and context is provided below in **Table 6.1**. An overview of the layout of the trenches is provided in **Figure 6.7**.

Table 6.1: Summary of contexts excavated across the G2B H14 test pits

Square	Context	Description
A64/B64/C64	22	Quadrats III and IV sectioned down to natural clay subsoil
A80	39	Sectioned down to natural clay subsoil
B61	30	Excavated down to dark-brown sandy loam (old A horizon)
B80	1	Removal of grass/topsoil layer
	34	Excavated down to dark-brown sandy loam (old A horizon)
B95	1	Removal of grass/topsoil layer
	33	Excavated down to dark-brown sandy loam (old A horizon)
B96	36	Excavated down to dark-brown sandy loam (old A horizon)
B100	40	Removal of overburden/fill: excavated down to a yellow-brown sandy loam
	41	Excavated through sandy loam and other fill layers to expose burnt layer
	44	Section Quadrat III and southern portion of Quadrat I down to the natural clay subsoil
C24	43	Cut square down to explore context of sandstone block: disturbed road fill
C50	1	Grass/topsoil layer
	2	Brown loam down to orange-brown gravelly clay fill
	42	Section through fill and old ground surface, down to clay.
C60	1	Grass/topsoil layer
	2	Brown loam down to orange-brown gravelly clay fill
	7	Quadrats I and II excavated down to dark brown sandy loam
	10	Quadrats I and II excavated down to yellow brown sandy clay
C61	12	Removal of overburden/fill to expose old A horizon
C70	1	Grass/topsoil layer
	3	Excavated down to yellow-brown clay fill with tree roots
	4	Removal of yellow-brown clay fill
C79	32	Excavated down to dark-brown sandy loam (old A horizon)
	38	Excavated down to natural clay subsoil

Square	Context	Description
C80	1	Grass/topsoil layer
	2	Brown loam down to orange-brown gravelly clay fill
	28	Mixed clayey gravel and gravelly clay, yellow-brown fill
	31	Brown, variably compact loam, with 10-20mm lens of angular blue metal gravels over an apparent A-horizon soil – excavated down to yellow-brown clay with apparent post hole at base
C95	32	Removal of overburden/fill down to old A horizon
	35	Excavated down to natural clay subsoil
C96	37	Excavated down to dark-brown sandy loam (old A horizon)
C110	1	Removal of grass/topsoil layer
	20	Excavated through gravelly layer to a mixed loam and clay fill
	23	Removal of overburden fill, exposed below Context 20
	29	Section down through quadrats I and II to natural clay subsoil
D80	32	Removal of overburden/fill down to old A horizon
	42	Excavated down to natural clay subsoil
D100	27	Cut square down to burnt layer exposed in E100 at base of Context 21
E64	16	Excavated top 150mm across quadrats III and IV
	19	Sectioned down a further 100mm
E100	1	Removal of grass/topsoil layer
	21	Removal of overburden/fill, burnt layer exposed across southern half
	25	Sectioned northern portion of square down to natural clay subsoil
E120	1	Removal of grass/topsoil layer
	24	Sectioned this square down through overburden to natural clay subsoil
F20	1	Grass/topsoil layer
	2	Brown loam down to orange-brown gravelly clay fill
	9	Dark brown loamy gravel with bitumen, blue metal and larger rounded pebbles/cobbles
	15	Continuation of gravelly context and distinct change to a coarse sandy layer with fewer pebbles/cobbles
	18	Excavation of mixed clay and loamy clay with charcoal and orange brown ash down to yellow brown clay across majority of square.
	26	Excavation of quadrat III, following a pocket of dark brown clay down to yellow brown compact clay
F30	1	Grass/topsoil layer
	2	Brown loam down to orange-brown gravelly clay fill
	6	Removal of yellow-brown clay fill
	11	Excavated down to cobbled surface
F31	13	Excavated square down to yellow brown sandy clay
	11	Excavated down to cobbled surface

Square	Context	Description
F39	8	Equivalent to removal of Contexts 1, 2 and 5, down to old A Horizon soil
	14	Western 2/3 of square excavated down to clay layer, with old telecommunications trench exposed running north-south
F40	1	Grass/topsoil layer
	2	Brown loam down to orange-brown gravelly clay fill
	5	Removal of yellow-brown clay fill, down to brown loam (old A horizon soil) with possible post hole in NW quadrat
F64	1	Removal of grass/topsoil layer across quadrats III and IV
	19	Sectioned down to level consistent with E64

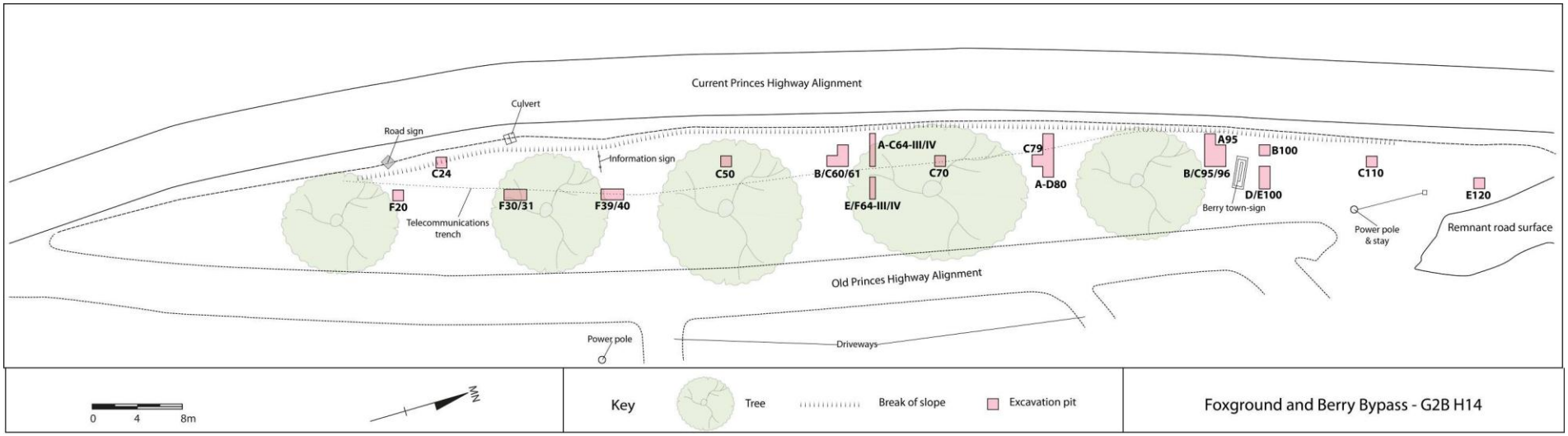


Figure 6.7: G2B H14 site plan

6.3.2 Artefact assemblage

The artefact assemblage from the test pitting program at G2B H14 comprises glass, ceramic, metal and miscellaneous (brick, shell, wood, plastic) items. Two hundred and ninety-four (294) pieces, totalling almost five kilograms in weight (4943.4 grams), were recovered from the excavation (**Table 6.2**; Appendix F). The assemblage is broadly characterised by late nineteenth-century or early twentieth-century material culture and some more recent roadside debris; the latter being most prominent in the upper levels of the site. In terms of material types present, the assemblage is dominated by non corrosive materials such as ceramics or glass. The wet, clayey conditions at the site are likely to have had considerable negative impact on the preservation of metal and other perishable items. Nearly all of the ferrous objects recovered were heavily corroded; often items were unable to be identified in terms of function or chronology. Examples of items that were particularly prone to corrosion include metal fasteners (see **Figure 6.8**). It is probable that such items are underrepresented due to factors influencing artefact survival including possible previous disturbance and the soil moisture content.

Table 6.2: Frequency and weights of material types from the G2B H14 assemblage

Material	Frequency	Frequency %	Weight (g)	Weight %
Ceramic	40	13.6	1988.9	40.2
Glass	194	66.0	742.0	15.0
Miscellaneous	24	8.2	1177.9	23.9
Metal	36	12.2	1034.6	20.9
Total	**294**	**100**	**4943.4**	**100**

There are a number of clear trends regarding the frequency and weights of the different material types recovered from the test excavations (**Table 6.2**). Glass is represented by high artefact numbers (N=194) and a low overall weight (742 g), indicating that glass items tend to be highly fragmented. This level of fragmentation would suggest that the glass at G2B H14 derives primarily from stray rubbish disposal, as opposed to wholesale dumping of bottles and other glassware. Ceramic items, in contrast, are represented by low numbers (N=40) but the highest weight (1988.9 g), by material type. A significant proportion of the ceramic assemblage is from large fragments of stoneware pipe and porcelain insulators. The metal (N=36) and miscellaneous (N=24) elements of the assemblage are characterised by low numbers and roughly equivalent weights (metal: 1034.6 g; miscellaneous: 1177.9 g), indicating that these items tend to be represented by larger, less fragmented pieces.

Not surprisingly, the more fragile elements, such as glassware and ceramic tableware, tend to be more fragmented, while the more robust items are present in large fragments but never whole items. Overall, this suggests that the assemblage from this site derives from secondary deposition of artefacts, from activities such as cleaning. The absence of whole items is also indicative of high levels of post-depositional disturbance, much of which may relate to site abandonment and subsequent realignment of the highway.

The nature of the artefact assemblage varied in terms of composition, chronology and density across the excavation area. At least four distinct areas are identifiable in terms of artefact types and numbers:

- An area in the south with highly fragmented/worn glass and ceramic items from the late nineteenth century.
- A central area with a mix of nineteenth century and modern artefacts and some evidence for post holes.
- An area in the north with evidence of a nineteenth century burning event.
- The northernmost portion of the site, which is characterised by a general absence of artefacts or other archaeological features.

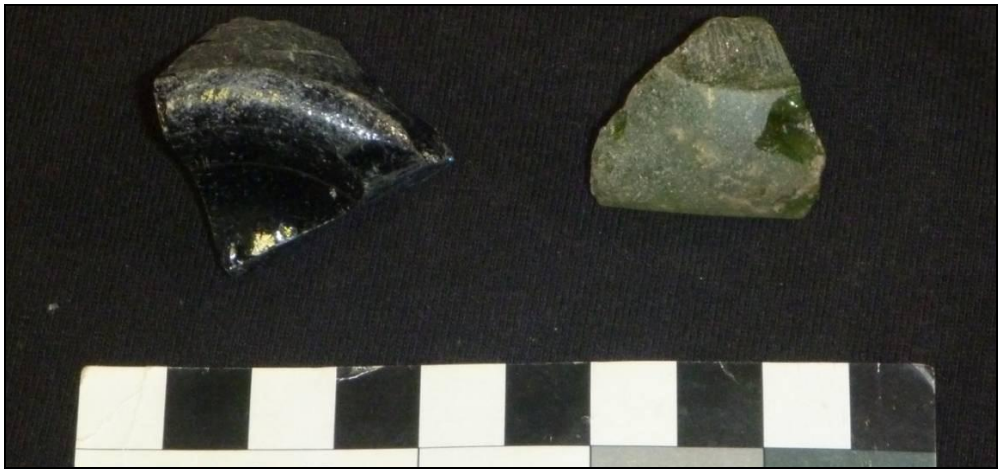


Figure 6.8: Scuffed green glass bottle bases (2058 and 2013). Scale shows 10mm intervals.

The southern section of the site extends for approximately 20 metres from F20 through to F39-40. This portion of the site is characterised by the presence of *in situ* cobbling (F30 and F31), disturbed cobbling (F20 and to a lesser extent F39-F40) and highly fragmented, worn or scuffed artefacts (**Figure 6.8**). Excavations in F39 revealed an early twentieth-century telecommunications trench, which was also evidenced along the western margin of F30-F31. This feature clearly post-dated the cobbled surface.

The glass artefacts from the F20-F40 area were characterised by bottles produced from moulds, which, on the basis of the absence of any pontil marks, would be likely to date from 1870-1920 (Boow, 1991:114, 116). A fragment of window glass (crown glass) from F20 is similarly indicative of the late nineteenth-century period (Boow, 1991:111). Other diagnostic glass items include two machine made, external screw thread finishes, from upper levels in F39 (Context 8) and C24 (Context 43), these items date to the mid to late twentieth-century (Boow, 1991:114). Similarly, fragments of modern car window glass were recovered from F39 (Context 8) and F40 (Context 5).

Metal items from the southern portion of the site were dominated by fasteners such as nails, bolts and washers from F20 (Contexts 2 and 9). These items were all heavily corroded (**Figure 6.9**), although the nails did appear to potentially be wire nails, which were produced from the 1860s to the 1880s (Varman, 1986:260).

Ceramic artefacts from this area include fragments of glazed stoneware pipe (**Figure 6.10**) from F39 (Contexts 8 and 14), which may have been from a drainage pipe that was subsequently disturbed by installation of the telecommunications trench, and two small fragments of domestic items from F20 (Context 9) and F39 (Context 14). Neither of the domestic fragments is chronologically diagnostic.

Miscellaneous artefacts from this area included brick fragments from F20 (Context 18) and F30 (Contexts 6 and 11) and mortar from F39 (Context 8). These items were too fragmentary to assess their age with any confidence.

The central portion of the site, extending for at least 45 metres between C50 and C96, is characterised by limited structural evidence in the form of postholes (C80 and B60 – Appendix E), and a sparse but relatively diverse artefact assemblage. Ceramic items from this area primarily consisted of fragments from stoneware (**Figure 6.10** and **Figure 6.11**), ginger bottles with a crown-seal finish (**Figure 6.11**) from A64-C64 (Context 22); these artefacts are likely to date to the early twentieth-century (Boow, 1991:117). Other ceramic items included a fragment of plate from C50 (Context 42) and cup fragments from B64 (Context 22) and C79 (Context 32).

Figure 6.9: Corroded iron structural items: bolt (4013), washer (4015), and suspected wire nails (4004). Scale shows 10 millimetre intervals.

Glass items from the area around B60-C60 and A64-F64 are predominantly fragments of moulded bottles from the second half of the nineteenth-century. Other glass artefacts include a fragment of lamp glass from A64 (Context 22) and a fragment of crown window glass from B64 (Context 22). Again, these artefacts appear to be indicative of occupation during the late nineteenth-century. In contrast to this, the glass artefacts from the trenches to the north (C70 and C79-D80) are dominated by machine made items typical of early twentieth-century occupation.

A ground shell pendant with inlaid decoration (**Figure 6.12**), presumably from an earring or necklace, was recovered from the lower levels of D80 (Context 32). This is the only personal item recovered from test excavations at G2B H14; it is difficult to ascertain an accurate date for this item, however its handmade nature and state of preservation is potentially indicative of the turn of the nineteenth to twentieth-century.

In terms of structural artefacts from this area there are two brick fragments from C50, (Context 32) of which one appears to be handmade, possibly dating to the middle to late nineteenth-century (Varman, 1986:260). A metal hinge and a bracket were also recovered from C95 (Context 32) and B95 (Context 33) respectively. The presence of these items is potentially indicative of a nearby structure, although there is very little in the way of other structural evidence from this excavation trench.

The third area corresponds to the area around trenches B100 and D100-E100. While the upper layers in these trenches clearly relate to relatively modern fill, as evidenced by the presence of copper wire and insulators from a telegraph line, the lower contexts (Contexts 25, 27 and 41) are associated with nineteenth century bottle glass, carbonised wood and a dense layer of ash. Twenty fragments of heat affected dark green glass were recovered from D100 and E100 (**Figure 6.7** and **Figure 6.13**). The age of this glass, combined with its exposure to heat and association with a burning event, suggest that the carbonised wood in this area may relate to a burning event from the late nineteenth or early twentieth-century.

Figure 6.10: Stoneware pipe fragment (1003). Scale shows 10 millimetre intervals.

Figure 6.11: Stoneware crown finish fragments from a ginger beer bottle (1007). Scale shows 10 millimetre intervals.

Figure 6.12: Shell pendant (3018). Scale shows 10 millimetre intervals.

Excavation across the northernmost portion of the site, from C110 to E120, resulted in recovery of a single fragment of amber bottle glass, which probably dates to the second half of the twentieth-century. Soil profiles in this area indicate the presence of at least one burning event below the cap of modern fill associated with construction of the existing highway (Appendix E), which may or may not be associated with the burning event identified in B100 and D100-E100. No other structural or artefactual evidence was identified in this portion of the site.

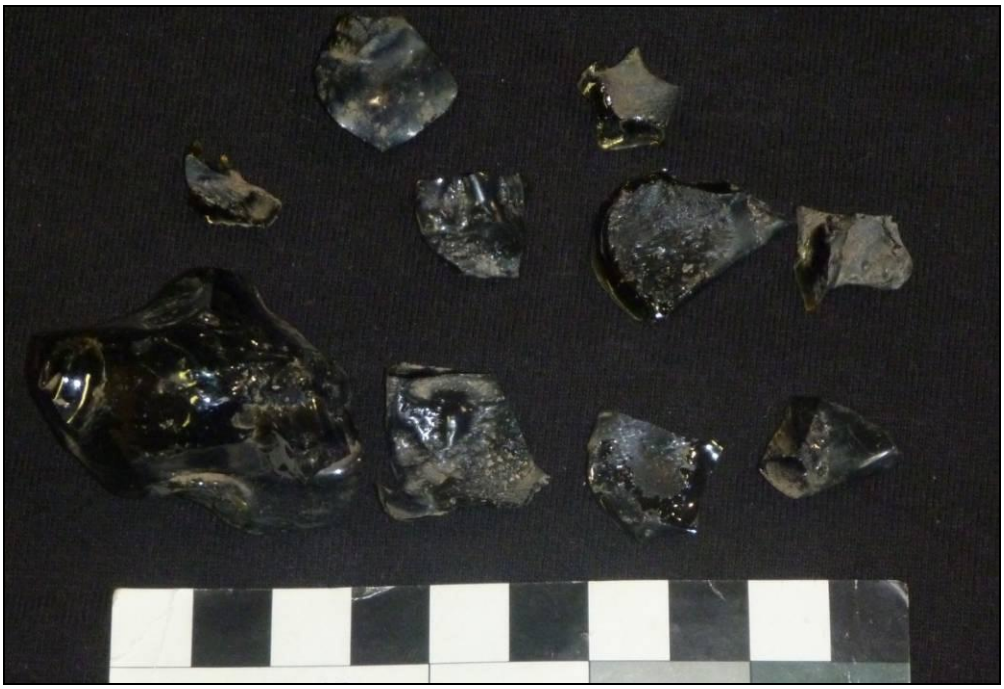


Figure 6.13: Dark green heat affected glass (2008). Scale shows 10 millimetre intervals.

6.4 Summary

The test excavation program at G2B H14 has demonstrated that there are sections, albeit limited areas, of relatively intact deposits from the turn of the nineteenth-twentieth century. Examples of such deposits include the cobbled floor identified in F30-F31, artefacts in association with the old ground surface identified in B60-C61 and A64-C64, the post hole identified in C80 and the burnt layers and associated artefacts in B100 and D100-E100. There are also examples of more disturbed deposits that, while compromised in integrity, appear to contain artefacts that have the potential to provide information about the chronology and function of the site (eg at F20 and F39-F40). However, the northernmost portion of the site, around C110 and E120, appears to be largely sterile below the cap of modern fill.

On the basis of historical research, including analysis of aerial photographs and available maps, it appears that the archaeological deposits at G2B H14 relate primarily to an area of street frontage, as opposed to the site of prior structures. There is however potential for traces of the eastern limits of buildings to occur along the western margins of the site, in the vicinity of A30-B80. The differences in archaeological features and associated artefact assemblages across the site may also be indicative of a series of street blocks, which could potentially be confirmed through additional excavations along a north-south transect.

In summary, archaeological deposits at G2B H14 are assessed as having potential to provide information on the following aspects of the site's history:

- The width of the street frontage and the activities that took place in this area.
- The location of individual buildings or portions of their eastern limits.
- The location of individual lot boundaries that extend east to west across the site.
- Differing site functions across these lots.
- Overall site chronology from the mid nineteenth to mid twentieth-century.

7 Significance assessment

7.1 Assessment criteria

The NSW Heritage Branch has defined a methodology and set of criteria for the assessment of cultural heritage significance for items and places, where these do not include Aboriginal heritage from the pre-contact period (NSW Heritage Branch and DUAP 1996, NSW Heritage Branch 2000). The assessments provided in this report follow the Heritage Branch methodology.

The following heritage assessment criteria are those set out for listing on the State Heritage Register. In many cases items would be significant under only one or two criteria. The State Heritage Register was established under Part 3A of the *Heritage Act 1977* (as amended in 1999) (Heritage Act) for listing of items of environmental heritage that are of State heritage significance. Environmental heritage means those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance (Section 4, Heritage Act).

An item would be considered to be of State (or local) heritage significance if, in the opinion of the Heritage Council of NSW, it meets one or more of the following criteria:

Criterion (a) An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

Criterion (b) An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

Criterion (c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

Criterion (d) An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

Criterion (e) An item has potential to yield information that would contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).

Criterion (f) An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).

Criterion (g) An item is important in demonstrating the principal characteristics of a class of NSW's:

- cultural or natural places; or
- cultural or natural environments.

(or a class of the local area's:

- cultural or natural places; or
- cultural or natural environments.)

An item is not to be excluded from the register on the ground that items with similar characteristics have already been listed on the register. Only particularly complex items or places would be significant under all criteria.

In using these criteria it is important to assess the values first, then the local or State context in which they may be significant.

Different components of a place may make a different relative contribution to its heritage value. For example, loss of integrity or condition may diminish significance. In some cases it is constructive to note the relative contribution of an item or its components. **Table 7.1** provides a guide to ascribing relative value.

Table 7.1: Guide to ascribing relative heritage value to constituent elements of a heritage item or grouping

Grading	Justification	Status
Exceptional	Rare or outstanding item of local or State significance. High degree of intactness. Item can be interpreted relatively easily.	Fulfils criteria for local or State listing.
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfils criteria for local or State listing.
Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Fulfils criteria for local or State listing.
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfil criteria for local or State listing.
Intrusive	Damaging to the item's heritage significance.	Does not fulfil criteria for local or State listing.

7.2 Summary of individual assessments

This section provides a summary of the significance assessments conducted for the forty non-Aboriginal (European) heritage recordings within or near (within 200 metres) the project. A detailed assessment of each site or item, against the assessment criteria is presented in Appendix G.

Of the forty non-Aboriginal (European) field recordings:

- Six have been found to fall below the significance thresholds defined within the assessment criteria. These are G2B H10, G2B H12, G2B H18, G2B H24, G2B H50 and G2B H57. These recordings will not be considered further with regard potential impact and impact mitigation.
- Three cannot be given definitive assessments until the nature of predicted archaeological deposits are confirmed through test excavation. These items have been given indicative assessments of local context significance, subject to confirmation (G2B H48, G2B H52 and G2B H53).
- One is assessed as having State significance (Graham Park – former agricultural research institution).
- The remaining thirty items are assessed as having heritage significance within a local context, according to one or more of the specified significance criteria.

These assessments are outlined in **Table 7.2**.

Table 7.2: Summary of Non-Aboriginal significance assessments

ID	Recording	Context of significance	Significance criteria							Summary statement of significance
			a	b	c	d	e	f	g	
G2B H10	Early C20th Cottage (72 North St. Berry)	Below threshold								The cottage at G2B H10 does not meet any of the significance criteria. This item falls below the threshold for heritage listing.
G2B H11	Federation Cottage c.1894 (77 North St. Berry)	Local							✓	The *GlenDevan* house (G2B H11) is of local significance as a representative example of Federation period housing on the Berry Estate.
G2B H12	Remnant portion of C20th highway (N. Berry wayside stop)	Below threshold								**Twentieth century highway remnants** The twentieth century road remnants comprised by the recordings G2B H15, G2B 20, G2B 21 and G2B 26 form an important example of elements of early twentieth century highway design, construction and modification. In particular, G2B H26 is important in the course of local highway upgrades. It is also directly associated with the Binks, an early tenant farming family that is of importance due to its involvement with the development of the local dairy industry. Items G2B H20, G2B 21 and G2B 26 all have the potential to yield information regarding standards in early twentieth century road design and construction, and G2B H15 and 26 are notable in terms of their rarity and representativeness. Remnant recordings G2B H12, G2B 18, G2B 24 and G2B 57 all fall below the threshold of significance defined in the assessment criteria.
G2B H15	Remnant portion of C20th highway (Adj to *Mananga* homestead)	Local						✓	✓	
G2B H18	Remnant portion of C20th highway (near and opposite Tindalls Lane intersection)	Below threshold								
G2B H20	Remnant portion of C20th highway (Broughton)	Local					✓			
G2B H21	Remnant portion of C20th highway (Broughton)	Local					✓			
G2B H24	Remnant portion of C20th highway	Below threshold								
G2B H26	Remnant portion of C20th highway	Local	✓	✓			✓	✓	✓	
G2B H57	Remnant portion of C20th highway (intersection of Highway and Tindalls Lane)	Below threshold								
G2B H13	Burnett Estate Workers Cottage c.1917 (143 North St. Berry)	Local							✓	The Burnett Estate Overseer's Cottage at G2B H13 is a well preserved and locally representative example of an early twentieth century weatherboard overseer's cottage.

ID	Recording	Context of significance	Significance criteria							Summary statement of significance
			a	b	c	d	e	f	g	
G2B H14	Archaeological deposit (former C19th *Broughton Creek* town buildings)	Local	✓				✓	✓	✓	The site G2B H14 is of importance in terms of the local history, particularly the development of nineteenth-century commercial and government premises and the road network. Excavations at the site have demonstrated that the G2B H14 archaeological deposits have the potential to yield information that will contribute to an understanding of site function(s), the spatial organisation of the urban landscape at Broughton Creek, and site chronology and formation processes. The remaining deposits at G2B H14 are rare within the local Berry context as the only remnants of this northernmost portion of the urban landscape and as a representative example of a relatively undisturbed portion of a nineteenth century street frontage.
G2B H16	*Mananga,* 1894, Queen Anne style homestead, former Berry Estate Manager's Residence (A40 Princes Highway. Berry)	Local	✓	✓	✓		✓		✓	The Mananga Homestead and the broader site complex are of local historical importance due to their role in the course of the history and development of the Berry Estate and Broughton Creek Village. Mananga Cottage and Mananga Homestead are both directly linked to important members of the Stewart Family, and as such have a strong and special historical association. The complex as a whole, and the Mananga Homestead in particular, display landmark qualities and are important in demonstrating aesthetic characteristics of a Federation period homestead. The site also has the potential to yield information that would contribute significantly to an understanding of the history of and development of the site, the Berry Estate and Broughton Creek Village. Of particular note is the existence of traces of the water race from the 1830 Broughton Creek saw mill. This item is also locally representative of a complex with multiple phases of occupation and a Federation Queen Anne style farm house with Art Nouveau character.
G2B H17	*Hillview* homestead (2nd half C19th) former Berry Estate tenant farm) (A111 Princes Highway Berry)	Local					✓	✓	✓	The *Hillview* homestead is a locally rare and representative example of a mid-nineteenth century slab house from a Berry Estate tenant farm. It is characteristic of a Scottish style of house layout and it has the potential to contribute, through archaeological survey/excavation to an understanding of organisation and operation of the Berry Estate as well as the living conditions and social status of tenant farmers.
G2B H19	Remnant portion of C19th road (West of Gembrook Lane)	Local	✓	✓			✓	✓		**Remnants of the Berry Estate Road (c.1856-1870s)** The remnant sections of the nineteenth century Berry Estate road are representative and relatively rare examples of a transport corridor that was locally important as a private road and as the first inland route that bypassed Seven Mile Beach. These road remnants have a strong association with Messrs Alexander and David Berry, who were of local importance due to their prominent role in European settlement. They also
G2B H22	Remnant portion of C19th road	Local	✓	✓			✓	✓		
G2B H23	Remnant portion of C19th road	Local	✓	✓			✓	✓		

ID	Recording	Context of significance	Significance criteria							Summary statement of significance
			a	b	c	d	e	f	g	
G2B H27	Remnant portion of C19th road	Local	✓	✓			✓	✓	✓	display the potential to yield information, through archaeological excavation and survey, that would contribute to an understanding of nineteenth century road construction and use.
G2B H30	Remnant portion of C19th road	Local	✓	✓			✓	✓	✓	
G2B H55	Remnant portion of C19th road (north/upslope of *Mananga* homestead)	Local	✓	✓			✓	✓	✓	
G2B H25	*Sedgeford* homestead, 1902, (A495 Princes Highway, Broughton Village)	Local		✓					✓	The *Sedgeford* homestead and gardens have a strong and special association with the Binks Family, a well known local family who have, since the beginning of the twentieth century, made a lasting contribution to the local and wider community through the dairy industry. G2B H25 is representative of an early twentieth century dairy farm in association with a disused highway alignment; it retains well preserved examples of the Federation period homestead and the associated gardens.
G2B H28	*Brookside* homestead (A540 Princes Highway. Broughton Village)	Local					✓		✓	The Brookside homestead comprises two salvaged structures, one of which appears to be from portion 181, a 100 acre block associated initially with Anthony Finn and later with Dicky Woods. Investigation and analysis of the Brookside homestead's constituent elements, in particular the section from portion 181, may yield information that will help in interpretation of deposits at G2B H59. The archaeological traces of former structures, including a dairy, at G2B H28 have the potential to yield information that will contribute to an understanding of the history of the local dairy industry. They also have the potential to be representative of such a site.
G2B H29	C20th concrete bridge, 1935, (Princes Highway. Broughton Creek)	Local	✓		✓			✓	✓	The Broughton Creek Bridge's construction is associated with the grand scheme of highway improvement undertaken by the Main Roads Board cum Department of Main Roads in an attempt to bring the State's main roads up to the standard required by the modern motoring age emerging in the inter-war period. As a widened bridge, it represents the continual process of upgrading required in response to the increased volume, weight and speed of traffic on this busy highway
G2B H45	*Glenvale* homestead, former Berry Estate tenant farm (A371 Princes Highway. Broughton)	Local					✓	✓	✓	The *Glenvale* homestead is a locally rare and representative example of a mid-nineteenth century slab house from a Berry Estate tenant farm. It is characteristic of a Scottish style of house layout and it has the potential to contribute, through archaeological survey/excavation to an understanding of organisation and operation of the Berry Estate as well as the living conditions and social status of tenant farmers.

ID	Recording	Context of significance	Significance criteria							Summary statement of significance
			a	b	c	d	e	f	g	
G2B H47	Former St Patrick's Convent, and St Patrick's Church and grounds (80 North St. Berry)	Local				✓		✓	✓	St Patrick's Church and grounds, including the former St Patrick's Convent, are strongly associated with the local Catholic community; the site has been associated with the Catholic Church since the late nineteenth century. The former convent is a locally rare site type and the complex as a whole is representative of inter-war religious architecture and a Catholic site complex.
G2B H48	Potential archaeological deposit, former Berry Estate tenant farm (now Greystanes Lodge)	Local (subject to confirmation through test excavation)					✓			The potential archaeological deposits at G2B H48 are locally significant as a site that may contribute to an understanding of life on Berry Estate tenant farms.
G2B H49	*Oakleigh* homestead (59 Woodhill Mountain Rd. Berry)	Local					✓		✓	The homestead at G2B H49 is locally representative of 1930s farm house construction. It is a well preserved example of its type.
G2B H50	*Clare Moy* Cottage (342 Princes Highway. Toolijooa)	Below threshold								The *Clare May* Cottage does not meet any of the significance criteria. This item falls below the threshold for heritage listing.
G2B H51	*Graham Park* former agricultural research institution (8, 9 and 13 Schofields Lane, Berry)	State	✓	✓	✓		✓	✓	✓	Graham Park Research Station is of local and State importance in terms of its role in the development of agricultural research, in particular artificial insemination and stock breeding. It is also historically linked to pioneering research sponsored by the Berry Estate under Alexander Hay, and directly linked to the life and works of Edward Graham, an individual of State importance in the context of government policy on agriculture and agricultural development. Graham Park also derives significance at local and State levels due to its contributions to agricultural research. The complex of buildings, laboratories, sheds and enclosures has the potential to yield information, through archaeological investigation, that would contribute to an understanding of the development and operation twentieth century agricultural research stations. It is a locally rare site that is also representative of its type at local and State levels.
G2B H52	Potential archaeological deposit, former Berry Estate tenant farm (A441 Princes Highway. Broughton Village)	Local (subject to confirmation through test excavation)					✓	✓	✓	The potential archaeological deposits at G2B H52 relate to a nineteenth century Berry Estate tenant farm. This site is of local significance as a place that has the potential to yield information about tenant farms and the interrelationship between such sites and sequences of transport corridor modifications through the nineteenth and early twentieth centuries. It is also locally important as an example of a former tenant farm that maintains its original configuration with the 1856 and 1870s highway alignment and as a representative example of such a site.

ID	Recording	Context of significance	Significance criteria							Summary statement of significance
			a	b	c	d	e	f	g	
G2B H53	Potential archaeological deposit, former Berry Estate tenant farm structure and indeterminate rock rubble alignment (Toolijooa Ridge)	Local (subject to confirmation through test excavation)					✓			The potential archaeological deposits at G2B H53 are locally significant as a site that may contribute to an understanding of life on Berry Estate tenant farms.
G2B H54	Remnant C19th dry stone wall (former highway boundary, Toolijooa Ridge)	Local			✓		✓	✓	✓	The dry stone wall at G2B H54 is of local significance in terms of its aesthetic values, research potential, and its rarity as a fence type and regional outlier.
G2B H56	Farmhouse and Dairy (disused), early to mid C20th, (117 North St., Berry)	Local					✓		✓	The Broughton Mill homestead and dairy is a good and locally representative example, albeit somewhat dilapidated, of an early twentieth century dairy farm.
G2B H58	Uniting Church Hall (formerly Wesleyan Chapel), 1884, Victorian Carpenter Gothic style, (69 Albert St, adj. to North St)	Local	✓			✓		✓	✓	The Uniting Church Hall is of local historical importance as the first building to be erected on land legally acquired in the new township of Berry; it is also important in the course of the development of the township and its places of religious worship. This item is also of local social significance due to its ongoing connection with the Uniting Church community. The church hall is also a locally rare and representative item in terms of a Victorian Carpenter Gothic building.
G2B H59	Archaeological deposit and remnant plantings, former early C19th homestead (Broughton Village)	Local	✓	✓			✓	✓	✓	The potential archaeological deposits at G2B H59 are of local significance as a site associated with early land alienation, in particular an unusually small land grant amongst a series of larger estates. The site also appears to be directly associated with Anthony Finn, an individual of local importance. The potential deposits at G2B H59 have the potential to contribute to an understanding of the nature and phases of nineteenth century occupation. This site is also important as a relatively intact, rare and representative example of archaeological deposits relating to a local, small nineteenth century farm.
G2B H60	Skid mounted work-site shed	Local					✓	✓	✓	The G2B H60 work-site shed on skids is a relatively well preserved and representative example of its type and demonstrates the design and functional requirements of such a structure. It is likely to be a rare example of this shed type, which is unlikely to be well documented, or represented in collections, museums or reserves.
G2B H61	Quarried rock outcrop, Broughton	Local							✓	Quarried rock at Broughton (G2B H61) is a locally representative example of a small sandstone quarry for rock, probably used in early road construction.

ID	Recording	Context of significance	Significance criteria							Summary statement of significance
			a	b	c	d	e	f	g	
G2B H62	Avenue of Poplar trees	Local			✓					The Poplar trees planted at G2B H62 are a locally significant landmark and aesthetic landscape component.
G2B H63	Mark Radium Park	Local		✓	✓					Mark Radium Park is listed on the Shoalhaven LEP heritage schedule as a place of local importance due to its aesthetic qualities and historical association with Jack McGee and his pony Mark Radium.
SICPH CL	Southern Illawarra Coastal Plain and Hinterland Cultural Landscape	Local	✓	✓	✓	✓	✓	✓	✓	The Southern SICPH CL is of local significance in terms of its historical associations and importance in the pattern of local history. It is also locally significant in terms of its strong and special association with the local Aboriginal community. More notably, it is of local and State significance in terms of its aesthetic qualities, which relate in part to the unique natural character of the junction of the coastal plain with the Illawarra escarpment, and in part from the striking contrast between the culturally modified elements of the landscape and the more natural elements. The clearly identifiable nineteenth century structure of the landscape also contributes to the aesthetic value of the SICPH CL. The SICPH CL is a rare landscape type, both in terms of its natural features and also the retention of such clear examples of the late nineteenth and early twentieth century pastoral landscape and associated private towns. It is the only remaining such portion of the broader Illawarra cultural landscape that has not been substantially impacted by urban infill. As such it is also representative of its type and displays considerable research potential in terms of historical themes at local and State levels.

7.3 The significance of the town of Berry as a component of the Southern Illawarra Coastal Plain and Hinterland Cultural Landscape

For the purposes of this assessment, it was considered more effective to recognise the heritage values of the town of Berry, as part of a wider interconnected cultural landscape, than to describe the town as a separate heritage entity with debatable curtilage and viewshed boundaries. This is not to infer however, that the town cannot, or should not, be defined in such a way. But rather, given that the potential for project impact lay within the landscape context of the town, it was preferred to assess this impact relative to the inclusive values of a defined cultural landscape.

As such, the heritage significance of the landscape context of Berry is not simply aesthetic or visual in nature. Also of integral importance are those natural and constructed landscape elements which demonstrate the past and present interrelation of the town with its wider region. Typically these include transport, trade and communication corridors, cadastral patterns of land alienation, and a matrix of resource exploitation mediated by logistical and commercial interests. Local examples of corridors are Broughton Creek, the highway and the Illawarra rail line. The interrelation of surviving forests, pastures, croplands and townscapes provides a further information and contextual layer.

As described in section 5.3.2, Berry was, and remains, an integral component of the Southern Illawarra Coastal Plain and Hinterland Cultural Landscape (SICPH CL). The town holds a central geographic position and was a critical administrative, service, commercial and community centre. Initially it served as an industrial focus for the processing of cedar from the Berry Estate, and subsequently grew with the agricultural development of the Estate. North of the Shoalhaven River, the town was a critical centre for the Estate, together with the main estate buildings at Coolangatta. The town also served as a focus for settlers who established holdings to the north of the Berry Estate, and for the economic diversification that following the Estate's breakup.

This history and role remains evident in the landscape surrounding the town and evident from it. The town is strategically placed on elevated ground adjacent to the navigable limits of the Broughton Creek. A locus which happened to also coincide with an established Aboriginal encampment which probably predated European arrival. The town is connected by a highway and railway, both of which avoid crossing the swampy basins of the plain by traversing the fringing basal slopes and spurlines. Agricultural and pasture lands continue to fringe the town boundaries to the north and south. On the upslope side, the escarpment and higher slopes of the Illawarra Range provide a permanent backdrop, a natural foil to the nineteenth century order of the town grid and its built environment.

All of these elements reveal a past and present interplay between the natural and cultural worlds which are the signature of a cultural landscape. When the high degree of integrity and the retention of these elements are combined with the aesthetic values of the natural landscape, the town and context of Berry must be acknowledged as an exceptional constituent component of the SICPH CL.

8 Statutory and policy context

8.1 Overview of key legislation

8.1.1 Commonwealth legislation

The main Commonwealth Act concerned with the protection and management of cultural heritage places is the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The jurisdiction of this Act relates to heritage places on Commonwealth owned or controlled lands; heritage values which may be impacted by actions by the Commonwealth, heritage values associated with items of national environmental significance; and places with heritage significance consistent with World Heritage, National or Commonwealth Heritage listing.

There are no places within the project with cultural heritage values consistent with these jurisdictions.

8.1.2 The Register of the National Estate

The register of the National Estate (RNE) was established under the now repealed *Australian Heritage Commission Act 1975.* The National Estate was defined under this Act as 'those places, being components of the natural environment of Australia or the cultural environment of Australia, that have aesthetic, historical, scientific or social significance or other special value for future generations as well as for the present community'. The project includes one item included on the RNE as an indicative place (the Berry District Landscape Conservation Area).

Following amendments in 2006 to the *Australian Heritage Council Act 2003* (AHC Act), from February 2012 all references to the Register have been removed from the EPBC Act and the AHC Act. The RNE is now maintained on a non-statutory basis as a publicly available archive.

8.1.3 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act), and its regulations, schedules and associated guidelines require that environmental impacts are considered in land-use planning and decision making. Environmental impacts include cultural heritage.

There are four main areas of protection under the EP&A Act:

- Environmental planning instruments allow particular uses for land and specify constraints. Part 3 governs the preparation of planning instruments. Both Aboriginal and historical (non-Aboriginal) cultural heritage values should be assessed when determining land-use.
- Provision for a fast track approval process of developments declared to be State Significant infrastructure, by order or in a State environmental planning policy.
- Part 4 relates to the development assessment process.. Impact to both Aboriginal and historical (non-Aboriginal) cultural heritage values are included.
- State Government agencies which act as the determining authority to decide whether to proceed with proposals must consider a variety of community and cultural factors in their decisions, including Aboriginal and historical (non-Aboriginal) cultural heritage values. Part 5 relates to activities which do not require consent but still require an environmental assessment, such as projects by government authorities.

Under the EP&A Act, various environmental planning instruments can be prepared and approved, such as local environmental plans (LEPs) (Part 3, Division 4) and State Environmental Planning Policies (SEPPs) (Part 3 Division 2). These planning instruments may identify places and features of cultural heritage significance and define various statutory requirements regarding the potential development, modification and conservation of these items. In general, places of identified significance, or places requiring further assessment, are listed in various heritage schedules that form part of a local environmental plan. Listed heritage items are then protected from certain defined activities, normally including demolition, renovation, excavation, subdivision, and other forms or damage, unless consent has been gained from an identified consent authority. The consent authority under a local environmental plan is normally the Local Shire or City Council.

As of 1 July 2009, regional environmental plans (REPs) are no longer part of the hierarchy of environmental planning instruments in NSW. All remaining REPs are deemed to be State environmental policies.

8.1.4 Projects lodged under former Part 3A of the EP&A Act

Prior to its repeal in October 2011, Part 3A of the EP&A Act established a separate development assessment and approvals regime for infrastructure projects This regime removed the need for single-issue approvals under eight other Acts, including the Heritage Act. Environmental planning instruments such as within regional and local environmental plans, (other than State environmental planning policies) do not apply to projects declared under Part 3A.

Assessment under Part 3A required the preparation of an environmental assessment including a Statement of Commitments (SoC), as per the specifications of the Department of Planning and Infrastructure (DP&I). The SoC specified how the project would be managed in an environmentally suitable manner. The Minister could refuse the project, or approve it with any conditions considered appropriate.

Transitional arrangements now cover projects which were lodged under the now repealed Part 3A. Project applications for which DGRs were issued on or before 8 April, 2011, will remain as Part 3A applications. The Foxground and Berry bypass project falls into this category and will be assessed as a Part 3A application.

8.1.5 NSW Heritage Act 1977

The Heritage Act regulates the identification, assessment and management of non-Aboriginal heritage values within NSW. The Act recognises two levels of heritage significance – State and local significance across a broad range of values.

Some key provisions of the Act are:

- The establishment and functions of the Heritage Council (Part 2).
- Interim heritage orders (Part 3), the State Heritage Register (Part 3A).
- Heritage Agreements (Part 3B).
- Environmental planning instruments (Part 5).
- The protection of archaeological deposits and relics (Part 6).
- The establishment of Heritage and Conservation Registers for State Government owned and managed items (Part 7).

Generally this Act provides protection to items that have been identified, assessed and listed on various registers including the:

- State Heritage Register (consisting of items and places of State heritage significance).
- State government authority Section 170 registers (consisting of significant items and places managed by State authorities).
- Heritage Schedules included within Local and Regional environmental plans, and administered by Local Government.

In addition, section 139 of the Act specifically provides protection for any item classed as a relic. A relic is defined as:

> *"...any deposit, artefact, object or material evidence that:*
>
> *(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*
>
> *(b) is of State or local heritage significance."*
>
> (*Heritage Amendment Act 2009*, Part 1, Section 4).

Section 146 of the Act requires that the discovery of a previously unknown relic be reported to the Heritage Council within a reasonable time of its discovery.

Current policy and interpretation by the NSW Heritage Branch (Department of Planning and Infrastructure) limits the scope of the 'relic' definition to exclude above ground structures and a range of ground features or 'works' which may include roads, embankments and other forms of constructed ground relief. This interpretation is based on the definition of 'environmental heritage' in Section 4 of the Act which states that environmental heritage means 'those places, buildings, works, relics, moveable objects and precincts, of State or local significance'. The Heritage Branch interprets each of these categories to be mutually exclusive (correspondence from Reece McDougall, Executive Director, Dept of Planning, to K. Officer, Navin Officer Heritage Consultants 30/5/07).

In general, the Act disallows interference with a place or item listed on the State Heritage Register, or disturbance to a relic, except according to the provisions of a permit. A number of standard exemptions and general or additional exceptions to the requirement for permits have also been defined (Sections 57 and 139).

For projects lodged under the now repealed Part 3A of the EP&A Act, these permit provisions do not apply.

Section 170 of the Act requires all state government instrumentalities to establish and maintain a Heritage and Conservation Register that lists items of environmental heritage. The register is to include items which are, or could potentially be, the subject of a conservation instrument, and which are owned, occupied or otherwise under the control of that instrumentality. One item listed on the RMS Section 170 register occurs within the project (G2B H29).

8.1.6 The National Trust of Australia (NSW)

The National Trust of Australia (NSW) compiles and maintains a register of items and places which the Trust determines to have cultural significance and to be worthy of conservation. Although the Register has no statutory authority, the inclusion of an item or place is likely to lend support to an assessment of heritage value.

8.2 Implications for the project

This project is being assessed under the EP&A Act as a project lodged under the now repealed Part 3A of that Act. As such, the Act removes the requirement for permits under section 139 of the *Heritage Act 1977*. Similarly, environmental planning instruments established in Regional and Local Environmental Plans do not have legal effect. There remains however requirements to report any findings to the Heritage Branch, OEH (Section 146 of the Heritage Act).

Despite these exemptions, as a part of the environmental assessment for the project required under the EP&A Act, the potential impact on historic heritage values must be assessed and effective impact mitigation and conservation management proposed. The application of this process to historic heritage values is mentioned specifically in the DGRs for the project (refer section 1.3).

9 Impact assessment

9.1 Representative and worst case impact

The general requirements included in the Director-Generals Requirements for the project specify that the environmental assessment must include:

> *An assessment of the key issues, including an assessment of the worst case and representative impact for each issue for all aspects of the project…* (general requirement no.3)

For this assessment, representative impact is defined as that impact which has been anticipated in this analysis and to which the proposed management and impact mitigation strategies are directed. It is representative of the expected scenario, based on an analysis of the best information available and on a reasonable or normative level of prediction.

Worst case impact is defined as an extreme scenario where the highest conceivable degree of impact is anticipated due to unexpected occurrences which are extraordinary and outside of a reasonable level of prediction.

The worst case scenario with regard to non-Aboriginal cultural heritage values consists of the unexpected encounter of a heritage item or items which, due to a high level of assessed significance (such as at a State or National level) warrants in situ conservation and a consequential change in the project alignment. This would conceivably be due to the discovery of a previously undetected and unpredicted item, or to a much less likely degree, the discovery of a new feature associated with a known heritage item. Conceivable examples of worst case scenario discoveries include the following:

- A unique, well preserved and substantial remnant or archaeological deposit of the early industry and occupation of the Berry Estate (such as a cemetery, maritime vessel, convict stockade, road bridge or mill).
- An archaeological deposit containing rare and well preserved organic items due to water logged and anaerobic conditions, such as may be found within a swamp or peat deposit.

The potential for a worst case scenario is considered to be very low and has been minimised by the conduct of a robust analysis which included:

- The use of predictive modelling and a review of historical documentary and pictorial sources.
- Archaeological survey and interpretation.
- Reference to oral tradition and information provided by local community sources.
- Review of aerial photography.

An unexpected finds procedure has been developed by the RMS which defines a protocol to be followed in the event that an unexpected find is made during the process of construction (refer Appendix H). The adoption of this procedure provides both a safeguard and management process in the event of a worst case scenario.

9.2 Potential development impact categories

The classification of development impact falls into two broad categories, direct or indirect impact. This classification is made relative to the identified heritage item (which may also include or constitute a place and/or curtilage). Direct impact is where a development would result in physical loss or change to a heritage item, causing a loss of heritage value or significance. Direct impact may occur to a part of an item (partial impact), or affect the whole of the item (whole impact).

Indirect impact is where a development would change the context and surroundings of an item, causing a loss of heritage value or significance. This may include visual, sonic and olfactic changes, as well as the physical loss or concealment of landscape elements. Indirect impacts may reduce the integrity of an item, by effecting components of its setting which are important for an appreciation of its history, function and meaning.

The potential impacts of the project on heritage items consist of the following categories:

a. A whole or complete degree of direct impact to a heritage item resulting in the physical loss of the item. This can be expected to occur in up to 100 per cent of the planned highway easement, although there may be some limited potential for site remnants to survive in undeveloped areas or in some ancillary areas.
b. Partial or minor direct impact to heritage item(s). The resulting loss or reduction in heritage significance will depend on the nature of the item and the extent and scope of the physical impact. Included in this category are: instances where a proportion of the item will remain, impact to the defined curtilage of an item, and impact to a minor or small proportion of an item, such as the root stock of a heritage tree.
c. Indirect impacts, such as to the contextual and landscape values associated with an item. Typically this occurs when a development is now adjacent to, or closer to the item.
d. Indirect impact to items of movable heritage which could be moved to avoid direct impact and as a consequence lose contextual integrity.
e. No significant impact. This category involves instances where the development would either: not pose an impact to a heritage item (direct or indirect), or any measurable impact was insignificant and did not reduce the heritage value or significance of the item. An example would be where a development occurs within the viewshed from an item, but does not obscure, remove or reduce the role of contextual or landscape components that contribute to the significance of the item. A further example would be where a development, close to an item, does not increase the level of impact that has already occurred from existing elements or actions.

9.3 Summary of impact and items subject to impact

A summary of the project impact on the non-Aboriginal heritage items is provided below. Detailed and site specific statements of heritage impact are provided in Appendix I.

Of the 34 heritage items, 19 would not be directly impacted, six would be partially impacted, and nine wholly impacted. Of those not directly impacted (19), 13 occur within 50 metres of the construction footprint (CF) and 11 would be subject to indirect impacts relating to their landscape contexts.

A summary of the impact categories is provided in **Table 9.1** The interrelation of the categories used in this analysis and a simplified scheme provided by the RMS (refer below), is shown in **Table 9.2**. An inventory of item specific impact is provided in **Table 9.3**.

Mapping of recording locations relative to a simplified scheme of impact categories is provided in Appendix A.1. The simplified scheme is preferred by the RMS for a general audience. The interrelation of the categories used in this analysis and the simplified scheme is shown in **Table 9.2**, and used in **Table 9.5**. The scheme equates direct impact with *physical impact*, and indirect impact with *visual impact*. In this regard it should be noted that the term *physical impact* refers only to the type of impact to the heritage item. Its use in the simplified scheme is distinct from the physical impact of the project which may also cause indirect or *visual* impacts. Although *visual impact* does not strictly include all indirect impacts, such as non-visual changes to a heritage item's context (such as noise, hydrology, and access), this inclusivity should be assumed in the simplified scheme. Lastly, the term *no impact* is applied to mean no significant impact. That is, the degree of impact does not rise above a threshold relative to the significant values of the heritage item or a pre-existing level of impact. An example of a pre-existing threshold would be an already present road in close proximity to an item. An example of a non-significant impact could be a distant visual intrusion into a viewscape or vista from a heritage item or a relatively small increase in noise.

Table 9.1: Summary of heritage items according to construction impact categories (refer Section 9.2 for category definitions)

Direct impact	Impact category	Items	Total items
yes	a) Whole direct impact	G2B H11, G2B H19, G2B H21, G2B H22, G2B H23, G2B H30, G2B H53, G2B H55 and G2B H61	9
yes	b) Partial direct impact	G2B H14, G2B H15 and G2B H63	3
yes	b) Partial direct impact *and* c) Indirect impact	G2B H28, G2B H54 and SICPH CL	3
no	c) Indirect impact	G2B H13, G2B H16, G2B H17, G2B H25, G2B H29, G2B H47, G2B H48, G2B H49, G2B H56, G2B H59 and G2B H62	11
no	e) No significant impact	G2B H20, G2B H26, G2B H27, G2B H45, G2B H51, G2B H52, G2B H58 and G2B H60	8

Table 9.2: Interrelation of impact categories used in this analysis and the RMS simplified classification scheme (refer Appendix A.1, where these categories are employed in project mapping)

Simplified Impact Category	Categories used in analysis			
	Direct Impact	Impact category	Items	Total items
Physical impact – Wholly impacted	yes	a) Whole direct impact	G2B H11, 19, 21, 22, 23, 30, 53, 55 and 61	9
Physical impact – Partially impacted	yes	b) Partial direct impact	G2B H14, 15 and 63	3
	yes	b) Partial direct impact *and* c) Indirect impact	G2B H28, 54 and SICPH CL	3
Visual impact only	no	c) Indirect impact	G2B H13, 16, 17, 25, 29, 47, 48, 49, 56, 59 and 62	11
No impact	no	e) No significant impact	G2B H20, 26, 27, 45, 51, 52, 58 and 60	8

Table 9.3: Itemised summary of construction impacts to heritage items

Site ID	Recording type	Direct impact	Impact category	Comments (CF = Construction footprint)
G2B H11	*GlenDevan* Federation House (77 North St. Berry)	yes	a	Whole of site would be impacted
G2B H13	Burnett Estate Overseer's Cottage (143 North St. Berry)	no	c	Located within 50 metres of CF
G2B H14	Archaeological deposit (former C19th *Broughton Creek* town buildings)	yes	b	Partial impact – due to construction of on-ramps and off- ramps and a realigned service road intersection
G2B H15	Remnant portion of C20th highway	yes	b	Partial impact – due to upgrade as extended service road and new intersection
G2B H16	*Mananga,* homestead complex, (A40 Princes Highway. Berry)	no	c	Located within 50 metres of CF
G2B H17	*Hillview* homestead (A111 Princes Highway Berry)	no	c	Located within 50 metres of CF
G2B H19	Remnant portion of C19th road	yes	a	Whole of site would be impacted
G2B H20	Remnant portion of C20th highway	no	e	Located within 50 metres of CF
G2B H21	Remnant portion of C20th highway	yes	a	Whole of site would be impacted
G2B H22	Remnant portion of C19th road	yes	a	Whole of site would be impacted
G2B H23	Remnant portion of C19th road	yes	a	Whole of site would be impacted
G2B H25	*Sedgeford* homestead (A495 Princes Highway, Broughton Village)	no	c	Grounds located within 50 metres of CF
G2B H26	Remnant portion of C20th highway	no	e	Southern end of remnant occurs within 50m of CF
G2B H27	Remnant portion of C19th road	no	e	Located more than 150m away from CF
G2B H28	*Brookside* homestead (A540 Princes Highway. Broughton Village)	yes	b & c	Partial impact – Acquisition of land for the bypass easement would include a southern outbuilding and associated platforms. Main residential buildings occur outside of the easement boundary but are in close proximity (within 50 - 100 metres of an elevated bridge over Broughton Creek). A memorial planting is 200 metres away from CF
G2B H29	C20th concrete bridge (Princes Highway. Broughton Creek)	no	c	Bridge would be retained for use on service road, located immediately adjacent to CF (within 50 metres of CF)

Site ID	Recording type	Direct impact	Impact category	Comments (CF = Construction footprint)
G2B H30	Remnant portion of C19th road	yes	a	Whole of site would be impacted
G2B H45	*Glenvale* homestead, (A371 Princes Highway. Broughton)	no	e	Homestead buildings occur 120 metres from easement boundary. Note that the whole of the current property holding is listed on the Shoalhaven. LEP 1985 and portions of this property would be directly impacted, however this would not result in any loss of heritage significance
G2B H47	Former St Patrick's Convent, St Patricks Church and grounds (80 North St. Berry)	no	c	Located within 50 metres of CF
G2B H48	Potential archaeological deposit, former Berry Estate tenant farm (now Greystanes Lodge)	no	c	Located within 50 metres of CF
G2B H49	*Oakleigh* homestead (59 Woodhill Mountain Rd. Berry)	no	c	Located 100 metres away from easement boundary
G2B H51	*Graham Park* former agricultural research institution (8, 9 & 13 Schofields Lane, Berry)	no	e	Located within 50 metres of CF
G2B H52	Potential archaeological deposit, former Berry Estate tenant farm (A441 Princes Highway. Broughton Village)	no	e	Located 300 metres away from CF
G2B H53	Potential archaeological deposit, former Berry Estate tenant farm (Toolijooa Ridge)	yes	a	Whole of site would be impacted
G2B H54	Remnant C19th dry stone wall (Toolijooa Ridge)	yes	b & c	Partial – At least the southern half of the known extent of the wall would be directly impacted
G2B H55	Remnant portion of C19th road (north of *Mananga* homestead)	yes	a	Whole of site would be impacted
G2B H56	*Broughton Mill* Homestead and Dairy (disused) (117 North St., Berry)	no	c	Located within 50 metres of CF
G2B H58	Uniting Church Hall (formerly Wesleyan Chapel)	no	e	Located 200 metres away from CF
G2B H59	Archaeological deposit former (non Berry Estate) homestead (Broughton Village)	no	c	Located 180 metres away from CF
G2B H60	Skid mounted work site shed (movable item)	no	e	Current location is within 50 metres of CF, but location is not intrinsic to heritage value of item

Site ID	Recording type	Direct impact	Impact category	Comments (CF = Construction footprint)
G2B H61	Quarried rock outcrop, Broughton	yes	a	Whole of site would be impacted
G2B H62	Avenue of Poplar trees	no	c	Located within 50 metres of CF - the northern most Poplar tree is located 10m from a proposed water quality pond.
G2B H63	Mark Radium Park	yes	b	Partial - a narrow portion of land along the western margin of the park would be impacted
SICPH CL	Cultural Landscape (Southern Illawarra Region)	yes	b & c	Partial – Impacts would include the visual and structural impact of the carriageway formation, deep cuttings, and visually obtrusive embankments

9.4 Impact to cultural landscape values and the Berry township

The following section provides an overview of the development impact to cultural landscape values. A detailed statement of heritage impact is provided in Appendix I under the Southern Illawarra Coastal Plain and Hinterland recording, item SICPH CL. **Figure 9.1** and **Figure 9.2** illustrate the location of the project relative to the zones and boundaries of the SICPH CL and previous landscape recordings.

9.4.1 The nature and extent of anticipated development impact

The project would impose a modern structural component onto the landscape. The formal traits of the project would contrast with those of the existing landscape in the following ways:

- The horizontal alignment of the project would be curvilinear within the constraints of standardised and even radius curves. This would contrast with most of the existing broad scale man made landscape features which are based on grids, right angles, or straight intervals joined by relatively tight curves.
- The vertical alignment of the project would be gradual and incremental, and would include ramps, embankments and cuttings to maintain standard rates of climb or descent. This is in contract to most of the existing broad scale man made landscape features which are more reflective of natural gradients and elevations.
- The width of the project corridor (including the carriageways, ramps and associated easement) would vary from around 50 metres to up to 200 metres. This is in major contrast to existing man made corridors which are nearly all less than 50 metres in width.
- Unlike the alignment of existing roads which, through their curves, and opportunistic alignments, manifest the natural topography they are traversing, the bypass alignment would create its own topography of cuttings and embankments as required by limited tolerances in vertical and horizontal alignment. As a consequence the bypass may run contrary to the natural flow of ridges, valley orientation, and slope contours.
- Whereas the overwhelming character of property boundaries, field delineation, artificial lowland drainage, and secondary and minor roads is one of a grid and rectangular divisions, the bypass would superimpose this patchwork with a visually dominant and curvilinear corridor, following its own independent directional agenda.

In the general proximity of Berry, the project would:

- Impact upon the short and mid-distance view-sheds from the town's northern streetscapes.
- Impose a contrasting and modern (curvilinear) road form upon, the grid dominated nineteenth century character of the existing rural town fringe.
- Impact upon some remnant pastoral open space along the northern margin of the town grid. This margin provides a visually appealing contrast between the urban and rural, and contributes a pastoral character and setting for the town.

These impacts, without mitigation, would amount to a significant deterioration in the cultural landscape values of the SICPH CL and specifically to the Berry landscape setting. The construction of the project would intersect, interrupt, or truncate previous landform elements which contribute to those values such as roads, field systems, natural landforms and vegetation belts. On the northern margin of Berry, the existing pastoral setting of valley-floor fields, farm buildings, and converging tree lined streamlines, would be divided by the project, and blocked from near and middle distance views from the town. This combination of interruption and obscuration could, without mitigation, amount to a significant impact to the northern landscape setting of the town, and thus the heritage values of that setting.

The project, due to its size and engineered character would also have the potential to significantly change the character of its surroundings. The necessary vertical alignment of the project would, in places, result in substantial cuttings, embankments and ramps. These, and their continuous nature, ensure the potential of the project to be a dominant landform in its own right. Across the northern margin of Berry, from east to west, the project would descend to the valley floor via the bridge at Berry over Broughton Mill Creek. It would then traverse the valley floor before passing under Kangaroo Valley Road via a cutting at the Berry interchange. Each of these sections, the bridge, valley traverse, and underpass/interchange, have the potential to impose significant visual impacts onto the town setting. This potential includes both disruption to existing elements, and the introduction of new and inappropriate elements, such as modern and incompatible design and engineering elements.

9.4.2 Project aspects which respect or enhance the cultural landscape values

The Southern Illawarra Coastal Plain and Hinterland has an assessed local level of significance under all criteria: a, b, c, d, e, f and g.

Apart from substantial deviations across the Broughton Creek valley and around Berry, the project would generally follow the original corridor of the first European road constructed for vehicles between Berry and Gerringong – the 1856 Berry Estate Road. This provides a degree of historical and functional integrity to the project. It would remain a modern manifestation of an original mid nineteenth century access and transport corridor.

The construction of a bypass of Berry avoids the need to widen and transform one of the town grid streets to accommodate the highway traffic. If the latter option was adopted it would irrevocably change the amenity and heritage character of the town, and require the full or partial demolition of many properties with heritage value.

It is proposed to minimise and ameliorate adverse visual impacts of the project, through careful design of the project corridor and its infrastructure, minimising cuttings, embankments and carriageway elevation where feasible, and the establishment of vegetation.

Visual Boundary of the BTUCA, also boundary of the *Berry District Landscape Conservation Area* and approximate boundary of SICPH CL

Buffer Zone of the BTUCA

Sub-division Boundary of the BTUCA

FBB Bypass

Figure 9.1: Location of proposed project relative to the SICPH CL. (After Figure 13 in Clarke and Duyker 2010; and The boundary of the Berry – Bolong Pastoral Landscapes (Shoalhaven Heritage Inventory) (base image: Google Earth Pro 2009)

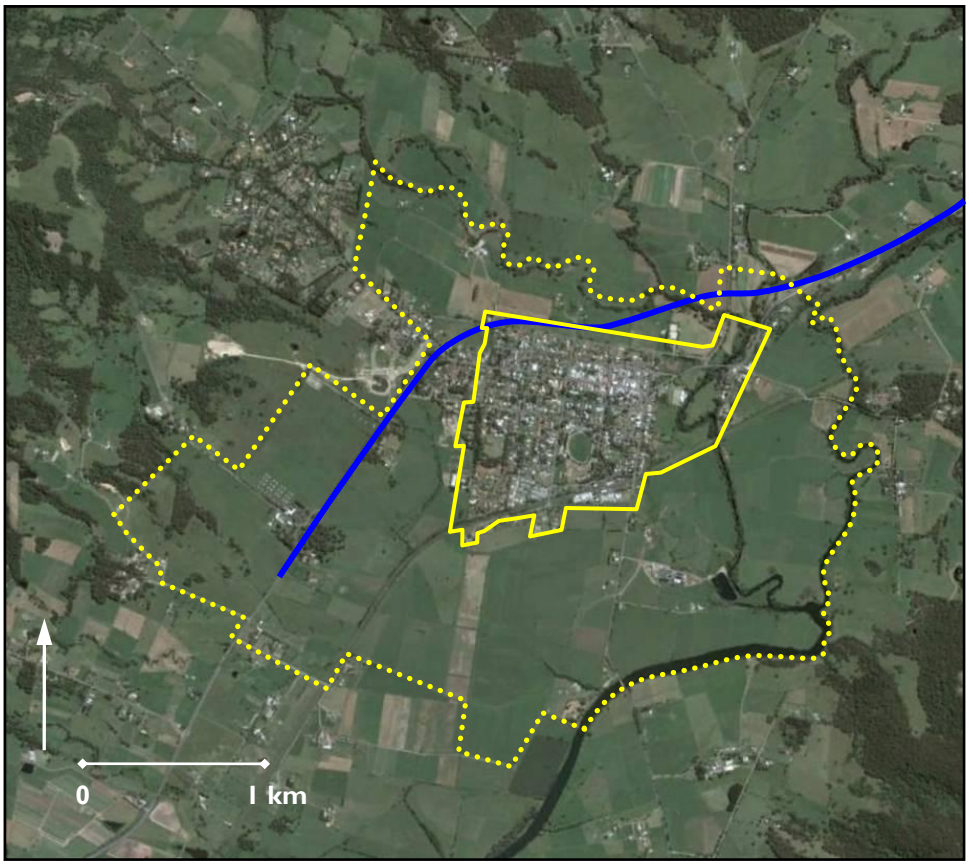


Figure 9.2: Location of proposed project relative to the Buffer Zone and Subdivision Boundary of the National Trust defined Berry Township Urban Conservation Area (After Figure 13 in Clarke and Duyker 2010) (Google Earth Pro 2006).

9.5 Avoidance and mitigation of impacts to cultural landscape values

9.5.1 Proposed strategies for managing impact

The following strategies are proposed to avoid and mitigate project related impacts to cultural landscape values and specifically, the landscape context of the Berry township:

- It is proposed to minimise and ameliorate adverse visual impacts where feasible through the appropriate design and conduct of construction and finishing of the project corridor, embankments and cutting faces, and the re-establishment of vegetation.
- The establishment of appropriate forms of vegetation along the project corridor and adjacent areas would be an important strategy in mitigating the broad scale landscape and visual impacts of the project corridor. This would be conducted with an awareness of maintaining important vistas from the road corridor, and the use of vegetation boundaries and alignments which conform to the rectangular patchwork of the surrounding landscape and serve to breakup or scatter the dominant curvilinear character of the project corridor.
- Where there is an opportunity to incorporate artistic elements in structures adjacent to the carriageway, (such as bridgework and retaining and noise abatement walls), it is proposed that designs derived from local cultural heritage themes be considered, especially at locations in close association to places of significance.
- The design, construction and finishing of the project in the general vicinity of the Berry township would be realised with the dual aims of:
    - Minimising and mitigating the visual obstruction caused by the project to views of the surrounding pastoral landscape and the Illawarra Range from the streetscape of the town. The construction of a landscaped noise barrier on the southern and eastern side of the project adjacent to Berry should form one strategy to realise this aim.
    - Being sympathetic to the heritage values and character of the town and its streetscapes. The use of heritage related design elements and materials should be considered in the design of the town interchanges and adjacent noise barriers.
- The visual impact of the bypass from the northern margins of Berry would be mitigated by a landscaped barrier which would also serve as a noise barrier. Appendix I - *Urban Design Technical Paper* (AECOM, 2012) of the environmental assessment provides details of this barrier and various options for its configuration. The barrier would be landscaped in such a way as to reduce the visual impact of the project on the landscape context of the Berry township, and of heritage items on the northern margin of the town. It is proposed that the barrier would reach a height of up to around four metres and consist of a reinforced soil noise barrier with a landscaped south-facing slope creating a 'Ha-ha' effect. This is where a containing wall is concealed in a particular direction by an adjacent slope and/or trench. This would provide a visual barrier that could be treated so that it was consistent with the rural setting, and would obscure the main carriageway and its traffic from south side viewers. Views to the escarpment and upper slopes of the Illawarra Range would remain unaffected for viewers positioned away from the barrier.

9.5.2 Residual impacts following mitigation

The 'Ha-ha' function of the proposed noise barrier to be installed between the project and the northern margin of Berry, would substantially reduce the visual impact of the project on the heritage values of the Berry landscape context and the northern town margin. The barrier, combined with the planting of vegetation that was compatible with the rural and town settings, would largely obscure both the carriageway and the vehicles using it. The view of the Illawarra Range's upper slopes and scarps would remain unaffected. Despite the unavoidable physical impact of the project on the rural setting north of Berry, the proposed barrier would mask these impacts and reinstate a more-or-less continuous visual screen which would support and maintain the rural character of the northern town margin.

Following the establishment of mitigation, the residual impacts of the project on the landscape setting of Berry would consist of:

- Views of the project, away from the northern town margin, such as from Woodhill Mountain Road, of the southern and northern interchanges, and the southern bypass approach to the town.
- The disturbance to, and loss of, landscape elements due to the physical placement of the project. These include fencelines, field systems, riparian vegetation, and road alignments. None of these features had heritage significance as individual items however. Their value is as constituent parts of the much larger SICPH CL.
- The visual impact of the project looking south, from the north side of the project. This however, is not a significant heritage viewshed as it does not include the framing upper register of the Illawarra Range, nor serve as part of a visitor's experience of the Berry town.

Many of these residual visual impacts occur in settings already impacted by the existing highway town entrances or by later twentieth century urban development. The visual amenity of the key vistas and settings with remaining heritage value, namely those looking northwards from the northern margin of the town, would be substantially maintained through the conduct of the proposed mitigation strategies. On this basis, it can be concluded that the residual impacts to the Berry landscape setting would be acceptable when weighed against the benefits and objectives of the project.

In general, and away from the Berry setting, the project would present a similar set of residual impacts to the SICPH CL:

- The addition of a major engineered landscape component in the form of a consistently graded and angled curvilinear road platform associated with extensive bridges, cuttings and embankments.
- Visual intrusion of the project into views of, and across, the landscape.
- Disturbance to, and loss of, landscape elements due to the physical placement of the project. These include ridge and creeklines; cadastral boundaries defined by fencelines, field systems, and road alignments; and patterns of both native and introduced vegetation.

The primary means of mitigating the landscape impacts of the project would be through the re-establishment of vegetation, the appropriate use of landscaping and barriers, and the use of complimentary visual components and compatible design elements. With the effective use of these strategies, it can be concluded that the residual impacts to the SICPHL would be acceptable when weighed against the benefits and objectives of the project.

9.6 Management of recovered artefacts

Subject to stakeholder agreement (including consultation with Heritage Branch), it is proposed to lodge any non-Aboriginal artefactual material recovered during test and proposed salvage excavations with either the Berry Museum (Berry and District Historical Society) or the Gerringong Heritage Museum (Gerringong and District Historical Society), depending on the location (LGA) and nature of the finds. The material would be appropriately inventoried and accompanied by supporting documentation.

9.7 Summary of impacts and proposed management actions

All heritage items subject to direct impact are of an assessed local scale of significance. One site of State significance, the former Graham Park agricultural research station (G2B H51), occurs in close proximity to the project, and action would be taken to ensure that incidental or accidental direct impact does not occur.

The project would directly impact a large proportion of the remaining traces of the 1856 Berry Estate Road (G2B H19, G2B H22, G2B H23, G2B H30 and G2B H55). In most instances, the remains of this roadway consist of low ground-surface relief indicating the presence of a road platform, side ditches, and in some cases cutting and benching. In order to compensate for the loss of these remains, it is proposed to combine a program of archival recording and selective archaeological salvage, with the conservation and public interpretation of a high value and representative portion of the road situated away from the development zone at "Bink's Corner", Broughton Village (incorporating items:G2B H25, G2B H26, G2B H27 and G2B H52). In combination with an adjacent portion of the existing highway, and the project, this location could showcase 150 years of highway construction and engineering.

The impact mitigation and management actions proposed for heritage items affected by the project fall into five broad categories:

- No further action (one item).
- Avoid or minimise impact (five items).
- Manage indirect impacts (Visual and contextual) only (nine items).
- Conduct archival recordings and/or archaeological excavations prior to impact (14 items).
- Conserve and manage as specified (five items).
- Manage cultural landscape values (one landscape item).

These categories and the heritage items involved are outlined in **Table 9.4**. A summary of impacts and proposed management measures is provided in **Table 9.5**. An item specific list of proposed impacts, mitigation measures, and before and after significance assessments is provided in **Table 9.6**.

Table 9.4: Summary of project impact categories and proposed Impact mitigation and management actions for heritage items

Management categories		Type of impact	Heritage Items
No further action		No impact	G2B H58
Avoid or minimise impact	Avoid direct impact	No direct impact	G2B H20, 51, 59 & 62
	Avoid or minimise impact where feasible	Direct impact	G2B H63
Manage indirect (visual and contextual) impacts only		Indirect impact only	G2B H13, 16, 17, 25, 45, 47, 49, 56 & 62
Conduct archival recording and/or archaeological excavation prior to impact	Conduct salvage excavation and/or archival recording prior to impact	Direct impact	G2B H11, 14, 15, 19, 21, 22, 23, 28, 30, 53, 54, 55 & 61
	Conduct test/salvage excavation if direct impact anticipated	Potential direct impact	G2B H48
Conserve	Conserve, and as specified: manage and/or interpret	No direct impact	G2B H26, 27, 29 & 52
	Movable heritage – remove and donate to museum		G2B H60
Manage cultural landscape values	Manage and mitigate impact to cultural landscape values	Direct and indirect impacts	SICPHCL

Table 9.5: Summary of measures to mitigate construction impacts

Management measures	Extent of impact*	Heritage items	Total no. of heritage items
'No go' zones (e.g. Use of temporary fencing, signage, tool box talks, etc)	Full physical impact	n/a	n/a
	Partial physical impact	G2B H14, 15, 28, 45, 54,	5
	Visual impact only	G2B H13, 16, 17, 25, 62, 63,	6
	Nil	G2B H29, 47, 48, 51, 56, 59, 60	7
Minimise through urban design	Full physical impact	n/a	n/a
	Partial physical impact	G2B H28, 45, 54	3
	Visual impact only	G2B H13, 16, 17, 25, 47, 49, 56, 62	8
	Nil	n/a	n/a
Archival recording	Full physical impact	G2B H11, 19, 21, 22, 23, 30, 53, 55, 61	9
	Partial physical impact	G2B H15, 28,	2
	Visual impact only	n/a	n/a
	Nil	G2B H27	1
Archaeological monitoring and/or salvage	Full physical impact	G2B H11, 23, 30	3
	Partial physical impact	G2B H14	1
	Visual impact only	n/a	n/a
	Nil	G2B H27	1
Interpretation strategy	Full physical impact	G2B H11	1
	Partial physical impact	n/a	n/a
	Visual impact only	n/a	n/a
	Nil	G2B H26, 27, 29, 52	4
Relocation of item	Full physical impact	G2B H11	1
	Partial physical impact	n/a	n/a
	Visual impact only	n/a	n/a
	Nil	n/a	n/a
Conservation of fabric	Full physical impact	n/a	n/a
	Partial physical impact	n/a	n/a
	Visual impact only	n/a	n/a
	Nil	G2B H48	1
Unexpected Finds Procedure	n/a	Unexpected finds within construction footprint	n/a
S170 Heritage Register listing	n/a	All heritage items within RMS road reserve	n/a

**The impact categories used in this table is the RMS simplified classification scheme (refer Table 9.2).*

Table 9.6: Summary of proposed project impacts, mitigation and consequential significance assessments for all heritage items

ID	Heritage Item	Current significance		Project impact	Proposed mitigation	Likely significance of item following mitigation actions and project completion
		Context	Criteria			
G2B H11	Federation Cottage c.1894 (77 North St. Berry)	Local	g	Whole direct impact	Conduct archival recording prior to impact, monitor ground disturbance, salvage and reuse some materials. Allow a potential third party to relocate all or part of structure	No significance. If all or part(s) of the building are salvaged and reused this remaining fabric may have limited local significance, depending upon its context and function.
G2B H13	Burnett Estate Workers Cottage c.1917 (143 North St. Berry)	Local	g	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained.
G2B H14	Archaeological deposit (former C19th *Broughton Creek* town buildings)	Local	aefg	Partial direct impact	Conduct salvage excavation prior to impact	Remaining portions of the deposit would continue to have current significance. The information generated from the salvage excavations would augment and support the research value of the remaining deposit portions.
G2B H15	Remnant portion of C20th highway (Adj to *Mananga* homestead)	Local	fg	Partial direct impact	Minimise impact and conduct archival recording prior to those impacts	Current significance would be maintained.
G2B H16	*Mananga,* 1894, Queen Anne style homestead, former Berry Estate Manager's Residence (A40 Princes Highway. Berry)	Local	abceg	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained.
G2B H17	*Hillview* homestead (2nd half C19th) former Berry Estate tenant farm) (A111 Princes Highway Berry)	Local	efg	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained.
G2B H19	Remnant portion of C19th road (West of Gembrook Lane)	Local	abef	Whole direct impact	Conduct salvage excavation and archival recording prior to impact	No significance.
G2B H20	Remnant portion of C20th highway (Broughton)	Local	e	No significant impact	Avoid direct impact	Current significance would be maintained.

ID	Heritage Item	Current significance		Project impact	Proposed mitigation	Likely significance of item following mitigation actions and project completion
		Context	Criteria			
G2B H21	Remnant portion of C20th highway (Broughton)	Local	e	Whole direct impact	Conduct archival recording prior to impact	No significance.
G2B H22	Remnant portion of C19th road	Local	abef	Whole direct impact	Conduct archival recording prior to impact	No significance.
G2B H23	Remnant portion of C19th road	Local	abef	Whole direct impact	Conduct salvage excavation and archival recording prior to impact	No significance.
G2B H25	*Sedgeford* homestead, 1902, (A495 Princes Highway, Broughton Village)	Local	bg	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained. The conservation status and heritage management of this item would have been improved.
G2B H26	Remnant portion of C20th highway	Local	abefg	No significant impact	Conserve, and as specified: manage and interpret	Current significance would be maintained. The conservation status and heritage management of this item would have been improved.
G2B H27	Remnant portion of C19th road	Local	abefg	No significant impact	Conserve, and as specified: manage and interpret	Current significance would be maintained. The conservation status and heritage management of this item would be improved.
G2B H28	*Brookside* homestead (A540 Princes Highway. Broughton Village)	Local	eg	Partial direct impact and indirect impact	Minimise impact, conduct archival recording prior to impact	Current significance would be reduced due to substantial loss of integrity to the homestead's landscape context.
G2B H29	C20th concrete bridge, 1935, (Princes Highway. Broughton Creek)	Local	acfg	Indirect impact	Conserve, and as specified: manage and/or interpret	Current significance would be maintained.
G2B H30	Remnant portion of C19th road	Local	abefg	Whole direct impact	Conduct salvage excavation and archival recording prior to impact	No significance.

ID	Heritage Item	Current significance		Project impact	Proposed mitigation	Likely significance of item following mitigation actions and project completion
		Context	Criteria			
G2B H45	*Glenvale* homestead, former Berry Estate tenant farm (A371 Princes Highway. Broughton)	Local	efg	No significant impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained.
G2B H47	Former St Patrick's Convent, and St Patrick's Church and grounds (80 North St. Berry)	Local	dfg	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained.
G2B H48	Potential archaeological deposit, former Berry Estate tenant farm (now Greystanes Lodge)	Local (subject to confirmation through test excavation)	e	Indirect impact and potential direct impact	Avoid impact to remnant fig trees, Conduct test/salvage excavation if direct impact to deposit is anticipated	Current significance could be maintained if demolition of existing buildings or further building is not required.
G2B H49	*Oakleigh* homestead (59 Woodhill Mountain Rd. Berry)	Local	eg	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained.
G2B H51	*Graham Park* former agricultural research institution (8, 9 and 13 Schofields Lane, Berry)	State	abcefg	No significant impact	Avoid impact and manage as specified	Current significance would be maintained.
G2B H52	Potential archaeological deposit, former Berry Estate tenant farm (A441 Princes Highway. Broughton Village)	Local (subject to confirmation through test excavation)	efg	No significant impact	Conserve, and as specified: manage and interpret	Current significance would be maintained. The conservation status and heritage management of this item would be improved.
G2B H53	Potential archaeological deposit, former Berry Estate tenant farm structure and indeterminate rock rubble alignment (Toolijooa Ridge)	Local (subject to confirmation through test excavation)	e	Whole direct impact	Conduct salvage excavation and archival recording prior to impact	No significance.

ID	Heritage Item	Current significance		Project impact	Proposed mitigation	Likely significance of item following mitigation actions and project completion
		Context	Criteria			
G2B H54	Remnant C19th dry stone wall (former highway boundary, Toolijooa Ridge)	Local	cefg	Partial direct impact and indirect impact	Avoid impact where feasible, conserve remaining portions and conduct archival recording prior to impact	Current significance would be reduced due to partial loss of wall section at southern end, however, the remaining portion would be restored and conserved, thereby increasing the conservation management status of the item.
G2B H55	Remnant portion of C19th road (north/upslope of *Mananga* homestead)	Local	abefg	Whole direct impact	Conduct salvage excavation and archival recording prior to impact	No significance.
G2B H56	Farmhouse and Dairy (disused), early to mid C20th, (117 North St., Berry)	Local	eg	Indirect impact	Manage indirect (visual and contextual) impacts only	Current significance would be maintained. Site is actively deteriorating and its management is outside the scope of this assessment.
G2B H58	Uniting Church Hall (formerly Wesleyan Chapel), 1884, Victorian Carpenter Gothic style, (69 Albert St, adj. to North St)	Local	adfg	No significant impact	No further action	Current significance would be maintained.
G2B H59	Archaeological deposit and remnant plantings, former early C19th homestead (Broughton Village)	Local	abefg	Indirect impact	Avoid direct impact	Current significance would be maintained.
G2B H60	Skid mounted work-site shed	Local	efg	No significant impact	Movable heritage – remove and donate to museum	Current significance would be maintained.
G2B H61	Quarried rock outcrop, Broughton	Local	g	Whole direct impact	Conduct salvage excavation and/or archival recording prior to impact	No significance.
G2B H62	Avenue of Poplar trees	Local	c	Indirect impact	Avoid direct impact and manage indirect (visual and contextual) impacts	Current significance would be reduced due to visual intrusion of overpass across Woodhill Mountain streetscape.

ID	Heritage Item	Current significance		Project impact	Proposed mitigation	Likely significance of item following mitigation actions and project completion
		Context	Criteria			
G2B H63	Mark Radium Park	Local	bc	Partial direct impact	Minimise impact where feasible	Current significance (which relates to commemorative function of park) would be maintained despite loss of area from around eastern park boundary.
SICPH CL	Southern Illawarra Coastal Plain and Hinterland Cultural Landscape	Local	abcdefg	Partial direct impact and indirect impact	Manage and mitigate impact to cultural landscape values	Project impacts can be minimised and managed through effective mitigation. Despite residual impacts, current significance can be maintained, including contextual values around Berry.

9.8 Potential impact within ancillary areas

The location of heritage sites and items relative to the indicative location of ancillary areas is shown in Appendix A.2.

There are no known or predicted sites that would be potentially affected by ancillary works which are in addition to the sites and features addressed in this report.

The following recordings occur within the indicative location of ancillary areas:

- G2B H24 Remnant portion of C20th highway.
- G2B H30 Remnant portion of C19th road (1856 Berry Estate Road).
- G2B H48 Potential archaeological deposit, former Berry Estate tenant farm (Greystanes Lodge).
- G2B H49 Oakleigh farmhouse (Interwar) (59 Woodhill Mountain Rd. Berry).
- G2B H54 Remnant C19th dry stone wall (former highway boundary, Toolijooa Ridge).
- G2B H60 Skid mounted work-site shed (movable item).

Of these, two recordings do not impose constraints on ancillary functions: no further action is recommended for G2B H24; and construction impact to G2B H30 would be managed through archival recording (including archaeological excavation) prior to impact.

The remaining four recording are associated with the following constraints to ancillary functions:

- Avoidance of direct impact to the dry stone wall, G2B H54 on Toolijooa Ridge.
- Avoidance of direct impact to significant fabric within the Oakleigh farmhouse, G2B H49.
- Avoidance of direct impact to the mature tree plantings and potential archaeological deposits at G2B H48 (location of the current Greystanes farmhouse).
- Avoidance of direct impact to the skid mounted work-site shed at Greystanes farmhouse, G2B H60.

10 Recommendations

The following recommendations relate specifically to the assessed impacts of the project as it is described in this report. In the event of a future change to the anticipated area or nature of project impact, it should not be assumed that the absence of a reference to a particular heritage item in these recommendations means that no action remains appropriate in the light of any change.

10.1 Indirect and accidental impact

1. It is recommended that measures be instigated to protect the following heritage items, or their remaining portions, from accidental impact during construction: G2B H13, G2B H14, G2B H15, G2B H16, G2B H17, G2B H25, G2B H28, G2B H29, G2B H45, G2B H47, G2B H49, G2B H51, G2B H54, G2B H56, G2B H59, G2B H62 and G2B H63. This may involve, but not be limited to, the erection of temporary fencing to define 'no-go' areas.
2. Where there would be impact to the visual and landscape context values of heritage places/items (this is classified as an indirect impact to the place or item), it is recommended that the design, construction and finishing of the project in the vicinity of the place/item should be realised with the aim of minimising the visual impact to those values. Possible means to achieve this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping. This strategy applies to: G2B H13, G2B H16, G2B H17, G2B H25, G2B H28, G2B H45, G2B H47, G2B H49, G2B H54, G2B H56 and G2B H62.

10.2 Nineteenth century road remnants

3. All heritage items comprising nineteenth century road remnants that would be directly impacted by construction should be the subject of a co-ordinated archival recording program prior to any impact (G2B H19, G2B H22, G2B H23, G2B H30 and G2B H55). This program should include archaeological salvage excavation at selected and representative locations within sites G2B H19, G2B H23, G2B H30 and G2B H55, to record any ditch profiles, subsurface foundations or former surface treatments. The archival recording program should aim to present a researched and documented archival record of the road remnants and the transport systems of which they formed part. The degree and detail of recording required at each remnant will vary according to the nature and preservation of each item.
4. In order to compensate for the loss of a significant proportion of the remaining probable remnants of the former Berry Estate Road, it is recommended that the complex of road related remnants, G2B H26, G2B H27 and G2B H52, situated at 'Bink's Corner', Broughton Village, be permanently conserved, managed and interpreted as a site which illustrates the history of local road construction, function and economics. As part of this management strategy, a detailed recording of these items should be made with the aim of identifying the conservation and management requirements of the complex. Together with the completed project and the existing adjacent highway (known locally as 'the Big Dipper'), this grouping of highway platforms would present, within a limited area, 160 years of road and highway construction history, beginning with the original Berry Estate Road.

   The optimal format(s), location(s) and strategies for the public interpretation of this complex of roads and road remnants should be defined in a Heritage Interpretation Plan (HIP) to be developed as part of the project (refer recommendation 37).

None of these heritage items would be subject to direct impact from the project. The recommended conservation management of these items is necessary to:

a. Compensate for the loss of all remaining remnants of the Berry Estate Road within the project area, and

b. Conserve the best of the remaining sections of the Berry Estate Road.

10.3 Twentieth century road remnants

5. A co-ordinated archival recording program should be conducted at heritage items, G2B H15 and G2B H21, prior to any impact. The scope of the recording at each item should be relative to the type and quality of information which can be recovered. This program may include excavation at selected locations, if and where necessary. These recordings should be incorporated into the archival recording report specified in recommendation three, with the aim of creating an integrated record of former highway construction and alignments for the local area.
6. Impact to G2B H15 (adjacent to *Mananga* homestead) should be limited to essential works. This remnant is an important element in the heritage context of the Mananga homestead. Direct impact to that portion of the road remnant adjacent to the Mananga homestead should be minimised.
7. No further action is required at field recordings G2B H12, G2B H18 and G2B H24.

10.4 Potential archaeological deposits

8. In the event that construction related impacts would occur at the G2B H48 potential archaeological deposit (current location of *Greystanes Lodge*), it is recommended that an archaeological program of monitoring and/or salvage excavation, as appropriate, be conducted with the aim of recording and recovering any artefacts or other information which relates to the former Berry Estate tenant farm at this location.
9. In the event that demolition of the modern farmhouse (previously known as *Greystanes Lodge*), situated on site G2B H48 would be required, it is recommended that a program of archaeological monitoring by an archaeologist be conducted with the aim of recording and recovering any artefacts or information which relate to the former Berry Estate tenant farm.
10. The remnant tree plantings at G2B H48, which predate the modern farmhouse, should be conserved and protected from damage.
11. The potential archaeological site G2B H52, should be conserved and managed as part of the complex of road related sites outlined in recommendation 4.
12. Prior to the commencement of construction impact, a program of archival recording and archaeological salvage excavation, should be conducted at G2B H53, as appropriate, and as required by the nature and significance of the relics encountered.

10.5 Archaeological deposits

13. A program of salvage excavation should be conducted within the construction footprint at G2B H14, south of test pit C110. Where the vertical alignment of the existing highway carriageway within the G2B H14 area is to be lowered, the potential for impact to potential archaeological deposits below the current road platform should also be assessed, and salvage excavation conducted according to the determination of that assessment.

    The aim of the salvage excavations would be to recover as much information as possible regarding the history of site use, including the sequence of occupation, property boundaries and activity areas/site functions.

10.6 Standing buildings and structures

14. The concrete Broughton Creek bridge (G2B H29), should be conserved, protected from construction impact and continue to function as a road-bridge for the highway when it is converted to a service road following the opening of the project.

15. Interpretive information should be made available to the public on the concrete Broughton Creek bridge (G2B H29). The format and location of this information should be determined by and defined in a Heritage Interpretation Plan (refer recommendation no.37)., it is recommended that interpretive signage and visitor access, off the existing highway (downgraded to a service road) be installed at heritage item G2B H29. Together with this 1930s bridge and the new bridge proposed as part of the project, the interpretation of this site could include the original early nineteenth century ford crossing at this location, and the sequence of wooden bridges on the original Broughton Village road alignment 620 metres upstream.

16. Where and as feasible, direct development impact to the *Brookside* homestead (G2B H28) should be minimised. The standing structures with heritage value should be protected from construction impact as much as possible and continue to be used as a farmhouse complex or adaptively reused in such a way that heritage values can be maintained.

17. The natural character of Broughton Creek and its banks in the vicinity of the bridge immediately south of the *Brookside* homestead (G2B H28) should be maintained and enhanced as much as feasible. The aim of this strategy is to ameliorate impact to the landscape context by maintaining and reinforcing the visual quality of the creek corridor. This can be achieved by maintaining and augmenting native bank side vegetation, and maximising the distance between the banks and bridge abutments.

18. Prior to impact, an archival recording should be conducted at the *Brookside* homestead (G2B H28), inclusive of those features subject to direct impact, and the homestead building which incorporates structures previously moved from site G2B H59.

19. An archival recording should be conducted of *GlenDevan* (G2B H11) and its grounds prior to any development impact. This record should include documentation of construction methods and materials exposed during any demolition works. Ground disturbance in the area of G2B H11 should be monitored by an archaeologist with the aim of recording any features relevant to the archival recording, and recovering any significant relics.

20. The RMS should remain open to the possibility of a third party proposing to conserve all or part of the G2B H11 structure by moving it to a new location within or near Berry, at that party's expense. In the event of simple demolition, suitable materials (such as bricks and stone masonry) should be recovered and reused (with commemorative identification) in appropriate local infrastructure such as interpretive or entrance features, way-side stop facilities, landscaping or artwork.

21. Direct impact to the existing *Graham Park* (G2B H51) entrance structures (gates, pillars and sculpture of a bull) should be avoided. During construction, temporary fencing should be erected around the feature to identify a 'no-go' area.

22. It is recommended that the design of any access roadworks in the vicinity of the *Graham Park* entrance (G2B H51) should not exclude the capacity for visitors to pull over and safely inspect the entrance feature. If necessary, allowance should be made in the design for the potential future installation of interpretive signage.

23. No further action is required at sites G2B H10 and G2B H58.

10.7 Miscellaneous site types

24. Where feasible, direct impact to the remnant dry stone wall G2B H54 should be avoided, and the wall actively conserved and managed. In the event that direct impact to all or part of this site is anticipated then an archival recording of the wall should be conducted prior to any construction impact occurring. Any rock material displaced from the wall as a result of construction works, should be retained for use in the repair and conservation management of the original wall.
25. An archival record should be compiled of the quarried rock outcrop, G2B H61, prior to impact.
26. The most northern Poplar tree in the tree avenue G2B H62, should be conserved in situ and would be situated within 10 metres of a proposed water quality pond. Temporary protective fencing should be erected around the root zone of the tree during the period of construction to define a no-go area. Any post-construction planting of the bypass easement in the area of Woodhill Mountain Road should aim to reinforce and replicate the existing landscape character created by the existing planted avenues of poplar trees.
27. Where feasible, the existing front yard plantings at G2B H17 (Hillview homestead) which would fall within the bypass easement (and particularly the Oak tree) should be retained. This may require a minor deviation of the proposed service road.
28. Construction impact to Mark Radium Park (G2B H63) should be minimised wherever feasible.
29. Direct impact to the Shed on skids, G2B H60, should be avoided. It is recommended that the structure be donated and relocated to an appropriate museum, where and if the capability to conserve and store the structure can be demonstrated.

10.8 The Southern Illawarra Coastal Plain and Hinterland (SICPH CL)

30. Where feasible, the construction and finishing of the project corridor, embankments and cutting faces should be conducted in such a way to minimise and ameliorate adverse visual impacts, and facilitate the re-establishment of vegetation.
31. The establishment of appropriate forms of vegetation along the project corridor and adjacent areas should be an important strategy in mitigating the broad scale landscape and visual impacts of the project. This should be conducted with an awareness of maintaining important vistas from the project, and the use of vegetation boundaries and alignments which conform to the rectangular patchwork of the surrounding landscape and serve to breakup or scatter the dominant curvilinear of the bypass corridor.
32. Where there is an opportunity to incorporate artistic elements in structures adjacent to the carriageway, (such as bridgework and retaining and noise abatement walls), it is recommended that designs derived from local cultural heritage themes be considered, especially at locations in close association to places of significance.
33. The design, construction and finishing of the project in the general vicinity of the Berry township should be realised with the dual aims of:

    a) Minimising and mitigating the visual obstruction caused by the project to views of the surrounding pastoral landscape and the Illawarra Range from the streetscape of the town. The construction of a landscaped noise barrier on the southern and eastern side of the bypass adjacent to Berry should form one strategy to realise this aim (refer details in Appendix I of the environmental assessment).

    b) Being sympathetic to the heritage values and character of the town and its streetscapes. The use of heritage related design elements and materials should be considered in the design of the town interchanges and adjacent noise barriers.

10.9 Ancillary facilities

34. The positioning of ancillary facilities and the conduct of ancillary functions should avoid direct impact to the following features: G2B H54 (dry stone wall on Toolijooa Ridge); significant fabric within G2B H49 (*Oakleigh* farmhouse); the mature tree plantings and potential archaeological deposits at G2B H48 (current location of *Greystanes Lodge*); and the skid mounted work-site shed at *Greystanes Lodge*, G2B H60.

10.10 General

35. All heritage items which would remain in whole, or in part, within the project corridor following the end of project construction, should be entered on the Section 170 Heritage and Conservation Register(s) compiled by RMS, and any conservation or management requirements determined and adopted.

36. In the event that unexpected cultural heritage finds are encountered during project construction then the Unexpected Finds Procedure (provided in Draft form in Appendix H), or an RMS approved revised version, should be adopted and followed. The Procedure should be included within a Construction Environmental Management Plan or equivalent document.

37. The cultural values of the project area should be promoted, interpreted and presented to current and future public audiences using formats, locations and strategies developed by, and defined in a Heritage Interpretation Plan (HIP). The HIP should be drafted with the involvement of relevant stakeholders, landowners and local Councils. Options to be considered should include interpretive signage, onsite public access and/or viewing points, educational materials, and supporting local museum displays. In particular, the HIP should address how best to provide for the public interpretation of the former Berry Estate road (and the surviving remnant G2B H27), and the Broughton Creek bridge (G2B H29).

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Appendix A

General location mapping and impact classification of Non-Aboriginal cultural heritage recordings within the Foxground and Berry bypass project

General location mapping and impact classification of Non-Aboriginal of cultural heritage recordings within the Foxground and Berry bypass project

KEY TO GRAPHICS

Field recording code or ID

Non-Aboriginal field recording

Non-Aboriginal field recording with indeterminate or approximate boundary

Boundary of property listed on a Local Environmental Plan Heritage Schedule

Simplified categories of project impact

Physical Impact – Wholly impacted
(corresponds to (a) 'Whole direct impact' as used in report analysis)

Physical Impact – Partially impacted
(corresponds to (b) 'Partial direct impact' with or without (c) 'Indirect impact', as used in report analysis)

Visual Impact only
(corresponds to (c) 'Indirect impact' as used in report analysis)

No Impact
(corresponds to (e) 'No significant indirect impact'

Non heritage item – impact not defined

Note: For large scale mapping of individual recordings refer to Appendix I

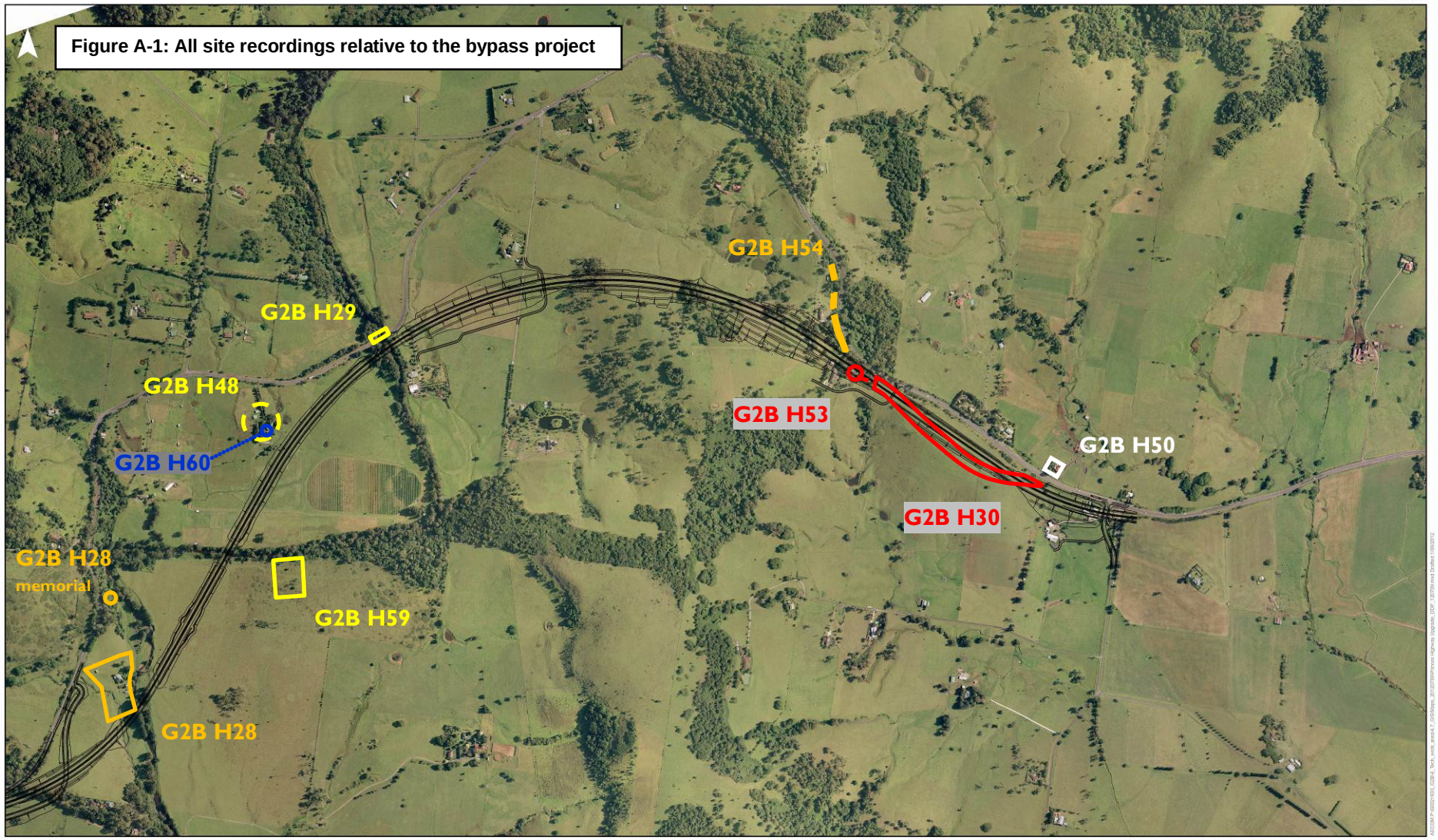
KEY TO FIELD RECORDING CODES SHOWN ON MAPS

Site ID	Recording
G2B H10	Cottage (72 North St. Berry)
G2B H11	*GlenDevan* Federation Cottage (77 North St. Berry)
G2B H12	Remnant portion of C20th highway (Stewarts Hill cutting)
G2B H13	Burnett Estate Overseer's Cottage (143 North St. Berry)
G2B H14	Archaeological deposit (former C19th *Broughton Creek* town buildings)
G2B H15	Remnant portion of C20th highway
G2B H16	*Mananga,* Queen Anne style homestead complex, former Berry Estate Manager's residence (A40 Princes Highway. Berry)
G2B H17	*Hillview* homestead former Berry Estate tenant farm) (A111 Princes Highway Berry)
G2B H18	Remnant portion of C20th highway
G2B H19	Remnant portion of C19th road (1856 Berry Estate Road)
G2B H20	Remnant portion of C20th highway
G2B H21	Remnant portion of C20th highway
G2B H22	Remnant portion of C19th road (1856 Berry Estate Road)
G2B H23	Remnant portion of C19th road (1856 Berry Estate Road)
G2B H24	Remnant portion of C20th highway
G2B H25	*Sedgeford* homestead (A495 Princes Highway, Broughton Village)
G2B H26	Remnant portion of C20th highway ("Bink's Corner") Broughton Village
G2B H27	Remnant portion of C19th road (1856 Berry Estate Road)
G2B H28	*Brookside* homestead (A540 Princes Highway. Broughton Village)
G2B H29	C20th concrete bridge (Princes Highway. Broughton Creek)
G2B H30	Remnant portion of C19th road (1856 Berry Estate Road)
G2B H45	*Glenvale* homestead, former Berry Estate tenant farm (A371 Princes Highway. Broughton)
G2B H47	St Patrick's (former) Convent, Church and grounds (80 North St. Berry)
G2B H48	Potential archaeological deposit, former Berry Estate tenant farm (*Greystanes Lodge*)
G2B H49	*Oakleigh* farmhouse (Interwar) (59 Woodhill Mountain Rd. Berry)
G2B H50	*Clare Moy* Cottage (342 Princes Highway. Toolijooa)
G2B H51	*Graham Park* former agricultural research institution (8, 9 & 13 Schofields Lane, Berry)
G2B H52	Potential archaeological deposit, former Berry Estate tenant farm (A441 Princes Highway. Broughton Village)
G2B H53	Potential archaeological deposit, former Berry Estate tenant farm structure and indeterminate rock rubble alignment (Toolijooa Ridge)
G2B H54	Remnant C19th dry stone wall (former highway boundary, Toolijooa Ridge)
G2B H55	Probable remnant portion of C19th road (1856 Berry Estate Road) (NE of *Mananga*)
G2B H56	*Broughton Mill* Farmhouse and Dairy (disused) (117 North St., Berry)
G2B H57	Remnant portion of C20th highway (nr Tindalls Lane)
G2B H58	Uniting Church Hall (formerly Wesleyan Chapel)
G2B H59	Archaeological deposit, and plantings, former C19 and C20th (non-Berry Estate) homestead
G2B H60	Skid mounted work-site shed (movable item)
G2B H61	Quarried rock outcrop, Broughton
G2B H62	Avenue of Poplar trees
G2B H63	Mark Radium Park

SUMMARY OF PROJECT IMPACT CATEGORIES AND AFFECTED HERITAGE ITEMS

Simplified Impact Category	Map Key	Categories used in analysis			
		Direct Impact	Impact category	Items	Total items
Physical impact – wholly impacted		yes	a) Whole direct impact	G2B H11, 19, 21, 22, 23, 30, 53, 55 & 61	9
Physical impact – partially impacted		yes	b) Partial direct impact	G2B H14, 15 & 63	3
		yes	b) Minor or partial direct impact *and* c) Indirect impact	G2B H28, 54 & SICPH CL	3
Visual impact only		no	c) Indirect impact	G2B H13, 16, 17, 25, 29, 47, 48, 49, 56, 59 & 62	11
No impact		no	e) No significant impact	G2B H20, 26, 27, 45. 51, 52, 58 & 60	8

Figure A-1: All site recordings relative to the bypass project



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PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)

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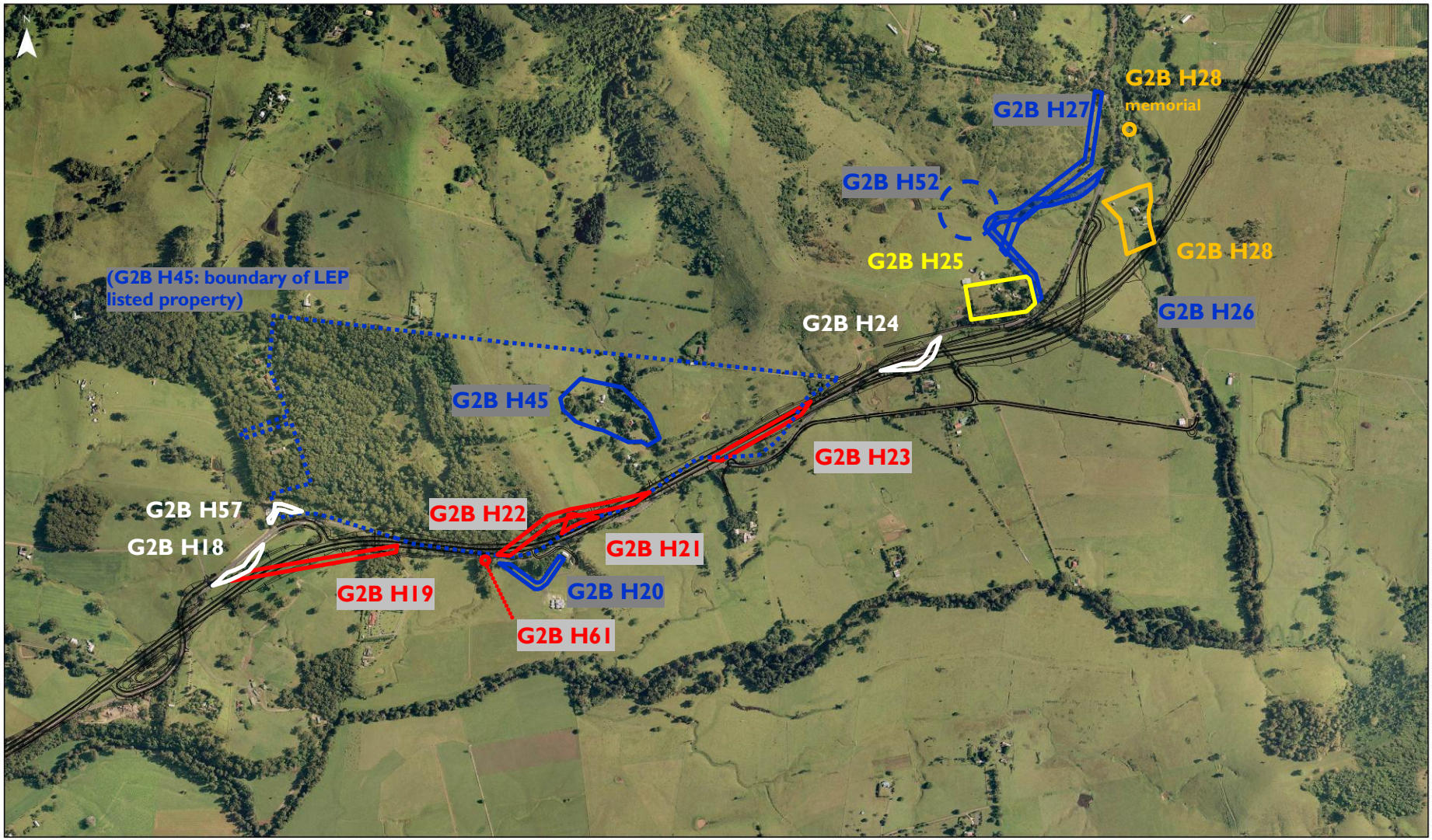

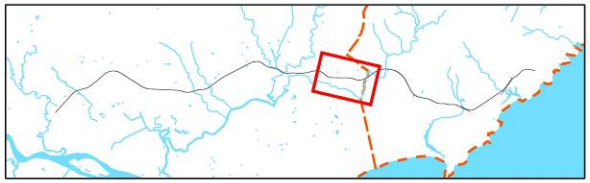

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PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)

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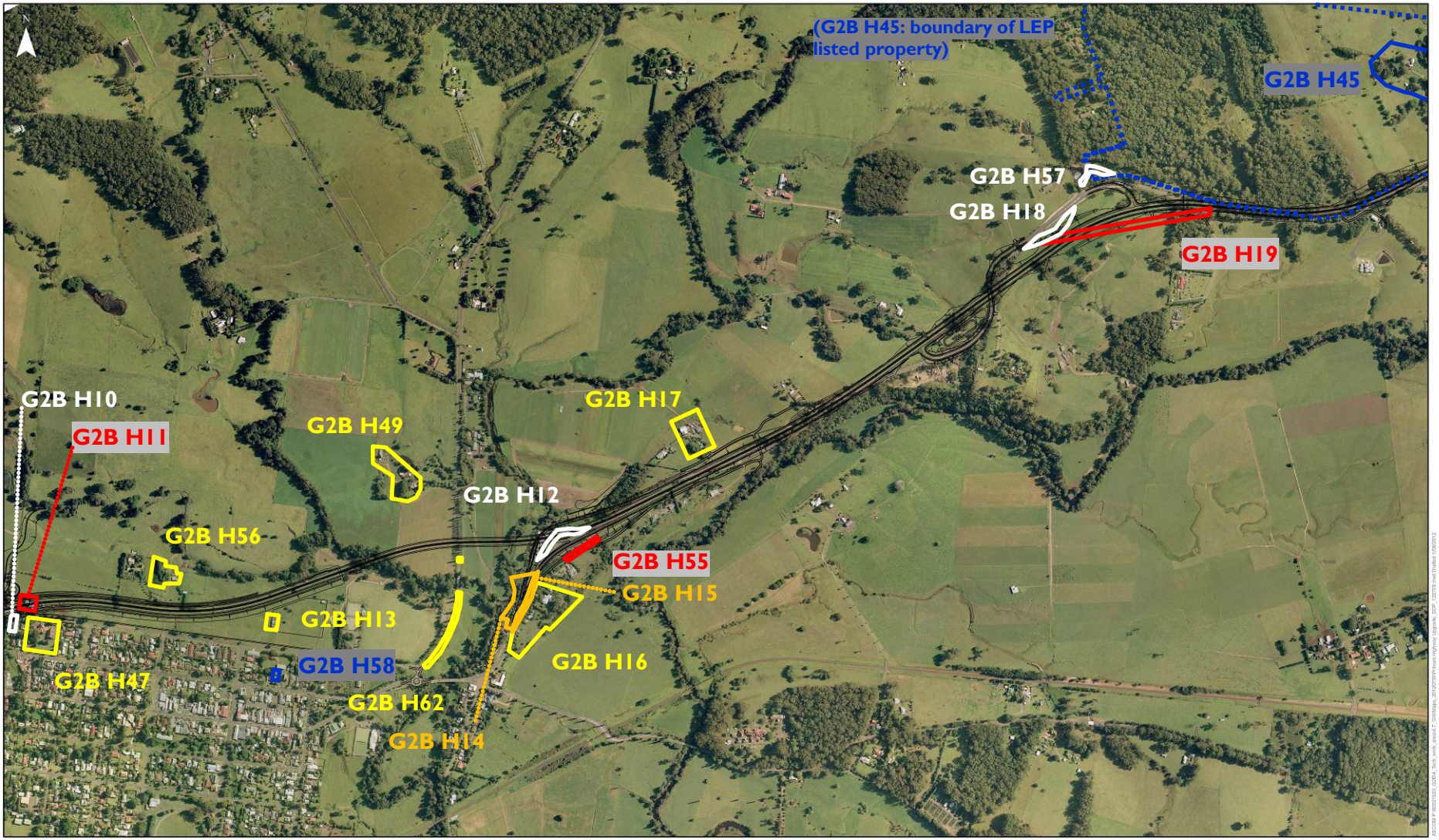

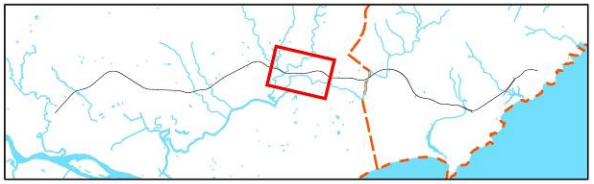

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PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)

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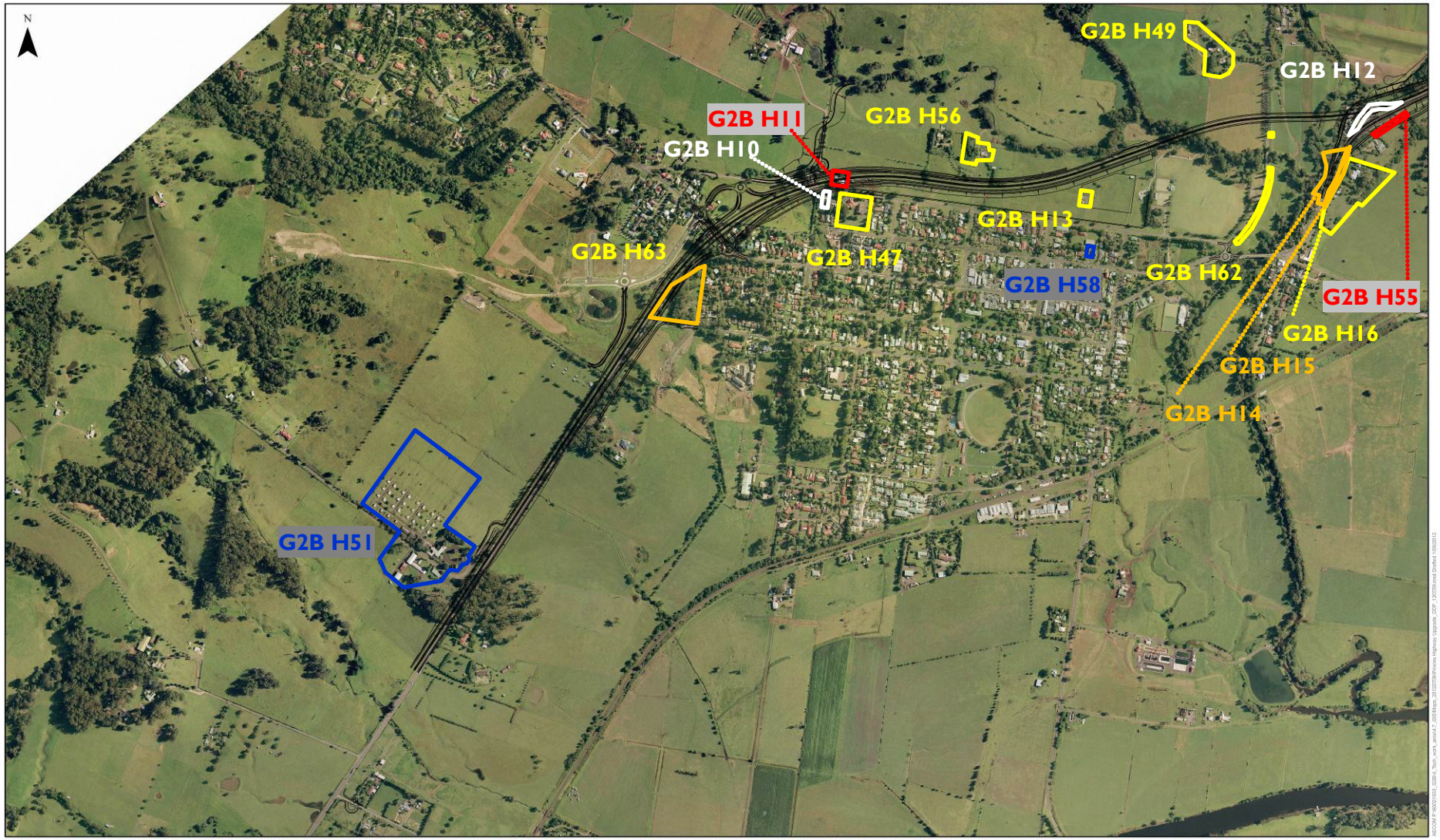

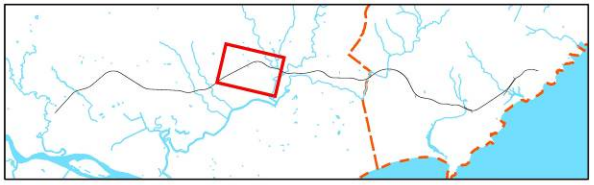

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PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)

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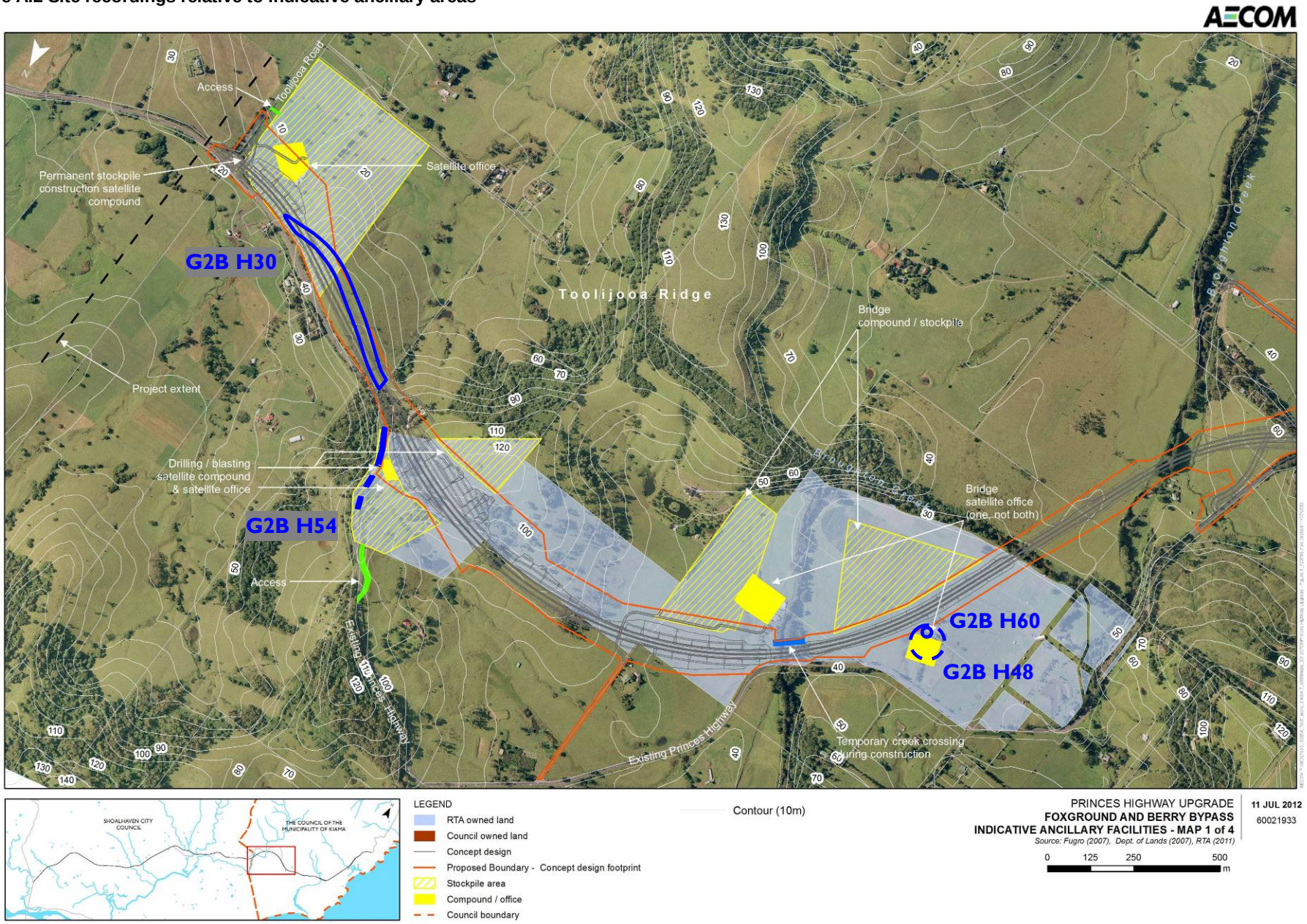
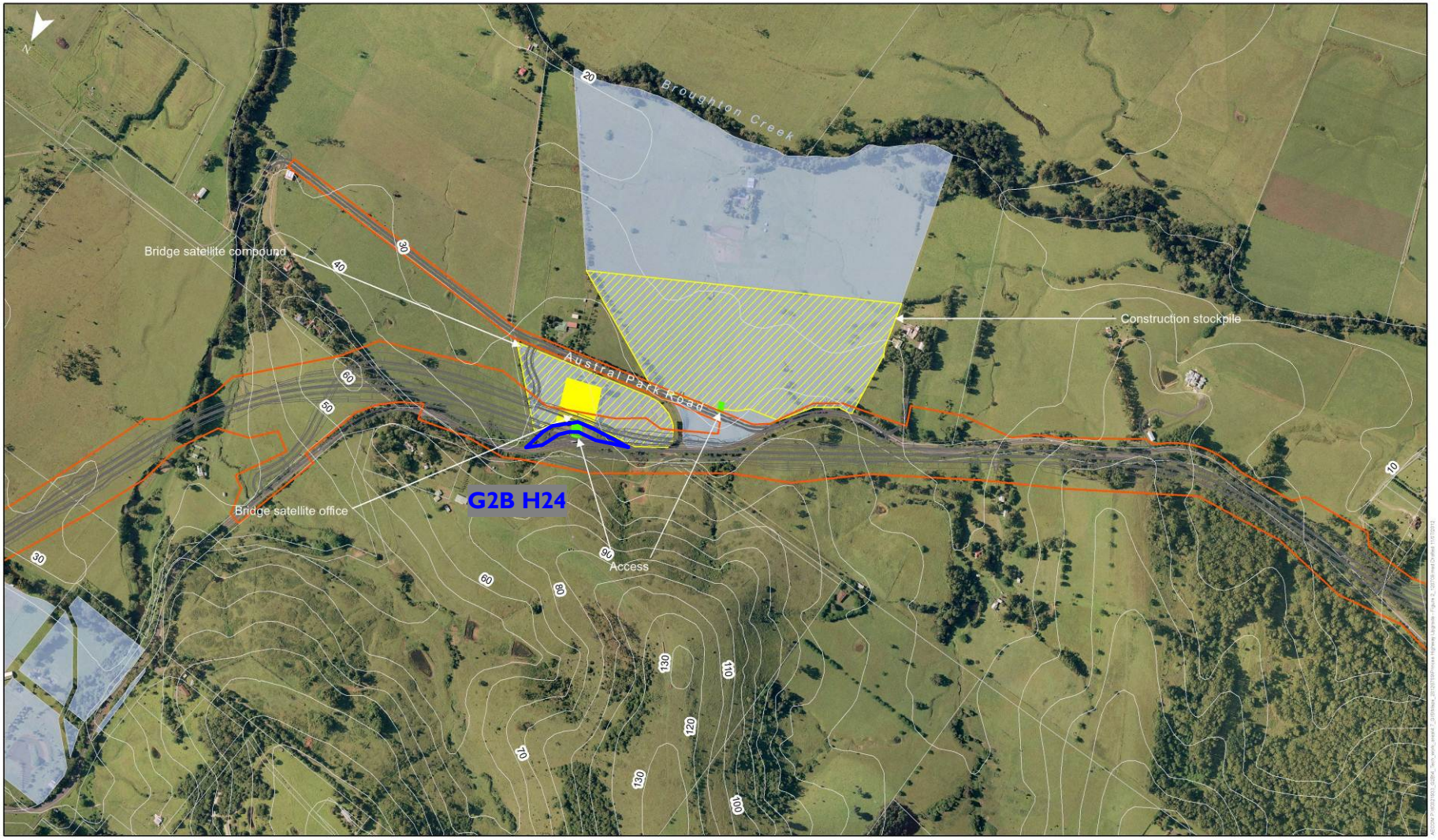
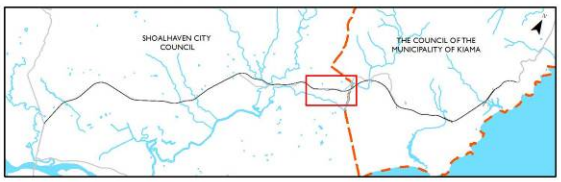
Figure A.2 Site recordings relative to indicative ancillary areas







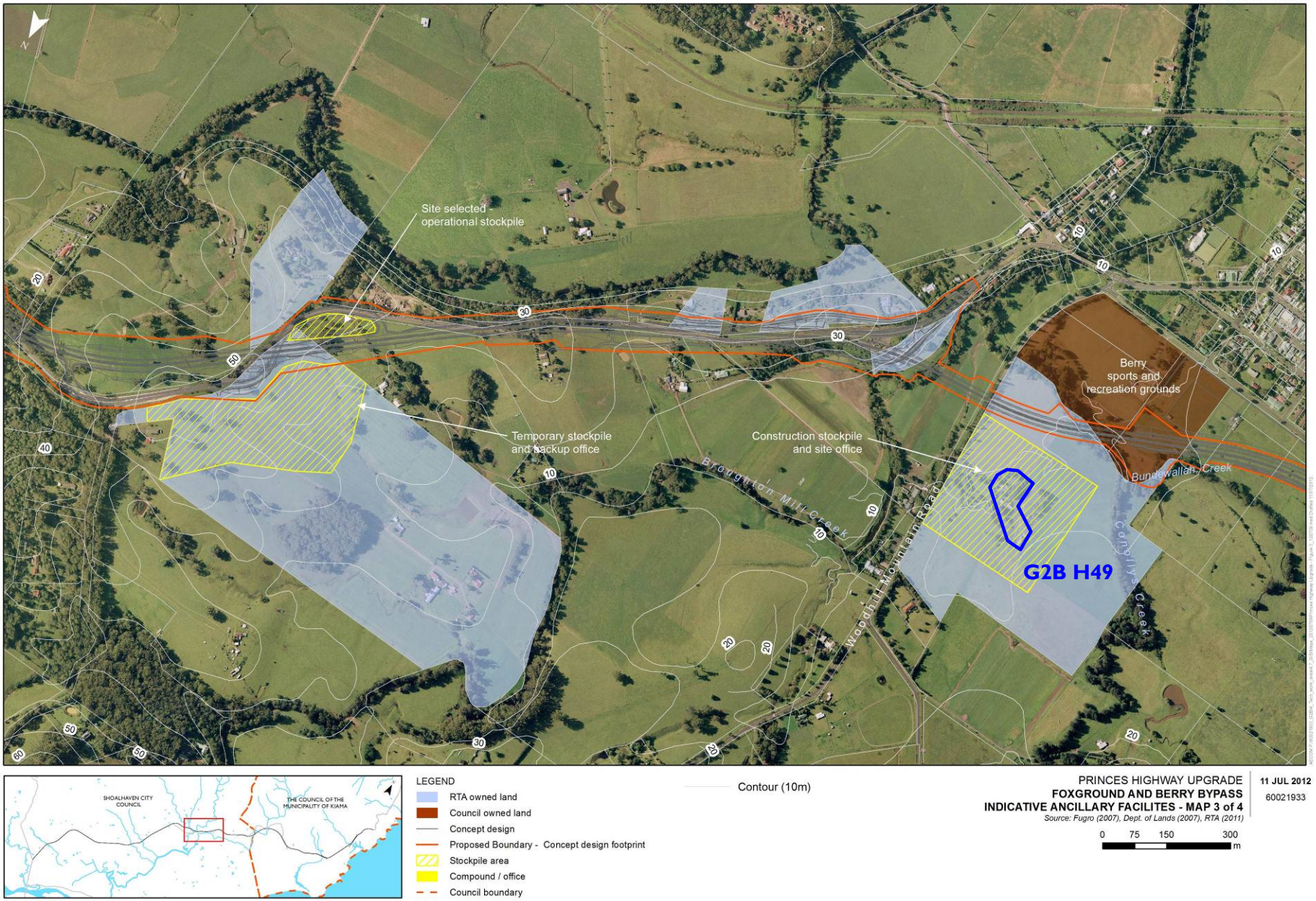
LEGEND

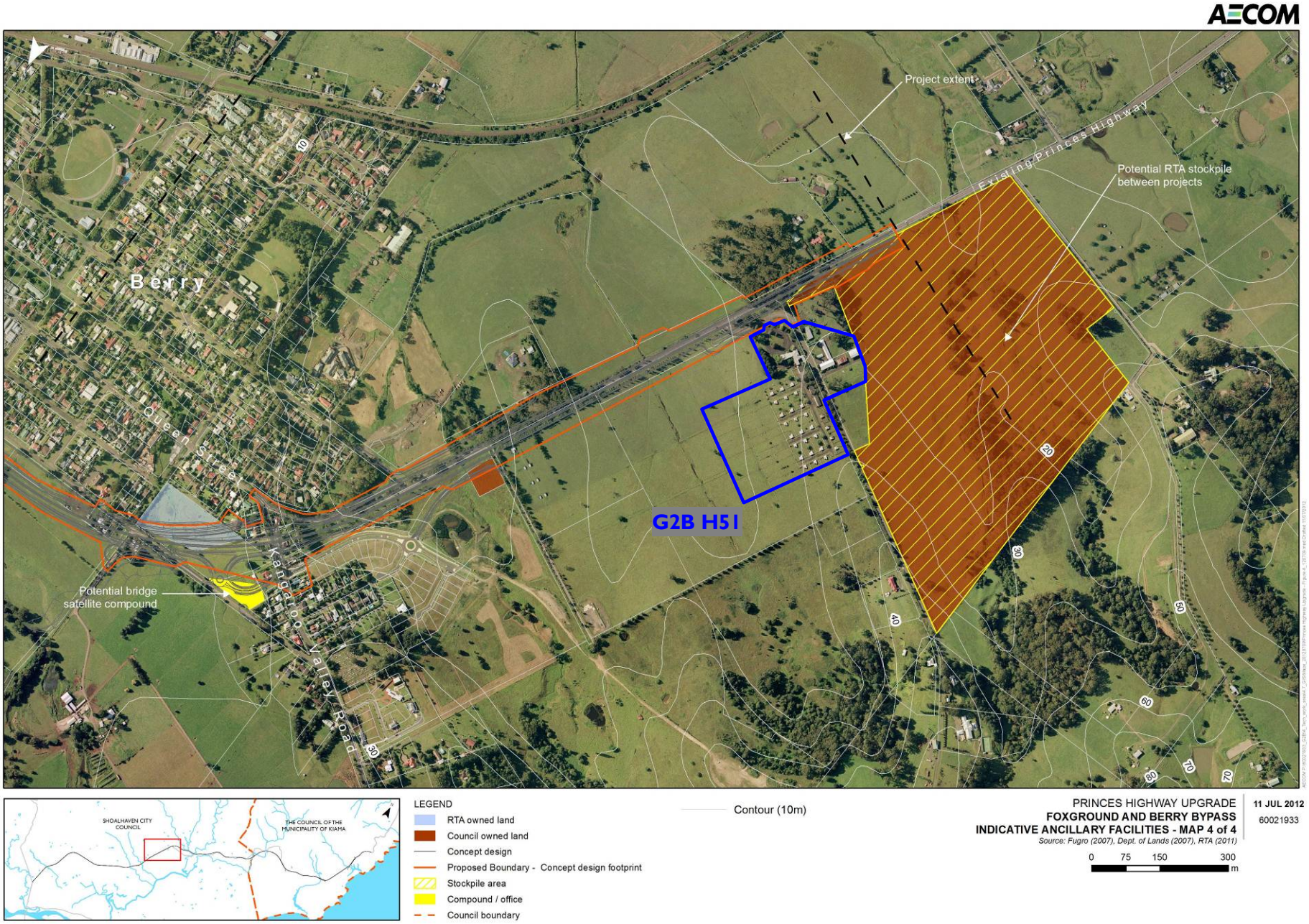
- RTA owned land
- Council owned land
- Concept design
- Proposed Boundary - Concept design footprint
- Stockpile area
- Compound / office
- Council boundary
- Contour (10m)

PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
INDICATIVE ANCILLARY FACILITIES - MAP 2 of 4
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)

0 100 200 400 m

11 JUL 2012
60021933


AECOM
N
Site selected - operational stockpile
Temporary stockpile and backup office
Construction stockpile and site office
Berry sports and recreation grounds
Broughton Mill Creek
Woodhill Mountain Road
Bundewallah Creek
Conjola Creek
G2B H49
SHOALHAVEN CITY COUNCIL
THE COUNCIL OF THE MUNICIPALITY OF KIAMA
LEGEND
RTA owned land
Council owned land
Concept design
Proposed Boundary - Concept design footprint
Stockpile area
Compound / office
Council boundary
Contour (10m)
PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
INDICATIVE ANCILLARY FACILITES - MAP 3 of 4
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)
11 JUL 2012
60021933
0 75 150 300
m


AECOM
Project extent
Existing Princes Highway
Potential RTA stockpile between projects
Berry
Queen Street
Kangaroo Valley Road
G2B H51
Potential bridge satellite compound
SHOALHAVEN CITY COUNCIL
THE COUNCIL OF THE MUNICIPALITY OF KIAMA
LEGEND
RTA owned land
Council owned land
Concept design
Proposed Boundary - Concept design footprint
Stockpile area
Compound / office
Council boundary
Contour (10m)
PRINCES HIGHWAY UPGRADE
FOXGROUND AND BERRY BYPASS
INDICATIVE ANCILLARY FACILITIES - MAP 4 of 4
Source: Fugro (2007), Dept. of Lands (2007), RTA (2011)
0 75 150 300
m
11 JUL 2012
60021933

Appendix B

Heritage listings

Heritage listings

B.1 RMS Section 170 Heritage and Conservation Register

Broughton Creek bridge

Item

Name of Item	Broughton Creek Bridge
Item Number	4309596
Type of Item	Built
Item Sub-Type	Pre-1948 Concrete Beam Bridges
Roadloc	
Address	**** Princes Highway Broughton 2534
Local Government Area	Kiama
Owner	Roads and Traffic Authority
Current Use	Road bridge
Former Use	Road bridge

Statement of significance

Statement of significance	As a recently widened bridge, the Broughton Creek Bridge has technical and aesthetic significance and the potential to contribute to an understanding of contemporary strategies for the continued use of older road infrastructure under changing demands. The original fabric embodies the design principles and construction techniques applied to modest concrete bridges during the period 1925-1948, being a sturdy structure of a standard concrete beam design, poured on site and neatly finished. The widened bridge represents an excellent, and possibly unique adaptation to achieve a wider deck without the need for additional piers, and has retained the spacious and clean lines of the original structure, with most of the original fabric unaltered and the views to and from the structure, which allow its interpretation have been maintained. Thus, although the bridge has been widened, it retains the capacity to demonstrate the key characteristics of bridges of its type and era.
Date significance updated	08 September 2004

Description

Designer	****
Builder	****
Construction years	**** - 1935
Physical description	This bridge is set on a valley bottom with the stream running below on cobbles. The road curves tightly to the north of the bridge and the speed zoning is 90 kph. The bridge is a widened structure of three longitudinal beams which are simply supported at the central pier and curve down to frame compositely with the abutment walls. Each span has a cross girder at the pier. Widening of the bridge

	has been effected by means of attaching cantilever deck to each side of the bridge. These cantilevers are supported by small composite cantilever beams which are tapered upward from the main beam. To assist in distributing the twisting effect of loads outside the main beams coming through the cantilevers, three rows of steel struts per span brace the main beams. The new deck edge supports a kerb and Thriebeam style guardrailing. The central pier has two columns which frame into a cross girder which has a wider upper section to accommodate the two simply supported decks. The abutments, of wall type, have been extended to accommodate the new deck width, and gabion box walls have been used to stabilise the abutment fill. Approximately 50 metres south of the bridge, a two cell cast in-situ box culvert services an overflow channel of the stream. This has had its end walls and wingwalls raised to allow for increased formation width.
Physical Condition and/or Archaeological Potential	Original condition assessment: 'The bridge is in very good condition.' (Last updated: 20/08/2004.) 2007-08 condition update: 'Good.' (Last updated: 17/4/09.)
Modifications and dates	The widening was carried out in 1994.
Date condition updated	17 April 2009

History

Historical notes

Broughton Creek Bridge is situated on the Princes Highway between Gerringong and Berry. It crosses Broughton Creek, which flows southwards into the Shoalhaven River. The area was once the territory of the Wodi-Wodi tribe, which occupied that whole district from Five Islands at Wollongong to the Shoalhaven. The Kiama Municipality is part of a narrow strip of coastal lowland bordered by the sea to the east and by the steep Illawarra Escarpment to the west. The sea gave the easiest access to the region initially and establishing roads over the other boundaries was not an easy task. Consequently, road development was delayed in the region. (Derbyshire & Allen, 1984, pp. 22, 26, 64; Regional Histories, 1996, pp. 175, 184, 186)
Kiama harbour was reached by George Bass in 1797. Oxley and Meehan reached Kiama overland in 1819, finding a natural harbour and lush rainforest, which was soon exploited by the cedar-cutters. Moving south from the Lake Illawarra area, the cedar-cutters progressed to the Gerringong district through the 1820s. Land grants on the rich alluvial soils followed and seven year 'clearing leases' were common. Under that system the lessee cleared the land; grew wheat, barley and potatoes and produced milk as well as selling as much timber as he could, then returned the cleared land to the owner. Kiama was originally favoured to be the pre-eminent town in the region by Surveyor General Oxley, who reserved a town site in 1826. The town, surveyed in 1838, thrived through the first half of the nineteenth century and became a Municipality in 1859. Gerringong town was laid out late in 1854, and although it had a poor harbour, it attracted stores, inns and churches. Berry and Bomaderry were laid out by the new owner of the Berry estate, John Hay, in 1890 and 1891 respectively. Berry was originally known as Broughton Creek (the creek being navigable up to the town) then in 1890, John Hay suggested it be re-named Broughton River. The creek appears to have been named after Broughton, an Aboriginal man who assisted Berry in his south-coast ventures, or may have been named by Throsby after his wife's family. (Regional Histories, 1996, p. 184, 186; The Australian Encyclopaedia, 1963, Vol 5, p. 182; Antill, 1982, pp. 6,11, 14, 85)

Dairying became the major enterprise in the district in the later nineteenth century, after rust defeated the region's wheat industry. From the 1860s to the 1890s the district developed as the Colony's major butter producer, with dairy farmers taking up land in Kiama, Kangaroo Valley and the Berry District in large numbers. (Regional Histories, 1996, 186, 188) Blue metal mining also took off in the 1880s in Kiama, the material much in demand in the booming railway construction industry, with 400 tons shipped daily to Sydney. The railway reached Kiama in 1887 and began to supplant the role of shipping in the butter and blue metal industries, and allowed for the transport of a fresh milk to the Sydney market. (Regional Histories, 1996, p. 185)

In 1830 settlers in Kiama petitioned the Colonial Secretary for the construction of an official road to end the constant dispute and frequent litigation as to the use of tracks.

Surveyor Mitchell initially opposed the idea, partly because of the difficulty and expense of forming a road over the cliffs that enclosed the Illawarra district. Mitchell eventually agreed and in 1833 stationed Surveyor Jacques in the district to make a detailed survey. Mitchell had first proposed that a direct road link be established between Sydney and the Illawarra in 1831 to provide an alternative to the circuitous route via Liverpool through Appin. He also recommended a road from Bong Bong (Moss Vale) along the ridge to a point between Kiama and Gerringong and a descent without difficulty to the coast. The direct route between Sydney and Wollongong followed by the Princes Highway was laid out by 1843, though it did not supplant the old route until about 30 years later. In 1843 the main track south passed though Albion Park and onto the village of Jamberoo, closer to the Escarpment than the coast. By 1865 the South Coast Road ran along the coast to Twofold Bay. The Kiama Independent of 6th June 1866, however, reported that the section of road between Gerringong and Crooked River was in terrible condition. (DMR, 1976, pp 36, 37, 48; Derbyshire & Allen, 1984, p. 64)

The approximate route of the current Princes Highway was declared the 'Main South Coast Road' through the Local Government Extension Act of 1906. The many small municipalities along the road depended heavily on volunteer support of local landholders in the upkeep of the road. An 'opening' and naming of the Princes Highway took place at Bulli in 1920 (DMR 1976, pp. 64 and map opposite). In 1928 the route was proclaimed a State Highway under the Main Roads Act, and was accorded due attention and expenditure by the Main Roads Board cum Department of Main Roads, which from 1925 had embarked on a statewide programme of improving roads to a standard to suit high speed automobile traffic. By 1932 the Princes Highway between Sydney and the Shoalhaven River had been improved and most sections surfaced in bituminous macadam. The bridge over Broughton Creek, constructed slightly later, in 1935, is associated with this grand scheme of highway improvement. Over the following decades improvement works continued to the south, with 22 concrete bridges and several new deviations constructed between Nowra and Bateman's Bay by 1939. (DMR 1976, p. 160-1)

The Broughton Creek Bridge was constructed in 1935 to replace a timber truss bridge, probably constructed in the 1890s. By the late 1920s the timber bridge was in need of major repairs and in 1931 an investigation was began into the construction of a new bridge on a short deviation. It was estimated that the cost would be in the region of 13,000 pounds, and plans were drawn up. In 1935 tenders were called, and McClean Construction Company was awarded the work, completing the bridge in the same year. A two cell reinforced box culvert was constructed in the southern approach. (RTA General File 1/236.194) The Broughton Creek Bridge was one of over 1,000 bridges built by the Main Roads Board cum Department of Main Roads during the period 1925-1940, adapting existing standards of bridge design to meet the requirements of improved motor vehicle performance - they were generally wider than previously with an improved load capacity. The principal types of bridges constructed during the period were: reinforced concrete beam; concrete slab; steel truss on concrete piers; and timber beam bridges. Concrete was favoured in many instances because it was perceived to be a low maintenance material (DMR, 1976, pp.169, 170). Based on RTA bridge database records, reinforced concrete beam or girder bridges were the most common form of concrete bridge construction to 1948, with more than 160 extant. They have been very popular in NSW, and elsewhere, providing an efficient and often aesthetically pleasing solution to a wide range of crossing types. Within the general group of beam bridges, the main longitudinal members have had various configurations ranging from a simple set of rectangular beams cast integrally with the deck, through beams with curved soffits, to flat soffit decks where the edge beams also form the bridge parapet or sidewall. These bridges on the state's main roads and highways, constructed to replace high-maintenance and aged timber bridges or open crossings, along with other road improvements, ushered in the age of comfortable motor transport and efficient road transport of goods and produce to which we are accustomed today.

The waterway allowance provided by the new bridge and culvert together amounted to just over half that of the old timber truss bridge. Problems with flooding were persistent, and became serious in 1950 when the curtain wall between the columns of the northern abutment was undermined, necessitating major repairs. In 1952 extensive scouring around the southern abutment resulted in the bridge's closure for four days. The extension of the bridge was mooted, but was not undertaken. Oak trees were cleared from beside the stream to help facilitate free flow of water. In the 1950s the old timber truss bridge was still in use by landowners, comprising part of the private access routes to their properties, a petition for assistance with its repair was submitted to the Department. The former bridge (upstream of current crossing) appears to have been demolished since that time (RTA General File 1/236.194)

Since 1994 the bridge has been widened. Core samples taken from the bridge had a

strength that exceeded expectations, and thus widening by means of a cantilevered deck was possible. (RTA FIle1/236.194; 2)

Listings

Heritage Listing	Reference Number	Gazette Number	Gazette Page
Heritage Act - s.170 NSW State agency heritage register			

Assessment of significance

Historical Significance	The Broughton Creek Bridge's construction is associated with the grand scheme of highway improvement undertaken by the Main Roads Board cum Department of Main Roads in an attempt to bring the State's main roads up to the standard required by the modern motoring age emerging in the inter-war period. As a widened bridge, it represents the continual process of upgrading required in response to the increased volume, weight and speed of traffic on this busy highway.
Historical Association	****
Aesthetic/Technical Significance	The Broughton Creek Bridge embodies the design principles and construction techniques applied to modest concrete bridges during the period 1925-1948, being a sturdy structure of a standard concrete beam design, poured on site and neatly finished. The widened bridge represents an excellent adaptation to achieve a wider deck without the need for additional piers, and has retained the spacious and clean lines of the original structure, with most of the original fabric remaining unaltered, and the views to and from the structure, which allow its interpretation, have been maintained.
Social Significance	****
Research Significance	The bridge has the ability to contribute to an understanding of heritage conservation itself and to sympathetic approaches to the continued use and adaptation of older structures.
Rarity	This bridge is apparently unique in its method of widening which has minimised the impact of supporting the extra width on the basic structural support system..
Representativeness	Although widened, the bridge retains the capacity to demonstrate the key structural and aesthetic characteristics of reinforced concrete beam bridges of the period 1925-48.
Integrity/Intactness	Good
Assessed significance	Local

References

Type	Author	Year	Title
Written	Heritage Office and Department of Urban Affairs and Planning	1996	Regional Histories of New South Wales
Written	Roads and Traffic Authority, (RTA)		RTA General File 1/236.194
Written	Derbyshire, Jim and Dianne Allen	1984	Land Between Two Rivers

Written	Antill, G. H.	1982	Settlement in the South
Written	Department of Main Roads	1976	The Roadmakers: A History of Main Roads in New South Wales

Study details

Title	Year	Author	Inspected by	Guidelines used
Heritage Study of Pre-1948 Concrete Beam Bridges (Sthn, Sth West, Sydney)	2005	Burns and Roe Worley and Heritage Assessment And History (HAAH)		Yes

Custom fields

RTA Region	Southern
Bridge Number	704
CARMS File Number	****
Property Number	Bridge
Conservation Management Plan	****

Images

View on centreline under bridge showing main deck beams, cross beams and RHS cantilever stabilising struts. Pier is detailed for simply supported deck.

Overflow channel culvert showing raised head and wingwalls to suit road widening.

View north across overflow channel culvert with bridge in background having Thrierail guardrail

Oblique view of abutment showing deck beams curving to join the abutment wall. Also note abutment widening and gabion wingwalls. Cemented stonework protects toe of abutment wall.

View of bridge looking east

Cantilever widening, using tapered concrete cantilevers and reinforced concrete deck

B.2 Shoalhaven heritage inventory

Please note that despite datasheet references to the State Heritage Register and a SHI number, the inclusion of an item on the Shoalhaven Heritage Inventory does not necessarily mean that it is also included on the State Heritage Inventory or State Heritage Register.

Inventory copies kindly supplied courtesy of the Shoalhaven City Council

Heritage study No.	Item description
B004	Inter War Two Storey Brick Convent (St Patricks Convent, Berry)
B005	Inter War Roman Catholic Church (St Patricks Church, Berry)
B017	Victorian Carpenter Gothic style Hall (Uniting Church Hall)
B061	Mark Radium Park
B087	'Mananga" Berry Estate Manager's Farmhouse
B090	Weatherboard Overseers Cottage (143 North Street, Berry)
B093	"Glen Devan" Federation Weatherboard Farmhouse (77 North Street, Berry)
B094	Berry-Bolong Pastoral Landscapes
B095	Avenue of 9 Poplar trees (Woodhill Mountain Road)
B120	"Glenvale" Colonial Vertical Timber Slab Cottage
B177	"Oakleigh" Inter War Bungalow style Farmhouse

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390061

Study Number B004

Item Name: Inter War Two Storey Brick Convent

Location: 80 North Street, Berry [Shoalhaven]

Address:	80 North Street	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names: St Patrick's Convent

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Religion **Category:** Convent/Nunnery

Owner: Religious Organisation

Admin Codes: B004 **Code 2:** 2187 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: Excellent two storey Inter-War religious residence, purpose built as a rare example of a convent. Considerable contribution to the scale, form and continuity of the streetscape in conjunction with the nearby St Patrick's RC Church. Historic, social and aesthetic value to the local community. Local significance (Shoalhaven).

Historical Notes or Provenance: The first resident Catholic priest arrived in the Shoalhaven District in 1863. By 1872 Mass was celebrated at both Broughton Creek (Berry) and Coolangatta. The town of Berry was laid out in 1883 by David Berry. A new church was built in 1884 on the present site which served as both church and school until the Sisters of Saint Joseph came in 1891. A convent was constructed adjoining the church in 1921, a priests apartment being attached to the new building.

Themes:

National Theme	State Theme	Local Theme
8. Culture	Religion	(none)

Designer:

Maker / Builder:

Year Started: 1921 **Year Completed:** 1921 **Circa:** No

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390061
Study Number B004

Item Name: Inter War Two Storey Brick Convent

Location: 80 North Street, Berry [Shoalhaven]

Physical Description: Two storey Inter-War period convent characteristic of rectories and similar structures erected throughout the Shoalhaven District in the late nineteenth and early twentieth centuries. Constructed of fairface brick with tiled hipped roof and gabled projection. The two storey verandah runs along two sides of the building from the gabled projection. Open eaves. Windows overhung sash with single large lights set in openings with brick soldier arches and brick sills. Gable decorated with battened fibre cement panels in similar manner to the detailing employed for the verandah balustrade/frieze. Mature landscape/garden setting.

Physical Condition:

Modification Dates: Verandah partially enclosed at first and ground floor levels.

Recommended Management:

Management:

Further Comments: Historical Period: 1901-1925

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) This item is assessed as historically rare locally.

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally. This item is assessed as socially representative locally.

Integrity / Intactness:

References:

Author	Title	Year
M. L. Lidbetter	Historic Sites of Berry	1993

Studies:

Author	Title	Number	Year
		B004	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: **Map Scale:**

AMG Zone: **Easting:** **Northing:**

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390061

Study Number B004

Item Name: Inter War Two Storey Brick Convent

Location: 80 North Street, Berry [Shoalhaven]

Listings:	Name:	Title:	Number:	Date:
	Within a National Trust conservation area			

Related Items: St Patrick's Church

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 07/11/2002 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390061
Study Number
B004

Item Name: **Inter War Two Storey Brick Convent**

Location: **80 North Street, Berry [Shoalhaven]**

Image:

Caption: Inter War Two Storey Brick Convent
Copyright:
Image by:
Image Date:
Image Number: Roll: IRHS & 35 Negative Number: 3, 4
Image Path:
Image File: 2390061.jpg
Thumb Nail Path:
Thumb Nail File: t_2390061.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390062
Study Number
B005

Item Name: Inter War Roman Catholic Church

Location: 80 North Street, Berry [Shoalhaven]

Address: 80 North Street
Suburb / Nearest Town: Berry 2535
Local Govt Area: Shoalhaven
State: NSW
DUAP Region: Illawarra & Macarthur
Historic region: Illawarra
Parish: COOLANGATTA
County: CAMDEN

Other/Former Names: St Patrick's Church

Area/Group/Complex:
Group ID:

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Religion **Category:** Church

Owner: Religious Organisation

Admin Codes: B005 **Code 2:** 2339 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local
Endorsed Significance:

Statement of Significance: Interesting economical interpretation of the Inter-War Gothic style of architecture in sympathetic materials. Social and historic value to the community. Local significance (Shoalhaven).

Historical Notes or Provenance: The present St Patrick's church building is the third RC church in Berry. The first served the community from c.1866 to c.1884 when the second church was built in the newly planned township of Berry. The second church served until 1935 when the foundations of the present building were laid; the Rev, M Sheehan on 24/11/1935. The church was completed at a cost of pounds 4000.

Themes:

National Theme	State Theme	Local Theme
8. Culture	Religion	(none)

Designer:

Maker / Builder:

Year Started: 1935 **Year Completed:** 1935 **Circa:** No

Physical Description: Inter-War Gothic church of Romanesque proportions with lanceoloate windows and drip mouldings. Revetted openings with stained glass windows. The rectangular form of the

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390062

Study Number B005

Item Name: Inter War Roman Catholic Church

Location: 80 North Street, Berry [Shoalhaven]

building is divided into entrance area, nave and altar with associated sacristy with a second side porch. The dominant north gable features a nominal 'rose' window, the main entrance being accentuated by stepping the door and flanking arches forwards of the main gable. The prominence of the gabled front is increased by white rendered upper sections on each gable. Each gable is surmounted by a small cross.

Physical Condition:

Modification Dates: The lower cross has been removed.

Recommended Management:

Management:

Further Comments: Historical Period: 1926-1950

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally. This item is assessed as socially representative locally.

Integrity / Intactness:

References:

Author	Title	Year
M L Lidbetter	Historic Sites of Berry	1993

Studies:

Author	Title	Number	Year
		B005	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: **Map Scale:**

AMG Zone: **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390062
Study Number
B005

Item Name: **Inter War Roman Catholic Church**

Location: **80 North Street, Berry [Shoalhaven]**

Related Items: Former St. Patrick's Convent (next door)

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 07/11/2002 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390062
Study Number
B005

Item Name: **Inter War Roman Catholic Church**

Location: **80 North Street, Berry [Shoalhaven]**

Image:

Caption: Inter War Roman Catholic Church
Copyright:
Image by:
Image Date:
Image Number: Roll: 30 Negative Number: 11
Image Path:
Image File: 2390062.jpg
Thumb Nail Path:
Thumb Nail File: t_2390062.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390074
Study Number
B017

Item Name: **Victorian Carpenter Gothic style Hall**

Location: **69 Albert Street, Berry [Shoalhaven]**

Address:	69 Albert Street	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names: Berry Uniting Church Hall

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Religion **Category:** Church Hall

Owner: Religious Organisation

Admin Codes: B017 **Code 2:** 70734 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: Locally rare example of a simple late nineteenth century Carpenter Gothic church building. Social and historic interest to the local community. Local Significance (Shoalhaven District)

Historical Notes or Provenance: In 1883 David Berry donated land in the town of Berry for the Wesleyan Church. The congregation wasted no time in having a chapel erected. The Broughton Creek Wesleyan Church of weatherboard was reported to have been the first building to be erected on land legally acquired in the "new township" when it was officially opened by Rev. J. W. Brown, of Kiama circuit, on Sunday 13th April 1884. A Sunday School had opened on 6 July 1873 in what was known as "The Old Schoolroom" in the village on the ridge in Pulman Street transferring to the new building when it opened.

The opening of the chapel was reported in the Shoalhaven Telegraph:- The chapel is a neat weatherboard structure 43 x 23 feet on wooden block foundations in the designing management of which Mr William Boyd of the firm of English and Boyd, Broughton Creek was the leading chief spirit. It is built of stud and weatherboard, lined with clear pine and roofed with corrugated iron. The building is entered by a porch 8 x 8 with a door at each side. The principal entrance into the main building is by a 4 feet door opening in two parts. It is lighted through 8 spacious Gothic topped windows, 4 on each side, the place being built east and west.

The chapel is furnished with 24 pews, 12 on each side, and will seat up to 200 worshippers if required, and the officiating worshipper is provided with a light and handsome open rostrum, of varnished cedar, decorated with panels, and turned work, and is reached by a flight of steps on each side. The communion rail is also of turned work, lined with green rep.

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Item Name: Victorian Carpenter Gothic style Hall

Location: 69 Albert Street, Berry [Shoalhaven]

The walls inside are painted a stone colour, and bordered with a lilac paint up to about 4 feet above the floor. The height of the walls is 12 feet and the roof being half opened and ceiled. Outside the building is painted in a stone colour, and the gables of the roof and porch are decorated with barge boards of unique design and finished with turned finials. Mr Herbert Pettit was the contractor, and he has completed a very creditable piece of work.

The first parsonage was built on the Albert Street side of this building in 1886 at a cost of £422. The foundation stone for the new church was set in 1932 and four years later a new parsonage was erected adjacent to the old 1886 house, which was then demolished, its foundations may still be seen in the grounds.

When the new church was completed in 1932 the old chapel was used as a church hall until the new church hall was completed in 1965.

Themes:

National Theme	State Theme	Local Theme
8. Culture	Religion	(none)

Designer: English & Boyd

Maker / Builder: William Boyd (Painter - Herbert Pettit)

Year Started: 1884 **Year Completed:** 1884 **Circa:** No

Physical Description: Representative Victorian Carpenter Gothic weatherboard church, with gabled roof and attached porch. Decorative timber bargeboards and finial to porch. Pointed arched windows, with simple tracery reflecting the 3 vertical divisions of the window. Slatted gable ventilators. Brick (?) footings.

Physical Condition:

Modification Dates: It is possible that bargeboard detailing has been lost from the main building. A small w/b skillion has been added at the west end. Re-roofed with colorbond.

Recommended Management: The building is deteriorating as a result of inadequate protection of the fabric in the three following areas and should be rectified as a matter of urgency.

1. The weatherboard walls and floor structure are affected by rot from the proximity of the soil and ground dampness. The ground level around and under the building should be lowered as far as possible and an effective drainage system installed to the perimeter. All piers and ant caps should be inspected and rectified.

2. The eastern side of the roof is in urgent need of replacement and the resulting rainwater ingress has caused damage to the internal fabric. Eaves gutters should be installed with downpipes to the stormwater which will improve the damp soil conditions around the building.

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390074
Study Number B017

Item Name: Victorian Carpenter Gothic style Hall

Location: 69 Albert Street, Berry [Shoalhaven]

3. Deteriorating paintwork and rotted weatherboards are facilitating the spread of rot into stud wall framing. Window joinery is deteriorating through lack of protection and failing paintwork. The entire building should be repainted to a suitable heritage colour scheme. If early photographs are available they should be examined for clues as to the shading colours which may be able to be confirmed by paint scrapes of the existing fabric. The weathertex lining boards to the rear annexe should be replaced with timber weatherboards in matching profile. Aluminium windows should be replaced in timber with 9 pane sashes to match the main hall. Early photographs may confirm the detail of the two gable barge boards, if not the detail may be similiar to the fretworked gable at the entry porch.

Management:

Further Comments: Historical Period: 1876-1900

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) This item is assessed as aesthetically rare locally. This item is assessed as historically rare locally.

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as socially representative locally.

Integrity / Intactness:

References:

Author	Title	Year
	The Shoalhaven Telegraph (17/4/1884)	
	Bruce Dawbin 3/4/1998	
A C Ali	Illawarra Region Historic Buildings and Sites	1981
Mary L Lidbetter	Historic Sites of Berry	
Perumal Murphy Wu	Illawarra Regional Heritage Study Review, 1993 Updated Robyn Florance;	

Studies:

Author	Title	Number	Year
Perumal Murphy Wu	Illawarra Regional Heritage Study Review	B017	1993
		B017	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390074
Study Number
B017

Item Name: **Victorian Carpenter Gothic style Hall**

Location: **69 Albert Street, Berry [Shoalhaven]**

Location validity: Spatial Accuracy:

Map Name: Map Scale:

AMG Zone: Easting: Northing:

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Related Items:

Listing Comments: Supp to IRHS. AC Ali

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 07/11/2002 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390074
Study Number
B017

Item Name: **Victorian Carpenter Gothic style Hall**

Location: **69 Albert Street, Berry [Shoalhaven]**

Image:

Caption: Victorian Carpenter Gothic style Hall
Copyright:
Image by:
Image Date:
Image Number: Roll: IRHS
Image Path:
Image File: 2390074a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390074a.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390074
Study Number
B017

Item Name: **Victorian Carpenter Gothic style Hall**

Location: **69 Albert Street, Berry [Shoalhaven]**

Image:

Caption: Victorian Carpenter Gothic style Hall
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390074b.jpg
Thumb Nail Path:
Thumb Nail File: t_2390074b.jpg

Shoalhaven Heritage Inventory

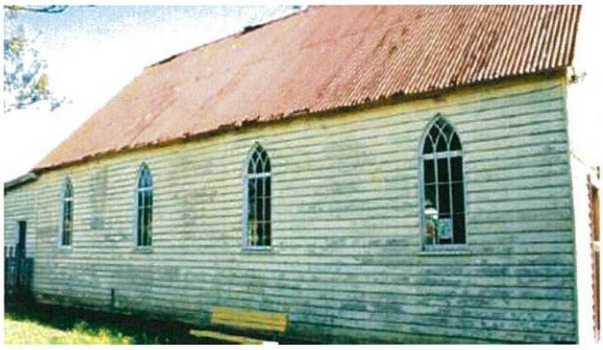
State Heritage Register

SHI Number
2390074
Study Number
B017

Item Name: **Victorian Carpenter Gothic style Hall**

Location: **69 Albert Street, Berry [Shoalhaven]**

Image:



Caption: Victorian Carpenter Gothic style Hall
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390074c.jpg
Thumb Nail Path:
Thumb Nail File: t_2390074c.jpg

Shoalhaven Heritage Inventory

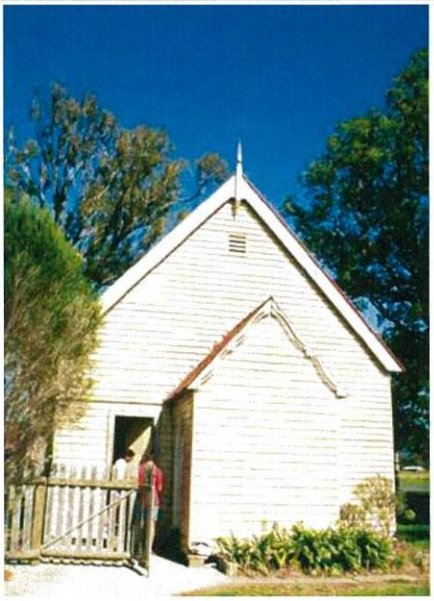
State Heritage Register

SHI Number
2390074
Study Number
B017

Item Name: **Victorian Carpenter Gothic style Hall**

Location: **69 Albert Street, Berry [Shoalhaven]**

Image:



Caption: Victorian Carpenter Gothic style Hall
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390074d.jpg
Thumb Nail Path:
Thumb Nail File: t_2390074d.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390118
Study Number B061

Item Name: Mark Radium Park

Location: Victoria Street, Berry [Shoalhaven]

Address:	Victoria Street	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN
Other/Former Names:	Eucalypts		
Area/Group/Complex:		**Group ID:**	
Aboriginal Area:			
Curtilage/Boundary:			
Item Type:	Landscape	**Group:**	Parks, Gardens and T
Category:	Urban Park		
Owner:	Local Government		
Admin Codes:	B061	**Code 2:**	2414
Code 3:	Y		
Current Use:			
Former Uses:			
Assessed Significance:	Local	**Endorsed Significance:**	

Statement of Significance: Important contribution to Townscape. These trees are within an attractive natural parkland setting and act as an important entrance statement and rest area to the town of Berry. The area is of local cultural significance and was named after a local pony, the High Jump Champion of Australia between 1938 and 1955. Local Significance.

Historical Notes or Provenance: Mark Radium Park was established on the site of the old pound. The park was named after Jack McGee's pony, 'Mark Radium', the High Jump Champion of Australia between 1938 & 1955.

Themes:

Designer:

Maker / Builder:

Year Started: **Year Completed:** **Circa:** No

Physical Description: Trees are approximately 20m high on average with an average canopy diameter of 10m. The park is situated at the western end of Berry in a natural bush setting with an ornamental lake.

Physical Condition:

Modification Dates:

Recommended Management: Trees should be checked for lerps and scarobs. The curtilage of each tree should extend to

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Item Name: Mark Radium Park

Location: Victoria Street, Berry [Shoalhaven]

2 metres outside the drip line. No widening of Princes Highway or Victoria Street should occur within the property boundary of the park or curtilages. A vegetation survey and landscape management plan of the park should be prepared. All further work within the curtilage of the trees should be assessed by a qualified arborist. Seed stock should be collected for future replanting.

Management:

Further Comments:

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as socially representative locally.

Integrity / Intactness:

References:

Author	Title	Year
N. Bevan - Berry Garden Club		

Studies:

Author	Title	Number	Year
		B061	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: Berry 9028 - 3 - N **Map Scale:**

AMG Zone: Berry 9028 - 3 - N **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Related Items:

Listing Comments:

Custom Field Three:

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390118
Study Number
B061

Item Name: **Mark Radium Park**

Location: **Victoria Street, Berry [Shoalhaven]**

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 16/03/2001 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390118
Study Number
B061

Item Name: **Mark Radium Park**

Location: **Victoria Street, Berry [Shoalhaven]**

Image:

Caption: Mark Radium Park
Copyright:
Image by:
Image Date:
Image Number: Roll: 21 Negative Number: 6
Image Path:
Image File: 2390118a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390118a.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390118
Study Number
B061

Item Name: **Mark Radium Park**

Location: **Victoria Street, Berry [Shoalhaven]**

Image:

Caption: Mark Radium Park
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390118b.jpg
Thumb Nail Path:
Thumb Nail File: t_2390118b.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390144

Study Number B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Address:	A40 Princes Highway	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names:

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Residential buildings (**Category:** House

Owner: Private - Individual

Admin Codes: B087 **Code 2:** 85796 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: State **Endorsed Significance:**

Statement of Significance: An excellent Federation Queen Anne style farmhouse in weatherboard designed by noted Sydney architect Howard Joseland. Historical interest as a leasehold property, originally, on the Berry Estate. Closely associated with the early private town of Broughton Creek. State significance (NSW).

Historical Notes or Provenance: The first post office in Broughton Mill Creek was established on the site of the present house in 1861, in the home of Donald Stewart. Stewart's home, by Broughton Creek, was named "Mananga", an Aboriginal word meaning 'by the water'. On his death in 1876, the post office moved to James Wilson's store, nearby in Pulman Street.

The Stewart family remained prominent in Broughton Creek. James Stewart was a business partner of James Wilson, and a Justice of the Peace in 1892. The present "Mananga" homestead was built for the Stewart family in 1894 by John Hay, manager of the Coolangatta Estate. When the Estate was broken up the Stewart family were able to purchase the house. "Mananga" was still owned by members of the Stewart family in recent years.

The house was possibly designed by Howard Joseland who designed many Federation buildings on the Berry Estate between 1883 and the early 1900s. The distinctive timber featuring on "Mananga" resembles that on the Bomaderry residences "Greenleaves" (1895) and "Lynburn" (1896) which were designed by Joseland for the Berry Estate.

Themes:

National Theme	State Theme	Local Theme
4. Settlement	Accommodation (Housing)	(none)

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390144
Study Number B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

4. Settlement | Land tenure | (none)

Designer: Howard Joseland

Maker / Builder:

Year Started: 1894 **Year Completed:** 1894 **Circa:** No

Physical Description: A weatherboard Federation Queen Anne style farmhouse featuring a complex iron roof with decorative timberwork to gables. Decoration has an Art Nouveau character. Hipped skillion verandah returning to sides. Timber posts and brackets.

Physical Condition:

Modification Dates: Little altered.

Recommended Management:

Management:

Further Comments: Historical Period: 1876-1900 Architect/Designer: H Joseland

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) This item is assessed as aesthetically rare regionally (State). This item is assessed as historically rare locally.

Criteria g) This item is assessed as aesthetically representative regionally (State). This item is assessed as historically representative regionally (State).

Integrity / Intactness:

References:

Author	Title	Year
Perumal Murphy Wu	Illawarra Regional Heritage Study Review, September 1993.	

Studies:

Author	Title	Number	Year
Perumal Murphy Wu	Illawarra Regional Heritage Study Review	B087	1993

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390144

Study Number B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Peter Freeman Pty Ltd | Shoalhaven City Council Heritage Study 1995-1998 | 1998

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: Berry 9028-3-N **Map Scale:** 1:25,000

AMG Zone: Berry 9028-3-N **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			
Royal Australian Institute of Architects register			

Related Items: Greenleaves, Lynburn, Coolangatta Park and the Berry School of Arts. The Berry-Bolong Pastoral landscapes.

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: **Date First Entered:** 16/06/1999 **Date Updated:** 23/09/2011 **Status:** Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: **"Mananga" Berry Estate Manager's Farmhouse**

Location: **A40 Princes Highway, Berry [Shoalhaven]**

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390144a.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144

Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144b.jpg
Thumb Nail Path:
Thumb Nail File: t_2390144b.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144

Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144c.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: **"Mananga" Berry Estate Manager's Farmhouse**

Location: **A40 Princes Highway, Berry [Shoalhaven]**

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144d.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144e.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144f.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144g.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: **"Mananga" Berry Estate Manager's Farmhouse**

Location: **A40 Princes Highway, Berry [Shoalhaven]**

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144h.jpg
Thumb Nail Path:
Thumb Nail File: t_2390144h.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144i.jpg
Thumb Nail Path:
Thumb Nail File: t_2390144i.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144j.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: **"Mananga" Berry Estate Manager's Farmhouse**

Location: **A40 Princes Highway, Berry [Shoalhaven]**

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144k.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144l.jpg
Thumb Nail Path:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: **"Mananga" Berry Estate Manager's Farmhouse**

Location: **A40 Princes Highway, Berry [Shoalhaven]**

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144m.jpg
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Shoalhaven Heritage Inventory

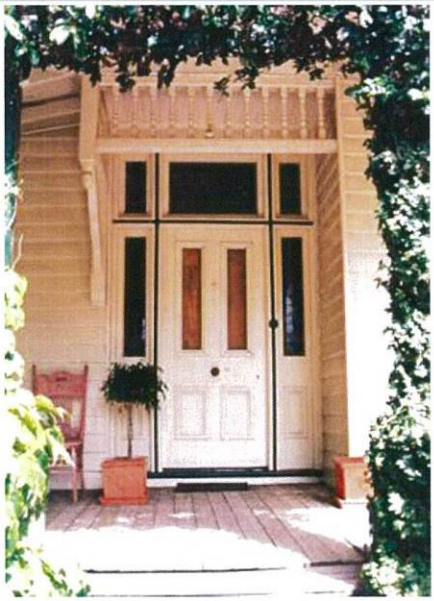
State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:



Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
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Shoalhaven Heritage Inventory

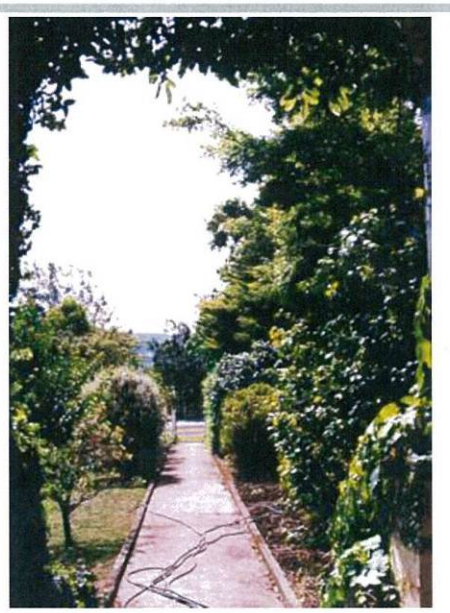
State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:



Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144p.jpg
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse

Copyright:

Image by:

Image Date:

Image Number:

Image Path:

Image File: 2390144q.jpg

Thumb Nail Path:

Thumb Nail File: t_2390144q.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390144

Study Number B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse

Copyright:

Image by:

Image Date:

Image Number:

Image Path:

Image File: 2390144r.jpg

Thumb Nail Path:

Thumb Nail File: t_2390144r.jpg

Shoalhaven Heritage Inventory

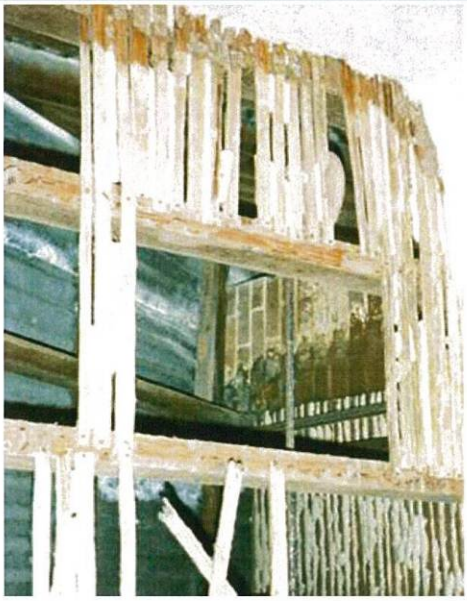
State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: **"Mananga" Berry Estate Manager's Farmhouse**

Location: **A40 Princes Highway, Berry [Shoalhaven]**

Image:



Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
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Thumb Nail File: t_2390144s.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390144
Study Number
B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:

Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144t.jpg
Thumb Nail Path:
Thumb Nail File: t_2390144t.jpg

Shoalhaven Heritage Inventory

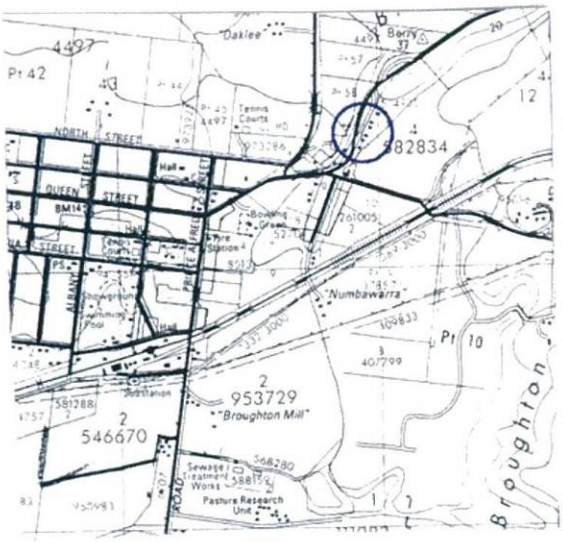
State Heritage Register

SHI Number 2390144
Study Number B087

Item Name: "Mananga" Berry Estate Manager's Farmhouse

Location: A40 Princes Highway, Berry [Shoalhaven]

Image:



Caption: Berry Estate Manager's Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390144u.jpg
Thumb Nail Path:
Thumb Nail File: t_2390144u.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390147
Study Number B090

Item Name: Weatherboard Overseer's Cottage

Location: 143 North Street, Berry [Shoalhaven]

Address:	143 North Street	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names: Former Burnett Farm

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Residential buildings (**Category:** Cottage

Owner: Private - Individual

Admin Codes: B090 **Code 2:** 346 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: Built originally as an overseers residence, the cottage has representative significance as a surviving farm workers residence, dating from 1917. It is generally in original condition except for the enclosure of verandahs and is a typical simple rural vernacular building of the period. Local significance (Shoalhaven).

Historical Notes or Provenance: On the 14 February 1912 Lots 41, 43, 44 and 46 were purchased from the Berry Estate by Lady Alice Carruthers, wife of Sir Joseph Carruthers, KCMG, a solicitor of Sydney, and her unmarried sister, Rhoda Burnett. This property was near other Burnett purchases; Alexander Burnett Lots 38, 39, 40, 45, 47 & 50 and Jane Maria Burnett Part Lot 46. It appears that this cottage was erected as an overseers cottage or shed on the family homestead circa 1917.

The Burnett family homestead was situated on Lots 45 & 46, at the rear of the present tennis courts burnt down in the 1970s. The entrance gates to the homestead still stand at the entrance to the sporting complex.

In 1946 Mr Conway and his daughter Marcia were occupying the cottage and in June 1961 Eric Standen, a general carrier, of Gerringong owned the property. In March 1967 Henry (Harry) William Auld and his wife Phyllis 'Mavis' purchased the property. The property is still owned by Mavis Auld.

Themes:

National Theme	State Theme	Local Theme
4. Settlement	Accommodation (Housing)	(none)

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390147
Study Number
B090

Item Name: **Weatherboard Overseer's Cottage**

Location: **143 North Street, Berry [Shoalhaven]**

Designer:

Maker / Builder:

Year Started: **Year Completed:** **Circa:** No

Physical Description: Simple weatherboard and iron cottage, with gable roof and front verandah.

Physical Condition:

Modification Dates: Enclosure of front verandah and construction of skillion roofed extension to western end.

Recommended Management: Removal of verandah enclosure is recommended to restore the cotttage to its original form.

Management:

Further Comments:

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g)

Integrity / Intactness:

References:

Author	Title	Year
Mavis Auld		
Land Title Office NSW	Certificates of Title	

Studies:

Author	Title	Number	Year
		B090	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390147
Study Number
B090

Item Name: **Weatherboard Overseer's Cottage**

Location: **143 North Street, Berry [Shoalhaven]**

Location validity:

Spatial Accuracy:

Map Name: Berry 9028-3-N

Map Scale: 1:25,000

AMG Zone: Berry 9028-3-N

Easting:

Northing:

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Related Items:

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 19/05/2010 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390147
Study Number
B090

Item Name: **Weatherboard Overseer's Cottage**

Location: **143 North Street, Berry [Shoalhaven]**

Image:

Caption: Weatherboard Overseer's Cottage (Demolished)
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390147a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390147a.jpg

Shoalhaven Heritage Inventory

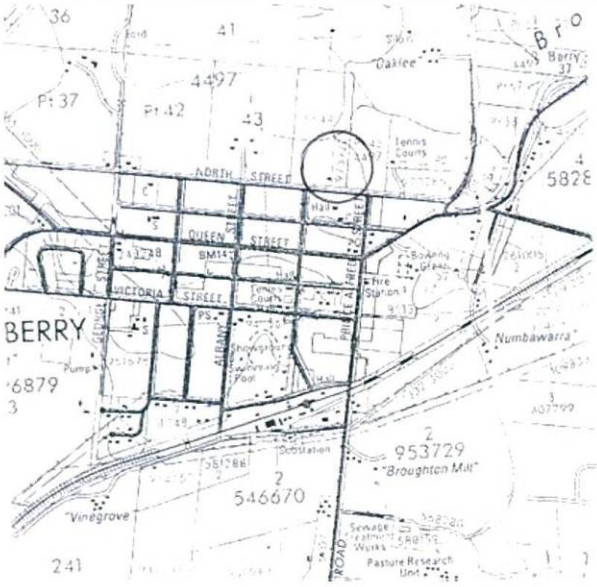
State Heritage Register

SHI Number
2390147
Study Number
B090

Item Name: **Weatherboard Overseer's Cottage**

Location: **143 North Street, Berry [Shoalhaven]**

Image:



Caption: Weatherboard Overseer's Cottage (Demolished)

Copyright:

Image by:

Image Date:

Image Number:

Image Path:

Image File: 2390147b.jpg

Thumb Nail Path:

Thumb Nail File: t_2390147b.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390150

Study Number B093

Item Name: "GlenDevan" Federation Weatherboard Farmhous

Location: 77 North Street, Berry [Shoalhaven]

Address:	77 North Street	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names:

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Residential buildings (**Category:** House

Owner: Roads and Traffic Authority

Admin Codes: B093 **Code 2:** 347 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: Representative asymmetrical Federation period weatherboard house with mature garden. Contributes to the scale, form and continuity of the streetscape. Local significance (Shoalhaven).

Historical Notes or Provenance: It is not known when this cottage was erected but it was built prior to 1894 when Dr Dawson and his family were in residence. The property was purchased from the Berry Estate by the widow of Dr Dawson on 4th February 1908. Dr Cecil Lacy Dawson had arrived in Berry in November 1894 to set up a surgery in the vacated office of surveyor, John Ewing. He had been practicing for the previous three years in Pambula, and was a son of one of the oldest members of the legal profession in Sydney, Mr John Dawson. He had married Mabel Wylde in 1892 in Pambula and their first child, Mabel was born there in 1893. More children were born after their move to Berry; Mavis in 1896, Cecil in 1904 and the twins Gilbert and Joyce in 1905. Sadly Cecil died in March 1905. Dr Dawson died suddenly on 21 September 1907 aged 44 years.

The property was sold to William Henry Shute and his wife Elizabeth and they farmed the property for many years prior to Mr George Miller owning it. There were several tenants of the farm until Mr and Mrs Arthur Belling, former tenants, purchased the property. At that time there was no garden only two flame trees...there was no through road in those days..North Street ended at the laneway..the rest was all timber. Mrs Belling sold the property to Mrs Gardner and now it is owned by the RTA.

Themes:

National Theme	State Theme	Local Theme
4. Settlement	Accommodation (Housing)	(none)

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390150

Study Number B093

Item Name: "GlenDevan" Federation Weatherboard Farmhous

Location: 77 North Street, Berry [Shoalhaven]

Designer:

Maker / Builder:

Year Started: 1915 **Year Completed:** 1915 **Circa:** Yes

Physical Description: Representative example of an asymmetrical Federation period weatherboard house with hipped roof and gabled projection. Skillion verandah, single rendered brick chimney. Mature garden including mature Illawarra flame trees etc with later wall.

Physical Condition: Good original condition

Modification Dates: Verandah re-roofed. Chimney painted.

Recommended Management:

Management:

Further Comments: Historical Period: 1901-1925

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.

Integrity / Intactness:

References:

Author	Title	Year
Land Title Office NSW (Robyn Florance)	Certificate of Title Volume 1911 Folio 109	
Mrs Kathleen Belling		

Studies:

Author	Title	Number	Year
Peter Freeman Pty Ltd	Shoalhaven City Council Heritage Study 1995-1998	B093	1998

Parcels: Parcel Code LotNumber Section Plan Code Plan Number

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390150
Study Number
B093

Item Name: "GlenDevan" Federation Weatherboard Farmhous

Location: 77 North Street, Berry [Shoalhaven]

Parcels:

Latitude: Longitude:

Location validity: Spatial Accuracy:

Map Name: Map Scale:

AMG Zone: Easting: Northing:

Listings: Name: Title: Number: Date:
Within a National Trust conservation area

Related Items:

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 23/09/2011 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390150
Study Number
B093

Item Name: "GlenDevan" Federation Weatherboard Farmhous

Location: 77 North Street, Berry [Shoalhaven]

Image:

Caption: Federation Weatherboard Farmhouse
Copyright:
Image by:
Image Date:
Image Number: Roll: 16 Negative Number: 4-5
Image Path:
Image File: 2390150.jpg
Thumb Nail Path:
Thumb Nail File: t_2390150.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390151

Study Number B094

Item Name: Berry-Bolong Pastoral Landscapes

Location: [Shoalhaven]

Address:		**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:		**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	
State:	NSW	**County:**	

Other/Former Names:

Area/Group/Complex: Berry-Bolong Pastoral Landscapes **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Landscape **Group:** Farming and Grazing **Category:** Pastoralism

Owner:

Admin Codes: B094 **Code 2:** **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: **Endorsed Significance:**

Statement of Significance: The pastoral landscapes of Berry and Bolong are articulated by nineteenth and early twentieth century homesteads, dairy buildings and landscape plantings which illustrate European settlement of the area and the growth of the dairying industry. Buildings include examples of convict built structures, single storey Victorian residences, Federation style homesteads and vernacular forms which illustrate the archaeology of the dairying industry. Individual items are of State, Regional and Local significance. Important as a pastoral landscape which remains productive, has historic, social and aesthetic values and is contiguous with the Crookhaven River and Kangaroo Valley Pastoral Landscapes. Regional significance (Illawarra Region).

Historical Notes or Provenance: The Coolangatta Estate of Alexander Berry was established in 1822 with a grant of 4050 hectares in the Shoalhaven District. In 1873 David Berry inherited the estate from his brother Alexander. Ten years later in 1883 David Berry appointed his cousin, John Hay, as manager.

Between 1823 and 1905 over 145 miles of drains were cut to enable the reclamation of 8,100 hectares of swamp land. Alexander and David Berry founded the township of Broughton Creek (Berry) with villages established on both sides of the Shoalhaven River. These included Meroo Meadow adjacent to the route of the Princes Highway established in 1858 by A Berry.

The death of David Berry in 1889 left the executors with the need to raise 250,000 pounds. As a consequence of this further drainage improvements were made to enable the sale of land.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390151

Study Number B094

Item Name: Berry-Bolong Pastoral Landscapes

Location: [Shoalhaven]

The route of the railway to Bomaderry in 1893 followed the 1858 road. Commercial dairying began with the arrival of the cream separator in the 1880s with butter factories well established by the 1890s. Sub-division of the Berry Estate following the death of David Berry benefitted from the arrival of the railway, drainage and the new dairying technology. Many small dairy farms were established on the former Berry Estate over the 40 year period following the death of David Berry. Small dairy farms had developed concurrently on land surrounding the Berry Estate. Firstly on the accessible lower slopes, then the valleys and finally the upper slopes of the escarpment when the more marginal land became potentially profitable in the 1880s and 1890s. The dynamics of the milk industry (and the small farms) were affected in turn by the construction of a central milk factory at Berry in 1895, the introduction of the Nowra Co-operative Dairy Co Ltd in 1902 and the introduction of refrigeration c.1910 which made possible delivery of milk to the Sydney market.

The dairy industry, and with it the Berry-Bolong Pastoral Landscapes, developed in the twentieth century into an economic sub-system driven by metropolitan milk vendors. New technology to increase production rates has included winter feed yards, dairy stalls and concrete feed silos.

During recent years many farms have changed to beef and other forms of pastoral activity with some farms increasing in size. Redundant homesteads and dairy buildings have been utilised by commuters wanting a rural lifestyle.

Themes:

National Theme	State Theme	Local Theme
3. Economy	Environment - cultural lands	(none)
3. Economy	Pastoralism	(none)
4. Settlement	Accommodation (Housing)	(none)
4. Settlement	Land tenure	(none)
9. Phases of Life	Persons	(none)

Designer:

Maker / Builder:

Year Started: **Year Completed:** **Circa:** No

Physical Description: The Berry-Bolong Pastoral Landscapes occupy the coastal plain north of the Shoalhaven River and eastern flanks of the Illawarra and Cambewarra Ranges. Sub-zones include the Cambewarra-Tapitallee area, Bellawongarah and the catchment areas of Broughton Creek north of Berry. The latter are focussed around communities which developed outside the Berry Estate; Cambewarra, Tapitallee, Bundewallah, Woodhill and Broughton Vale. To the west the Bellawongarah community established itself along the ridge between Kangaroo Valley and the coastal plains.

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Item Name: **Berry-Bolong Pastoral Landscapes**

Location: **[Shoalhaven]**

The scale and character are dependent on the subdivision of the Berry Estate which determined the location and form of dairy farms. Internal and external visual boundaries are created by modified and natural vegetation, roads, creeks and property boundaries which reflect the orignal patterns of sub-division and settlement. This pattern of small farms continues into the surrounding valleys and transitional areas modified by terrain and economics.

In the ranges every accessible pocket of land has been exploited to create a landscape with dramatic rapidly changing visual components and views which contrasts with the horizontality of the coastal plain.

Continued dairying combined with slow change in the dairying industry has contributed to the survival of the underlying landscape patterns which encapsulate evidence of settlement and industry from the 1870s and earlier. The landscapes include examples of early vernacular buildings, farmscapes, early churches and public schools, nineteenth and twentieth century plantings, Victorian residences and a range of buildings, drainage schemes and structures which document settlement and land use patterns and the archaeology of the dairy industry in Shoalhaven.

Contiguous with the Crookhaven River and Kangaroo Valley Pastoral Landscapes.

Physical Condition:

Modification Dates:

Recommended Management: Aesthetic values to be managed in accordance with the general principles of the Visual Management Plan prepared by EDAW in March 1994.

Historic parameters to be conserved:
Use - To be maintained as agricultural land.
Boundaries - These are defined by the limit of land clearing expressed in dairy farming and associated agricultural activity.
Land use and settlement patterns - The relationship of the agricultural areas to topography is a function of technology, economics and traditional farming practices. The scale and pattern of land use are dependent on the size of agricultural holdings determined by economics and sub-division of the larger estates in the late nineteenth and early twentieth centuries. Implicit in the location of farms, access roads, drainage canals, former rural communities identified by churches and schools and the associated farm structures and tree plantings.
Building Clusters - Comprising farm complexes and the associated farm structures and evidence of former rural communities identified by churches and schools.
Vegetation Patterns - Including remnant native vegetation, whether in pockets or defining the external boundaries, and introduced trees planted as windbreaks, garden elemts or landscape elements.
Circulation Routes - The hierarchy of road and other transport and communication routes linking farms and cottages with former and existing rural communities and towns and regional infrastructure created in response to economic and agricultural processes.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390151
Study Number B094

Item Name: Berry-Bolong Pastoral Landscapes

Location: [Shoalhaven]

Management: Archaeological sites are to be managed to retain their scientific and interpretive value.

Further Comments: Historical Period: 1801-1825 1826-1850 1851-1875 1876-1900 1901-1925 1926-1950 1951-1975 1976-

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) This item is assessed as aesthetically rare regionally.

Criteria g) This item is assessed as historically representative regionally. This item is assessed as scientifically representative locally. This item is assessed as socially representative locally.

Integrity / Intactness:

References:

Author	Title	Year
Assoc. Prof. R Ian Jack	Thematic History of Shoalhaven, 1995	1995
Perumal Murphy Wu	Illawarra Regional Heritage Study Review, September 1993.	

Studies:

Author	Title	Number	Year
Perumal Murphy Wu	Illawarra Regional Heritage Study Review	B094	1993
		B094	

Parcels:

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: 9028-3-N 9028-3-S **Map Scale:**

AMG Zone: 9028-3-N 9028-3-S **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
National Trust of Australia Register			

Related Items: Crookhaven Pastoral Landscapes, Milton Pastoral Landscapes

Listing Comments:

Custom Field Three:

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390151
Study Number
B094

Item Name: **Berry-Bolong Pastoral Landscapes**

Location: **[Shoalhaven]**

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 22/03/2001 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390151
Study Number
B094

Item Name: **Berry-Bolong Pastoral Landscapes**

Location: **[Shoalhaven]**

Image:

Caption: Berry-Bolong Pastoral Landscapes
Copyright:
Image by:
Image Date:
Image Number: Roll: 16 Negative Number: 28-32
Image Path:
Image File: 2390151a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390151a.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390151
Study Number
B094

Item Name: **Berry-Bolong Pastoral Landscapes**

Location: **[Shoalhaven]**

Image:

Caption: Berry-Bolong Pastoral Landscapes
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390151b.jpg
Thumb Nail Path:
Thumb Nail File: t_2390151b.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390151
Study Number B094

Item Name: Berry-Bolong Pastoral Landscapes
Location: [Shoalhaven]

Image:

Caption: Berry-Bolong Pastoral Landscapes
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390151c.jpg
Thumb Nail Path:
Thumb Nail File: t_2390151c.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390151
Study Number
B094

Item Name: **Berry-Bolong Pastoral Landscapes**

Location: **[Shoalhaven]**

Image:

Caption: Berry-Bolong Pastoral Landscapes
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390151d.jpg
Thumb Nail Path:
Thumb Nail File: t_2390151d.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390151
Study Number
B094

Item Name: **Berry-Bolong Pastoral Landscapes**

Location: **[Shoalhaven]**

Image:

Caption: Berry-Bolong Pastoral Landscapes
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390151e.jpg
Thumb Nail Path:
Thumb Nail File: t_2390151e.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390152
Study Number B095

Item Name: Populus Nigra (9)

Location: Woodhill Mountain Road, Berry [Shoalhaven]

Address:	Woodhill Mountain Road	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Berry 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names: Lombardy poplar

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Landscape **Group:** Parks, Gardens and T **Category:** Trees of social, histori

Owner:

Admin Codes: B095 **Code 2:** 14628 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: Important contribution to Townscape. The poplars are typical of formal English plantings and form an important minor entrance from the northern rural districts and Kangaroo Valley. This road was once known as Broughton Road (Berry was first called Broughton in early settlement days). Local Significance.

Historical Notes or Provenance:

Themes:

National Theme	State Theme	Local Theme
3. Economy	Environment - cultural lands	(none)

Designer:

Maker / Builder:

Year Started: **Year Completed:** **Circa:** No

Physical Description: Average height of 25.6 metres and average canopy diameter of 4 metres.

Physical Condition:

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390152
Study Number
B095

Item Name: **Populus Nigra (9)**

Location: **Woodhill Mountain Road, Berry [Shoalhaven]**

Modification Dates:

Recommended Management: The curtilage around each tree should be 2 metres. There should be no widening of Woodhill Mountain Road within the curtilage zone of each tree. All future work within the curtilage zone should be assessed by an arborist. Collection of seed stock may be useful for future replanting. Any suckers should be removed to retain the main trees. Each tree should be checked for rust.

Management:

Further Comments:

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f)

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.

Integrity / Intactness:

References:

Studies:

Author	Title	Number	Year
		B095	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: Berry 9028 - 3 - N **Map Scale:**

AMG Zone: Berry 9028 - 3 - N **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Related Items:

Listing Comments:

Custom Field Three:

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390152

Study Number B095

Item Name: **Populus Nigra (9)**

Location: **Woodhill Mountain Road, Berry [Shoalhaven]**

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 08/11/2002 Status: Basic

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390152
Study Number
B095

Item Name: **Populus Nigra (9)**

Location: **Woodhill Mountain Road, Berry [Shoalhaven]**

Image:

Caption: Populus Nigra (9)
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390152a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390152a.jpg

Shoalhaven Heritage Inventory

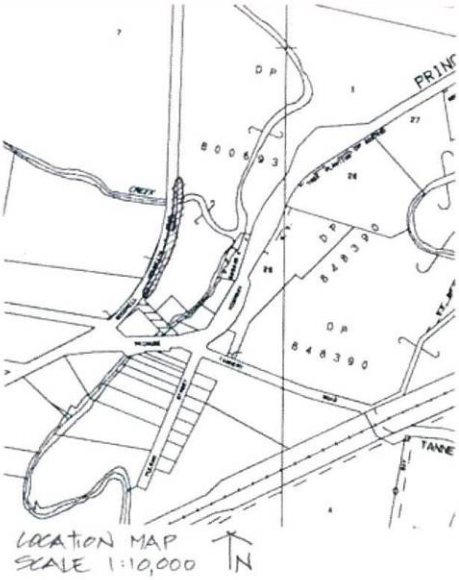
State Heritage Register

SHI Number
2390152
Study Number
B095

Item Name: **Populus Nigra (9)**

Location: **Woodhill Mountain Road, Berry [Shoalhaven]**

Image:



Caption: Populus Nigra (9)
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390152b.jpg
Thumb Nail Path:
Thumb Nail File: t_2390152b.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390174

Study Number B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

Address:	A371 Princes Highway	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Broughton	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	BROUGHTON
State:	NSW	**County:**	CAMDEN

Other/Former Names: "Glenvale"; Former Berry Estate Tenent's Cottage

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Residential buildings (**Category:** Cottage

Owner: Private - Individual

Admin Codes: B120 **Code 2:** 45531 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: 'Glenvale' is representative of the larger mid to late nineteenth century Victorian Georgian style farmhouses associated with agriculture and dairying and an important early example of sawn timber slab construction. Major contribution to the Berry-Bolong pastoral landscape. Local significance (Shoalhaven District).

Historical Notes or Provenance: Built of sawn slabs from Berry's Broughton saw mill this Berry Estate cottage was erected circa 1860 for a tenant farmer. William Fletcher, a tenant, resided here for many years before moving to Jasper's Brush in the late 1890s. This property then became part of the Closer Settlement Act 1910 and reverted back to the crown. Ron Hollands and his family moved here circa 1914 and residede here for many years before selling to Alderman Couzins of Berry Municipal Council.

Themes:

National Theme	State Theme	Local Theme
3. Economy	Pastoralism	(none)
4. Settlement	Accommodation (Housing)	(none)

Designer:

Maker / Builder:

Year Started: 1880 **Year Completed:** 1880 **Circa:** Yes

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390174

Study Number B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

Physical Description: Large sawn, slab residence and farmmhouse with hipped, red painted, galvanised iron roof and encircling verandahs. Sandstock brick chimneys rendered and detailed to resemble ashlar. Symmetrical Victorian Georgian front with central french doors and 2x2 sash widows on either side.

Physical Condition:

Modification Dates:

Recommended Management:

Management:

Further Comments: Historical Period: 1876-1900

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Criteria e)

Criteria f) This item is assessed as historically rare locally.

Criteria g) This item is assessed as aesthetically representative locally. This item is assessed as historically representative locally.

Integrity / Intactness:

References:

Author	Title	Year
	Lands Title Office	
Berry Estate Tenants		
Carolyn Ridge and Phil Bragg		

Studies:

Author	Title	Number	Year
		B120	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: Berry 9028-3-N **Map Scale:** 1:25,000

AMG Zone: Berry 9028-3-N **Eastings:** **Northings:**

This report was produced using the Heritage Database Software provided by the Heritage Branch, NSW Department of Planning.

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390174

Study Number B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

AMG Zone: Berry 9028-3-N **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Related Items: Berry-Bolong Pastoral Landscapes

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: **Date First Entered:** 16/06/1999 **Date Updated:** 23/09/2011 **Status:** Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390174
Study Number
B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

Image:

Caption: Colonial Vertical Timber Slab Cottage
Copyright:
Image by:
Image Date:
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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390174
Study Number
B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

Image:

Caption: Colonial Vertical Timber Slab Cottage
Copyright:
Image by:
Image Date:
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Thumb Nail File: t_2390174b.jpg

Shoalhaven Heritage Inventory

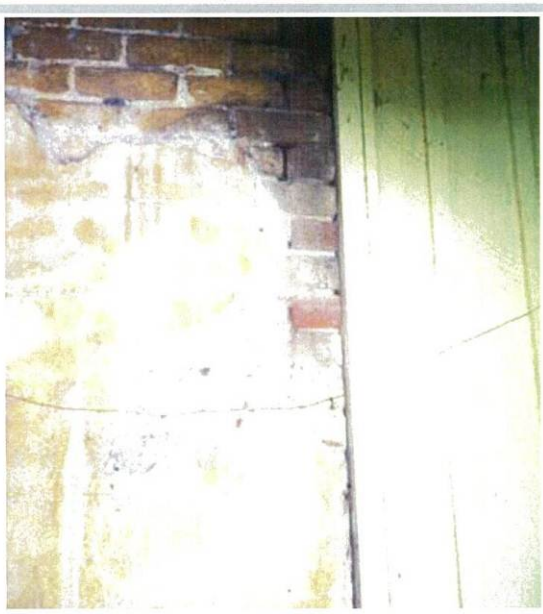
State Heritage Register

SHI Number
2390174
Study Number
B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

Image:



Caption: Colonial Vertical Timber Slab Cottage
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Shoalhaven Heritage Inventory

State Heritage Register

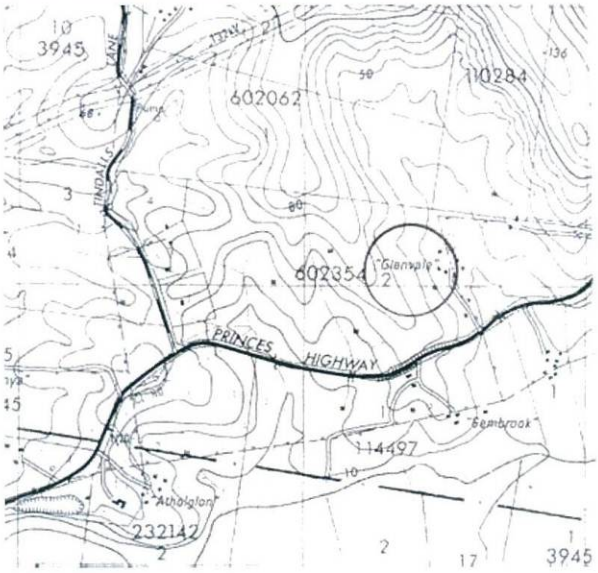
SHI Number 2390174

Study Number B120

Item Name: "Glenvale" Colonial Vertical Timber Slab Cottage

Location: A371 Princes Highway, Broughton [Shoalhaven]

Image:



Caption: Colonial Vertical Timber Slab Cottage

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Image Date:

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Thumb Nail Path:

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Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390234
Study Number B177

Item Name: "Oakleigh" Inter War Bungalow style Farmhouse

Location: Woodhill Mountain Road, Coolangatta (R) [Shoalhaven]

Address:	Woodhill Mountain Road	**DUAP Region:**	Illawarra & Macarthur
Suburb / Nearest Town:	Coolangatta (R) 2535	**Historic region:**	Illawarra
Local Govt Area:	Shoalhaven	**Parish:**	COOLANGATTA
State:	NSW	**County:**	CAMDEN

Other/Former Names: "Oakleigh"

Area/Group/Complex: **Group ID:**

Aboriginal Area:

Curtilage/Boundary:

Item Type: Built **Group:** Residential buildings (**Category:** House

Owner: Private - Individual

Admin Codes: B177 **Code 2:** 80724 **Code 3:** Y

Current Use:

Former Uses:

Assessed Significance: Local **Endorsed Significance:**

Statement of Significance: Good example of an inter war farmhouse complete with representative twin silos in good condition. Local significance (Shoalhaven).

Historical Notes or Provenance: Robert Virture Boyd leased 172 acres that became known as Oakleigh from the Berry Estate in the 1890s. R V Boyd was a member of the Boyd family that migrated from Donegal, Ireland in the 1860s and settled in the Woodhill and Broughton Vale areas. He was a JP and Mayor of Berry for the years 1894, 1895 and 1896. In 1898 he was reported to be leaving the district to take up farming activities on the Hunter. In 1911 he owned land along Broughton Creek south of Berry.

On 26 June, 1912 this farm, Portion 47, was purchased from the trustees of the Berry Estate, by Alexander Burnett, he also purchased Lots 38, 39, 40, 45 & 50 at the same time. His wife, Jane Maria purchased part of Lot 46 in 1913, and his sisters, Alice Carruthers, wife of Sir Joseph Carruthers, and Rhoda Burnett purchased Lots 41,43,44 and part of Lot 46 in 1912. Carruthers was a friend and business associate of Sir John and Alick Hay, Secretary for Lands 1899, Premier of NSW 1904-1906 and instrumental in the passing of the David Berry Hospital Act.

From 1914 to 1921 the McGee family managed the property for Alexander Burnett. They milked 80 cows of mixed varieties. There was an orchard with loquats and apples. Burnett visited regularly to pay the family and check the property. He paid Mr McGee six pounds per week out of which the two sons received 10/- each.

The Burnett farm homestead was located south of this farm, across Bundewallah Creek,

Item Name: "Oakleigh" Inter War Bungalow style Farmhouse

Location: Woodhill Mountain Road, Coolangatta (R) [Shoalhaven]

near where the tennis courts are now located. Sometime in the 1930s the house was burnt down to its foundations. Josiah Masters who was the owner of a Bundewallah farm bought the property in 1938 for his two sons and sons-in-law. The Masters kept stud Ayrshire cattle and farmed there until 1948 when they sold to Jack Pomeroy. Jack also grew crops and made silage. The farm was run by him and his son John. When Jack retired from farming and moved into Berry the farm was taken over by John. He sold off 133 acres in 1990 to the McIntosh family and Phil and Jan Monaghan (nee McIntosh) now reside on the property which is now used as a turf farm.

The house on Oakleigh had been burnt down when Master purchased the property so he purchased two rooms from the Commercial Hotel that was being renovated and used them in the construction of a new home. There is a fine Ficus obliqua growing by the cow bails, it is not a rainforest remnant but was probably planted in the 1930s by the Masters' who were interested in gardening. (J & J Robson)

Themes:

National Theme	State Theme	Local Theme
3. Economy	Pastoralism	(none)
4. Settlement	Accommodation (Housing)	(none)

Designer:

Maker / Builder:

Year Started: **Year Completed:** **Circa:** No

Physical Description: Inter war farmhouse with metal roof and encircling verandah to three sides. Fibro cladding to front gable, cement rendered chimney to front room.

Physical Condition:

Modification Dates:

Recommended Management:

Management:

Further Comments:

Criteria a)

Criteria b)

Criteria c)

Criteria d)

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number 2390234

Study Number B177

Item Name: "Oakleigh" Inter War Bungalow style Farmhouse

Location: Woodhill Mountain Road, Coolangatta (R) [Shoalhaven]

Criteria e)

Criteria f)

Criteria g)

Integrity / Intactness:

References:

Author	Title	Year
	Lands Title Office of NSW Volume 1907 Folio 15;	
June & John Robson	Berry & Districts Historical Society	
Mrs Alexis Saare, 41 Victoria Street, Berry.		

Studies:

Author	Title	Number	Year
		B177	

Parcels:

Parcel Code	LotNumber	Section	Plan Code	Plan Number

Latitude: **Longitude:**

Location validity: **Spatial Accuracy:**

Map Name: Berry 9028-3-N **Map Scale:** 1:25,000

AMG Zone: Berry 9028-3-N **Easting:** **Northing:**

Listings:

Name:	Title:	Number:	Date:
Within a National Trust conservation area			

Related Items: Berry-Bolong Pastoral Landscapes

Listing Comments:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 16/06/1999 Date Updated: 23/09/2011 Status: Partial

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390234
Study Number
B177

Item Name: "Oakleigh" Inter War Bungalow style Farmhouse

Location: Woodhill Mountain Road, Coolangatta (R) [Shoalhaven]

Image:

Caption: Inter War Bungalow style Farmhouse
Copyright:
Image by:
Image Date:
Image Number: Roll: 32 Negative Number: 19
Image Path:
Image File: 2390234a.jpg
Thumb Nail Path:
Thumb Nail File: t_2390234a.jpg

Shoalhaven Heritage Inventory

State Heritage Register

SHI Number
2390234
Study Number
B177

Item Name: "Oakleigh" Inter War Bungalow style Farmhouse

Location: Woodhill Mountain Road, Coolangatta (R) [Shoalhaven]

Image:

Caption: Inter War Bungalow style Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390234b.jpg
Thumb Nail Path:
Thumb Nail File: t_2390234b.jpg

Shoalhaven Heritage Inventory

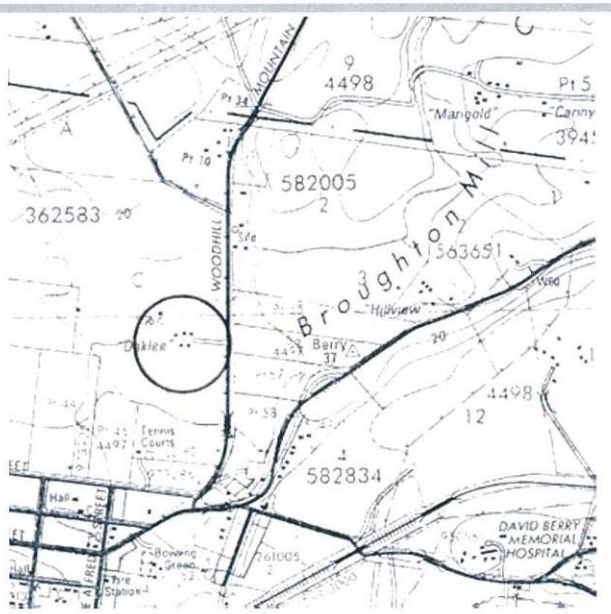
State Heritage Register

SHI Number
2390234
Study Number
B177

Item Name: **"Oakleigh" Inter War Bungalow style Farmhouse**

Location: **Woodhill Mountain Road, Coolangatta (R) [Shoalhaven]**

Image:



Caption: Inter War Bungalow style Farmhouse
Copyright:
Image by:
Image Date:
Image Number:
Image Path:
Image File: 2390234c.jpg
Thumb Nail Path:
Thumb Nail File: t_2390234c.jpg

B.3 Register of the National Estate

Berry District, Princes Hwy, Berry, NSW , Australia

Photographs	None
List	Register of the National Estate
Class	Historic
Legal Status	Indicative Place
Place ID	1625
Place File No	1/11/102/0053

Nominator's Statement of Significance

Scenic beauty of narrow undulating coastal plain, closely settled with dairy farms, bordered by the ocean and backed by rugged sandstone cliffs and steep forested slopes of the Illawarra escarpment. Fossil beds and other structures of the Gerringong volcanics. Vegetation varies from coastal heath to rainforest. Early Settlement (1820s) by Alexander Berry.

Official Values Not Available

Description

The area extends a Little south of Kiama some 30 km southward to Greenwell Point and embraces the coastline, the undulating coastal plain cut by small streams Between ridges and Isolated Hills and the flood plain on both sides of the lower Shoalhaven River. It includes the steep benched slopes rising up to the escarpment of the Illawarra plateau which has an elevation of approximately 700 M. The area contains Well-cared for homesteads and old buildings many of wide timber slab which contrast with modern Silos and dairies. Stone walls and post and rail fences are also present. The Valley retains pockets of native rain forests some of which have regenerating TOONA AUSTRALIS and, fresh and saline wetlands. The area is reportedly a habitat for a variety of native fauna. The valley has a number of Settlement centres with tourist resorts at Geroa and Shoalhaven Heads and service towns at Gerringong, Greenwell Point and Berry, the latter being substantially developed with a showground, parks and churches as the estate town for the Berry- Wollostoncraft-Hay estate of Coolangatta. A Canal originally cut by Alexander Berry in 1822 Between the Shoalhaven and Crookhaven rivers was the first Canal constructed in Australia. a number of buildings within the area are recognised for their heritage significance and these are the Berry courthouse, Managa (Berry), St. Lukes church of England (Berry), Terrara House (terrara) and the Coolangatta estate comprising buildings, the David Berry monument, family cemetery and curtilage. The outstanding scenic quality of this area lies in its proximity to mountains and sea, and the lush pastures and peaceful setting of dairy farms and cattle grazing. The extensive alluvial flats on both sides of the Shoalhaven River contrast with the Valleys and slopes below the escarpment. Picturesque views of the valley are experienced from popular viewpoints.

History Not Available

Condition and Integrity

Good. Greatest Danger - rural subdivision.

Location

About 35,000ha, surrounding Berry, and extending from Kiama to Culburra, and from Cambewarra to the coast.

Bibliography

BAYLEY, W. A. HISTORY OF THE SHOALHAVEN. 1975.
BERRY HISTORICAL SOCIETY. HISTORIC SITES OF BERRY. 1976.
WALKER, P. H. SOIL SURVEY OF THE SOUTH COAST. CSIRO
GEOLOGICAL SURVEY OF N.S.W. 1960.
GEOLOGY OF THE WOLLONGONG, KIAMA, ROBERTSON, 1:50,000 SHEET. 1974.

Report Produced Thu Nov 3 12:03:06 2011

B.4 Register of the National Trust of Australia (NSW)

NATIONAL TRUST OF AUSTRALIA (NSW)
CLASSIFICATION REPORT

LOCALITY	ITEM NAME	ADDRESS
Berry POSTCODE 2321	Berry Township Urban Conservation Area	Princes Highway

LGA:	Shoalhaven City
OWNER:	Various
PROPONENT:	Built Advocacy Committee \ Landscape Advocacy Committee
AUTHOR:	Bob Clark, Susan Duyker
DATE OF PROPOSAL:	November 2010
ABORIGINAL NATION:	Yuin

APPROVED 30/03/2011

BIBLIOGRAPHY:

Historic Sites of Berry, Mary L Lidbetter The Berry and District Historical Society Inc, 1993

RTA Gerringong to Bomaderry Princes Highway upgrade: Preliminary Non-Indigenous Assessment, October 2007. Author unknown.

Berry Streetscape Study, Bishop and Hitchcock, May 1988 for Shoalhaven City Council and the Heritage Council of NSW.

Shoalhaven City Council LEP 1985 as amended.

HISTORY

The land on which Berry is located was part of the Coolangatta Estate of Alexander Berry and Edward Wollstonecraft. In 1812 George William Evans visited the district in order to survey it. He recorded the small river, Broughton Creek flowing through 'the most beautiful meadow' and noted the presence of fine cedar which, if combined with a navigable river, would make a beautiful settlement.

In 1822 Berry and Wollstonecraft took up a 10,000 acre grant from Governor Brisbane in return for looking after 100 convicts. The area to the north of Broughton Creek and Broughton Mill Creek was purchased in October 1838.

The first European settlers—5 free sawyers employed by Alexander Berry—camped in this area and a Double Wharf was constructed at the junction of the two creeks, jutting out into the creeks allowing for berthing on both sides. A tannery was established soon after and by the 1840s a sawmill, powered by a waterwheel, was in operation.

By 1866 a village was taking shape on the ridges on either side of Broughton Mill Creek with a Post Office, school, and store to the east on Pulman Street with the tannery further east along Tannery Road on Broughton Creek. On the western side there was an inn and probably other buildings. With a population of 300 the area was declared a Municipality in 1868 at the instigation of Alexander Berry.

Alexander Berry died in 1873 and the Estate passed to David, his younger brother who resided at the Coolangatta Homestead. David Berry surveyed the site and a town plan for Broughton Creek (Broughton Township, Sketch Plan 1883, see Figure 1) was drawn up on a square grid pattern as he and his first cousin once removed, John Hay, realised the settlement needed to have guidance for its future development. This covered an area on the western side of Broughton Mill Creek where many businesses and houses were already established. The grid plan gave no real consideration to the existing topography of hills and watercourses which delayed development in some parts. The subdivision pattern meant that houses had to be moved and businesses realigned along Queen Street in its new formation in 1879. Blocks of the original plan were later divided by centrally located east/west streets with the streets named after members of the Royal House of Windsor.

David Berry set aside land for an agricultural showground and for four churches, Church of England, Presbyterian, Wesleyan and Roman Catholic. He began negotiations with the government for permanent buildings such as a post office and courthouse. Community buildings were granted land. The banks purchased their land - the E.S. & A. Bank paid 500 pounds in March 1884 - and the town was achieving a substantial appearance when he died in 1889. In his honour, the town was named Berry in 1890. He had left large bequests in his will and long legal proceedings resulted. In 1912 much of the town was sold to raise money for his bequests (see Auction Plan Figure 2).

The town continued to flourish as a service centre for the area concentrating on sawmilling and dairying. In 1893 the railway arrived at Berry with the Bombo to Bomaderry link providing a reliable means of transport for people and goods. In 1895 the Berry Central Butter Factory, set up by John Hay, was opened. In 1911 this became the Berry Rural Co-operative Society Ltd and was extended in 1913. It still contains a rural store and other rural service outlets. (See Figure 3)

By 1984 the population was 1300 with the original town plan being expanded by additional blocks. Latterly the town has added the roles of dormitory suburb and tourist attraction to its farming service centre function. Its popularity as a tourist destination has created new pressures and issues for the township.

Berry Township National Trust Register Listing Report - The National Trust of Australia (NSW)

Careful planning and tree planting could combine to allow further development that is more sympathetic to the character of Berry especially in relation to the south eastern Princes Highway approach and views to and from the town.

The impact of highway traffic along the main (Queen) street is clearly a problem. The proposal for a bypass will address this issue but its impact needs to be minimised through skilful engineering and landscape design. The views out to the escarpment must still retain the impression of a rural landscape reaching as far as the escarpment. It is recommended that a Development Control Plan (DCP) be prepared for any development within the buffer zone. This should control the density, scale, form, landscaping, material, etc within this area. Obviously the preference would be to retain the area in its undeveloped state.

BOUNDARY OF LISTING

The boundary of the listing comprises three levels:

1. Visual boundary: This is the boundary of the National Trust's Landscape Conservation Area. It places Berry in its regional context and incorporates views to horizon, surrounding rural landscape and the Illawarra Escarpment. (see Figure 4)

2. Subdivision boundary: relates to the town grid pattern and its development in the latter half of the 19th and the first half of the 20th centuries. It has been extended across to join with the existing Pulman Street Heritage Conservation Area. (see Figure 13)

3. Buffer zone to recognise the importance of Berry's rural setting and to protect the edges of the town within the rural lands surrounding it. This incorporates some creek lines and flood prone lands. (See Figure 13)

Figure 2 Berry Auction Sale Plan, 21 February 1912 (Collection, Berry and District Historical Society)

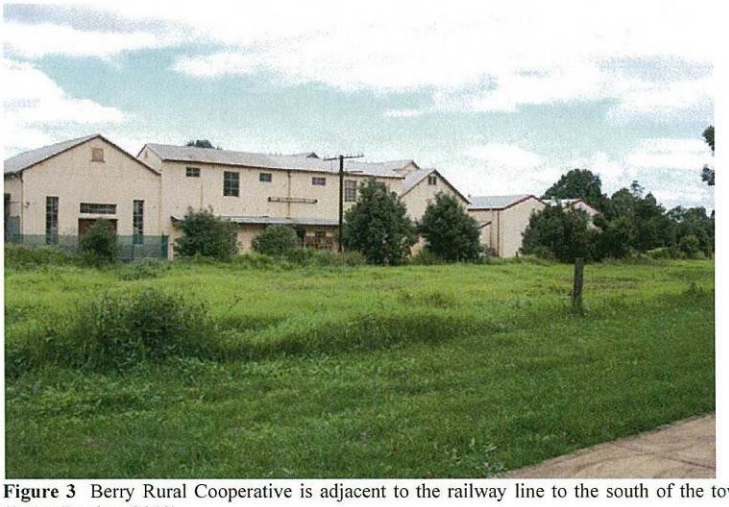


Figure 3 Berry Rural Cooperative is adjacent to the railway line to the south of the town. (Susan Duyker, 2010)

Berry Township National Trust Register Listing Report - The National Trust of Australia (NSW)

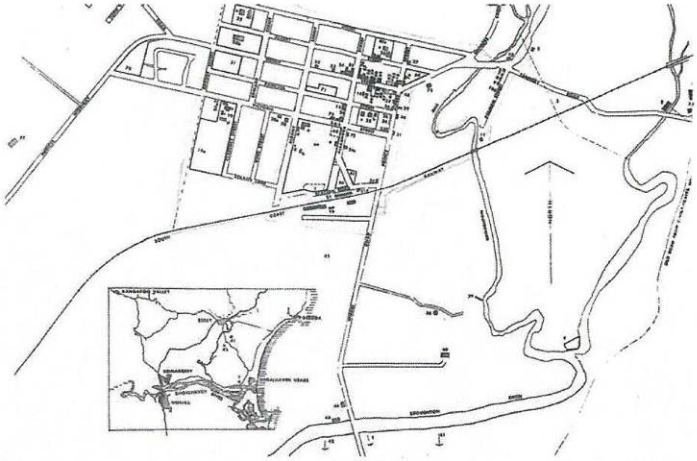


Figure 5 Plan of Berry township showing buildings and sites described in *Historic sites of Berry*. (M L Lidbetter, 1993)

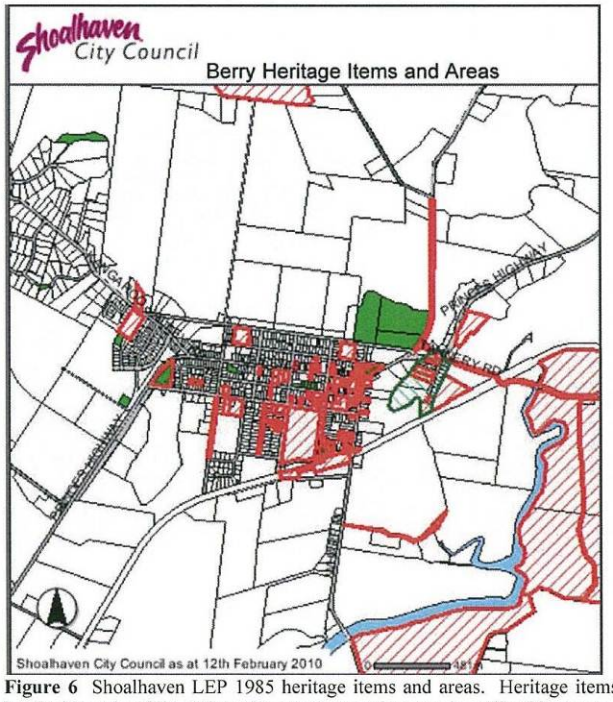


Figure 6 Shoalhaven LEP 1985 heritage items and areas. Heritage items are outlined and hatched in red and the Pulman Street conservation area is outlined in green. (Shoalhaven City Council, 2010)

Berry Township National Trust Register Listing Report – The National Trust of Australia (NSW)

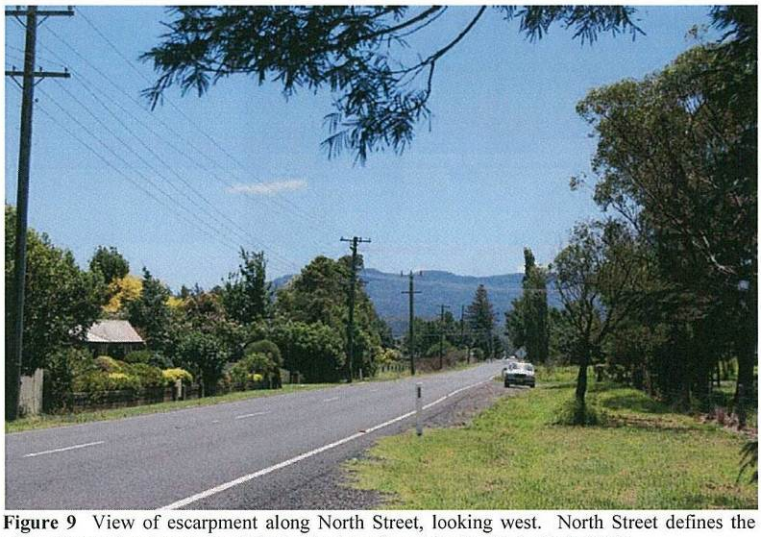


Figure 9 View of escarpment along North Street, looking west. North Street defines the edge of town development and the beginning of rural lands. (Bob Clark 2010)

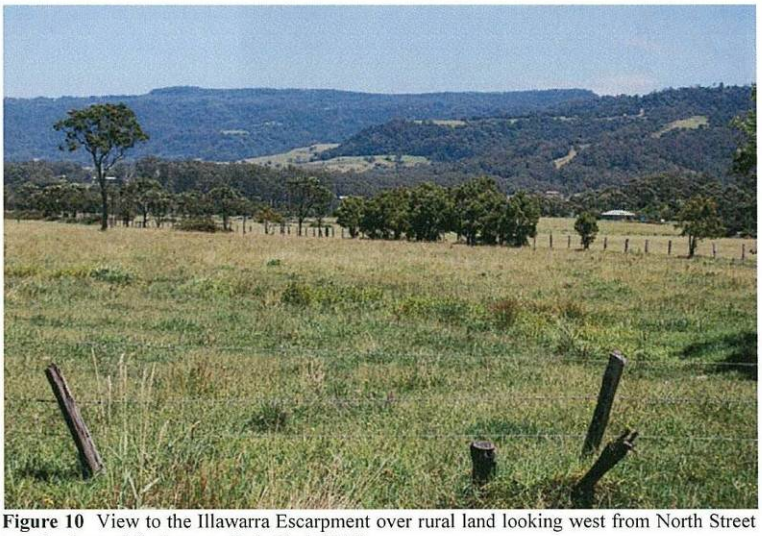


Figure 10 View to the Illawarra Escarpment over rural land looking west from North Street over land zoned for bypass. (Bob Clark 2010)

Berry Township National Trust Register Listing Report – The National Trust of Australia (NSW)

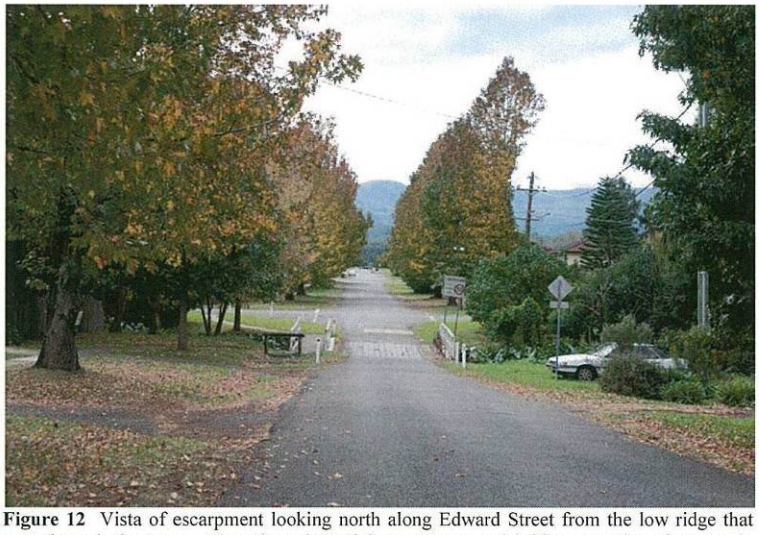


Figure 12 Vista of escarpment looking north along Edward Street from the low ridge that runs through the town. Note the substantial street trees and bridge over the minor creek. (Susan Duyker, 2010)

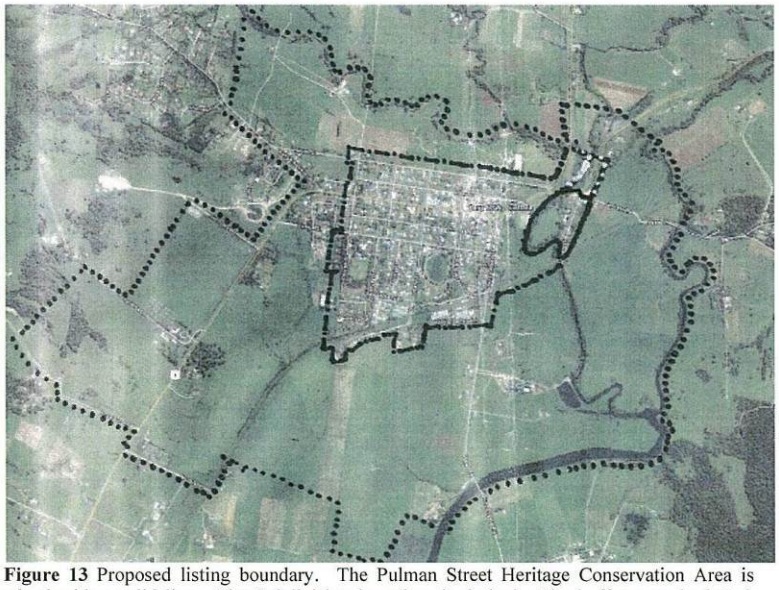


Figure 13 Proposed listing boundary. The Pulman Street Heritage Conservation Area is edged with a solid line. The Subdivision boundary is dashed. The buffer zone is dotted. (Google Earth, 2010 with overlay by Bob Clark, 2010)

Appendix C

Unexpected finds procedure

STANDARD MANAGEMENT PROCEDURE

Unexpected Archaeological Finds

July 2012

About this release

RMS/ISBN numbers	RMS 12.003 | ISBN 9781922040305
Title	Unexpected Archaeological Finds Procedure

Approval and authorisation		Name
Prepared by	Environmental Officer (Heritage)	Gretta Logue
Revised by	Environmental Officer (Heritage)	Daniel Percival
Approved by	Manager Environmental Policy	Michael Crowley

Location	File name
G:\ENVIRNMNT\Policy\Heritage\Cultural Heritage (Non-Aboriginal)\Unexpected Finds Procedure\Procedure\Final July 2012	Unexpected Archaeological Finds Procedure.doc

Document status	Date
Final	23 July 2012

Version	Date	Revision Description
Final	1 November 2011	First Draft
Revised	23 July 2012	Amended to reflect that (a) unexpected finds do not include items covered by a relevant approval; (b) Aboriginal people must be consulted where an unexpected find is likely to be an Aboriginal object; (c) the Department of Planning and Infrastructure must be notified in accordance with Step 5 of this procedure for Part 3A and Part 5.1 projects.

Prepared by
Environment Branch
Roads and Maritime Services
Level 17, 101 Miller Street
North Sydney, NSW 2060
T 02 8588 5726

Please note

This procedure applies to all development and activities concerning roads, road infrastructure and road related assets undertaken by Roads and Maritime Services.

For advice on how to manage unexpected archaeological finds as a result of activities related to maritime infrastructure or projects, please contact the Senior Environmental Specialist (Heritage).

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Unexpected Archaeological Finds Procedure

1. Purpose

The unexpected archaeological finds procedure has been developed to provide a consistent approach on how to proceed in the event of uncovering an unexpected archaeological find (both Aboriginal and non-Aboriginal) during Roads and Maritime Services' (RMS) activities. This includes RMS' heritage notification obligations under the following legislation: *Heritage Act 1977* (NSW), *National Parks and Wildlife Act 1974* (NSW), *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) and the *Coroner's Act 2009* (NSW).

This document provides relevant background information in Section 3, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices A-H.

2. Scope

This procedure assumes that an appropriate level of Aboriginal and non-Aboriginal cultural heritage assessment has been undertaken prior to project approval or determination. Such assessment would have identified all heritage items, including areas of archaeological potential, likely to be present within the project area.

However, in some cases, despite appropriate and adequate investigation, unexpected archaeological finds may be encountered during the project construction phase. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.

This procedure applies to all RMS construction and maintenance activities

This procedure **applies to**:

- The discovery of any unexpected archaeological find (usually during construction), where RMS does not have specific approval to disturb that find.
- All RMS projects that are approved or determined under Part 3A (including Transitional Part 3A Projects), Part 4, Part 5 or Part 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), or any development that is exempt under the Act.

This procedure must be followed by all RMS staff, RMS alliance partners (including Local Council staff working under Road Maintenance Council Contracts, [RMCC]), developers under works authorisation deeds or any person undertaking Part 5 assessment for the purposes of RMS.

This procedure **does not apply** to:

- The legal discovery and disturbance of archaeological finds as a result of investigations being undertaken in accordance with OEH's *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (2010); an Aboriginal Heritage Impact Permit (AHIP) issued under the *National Parks and Wildlife Act*

1974; or an approval issued under the *Heritage Act 1977*[1].

- The legal discovery and disturbance of archaeological finds as a result of investigations (or other activities) that are required to be carried out for the purpose of complying with any environmental assessment requirements under Part 3A (including Transitional Part 3A Projects) or Part 5.1 of the EP&A Act.
- The legal discovery and disturbance of archaeological finds as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP[2]; an approval issued under the *Heritage Act 1977*; or the Minister for Planning's conditions of project approval.

All new Construction Environment Management Plans (CEMPs) must make reference to and/or include this procedure (often included as a heritage sub-plan). Where approved CEMPs exist they must be followed in the first instance. Where there is a difference between approved CEMPs and this procedure, the approved CEMP must be followed. Where approved CEMPs do not provide sufficient detail on particular issues, this procedure should be used as additional guidance. When in doubt always seek environment and legal advice on varying approved CEMPs.

3. Types of unexpected archaeological finds and their legal protection

Project, field and environment staff will be critical to the early identification and protection of unexpected archaeological finds. Appendix A illustrates the wide range of archaeological discoveries found on RMS projects and provides a useful photographic guide to this early identification. Subsequent confirmation of archaeological discoveries must then be identified and assessed by technical specialists (usually an archaeologist).

An 'unexpected find' is any unanticipated archaeological discovery, for which RMS does not have existing approval to disturb[3].

These discoveries are categorised as either:

(a) Aboriginal objects

(b) 'Non-Aboriginal' unexpected finds

(c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below.

3.1 Aboriginal objects

Unexpected archaeological finds may include 'Aboriginal objects'. The *National Park and Wildlife Act 1974* protects *Aboriginal objects* which are defined as:

[1] RMS' heritage obligations are incorporated into either the conditions of heritage approval or within the RMS standard consultant's brief for undertaking archaeological investigations.
[2] RMS *Procedure for Aboriginal cultural heritage consultation and investigation* (2011) recommends that Part 4 and Part 5 projects that are likely to impact Aboriginal objects during construction seek a whole-of-project AHIP. This type of AHIP generally allows a project to impact known and potential Aboriginal objects within the entire project area, without the need to stop works. It should be noted that an AHIP may exclude impact to certain objects and areas, such as burials or ceremonial sites. In such cases, the project must follow this procedure.
[3] This is considered to be any physical interference with the find such as manually picking it up and putting it back, moving it to another location near by, removing it from site, crushing or excavation it, or any other type of physical action that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

> "*any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non Aboriginal extraction, and includes Aboriginal remains*"[4].

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

IMPORTANT!

All *Aboriginal objects* are subject to statutory controls and protections.

If any impact is expected to an Aboriginal object, an Aboriginal Heritage Impact Permit (AHIP) is usually required from the Office of Environment and Heritage (OEH)[5]. Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEH about its location[6]. Assistance on how to do this is provided in Section 7 (Step 5).

3.2 Non-Aboriginal unexpected finds

Non-Aboriginal unexpected finds may include statutory 'relics' or other non-statutory archaeological features (ie works).

The *Heritage Act 1977* protects *relics* which are defined as:

> "*any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance*"[7].

Relics may relate to past domestic, industrial or agricultural activities in NSW, and can include items such as bottles, items of clothing, pottery, building materials and general refuse.

IMPORTANT!

All *relics* are subject to statutory controls and protections.

If any impact is expected to a relic, a heritage approval is usually required from the NSW Heritage Council[8]. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location[9]. Advice on how to do this is provided in Section 7 (Step 5).

Some non-Aboriginal archaeological features such as historic utilities and infrastructure are not considered to be 'relics'; instead they are considered to be 'works'. Examples

[4] Section 5(1) *National Park and Wildlife Act 1974*.
[5] Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.
[6] This is required under s89(A) of the *National Park and Wildlife Act 1974* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 *and Part 5.1* of the *EP&A Act*, including exempt development.
[7] Section 4(1) *Heritage Act 1977*.
[8] Except when Part 3A, Division 4.1 of Part 4 or Part 5.1 of the *EP&A Act* applies.
[9] This is required under s146 of the *Heritage Act 1977* and applies to **all projects** assessed under Part 3A, Part 4, Part 5 and Part 5.1 of the *EP&A Act*, including exempt development.

of works that the RMS may encounter include former road infrastructure features and services, culverts, previous historic road formation, historic pavement, buried road retaining walls, tramlines, cisterns and conduits. Although an approval under the *Heritage Act 1977* may not be required, the discovery of works must also be managed in accordance with this procedure.

3.3 Human skeletal remains

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-contact archaeological Aboriginal burial would be protected under the *National Park and Wildlife Act 1974*, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the *Heritage Act 1977*. For these cases, the relevant heritage approval and notification requirements described in the above sections 3.1 and 3.2 would apply. In addition to the *National Park and Wildlife Act 1974*, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities (SEWPC) under s20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

IMPORTANT!

All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the *Coroners Act 2009* (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in s35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old[10] regardless of ancestry (ie both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in Appendix F.

[10] Under s19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

4. Responsibilities

The following roles and responsibilities are relevant to this procedure.

Role	Definition/responsibility
Aboriginal Cultural Heritage Advisor (ACHA)	Provides Aboriginal cultural heritage advice to project teams. Acts as Aboriginal community liaison for projects on cultural heritage matters. Engages and consults with the Aboriginal community as per the RMS *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
Aboriginal Sites Officer	Is an appropriately trained and skilled Aboriginal person whose role is to identify and assess Aboriginal objects and cultural values. For details on engaging Aboriginal sites officers, refer to RMS *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
Archaeologist (A)	Professional consultant, contracted on a case-by-case basis to provide heritage and archaeological advice and technical services (such as reports, heritage approval documentation etc).
Project (*on-call*) Archaeologist	Professional consultant contracted for the implementation phase of a construction project to provide heritage and archaeological advice and technical services when required. Major projects with complex heritage issues often have a Project archaeologist.
Project Manager (PM)	Ensuring all aspects of this procedure are implemented. The PM can delegate specific site tasks to a construction environment manager, RMS site representatives or regional environment staff, where appropriate.
Regional Environment Staff (RES)	Providing advice on this procedure to project teams. Ensuring this procedure is implemented consistently by supporting the PM. Supporting project teams during the uncovering of unexpected finds. Reviewing archaeological management plans and liaising with heritage staff and archaeological consultants as needed.
Registered Aboriginal parties (RAPs)	RAPs are Aboriginal people who have registered with the RMS to be consulted about a proposed RMS project or activity in accordance with OEH's Aboriginal cultural heritage consultation requirements for proponents (2010).
RFS Environment Manager	Ensuring RFS field staff are aware of the RFS Escalation Protocol and RFS Unexpected Find Recording Form 418. Supporting the RFS Section Manager, where required, during the implementation of this procedure and ensuring reporting of unexpected finds through environment management systems.
RFS Section Manager	Responding to escalated unexpected finds that have been uncovered during RFS maintenance works.

	Liaising with the RES and RFS Environment Manager and heritage staff, where required, during the uncovering of unexpected finds and the implementation of this procedure.
RFS Team Leader	Ensuring RFS field crew stop works in vicinity of the find. Completing RFS Unexpected Find Recording Form 418 and escalating issues to RFS Section Manager, as per RFS Escalation Protocol.
Senior Environmental Specialist (Heritage) (SES(H))	Provides technical assistance on this procedure and archaeological technical matters, as required. Reviewing the archaeological management plans and facilitating heritage approval applications, where required. Assists with regulator engagement, where required.
Technical Specialist	Professional consultant contracted to provide specific technical advice that relates to the specific type of unexpected find (eg a forensic or physical anthropologist who can identify and analyse human skeletal remains).

5. Acronyms

The following acronyms are relevant to this procedure.

Acronym	Meaning
AHIP	Aboriginal Heritage Impact Permit
ASO	Aboriginal Site Officer
CEMP	Construction Environment Management Plan
DSEWPC	Commonwealth Department of Sustainability, Environment, Water, Populations and Communities
EPRG	Environmental Planning and Regulatory Group. *Please note at the time of finalisation EPRG became part of Environment Protection Authority.*
OEH	Office of Environment and Heritage
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
RAP	Registered Aboriginal Party/ies
RFS	Road and Fleet Services
RMCC	Road Maintenance Council Contracts
RMS	Roads and Maritime Services

6. Overview of the procedure

On discovering something that could be an unexpected archaeological find ('the find'), the project manager must implement the following procedure with the assistance of the regional environment staff and RMS heritage staff, where required.

There are eight steps in the procedure. These steps are shown briefly in Figure 1 below and explained in detail in Section 7.

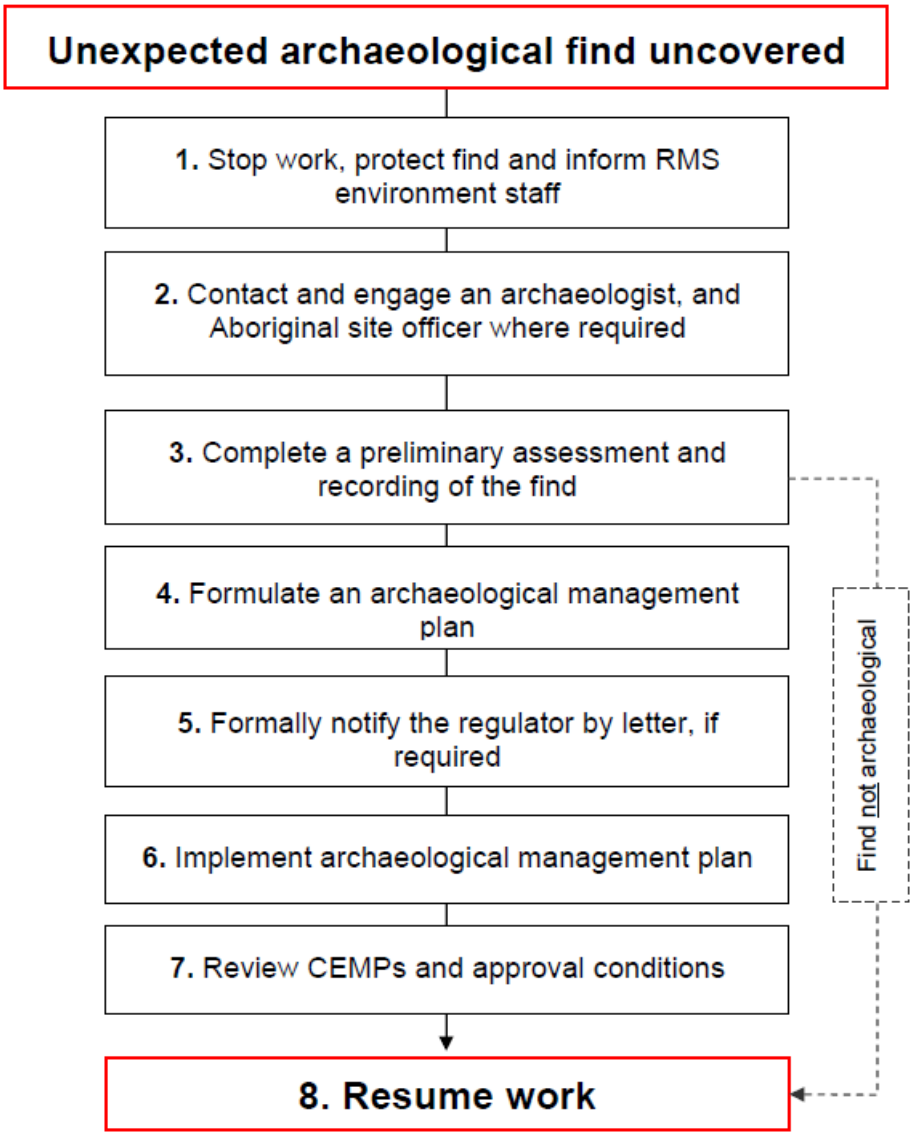


Figure 1: Overview of steps to be undertaken on the discovery of an unexpected archaeological find.

7. Unexpected Archaeological Finds Procedure

Table 1: Specific tasks to be implemented following the discovery of an unexpected find.

Aboriginal Cultural Heritage Advisor (ACHA); Aboriginal Sites Officer (ASO); Archaeologist (A); Project Manager (PM); Regional Environment Staff (RES); Registered Aboriginal Parties (RAPs); Senior Environmental Specialist (Heritage) (SES(H)).

Step	Task	Responsibility	Guidance & Tools
1	**Stop work, protect find and inform RMS environment staff**		
1.1	Stop all work in the immediate area of the find and notify the PM.	All	**Appendix A** (Identifying Unexpected Archaeological Finds)
1.2	RFS routine maintenance crews are required to follow the escalation protocol outlined in Appendix B and return to this procedure when directed by that protocol.	RFS Team Leader	**Appendix B** (RFS Escalation Protocol) **Appendix C** (RFS Find Recording Form 418)
1.3	Take a number of photographs that captures the general context and specific detail of the find.	PM	**Appendix D** (Photographing Unexpected Archaeological Finds)
1.4	Inform relevant RMS regional environment staff, Senior Environmental Specialist (Heritage) and Regional Aboriginal Cultural Heritage Advisor (where the find is thought to be an Aboriginal object).	PM	**Appendix E** (Key Environmental Contacts)
1.5	Delineate and protect the find with appropriate (high visibility) fencing, where practical.	PM	
1.6	No further interference, including works, ground disturbance, touching or moving the find of any kind, must occur to the find or within the protected area.	PM	
1.7	Inform all site personnel of the protected area (a new environmentally sensitive zone).	PM	

Step	Task	Responsibility	Guidance & Tools
1.8	Where, at this stage, the find is reasonably suspected to be human remains proceed directly to notifying the local police who may take command of all or part of the site. Where the find does not involve human remains, continue progressing through this procedure.	PM	**Appendix F** (Uncovering Bones)
1.9	Report the find as a '*Notifiable Event*' in accordance with the RTA *Incident Classification and Reporting Procedure*. Also implement any additional reporting requirements related to the project's approval and CEMP.	PM/RES	**RTA Incident Classification and Reporting Procedure**
2	**Contact and engage an archaeologist, and Aboriginal site officer where required**		
2.1	Contact the project (*on-call*) archaeologist to discuss the location and extent of the find and to arrange a site inspection, if required. The project CEMP contains contact details of the project archaeologist.	PM/RES	Also see **Appendix E** (Key Environmental Contacts)
2.2	Where there is no project archaeologist engaged for the project, engage a suitably qualified and experienced archaeological consultant to undertake a site inspection, conduct a preliminary assessment and prepare an archaeological management plan. Lists of consultants are available from online sources, including the yellow pages. Regional environment staff and RMS heritage staff can also advise on appropriate consultants.	PM/RES	Online lists of heritage consultants: • OEH List • AACAI List
2.3	Where the find is likely to be an Aboriginal object, arrange for an Aboriginal sites officer to inspect the find. Generally, this person would be a sites officer from the relevant local Aboriginal land council. If an alternative contact person (ie a RAP) has been nominated as a result of previous consultation, then that person is to be contacted.	PM/ACHA	
2.4	If requested, provide photographs of the find taken at Step 1.3 to the archaeologist, and Aboriginal sites officer if relevant.	PM/RES	**Appendix D** (Photographing Unexpected Archaeological Finds)
3	**Preliminary assessment and recording of the find**		
3.1	In a minority of cases, the archaeologist (and Aboriginal sites officer, if relevant) may	A/PM/ASO	Proceed to Step 8

Step	Task	Responsibility	Guidance & Tools
	determine from the photographs that no site inspection is required because no archaeological constraint exists for the project (*eg the find is not a 'relic', a heritage 'work' or an 'Aboriginal object'*). Any such advice should be provided in writing by the archaeologist (eg via email) and confirmed by the project manager.		
3.2	Arrange site access for the archaeologist (and Aboriginal sites officer, if relevant) to inspect the find as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	PM	
3.3	Subject to the archaeologist's assessment (and the Aboriginal sites officer's assessment, if relevant), work may recommence at a set distance from the find. This is to protect any other archaeological material that may exist in the vicinity, which has not yet been uncovered. Existing protective fencing established in Step 1.5 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.	A/PM/ASO	
3.4	The archaeologist (and Aboriginal sites officer, if relevant) may provide advice after the site inspection and preliminary assessment that no archaeological constraint exists for the project (*eg the find is not a 'relic', a heritage 'work' or an 'Aboriginal object'*). Any such advice should be provided in writing by the archaeologist, (and Aboriginal sites officer if relevant) (eg via email) and confirmed by the project manager.	A/PM/ASO	Proceed to Step 8
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). Regional environment staff and/or RMS heritage staff can provide contacts for such specialist consultants.	PM/RES	**Appendix E** (Key Environmental Contacts)
3.6	Where the find has been identified as a 'relic', 'work' or an 'Aboriginal object' the archaeologist should record the find on a proforma recording form.	A	• Aboriginal site recording form • Non-Aboriginal site recording form
3.7	The regulator can be notified informally by telephone at this stage by the archaeologist or project manager (or delegate). Any verbal conversations with regulators must be noted on the project file for future reference.	PM/A	

Step	Task	Responsibility	Guidance & Tools
4	**Prepare an archaeological management plan**		
4.1	The archaeologist must prepare an archaeological management plan (with input from the Aboriginal sites officer, where relevant) shortly after the site inspection. This plan is a brief overview of the following: (a) description of the feature, (b) historic context, if data is easily accessible, (c) likely significance, (d) heritage approval and regulatory notification requirements, (e) heritage reporting requirements, (f) stakeholder consultation requirements, (g) relevance to other project approvals and management plans etc.	A/ASO	**Appendix G** (Archaeological Advice Checklist)
4.2	In preparing the plan, the archaeologist with the assistance of regional environment staff must review the CEMP, any heritage sub-plans, any conditions of heritage approvals, any conditions of project approval (and or Minister's Conditions of Approval) and heritage assessment documentation (eg Aboriginal Cultural Heritage Assessment Report). This will outline if the unexpected find is consistent with previous heritage/project approval(s) and/or previously agreed management strategies. The project manager and regional environment staff must provide all relevant documents to the archaeologist to assist with this. Discussions should occur with design engineers to consider if re-design options exist and are appropriate.	A/RES/PM	**Appendix G** (Archaeological Advice Checklist)
4.3	The archaeologist must submit this plan as a letter, brief report or email to the project manager outlining all relevant archaeological issues. This plan should be submitted to the project manager as soon as practicable. Given that the archaeological management plan is an overview of all the necessary requirements (and the urgency of the situation), it should take no longer than two working days to submit to the project manager.	A	
4.4	The project manager must review the archaeological management plan to ensure all requirements can reasonably be implemented. Seek additional advice from regional environment staff and RMS heritage staff, if required.	PM/RES/SES (H)	
5	**Notify the regulator, if required.**		
5.1	Review the archaeological management plan to confirm if regulator notification is required. It may state notification is not required.	PM/RES/SES (H)	Proceed to Step 6

Step	Task	Responsibility	Guidance & Tools
5.2	If notification is required, complete the template notification letter.	PM	**Appendix H** (Template Notification Letter)
5.3	Forward the draft notification letter, archaeological management plan and the site recording form to regional environment staff and Senior Environmental Specialist (Heritage) for review, and consider any suggested amendments.	PM/RES/SES (H)	
5.4	Forward the signed notification letter to the relevant regulator (ie notification of non-Aboriginal relics must be given to the Heritage Branch of OEH, while notification for Aboriginal objects must be given to the Environmental Protection and Regulation Group of OEH). Informal notification (via a phone call or email) to the regulator prior to sending the letter is appropriate. The archaeological management plan and the completed site recording form must be submitted with the notification letter. For Part 3A and Part 5.1 projects, the Department of Planning and Infrastructure must also be notified.	PM	**Appendix E** (Key Environmental Contacts)
5.5	A copy of the final signed notification letter, archaeological management plan and the site recording form should be kept on file by the project manager and a copy sent to the Senior Environmental Specialist (Heritage).	PM	
5.6	If requested by the regulator, arrange a site inspection of the find for them.	PM	
6	**Implement archaeological management plan**		
6.1	Modify the archaeological management plan to take into account any additional advice resulting from notification and discussions with the regulator.	A/PM	
6.2	Implement the archaeological management plan. Where impact is expected, this would include such things as a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with registered Aboriginal parties, obtaining heritage approvals etc, if required.	PM/RAPs	PACHCI Stage 3
6.3	Where heritage approval is required contact regional environment staff for further advice and support material. Please note time constraints associated with heritage approval preparation and processing. Project scheduling may need to be revised where extensive delays are expected.	PM/RES	

Step	Task	Responsibility	Guidance & Tools
6.4	For Part 3A/Part 5.1 projects, assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Infrastructure. Seek advice from regional environment staff and Environment Branch specialist staff if unsure.	PM/RES	
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	PM	
6.6	Where statutory approval (or Part 3A/Part 5.1 project modification) is not required and where archaeological recording is recommended by the archaeologist, sufficient time must be allowed for this to occur.	PM	
6.7	Ensure short term and permanent storage locations are identified for archaeological material removed from site, where required. Interested third parties (eg museums or local councils) should be consulted on this issue. Contact regional environment staff and Senior Environmental Specialist (Heritage) for advice on this matter, if required.	PM	
6.8	Ensure all archaeological excavation and heritage recording are completed prior to RMS project work resuming.	PM	
7	**Review CEMPs and approval conditions**		
7.1	Clarify regulator expectations around written authorisation to commence project work. This may relate to situations where human remains are found or when they request to review preliminary archaeological excavation reports or assessments prior to the resumption of RMS project work. Where this is not explicit in heritage approval conditions, expectations should be clarified directly with the regulator.	PM	
7.2	Update the CEMP, site mapping and project delivery program as appropriate with any project changes resulting from final heritage management (eg retention of heritage item, salvage of item). Updated CEMPs must incorporate additional conditions arising from any heritage approvals, and Aboriginal community consultation if relevant. Include any changes to CEMP in site induction material and update site workers during toolbox talks.	PM	

Step	Task	Responsibility	Guidance & Tools
8	**Resume work**		
8.1	Seek written clearance to resume project work from regional environment staff and the archaeologist (and regulator, if required). Clearance would only be given once all archaeological excavation and heritage recording (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	RES/A/PM	
8.2	If required, ensure archaeological excavation reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories and/or disposal strategies.	PM/A	
8.3	Forward all heritage/archaeological assessments, heritage location data and its RMS ownership status to the Senior Environmental Specialist (Heritage). They will ensure all heritage items in RMS ownership and/or control are considered for the RMS S170 Heritage Register.	PM/SES(H)	
8.4	If additional unexpected finds are uncovered this procedure must begin again from Step 1.	PM	

8. Seeking advice

Advice regarding this procedure should be directed to regional environment staff in the first instance, and then RMS heritage staff, where required. RMS staff can contact RMS regional environment staff for advice on this procedure at any time. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Regional environment staff can assist non-RMS project environment managers with enquires concerning this procedure.

IMPORTANT!

RMS staff and contractors are not to seek advice on this procedure directly from OEH without first seeking advice from regional environment and heritage staff.

Technical archaeological advice regarding the unexpected find should be sought from the contracted archaeologist. Technical specialist advice can also be sought from heritage staff within Environment Branch to assist with the preliminary archaeological identification and technical reviews of heritage/archaeological reports.

9. Related information

Contact details: Manager, Environmental Policy, Environment Branch, 02 8588 5740

Effective date: 1 November 2011

Review date: Final + 12 months

This procedure should be read in conjunction with:

- RTA *Incident Classification and Reporting Procedure*.
- RMS *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.
- RTA *Heritage Guidelines 2004*.
- RTA *Environmental Impact Assessment Guidelines*.

This procedure replaces:

- Procedure 5.5 ("*unexpected discovery of an archaeological relic or Aboriginal object*") outlined in the RTA's *Heritage Guidelines* 2004.

Other relevant reading material:

- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains*.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains*.
- Department of Health (April 2008), *Policy Directive: Burials - exhumation of human remains*[11].

[11] http://www.health.nsw.gov.au/policies/pd/2008/pdf/PD2008_022.pdf

10. List of appendices

The following appendices are included to support this procedure.

Appendix A	Identifying Unexpected Archaeological Finds
Appendix B	Road and Fleet Services Escalation Protocol
Appendix C	RFS Unexpected Find Recording Form 418
Appendix D	Photographing Unexpected Archaeological Finds
Appendix E	Key Environment Contacts
Appendix F	Uncovering Bones
Appendix G	Archaeological Advice Checklist
Appendix H	Template Notification Letter

Appendix A

Identifying Unexpected Archaeological Finds

The following images can be used to assist in the preliminary identification of a potential unexpected find (both Aboriginal and non-Aboriginal) during construction and maintenance works. Please note this is not a comprehensive typology.

Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area).

Top left hand picture continuing clockwise: Woodstave water pipe with tar and wire sealing (Horsley Drive); Tram tracks (Sydney); Brick lined cistern (Clyde); Retaining wall (Great Western Highway, Leura).

Top left hand picture continuing clockwise: Road pavement (Great Western Highway, Lawson); Sandstone kerbing and guttering (Parramatta Road, Mays Hill); Telford road (sandstone road base, Great Western Highway, Leura); Ceramic conduit and sandstone culvert headwall (Blue Mountains, NSW); Corduroy road (timber road base, Entrance Road, Wamberai).

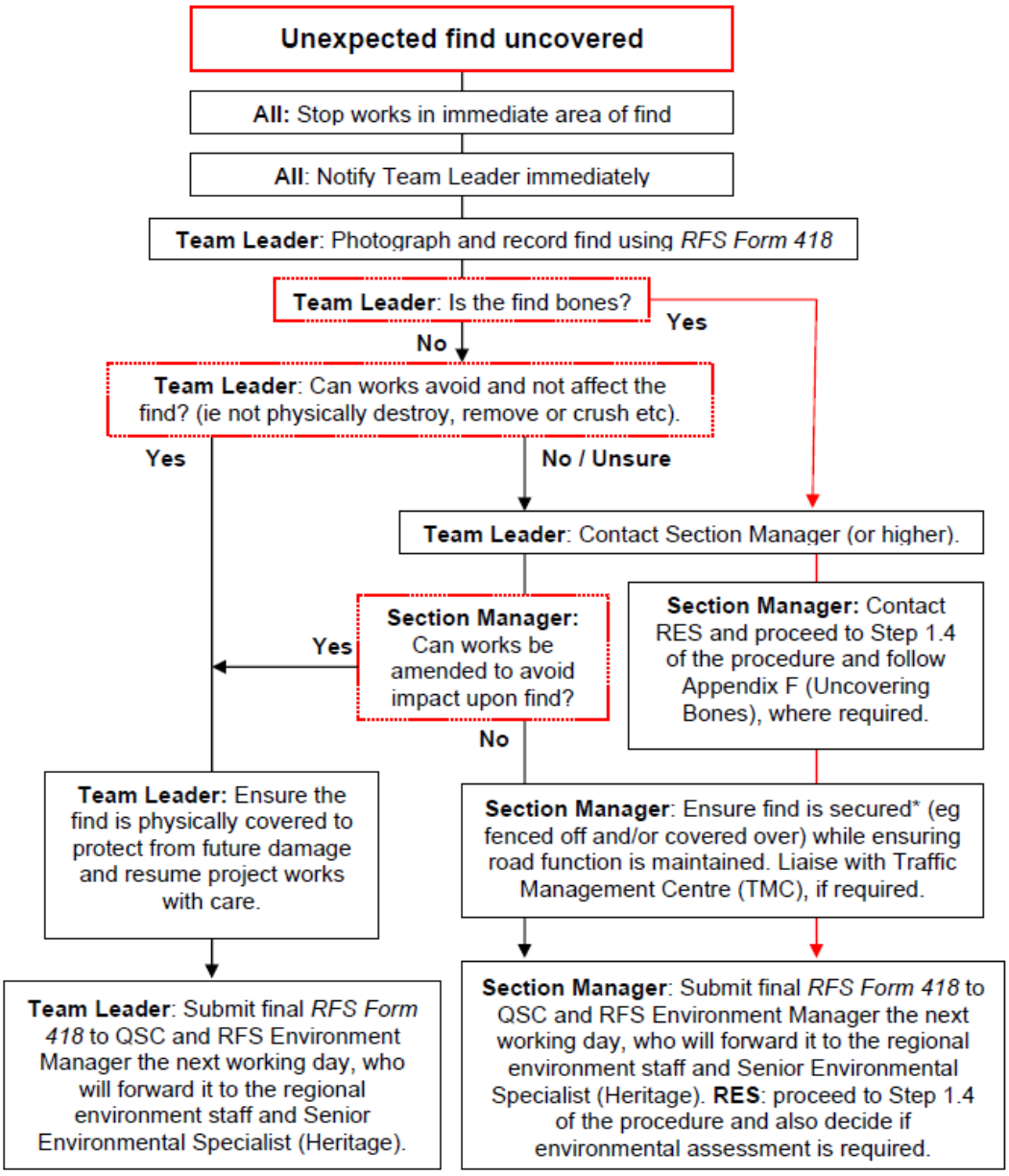
Top left hand corner continuing clockwise: Alignment Pin (Great Western Highway, Wentworth Falls); Survey tree (MR7, Albury); Survey tree (Kidman Way, Darlington Point, Murrumbidgee); Survey tree (Cobb Highway, Deniliquin); Milestone (Great Western Highway, Kingswood, Penrith); Alignment Stone (near Guntawong Road, Riverstone). Please note survey marks may have additional statutory protection under the *Surveying and Spatial Information Act 2002*.

Top left hand corner: Culturally modified stone discovered on Main Road 92, about two kilometres west of Sassafras. The rest of the images show a selection of stone artefacts retrieved from test and salvage archaeological excavations during the Hume Highway Duplication and Bypass projects from 2006-2010.

Appendix B

Road and Fleet Services Escalation Protocol

Road crews in RMS Road and Fleet Services (RFS) undertake routine maintenance works such as patching, cleaning, line marking and milling within the road reserve. In addition, these works are often undertaken at night on urban thoroughfares. A specific escalation protocol has been developed to ensure that disruption to traffic is minimised if an unexpected find is encountered when carrying out such maintenance works.



*Appropriate temporary covering of the find is something that protects it from further damage and that can be removed quickly the next day without damage from re-excavation. For example geofabric and loose, dry asphalt, or a metal plate. Certain unexpected finds (such as human remains) should not be covered with loose material as the re-excavation process is likely to cause further damage to the find. Fencing and immediate action is appropriate in these rare cases.

Appendix C

RFS Unexpected Find Recording Form 418

Transport Roads & Maritime Services	RFS Unexpected Find Recording Form	418

Date:		**Recorded by**	
Project Name:			
Description of works being undertaken (eg Removal of failed pavement by excavation and pouring concrete slabs in 1m x 1m replacement sections).			
Description of exact location of find (eg Within the road formation on Parramatta Road, east bound lane, at the corner of Johnston Street, Annandale, Sydney).			
Description of item found (eg Metal tram tracks running parallel to road alignment. Good condition. Tracks set in concrete, approximately 10cms (100 mm) below the current ground surface).			

Sketch
(Provide a sketch of the find's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. Also annotate this sketch with the location and direction of any photographs of the item taken).

Action Taken (Tick either A *or* B)

A.	Unexpected find **will not** be affected by maintenance works	☐	**B.**	Unexpected find **will be** affected by maintenance works	☐

A. Describe if and how works were amended to avoid impact to the find and the action taken to cover the item.

B. Describe how works will affect the find. (eg Milling is required to be continued to 200 mm depth to ensure road pavement requirements are met. Milling to required depth would affect the top 50 mm of potential heritage pavement).

Attach Photographs. (Take a number of close up and general photographs so anyone off site can understand the location of the find, the material it is made from and any distinguishing features).

Team Leader Signature	

Action: Refer issue to Section Manager (or higher) immediately where 'B' has been ticked.

To be completed by Section Manager

Describe any further considerations to amend project works to avoid unexpected find and if impact is still anticipated.	
Describe action taken to secure site temporarily	
Section Manager Signature	

Action: Escalate to environment and heritage staff where impact to item cannot be avoided.

Appendix D

Photographing Unexpected Archaeological Finds

Removal of the find from its context (eg excavating from the ground) for photographic purposes is not permitted.

Photographs of unexpected finds, in their original placement (*in situ*), assists heritage staff and archaeologists to identify 'finds' soon after being uncovered. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the find include its position, the general find itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin) and a note describing the direction of the photograph.

Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the find. This will add much value to the subsequent detailed photographs also required (Figure 2).

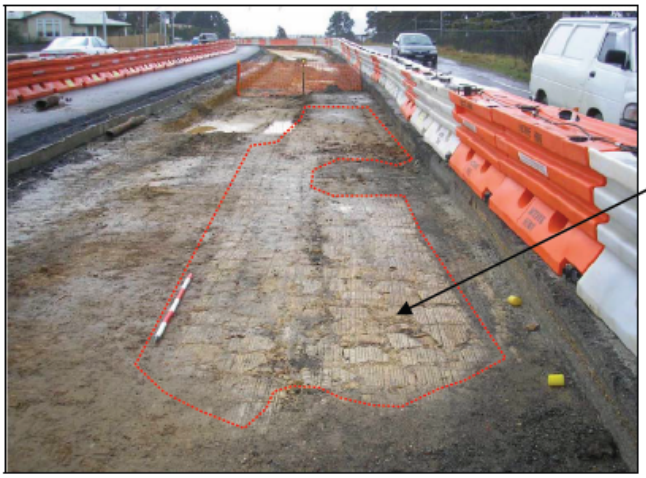


Figure 2: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008.

Photographing distinguishing features

Where unexpected finds (eg artefacts) have a distinguishing feature, close up detailed photographs must be taken of this, where practicable. See Figures 3 and 4 for examples.

Figure 3: Ceramic bottle artefact with stamp.

Figure 4: Detail of the stamp allows '*Tooth & Co Limited*' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human RMS must contact the police immediately (see Appendix F for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. Heritage staff in Environment Branch can confirm if bones are human or non-human if provided with appropriate photographs. Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed. Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.

Figure 5: Bone concealed by foliage.

Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.

Figure 7: Photograph showing complete bone.

Figure 8: Close up of a long bone's epiphysis.

Appendix E

Key Environmental Contacts

Hunter region	Senior Environmental Officer	4924 0281
	Aboriginal Cultural Heritage Advisor	4924 0383
Northern region	Senior Environmental Officer	6640 1072
	Aboriginal Cultural Heritage Advisor	6604 9305
Southern region	Senior Environmental Officer	4221 2765
	Aboriginal Cultural Heritage Advisor	4221 2767
South West region	Senior Environmental Officer	6938 1143
	Aboriginal Cultural Heritage Advisor	6937 1647
Sydney region	Senior Environmental Officer	8814 2516
	Aboriginal Cultural Heritage Advisor	8849 2006
Western region	Senior Environmental Officer	6861 1628
	Aboriginal Cultural Heritage Advisor	6861 1658
Pacific Highway Office	Environmental Services Manager	6640 1375
Hume Highway Office	Senior Environmental Officer	6923 3419
Road and Fleet Services	Environment Manager	9598 7721
Environment Branch	Senior Environmental Specialist, Heritage	8588 5754

Heritage Regulators

Heritage Branch Office of Environment and Heritage Locked Bag 5020 Parramatta NSW 2124 Phone: (02) 9873 8500	Minister for Sustainability, Environment, Water, Populations and Communities GPO Box 787 Canberra ACT 2601 Phone: (02) 6274 1111
Planning and Aboriginal Heritage Section Environment Protection and Regulation Group* (Metropolitan) Office of Environment and Heritage PO Box 668 Parramatta NSW 2124 Phone: (02) 9995 5000	Planning and Aboriginal Heritage Section Environment Protection and Regulation Group* (North East) Office of Environment and Heritage Locked Bag 914 Coffs Harbour NSW 2450 Phone: (02) 6651 5946
Environment and Conservation Programs Environment Protection and Regulation Group* (North West) Office of Environment and Heritage PO Box 2111 Dubbo NSW 2830 Phone: (02) 6883 5330	Aboriginal Heritage Protection Section Environment Protection and Regulation Group* (South) Office of Environment and Heritage PO Box 733 Queanbeyan NSW 2620 Phone: (02) 6229 7000

Project-Specific Contacts (*complete as needed*)

Position	Name	Phone Number
Project Manager		
Site/Alliance Environment Manager		
Regional Environmental Officer		
Aboriginal Cultural Heritage Advisor		
Consultant Archaeologist		
Local Police Station		
OEH: Environment Line		131 555

* **Please note:** at the time of finalising this procedure EPRG became part to the Environment Protection Authority (EPA); full title block was yet to be finalised.

Appendix F

Uncovering Bones

All matters relating to uncovering bones and RMS' human remains notification obligations should involve RMS regional environment and heritage staff. They will guide project managers through occurrences of uncovering bones.

This appendix provides project managers with advice (1) on what to do on first uncovering bones (2) the range of human skeletal notification pathways and (3) additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. Therefore they must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist. These specialist consultants can be sought by contacting regional environment staff and/or heritage staff at Environment Branch.

On the very rare occasion where it is *instantly obvious* from the remains that they are human, the project manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be '*obvious*' that it is human skeletal remains where there is *no doubt*, as demonstrated by the example in Figure 1. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and clothing are present.

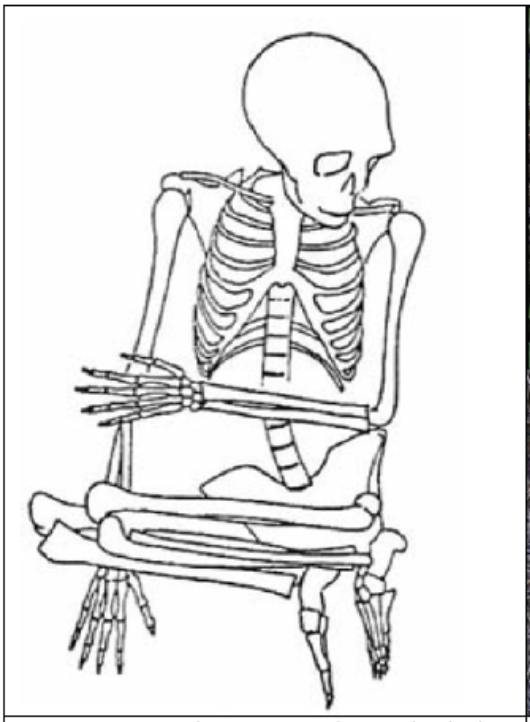


Figure 1: Schematic of a complete skeleton that is 'obviously' human[12].

Figure 2: Disarticulated bones that require assessment to determine species.

[12] After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains*: 17.

This preliminary phone call is to let the police know that the RMS is undertaking a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not 'obvious' that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix D. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur. Preliminary telephone or verbal notification by the project manager or regional environment staff is considered appropriate. This must be followed up later by RMS formal letter notification as per Appendix H when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

A. Human bones are from a recently deceased person (*less than* 100 years old).

☑ Action
A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed.

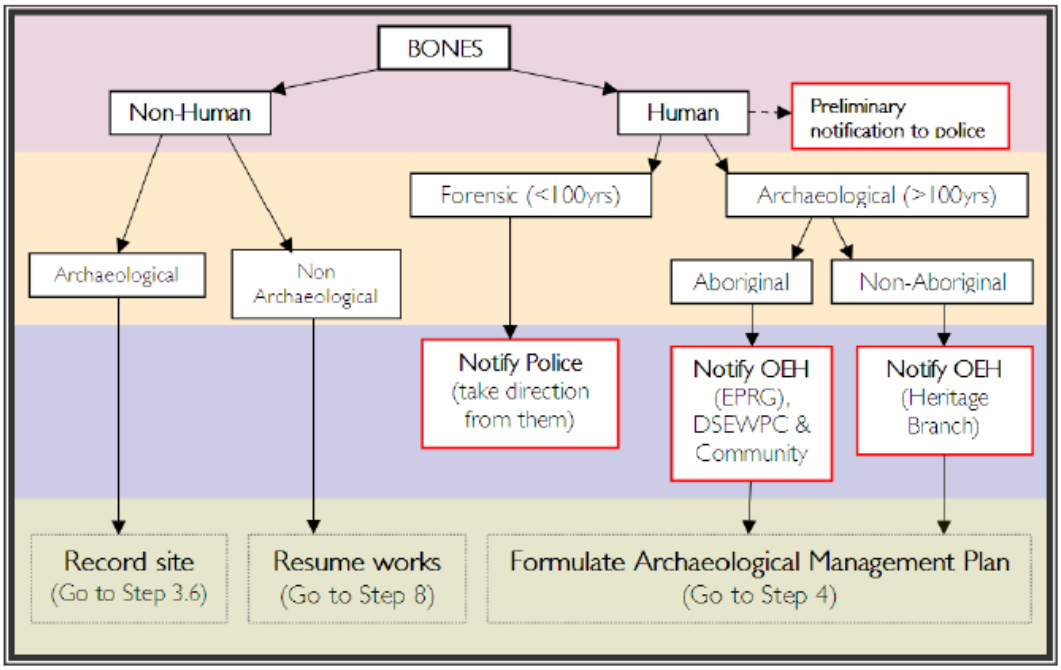
B. Human bones are archaeological in nature (*more than* 100 years old) and are likely to be *Aboriginal* remains.

☑ Action
The OEH (*EPRG*) and the RMS Aboriginal Cultural Heritage Advisor (ACHA) must be notified immediately. The ACHA must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site. Relevant stakeholders are determined by the RTA's *Procedure for Aboriginal Cultural Heritage Consultation and Investigation*.

C. Human bones are archaeological in nature (*more than* 100 years old) and likely to be *non-Aboriginal* remains.

☑ Action
The OEH (Heritage Branch, Conservation Team) must be notified immediately.

The simple diagram below summarises the notification pathways on finding bones.



After the appropriate verbal notifications (as described in B and C), the project manager must proceed through the *Unexpected Archaeological Finds Procedure* to formulate an archaeological management plan (Step 4). Note *no* archaeological management plan is required for forensic cases (A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to recording the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). RMS ACHA can provide advice on this and how to engage with the relevant Aboriginal community. Project managers, more generally, may also need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains. Project managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, project managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, RMS is required to apply to the Director General of NSW Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)[13]. Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health website.

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

[13] This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

Appendix G

Archaeological Advice Checklist

The archaeologist must advise the project manager of an appropriate archaeological management plan as soon as possible after site inspection (see Step 4). An archaeological management plan can include a range of activities and processes, which differ depending on the find and its significance. In discussions with the archaeologist the following checklist can be used by the project manager and the archaeologist as a prompt to ensure all relevant archaeological issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly and in the right direction. Archaeological advice on how to proceed can be received in a letter or email outlining all relevant archaeological issues.

	Required	Outcome/notes
Assessment and investigation		
• Assessment of significance	Yes/No	
• Assessment of heritage impact	Yes/No	
• Archaeological excavation	Yes/No	
• Archival photographic recording	Yes/No	
Heritage approvals and notifications		
• AHIPs, Section 140, S139 exceptions etc	Yes/No	
• Regulator relics/objects notification	Yes/No	
• RMS' S170 Heritage Register listing requirements	Yes/No	
• Compliance with CEMP or other project heritage approvals	Yes/No	
Stakeholder consultation		
• Aboriginal stakeholder consultation requirements and how it relates to RTA *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI).	Yes/No	
• Advice from regional environmental staff, Aboriginal Cultural Heritage Advisor, RMS heritage team.	Yes/No	
Artefact management		
• Disposal strategy for non-Aboriginal relics or heritage material (eg former road pavement): short term and permanent storage locations (interested third parties should be consulted on this issue).	Yes/No	
• Control Agreement for Aboriginal objects.	Yes/No	
Program and budget		
• Time estimate associated with archaeological work.		
• Total cost of archaeological work.		

Appendix H

Template Notification Letter

[Select and type date]

[Select and type reference number]

[Select and type file number]

[Insert recipient's name and address, see **Appendix E**]

[Select and type salutation and name],

Re: Unexpected archaeological find uncovered during Roads and Maritime Services project works.

I write to inform you of an unexpected archaeological [select: relic and/or Aboriginal object] found during Roads and Maritime Services construction works at [insert location] on [insert date]. [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

This letter is in accordance with the notification requirement under [select: Section 146 of the *Heritage Act 1977* (NSW) or Section 89(A) of the *National Parks and Wildlife Act 1974* (NSW)].

NB: On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for Sustainability, Environment, Water, Populations and Communities (SEWPC) in accordance with notification requirements under Section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the find, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (eg Part 5). Also include any project approval number, if available].

Roads and Maritime Services [*or contractor*] has sought professional archaeological advice regarding the find. A preliminary assessment indicates [provide a summary description and likely significance of the find]. Please find additional information on the site recording form attached.

Resulting from these preliminary findings, Roads and Maritime Services *[or contractor]* is proposing [provide a summary of the proposed archaeological approach (eg develop archaeological research design, seek heritage approvals and undertake archaeological investigation). Also include preliminary justification of such archaeological impact with regard to project design constraints and delivery program].

The proposed archaeological approach will be further developed in consultation with a nominated Office of Environment and Heritage [select either EPRG/Heritage Branch, Conservation Team] staff member.

Please contact me if you have any input on this approach or if you require any further information.

Yours sincerely

[Sender name and position]

[Attach the archaeological management plan and site recording form].

Appendix D

Test excavation procedure

Test excavation procedure

D.1 Introduction

This manual provides a set of notes and guidelines on excavation and recording prepared for work to be undertaken as part of a test excavation at G2B H14, Berry, New South Wales. The manual sets out general principles of excavation and explains the recording systems and some of the terms used. It is not designed for rigid adherence, as its application in the field will depend upon on several factors, for example, the numbers, experience and skill of field personnel, technical resources, time availability and field conditions.

D.2 Excavation units

Context

This is the smallest unit of excavation. The term is applied to any unit of excavated deposit. A context can be a unit of stratigraphy (a lens, layer, pit fill, etc.) or it can be an arbitrary unit within a larger natural layer. A context may therefore be bounded by the sides of an excavation square or by the walls of a room. A context should not cut across layer boundaries (that is, should not include more than one depositional unit). A context may be either:

- Stratigraphically defined by soil colour, texture, etc., and may be the make-up of a floor, an occupation layer, wall collapse, a wall, a pit, the fill of a pit (note that the fill and the pit are two distinct things) or a surface (ie an interface between layers).
- Arbitrarily defined as a regular parcel of deposit (sometimes called a spit or an excavation unit).

Contexts are numbered in a single running series for the whole excavation, as assigned by the Excavation Director, Dr Rebecca Parkes. There will be a context catalogue containing a single running series of numbers for each excavation. These numbers do not imply a stratigraphic or other order of relationship. The context provides the spatial and stratigraphic provenance for all finds and samples – all excavated material must be cross-referenced to a context.

Grid Square (usually referred to as a Square)

The direction of “Grid North” will be indicated at the beginning of excavations and is to be the basis for orientations in notes and diagrams. A North-South/East-West (NS-EW) 1 x 1 metre grid square will usually be the major spatial unit within the overall site grid. Test excavation areas will be identified within the overall site grid. For recording and processing, squares are referred to by an alphanumeric name using capital letters (for example, B2). When it is necessary to identify a grid square the convention is that the SW corner is used as the starting point – just as when using a topographic map (shown graphically on the next page).

Quadrats

Where appropriate, quadrats will be used as the minor spatial units within the site grid. Quadrats are subdivisions within a grid square. There are four quadrats in a grid square, each measuring 50 x 50 centimetres. Quadrats are identified by Roman numerals (that is, i, ii, iii, iv). These letters are always used in conjunction with the appropriate grid square label (for example, B2-iv).

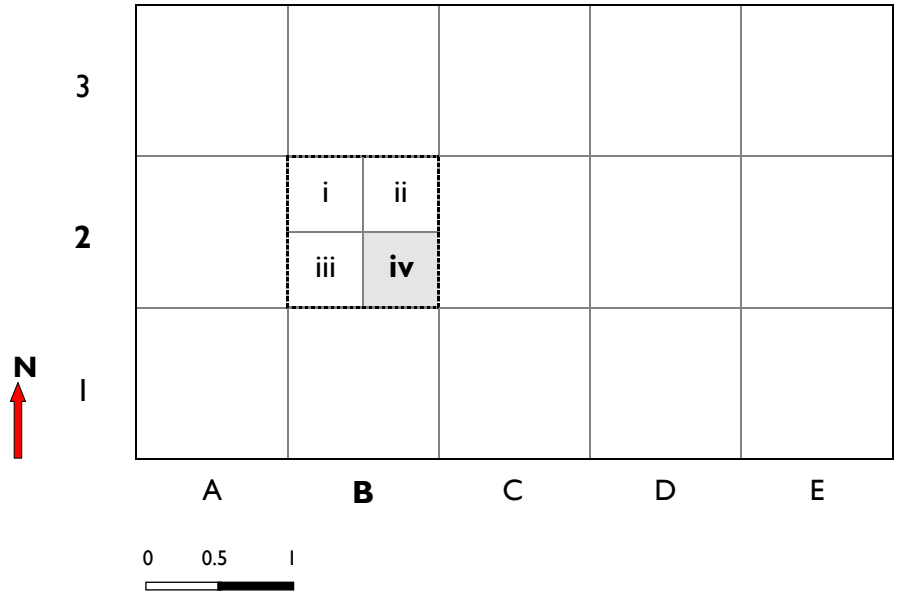
Room / feature

If features are located which allow the sufficient definition of architectural units or rooms, these may be used as the boundaries for further excavation where appropriate. A room may of course contain several different contexts, cut across several grid squares, and may be divided into several quadrats. The use of a special identifier for rooms makes it easier to group excavated material from each architectural unit. Rooms are identified by letters (that is, A … Z, AA … ZZ, etc.).

Example

If an area being excavated is at site number '1', grid square 'B2', and quadrat 'iv' then it is written as 1-B2-iv. This area is shown on the grid below in bold type. If a room has been identified then the capital letter(s) referring to it are included in the descriptor (for example, 1-A-B2-d).

Site No. 1



In the above example, if the area being excavated has been allocated the context number 9, then the descriptor becomes 1-B2-d-9.

Measurements

Field measurements:	metres to nearest one centimetre
Levels:	centimetres to nearest one centimetre
Artefacts:	millimetres to nearest one millimetre
Weight of bulk finds:	grams to nearest one gram
Weight of individual finds:	grams to nearest 0.1 gram
Standard scale:	formal plans 1:20
formal section 1:10	
artefacts 1:1	

D.3 In the field

If in doubt ask the Excavation Director

Who does what will depend on the numbers of people available. Everyone will have to spend time at both heavy and fine digging, at sieving, and at aspects of recording. In addition, the character of the site will necessitate backfilling by hand. The strategy of excavation will vary. At the beginning – during the removal of any turf and topsoil a more robust (though not less careful) approach will be needed. When undisturbed deposits are excavated, a slower pace and finer skills are needed.

Recording is as important as excavating. Always ensure that records are kept up-to-date and that excavation does not run too far ahead of processing. Clean up any loose spoil before leaving your area – as even light rain will make it difficult to distinguish spoil from undisturbed deposits. It is also good practice to never loosen more deposit than can be cleaned up in less than a minute.

In all excavation neatness and cleanliness (of the site, records, tools, etc.) is essential. All excavated sections must be vertical, straight, and their integrity preserved; for instance never sit or stand on the edge of an excavated section, light footwear is essential and crouching when trowelling and brushing impacts less on excavated surfaces than kneeling or lounging.

Remember – you are not writing memos to yourself, but a formal record for other people to use. What is obvious to you needs clear explanation for others. (Note: all recording is to be done using a pen – blue or black biro – not a pencil.)

Basic steps

Together with the Excavation Director define the area and nature of new context. If appropriate, define internal divisions within the area of the context:

i. Fill in basic information on the CONTEXT FIELD RECORD sheet.

ii. Ensure that levels have been taken, appropriate photographs taken and any plans of the surface drawn. Ensure that records of such are complete.

iii. Begin excavation – tentatively at first. A smaller test may be made in one part of the area before extending the excavation over the whole context. (Note: nearly all excavation will be by trowel, brush, and hand-shovel). Continue to make appropriate additions to the CONTEXT FIELD RECORD as work progresses.

iv. As the excavation proceeds the location of artefacts recovered should be noted on the CONTEXT FIELD RECORD sheet.

v. Soil from the excavation should be sieved and artefacts recovered placed in the labelled bag for the area and context of excavation. Remember that, if you are excavating with care, most artefacts will be recovered during excavation, sieving is a ‘back-up’, not a ‘cure-all’.

vi. Photographs showing the progress of excavation may be taken, especially if structural features are being exposed. This will necessitate cleaning for photography and the removal of all extraneous equipment and especially people.

vii. When the context is finished, clean it up beautifully. Ensure that all sections and baulks are straight and vertical (use string and plumb-bobs to get it right). Photographs and final levels should be taken, appropriate plans drawn, all soil sieved and all finds given to the site recorder, and all notes written up – before beginning work on the next context.

Bags and labels

All finds – whether collected in the course of excavation or from the sieves – must be appropriately bagged and labelled.

The descriptor provided on the bag and label must correspond with the descriptor on the CONTEXT FIELD RECORD sheet. A new bag and label for the next context will not be provided to the excavator until the previous context has been fully completed (including documentation). The artefacts contained in these bags will be subject to further detailed off-site analysis and recording at the completion of the excavation.

Excavation recording and later analysis

There are several components in excavation recording and the later analysis of finds and determining stratigraphic sequences. Those relating to the excavation are:

- CONTEXT CATALOGUE – a simple list of context numbers, filled in as they are assigned, recording the location (grid square and quadrat) together with a brief description of and comments on the context. This catalogue is held and maintained by the Excavation Director.
- CONTEXT FIELD RECORD – this provides a uniform system so that basic data on each excavation unit (context) is recorded in the same way. A copy of this record and a detailed description of it are at Attachment B1. This record is to be completed by the excavator(s) of a context.
- PHOTOGRAPHIC RECORD – running list of all photographs taken in the field. Among other details, for each photograph it records the site, type of camera and film type, development details, film and frame number, context, grid square and quarter, and a description of the subject. This record will be held and maintained by the Excavation Director.
- PLANS, ELEVATIONS AND SECTIONS – measured plans, elevations and sections provide greater precision than sketches on the context field record sheets and are part of the final documentation for the site. Anyone may be called on to draw plans, elevations and sections for any of the features at a site.

The recording components relating to post-excavation are:

- ARTEFACT CATALOGUES – record the types and details of all artefacts recovered from the excavations. The main categories are Ceramics, Glass, Metals, Building Material and Miscellaneous – each of which is divided into more detailed sub-categories. A list of the categories and sub-categories to be used is at Attachment B2. The categories shown in this attachment should be used to classify material both in the field and during later analysis. (Recording sheets for these categories together with detailed descriptions of each of the categories will be available for artefact analysis post-excavation).
- MATRIX DIAGRAMS – using information from the Context Field Records these diagrams may be developed post-excavation to show stratigraphic sequences at each site.

D.4 Concluding remarks

As mentioned at the outset, this manual provides general principles of excavation and explains the recording systems and some of the terms used. Each site is different and presents its own problems, the solutions for which may only be apparent on-site. However, the key points to remember from the above are:

- All excavated material must be cross-referenced to a context.
- Recording is as important as excavating. Always ensure that records are kept up-to-date and that excavation does not run too far ahead of processing.
- You are not writing memos to yourself, but a formal record for other people to use. What is obvious to you needs clear explanation for others; in addition, neatness and legibility are important.
- In all excavation neatness and cleanliness (of the site, records, tools, etc.) is essential.
- If in doubt ask!

Attachment D.1

(Reduced copy)

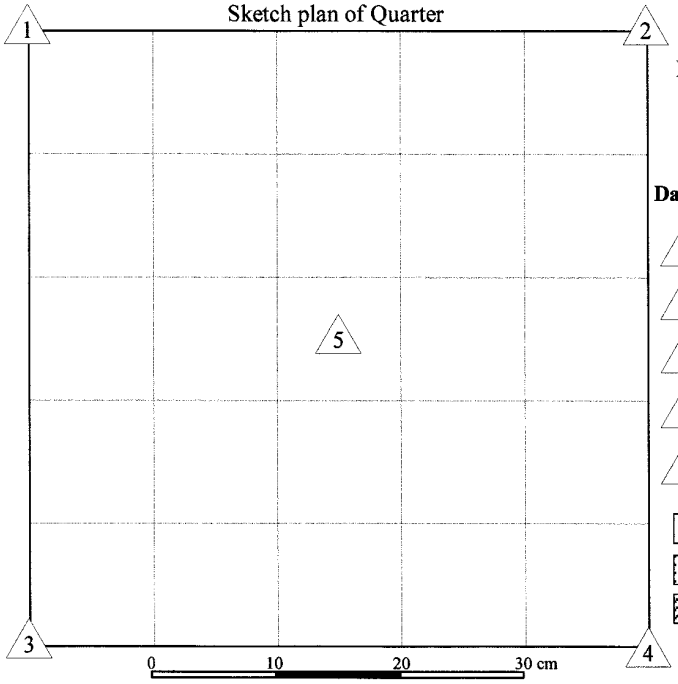
Form No. 1

FBB – G2B H14

CONTEXT FIELD RECORD

Site No.: ..... Site Name:	Square	Quarter	Context No.
Excavator: ..... Date: / /1999			

Sketch plan of Quarter



Dumpy readings △ cm

	Start Reduced Level (+/-)
Datum	*n.a.*
1	.....
2	.....
3	.....
4	.....
5	.....

Dumpy readings △ cm

	End Reduced Level (+/-)	Depth
Datum	*n.a.*	*n.a.*
1	.....	.....
2	.....	.....
3	.....	.....
4	.....	.....
5	.....	.....

Arrow indicates North

R Rock M Metal
Brick G Glass
Charc. C Ceram.

Artefacts, samples and discard (as shown on sketch plan):

1	6	11 .....
2	7	12 .....
3	8	13 .....
4	9	14 .....
5	10	15 .....

Soil: Colour: ..... Munsell No(s): .....
Texture: ..... Compaction: ..... Ph Level: .....

Excavation method: ..... **Sieve size**: .....

Stratigraphic relationships (Context Nos.)

Under: .....
Equals/Same as: .....
Above: .....

Cut By: .....
Cuts: .....
Abuts: .....

Description of Context and Comments/Interpretation (if there is insufficient space then use the back of this form):

.....
.....
.....
.....
.....

Attachment D.1 (cont'd)

THE CONTEXT FIELD RECORD

The following provides a description of the requirements of the Context Field Record sheet.

Site No.: As allocated by the Excavation Director.

Site Name: As nominated by the Excavation Director.

Excavator: Initial(s) and Surname of excavator.

Date: Day/month/year.

Square: Alphanumeric reference to the 1 x 1 metre grid square.

Quadrat: Lower case letter identifying the quarter (either a, b, c, or d).

Context: Context number as allocated by the Excavation Director.

Sketch plan: Ensure plans are neat and legible, and that individual features are clearly labelled. Show features using the key at the lower right hand of the plan, and individual numbered finds (to be briefly described in the section below the sketch plan). Do not forget to include an arrow in the circle at the lower left of the plan to indicate north.

Dumpy readings: There is space for up to five measurements of height (each corner and the centre) at the start and conclusion of work. If more are needed, then record them in additional notes. Record heights in the appropriate place before and after excavation. The 'end' levels of one context will usually be the 'start' levels of another – but do not simply transfer the readings. A dumpy will be set up each day and will be used to standardise all site measurements. A reading will be taken on the datum before the heights are taken for any quarter – both before and after excavation. These readings are to be entered on the Context sheet. You will need to 'reduce' the level, or calculate the absolute height of your five points. A reduced level is simply your reading minus the datum reading. You should then calculate the depth of your excavation and enter it into the space provided.

Artefacts, samples and discard: Individual finds (eg coins, buttons, etc.) samples (eg charcoal sample, etc.) and discarded material (eg large amounts of brick debris, etc.) should be numbered on the sketch plan and brief details of each given in the space provided.

Soil:

Colour/Munsell No:	Your own description in words and the formal Munsell colour code (eg 10 YR 5/6 Reddish brown).
Texture:	What the sediment is like (light crumbly, hard, rubbly, etc.).
Compaction:	Has the soil been compacted through some process (eg once having a wall built on top of it, etc.).
Ph Level:	the results of a Ph test (eg 5.5).

Excavation method: How was this context dug (shovel, trowel, etc.).

Sieve size: Indicate sieve size (eg five millimetre) and whether dry or wet sieving was done, or whether the soil could not be sieved and why.

Stratigraphic relationships: Shows the relationship of this context to others. The bold type box in the centre of the matrix should contain the same number as shown in the Context box at the top right-hand side of the Context sheet. The remaining boxes should show the numbers of the contexts immediately around your context.

Attachment D.1 (cont'd)

Under:	Enter the code number of contexts that are physically above your context.
Equals/	Enter the code number of contexts that are stratigraphically the same
Same as:	or which appear to be the same as contexts in arbitrarily separated excavation units.
Above:	Enter the code number of contexts that are physically below your context.
Cut by:	Enter the code number of contexts that cut through your context (eg a pit dug from above it).
Cuts:	Enter the code number for contexts cut by your context (eg lower, earlier contexts through which a pit is dug).
Abuts:	Enter the code number of contexts that adjoin, touch or border on your context.
Description of context & Comments/ Interpretation	What the context is and what it looks like. First consider the sediment matrix and then look at its contents. You need to consider the current status of the context (ie its integrity). Is there any evidence of disturbance (human, animal, insect, or tree roots)? Consider the likely origin, identification or mode of deposition of the context (collapsed wall, ash dump, pit fill, etc.). Is the material primary (material in original context of construction, use or discard), secondary (natural collapse and infill, post-depositional) or tertiary (deliberately re-deposited during the period of occupation, eg cleaning out of occupation debris, floor make-up, etc)? Comment, if appropriate, whether any material in the context has a fresh appearance or is weathered or abraded. Finally, what do you think gave rise to the context – how did it come about?

Attachment D.2

LIST OF ARTEFACT CATEGORIES

(in alphabetical order)

Major categories	Sub-categories
Building material	Brick Mortar Sandstone Wood
Ceramic	Earthenware Porcelain Stoneware Terracotta
Glass	Container (eg bottles) Flat (eg window) Tableware (eg bowls, dishes)
Metal	Container (eg tins) Nails, screws, etc. Structural (includes door/ window fittings) Tools Transport & storage (eg horse equipment, carriage components, barrel hoops)
Miscellaneous	Ammunition Bones Charcoal Clothing (includes buttons, buckles, etc.) Coins Footwear Leather Personal adornment (eg beads) Rubber Seeds and other botanical material Smoking pipes Toys etc.
Samples	Brick debris Pollen Soil Other material

Appendix E

Test pit excavation descriptions

Test pit excavation descriptions

The test excavations at G2B H14 are summarised below on a trench by trench basis. However, in two cases (A64-C64 and E64-F64; B100 and D100-E100), nearby trenches are discussed as a single excavation area on the basis of the similarities in excavation contexts and questions.

E.1 Trench F20

Excavation in this area proceeded by stratigraphic context with removal of turf (Context 1), topsoil (Context 2), disturbed fill with alluvial cobbles (Context 9), transitional gravelly matrix with a decrease in cobbles (Context 15), followed by excavation of a darker mixed clay and loam matrix with charcoal and ash (Context 18) down to a natural yellow brown clay subsoil; excavation in Quadrat III also included removal of a pocket of dark brown clay (Context 26) below Context 18 and above the natural clay subsoil (Figure E.1).

Figure E.1 Trench F20 at completion of excavation – north at top.

E.2 Trench C24

This square was excavated a s a single arbitrary context (43); excavation went to a depth of 220 millimetres along the eastern side of the square and 55-105 millimetres along the lower western side. The aim was to determine the context of the sandstone block visible on the surface on the southern side of the square. Excavation of Context 43 largely corresponded to the removal of modern fill and road base. It was revealed that the sandstone block visible on the surface, and a second fragment uncovered in Quadrat IV, were situated within the modern fill layer, and as such, were not *in situ*.

E.3 Trench F30-F31

Excavation of this trench began in F30, which was excavated stratigraphically in the following sequence: removal of turf (Context 1), excavation of brown loam topsoil (Context 2), removal of compact yellow-brown clay fill (Context 6), excavation of yellow-brown sandy clay (Context 11) above a cobbled surface. The adjoining square to the north (F31) was then excavated in two contexts: Removal of overburden (Context 13) above the yellow-brown sandy clay, excavation down to the cobbled surface (Context11).

The cobbled surface was, on average, at a depth of 20-30 centimetres below the current ground level; it extended across the majority of the trench, the only exception being a narrow strip along the western side, which had been disturbed by installation of a telecommunications trench (Figure E.2).

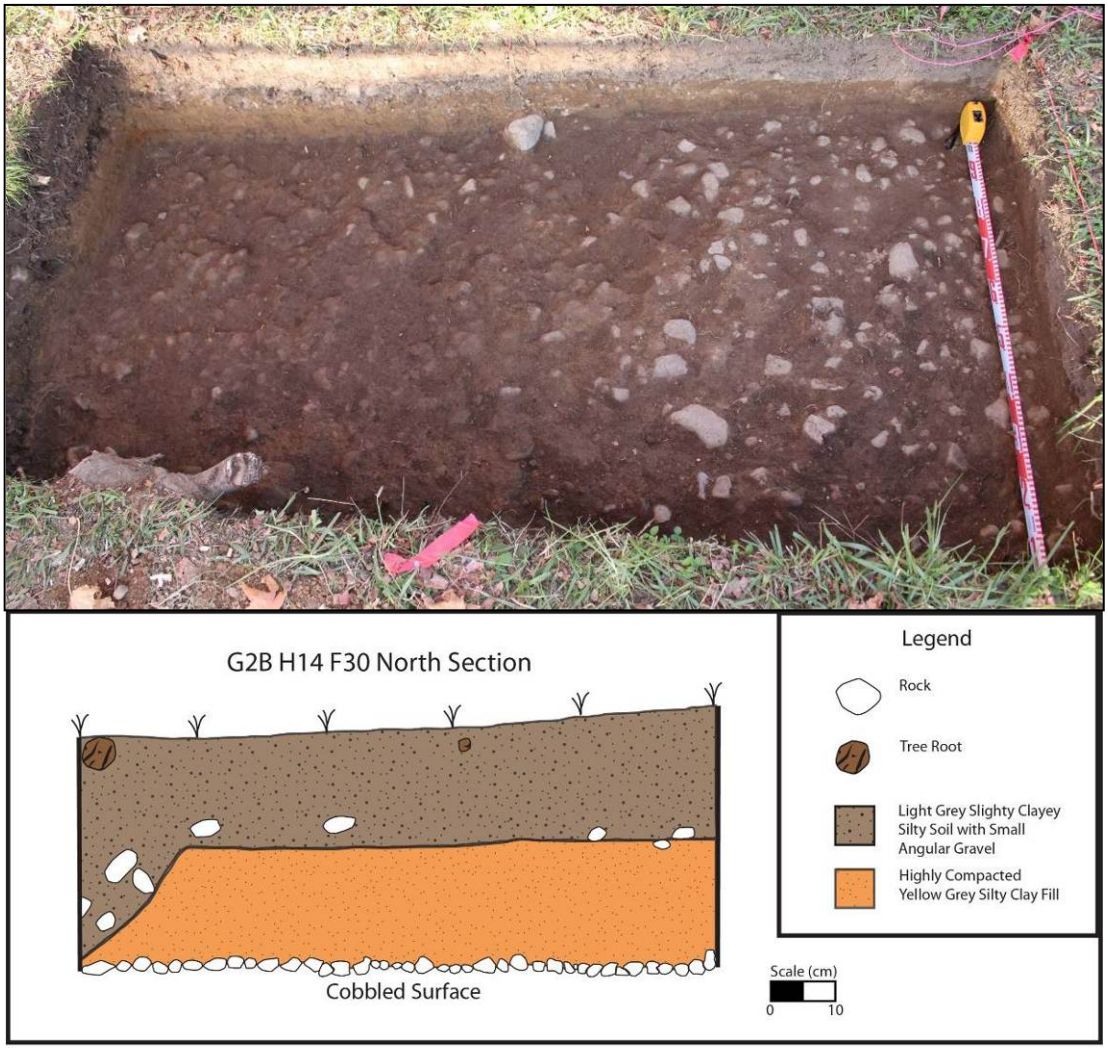


Figure E.2 Cobbled floor exposed at base of trench F30-31 (top)
Cross section of soil profile in trench F30-31 (bottom)

E.4 Trench F39-F40

Excavation in this trench began in F40, with turf removal (Context 1) and excavation of the modern, brown loam topsoil (Context 2). The gravelly clay fill was then removed (Context 5) to reveal a yellow-brown clay loam at a depth of between 10 centimetres and 15 centimetres. A possible posthole was also visible in the northwest corner of Quadrat I as a pocket of darker brown loam, approximately 15 centimetres across (Figure E.3).

Excavation in F39 was then conducted as an arbitrary context (Context 8) down to the yellow-brown layer identified in F40 below Context 5, with further sectioning across the western two-thirds of the square (Context 14) to reveal an old telecommunications trench (Figure E.4). This same trench was observed along the western margins of F30-F31 to the south and through B80 to the north.

Figure E.3 Possible post hole in F40-I, base of Context 5

Figure E.4 Telecommunications trench exposed at base of F39.

E.5 Trench C50

This square was opened up relatively early in the excavation sequence. Excavation began by stratigraphic context (Contexts 1 and 2, being turf removal and excavation of modern, brown loam topsoil) down to the compact gravelly fill that was encountered across the site. Excavation then proceeded as a section down to the natural clay subsoil, approximately 60 centimetres below the current ground surface. The section revealed that the gravelly fill continued to a depth of 30-40 centimetres, below which a sterile brown loam was encountered that graded into a darker clay loam above the yellow-brown clay subsoil (Figure E.5).

Figure E.5 North wall of C50.

E.6 Trench C60-B61-C61

Excavation in this trench began in C60. Initially the entire square was excavated down through removal of the turf (Context 1) and the modern topsoil layer (Context 2) to reveal the gravelly clay fill beneath (average depth of 4-5 centimetres). The northern half of the square was then sectioned down through the fill (Context 7) to reveal a dark brown loam (Context 10) over a natural yellow-brown subsoil.

Upon identification of the original A-horizon below Context 7, squares B61 (Context 30) and C61 (Context 12) were excavated down to that layer (Figure E.6). A possible post hole and a piece of sandstone were identified below the fill in B61.

E.7 Trench A64-C64 (Quadrats III-IV) and E64-F64 (Quadrats III-IV)

These two trenches, either side of the telecommunications trench known to run north-south through the site, were sectioned down below the old A-horizon in order to reveal something of the original topography across the site. Excavation began in the east across squares E and F (Contexts 1, 16 and 19), which were taken down to a depth of 25-30 centimetres; equivalent to 5-10 centimetres below the old A-horizon in square E (Figure E.7).

The trench across squares A-C was then sectioned down as a single arbitrary context (Context 22). Excavation terminated at the yellow-brown clay subsoil, which was encountered at an average depth of 60-70 centimetres, becoming deeper towards the west. The interface between the gravelly fill and the old A-horizon varied in depth, but was generally around 20-30 centimetres below the current ground surface, tending to dip lower at the western end of the trench.

Figure E.6 Trench C60-B61-C61, looking west.

Figure E.7 Trench A64-C64, looking north.

E.8 Trench C70

Excavation in this trench proceeded by stratigraphic context to an average depth of 8-10 centimetres. Following removal of turf (Context 1) and a layer of brown sandy silt (Context 3), the square was excavated down through a yellow-brown clay loam (Context 4) to the gravelly clay fill. Excavation did not progress any further in this location due to the presence of tree roots and the discovery that the old telecommunications trench ran through this square.

E.9 Trench C79-A80-D80

Excavation in this location began in square C80, which was excavated in stratigraphic contexts through removal of turf (Context 1), excavation of modern brown loam topsoil (Context 2), removal of gravelly clay fill (Context 28) and excavation of a dark brown compact loam (Context 31 – old A-horizon) that grades into a natural yellow-brown clay subsoil at a depth of 60-65 centimetres. Upon exposing the clay subsoil, a rectilinear pocket of brown loam was identified in Quadrat I (Figure E.8), which appears to be the base of a post hole.

Excavation was opened up to the east, west and south of C80 in order to check for the presence of additional post holes. Following turf removal (Context 1) in B80, this square was excavated down through the gravel fill to the original A-horizon, which had been partially disturbed by the old telecommunications trench. Squares C79 and D80 were then excavated in two contexts: Context 32 being removal of the modern topsoil and gravelly fill overburden (average depth of 20-35 centimetres), and excavation of Context 38 (recorded as Context 42 in D80), the dark brown clay loam (original A-horizon) overlying the yellow-brown subsoil (average depth of 55-60 centimetres). No post holes were observed in either of these squares, although substantial disturbance from cicada burrows was evidenced across C79, C80 and D80.

Square A80 (Context 39) was sectioned down to the clay subsoil, revealing a 20-30 centimetres cap of gravelly fill over a sterile dark brown loam, grading into a yellow-brown clay at a depth of 70 centimetres (Figure E.9). No evidence of additional post holes were observed in this square.

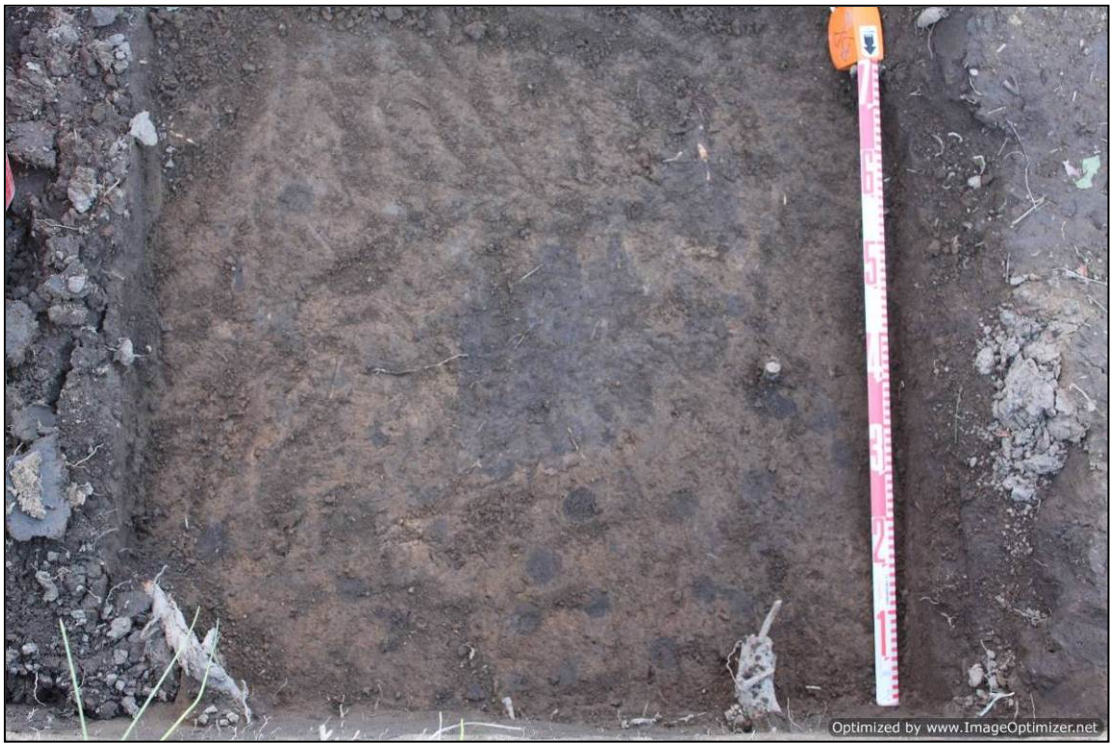


Figure E.8 Post hole evidenced at base of C80 (north at right).

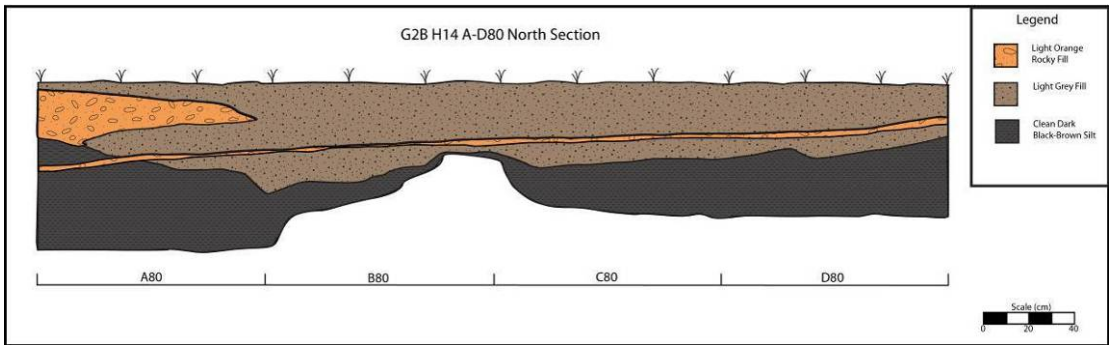


Figure E.9 Soil profile at northern end of Trench A80-D80.

E.10 Trench A95-C95-B96-C96

This trench was excavated through a combination of stratigraphic contexts and arbitrary sections with the aim of identifying the original A-horizon and the nature of any cultural deposits overlying or cutting into that layer.

Excavation began in B95 with removal of the turf (Context 1) and excavation of overburden (Context 33) to reveal the old ground surface (dark brown clay loam at an average depth of 40-45 centimetres). Squares A95, B96 (Context 36) and C96 (Context 37) were excavated as single contexts down to this same layer, while C95 was excavated in two units: Context 32, being removal of overburden, and Context 35, being excavation down to the natural clay subsoil at an average depth of 55-60 centimetres.

No cultural features were identified in this trench; a small number of glass and metal artefacts were recovered from overburden layers.

E.11 Trench B100 and D100-E100

Excavation in this area began in E100 with removal of the turf (Context 1) followed by removal of the gravelly clay fill (Context 21) to reveal an *in situ* layer of charcoal and carbonised wood at a depth of 25 centimetres. This burnt layer did not extend across the northern portion of the square, so a section was excavated down to the clay subsoil (average depth of 50 centimetres) across the northern quadrats. The trench was then expanded to the west into D100, with excavation of a single context (Context 27) down to the burnt layer identified in E100. In the course of this process, evidence for disturbance was identified in the form of a 30 centimetre wide trench/burrow extending north south through the middle of the square. A layer of burnt clay was also identified on the western side of this trench, with what appears to be a possible posthole in the southwest corner of Quadrat III (Figures E.10, E.11 & E.12). It was also noted that a number of alluvial pebbles were removed from the fill layer across both squares.

Figure E.10 Burnt clay and possible post hole with associated bottle glass fragments at base of D100-IV (north at right).

Excavation was continued in B100 in order to establish whether the burnt features in D100-E100 extended further to the west. Initially the overburden was removed as a single context (Context 40) to reveal a yellow-brown sandy loam with modern debris, including milled timber and ceramic insulators, sitting in this loam. The sandy loam was then removed (Context 41) to reveal a charcoal rich clay layer, including a piece of carbonised wood across the northern half of the square. The southwestern portion of B100 (Quadrat III and Quadrat I up to the margin of the carbonised wood) was also sectioned down (Context 44) to the clay subsoil (depth of 65 centimetres) (Figure E.13 & E.14).

Figure E.11 Trench D100-E100, looking east.

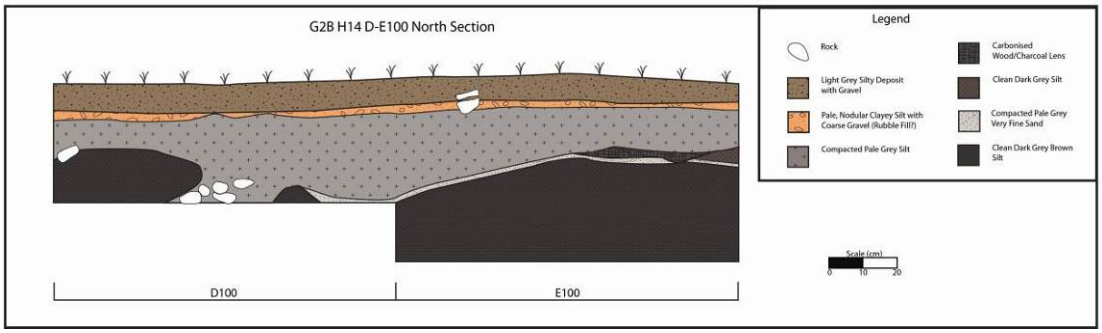


Figure E.12 Soil profile at northern end of Trench D100-E100

Figure E.13 Termination of excavations in B100, looking west.

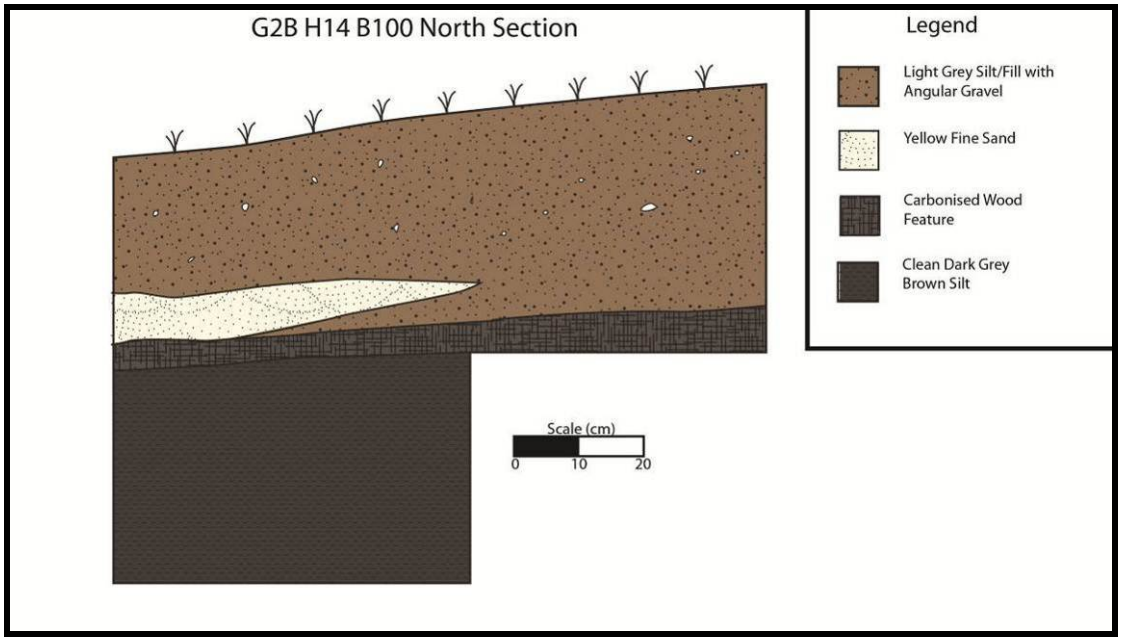


Figure E.14 Soil profile at northern end of B100.

E.12 Trench C110

Excavation in this trench progressed initially as a series of stratigraphic contexts down to a grey-brown silt layer at a depth of around 40-45 centimetres. The initial excavation sequence was as follows: turf removal (Context 1), excavation of silty-clayey gravelly fill (Context 20) and excavation of a disturbed clayey silt admixture matrix, with alluvial pebbles (Context 23) similar to those encountered in Trenches F20, F30-31 and F39-40 (Figure E.15).

Quadrats I and II were then sectioned down (Context 29) about 30 centimetres to the sterile yellow-brown clay subsoil. Sectioning revealed a narrow (1-2 centimetre) band of charcoal sandwiched between a grey brown silt lens and a clean dark grey-brown silt that graded into the yellow-brown clay.

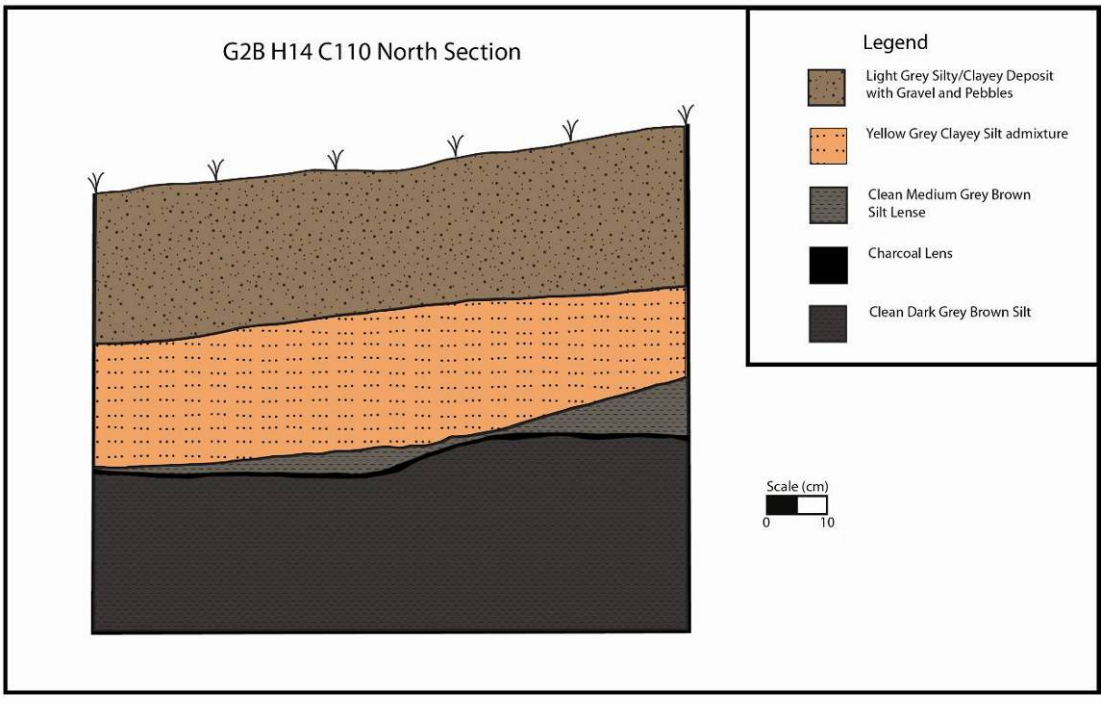


Figure E.15 Soil profile at northern end of Trench C110.

E.13 Trench E120

Following removal of the turf (Context 1), this trench was sectioned down to the clay subsoil through removal of arbitrary Context 24, which cut through a relatively thick cap of gravelly clay fill (15-20 centimetres) and a dark charcoal rich clay loam grading into a sterile yellow-brown clay at an average depth of 60-70 centimetres below the current ground surface.

Appendix F

Artefact inventory from G2B H14 test pit excavations

Artefact inventory from G2B H14 test pit excavations

Key to abbreviations:

C	Cylindrical
D	Diameter
Deco	Decoration
EW	Earthenware
F	Flat
H	Height
L	Length
M	Melted
O	Octagonal
RD	Rim diameter
sh	Shoulder
TRF	Transfer
W	Width

F.1 G2B H14 Ceramics catalogue

Cat	Square	Context	Ware	Deco	Form	Part	No	Weight	Description
1012	A-C64	22	Stoneware	Brown Glaze	Bottle	body	1	10.3	Black TRF label: 'THIS BOTTLE IS'.
1011	B100	41	Porcelain		Insulator	rim-sh	5	23.8	RD=2.5".
1013	B-C64	22	Porcelain		Cup	body	1	2.3	
1014	B-C64	22	Stoneware	Brown Glaze	Bottle	Finish	1	5.3	Crown type finish on a Ginger beer bottle.
1015	B-C64	22	Stoneware	Brown Glaze	Bottle	body	6	17.1	Black TRF label: 'Y O' in circular field.
1002	C50	42	Ew		Plate	sh	2	12	
1007	C64	22	Stoneware	Brown Glaze	Bottle	Finish	4	15.1	Crown type finish on a Ginger beer bottle, BD=3/4".
1008	C64	22	Stoneware	Brown Glaze	Bottle	body	7	55	Black TRF label: star then 'L' and also 'LO' all in a circular field.
1010	C79	32	Ew	Black TRF	Cup	body	1	1.2	Partial pattern.
1016	D100	27	Porcelain	Grey glaze	Insulator	whole	1	275	RD=3.25", base D=1.75", H=3.25". Inner rim D=2". The inside features a threaded socket where the insulator would be attached. Around the middle of the insulator is a furrow where copper wire is attached.
1001	F20	9	Ew	Banded Blue	Plate	rim-sh	1	11.1	RD=9".
1003	F39	8	Stoneware	Brown Glaze	Pipe	body	1	470.3	D=5.5"
1004	F39	14	Stoneware	Brown Glaze	Pipe	body	5	308.7	D=5.5"
1005	F39	14	Porcelain		Unk	body	1	0.4	
1006	F39	14	Stoneware	Brown Glaze	Unk	Corner	1	13.6	Corner of an octagonal shaped item? Scuffed.
1009	F39	14	Stoneware	Brown Glaze	Pipe	body	2	767.7	D=5.5"
						Total	40	1988.9	

F.2 G2B H14 Glass catalogue

Cat	Square	Context	Form	Shape	Part	Colour	Tinge	No	Weight	Description
2061	A-C64	22	Bottle	C	body	amber		2	1.1	Embossed label: 'M'.
2062	A-C64	22	Bottle	C	base	amber		1	0.6	Mould made - Resting point seam.
2063	A-C64	22	Bottle	C	body	clear		3	4.0	Orange peel striations.
2069	A-C64	22	Lamp	C	sh	clear		1	0.5	
2070	A-C64	22	Bottle	C	body	green	olive	2	3.0	Orange peel striations.
2067	B100	40	Bottle	C	sh	clear		1	2.4	Embossed deco (sh): horizontal rib. Orange peel striations.
2009	B61	30	Bottle	C	sh	amber		1	4.8	Mould made - vertical seam.
2010	B61	30	Bottle	C	sh	amber		1	2.3	Orange peel striations
2023	B61	30	Bottle	C	sh	clear		1	9.2	Applied - vertical striations.
2024	B61	30	Bottle	C	body	clear		1	8.8	Embossed label: partial.
2025	B61	30	Bottle	C	sh	amber		2	5.2	Embossed label: 'TL'.
2041	B95	33	Bottle	C	body	clear		3	20.2	Embossed label: 'OOL'. Embossed deco: horizontal rib.
2042	B95	33	Bottle	C	body	clear		2	6.5	Machine made.
2071	B-C64	22	Bottle	C	body	green	olive	1	3.2	Orange peel striations and blisters.
2072	B-C64	22	Window	F	body	clear		1	2.9	Thickness = 2.2mm.
2002	C110	1	Bottle	C	sh	amber		1	1.1	Orange peel striations
2033	C24	43	Bottle	C	body	amber		1	5.3	Orange peel striations
2034	C24	43	Bottle	C	finish	clear		3	17.4	Machine made external screw thread, BD=2".
2046	C50	42	Bottle	C	sh	green	olive	1	3.1	Orange peel striations.
2045	C60	2	Bottle	C	body	clear		10	4.8	Orange peel striations.
2027	C60	7	Window	F	body	clear		2	0.9	Thickness = 5.7mm. Car window?
2028	C60	7	Bottle	C	sh	amber		2	24.0	Machine made.

Cat	Square	Context	Form	Shape	Part	Colour	Tinge	No	Weight	Description
2039	C60	10	Bottle	C	body	amber		1	5.6	Orange peel striations.
2040	C60	10	Bottle	C	sh	clear	green	18	80.8	Mould made - two piece. Embossed labels: (sh) '& ICE' (body) 'E PROPE'.
2047	C61	12	Bottle	C	sh	amber		10	38.1	Mould made - vertical seam. Applied.
2048	C61	12	Bottle	C	sh	amber		2	6.3	Embossed label: 'OF'. Orange peel striations.
2049	C61	12	Bottle	C	whole	clear		24	50.5	Fragmented modern machine made bottle with external screw thread finish, BD=1.5". Has printed expiry date on sh.
2050	C61	12	Window	F	body	clear		1	0.8	Thickness = 5.7mm. Car window?
2016	C70	3	Bottle	C	body	clear		1	1.6	Orange peel striations
2017	C70	3	Window	F	body	clear		1	0.6	Thickness = 5.7mm. Car window?
2043	C70	4	Bottle	C	sh	amber		1	0.7	Embossed deco: four lines of dots. Orange peel striations.
2044	C70	4	Window	F	body	clear		2	2.3	Thickness = 5.7mm. Car window?
2054	C79	32	Bottle	C	body	clear		1	8.8	Machine made. Embossed label: 'THIS BOTT'/'RAN'. Embossed deco: horizontal rib.
2068	C79	32	Bottle	C	sh	clear		1	1.0	Embossed deco: raised grid pattern. Orange peel striations.
2074	C80	2	Window	F	body	clear		1	0.5	Thickness = 5.7mm. Car window?
2005	C80	28	Bottle	C	body	green	olive	1	6.4	NW Quad. Orange peel striations.
2026	C95	32	Bottle	O	base	clear		15	120.6	Machine made, D=2.25". Embossed labels: (body) 'GE' 'GILD' and other partial segments.
2031	C95	?	Bottle	C	body	clear		2	1.2	Orange peel striations.
2032	C95	?	Bottle	C	sh	clear		1	14.1	Mould made - vertical seam.
2008	D100	27	?	M	?	green		10	47.1	Fire damaged - melted.
2029	D100	27	?	M	?	green		2	10.5	Fire damaged - melted.
2030	D100	27	Bottle	C	body	green	olive	2	10.1	Orange peel striations and blisters.

Cat	Square	Context	Form	Shape	Part	Colour	Tinge	No	Weight	Description
2073	D100	27	?	M	?	green		8	46.4	Fire damaged - melted.
2006	E100	21	?	M	?	green		1	8.4	Fire damaged - melted.
2007	E100	21	Bottle	C	sh	amber		1	0.7	Orange peel striations
2004	F20	2	Bottle	C	body	clear		1	0.9	Orange peel striations
2064	F20	2	Bottle	C	body	green	olive	1	1.1	Orange peel striations. Scuffed.
2065	F20	2	Window	F	body	clear		1	1.0	Thickness = 2.0mm
2066	F20	2	Bottle	F	sh	clear	green	1	6.0	Embossed deco (sh): two rows of dots. Orange peel striations. Scuffed.
2003	F20	9	Bottle	C	body	green	light	1	8.9	Orange peel striations
2015	F20	9	Bottle	C	body	amber		1	1.6	Orange peel striations
2018	F20	9	Bottle	C	body	clear		1	4.6	Mould made - vertical seam.
2019	F20	9	Bottle	C	sh	clear		1	1.1	Moulded deco: horizontal ribs.
2035	F20	9	Bottle	C	push up	clear	green	1	14.7	Embossed maker's mark: hexagon with starburst in centre. Scuffed.
2036	F20	9	Bottle	F	sh	green	olive	2	3.2	Applied - vertical striations. Case bottle.
2037	F20	9	Bottle	O	cr	clear	green	1	3.4	Orange peel striations.
2038	F20	9	Bottle	C	body	clear		1	0.1	Orange peel striations.
2001	F20	15	Bottle	C	sh	green	light	1	6.2	Scuffed
2011	F20	15	Bottle	C	base	clear		1	0.8	Orange peel striations
2012	F20	15	Bottle	C	sh	clear		1	0.7	Orange peel striations
2013	F20	15	Bottle	C	base	green	light	1	10.7	Rounded heel, high conical push up, D=3". Scuffed.
2014	F20	15	Bottle	C	sh	green	light	2	2.9	Orange peel striations
2075	F30	6	Bottle	C	body	amber		1	9.2	Orange peel striations.
2020	F31	13	Bottle	F	body	clear	green	1	3.0	Orange peel striations
2021	F31	13	Bottle	C	body	amber		1	0.7	Mould made - vertical seam.
2022	F31	13	Bottle	C	sh	amber		1	0.9	Moulded deco: double line of dots.

Cat	Square	Context	Form	Shape	Part	Colour	Tinge	No	Weight	Description
2051	F39	8	Window	F	body	clear		1	0.8	Thickness = 5.7mm. Car window?
2052	F39	8	Bottle	C	sh	clear		1	8.5	Applied - vertical striations.
2053	F39	8	Bottle	F	finish	amber		6	27.4	Machine made external screw thread, BD=11/16". Embossed label (body): partial.
2058	F39	14	Bottle	C	base	green	olive	1	18.5	Heel seam, medium push up, D=2.5". Scuffed.
2059	F39	14	Bottle	C	sh	green	light	2	3.4	Scuffed
2060	F39	14	Bottle	F	body	amber		1	1.5	Orange peel striations.
2055	F40	5	Bottle	C	body	amber		1	1.6	Orange peel striations.
2056	F40	5	Window	F	body	clear		7	3.4	Thickness = 5.7mm. Car window?
2057	F40	5	Bottle	C	body	clear		1	0.8	Orange peel striations.
							Total	194	742.0	

F.3 G2B H14 Miscellaneous catalogue

Cat	Square	Context	Material	Function	Part	No	Weight	Description
3001	C60	10	Coke			1	2.2	Fragment of coke or carbon?
3002	F39	8	Mortar			1	10.6	Fragment of white mortar adhered to an unknown substance.
3003	F40	5	Plastic	Band	segment	1	0.2	White/grey. W=5/16".
3004	E64	16	Plastic	Cap	rim	1	0.2	Blue screw on cap with vertical fluting on outside.
3005	F30	2	Rubber	Tire Tread	Tread	1	5.2	
3006	B100	40	Wood			2	14.2	Lengths of natural wood.
3007	F30	11	Brick	Brick	edge	1	205.8	H=2+3/4".
3008	C79	32	Rubber	Tire Tread	edge	3	8.9	Engraved lines.
3009	F20	18	Brick	Brick	corner	1	32.9	
3010	B-C64	22	Plastic	Wire	Casing	1	0.4	Red wire casing D=1/16".
3011	D100	27	Wood			1	3.1	Length of natural wood.
3012	D100	27	Charcoal			1	22.3	
3013	C50	32	Brick	Brick	end	1	712.5	Hand made. H=2.5".
3014	C50	32	Brick	Brick	body	1	70.0	
3015	F20	18	Charcoal			3	33.0	
3016	E100	21	Charcoal			1	3.0	Sample 1
3017	F30	6	Brick	Brick	corner	2	48.4	Handmade.
3018	D80	32	shell	Jewellery	whole	1	5.0	Ground pendant L=1.25", W=1/2" with one rounded end and one flat end. The flat end has a drill hole, D=1/8", L=1/4" for attachment. Could have been from an earring or a necklace.
					Total	24	1177.9	

F.4 G2B H14 Metal catalogue

Cat	Square	Context	Element	Form	Part	No	Weight	Description
4005	A-C64	22	Lead/copper	Pipe	Lengths	2	2.3	Squashed. Lead pipe casing and red plastic casing for copper wire? Lead casing D=1/8".
4006	A-C64	22	Lead/Brass	Pipe	Length	1	25.2	Lead casing for a brass wire which also has a cotton threaded cover. D=3/8".
4008	A-C64	22	Lead	Pipe	Length	1	7.5	Squashed and bent with a protective white coat. D=1/8".
4007	B100	41	Brass	wire	Lengths	4	2	D=1/32". From ceramic insulator?
4001	B95	33	Iron	Bracket	half	1	24.5	Very corroded, bracket type clasp semi circular in shape with flat end. Perhaps with a nail or bolt still attached.
4009	B-C64	22	Lead/Brass	Pipe	Lengths	2	40.7	Lead casing for a brass wire which also has a cotton threaded cover. D=3/8".
4002	C64	22	Lead	Pipe	Lengths	4	32.2	Squashed and bent. Diameter between 1/8" and 3/16". Has a white protective coat.
4003	C64	22	Lead	slag		1	3.5	Fire damaged - melted blob.
4012	C64	22	Iron	Horseshoe	half	1	90.6	Very corroded. L=5".
4010	C95	32	Iron	Hinge	half	1	664.6	Very corroded. L=7.5", W=1.25".
4015	D100	27	Iron	washer	whole	1	51.1	Very corroded. D=1.75".
4016	D100	27	Iron	Bolt	shaft-point	1	2.1	Very corroded. Threaded end.
4017	D100	27	copper	wire	lengths	7	8.3	Original attached to insulator. D=1/8".
4004	F20	2	Iron	Nail	shaft-point	4	28.8	Very corroded. These could be wire nails or simply lengths of wire.
4013	F20	2	Iron	Bolt	whole	1	36.1	Very corroded, L=2.5". Has threaded end.
4014	F20	2	Iron	washer	whole	1	8.7	Very corroded. D=1".
4011	F20	9	Iron	Nail	Head-shaft	1	6.1	Very corroded. Probably a wire nail.
4018	F30	6	Brass	?	edge	2	0.3	Very thin circular edges of some object. Edge features an embossed band of dots around it. Could be from some form of jewellery or a cog from a watch?
					Total	36	1034.6	

Appendix G

Detailed descriptions of field recordings

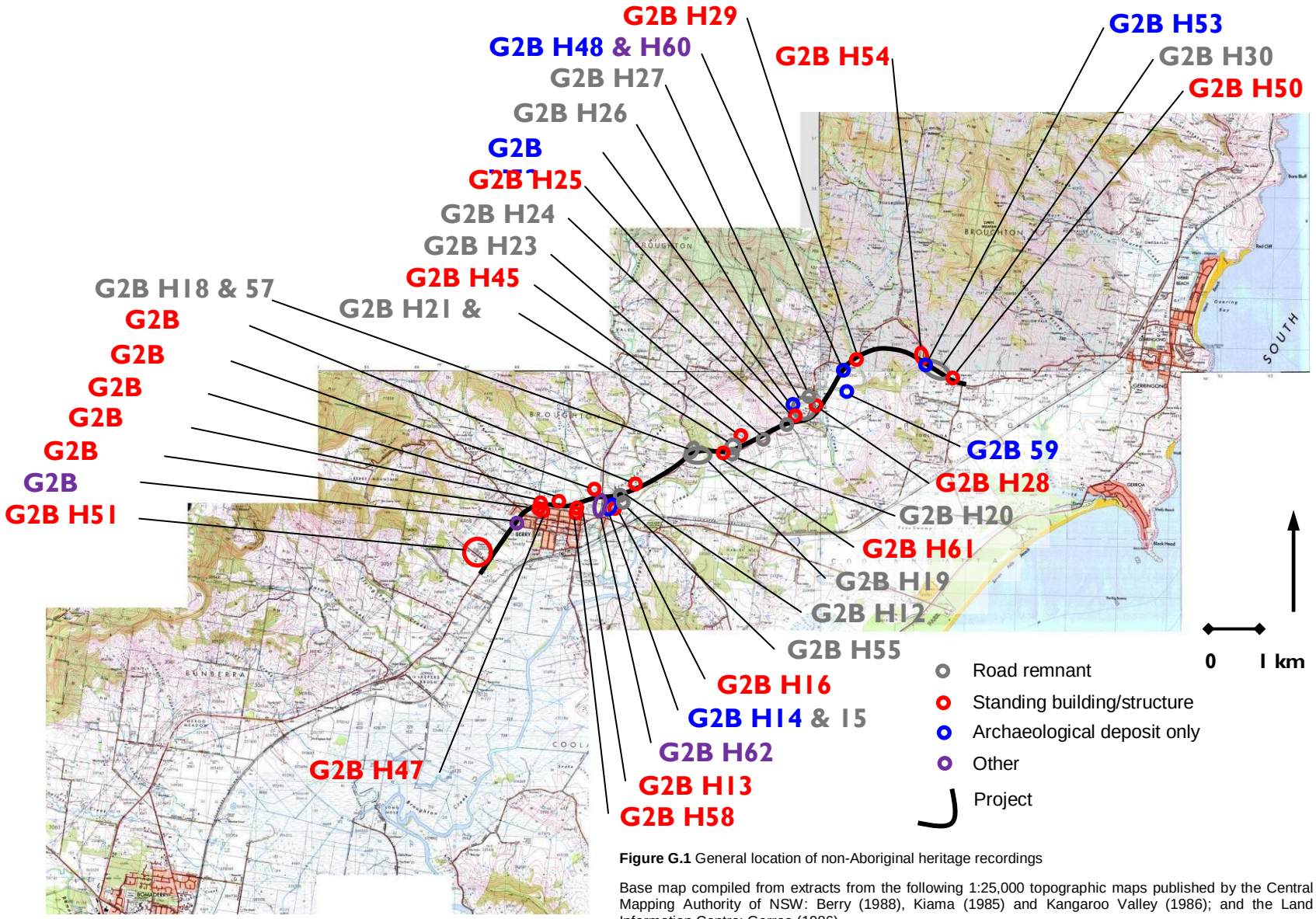


Figure G.1 General location of non-Aboriginal heritage recordings

Base map compiled from extracts from the following 1:25,000 topographic maps published by the Central Mapping Authority of NSW: Berry (1988), Kiama (1985) and Kangaroo Valley (1986); and the Land Information Centre: Gerroa (1986).

G.1 Nineteenth century road remnants

Recording ID: G2B H19		**GDA Map Reference:**	**291567.6150828 to 291987.6150902**
Name/Description:	**Remnant of Berry Estate road (c.1858 – 1870s)**	*Cadastral Location*:	Lot 13 DP1098617 Lot 4 DP801512
		Street address:	A200B Princes Highway & A350 Princes Highway Berry
Item/Site Type:	Nineteenth Century Berry Estate Road		

Context/setting:	Road remnant is situated along the crest of a low spurline, aligned northeast – southwest, which descends off the Broughton Creek Broughton Mill Creek watershed (at SW end), to the northeast. Both ends of the remnant meet the easement of the current highway, to either side of its intersection with Tindalls Lane.
Description/fabric:	This site consists of a remnant and straight section of former road platform approximately seven to eight metres wide. The platform is discernible through slight changes in ground surface relief, and in some places has a faint ditch and/or bank along its margins. The platform can be best discerned in the Lot containing forest regrowth at the eastern end of the remnant. Aerial photography is required to trace the alignment through the adjacent pasture. The nature of any subsurface evidence for the road is not known.
Dimensions:	Remnant road alignment is approximately 430 metres long and up to 10 metres wide, and aligned 82 degrees (grid north).
Physical condition:	The surface evidence for the road remnant is mostly vestigial. The surface evidence for this ground feature has been substantially impacted by ploughing, tilling and other agricultural processes.
Integrity:	This remnant has been impacted by a later nineteenth century road platform at its western end (G2B H18), and elsewhere by ploughing/tilling, fencing and tree regrowth. Although these impacts have reduced the clarity and definition of the site, its characteristics where discernible are likely to relate to the original road platform.
Associated features:	A remnant portion of a later nineteenth century road platform (G2B H18) is situated at the western end of this remnant.
Current use:	Lot 13*:* Grazing pasture grassland, being part of an active dairy farm, possible periodic cropping. Lot 4: Rough grazing, regenerating low forest.
Heritage listings:	no current listings

Historical background/interpretation:

The identification of this site as a remnant portion of the 1856 – 1870s Berry Estate road is based on the following reasons (in order of importance):

1. The likelihood that the landform context provided the most expedient alignment option for the road (given the resource, strategic and technological constraints of the road).
2. The nature and form of the remnant.
3. The association (via proximity or alignment) of the remnant to contemporary occupation or service features.
4. The proximity of the remnant to the mapped location of the original road as shown on the 1866 County map (Figures 5.15, 5.16 and 5.20).

Despite pressure from residents and Alexander Berry to extend the road formalised in 1834 between Appin and Saddleback Mountain, to the Shoalhaven, little government action was forthcoming. In 1856, Surveyor Shone was required to mark a line from Gerringong to Broughton Valley and to report on the expediency of extending the line to Bomaderry. Following further inaction, Alexander Berry took the initiative, and privately constructed a road across his estate lands from Gerringong to Broughton Creek (Berry) and later to Bomaderry by 1858 (JME 1951:81; Cousins 1948:105).

It is this private road that is presumably shown on an 1866 map of the County of Camden. The Berry Estate road was distinctive in its use of long straight sections, which often traversed steep spurs and ridges without apparent regard for the consequentially steep gradients. The straight and sometimes steep nature of the road may be explained by:

- The need to minimise length and consequential costs.
- Pressure to establish a road link in a minimal time period.
- The absence of cadastral or land ownership limitations which would otherwise require deviations and bends.
- The predominant early use of bullock teams to convey produce, and thus a greater tolerance of moderate gradients.

On the 9th August 1858, the *Illawarra Mercury* reported that a road was to be proclaimed from Gerringong to the head of Broughton Creek. It was to be maintained at the expense of the parishes which it traversed.

In the period between Berry's original construction of the estate road and the 1890s, the further development of the road by the local Councils resulted in a longer and more angular alignment, involving switch-backs and deviations around spurs. The elaboration and revision of Berry's originally straight alignments appears to have been a consequence of establishing more gradual grades, suitable for horse drawn vehicles, and complying with various farm boundaries and related cadastre. By this time, most of the latter were now freehold title following the break up and sale of the Berry Estate.

Figure G.2 General view across road remnant (approximate alignment marked in yellow), looking SW

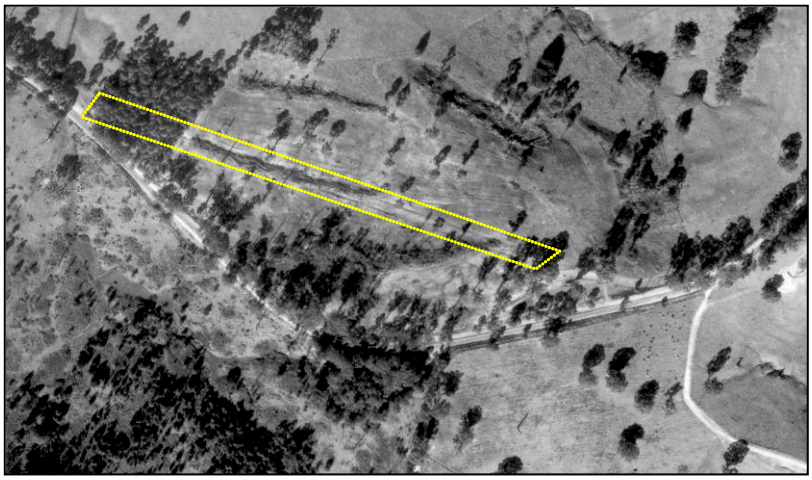
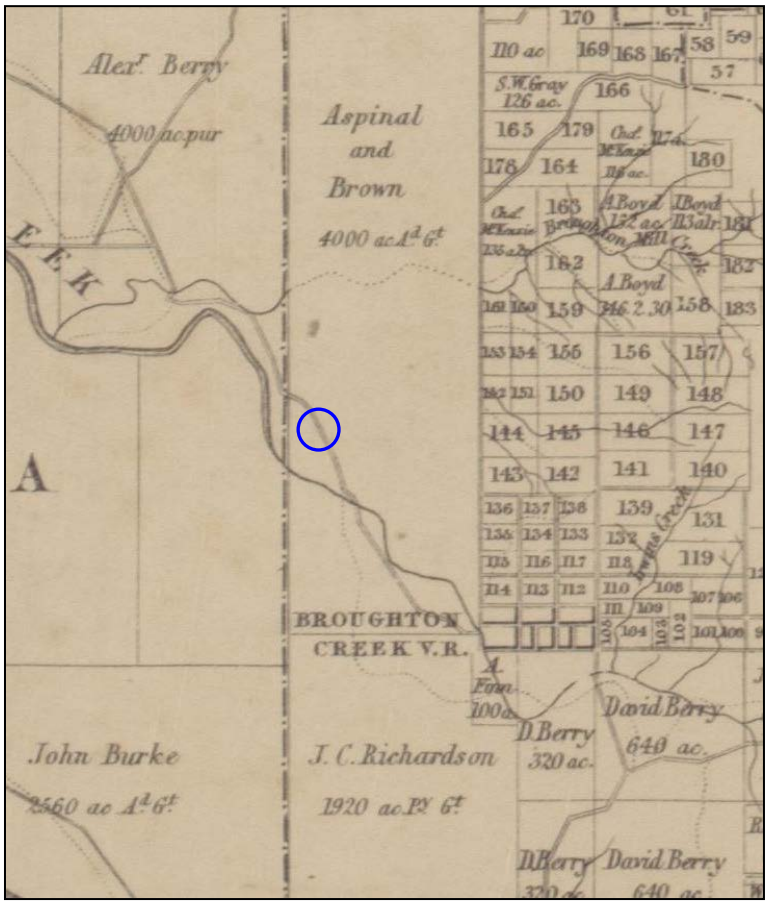


Figure G.3 Road remnant visible on 1958 aerial photo (outlined in yellow), (NSW 699-5032, SH.I Dapto-Ulladulla Run GK11 23/07/58)

Figure G.4 Aerial image (2006) of area of road remnant (outlined in yellow), in 2006 (Google Earth Pro 2011)

Figure G.5 Approximate location of road remnant relative to road alignment as shown on 1866 County map (County of Camden, National Library of Australia (Braddock and Baly 1866))



Recording ID: G2B H22		**GDA Map Reference:**	**292713.6151056 to 292596.6151024 to 292425.6150991 to 292296.6150888**
Name/Description:	**Remnant of Berry Estate road (c.1856 – 1870s)**	*Cadastral Location*: Street address:	Lot 12 DP1098617 A371 Princes Highway Berry
Item/Site Type:	Nineteenth Century Berry Estate Road		

Context/setting:	Road remnant consist of a traverse across the crest and upper and midslopes to either side of a low spurline, aligned northwest – southeast, and forming part of the lower northern fall of the Broughton Creek valley. The remnant is truncated at either end by the current highway which diverges up to 60 metres downslope of the remnant alignment.
Description/fabric:	This site consists of a 460 metre road alignment in three angled sections. The middle section, which traverses east facing upper slopes and the crest is 172 metres long, and contains 110 metres of relatively well defined platform associated a minor cutting, approximately seven to eight metres wide. Elsewhere the road platform is discernible through slight changes in ground surface relief, and traces of the side ditches. The nature of any subsurface evidence for the road is not known.
Dimensions:	Remnant road alignment has the following approximate sections (east to west): 120 metres 225 degrees (grid north) 172 metres 261 degrees 168 metres 233 degrees
Physical condition:	The surface evidence for this road remnant ranges from vestigial to relatively distinct shallow surface relief and upslope cutting. The sections either side of the middle have become indistinct through ploughing, tilling and forest regrowth (western section).
Integrity:	The middle section of this remnant has been kept open through modern use as a farm track. Despite this, its characteristics are likely to relate to the original road platform. The remaining sections are vestigial.
Associated features:	A remnant and incised portion of a later nineteenth century road platform (G2B H22) is situated immediately downslope of the middle section of this remnant.
Current use:	A rough farm track along the middle section is still being used for access across enclosed pastures. The remaining sections support agricultural grassland and regenerating forest.
Heritage listings:	Included within property definition for Glenvale homestead on Shoalhaven LEP (as amended) Schedule 7, but not specifically identified.

Historical background/interpretation:

The identification of this site as a remnant portion of the 1856 – 1870s Berry Estate road is based on the following reasons (in order of importance):

1. The proximity of the remnant to the mapped location of the original road as shown on the 1866 County map (Figures 5.15, 5.16 and 5.20).
2. The nature and form of the remnant.
3. The association (via proximity or alignment) of the remnant to contemporary occupation or service features.
4. The likelihood that the landform context provided the most expedient alignment option for the road (given the resource, strategic and technological constraints of the road).

Refer also section in G2B H19 for general historical background

Figure G.6 General view along road remnant from near eastern end (approximate alignment marked in yellow), looking W

Figure G.6 Road remnant visible on 1958 aerial photo (outlined in yellow), (NSW 699-5031, SH.I Dapto-Ulladulla Run GK11 23/07/58)

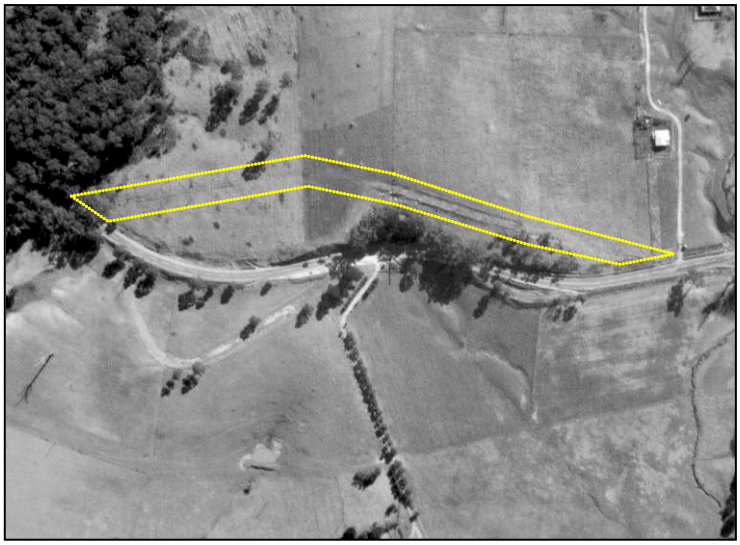
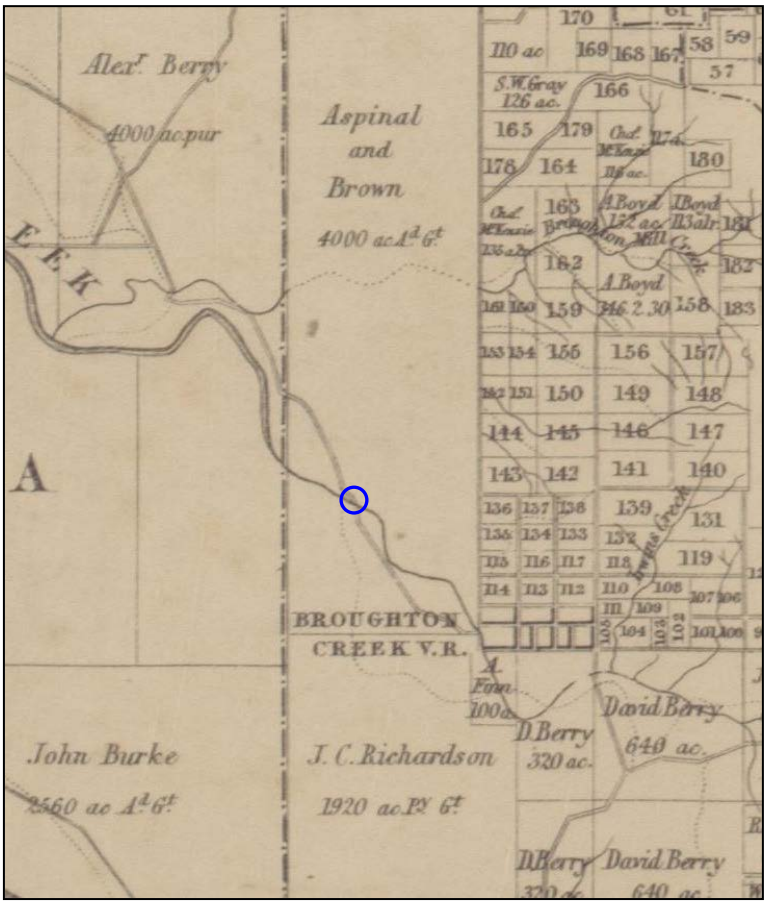


Figure G.8 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

Figure G.9 Approximate location of road remnant relative to road alignment as shown on 1866 County map (County of Camden, National Library of Australia (Braddock and Baly 1866))



Recording ID: G2B H23		**GDA Map Reference:**	**293162.6151296 to 292911.6151149**
Name/Description:	**Probable remnant of Berry Estate road (c.1856 – 1870s)**	*Cadastral Location*: Street address:	Lot 12 DP1098617 A371 Princes Highway Berry
Item/Site Type:	Nineteenth Century Berry Estate Road		

Context/setting:	Road remnant is a straight traverse across both sides and crest of a low spurline, aligned north – south, and forming part of the lower northern fall of the Broughton Creek valley. The current highway alignment connects with either end of the remnant and loops around to the south, forming a more gradual and consistent vertical alignment.
Description/fabric:	This site consists of a remnant and straight section of former road platform and associated side ditches approximately 10 metres wide. The ditches to either side of the platform are discernible through slight changes in ground surface relief, and the colour and height of the grass cover, depending on light and growth conditions. This feature is best seen from aerial photography. The nature of any subsurface evidence for the road is not known.
Dimensions:	Remnant road alignment is approximately 320 metres long and up to 12 metres wide, and aligned 61 degrees (grid north). The road platform ranges in width from seven to eight metres.
Physical condition:	This is the best and longest conserved section of the road where there are no sections of cutting or benching to indicate the alignment. It is probable that tilling and cropping has reduced the original relief and definition of the feature. One fence line crosses the feature near the spur crest.
Integrity:	Apart from some impact from possible tilling or ploughing, this remnant appears to conserve characteristics which are likely to relate to the original road platform.
Associated features:	-
Current use:	Grazing pasture grassland
Heritage listings:	Included within property definition for Glenvale homestead on Shoalhaven LEP (as amended) Schedule 7, but not specifically identified.

Historical background/interpretation:

The identification of this site as a remnant portion of the 1856 – 1870s Berry Estate road is based on the following reasons (in order of importance):

1. The nature and form of the remnant.
2. The proximity of the remnant to the mapped location of the original road as shown on the 1866 County map (Figures 5.15, 5.16 and 5.20).
3. The likelihood that the landform context provided the most expedient alignment option for the road (given the resource, strategic and technological constraints of the road).

Refer also section in G2B H19 for general historical background

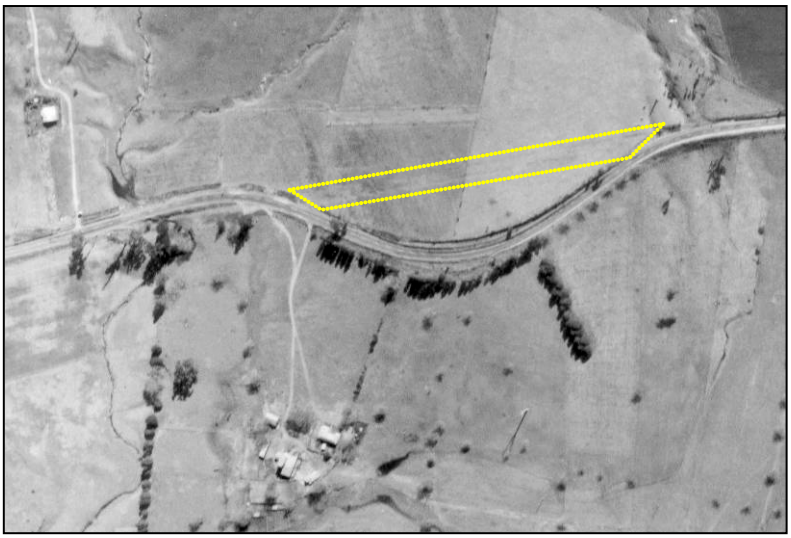


Figure G.10 Road remnant visible on 1958 aerial photo (outlined in yellow), (NSW 699-5029, SH.I Dapto-Ulladulla Run GK11 23/07/58)

Figure G.11 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

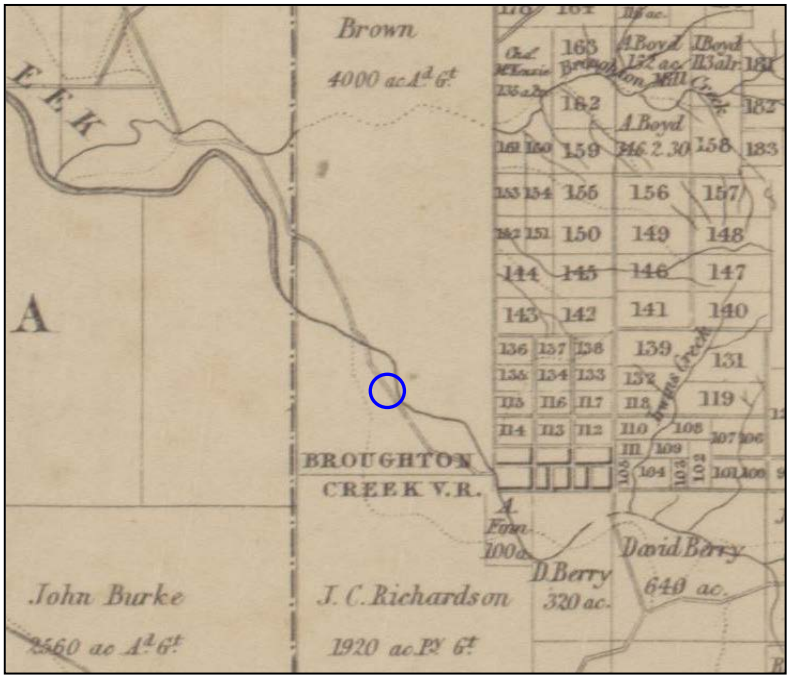


Figure G.12 Approximate location of road remnant relative to road alignment as shown on 1866 County map (County of Camden, National Library of Australia (Braddock and Baly 1866))

Recording ID: G2B H27		**GDA Map Reference:**	**293988.6152199 to 293974.6152006 to 293742.6151753**
Name/Description:	**Remnant of Berry Estate road (c.1856 – 1870s)**	*Cadastral Location*:	Lot 2 DP593476 Lot 1 DP919179
		Street address:	A441 Princes Highway & A540 Princes Highway Broughton Village
Item/Site Type:	Nineteenth Century Berry Estate Road		

Context/setting:	Road remnant is situated at the southern margin of Broughton Village and traverses two minor spurs, separated by a minor gully, and a minor tributary stream and its associated flats. The spurs are aligned northwest – southeast and form part of the lower northern fall of the Broughton Creek valley. The remnant is situated to the west of the current highway, adjacent to a section known locally as "the big dipper".
Description/fabric:	This site consists of three straight sections of road platform separated by two sharp corners. The net length of remnant is approximately 550 metres. The northern section is poorly defined and a modern farm track currently follows this alignment. The middle section is clearly discernible due to cutting and benching, and descends (SW) to a creek crossing which has been modified by a subsequent (and now disused) highway alignment (G2B H26) and later realignments of the creek bed. The southernmost section of the remnant is vestigial only, with slight ground relief indicating side ditches. The nature of any subsurface evidence for the road is not known.
Dimensions:	The lengths and alignments are, from north to south: 190 metres, 185 degrees (grid north); 260 metres, 232 degrees; and 100 metres, 203 degrees. The total length of the remnant road alignment is approximately 550 metres long. The width of the platform and associated earth works varies from eight to 15 metres.
Physical condition:	The surface evidence for this road remnant is variable and ranges from shallow surface relief to a defined earthen platform bordered by defined slope cuttings or benching. The middle portion is well preserved and clearly discernible, the northern and southern sections are vestigial.
Integrity:	The alignment has been impacted by on-going farm use as a vehicle track (this has also kept the track clear of vegetation), creek bank erosion, probable ploughing and tilling (especially on the creek flats), subsequent construction of a later nineteenth century highway platform (which re-uses part of the alignment and associated creek crossing). Two fence lines cross the alignment. The northern section may have little remaining original evidence, given its vestigial condition prior to its current use as a farm track. Despite these impacts, this remnant includes the best and most representative surviving cut and benched section, and the best interpretative context.

Associated features:	Integral to this interpretation and historical context of this feature is a subsequent highway alignment (G2B H26), which superseded the original road, and which probably dates from the 1870s or 1880s. It was superseded in the 1930s by the current highway. The 1870s-80s alignment is situated downslope of the middle section of the original Berry Estate road, and then joins and overlays the platform near the southern end of the middle portion, including the creek crossing. It forms a tight bend just south of the creek crossing and this was known as "Binks Corner" after the owners of the property (then and now). Immediately to the west of this tight corner there was formerly situated a Berry estate tenant farm, occupied in the 1890s by a "Mrs Wiley" (G2B H52). The Sedgeford homestead (G2B H25) is a post Berry Estate homestead, in a similarly original association with the later highway alignment (G2B H26). All of these recordings form a complex, which, as a group have value in understanding and interpreting the evolution of the highway, its various alignments, and its interrelation with adjoining land holdings and homesteads.
Current use:	The northern and middle sections are being used as farm tracks, for access to and enclosed pastures.
Heritage listings:	no current listings

Historical Background/Interpretation:

The identification of this site as a remnant portion of the 1856 – 1870s Berry Estate road is based on the following reasons (in order of importance):

1. The proximity of the remnant to the mapped location of the original road as shown on the 1866 County map (Figures 5.15, 5.16 and 5.20).
2. The nature and form of the remnant.
3. The association (via proximity or alignment) of the remnant to contemporary occupation or service features.
4. The likelihood that the landform context provided the most expedient alignment option for the road (given the resource, strategic and technological constraints of the road).

Refer also section in G2B H19 for general historical background

Figure G.13 General view, looking NW towards road remnant (approximate alignment marked in yellow, later highway alignment (G2B H26 shown in blue)

Figure G.14 Closer view of best preserved, cut and benched, middle section of the remnant road (alignment indicated by yellow dotted line), looking W.

Figure G.15 Road remnant visible on 1958 aerial photo (outlined in yellow), A later nineteenth century highway alignment, including "Binks Corner" is shown in blue (NSW 699-5028, SH.I Dapto-Ulladulla Run GK11 23/07/58)

Figure G.16 Aerial image showing road remnant (outlined in yellow) in 2006. A later nineteenth century highway alignment, including "Binks Corner" is shown in blue (Google Earth Pro 2011)

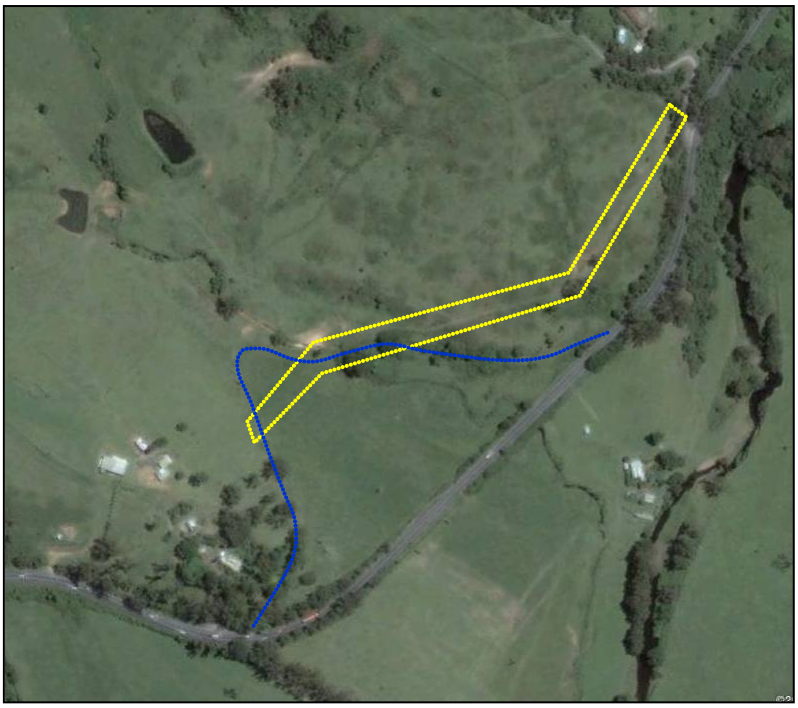
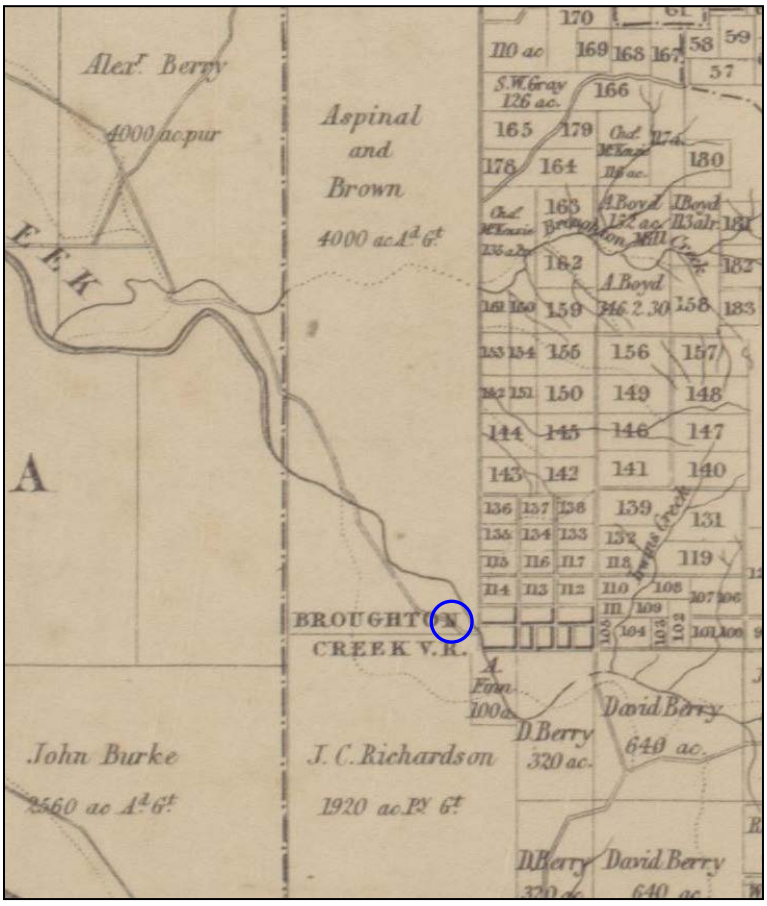


Figure G.17 Approximate location of road remnant relative to road alignment as shown on 1866 County map (County of Camden, National Library of Australia (Braddock and Baly 1866))



Recording ID: G2B H30		**GDA Map Reference:**	**296738.6152431 to 296277.6152706**
Name/Description:	**Remnant of Berry Estate road (c.1856 – 1870s)**	*Cadastral Location*:	Lot 10 DP857480 Lot 1 DP1014800
		Street address:	- Toolijooa
Item/Site Type:	Nineteenth Century Berry Estate Road		

Context/setting: Road remnant is situated along the crest of a prominent spurline which forms part of the eastern fall of Toolijooa Ridge. The spurline is aligned northwest – southeast. The eastern end of the remnant joins the current highway easement approximately 270 metres west of its intersection with Toolijooa Rd. The road remnant is located to the south of the current highway, and always situated on the crest of the spur, which forms an extended shoulder formation, after a relatively steep ascent at the eastern end.

Description/fabric: This site consists of two sections of road platform, joined by a gentle curve. The net length is approximately 530 metres. The best defined section is on the higher gradient slope at the eastern end, where side ditches and a distinct (earthen) road platform is evident. A rough avenue of Eucalyptus trees survives on either side of this section, for a distance of approximately 50 metres. The trees appear to be too young and low in height to be original road verge vegetation. A low cut along the upslope side of the road, (of up to 0.4 metres) is evident at the eastern end of the shoulder, and along the upper portion of the slope to the east. The middle and western portions of the remnant alignment are less distinct but include discontinuous, low relief, sections of side ditching and earth platform.

To the west of the fence line, which marks the current western end of this recording, there is a distinct road alignment within a narrow cutting (approximately 0.5 metres deep) which has been excavated into a stone rubble rich substrate. The alignment of this platform probably follows the original road alignment, and joins a modern sealed driveway 10 metres west of the fence line. It is thought likely that the excavation in this section is a more recent feature, but an original age cannot be fully discounted.

The nature of any subsurface evidence for the road is not known.

Dimensions: The curved alignment can be approximated by two lengths: (eastern end) 160 metres 96 degrees (grid north); (middle and eastern portions) 370 metres, 313 degrees. The width of the platform and associated earth works varies from 8 to 16 metres. The platform width ranges from 7 to 8 metres.

Physical condition: The surface evidence for this road remnant is variable and ranges from shallow surface relief to a defined earthen platform bordered by defined slope cuttings and side ditches. The eastern portion is well preserved and clearly discernible, the middle and western sections are less distinct and has been impacted in places by tracks created by farm vehicles. One fence line crosses this alignment.

Integrity: The alignment has been impacted by erosion, and by on-going farm use of informal tracks that cross or follow the original platform. The impact of ploughing and tilling appears to be limited. Overall this site displays minimal disturbance from subsequent use as a farm track or subsequent road development. The features of this site are likely to relate to the original road platform.

Associated features:	Thirty metres to the west of this site is a low linear mound of rock rubble (basaltic bedrock) which runs adjacent and parallel to the northern side of a modern sealed driveway which follows the alignment of the original Berry estate road. This feature forms part of recording G2B H53, the site of a former Berry Estate tenant farm) however its origin and relationship to the roadway is not clear. It may be the remains of an agricultural dry stone wall, the residue from the demolition of a former Berry Estate tenant farm, or alternatively, it may be a waste pile of excavated rock created during the late nineteenth century construction of the current highway alignment 30 metres downslope.
Current use:	Grazing pasture grassland.
Heritage listings:	no current listings

Historical background/interpretation:

The identification of this site as a remnant portion of the 1856 – 1870s Berry Estate Road is based on the following reasons (in order of importance):

1. The proximity of the remnant to the mapped location of the original road as shown on the 1866 County map (Figures 5.15, 5.16 and 5.20).
2. The likelihood that the landform context provided the most expedient alignment option for the road (given the resource, strategic and technological constraints of the road).
3. The nature and form of the remnant.

Refer also section in G2B H19 for general historical background

Figure G.18 General view of eastern end of remnant, looking NW (approximate alignment marked in yellow), Toolijooa Rd in foreground

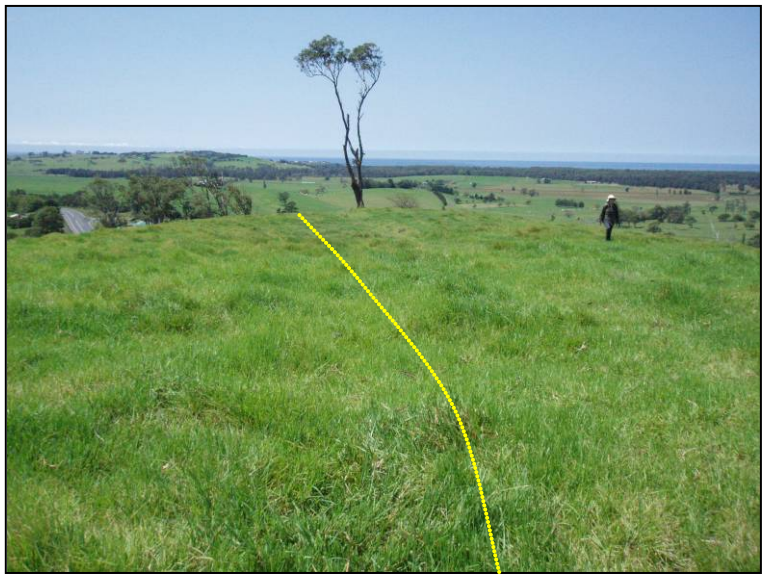


Figure G.19 View looking SE across crest of spur with remnant road platform in foreground (approximate alignment marked in yellow)

Figure G.20 View, looking E towards Toolijooa Rd intersection, along remnant road platform at eastern end of site, Note tree avenues and ditches on either side (approximate alignment marked in yellow)

Figure G.21 View of remnant road section where side ditches are evident , looking NW

Figure G.22 Road remnant visible on 1958 aerial photo (outlined in yellow), A later nineteenth century highway alignment, including "Binks Corner" is shown in blue (NSW 699-5028, SH.I Dapto-Ulladulla Run GK11 23/07/58)

Figure G.23 Aerial image of area of road remnant (outlined in yellow), in 2006. A later nineteenth century highway alignment, including "Binks Corner" is shown in blue (Google Earth Pro 2011)

Figure G.24 Extract from 1839 (and later amendments), Crown Plan 56-672, showing alignment of Berry Estate road and later 1870s – alignment (G2B H30 section shown by dotted blue line overlay)

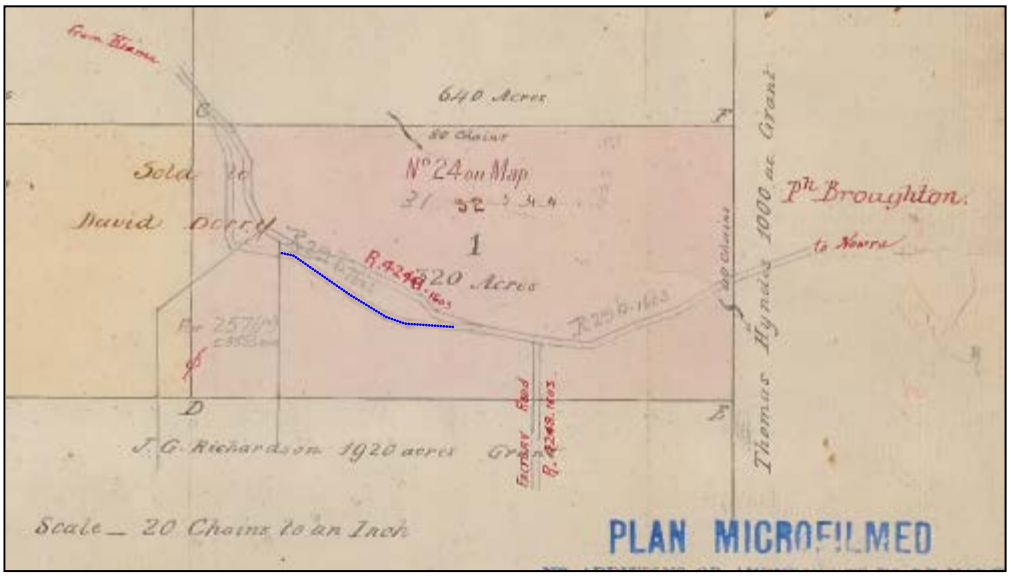


Figure G.25 Approximate location of road remnant relative to road alignment as shown on 1866 County map (County of Camden, National Library of Australia (Braddock and Baly 1866))

Recording ID: G2B H55		**GDA Map Reference:**	**290246.6149973 to 290172.6149916**
Name/Description:	**Remnant of Berry Estate road (c.1856 – 1870s)**	*Cadastral Location*: Street address:	Lot 3 DP 1081231 A40A Princes Highway Berry
Item/Site Type:	Nineteenth Century Berry Estate Road		

Context/setting:	The road remnant is situated 500 metres east of the Broughton Mill Creek bridge along the current highway, and between 10 and 20 metres to the south of the edge of the cutting batter opposite the wayside stop. The remnant is located along the crest and upper slopes of a descending spurline which forms the watershed between Broughton and Broughton Mill Creeks. This watershed is aligned northeast - southwest.
Description/fabric:	This site consists of a remnant and straight section of former road platform approximately 7 to 8 metres wide. The upslope (northern) side of the remnant is defined by varying degrees of shallow cutting into the hill slope, with corresponding benching evident on the downslope side. . The nature of any subsurface evidence for the road is not known.
Dimensions:	Remnant road alignment is approximately 100 metres long and up to 10 metres wide, and aligned 233 degrees (grid north).
Physical condition:	The surface evidence for this road remnant consists of relatively distinct ground surface relief, However there has been a degree of erosion in the past across the inclined platform and along the ditch on the upslope side of the platform. The erosion hazard of run-off has been managed by the excavation of a number of channels from the ditch across the platform and downslope. This has significantly impacted the road remnant
Integrity:	Although this remnant is easily discerned due to the significant relief of its features, the integrity of the site has been substantially reduced due to the construction of side drains to control run-off.
Associated features:	Archaeological deposits (G2B H14) associated with the original and pre 1950s highway alignment, situated 100 metres further to the west.
Current use:	Grazing pasture grassland
Heritage listings:	no current listings

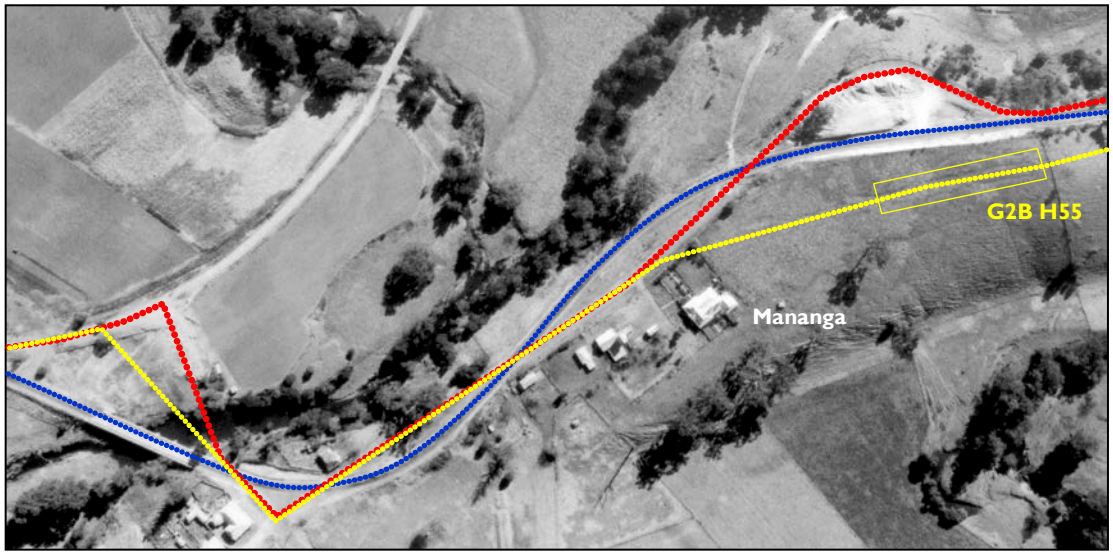
Historical background/interpretation:

The identification of this site as a remnant portion of the 1856 – 1870s Berry Estate road is based on the following reasons (in order of importance):

1. The likelihood that the landform context provided the most expedient alignment option for the road (given the resource, strategic and technological constraints of the road).
2. The nature and form of the remnant.
3. The association (via proximity or alignment) of the remnant to contemporary occupation or service features.
4. The proximity of the remnant to the mapped location of the original road as shown on the 1866 County map (Figures 5.15, 5.16 and 5.20).

It remains possible that this road remnant relates to a later period, conceivably for farm access after the 1950s re-alignment of the northern highway approach into Berry. The main reasons for discounting a later origin are:

- The form of the road (a platform with prominent side ditches), which matches the other estate road remnants.
- And the fact that the north eastern portion of the fenced front yard of the current *Mananga* homestead (built 1894) superimposes the original road platform. This strongly suggests that the remnant not only predates the current *Mananga*, but also the 1880s-1950s highway alignment to which the front yard enclosure relates (Figure G.26).



Original alignment - 1870s (refer Figure 4.10)

Alignment 1880s – 1950s (refer Figure 4.11 & 4.19)

Alignment mid 1950s - present

Figure G.26 Extract from 1958 aerial photograph showing northern highway entrance to Berry, with coloured overlays of current and previous highway alignments. Note the alignment of the Mananga homestead with the 1880s – 1950s alignment and the superimposition of the Mananga front yard over the original 1870s alignment. This strongly suggests that the G2B H55 road remnant relates to the original Berry Estate road which was constructed in 1856.

Refer also section in G2B H19 for general historical background

Figure G.27 Road remnant visible on 1958 aerial photo (outlined in yellow), (NSW 699-5036, SH.I Dapto-Ulladulla Run GK11 23/07/58)

Figure G.28 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

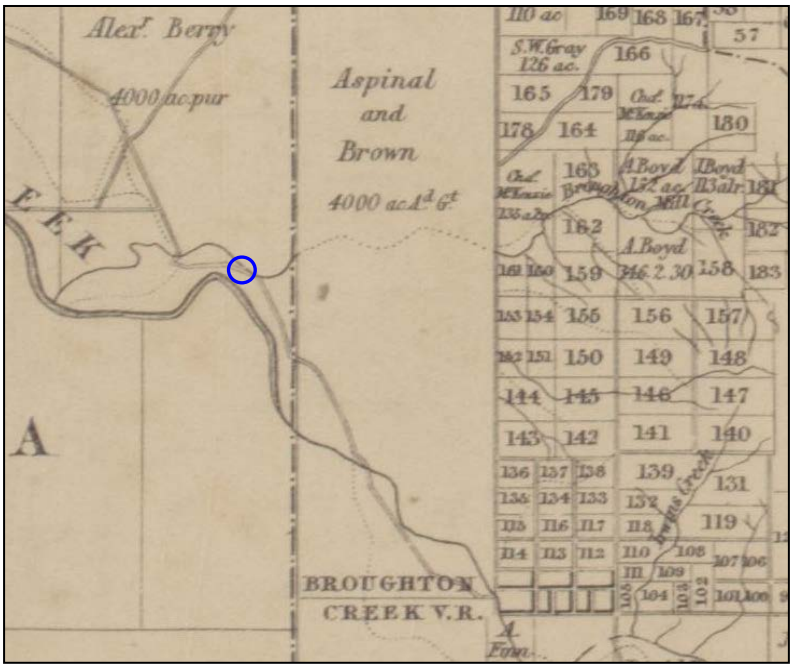


Figure G.29 Approximate location of road remnant relative to road alignment as shown on 1866 County map (County of Camden, National Library of Australia (Braddock and Baly 1866))

G.2 Twentieth century highway remnants

Recording ID: G2B H12		**GDA Map Reference:**	**290206.6149987 to 290097.6149908**
Name/Description:	**Remnant section of Princes Highway (Stewarts Hill, way-side stop)**	*Cadastral Location*:	Highway easement
		Street address:	- Berry
Item/Site Type:	Twentieth Century Highway Remnant		

Context/setting:	This remnant is located 460 metres east of the Broughton Mill Creek bridge, on the north side of the current highway, and located on the north side of the prominent spurline which forms the watershed between Broughton Mill and Broughton Creeks.
Description/fabric:	Bitumised highway platform in the form or a large curved loop. The downslope side of the platform is very steep and may have been built up with fill. Wooden post and wire mesh fencing along the downslope side of the platform may date from the 1950s. The inside of the loop formerly consisted of the natural northern upper slopes of the spurline. This has been quarried away during the construction of the current highway alignment. Until recently this area was used both as a materials and gravel dump for the highway, and an informal rest area. The whole area has recently been landscaped and developed as a way-side stop. Two memorial sculptures representing David and Alexander Berry have been installed as part of this re-development.
Dimensions:	170 x 40 metres
Physical condition:	The basic supporting earthworks and associated platform are in good condition. Apart from some remnant road side fencing, there is no original road furniture or other surviving features.
Integrity:	This remnant has little integrity as a 1950s highway corridor, due to quarrying impact from the adjacent 1950s highway upgrade, and the subsequent use of the area as a works area and materials dump.
Associated features:	A well preserved section of 1950s highway carriageway, also isolated by the 1950s upgrade, is located 40 metres to southwest, on the opposite side of the current highway (G2B H15).
Current use:	Landscaped way-side stop and commemorative sculpture area.
Heritage listings:	no current listings

Historical background/interpretation:

This remnant follows the 1870s to 1950s alignment of the Princes Highway. It ceased to form part of the active carriageway in the mid 1950s when the current highway alignment into Berry was constructed.

The first Edition Berry 1:25,000 topographic map shows the area as a picnic area.

Figure G.30 View showing the road corridor in the area of G2B H12 in the late 1890s, looking SW "Town of Berry from Stewarts Hill" Government Printing Office , 1898 (State Library of NSW d1_12472r.jpg; also Wollongong Library)

Figure G.31 View showing the road corridor in the area of G2B H12 in the late 1930s, looking SW "View of the town of Berry" (State Records of NSW 1937. 12932-a012-a012X2448000124.jpg)

Figure G.32 1949 aerial view of road remnants G2B H12 and G2B H15 (SVY552/NOWRA Run2(155-166) 4/4/1949)

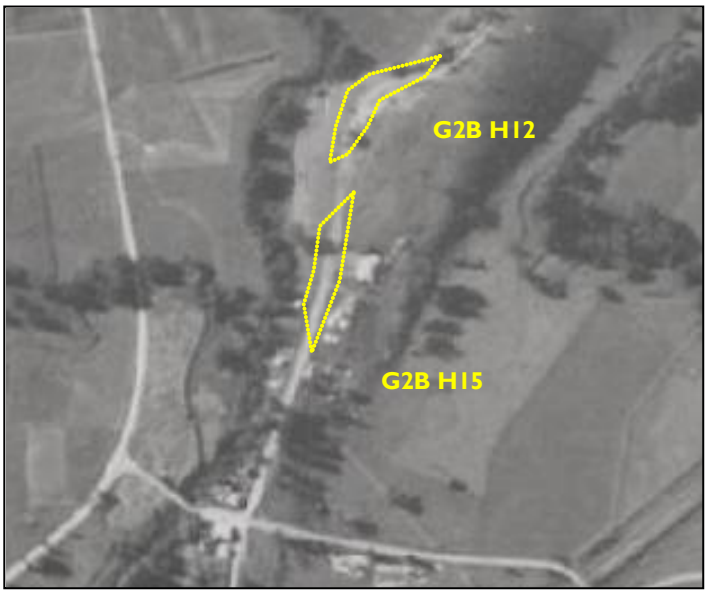


Figure G.33 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

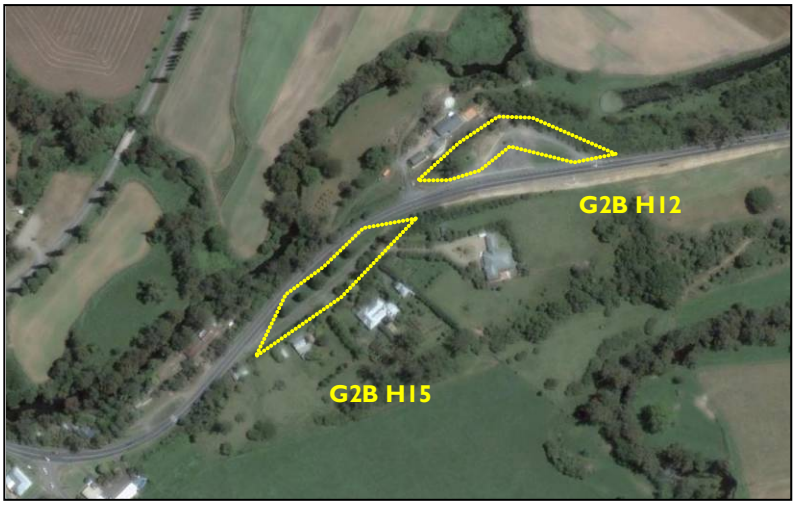
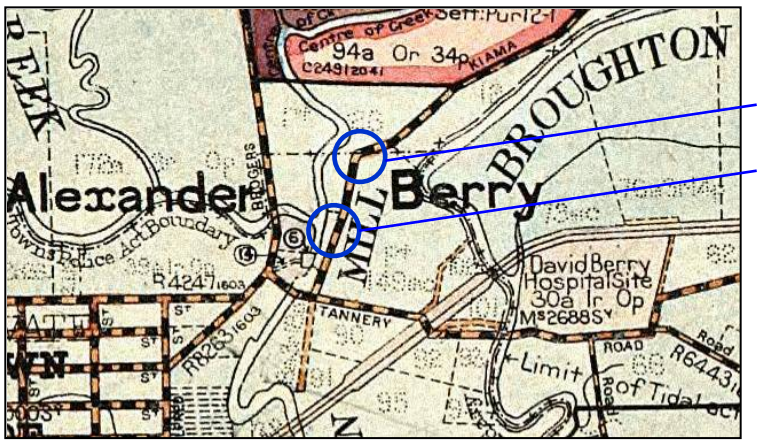


Figure G.34 Extract from 4th edition parish map of Coolangatta (cancelled 1928), showing location of G2B H12 and G2B H15



Recording ID: G2B H15		**GDA Map Reference:**	**290085.6149872 to 290020.6149720**
Name/Description:	**Remnant section of (mid 1950s) Princes Highway (Adjacent to *Mananga* homestead)**	*Cadastral Location*: *Street address:*	Highway easement - Berry
Item/Site Type:	Twentieth Century Highway remnant		

Context/setting:	This remnant is located 460 metres east of the Broughton Mill Creek bridge, on the north side of the current highway, and located on the north side of the prominent spurline which forms the watershed between Broughton Mill and Broughton Creeks.
Description/fabric:	Bitumised highway platform, around 4.5 metres wide, with a net width, including gravelled shoulders of around 7.5 to 8.0 metres. The remnant is 195 metres long and is truncated by the current highway at either end. The remnant is slightly curved to the east, but in general is aligned at 26 degrees (to true north).
Dimensions:	195 x 15 metres
Physical condition:	The remnant is in good condition. For the majority of its length, the sealed road surface appears complete and in good repair and has probably been maintained and renewed post 1950s. At its northern and southern ends the roadway has been impacted by has construction of the current highway alignment. A spoil pile blocks use of the northern extent of the remnant, just after the northernmost driveway. At the southern end, access onto the current highway is maintained and possibly the original bitumen surface remain visible and has been eroded and patched due to side drainage and potholing. An avenue of five deciduous trees have been planted along the western side of the remnant (sometime between 1972 and 1986), between the remnant and the current highway.
Integrity:	This remnant retains many features of the 1950s highway easement, including an original configuration of road platform, shoulders and verge. Also original is the relationship between the roadway and adjacent Lot access and boundaries.
Associated features:	A highly modified section of 1950s highway carriageway, also isolated by the 1950s upgrade, is located 40 metres to northeast, on the opposite side of the current highway (G2B H12) and is now used as a wayside stop.
Current use:	Vehicle access to adjacent Lots.
Heritage listings:	no current listings

Historical background/interpretation:

This section of the highway was bypassed by the current highway alignment which was constructed in 1955 and apart from resurfacing appears not to have been modified since that time. It is currently used to access adjacent residential and agricultural lots on its eastern side. The alignment of this road remnant was formalised in the 1880s.

Recording ID: G2B H15

Remnant section of Princes Highway (Adjacent to Mananga HS)

Figure G.35 General view of remnant (to right of current highway) looking N

Figure G.36 General view of remnant (on left) looking S

Figure G.37 1949 aerial view of road remnants G2B H12 and G2B H15 (SVY552/NOWRA Run2(155-166) 4/4/1949)

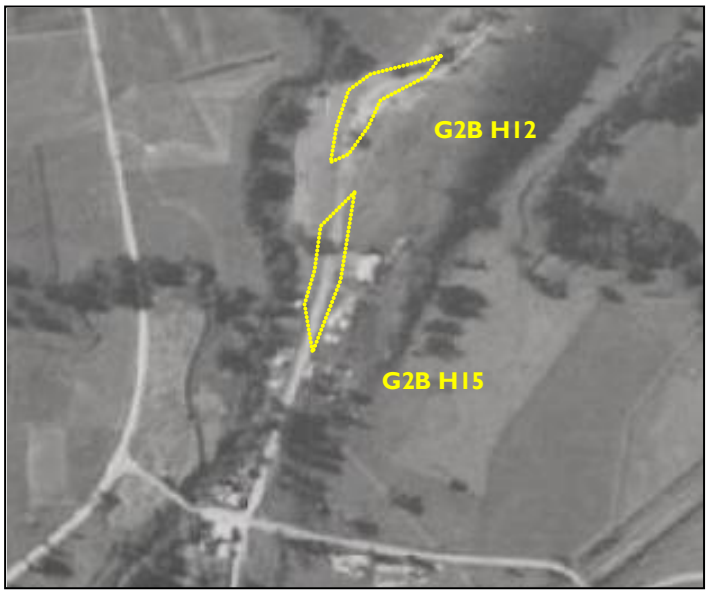


Figure G.38 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

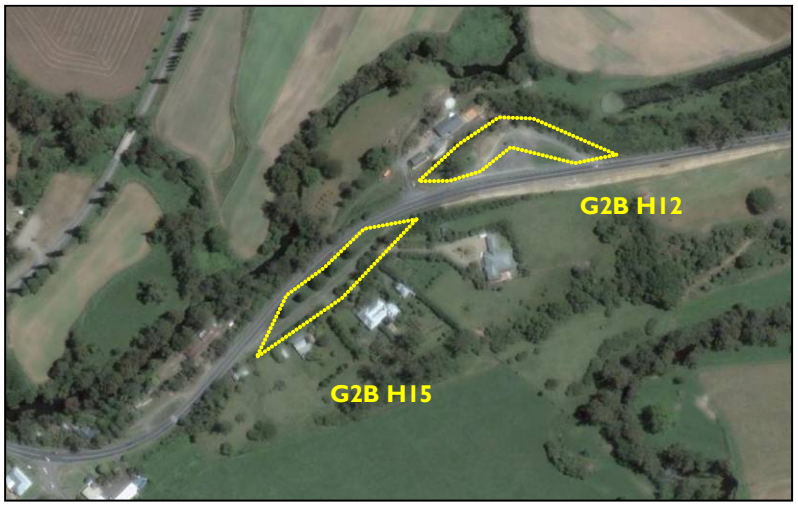
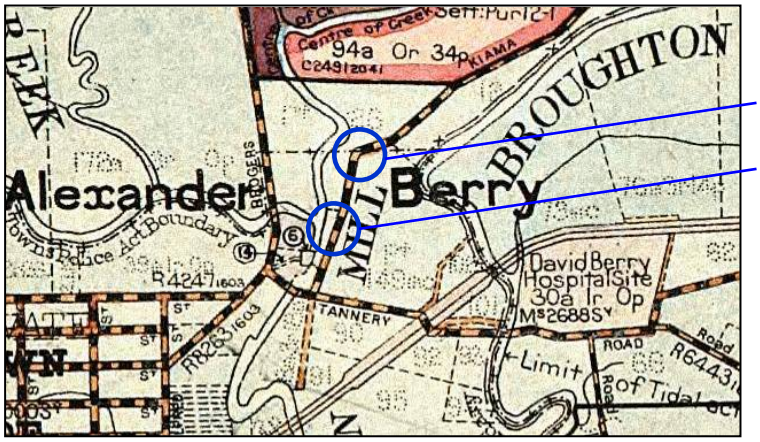


Figure G.39 Extract from 4th edition parish map of Coolangatta (cancelled 1928), showing location of G2B H12 and G2B H15



Recording ID: G2B H18		**GDA Map Reference:**	**291610.6150911 to 291500.6150827**
Name/Description:	**Remnant section of mid 1930s Princes Highway(Close to Tindalls Lane Int.)**	*Cadastral Location*: *Street address:*	Lot 14 DP1098617 A200B Princes Highway Broughton
Item/Site Type:	Twentieth Century Highway remnant		

Context/setting:	This remnant is located on the east side of the current Princes Highway, 25 metres west of the intersection with Tindalls Lane. It is situated on the crest of a low but prominent spurline which forms the watershed between Broughton Mill and Broughton Creeks.
Description/fabric:	An indistinct earthen road platform, around eight metres wide, consisting of an angled alignment or corner (150°), with a net length of approximately 150 m. The remnant has been truncated by the current highway easement at both ends. The platform is discontinuously defined by low relief traces of shallow ditches and embankments. Dense grass cover prevented an assessment of any surviving road surface or treatment.
Dimensions:	150 x 25 metres, southern section: 70 metres, 66 degrees (true north), 80 metres, 39 degrees
Physical condition:	The remnant is in poor condition. The remnant is indicated only by low relief and indistinct ground relief. The establishment of pasture grasses and probable ploughing/tilling, has apparently reduced surface relief and removed other potential surface features.
Integrity:	This remnant is indistinct and eroded and has been impacted by subsequent agricultural use. Its remaining features are likely to relate to a mid 1930s highway platform.
Associated features:	Another 1930s remnant of a sharp corner is situated 25 metres to the northeast on the opposite side of the current highway (extending northeast from the Tindalls Lane intersection with the highway (G2BH57).
Current use:	Agricultural pasture grassland.
Heritage listings:	no current listings

Historical background/interpretation:

This highway section was bypassed by the current highway alignment when it was upgraded and straightened in the mid 1930s. The sixth edition of the parish map for Broughton (1916, cancelled 1938) notes that this road remnant was resumed as severed land in August 1936 (Figure G.41).

Figure G.40 General view, looking E, across the southern portion of the road remnant (foreground), (approximate alignment marked in yellow), .

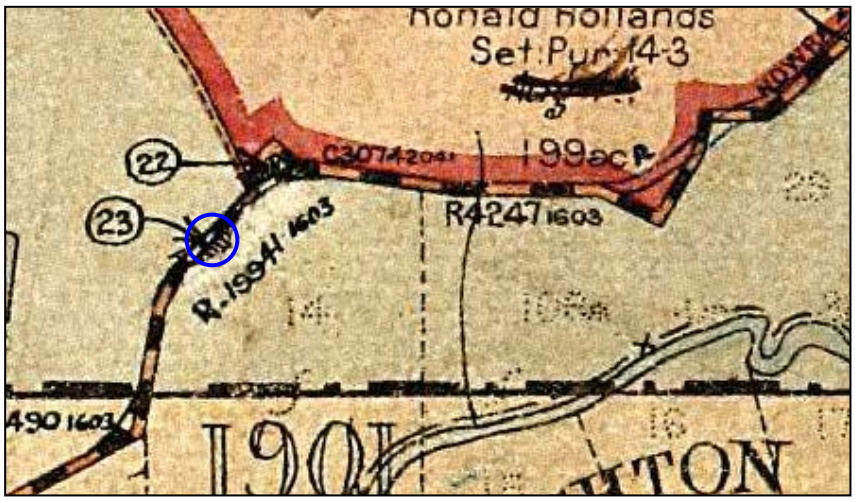


Figure G.41 Extract from Sixth edition of parish map of Broughton (1916, cancelled 1938, Parish Map Preservation Project ID no. 10353901), showing resumption of severed land at G2B H18 (blue circle) in Aug 1936 (map reference note 23)

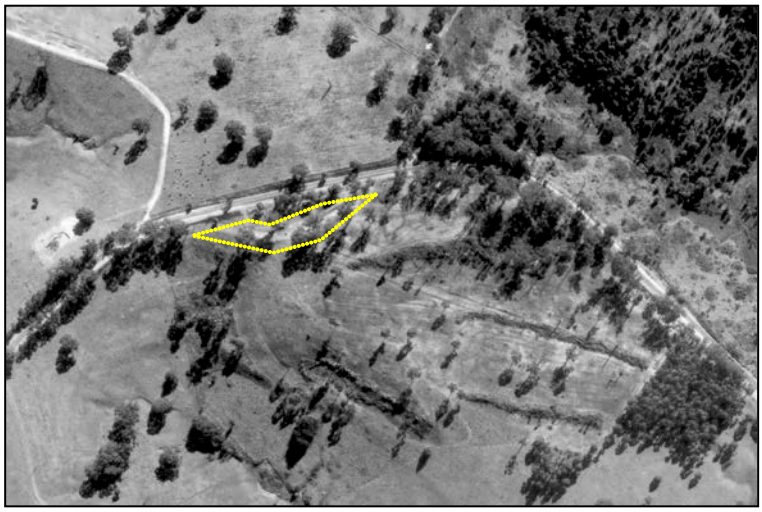


Figure G.42 1958 aerial image of area of road remnant G2B H18 (outlined in yellow) (SHI Dapto-Ulladulla Run GK11 699-5032, 23/07/1958),

Recording ID: G2B H20		**GDA Map Reference:**	**292460.6150870 to 292324.6150850**
Name/Description:	**Remnant section of late 1930s Princes Highway**	*Cadastral Location*: *Street address:*	Lot 4 DP801512 A350 Princes Highway Broughton
Item/Site Type:	Twentieth Century Highway remnant		

Context/setting:	This remnant is located on the south side of the current Princes Highway, 715 metres east of the intersection with Tindalls Lane. It is situated on the upper slopes and crest of a low spur which is aligned northeast-southwest. The spur forms part of the lower slopes of the southern fall of the Broughton Creek valley.
Description/fabric:	A distinct earthen road platform, around eight metres wide, consisting of an angled alignment or corner (150°), with a net length of approximately 195 m. The remnant has been truncated by the current highway easement at both ends. The platform is discontinuously defined by low relief traces of shallow ditches and embankments. The platform has been used as a farm track since it was bypassed by the current highway alignment. This has involved maintenance and the application of gravels. Dense grass cover prevented an assessment of any surviving road surface or treatment.
Dimensions:	150 x 25 metres, southern section: 70 metres, 66 degrees (true north), 80 metres, 39 degrees
Physical condition:	The remnant is in reasonable condition. The remnant is indicated by more recently applied surface gravels and by low and often indistinct ground relief. The establishment of pasture grasses and probable ploughing/tilling, has apparently reduced surface relief and removed other potential surface features.
Integrity:	This remnant remains distinct but eroded and has been impacted by subsequent agricultural use. The recent construction of a bitumen driveway for an adjacent new homestead development has reused a portion of the platform. The remaining features are likely to relate to a mid 1930s highway platform.
Associated features:	Another 1930s remnant of a sharp corner is situated 50 metres to the northeast on the opposite side of the current highway (G2BH21).
Current use:	Agricultural pasture grassland, and modern driveway.
Heritage listings:	no current listings

Historical background/interpretation:

This highway section was bypassed by the current highway alignment when it was upgraded and straightened in the mid 1930s. The seventh edition of the parish map for Broughton (1938 cancelled 1959) notes that this road remnant was resumed as severed land in August 1938 (Figure G.45).

Figure G.43 1958 aerial image of area of road remnant G2B H20 (outlined in yellow) (SHI Dapto-Ulladulla Run GK11 699-5031, 23/07/1958)

Figure G.44 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

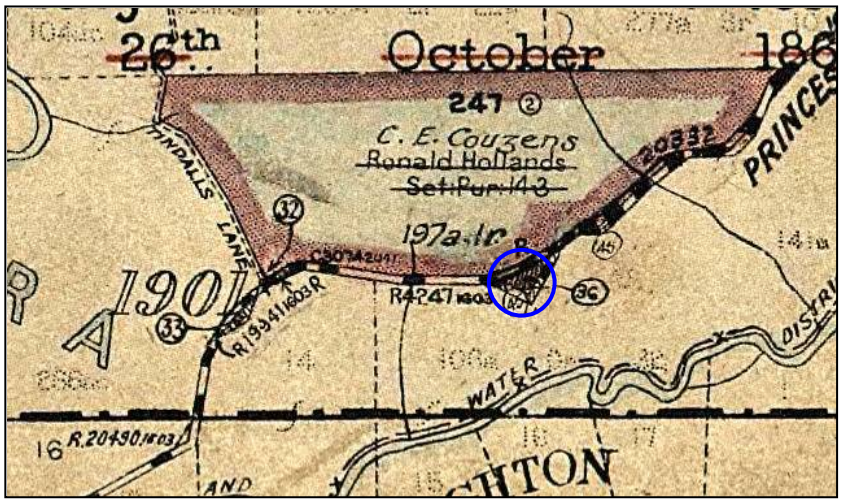


Figure G.45 Extract from Seventh edition of parish map of Broughton (1938, cancelled 1959, Parish Map Preservation Project ID no. 10354001), showing resumption of severed land at G2B H20 (blue circle) in Aug 1938 (map reference note 36)

Recording ID: G2B H21		**GDA Map Reference:**	**292567.6150985 to 292492.6150957**
Name/Description:	**Remnant section of late 1930s Princes Highway**	*Cadastral Location*: *Street address:*	Lot 12 DP1098617 A371 Princes Highway Broughton
Item/Site Type:	Twentieth Century Highway remnant		

Context/setting:	This remnant is located on the north side of the current Princes Highway, 920 metres east of the intersection with Tindalls Lane. It is situated on the upper slopes and crest of a low spur which is aligned northeast-southwest. The spur forms part of the lower slopes of the northern fall of the Broughton Creek valley.
Description/fabric:	A distinct earthen road platform, aligned in a sharp roughly 90 degree bend, around eight metres wide, and bordered on its upslope side by an excavated, steeply inclined embankment up to three metres high. The net length of the road alignment is 120 metres. The nature of the road surface or pavement is not known due to the degree of leaf litter and spoil that was present at the time of survey. The remnant has been truncated by the current highway easement at both ends. Sapling regrowth and extensive establishment of woody weeds has occurred across the remnant and its immediate area.
Dimensions:	130 x 40 metres: the alignment consists of two continuous lengths: the western section is around 43 metres and aligned 12 degrees (true north), the eastern section is around 78 metres and aligned 94 degrees.
Physical condition:	The ground relief of the remnant remains distinct, though the embankment has been impacted by collapse and erosion in some places. The platform is obscured by sapling regrowth and woody weeds.
Integrity:	This remnant demonstrates to some degree the construction standards and tolerances of a main road corridor from the first half of the twentieth century. The eroded and revegetated condition of this remnant substantially obscures access and interpretation of these traits. Dumping of spoil and excavation associated with the modern adjacent highway, has impacted the southern margin of the site.
Associated features:	A 1930s remnant of a less sharp corner (previously continuous with G2B H21) is situated 50 metres to the southwest on the opposite side of the current highway.
Current use:	Rough bush grazing.
Heritage listings:	Included within property definition for Glenvale homestead on Shoalhaven LEP (as amended) Schedule 7, but not specifically identified.

Historical background/interpretation:

This highway section was presumably bypassed by the current highway alignment when it was upgraded and straightened in the mid 1930s, at the same time as the bypass of G2B H20 (c1936). The seventh edition of the parish map for Broughton (1938, cancelled 1959) does not show this remnant or indicate its severance (Figure G.45). The earlier carriageway is however shown on the previous edition along with an indicative upgraded alignment (Figure G.48).

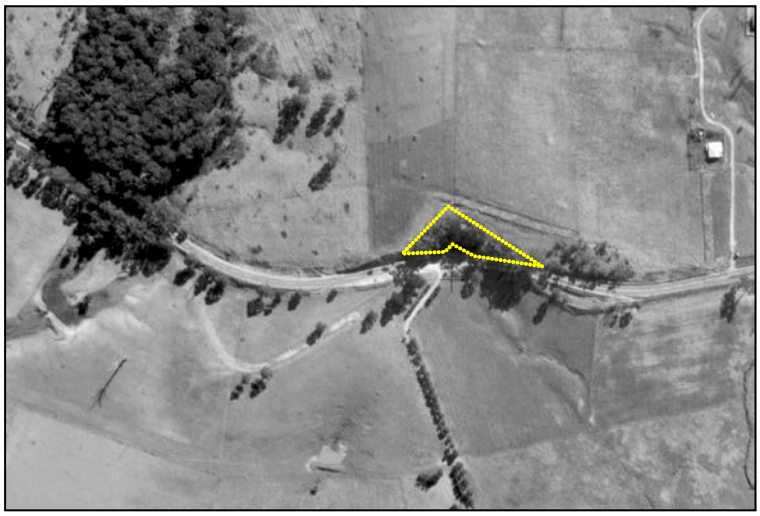


Figure G.46 1958 aerial image of area of road remnant G2B H21 (outlined in yellow) (SHI Dapto-Ulladulla Run GK11 699-5031, 23/07/1958)

Figure G.47 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

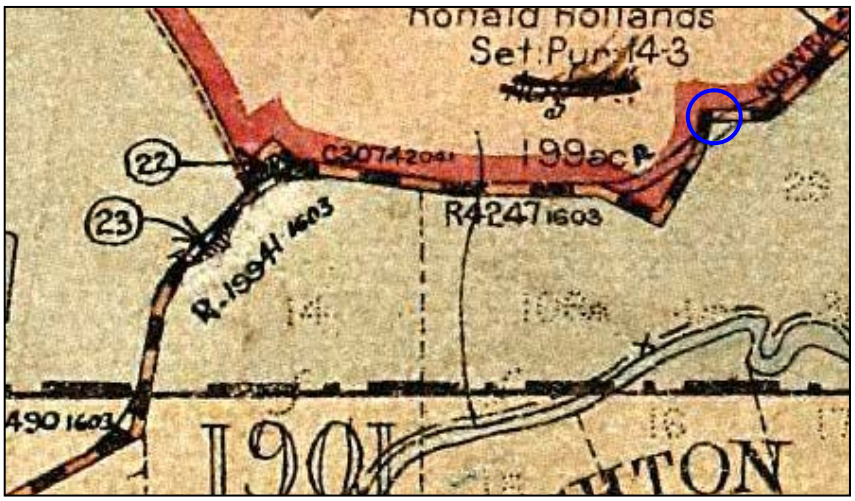


Figure G.48 Extract from Sixth edition of parish map of Broughton showing the G2B H21 portion of highway (blue circle) and an adjacent upgraded alignment (reference note 24, resumed and gazetted public road Dec 1936 (1916, cancelled 1938, Parish Map Preservation Project ID no. 10353901)

Figure G.49 View of the G2B H21 platform and cutting looking N from the western end of the remnant. Note thick understory growth and sapling regrowth.

Recording ID: G2B H24		**GDA Map Reference:**	**to 293535.6151482 293405.6151406**
Name/Description:	**Remnant section of 1930s Princes Highway**	*Cadastral Location*: *Street address:*	Princes Highway easement - Broughton
Item/Site Type:	Twentieth Century Highway remnant		

Context/setting:	This remnant is located on the south side of the current Princes Highway, 1.9km east of the intersection with Tindalls Lane. It is situated on the upper slopes and crest of a low spur which is aligned northwest-southeast. The spur forms part of the lower slopes of the northern fall of the Broughton Creek valley.
Description/fabric:	This site consists of the alignment of the former highway which forms a long loop, following the contour around the crest of the spur. The net length of the remnant was 210 metres. The original level and road platform and is now obscured by fill which has been levelled across the area circumscribed by the former road loop. The nature of the road surface or pavement is not known. The remnant has been truncated by the current highway easement at both ends. The area is currently used for the storage and sorting of road works spoil.
Dimensions:	180 x 30 metres
Physical condition:	There is little evidence of the original road platform or associated earth works. The majority of the alignment and the adjacent upslope area has been filled and levelled for use a materials storage area.
Integrity:	This site has little integrity.
Associated features:	-
Current use:	Road side maintenance materials storage and sorting area.
Heritage listings:	No current listings

Historical background/interpretation:

This highway section was bypassed by the current highway alignment when it was upgraded and straightened in the mid 1930s (Figure G.52).

Figure G.50 1958 aerial image of area of road remnant G2B H24 (outlined in yellow) (SHI Dapto-Ulladulla Run GK10 697-5105, 10/07/1958)

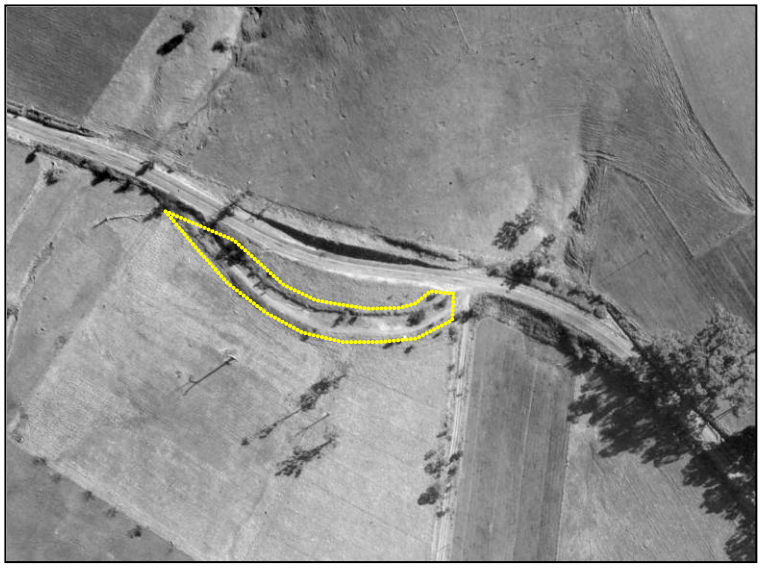


Figure G.51 Aerial image (2006) of area of road remnant (outlined in yellow), (Google Earth Pro 2011)

Figure G.52 Extract from Sixth edition of parish map of Broughton showing the G2B H24 portion of highway (blue circle) and an adjacent upgraded alignment (reference note 24, resumed and gazetted public road Dec 1936 (1916, cancelled 1938, Parish Map Preservation Project ID no. 10353901)

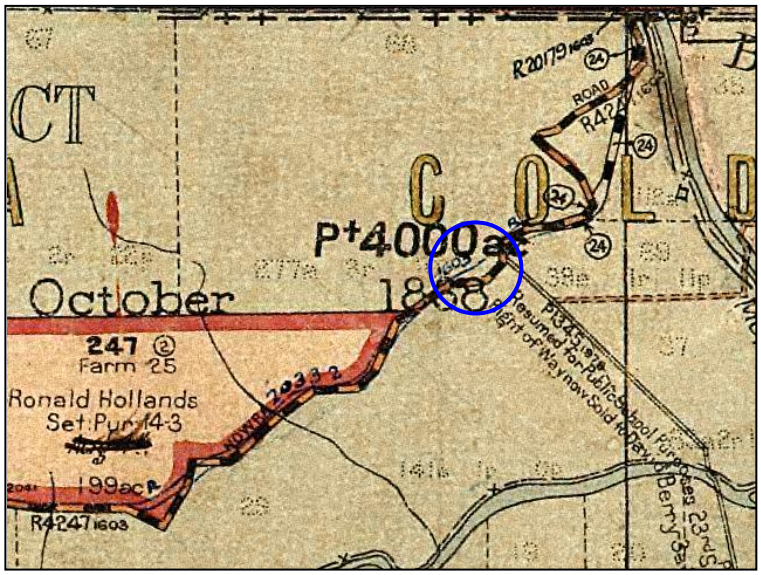


Figure G.53 View of the G2B H24 area, looking SW, note filling and levelling across site

Recording ID: G2B H26		**GDA Map Reference:**	**293839.6151602 to 293836.6151654 to 293701.6151821 to 293775.6151840 to 293835.6151882 to 293982.61521937 to 294008.6151962**
Name/Description:	**Remnant section of 1930s Princes Highway ("Bink's Corner")**	*Cadastral Location*: *Street address:*	Lot 1 DP450081 A540 Princes Highway Broughton Village
Item/Site Type:	Twentieth Century Highway remnant		

Context/setting: Road remnant is situated at the southern margin of Broughton Village and traverses the northeast facing slopes of a prominent spurline and the southwest and southeast facing basal slopes of a minor spur. The road platform crosses a minor creekline at its northern end, and a larger creek between the two spurs. The spurs are aligned northwest – southeast and form part of the lower northern fall of the Broughton Creek valley. The remnant is situated to the west of the current highway, adjacent to a section known locally as "the big dipper"

Description/fabric: This site consists of a remnant road platform which descends into and climbs out of a small valley via slope traverses angled obliquely across the contours. The net length of remaining alignment is around 612 metres. The overall alignment forms a sharp 'V' pointing up valley (west), with a tightly rounded corner turning 60 degrees. During the active use of this alignment as the Princes Highway, this corner was known as "Bink's Corner", after the family which owned (and still own) the property. The platform is easily discerned and variously recessed, cut and benched across the slopes. Side ditching is present in places. It is not known if culverts are associated with the creek crossings. The nature and condition of any surviving road surface is not known. The remnant is truncated at both ends by the current highway.

The platform continued to be used as a farm track following its resumption in 1936. The northern road portion, north of the larger creek crossing, is now overgrown and the southern portion, although clear, is no longer favoured as a through-track.

Dimensions: The area within which the remnant occurs covers approximately 430 x 195 metres. The width of the platform ranges from between 6 and 8 metres. The maximum width of platform and side earthworks (ditches, embankments etc) is around 16 metres. The alignment of the remnant platform can be simplified into the following intervals (south to north): 52 metres, 25° (grid north)
216 metres, 358°
83 metres, 79°
75 metres, 55°
55 metres, 71°
41 metre, 41°

Physical condition: This remnant is in relatively good condition, with the ground relief of the platform, and associated cuttings, ditches and embankments still clearly evident. There is some sapling regrowth across the platform in the northern section, and there may have been erosion of the platform in the area of the creek crossings. A number of current or former fence lines cross the platform.

Integrity:	This remnant does not appear to have been significantly modified since its resumption, or as a result of low key use as a farm track. Its form and character relate to the tolerances and maintenance of a 1930s active highway. The remnant follows that of a surveyed line which dates from the 1870s to 1880s.
Associated features:	A remnant of the earlier Berry Estate road (G2B H27), constructed in 1856 and which was replaced by this road, crosses this alignment twice and occurs in close association with it. The G2B H26 highway remnant forms part of a complex of recordings which, as a group, have value in understanding and interpreting the evolution of the highway, its various alignments, and its interrelation with adjoining land holdings and homesteads. These recordings are: • G2B H27 remnant section of 1856 Berry Estate Road • G2B H26 remnant section of 1870s – 1930s Highway ("Binks Corner") • G2B H25 *Sedgeford* homestead
Current use:	Agricultural pasture grassland
Heritage listings:	no current listings

Historical background/interpretation:

Based on County and parish mapping, this remnant follows a highway alignment which became established in the 1870s or 1880s and replaced the 1856 Berry Estate road. It was bypassed in 1936.

Bink's Corner was the location of a fatal car accident in 1935, one year prior to its upgrade. David Mahlon Cowlishaw, 20, son of Dr. and Mrs Leslie Cowlishaw of Lindfield, was killed on the 28 January 1935, when his car overturned at Bink's corner. "The car had just passed the property of Mr A.N. Binks, MLC, when it swerved and overturned. It rolled over and finally came to a standstill with its four wheels in the air". The press report of the incident paper noted that "The scene of the accident is a recognised danger spot" (Sydney Morning Herald 30 January 1935, p14).

At the subsequent inquest the Coroner, Mr Reuben King, found that

> "the accident was due to the rough and dangerous turn there, and that the danger attached to the turn as not and is not sufficiently indicated by the authorities in charge of the section of the Princes Highway".

Dr Cowlishaw stated at the inquest that

> "There is no warning to an approaching driver that it is a danger spot… The white stones are neglected and covered with dust… I would like the attention of those in charge of the road to be directed to its state. It cannot do my boy any good now, but may prevent loss of life to others if it is remedied".

Constable A.W. Wright stated that

> "the only warning to motorists was big stones at the edge of the curve, but they were dust covered and overgrown with weeds and grass and could not be seen on a dark night. His predecessor, Constable Brogan, had crashed at the spot, and was off duty two months" (Sydney Moring Herald 4 February 1935, p9).

It seems likely that the upgrade of the highway the following year may well have been prompted, or was at least strongly supported by the Coroners findings. This event and its location, are representative of several dominant themes in the development of the highway – the interplay between resourcing road maintenance and the safety of its users, the interrelation between highway design and need to increase user safety, and the pressure created by fatal accidents to upgrade the highway.

Recording ID: G2B H26 **Remnant section of Princes Highway ("Binks Corner")**

Figure G.54 View, looking NW from the upgrade alignment towards G2B H26 road remnant (yellow dotted line), Berry Estate road (G2B H27) in blue)

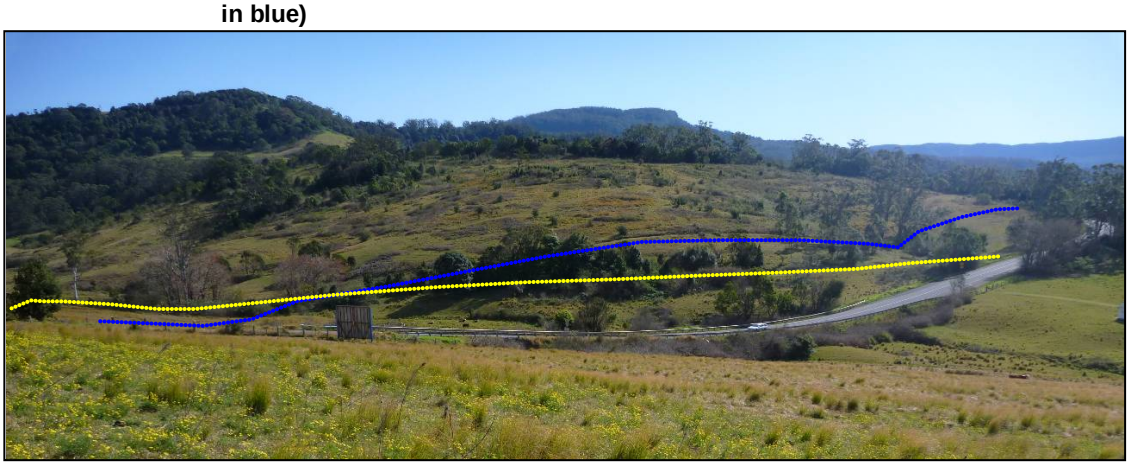
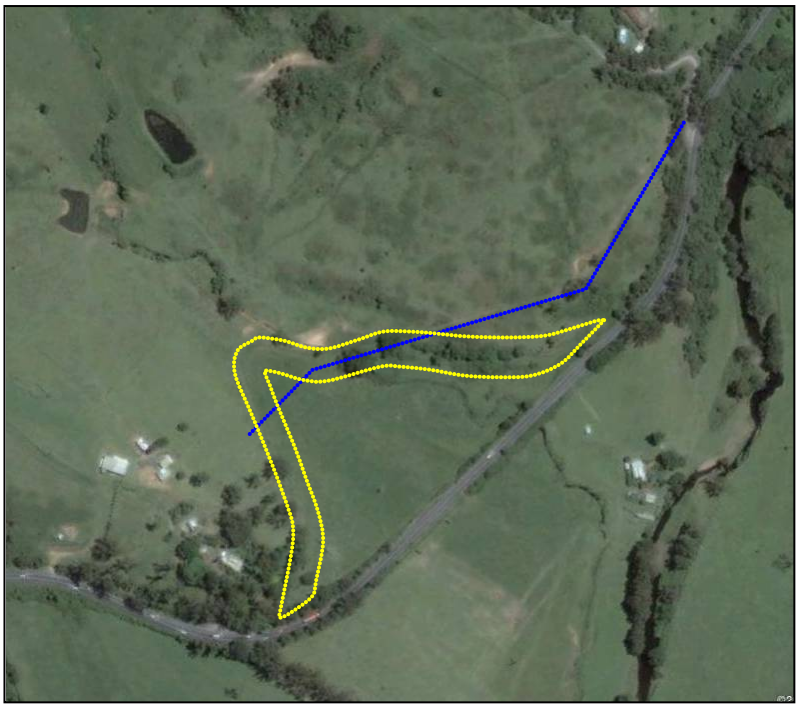


Figure G.55 View of northern portion of road remnant (approx. alignment marked in yellow), looking N

Figure G.56 View looking SW, showing well benched platform in right foreground and more distant alignment on southern side of valley (mid distance) (approx. alignment marked in yellow)

Figure G.57 Road remnant visible on 1958 aerial photo (outlined in yellow), The alignment of the earlier Berry Estate road is shown in blue (NSW 699-5028, SH.I Dapto-Ulladulla Run GK11 23/07/58)

Figure G.58 Aerial image showing road remnant (outlined in yellow) in 2006. The alignment of the earlier Berry Estate road is shown in blue (Google Earth Pro 2011)



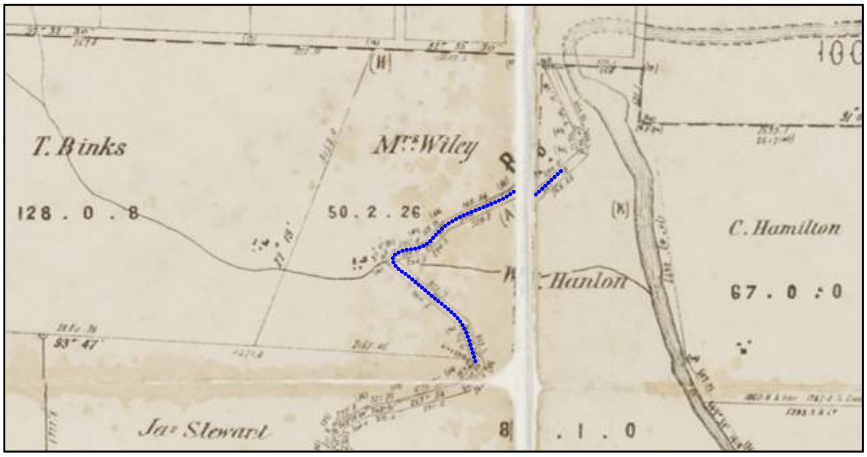


Figure G.59 Extract from 1890s map of the northern Berry Estate, showing the remnant alignment (blue line) ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS3 15_Map 17)

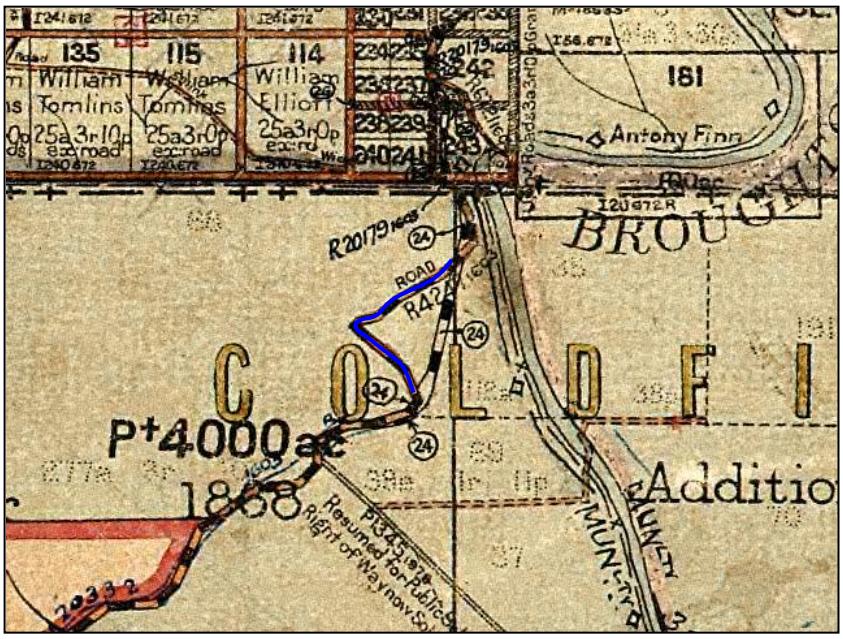


Figure G.60 Extract from Sixth edition of parish map of Broughton showing the G2B H26 portion of highway (blue line), (reference note 24, resumed and gazetted public road Dec 1936 (1916, cancelled 1938, Parish Map Preservation Project ID no. 10353901)

Figure G.61 "Binks Corner - old abandoned roadway 1937". This photo was taken looking SW and downslope towards the main creek crossing. (State Library of NSW d1_27130r)

Recording ID: G2B H57		**GDA Map Reference:**	**291610.6150911 to 291500.6150827**
Name/Description:	**Remnant section of mid 1930s Princes Highway** (**Tindalls Lane Int.)**	*Cadastral Location*: *Street address:*	Lot 14 DP1098617 A200B Princes Highway Broughton
Item/Site Type:	Twentieth Century Highway Remnant		

Context/setting:	This remnant is located on the north side of the current Princes Highway, immediately east of the intersection with Tindalls Lane. It is situated on the north facing, upper slopes of a low but prominent spurline which forms the watershed between Broughton Mill and Broughton Creeks.
Description/fabric:	An overgrown and indistinct earthen road platform, around 6-7 metres wide, consisting of a 'dog leg' angled corner, with a net length of approximately 125 metres. The remnant has been truncated by the current highway easement at both ends, and encroached upon by a turning circle platform on Tindalls Lane (NOHC 2005). The platform is recessed up to 30 centimetres into the ground discontinuously across its length. A low density scatter of mid twentieth century glass and ceramic fragments are associated with the platform. Dense forest litter and grass prevented an assessment of any surviving road surface or treatment.
Dimensions:	90 x 50 metres
Physical condition:	The remnant is in poor condition. The section closest to Tindalls Lane has been encroached upon by the recent construction of a turning bay. Clearance of the eastern gas pipeline easement has also impacted upon another section. Forest regrowth is now obscuring the platform and its edges.
Integrity:	This remnant is indistinct and overgrown and has been impacted by subsequent easement construction and road works. Its remaining features are likely to relate to a mid 1930s highway platform.
Associated features:	Another 1930s remnant of a sharp corner is situated 25 metres to the southwest on the opposite side of the current highway (G2BH18).
Current use:	Rough forest grazing.
Heritage listings:	no current listings

Historical background/interpretation:

This highway section was bypassed by the current highway alignment when it was upgraded and straightened in the mid 1930s. The sixth edition of the parish map for Broughton (1916, cancelled 1938) notes that this road remnant was resumed as severed land in August 1936 (Figure G.63).

Figure G.62 General view, looking SW, showing edge of recessed remnant road platform (foreground), (approximate alignment marked in yellow) (photo: Dec 2005)

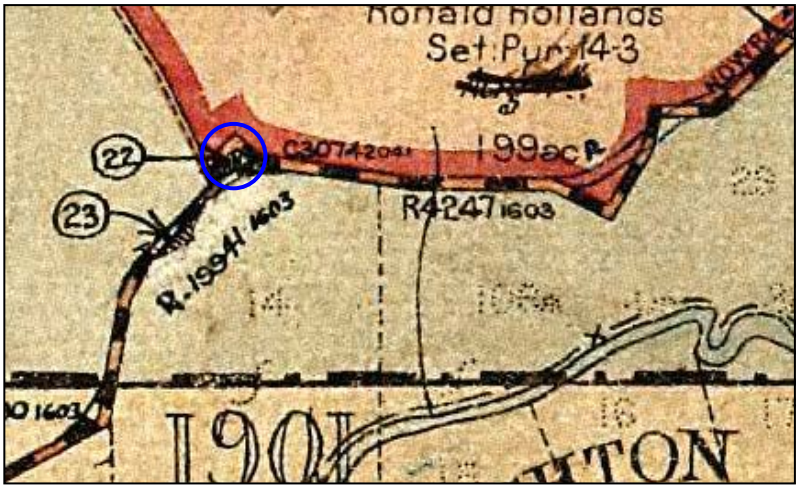


Figure G.63 Extract from Sixth edition of parish map of Broughton (1916, cancelled 1938, Parish Map Preservation Project ID no. 10353901), showing resumption of severed land at G2B H57 (blue circle) in Aug 1936 (map reference note 23)

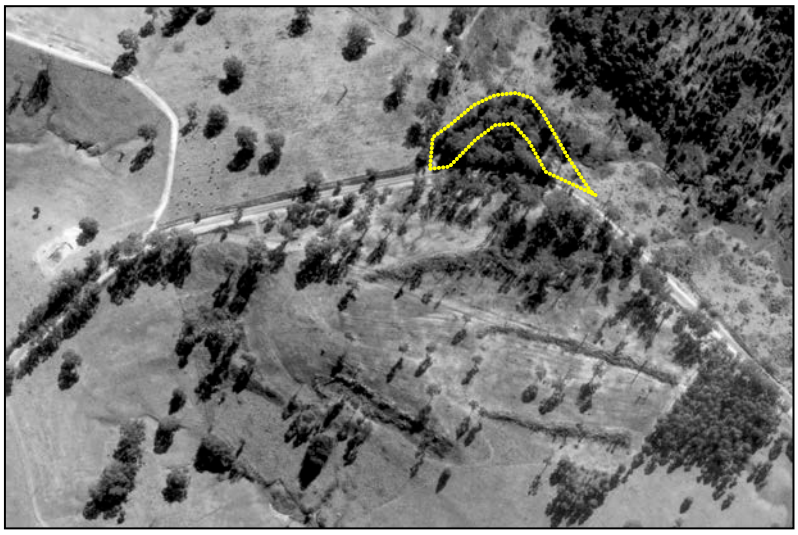


Figure G.64 1958 aerial image of area of road remnant G2B H57 (outlined in yellow – note that outline shows full extent of remnant as of 1958, current remnant has been reduced in size by eastern gas pipeline and turning bay on Tindalls lane) (SHI Dapto-Ulladulla Run GK11 699-5032, 23/07/1958)

G.3 Standing buildings and structures

Recording ID: G2B H10 **GDA Map Reference: 288592.6149727**

Name/Description:	**Cottage**	*Cadastral Location*:	Lot 1 DP22828
		Street address:	72 North St Berry
Item/Site Type:	Early twentieth century cottage		

Context/setting:	This building is situated on an urban lot on the south side of North Street, Berry. The lot is situated immediately southeast of, and opposite, the T-intersection of Rawlings Lane and North Street. The lot is situated on relatively level ground, around 80 metres northeast of Town creek, a small tributary which traverses diagonally across the Berry township area.
Description/fabric:	This is a modified example of a small workers cottage with a central gabled roof, aligned east-west, (parallel to the road), and with adjoining rooms covered by lower pitched roofs on the northern and southern sides. The front room was formerly an open veranda now enclosed. Similarly a skillion roof abutting the eastern side wall may originally have been an open verandah. The rear roof fall may cover both original back rooms and later additions. The house, was probably originally clad with horizontal wooden weatherboards, and has now been re-clad with wide synthetic cladding. The roof is corrugated iron. All visible windows are of modern design and framing.
Dimensions:	The building has approximate dimensions of 10 x 12 metre
Physical condition:	The building is well maintained, but retains few original exterior materials or features. Interior not inspected.
Integrity:	Based on the exterior, this building has undergone considerable renovation and does not display appreciable integrity. Historical aerial photography indicates that this building was moved from an original location and moved to its current position in the 1950s (refer Figure G.69 below).
Associated features:	-
Current use:	Town residence
Heritage listings:	no current listings

Historical background/interpretation:

Inspection of early aerial photography reveals that this building was present at its current location in 1958, but absent nine years previously (Figure G.69). Given that the design of the building is typical of the early twentieth century, and not characteristic of the 1950s it is probable that it pre-dates this time and was moved to this location.

The 1958 aerial image suggests that at this time, there was a garage abutting its western side, and verandas were present along its southern and eastern sides, but absent along the front (Figure G.68).

Recording ID: G2B H10 **Victorian Cottage**

Figure G.65 General view of house, looking SE

Figure G.66 Detail of front of house, looking SE

Figure G.67 Detail of front of house, looking S

Figure G.68 1958 aerial image showing context of G2B H10 (SH.I Dapto-Ulladulla Run GK11 699-503 23/07/1958)

Figure G.69 (above) enlargement of 1949 aerial image showing absence of G2B H10 building at this time (red area) (SVY 552/Nowra 5164 Run2(155-166) 4/04/1949)

Figure G.70 Enlargement of 1958 aerial image shown at top, (area indicated in blue) showing detail of building configuration

Recording ID: G2B H11 **GDA Map Reference: 288638.6149772**

Name/Description:	***GlenDevan***	*Cadastral Location*:	Lot 3 DP206971
		Street address:	77 North St Berry
Item/Site Type:	Federation House		

Context/setting:	This building is situated on a large allotment on the north side of North Street, Berry, 35 metres east of its intersection with Rawlings Rd. The lot is situated on relatively level ground, around 120 metres northeast of Town creek, a small tributary which traverses diagonally across the Berry township area.
Description/fabric:	An asymmetrical Federation style weatherboard house with a mature garden. The house a pyramidal roof, partial verandas around all four sides, two tall chimneys, and perhaps four original rooms (now five excluding former verandas). One front room (to the left of the entrance) projects forward with no veranda and front facing projecting gable. Verandas remain partially open on southern, eastern and northern sides, but are enclosed on N and w sides. Some changes to internal walls and room enlargements appear to have occurred towards the back of the house. A kitchen block (with external chimney) originally separate from house, is now attached at NW end. Some renovations are thought to have been conducted around 1910, based on fittings/windows associated with enclosed verandas. All doors in original building and associated frames are thought to be made of red cedar. A separate shed, (NW of house) was a tractor shed, when Gardner bought the property. It, included a laundry with an old copper.
Dimensions:	The house is approximately 19 x 19 metres in area. The grounds and garden occur within an approximate enclosed area of 55 x 40 metres.
Physical condition:	The house and grounds are in good condition and well maintained. The iron on the roof was replaced around 2004.
Integrity:	The building retains many original features, and an overall Federation character and structure. The additions do not significantly detract from the heritage value of the building, and are evidence of the changing circumstances and needs of the owners.
Associated features:	Grounds and garden
Current use:	Town residence
Heritage listings:	Shoalhaven Heritage Inventory No current statutory listings

Historical background/interpretation:

The following information is provided on the Shoalhaven Heritage Inventory (Shoalhaven City Council).

This house was built prior to 1894 when it is known that Dr Dawson and his family were in residence. Dr Cecil Lacy Dawson arrived in Berry from Pambula in 1894 and set up a surgery in the vacated office of surveyor John Ewing. He had married Mabel Wylde two years previously and they both raised a family of five children at this residence (Mabel b.1893, Mavis b.1896, Cecil b.1904, and twins Gilbert and Joyce b.1905). Dr Dawson died suddenly

on 21 September 1907 aged 44.

Mabel Dawson purchased the property from the Berry Estate on 4 February 1908 (formerly Lot 42 DP4497).

The property was sold to William Henry Shute and his wife Elizabeth and they farmed the land for many years prior to George Miller owning it. There were several tenants of the farm until it was then purchased by Mr and Mrs Arther Belling, themselves former tenants. At that time there was no garden only two flame trees. Mrs Belling sold the property to Mrs Judith Gardner.

The following information was kindly provided by Mrs Judith Gardner (pers. comm.. 18 March 2009).

Judith moved-in in 1989. She purchased the property from Mrs Kath Billings (brought up at Woodhill, now of Nowra).
Mrs Billings planted most of the garden.

Mrs Billings bought the property from George Miller in 1969.

The property was rented (from Miller) by the Gray family for an extended period of time, Sid Ray and his wife raised three children in the house.

Mr Miller bought the property from Mrs Dawson, (possibly a doctor). She is remembered as a cattle breeder and for importing breeds from England. When her husband died she returned to England. A number of articles, between 1907 and 1914, reporting the results of the Berry Agricultural show, mention a Mrs Dawson and a Dr Dawson in relation to prizes for cattle and horse events (c.f. Sydney Moring Herald 5 February 1914, p.5; 14 February 1911, p.6; 2 February 1907).

It is possible that Dawson built the house (others believe that it was built by Janet Bowden's uncle George).

A previous heritage assessment of this site has stated the age of its construction to be around 1894 when it formed part of the Berry Estate. It was considered to have historical significance at a local level as a representative example of accommodation constructed late in the history of the Estate (Conybeare Morrison & Partners 1999:27, refer also Peter Freeman Pty Ltd 1998).

Figure G.71 General view of front of *GlenDevan* Cottage, looking N

Figure G.72 Front view of *GlenDevan* Cottage, looking NE

Figure G.73 Detail of front of building, looking N

Figure G.74 1958 aerial image showing context of G2B H11 (SH.I Dapto-Ulladulla Run GK11 699-5038 23/07/1958)

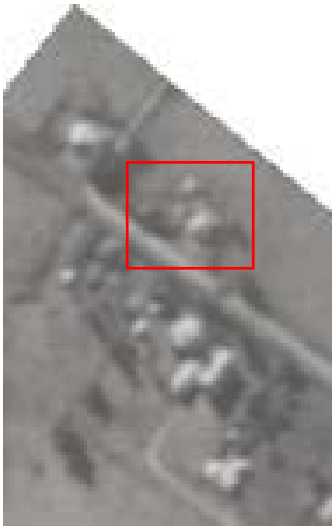


Figure G.75 (above) enlargement of 1949 aerial image showing G2B H11 (red area) (SVY 552/Nowra 5164 Run2(155-166) 4/04/1949)

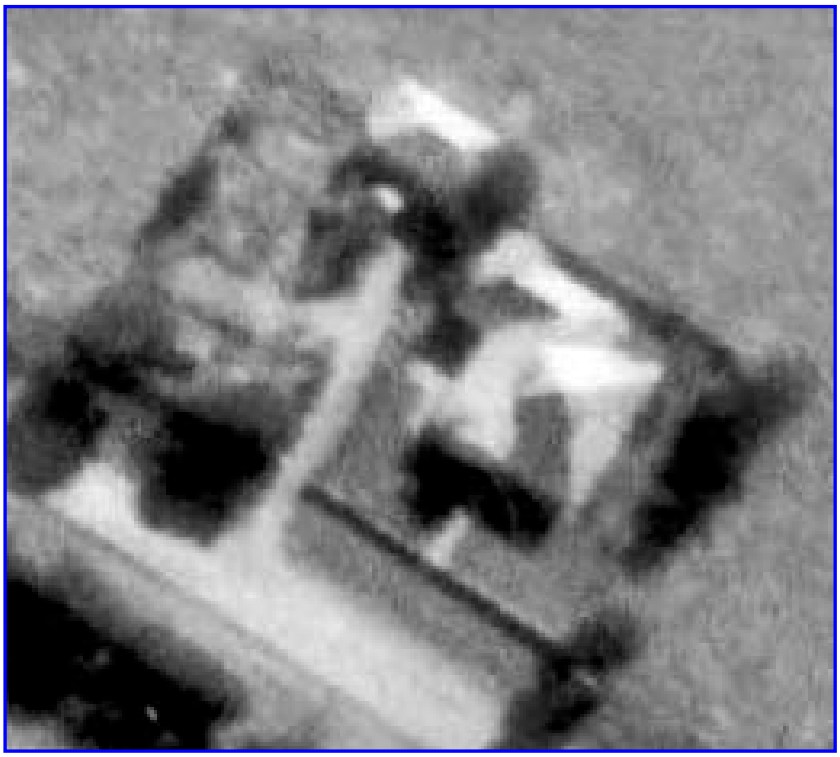


Figure G.76 Enlargement of 1958 aerial image shown at top, (area indicated in blue) showing detail of building configuration

Recording ID: G2B H13 **GDA Map Reference: 289329.6149710**

Name/Description:	**Burnett Estate Overseer's Cottage**	*Cadastral Location*: *Street address:*	Lot 1 DP 973922 143 North St Berry
Item/Site Type:	Early twentieth century cottage		

Context/setting:	The cottage is situated on a large allotment on the north side of North Street, Berry, 410 metres east of its intersection with Woodhill Mountain Road. The cottage has been built on level ground around 140 metres south of Bundewallah Creek.
Description/fabric:	A basic and small, timber frame and horizontal weatherboard cottage, with a central gabled roof, aligned east-west, (parallel to the road). Adjoining rear rooms are covered by a lower pitched roof. A front veranda on the south side of the building, has been enclosed with weatherboarding and a continuous upper wall of eight window panels. Corrugated iron roof. Two slanting wooden frame and corrugated iron awnings are evident over windows on the west side of the building. (Interior not inspected).
Dimensions:	Cottage is approximately 12 x 6 metres.
Physical condition:	Good
Integrity:	Generally (apparently) in original condition except for the enclosure of the verandah.
Associated features:	-
Current use:	Private residence
Heritage listings:	Shoalhaven Heritage Inventory
	No current statutory listings

Historical background/interpretation:

The Shoalhaven Heritage Inventory includes the following information on this building (Shoalhaven Heritage Inventory – Shoalhaven City Council):

This land, formerly Lot 44, (together with Lots 41, 43 and 46, DP4497) was purchased from the Berry Estate in 1912 by Lady Alice Carruthers, wife of Sir Joseph Carruthers, KCMG, a solicitor of Sydney, and her sister Rhoda Burnett. Combined with other purchases by Alexander and Jane Maria Burnett (Lots 38, 39, 40, 45, 47 & 50, DP4497), these lands formed the Burnett family estate (Figure G.80). It appears probable that the G2B H13 cottage was constructed as an overseer's residence for the estate, around 1917. It was located 220 metres west of the main homestead, which was located where the tennis courts are now (Figure G.79).

From 1914 to 1921 the McGee family managed the Burnett property. They milked 80 cows of mixed varieties. There was an orchard with loquats and apples. Burnett visited regularly to pay the family and check the property. He paid Mr McGee six pounds per week out of which the two sons received 10/- each.

In 1946 a Mr Conway and his daughter Marcia were occupying the cottage. In June 1961, Eric Standen, a general carrier of Gerringong owned the property. In March of 1967 Henry (Harry) William Auld and his wife Phyllis (Mavis) purchased the property.

Figure G.77 General view of cottage looking NE

Figure G.78 Cottage looking N

Figure G.79 Comparison of 1958 and 2006 aerial images (SH.I Dapto-Ulladulla Run GK11 699-5038 23/07/1958; and Google Earth Pro 2011)

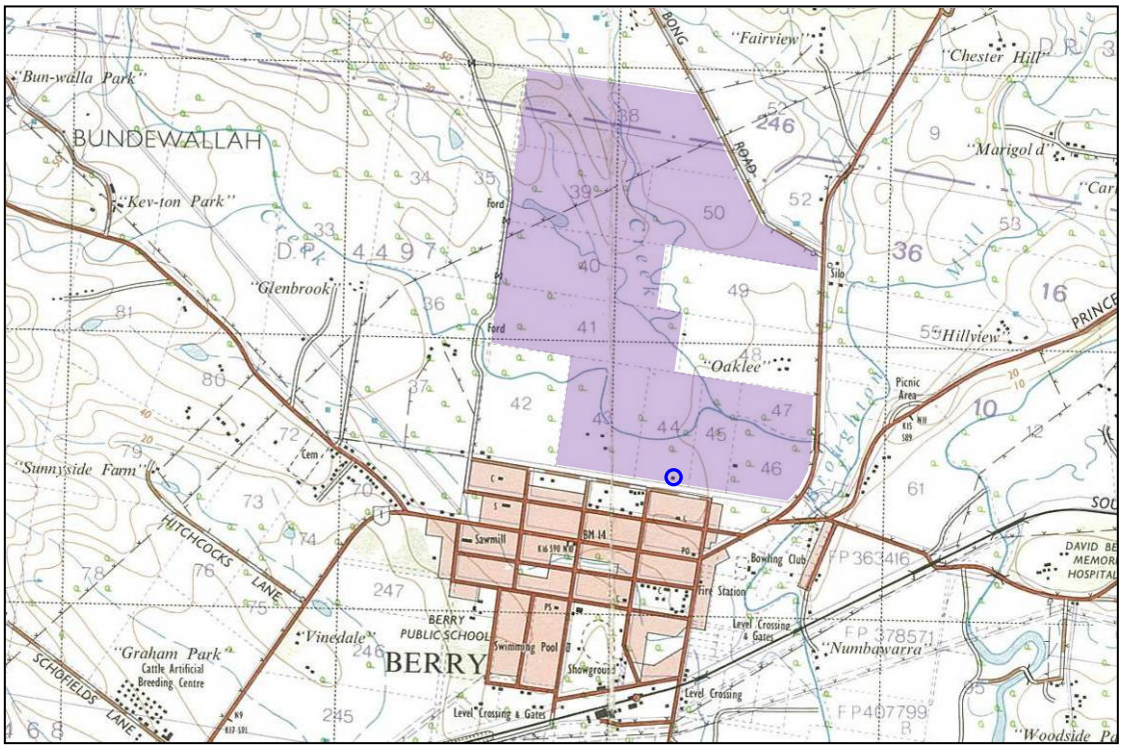


Figure G.80 Property holdings (purple) of the Burnett family (including Carruthers, nee Burnett). G2B H13 Cottage indicated by blue circle (information from Shoalhaven Heritage Inventory, base map: Berry 1:25,000 1st Ed, CMA 1970)

Recording ID: G2B H16		**GDA Map Reference:**	**290103.6149797**
Name/Description:	***Mananga* homestead complex Former Berry Estate Manager's Residence**	*Cadastral Location*:	Lot 101 DP1057897
		Street address:	A40 Princes Highway Berry
Item/Site Type:	Federation Queen Anne style homestead, associated outbuildings and grounds		

Context/setting: The homestead and attached land is situated on the crest and eastern fall of a low but locally prominent spurline shoulder which forms the watershed between the Broughton Creek to the east, and Broughton Mill Creek to the west. The homestead is situated 80 metres to the east of Broughton Mill Creek and is elevated approximately eight metres above the surrounding valley floor.

Description/fabric: Federation Queen Anne style weatherboard homestead – complex corrugated iron roof with decorative timberwork to gables (with Art Nouveau character), hipped skillion verandah returning to sides, timber posts and brackets. Verandas appear to have originally surrounded an original core building. An addition wing has been added to the north eastern corner of the building, sometime prior to 1949. A conservatory has been relatively recently added to the eastern side of the building.

The building is surrounded by a mature garden.

The homestead building is thought to be designed by noted Sydney architect Howard Joseland (1860-1930) (Peter Freeman Pty Ltd 1998).

The current property holding includes five outbuildings to the south of the current homestead, including a concrete silo, associated large iron sheds and disused milking bails. Eight outbuilding structures are visible on the 1958 aerial photo (Figures 6.91). Non-captioned photos in the Shoalhaven Heritage Inventory appear to show interior rendered walls (and/or ceilings) within an outbuilding, constructed using sawn timber studs filled in using multiple timber slats with applied plaster or render.

At the southern end of the property there are landform traces of the excavated trench through the spurline (now filled in for the Princes highway platform) which formed part of the infrastructure for the water race for the Berry Estate saw mill which dates from the 1830s. Immediately north of the race alignment is the location of the original Mananga homestead or cottage. This site is associated with some exotic plantings and mature trees. This site, together with the infilled mill race should be considered and managed as archaeological deposits.

Dimensions: Original building had approximate dimensions 24 x 18 metres. The additional wing on NE corner has approximate dimensions: 15 x 11 metre.

The current property attached with the homestead is approximately 250 x 118 metres in cross dimensions.

Physical condition: The homestead is in excellent and well maintained condition

The outbuildings appear to be in varying modes of low intensity use, storage or abandonment. There are corresponding states of condition ranging from good to poor.

Integrity: Despite a latter additional wing to the north eastern corner, and recent addition of a conservatory adjacent to the eastern veranda, this homestead retains a high degree of integrity to its original period of construction. The interiors have been sensitively restored for use as holiday accommodation.

Associated features: The Mananga homestead complex and attached property, forms an integral part of a suite of structures, features and archaeological deposits which constitute the remains of the focus of the Broughton Creek village (late renamed Berry) from the 1860s to the 1890s. Included in this suite are:

- the Pulman Street Conservation area (situated mostly south of the intersection of Pulman St and the Princes Highway).
- Constables Cottage.
- Princes highway remnant (G2B H15) immediately adjacent to *Mananga*.
- Remains of the Berry Estate saw mill water race (and associated mill and tannery sites).
- Archaeological deposit (G2B H14) (adjacent to *Mananga*) comprising traces of former town structures on the west of the original highway alignment.
- Remnant of Berry Estate Road (G2B H55), 120 metres north of the homestead.

Current use: Private residence leased for holiday accommodation

Heritage listings: Shoalhaven LEP 1985 (as amended) Schedule 7

Royal Australian Institute of Architects 20th Century Register of Significant Buildings (no. 47022656)

Shoalhaven Heritage Inventory

Historical background/interpretation:

Mananga is reported to be an Aboriginal word meaning “by the water” (Shoalhaven Heritage Inventory).

The original 'Mananga Cottage' an Estate building, was built for William Stewart. William was an acquaintance of David Berry in Scotland and although, at first, settling further south of Berry, was enticed to come to Berry and help control the large David Berry Estate. Alexander Berry appointed William Stewart the first Commissioner of Peace for the district of Broughton on 8th April 1867.

William's brother, Donald Stewart, had arrived in Australia and went prospecting at the gold fields. Later he returned to Berry and became the first Post Master of Berry in 1861, the Post Office being at the Old Mananga Cottage. Upon the death of Donald in 1876, the post office moved to James Wilson’s store nearby on the intersection of the main road with Pulman Street (Lidbetter 1993).

John Stewart, son of William, came to Australia at the age of 19 years after finishing his studies in Scotland. He purchased the Mananga land following the break-up of the Berry Estate following the death of David Berry. It was John Stewart who built the existing "Mananga Homestead" in 1894. John was the first registered auctioneer in NSW and his office remains evident within the Homestead building. The firm of Stewart and Morton was formed in 1880 and operated till 1960 (http://www.stayz.com.au/31300)

Together with his father, William, John was involved in the formation of the Municipality of Broughton Creek and Bomaderry, the establishment of the local Agricultural Society, and the School of Arts.

John married Isabella Bryen and raised a family of six children, living first at the original homestead, and subsequently in the current homestead following 1894.

The Mananga homestead remained in the ownership of the Stewart family until 1992 (Lidbetter 1993).

The current *Mananga* homestead is thought to have been designed by Howard Joseland who designed many Federation buildings on the Berry Estate between 1883 and the early 1900s. This is supported by the resemblance of the timber featuring to similar elements on Bomaderry residences Greenleaves (1895) and Lynburn (1896), both designed by Joseland for the Berry Estate (Shoalhaven Heritage Inventory).

Joseland first worked for the Berry Estates in 1892, and married Blanche Augusta Hay at Coolangatta in 1897 (Chisholm 2011). Blanche was a half sister to John Hay (Sydney Morning Herald 12 Aug 1909 p8). John Hay (later Sir John Hay) was David Berry's first cousin once removed, and moved to Coolangatta in David Berry's declining years (he was born at Coolangatta) (Antill 1982). Upon David's death in 1889 John and his half brother took over the management of the estate. One third of the estate including Coolangatta was left to John, however as an executor (along with James Norton) he would eventually sell the land to meet the bequests of the will (Lidbetter 1993, Stephen 1969).

Figure G.81 *Mananga* and ground, looking NE (Photo: http://www.stayz.com.au/31300)

Figure G.82 *Mananga* looking NE (Photo: http://www.stayz.com.au/31300)

Figure G.83 Early photo of *Mananga* looking SE, possibly 1930s or 40s (Photo: courtesy of Royal Australian Institute of Architects Listing 4702265 Neg. no. SC336/1))

Figure G.84 View looking SE showing extension to NE corner of original building (Photo: http://www.stayz.com.au/31300)

Figure G.85 Internal view of a restored room in *Mananga* (Photo: http://www.stayz.com.au/31300)

Figure G.86 Detail of roadside boundary fence and entrance, looking E

Figure G.87 General view of the elevated spurline context of the *Mananga* homestead, looking NW from the creek flats of Broughton Creek and the railway (foreground)

Figure G.88 1999 image of the *Mananga* outbuildings and silo, looking S, (from Shoalhaven Heritage Inventory = Shoalhaven City Council)

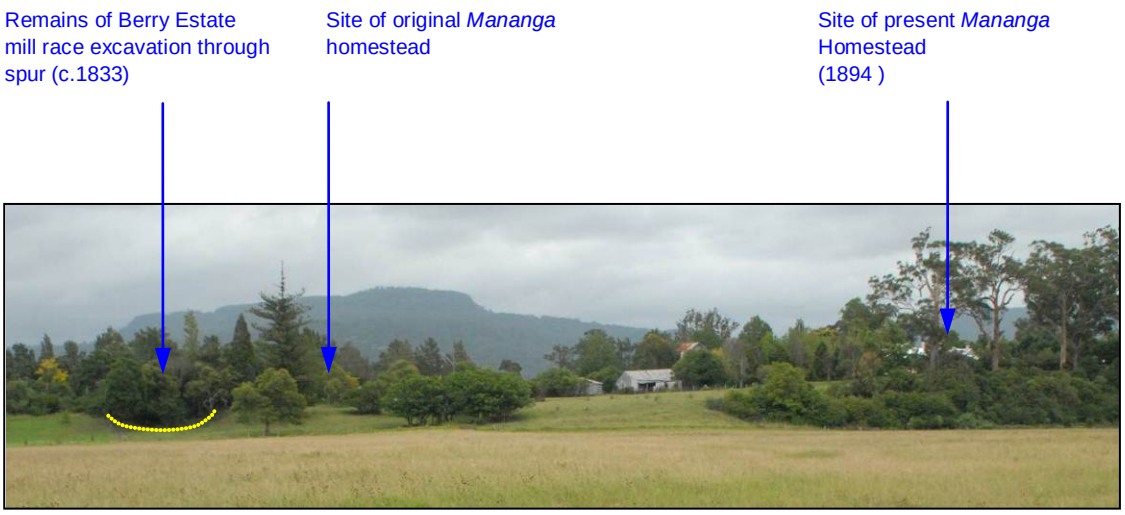
Figure G.89 View of the 'old bails', the southernmost remaining outbuilding in the Mananga homestead complex, looking SE

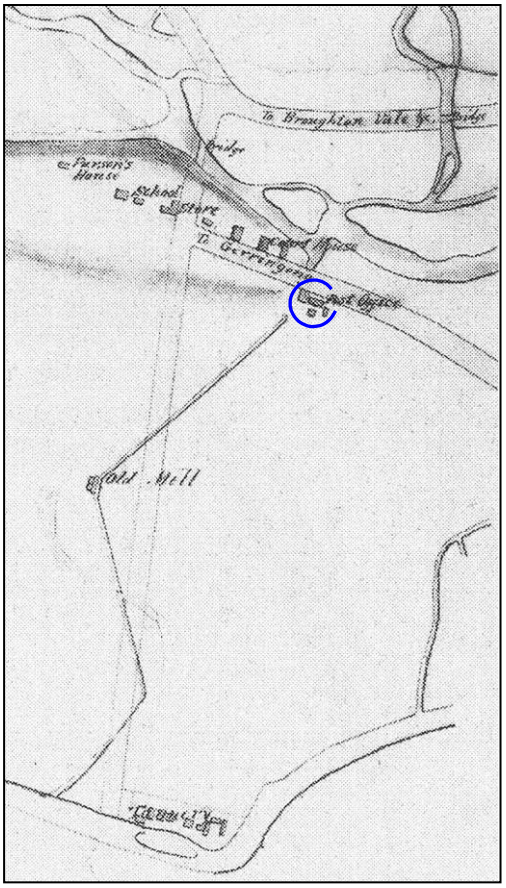
Figure G.90 1949 aerial image, showing *Mananga* (SVY 552/Nowra 5164 Run2(155-166) 4/04/1949)

Figure G.91 1958 aerial image showing *Mananga* (SH.I Dapto-Ulladulla Run GK11 699-5036 23/07/1958)

Figure G.92 Aerial image (2006) showing *Mananga* (Google Earth Pro 2011)

Figure G.93 View of spurline on which the current Mananga property is located, looking northwest.





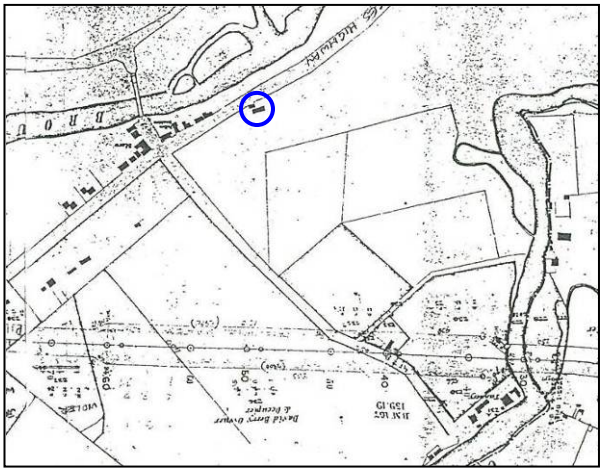


Figure G.94 Extract from 1890 survey map for the Kiama to Nowra railway, showing original *Mananga* homestead buildings (blue circle), also note Tannery buildings (Votes and Proceedings of the Legislative Assembly of NSW, 1890 session, Vol 6. Report of the Standing Committee on Public Works on the Kiama to Nowra Railway)

Figure G.95 Extract from early map of Broughton Creek Village area, probably 1870s, showing the original *Mananga* homestead (blue circle) as the Broughton Creek Post Office, and the alignment of the mill race and highway crossing adjacent to the homestead (Berry Museum n.d.: 15)

Recording ID: G2B H17 **GDA Map Reference:** **290542.6150237**

Name/Description:	***Hillview* homestead** **Former Berry Estate Tenant Farm**	*Cadastral Location*: *Street address:*	Lot 31 DP840646 A111 Princes Highway Berry
Item/Site Type:	Nineteenth Century Homestead		

Context/setting: This homestead is situated on the north facing mid slopes of a prominent spurline which forms the watershed between the Broughton and Broughton Mill Creeks. The homestead is located 210 metres south of Broughton Mill Creek, and 52 metre north of the current Princes Highway.

Description/fabric: Vertical (sawn) slab homestead with hipped roof (corrugated iron) and five original rooms on an 'L' shaped plan with kitchen forming back wing. A lounge room (horizontal weatherboard) has been added to the NW corner of the kitchen, sometime prior to 1958. Other features include:

- Original verandas on SE and SW side of house, and eastern side of kitchen wing. West and east facing verandas have been infilled using (synthetic?) wide horizontal cladding, with aluminium framed windows. This treatment replaced an earlier partial infilling on the western veranda (refer Figure G.98).
- Vertical wall slabs have been sawn using a circular saw (Figure G.102).
- Exposed timber framing around external and internal doors, and some windows, with verticals extending to ceiling. The residents note that these timbers are made of hard wood and very hard.
- One original brick chimney on a formerly external wall of the kitchen, now enclosed by lounge addition (Figure G.105). An additional hearth and chimney is located on the west wall of the lounge addition.
- Central NW=SE aligned hall, extends at N end onto verandah along E wall of kitchen (Figure G.104).
- Small skillion roofed addition (horizontal weatherboards) to N end of lounge, on separate and lower level (Figure G.101).
- Rough sandstone wall foundations under original building, and stone pillars used under the lounge room addition (Figures 6.106 and 6.107).
- Two fig trees have been planted on the western side of the homestead and are now large and mature. They may date to the nineteenth century (Figures G.108 & G.116).
- A number of post 1960 plantings, including an Oak tree, are present between the homestead and the current highway. Although not part of the significant fabric of this site, these plants were planted by the late wife of the current owner and have great sentimental value.

- Many of the external windows appear to be too young for the building, and may have been replaced with their present wooden frame, single pane sash windows (some have two panes in the upper sash). This renovation may date to the 1920s or 30s, possibly at the same time as the addition of the lounge room. Two 2x6pane sash windows survive, one on the kitchen exterior wall, and one on a former western exterior wall now behind an enclosed verandah.

Outbuildings include a number of timber frame and corrugated iron sheds and a concrete silo. The largest and downslope shed is reported to have been disassembled and moved from Port Kembla where it had been used for processing immigrant workers after the war (pers. comm.. Keith Bowden 24/08/2011).

Dimensions: Original homestead 'L' configuration approximately 12.5 x 16.5 metres; with later additions, approximate maximum dimensions: 21 x 16 metres.

Physical condition: Very good and well maintained condition

Integrity: Despite replacement of many windows, the addition of a lounge room, and infilling of verandas the homestead retains its original configuration, basic structure, framing, and exterior slabs and weather bands. Many original details remain.

Associated features: -

*Current use:*Private residence and farmhouse

*Heritage listings:*no current listings

Historical background/interpretation:

An 1890s map of the northern portion of the Berry Estate (probably 1892, refer Graham 1998) shows a T. Courtney as the tenant farmer in residence. Four buildings in a diamond configuration are shown on the map, in the location of the current homestead complex (Figure G.114).

Based on similarities with the *Glenvale* homestead (G2B H45), notably the 'L' configuration of the homestead (a consequence of an adjoining rear kitchen wing), and similar (sawn) vertical slab walls it can be speculated that *Hillview* homestead is of a similar age, or possibly a little later - ie the 1860s or a little later.

The following information on some of the previous owners was kindly provided by the current owner Mr Keith Bowden (pers. comm. 17/02/2009 & 24/08/2011):

- The earliest owner known to him was Mick Keller, he was a "hoppy leg" fella, with a limp in one leg.
- Noel and Colin Cook, owned the first black and white heard of cows. Colin moved to Shellharbour around 60 years ago.
- Allan Blinkensopp.
- Mrs Birdsall bought the property off the Cooks (she was a McIntosh).
- Richardson from Albion Park (owned the property for only a short period of time, 3 to 4 months)
- Barma and Jessup.
- Keith Bowden bought the property off McIntosh 36 years ago (c.1975).
- The largest and downslope shed is reported to have been disassembled and moved from Port Kembla where it had been used for processing immigrant workers after the war.

Figure G.96 General context view of *Hillview* homestead group, looking SW

Figure G.97 View of *Hillview* homestead group, looking NE

Figure G.98 1959 photo of *Hillview* homestead group, looking NE , enlarged area shown in blue) (National Library of Australia photographer R.Reeves pic-vn4590232)

Figure G.99 View of western side of the *Hillview* homestead, looking NE

Figure G.100 View of eastern front corner and verandah of original homestead building

Figure G.101 View of back (northwest facing) portion of homestead, showing veranda infill and skillion additions, looking S

Figure G.102 Ceiling boards and exposed timber frame joinery and vertical slabs on wall and around four pane window (room over back stairway)

Enhanced detail showing circular saw marks on wall slabs

Figure G.103 Typical internal detail of exposed wall framing above door in central hall

Figure G.104 View along central hall toward front door, showing exposed framing around doors

Figure G.105 Internal view of kitchen wing, looking NW, note large kitchen hearth and chimney, Keith Bowden at table

Figure G.106 Rough sandstone wall foundations under original portion of homestead

Figure G.107 Sandstone pillars supporting later northwestern addition to homestead

Figure G.108 Detail of large fig trees planted along western side of homestead

Figure G.109 Context view of rear outbuildings, looking SE near Broughton Mill Creek bank

Figure G.110 Front of downslope shed, built using components from a Port Kembla shed used for processing immigrant workers

Figure G.111 Detail of internal wooden frame in downslope shed

Figure G.112 View of king truss used to support roof in downslope shed

Figure G.113 View of reused vertical wooden slabs and sawn horizontal boards within a smaller shed adjacent to the large downslope shed

Figure G.114 Extract from 1890s map of the northern Berry Estate, showing four buildings at the location of *Hillview* (blue circle) ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

Figure G.115 Detail of 1958 aerial photo showing original 'L' configuration of homestead with addition of lounge room on northwestern corner

Figure 6.116 Extracts from 1958 and 2006 aerial photography showing little change in the number and configuration of buildings. Apart from the two fig trees, the garden development largely post dates 1960 (SH.I Dapto-Ulladulla Run GK11 699-5035 23/07/1958; Google Earth Pro 2006)

Recording ID: G2B H25		**GDA Map Reference:**	**293762.6151623**
Name/Description:	***Sedgeford* homestead and grounds**	*Cadastral Location*: *Street address:*	Lot 1 DP 593476 A495 Princes Highway, Broughton Village
Item/Site Type:	Early twentieth century homestead and garden		

Context/setting: Homestead and garden are located on the crest of a prominent spurline situated at the southern end of Broughton Village. The current Princes Highway forms the southern boundary of the item. A disused, pre 1936 highway alignment (G2B H26) forms the eastern boundary, and former 'front' of the property and garden.

Description/fabric: Federation weatherboard homestead, built 1902, sandstone footings, original home had veranda on three sides of house, verandas subsequently filled in on northern (side) and western (rear) sides.

One double fire place located on internal wall between north facing rooms.

Room walls originally had hessian lining with wall paper over the hessian.

Originally five bedrooms.

Hall includes original ceiling and wall.

Internal walls either use sawn vertical boards (approx. one foot wide), or horizontal boards (approx. seven inches wide).

All hardwood pit sawn off property.

Cypress or pine floor boards.

Verandas subsequently filled in on northern and western side.

New veranda added to southern side of house.

New Kitchen: sawn wooden frame with fibro cladding.

New back (western) entrance added in last 60 years.

One internal wall (NE front room) and two formerly external walls (northern veranda) removed, additional exterior doors added, esp. on S side of house, new kitchen building added to SW corner.

A separate cottage built in the 1980s uses recycled former building elements from the property, including vertical slabs, originally cut on property, but recycled from a number of previous structures.

Cement dairy building built in 1936.

Homestead is supplied with water from a natural spring located to N of homestead on opposite side of valley.

Garden and grounds include the following mature tree plantings:

- Podocarpus (‘Brown Pine”).
- Jacaranda.
- Araucaria “Norfolk Island Pine”.
- Araucaria “Bunya Pine” (2).
- Casuarina “River Oaks”.
- Grevillia “Silky Oak”.
- Cedrus “Indian Cedar”.
- Oak.
- Maple.
- Brachychiton “Illawarra Flame Tree’.
- Tristania.
- Ficus (five mature trees, at least two types, including “Moreton Bay Fig”).

Dimensions: The original 1902 homestead, associated plantings, grounds and location of former outbuildings occur within an approximate area of 200 x 100 metres

Homestead: approximately 22 x 14 metres

Physical condition: Original homestead is an active home, and in good condition and well maintained.

Garden and grounds in good condition with many original tree plantings providing a high canopy

Integrity: Homestead includes many original features and fabric but has been modified with small additions, infilled verandas, and removal of some internal walls.

Front garden includes original highway frontage and remnant highway alignment (disused from the 1930s)

Associated features: The *Sedgeford* homestead forms part of a complex of recordings which, as a group, have value in understanding and interpreting the evolution of the Princes highway, its various alignments, and its interrelation with adjoining land holdings and homesteads. These recordings are:

- G2B H27 remnant section of 1856 Berry Estate Road.
- G2B H26 remnant section of 1870s – 1930s Highway (“Binks Corner”).
- G2B H52 potential archaeological deposit of former Berry Estate tenant farm.

Current use: residential home

Heritage listings: No current listings

Reportedly previously listed on Shoalhaven LEP Heritage schedule in the 1990s and subsequently unlisted by the Shoalhaven Council in late 2006 (NOHC 2009b & c, AECOM 2009, *South Coast Register* 11 July 2007).

Historical background/interpretation:

Unless referenced otherwise, the following information was provided by Mrs Margaret Binks (born 1928), during interviews on the 18 Aug 2008 (NOHC 2009b & c) and 18 March 2009).

Thomas Binks (1841 – 1926), was born in Sedgeford, Norfolk, England and arrived at Port Kembla in 1860 aged 19. He married Mary Hetherington (1836-1921), born Irvinestown, Fermanagh, Ireland (Cowling no date).

The name, T. Binks, presumably Thomas Binks, is listed on an 1890s map as the tenant farmer of 128 acres of upper catchment slopes, situated 500 metres to the northwest of the Sedgeford homestead (Figure G.120). Following the break-up of the Berry Estate around the turn of the twentieth century, the *Sedgeford* property was taken up by Thomas and Mary who established a dairy farm on approximately 200 acres. Cowling (no date) states that the sale occurred in 1899 and involved 700 [200?] acres and cost 3324 pounds.

The *Sedgeford* home, named after Thomas's birthplace, was constructed in 1902, and built by Sandy Johnston, a local builder. All the timber needed for construction was sourced and pit sawn on site (Cowling no date) and has remained in the same family (occupied by six generations) since that time (SFHS 2003: v.1 p58). The Binks' had eleven children, the eldest son (John ["Josh"], 1866 - 1929) was the father of the husband (Alfred John Devire Binks 1916 -) of the current resident, Mrs Margaret Binks (Margaret Binks, oral history interview August 2008). All of the daughters were married in the front room of the homestead.

Thomas is believed to have travelled to England in 1906 to learn cheese making and subsequently made cheese at Sedgeford, including flavoured cheeses. There was a single cheese room (to the south of the Dairy) which had walls packed with charcoal to assist in maintaining a constant temperature. In addition, there were milk and cream rooms. Cheese production had ceased by the 1940s and the associated buildings had also gone by this time.

Many of the original family made a lasting contribution to the local and wider community. John ('Josh") Binks (1866 – 1929), eldest son of Thomas and Mary, was a prominent local dairyman and cattle breeder, and was a long standing alderman of the Berry Council. He also served as Mayor for a period (SFHS 2003). When he died in 1929 he was described as one of the oldest members of the Agricultural Society, and a past President (Sydney Morning Herald 14 Sep 1929 p18).

Alfred Noble Binks (1873 -1953) another son of Thomas and Mary, was a Member of the NSW Legislative Council from 1932-1934. He also assisted in the founding of the Better Farming League in 1943; was a chairman of directors of the Berry Rural Co-operative Society from 1928 until 1953; director of Dairy Farmers Co-operative Milk Company from 1923; president of South Coast Butter Factories Association; member of Primary Producers Union, president of Illawarra District Council, New South Wales vice president from 1936 until 1943; chairman of Dairy Council (1932); assisted to found the Kiama Animal Health Centre; and was president of the Berry Agricultural and Horticultural Association (Parliament of NSW website).

The original plantings in the property grounds were selected from, and sourced from the Yates catalogue around 1903. One of the grandchildren of Thomas and Mary, lived to be 107 and could remember planting some of the trees when she was 4 years old.

Two former weatherboard houses have been moved from the site and re-positioned on Fern Street, Gerringong. One of these was built for John ("Josh") when he was married. It was located in the NE corner of the homestead grounds. The remains of the hearth are still evident in the grounds.

A homestead of similar age to *Sedgeford*, owned by the brother of an owner of Sedgeford is reportedly situated on an opposite property (pers. comm. John Flett, Shoalhaven City Council, 6 Feb 2008).

The Binks family dairy farm began as a Berry Estate leasehold of 50 acres, which upon the breakup of the Estate was purchased and then added to, with purchases of adjacent blocks, to form a farm of around 196 acres. In the 1970s the majority of the holding was sold off, leaving just the original homestead and grounds on a 5 acre Lot.

A remnant of the original road (prior to the later nineteenth century alignment, located adjacent to the eastern boundary of the homestead grounds), can be seen on the opposite (northern) side of the valley, above the later nineteenth century alignment). Prior to the construction of Sedgeford, it is remembered that this original road passed to the west of homestead site, west of the current Dairy building (a memory of Mrs Binks' husband's father).

The *Sedgeford* homestead and grounds were reportedly withdrawn from consideration for inclusion in the 2007 revision of the Shoalhaven City Council Heritage Schedule due to objections raised by members of the owner's family (pers. comm. John Flett, SCC., 6 Feb 2008). Margaret Binks states that she assisted the Council in registering the property in the 1990's and that it was deregistered late in 2006 (oral history interview August 2008, in NOHC 2009b & c, AECOM 2009). A local newspaper article at the time reported that the withdrawal was because "its listing might inhibit the proposed Princes Highway upgrade between Bomaderry and Gerringong" (South Coast Register July 11 2007).

Figure G.117 A glimpse of the Sedgeford homestead and grounds looking southwest

Figure G.118 The eastern front of the Sedgeford homestead (Cowling no date)

Figure G.119 Floor plan sketches of original and current homestead configurations made by Cowling (no date; additional details added in blue)

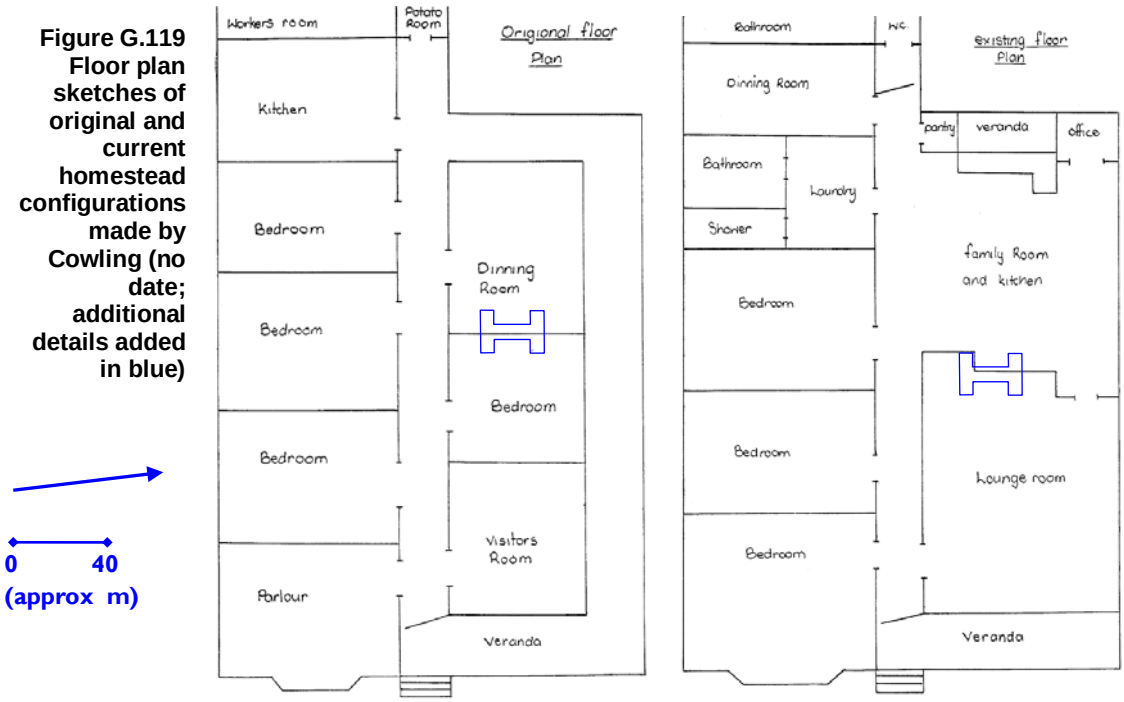


Figure G.120 Extract from 1890s map of the northern Berry Estate, showing the original Binks leasehold farm (top left) and location of 1902 (blue circle) ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

Figure G.121 Aerial image (2007) of Sedgeford and associated plantings and grounds. Note changes in out-buildings (Google Earth Pro 2011)

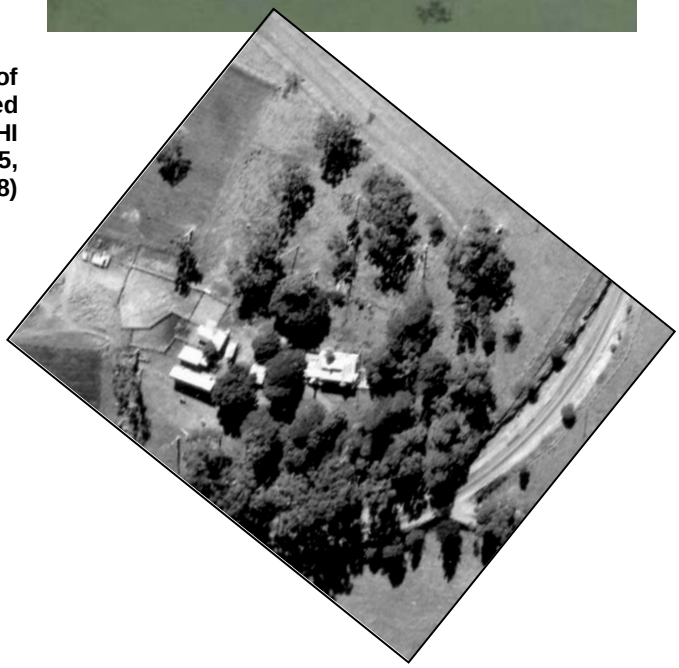


Figure G.122 Aerial image of Sedgeford and associated plantings in 1958 (SHI Dapto-Ulladulla 697-5105, Run GK10 10/07/58)

Recording ID: G2B H28		**GDA Map Reference:**	**294107.6151865**
Name/Description:	***Brookside* homestead**	*Cadastral Location*: *Street address:*	Part Lot 1 DP 919179 A540 Princes Highway Broughton Village
Item/Site Type:	Early twentieth century homestead		

Context/setting: Homestead and associated existing and former outbuildings are situated on flats and basal slopes on the west bank of Broughton Creek, in the southern portion of Broughton Village. A small tributary streamline approaches the homestead from the west. The homestead is located on the basal terminal slopes of a low spur between Broughton Creek and the tributary stream. A former orchard was located on creek flats to the south of the homestead.

Description/fabric: This recording consists of a grouping of elements, including existing buildings, former building remains and platforms, any associated archaeological deposits, and traces of a former orchard.

The Brookside homestead building was constructed by combining two salvaged structures from separate and unrelated local sites. Both are wooden frame and horizontal weatherboard clad structures. The front portion of the building, which is identifiable by the north facing veranda and single gable roof aligned northeast – southwest (Figure G.125), was recovered from a homestead site 570 metres to the northeast (G2B H59). This site appears to be the original occupation site for portion 181, a grant of 100 acres to Antony Finn in the 1830s. This structure now consists of three rooms, however the roof structure suggests an original configuration of four rooms (pers. comm. 20/09/2011 Mrs Chittick).

The back portion of the homestead has two parallel gable roofs, aligned at right angles to the front roof line. A side, east facing veranda and brick chimney may have been added when the structure was installed at the current site. The former location of these back buildings prior to relocation is not known but presumed to be local.

Features of the homestead include one brick chimney at SE end of homestead, paling fence around front homestead enclosure, corrugated iron roofs, sandstone foundations.

A recently constructed residential cottage constructed using timber frame and recycled vertical wooden slabs, (possibly from former on-site outbuildings, Figure G.132) is located behind the main homestead, in the location of a similar sized former structure, evident in 1958 aerial photography (Figure G.136).

Two detached weatherboard garages, one adjacent to the homestead, the other closer to the highway (Figure G.130).

One long horizontal weatherboard storage shed (open on one side), which appears to incorporate structural elements and a former dairy (the back wall now partly clad with corrugated iron). A small outbuilding at the W end of the shed houses an *in situ* copper (heating basin) (Figure G.129).

Immediately behind (south of) the storage shed, an elevated former building platform, with cement footings, *in situ* wooden poles, surface drains , and sandstone retaining walls probably constitute the remains of a former dairy complex (Figure G.130).

	A former structure is also indicated by a low earth rectangular platform and low, downslope retaining wall, on elevated basal slopes on the south side of the tributary stream southeast of the homestead (the platform is within SW corner of the defined area of the heritage recording). Remnant paling and four rail wooden fencing survives around the yards and enclosures behind homestead (Figure G.131). The area of a former orchard is evident on the creek flats south of the storage shed. The remains of a water pump, cement slab and small shed are located at the northern edge of the former orchard (Figure G.133).
Dimensions:	The existing buildings and the remains of former structures and yards are present within an approximate area of 150 x 150 metres.
Physical condition:	Homestead is an active home, and in relatively good condition. Some outbuildings are run-down and require maintenance or repair. Some former structures now evident as traces only. Fencing around homestead and yards is dilapidated in places.
Integrity:	The homestead retains an early twentieth century character but has been subject to some modifications, and the current format relates to multiple periods of installation, renovation and maintenance. The identification of original features of the front portion of the homestead, those that may relate to its construction and occupation when located at G2B H59, would need to be the subject of a detailed analysis. Potential original features include parts of the veranda, some windows, the internal frame and some of the weatherboards. Some obvious later additions and changes include, the installation of French doors, brick pillar bases for the veranda posts, and decorative cast iron brackets (interior not inspected). The former Dairy building has been modified considerably, although the separate small building, housing an *in situ* copper, at its western end, appears original.
Associated features:	The homestead*,* original outbuildings, and former building platforms (one at SW corner of defined recording area), all form part of this recording
Current use:	residential home and associated farm buildings
Heritage listings:	no current listings

Historical background/interpretation:

The following information was provided by Mrs Helen Chittick (born 1936), during interviews on the 23 Sep 2008 (NOHC 2009b & c) and 18 Feb and 20 Sep 2009. Additional information was provided by Scott and Stuart Chittick.

The *Brookside* property has been owned by members of the Johnston family since the early twentieth century. The current owner, Mrs Helen Chittick, was born at *Brookside* in 1936, as was her father in 1905. Her grandfather, Gerard Johnston owned the property at the time of her birth. He had previously rented the land from the Berry Estate prior to its purchase by the Johnsons. In the 1890s the lease holder of the approximately 80 acre property appears to have been a T. Connors (Fourth Edition Broughton Parish Map 1890s).

The core of the homestead consists of two earlier nineteenth century structures, which were disassembled and transported from other locations. One was built by Mrs Chittick's great grandfather, another has a connection to the Stewart family. The front section of the homestead originally stood at G2B H59. It was purchased from the Stewarts, dismantled in sections, dragged using horse drawn skids to the present site of "Brookside" and re-assembled in its current position. This portion of the home now consists of three rooms, however on an occasion when an electrician was working in the roof he commented that the structure of the roof suggested that the front room may originally have been made up of two rooms.

The cremated remains of a good friend of the Chittick family, Mr Ray Barter, were scattered and memorialised at a small plot and planted tree, located on the property, some 240 metres upstream of the homestead at the foot of a low escarpment (Figures 6.133 and 6.134). A Buddhist monk performed the ceremony. Ray died on 11/11/1996. Ray used to periodically camp on the creek bank at this location when he was a boy, often with William Chittick (the current owner's late husband). Barter and his wife lived at Heathcote Sydney.

Figure G.123 General view of *Brookside* homestead, looking N

Figure G.124 View of *Brookside* homestead, looking SE

Figure G.125 Detail of front of *Brookside* homestead, looking SW. The front section of the homestead was originally located at G2B H59 and re-constructed at the present site to form *Brookside*.

Figure G.126 Front verandah and yard, looking E, enlarged detail of left hand door (inset)

Figure G.127 Detail of eastern side of homestead, looking S

Figure G.128 Separate garage adjacent to homestead, looking S

Figure G.129 Storage Shed incorporating elements of a former dairy, looking SE

Figure G.130 earth platform behind (south of) storage shed, with cement footings, drains, *in situ* poles and sandstone retaining wall, probably indicative of a former dairy complex, looking E

Figure G.131 remnant four rail fencing behind homestead, looking NE, (new timber cottage in background)

Figure G.132 New timber cottage, with re-used vertical timber slabs, looking SE

Figure G.133 Remains of a water pump and shed at the edge of a former orchard area (behind pump), looking SW

Figure G.134 Memorial tree planting and location of cremated remains of Mr Ray Barter, looking SW. Detail of collar of Mr Barter's dog, who's remains are also here

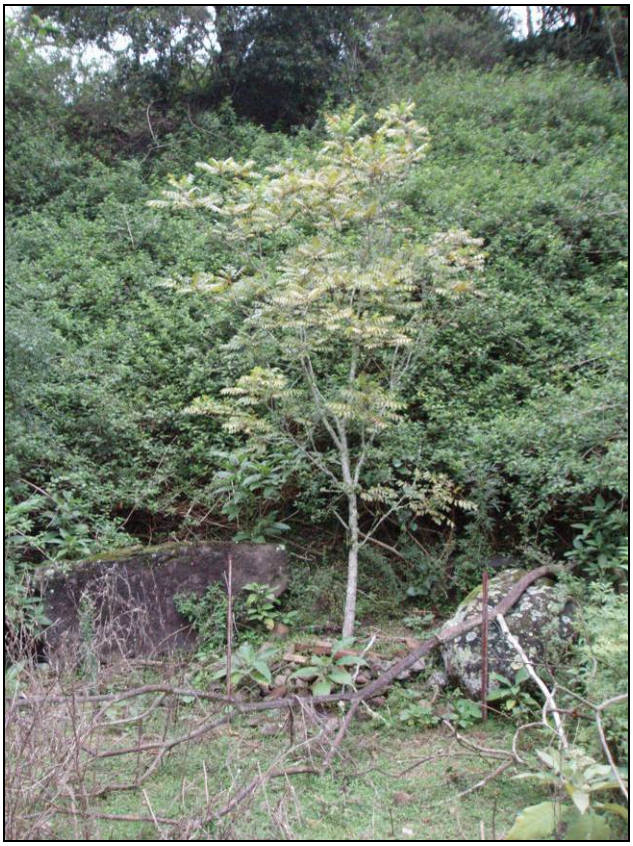


Figure G.135 Aerial image of Brookside and associated features (ACD15 NSW 3108-197 8/11/92)

Figure G.136 Aerial image(and enlargement) of Brookside and associated features in 1958, note former orchard and pump house south of homestead, out building/cottage(?) behind homestead, and small structure on opposite side of tributary west of the orchard (SHI Dapto-Ulladulla 697-5103, Run GK10 10/07/58)

Recording ID: G2B H29		**GDA Map Reference:**	**294861.6152838**
Name/Description:	**Princes Highway**	*Cadastral Location*:	Princes Highway easement
	***Broughton Creek Bridge* (RTA Bridge no.704)**	*Street address:*	Princes Highway Broughton Village
Item/Site Type:	Twentieth century (1935 & 1994) concrete beam bridge		

Context/setting:	Bridge forms the current Princes Highway carriageway and spans Broughton Creek, at Broughton Village. The valley floor is characterised by extensive flats, terraces, drained swamp basins, minor flood channels and adjacent, low gradient, basal slopes.
Description/fabric:	This concrete bridge is a widened structure of three longitudinal beams which are simply supported at the central pier and curve down to frame compositely with the abutment walls. Each span has a cross girder at the pier. Widening of the bridge has been effected by means of attaching cantilever deck to each side of the bridge. These cantilevers are supported by small composite cantilever beams which are tapered upward from the main beam. To assist in distributing the twisting effect of loads outside the main beams coming through the cantilevers, three rows of steel struts per span brace the main beams. The new deck edge supports a kerb and Thriebeam style guard railing (RTA S170 citation). The central pier has two columns which frame into a cross girder which has a wider upper section to accommodate the two simply supported decks. The abutments, of wall type, have been extended to accommodate the new deck width, and gabion box walls have been used to stabilise the abutment fill (RTA S170 citation). The bridge was originally constructed in 1935, and widened in 1994
Dimensions:	Approximately 40 metres long and 15 metres wide
Physical condition:	very good condition
Integrity:	Good. Although widened in 1994 this bridge retains the capacity to demonstrate the key structural and aesthetic characteristics of reinforced concrete beam bridges of the period 1925-48.
Associated features:	Approximately 50 metres south of the bridge, a two cell cast in-situ box culvert services an overflow channel of the stream. This has had its endwalls and wingwalls raised to allow for increased formation width
Current use:	Highway bridge
Heritage listings:	Listed on the RMS s170 Heritage and Conservation Register (item no. 4309596), as an item of local significance with historical, aesthetic and representative values

Historical background/interpretation:

The concrete bridge was constructed in 1935 as part of a bypass of Broughton Village. It replaced a timber truss bridge on the old highway alignment (650 metres upstream), which was probably constructed in the 1890s. In the 1950s the old timber truss bridge was still in use by landowners, as part of the private access routes to their properties. Its demolition occurred subsequent to this time.
This crossing of the Broughton Creek corresponds with a ford location on perhaps the earliest European pathway along the valley floor, shown on a 1860s County map (refer Figures 6.216 and 217).

Figure G.137 General view of bridge from upstream west bank

Figure G.138 General view of central pier, longitudinal beams and cantilever supports for widened deck

Figure G.139 General view of road top and approaches to bridge, looking NE

Figure G.140 Aerial image (2007) of bridge (Google Earth Pro 2011)

Figure G.141 Aerial image of bridge in 1958 prior to widening (SHI Dapto-Ulladulla 697-5101, Run GK10 10/07/58)

Recording ID: G2B H45		**GDA Map Reference:**	**292662.6151257**
Name/Description:	***Glenvale* homestead former Berry Estate Tenant Farm**	*Cadastral Location*: *Street address:*	Lot 12 DP1098617 A371 Princes Highway Broughton
Item/Site Type:	Mid Nineteenth Century Homestead		

Context/setting: The homestead is located on the floor of a minor and unnamed tributary valley which drains in a south easterly direction into Broughton Creek. The valley forms part of the northern fall of the Broughton Creek catchment. The homestead is situated between two nearby drainage lines, and 700 metres upstream from the confluence with Broughton Creek.

Description/fabric: Vertical (sawn) slab homestead with hipped roof (corrugated iron) and five original rooms on a revered 'L' shaped plan with kitchen forming back wing. Other features include:

- Verandas around all sides of building. Only the front verandah (facing SE) is considered by the owners to be original, the others having been added at a later date.
- Two brick chimneys, made of sandstock bricks, rendered and detailed to resemble ashlar, one on eastern side of main front building, and one on eastern wall of kitchen wing.
- Symmetrical Victorian Georgian front with central French doors and 2 x 2 sash windows on either side (Shoalhaven Heritage Inventory).
- Vertical wall slabs have been sawn using a circular saw.
- Central hall with two rooms on either side, kitchen on side wing.
- Exposed timber framing around external and internal doors, and windows, with verticals extending to ceiling.
- Rafters sit on ceiling joists (rather than a wall top plate). This is a style of construction suited to shingle roofs and went out of style in Sydney in the 1840s but probably persisted in regional areas (pers. comm. Mr Phil Bragg owner, based on inspection of roof space by John Tropman ARAIA 23/09/2011).

Dimensions: Approximate building dimensions (including verandas): 27 x 30 metres

Physical condition: Good, some deterioration of timbers evident (detailed inspection not made)

Integrity: This building appears to have a relatively high degree of integrity. According to the owners, the verandas, on all but the front aspect (SE) have been added. Some fittings such as doors are modern additions or replacements.

Associated features: Remnant alignments of the 1856 Berry Estate Road occur to the south and southeast of the homestead (G2B H22 & 23).

Current use: Private residence on active farm.

Heritage listings: Shoalhaven LEP 1985 (as amended) Schedule 7

Shoalhaven Heritage Inventory

Historical background/interpretation:

The construction date for this homestead is thought to be around 1860. This is based on construction techniques, an oral history reference to a woman living at Glenvale in the 1870s and the first documentary record being in 1889 (pers. comm. Mr Phil Bragg, owner 23/09/2011).

The owners have been advised that the construction of the kitchen as an integral wing of the main building (rather than as a separate structure attached by a breezeway), follows a Scottish tradition which allowed better use of the kitchen's warmth. It reportedly is a characteristic of the Berry Estate tenant farms (pers. comm. Mr Phil Bragg, owner 23/09/2011, quoting advice from Mr John Tropman ARAIA).

A 1890s map of the northern portion of the Berry Estate (probably dated 1892, refer Graham 1998), shows a W. Fletcher as the tenant farmer in residence. Five buildings are shown on the map, the existing homestead appears to be shown on the right and a long out-building to the back left (Figure G.145).

William Fletcher presumably went on to purchase the farm. The Shoalhaven Heritage Inventory notes that Fletcher resided here for many years before moving to Jaspers Brush in the late 1890s (Shoalhaven Heritage Inventory).

A William Fletcher (born 1833 Drumadravey, Co. Fermanagh, Ireland) is noted to have arrived in Australia in 1864 on the *Sirrocco*. He married Rebecca Keys in 1867 (registered at Newtown). One daughter Mary Jane was born in 1880 (Berry). He died in 1909 at Jaspers Brush aged 76 (www.rootsweb.ancestry.com /~nswgdhs/12720.htm; SFHS 2003:187).

In 1914, the property became part of the Closer Settlement Promotion Act (1910) as portion 247 (Settlement purchase 14.3) and reverted back to the crown prior to being allotted to Ronald Hollands (5th Ed parish map of Broughton, Parish preservation project ID no. 13803901). The Closer Settlement Promotion Act allowed three to five discharged soldiers to purchase privately owned land under agreement with the vendor with the terms to be approved by the Minister of Lands. Under the 'promotion scheme' the land was subsequently occupied as a 'Settlement Purchase'. The provisions of the Closer Settlement Act 1910 under which many of these soldier settlers applied for land was extended by Section 4C of the Returned Soldiers' Settlement Act 1916.

Hollands did not achieve freehold title. The holding was transferred to Edith Coates in 1922, and then to two brothers Harold and Cyril Couzens in 1927. In 1939 the property was owned by Cyril Ernest Couzens. The property was later leased to Phil Bragg's father, who later purchased it in 1956, three years after Cyril's death (aged 50) (Sydney Morning Herald 17 Aug 1953 p.12). Phil purchased the property from his father in 1979 (pers. comm. Mr Phil Bragg, owner 23/09/2011)

Recording ID: G2B H45

Glenvale homestead
former Berry Estate tenant farm

Figure G.142 General view of front of Glenvale homestead in 1999 looking NW (Shoalhaven Heritage Inventory)

Figure G.143 View of southern side of homestead and storage shed, looking SE

Figure G.144 Detail of southern side of homestead, looking NE

Figure G.145 Extract from 1890s map of the northern Berry Estate, showing four buildings at the location of *Glenvale* (blue circle) ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

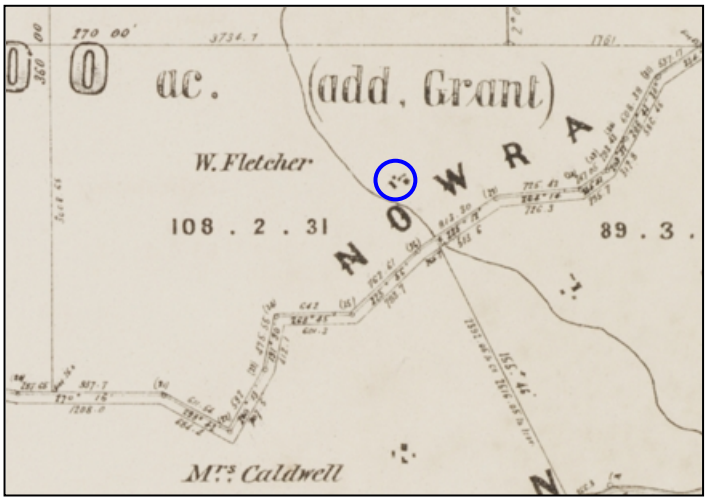


Figure G.146 Detail of 1958 aerial photo showing reverse 'L' configuration of homestead

Figure G.147 Extracts from 1958 and 2006 aerial photography showing Glenvale homestead complex and replacement of out-buildings in same arrangement (SH.I Dapto-Ulladulla Run GK11 699-5030 23/07/1958; Google Earth Pro 2011)

Recording ID: G2B H47

GDA Map References
Convent: 288660.6149702
Church: 288688.6149694

Name/Description:	**former St Patrick's Convent, St Patrick's Church, and grounds**	*Cadastral Location*:	Lot 1 DP86897
		Street address:	80 North St Berry

Item/Site Type: Former Roman Catholic Convent (1921) and Interwar (1936) Church and Grounds

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Context/setting: This grouping including the St Patrick's Church, former Convent, and grounds is located on a large square block of around 7.6 hectares which extends between Albert St in the south, and North St to the north. The site is situated on level ground, 50 metres northeast of Town Creek, a small tributary which traverses diagonally across the Berry township area.

Description/fabric: *St Patrick's Convent (constructed 1921)*

The style and form of this building is characteristic of late nineteenth and early twentieth century ecclesiastical architecture throughout the Shoalhaven District (Shoalhaven Heritage Inventory).

Two storied building constructed of fairface brick with tiled hipped roof and gabled projection. The two storey verandah runs along two sides of the building from the gabled projection. Open eaves. Windows overhung sash with single large lights set in openings with brick soldier arches and brick sills. Gable decorated with battened fibre cement panels in similar manner to the detailing employed for the verandah balustrade/frieze.

Mature landscape/garden setting.

St Patrick's Church (constructed 1936)

This building has been described in the following way by George Adams (a Sydney based architect with GM Adams & Associates, who has designed many religious buildings):

> "the building has a Romanesque quality with Gothic Revival style windows. This building would possibly be the finest example of brickwork in the Illawarra... this was the first building in the Illawarra-Shoalhaven to express 'modern' materials with concrete coping and quoins revealed on the outside facade." (in Faherty accessed 2011).

The building features include:

- Small or relatively small windows in comparison to the wall proportions (providing a Romanesque character).
- Gothic arched windows.
- Decorative brickwork above windows and recesses (shaped bricks are used to form hood mouldings over doors and windows, to deflect driving rain running down the face of the building into the window).
- Surface wall patterning created using colour variation in brickwork bond.

- Concrete coping and quoins revealed on the outside façade.

Dimensions:	Convent: approximately 15 x 10 metres
	Church: approximately 24 x 15 metres
Physical condition:	Both buildings in excellent condition
Integrity:	Convent: Verandas formerly partially enclosed at first and ground floor levels, these additions now removed. Upper storey windows inserted into north facing wall, possibly as part of 2003 renovations. New ground level brick connection in northern wall to new Church centre.
	Church unchanged since construction.
Associated features:	-
Current use:	The former convent building is now part of the Church Centre and made available for Church related conferences, accommodation needs, retreats and functions
Heritage listings:	Both the Church and the Convent building are listed on Shoalhaven LEP 1985 (as amended) Schedule 7
	Both the Church and Convent are included in the Shoalhaven Heritage Inventory

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Historical background/interpretation:

The following outline is sourced primarily from Faherty (2011) and Lidbetter (1993).

The first baptism recorded in the Broughton Creek parish register was in 1862. The following year the first resident Catholic priest arrived in the Shoalhaven District. By 1866 a small chapel had been constructed on the east side of Broughton Mill Creek (opposite to the current Mananga homestead). By 1872, Mass was being celebrated at both Broughton Creek (Berry) and Coolangatta. A report in 1880 described the condition of the chapel as poor and soon to be replaced. Following the formal survey of the new town grid, west of the creek, in 1883, a new church was built on the present site in 1884. It was a wooden frame and horizontal weatherboard building with an iron roof. The site was donated by David Berry.

The 1884 building served as both church and school until the Sisters of Saint Joseph came to reside in 1891. A six room wooden cottage was purchased adjacent to the church and served as the first convent.

A convent was constructed adjoining the church in 1921. This replaced the older cottage which was then sold and transported to Queen Street, Berry. A priest's apartment was attached to the new building at the rear (Figure G.150).

The foundation stone for the present church building was laid by the Rev. Michael Sheehan Co-Adjutor Archbishop of Sydney on 24 November 1935. It was completed the following year in May and situated parallel and just northeast of the 1884 church building. The church was designed by Clement Glancey (Sydney) and the builder was H.A.Taylor (Concord). The contract price for the building was 3,000 pounds, with an extra 500 pounds allocated for furnishings.

The old church continued to be used as a school until 1954 when a new school was constructed on the opposite side of Albert St.

Following declining enrolments and government rationalisation policy in the 1970s the school closed in 1978. The almost 90 year community presence of the Sisters of St Joseph also ended with the school's closure.

The school building subsequently served as a Church Centre and Hall, but the former school grounds were eventually sold in 2001 for residential development. The old school building was relocated and donated to the Berry Public School. Funds from the property sale went towards the construction of a new Church Centre situated directly behind, and connected to the old convent building. This was completed in 2003 and designed by Irwin architects and built by Peter Rein. The convent building was renovated as part of this new infrastructure program.

Figure G.148 General view of front of St Patrick's Convent building, looking N

Figure G.149 Front view of St Patrick's Convent in 1999, looking N (Shoalhaven Heritage Inventory)

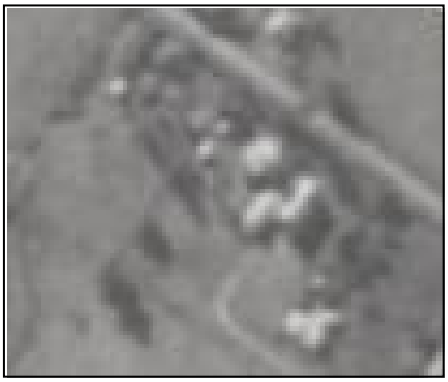
Figure G.150 Rear view of the convent building (date unknown) showing the adjacent priest's quarters (now demolished) (Faherty accessed 2011)

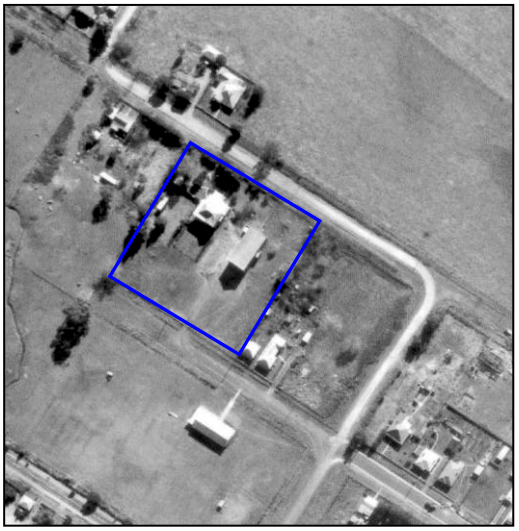
Figure G.151 Recent view of rear of the convent building showing the adjacent 2003 Church Centre (Faherty accessed 2011)

Figure G.152 Front view of St Patrick's Church, looking N

Figure G.153 Rear view of St Patrick's Church, looking S

Figure G.154 Church grounds (blue) in 1949 (below) and 1958 (right) aerial photo extracts (SH.I Dapto-Ulladulla Run GK11 699-5038 23/07/1958)) (SVY 552/Nowra 5164 Run2(155-166) 4/04/1949





Note presence of 1880s wooden church between convent and current church building

Recording ID: G2B H49 **GDA Map Reference: 289727.6150118**

Name/Description:	***Oakleigh* Farmhouse**	*Cadastral Location*:	Lot 7 DP815023
		Street address:	59 Woodhill Mountain Rd Berry
Item/Site Type:	Inter War Bungalow Style Farmhouse		

Context/setting:	This 1930s farmhouse is located on locally elevated level ground within the valley floor flood plain of Bundewallah and Broughton Mill Creeks. It is situated more or less equally distant between the two creeks 250 metres away to the south and east.
Description/fabric:	Inter war farmhouse with corrugated roof (projecting gables at SE and NW corners) and encircling verandah to three sides (west, north and east [front]). Fibro cladding to front gable, cement rendered chimney to front room. The inclusion of many pre 1930s architectural elements (such as 2 x 6 pane sash windows), reflects the use of recycled components, and may relate to the use of transported buildings sourced from the Commercial Hotel (refer background section). Outbuildings include twin concrete silos and associated shed. A new separate cottage has been constructed over the foundations of a former dairy.
Dimensions:	Farmhouse: approximately 16 x 14 metres The farmhouse, associated plantings, grounds and location of current and former outbuildings occur within an approximate area of 180 x 100 metres
Physical condition:	Farmhouse in excellent condition. Roof and chute cladding on silos now dilapidated. No clear surface indication of original tenant farm structures remains, however archaeological deposits may exist.
Integrity:	The farmhouse retains its original 1930s configuration, however interior changes to dividing walls etc may relate to later renovations.
Associated features:	G2B H13 Overseer's Cottage for the Burnett Estate
Current use:	Private farmhouse residence
Heritage listings:	Shoalhaven Heritage Inventory No current statutory listings

Historical background/interpretation:

The following information is based on information presented in the Shoalhaven Heritage Inventory.

An 1890s map of the Berry estate lists Robert Virture Boyd as the tenant farmer of 172 acres, which included the land later known as *Oakleigh*.

R V Boyd was a member of the Boyd family that migrated from Donegal, Ireland in the 1860s and settled in the Woodhill and Broughton Vale areas. He was a Justice of the Peace and Mayor of Berry for the years 1894, 1895 and 1896. In 1898 he was reported to be leaving the district to take up farming activities on the Hunter. In 1911 he owned land along Broughton Creek south of Berry.

In 1912, former Lot 47 (DP4497), situated immediately south of the *Oakleigh* farmhouse land (former Lot 48), was purchased from the trustees of the Berry Estate, by Alexander Burnett, This formed part of a large Burnett holding extending between North Street and Bong Bong Road. These holdings were purchased by himself and other family members at around the same time (Lots 38-41, 43-46 and 50 DP4497, Refer Figure G.80 and G2B H13). One of those family members was Alexander's sister Alice, who married Sir Joseph Carruthers, was a friend and business associate of Sir John and Alick Hay, Secretary for Lands 1899, Premier of NSW 1904-1906 and instrumental in the passing of the David Berry Hospital Act.

It is unclear, but assumed by the existing historical documentation, that the Oakleigh homestead (on former Lot 48) also formed part of the Burnett land holdings (Shoalhaven Heritage Inventory).

From 1914 to 1921 the McGee family managed the Burnett property. They milked 80 cows of mixed varieties. There was an orchard with loquats and apples. Burnett visited regularly to pay the family and check the property. He paid Mr McGee six pounds per week out of which the two sons received 10/- each.

Sometime in the 1930s the original tenant farm homestead burnt down to its foundations.

Josiah Masters who was the owner of a Bundewallah farm bought the property in 1938 for his two sons and sons-in-law. The house had burnt down when Master purchased the property so he purchased two rooms from the Commercial Hotel that was being renovated and used them in the construction of a new home. A large fig tree (*Ficus oblique*) growing by the former dairy site is thought to have been planted in the 1930s by the Masters' who were interested in gardening. (J & J Robson) (Figure G.160).

The Masters kept stud Ayrshire cattle and farmed there until 1948 when they sold to Jack Pomeroy. Jack also grew crops and made silage. The farm was run by him and his son John. When Jack retired from farming and moved into Berry the farm was taken over by John. He sold off 133 acres in 1990 to the McIntosh family. Phil and Jan Monaghan (nee McIntosh) resided on the property until it was purchased recently by the RMS.

Figure G.155 General view of front of farmhouse, looking W

Figure G.156 View of front of farmhouse, looking W

Figure G.157 View of farmhouse looking SW

Figure G.158 View of farmhouse looking SE

Figure G.159 Detail of southern side of farmhouse looking NW

Figure G.160 Fig tree, thought to have been planted in the 1930s, located adjacent to former Dairy concrete slab looking N

Figure G.161 Extract from 1890s map of the northern Berry Estate, showing the location of tenant farm homestead in the approximate location of the later *Oakleigh* homestead (blue circle) ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

Recording ID: G2B H50 **GDA Map Reference: 296794.6152462**

Name/Description:	***Clare Moy* Cottage**	*Cadastral Location*:	Lot 2 DP 626929
		Street address:	342 Princes Highway Toolijooa
Item/Site Type:	Late nineteenth or early twentieth century homestead		

Context/setting:	This cottage is situated on the north side of the Princes Highway, just west of the Toolijooa Road turnoff. It is situated on the upper slopes of a prominent spurline which descends on a south easterly alignment from Toolijooa Ridge
Description/fabric:	Original Georgian horizontal weatherboard cottage with corrugated iron roof, brick footings, with Federation style extension on the southwestern corner of the original building. Verandas on the Eastern (Front) and southern side of building. Corrugated iron exterior wall cladding. Single brick chimney. Separate garage Veranda partially enclosed at SE corner.
Dimensions:	Area within which cottage, garage and immediate grounds occur is approximately 20 x 20 metres
Physical condition:	Homestead is an active home, and in a habitable condition though some elements are run down and require maintenance.
Integrity:	Many details, finishes and individual elements, such as windows and awnings, have been modified or added. Interior not inspected.
Associated features:	-
Current use:	residence
Heritage listings:	no current listings

Historical background/interpretation:

This cottage is situated on the north side of the Princes Highway, just west of the Toolijooa Road turnoff. It may date to the late nineteenth or early twentieth century when a portion of approximately 50 acres was taken up by a B. Fields following the break-up of the Berry Estate (Fourth Edition Broughton Parish Map 1890s). This was part of a larger property divided between two brothers, Bartholomew and James Fields (SFHS 2003:v.2 p.21). The roofline of the building suggests that an original rectangular building of Georgian proportions was later extended to the south and west, probably in the first half of the twentieth century.

Figure G.162 General view looking W

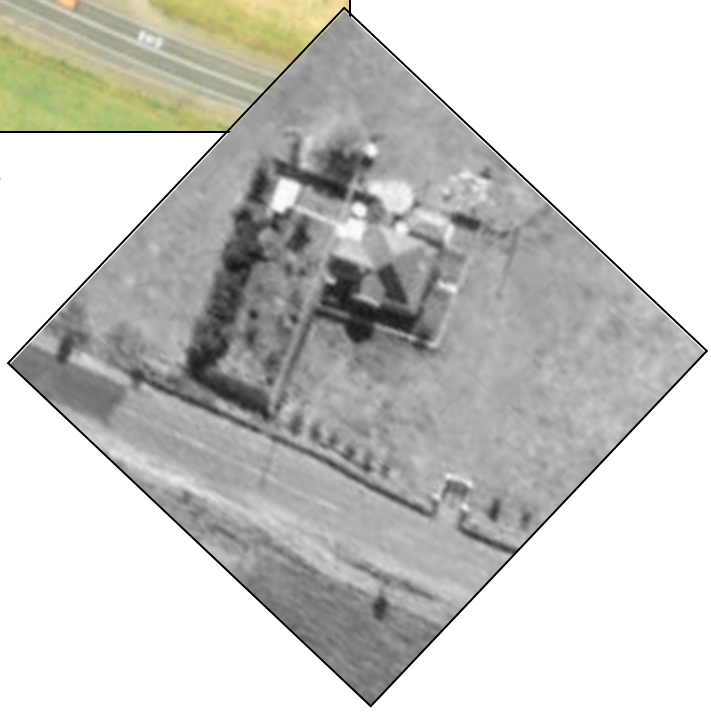
Figure G.163 General view looking NW

Figure G.164 View of Federation style extension at SW corner of building

Figure G.165 Detail of awnings and corrugated iron cladding on N side of building

Figure G.166 Aerial image of cottage (ACD14 NSW 3108-182 8/11/92)

Figure G.167 Aerial image of cottage and grounds in 1958 (SHI Dapto-Ulladulla 697-5088, Run GK9 10/07/58)



Recording ID: G2B H51 **GDA Map Reference: 287479.6148712**

Name/Description:	**Graham Park Former Agricultural Research Station**	*Cadastral Location*:	Lot 50 DP1074441 Lots 88 & 89 DP48603
		Street address:	8, 9 & 13 Schofields Lane, Berry
Item/Site Type:	Twentieth Century (1957) Agricultural Research Station		

Context/setting:	A complex of buildings, laboratories, sheds and enclosures situated at the intersection of Schofields Lane and the Princes Highway at the southern edge of Berry. The facility is situated at the southeastern end and basal slopes of a low spurline near the western margin of the Broughton Creek flood plain (former swamp basin).
Description/fabric:	A complex of administrative and research based buildings, constructed in 1957, (brick, glass, iron sheet, cement), some multiple storey, landscaped entrance grounds, fenced animal enclosures and sheds, circular entrance drive and associated car parks, entrance gates and metal feature sculpture.
Dimensions:	Area within which smaller enclosures and buildings occur is approximately 390 x 360 metres
Physical condition:	Appears to be in good and functional condition (not inspected in detail).
Integrity:	Site remains relatively intact, especially with regard to items considered to have significance including: the administration buildings and laboratories, entrance grounds, circular drive and gates, including the entrance sculpture (Minutes of Heritage Council State Heritage Register Committee 5 Oct 2005 File H99/00007). The original entrance driveway, from the highway was foreshortened as part of the realignment of the Schofields Lane intersection, sometime between 1992 and 2006. These works necessitated the re-positioning of the entrance gates and feature sculpture to their current position just short of the circular drive.
Associated features:	-
Current use:	not known
Heritage listings:	Not currently listed. This site has been the subject of previous discussion by The State Heritage Register Committee of the NSW Heritage Council, and a notice of Intention to Consider Listing (on the State Heritage Register). A site inspection by the Heritage Branch determined that the site was relatively intact and further investigations should take place to explore opportunities for adaptive reuse of some structures. A proposed heritage curtilage was restricted to just the significant buildings (administration and laboratories), entrance grounds, circular drive and gates, inclusive of the sculpture at the entrance. Four submissions were received during the notification period which concluded in December 2005. Beechwood Homes, the then owner, declined to comment but advised verbally that they did not support listing. The owner had a Development Application (DA) to demolish the site. Shoalhaven City Council approved the DA on the condition that significant heritage elements (as proposed for listing) were retained. The demolition approval was not acted upon.

The Heritage Committee was advised in April 2006 that the proposed State Heritage Register curtilage did not include the entire site, but only those areas with significant items, consistent with the DA approval. The Heritage Branch and Shoalhaven Council were both of the view that some adaptive reuse of the site was feasible. The Committee resolved to recommend to the Minister that the item be listed on the State Heritage Register if the Minister considered the item is of State heritage significance.

In September 2006, the Committee noted the Minister's decision to decline to list Graham Park on the State Heritage Register.

(Minutes of Heritage Council State Heritage Register Committee 5 Oct 2005 File H99/00007; 5 April and 6 September 2006).

Historical background/interpretation:

During the last decade of the nineteenth century, when Alexander Hay was the Manager of the late David Berry's 'Coolangatta Estate', a more scientific approach was adopted towards dairying in the Shoalhaven. Following an investigative trip to Europe by Alexander, the Trustees of the Estate erected a state-of-the-art butter factory at Berry and established a select herd of imported pure bred dairy cattle on a stud farm at Coolangatta.

At the urging of Alexander Hay, a Bill was passed through the NSW Parliament to vary the will of David Berry to the extent that a Stud Farm and an Experimental Farm should share in the endowment bequeathed by him for a Cottage Hospital established at Berry. That was agreed upon and a transfer of Port Jackson foreshores belonging to the Estate and judged to be of equal in value to the endowment was satisfactorily arranged. The Crown then assumed the Trusteeship of all three institutions (the Hospital, Stud Farm and Experimental Farm) and established them at Berry (Antill 1982:355).

The Berry Experiment Farm opened near the river beside the road from Berry to Coolangatta in October 1899, being the first of its kind on the coast. This was one of several experimental farms to be established near the end of the nineteenth century, many attracted public funding and developed into research and/or teaching institutions. Another example is the Wagga Wagga Experimental Farm established in 1893. It became an Agricultural College in 1948 and an Agricultural research Institute in 1954 (History of the Graham Centre http://www.csu.edu.au/research/grahamcentre/aboutus/ history.htm).

In 1903, the Government Stud Farm at Berry was described as,

> '…the most important institution on the coast from the dairymen's point of view. It is well situated, and is within two miles of the town. On one side it has a mile frontage to the deep, navigable waters of Broughton Creek, and the new Moeyan Bridge connects it with Berry and the railway' (Town and Country Journal, 11 February 1903).

The Experiment and Stud Farms were co-located on the east side of the Berry - Coolangatta Road (Wharf Road), either side of Broughton Creek, between one and two kilometres south of the present town of Berry.

In the 1920s, a Pasture Research Unit was established off Wharf Road, Berry, by the Department of Agriculture.

The farms continued under the Department of Agriculture until they was taken over by the Child Welfare Department in April 1934. It was remodelled with the provision of a dining room, dormitories and other facilities with cottages to house 40 boys to take farm training. In 1939, additional buildings were added, together with more modern farming facilities.

In the 1970s the Child Welfare Training Farm on Wharf Road was closed and re-opened as a holiday home for the underprivileged and was later transferred to the Department of Sport and Recreation (Bayley 1975:206, Berry Museum 2006:2).

In the 1950s, the first Artificial Insemination Breeding Station (AIBS) in New South Wales was established by the NSW Milk Board at the Pasture Research Unit, Berry.

In 1958, the AIBS was moved to the Graham Park facility which was built in 1957. At this location it occupied a total area of approximately 75 hectares, including bull yards, buildings and a quarantine area from which the semen collection and processing occurred.

The Graham Park research station was the first commercial artificial stock breeding centre in NSW and made major contributions to Australia's stock breeding industry. The centre was named after the Hon. Edgar Hugh Graham who died, the year the facility was built.

Graham was born near Wagga in 1897 and developed long term vocational and financial interests in primary production. He became the proprietor of a large butchery and subsequently founded one of the largest and most successful pig studs in Australia (the Kinilibah Stud Farm). After disposing of his pig stud he raised Poll Herefords and fat lambs on his property, *Whyanawah*, near Wagga.

Graham was a member of the Australian Labour Party and was elected to the NSW Legislative Assembly in 1941 as the local member for Wagga Wagga. He defeated the sitting Country Party member, Matthew Kilpatrick in the landslide victory that allowed William McKell to form a government. He held the seat at the next 5 elections and died as the sitting member in 1957. During the premierships of William McKell, James McGirr and Joseph Cahill, Graham held numerous ministerial positions but he is most notable for his long tenure as Minister for Agriculture which he took on in 1944. He died during his 14th year as Minister which at the time was reported as a record in that portfolio, at both State and Commonwealth levels (Obituary in *Pastoral Review and Grazier's Record* 18 Dec 1957). His achievements as Agricultural Minister include:

- The construction of an artificial insemination centre for dairy cattle (Graham Park) and the introduction of artificial insemination on a commercial basis.
- The establishment of four new country killing works at Goulburn, Wagga, Dubbo, and Gunnedah. These works were amongst the most modern in the world and cost in the vicinity of £500,000 each.
- The construction of bulk wheat storage facilities.
- The purchase of high quality stock from overseas.
- The expansion of operations at experimental farms and research institutes, including increased accommodation at Hawkesbury Agricultural College.
- The establishment of the Wagga Agricultural College.
- The decentralisation of the activities of the Department of Agriculture with the introduction of regional offices throughout rural NSW (Obituary in *Pastoral Review and Grazier's Record* 18 Dec 1957, Blocklow 2005).

Ownership of Graham Park was transferred to the NSW Department of Agriculture in 1980. Activities at the centre were reduced, and final in the 1990's the Centre was closed. Portions of the site were leased to the University of Wollongong as an off-campus research station until new premises were built for them in Nowra in 2000 (*Berry Museum 2006: 2*). Nowra Council (now the Shoalhaven City Council) purchased the site in the late 1990's. It was then sold in 2003 to Huntington Developments (Beachwood Homes) (Minutes of Heritage Council State Heritage Register Committee 5 Oct 2005 File H99/00007).

Figure G.168 General view of entrance to Graham Park (2007 image)

Figure G.169 Detail of entrance feature sculpture

Figure G.170 Entrance to Graham Park research station in 1969 (State Library of NSW image no.d2_35989r)

Figure G.171 View, looking SE across animal pens and enclosures at Graham Park in 1969 (State Library of NSW image no.d2_36000r)

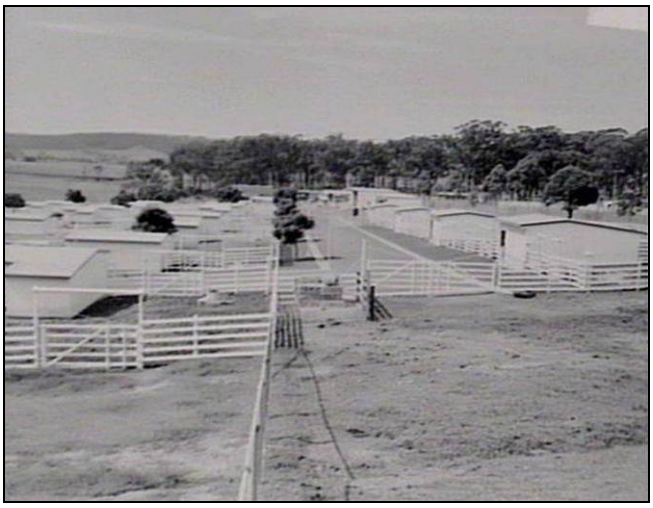


Figure G.172 View, looking W towards animal pens from eastern boundary of Graham Park (Princes Highway boundary) (2007 image)

Figure G.173 Aerial image of research station in 1958 (SHI Dapto-Ulladulla 699-5051, Run GK12 23/07/58)

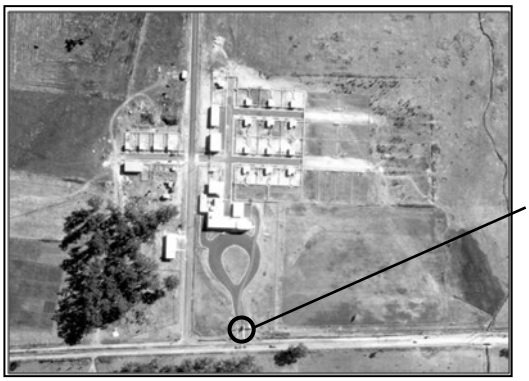
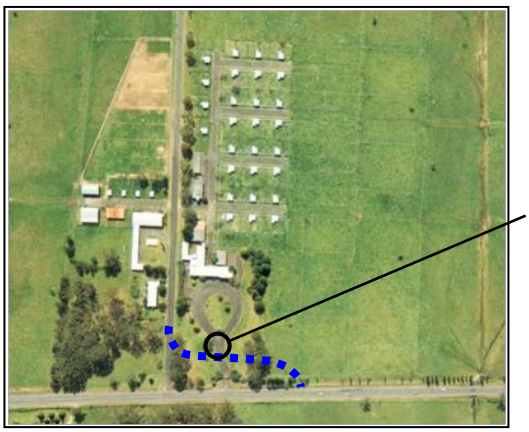


Figure G.174 Aerial image of research station in 1992. Note that since this time, a new alignment of the Schofields Lane intersection (dashed blue line) has required for-shortening of the driveway and relocation of the entrance gate and feature sculpture (ACD16 NSW 3108-247 8/11/92)



Recording ID: G2B H56 **GDA Map Reference: 289005.6149857**

Name/Description:	***Broughton Mill* Homestead and Dairy**	*Cadastral Location*:	Lot 31 DP818336
		Street address:	117 North St Berry

Item/Site Type: Early twentieth century homestead, dairy, outbuildings and grounds (ruin)

Context/setting: The homestead and dairy are located on the edge of an upper terrace, on the flood plain, and south side, of Bundewallah Creek. The complex is located 100 metres to the east of the current *Broughton Mill* homestead which was constructed in the late 1980s.

Description/fabric: Homestead constructed using a sawn timber frame and asbestos cement wall panelling. Four rooms in original building, plus additional back rooms under scillion roof. One chimney for kitchen stove on southern side of building. Veranda on at least western side of building, probably also on eastern (front?) side. Corrugated iron roof. Interior wall cladding labelled as "Surface Sealed and Sized by "Sealite" Process Patented 1916 Beaver Board [logo] Pure Wood Fibre"

At least one out-building constructed using sawn timber frame and corrugated iron, remnants of other small structures, possibly animal pens/runs. Remains of truck, plough equipment and multiple drays in back enclosure. Two disused metal silos (one cylindrical and one rectangular) located adjacent to a ruined outbuilding at southwestern end of complex.

Remnant two rail wooden fencing around homestead.

Dairy (disused) constructed from brick (interior surfaces rendered), timber, corrugated iron and cement/concrete

Dimensions: Area including homestead ruins, dairy and associated yards is approximately 90 x 80 metres

Physical condition: Homestead in poor and uninhabitable condition – wooden frame still standing, however roof, ceiling, wall cladding and floor now unstable and structurally compromised. Building is no longer weather proof. Most of verandah has collapsed except for western side. Whole building now obscured by vegetation and vine growth. Outbuildings adjacent to homestead, except for Dairy group in similar condition. Broken asbestos sheeting poses a health risk.

Dairy still structurally sound and weather proof, but no longer used as Dairy.

Integrity: Structures still display details and characteristics of early Twentieth century homestead, and mid century Dairy. Evidence of some later additions and veranda infill.

Associated features: planted tree wind breaks and associated fenced enclosures

Current use: Homestead is abandoned and in ruinous state. Dairy apparently only used for storage. Whole site forms part of larger operating farm.

Heritage listings: no current listings

Historical background/interpretation:

It is known that the great Uncle (George) of the current owner (Mr John Miller), lived in this homestead and that it was extant in the 1920s when he was born. George died in 1962 and the house has not been lived in since that time. In the last 5 to 10 years the building has become overgrown and is no longer used for storage (pers. comm.. John Miller 26/08/11).

Figure G.175 General view of complex looking south from creek flats, Dairy on left, homestead behind vegetation on right

Figure G.176 General view of homestead site looking north, note disused silos

Figure G.177 Interior view of north eastern room

Figure G.178 Detail of ceiling and light fitting

Figure G.179 Remains of dray

Figure G.180 Southern side of disused dairy, looking NE

Figure G.181 Interior view of Dairy and "Dangar-G" Milker apparatus, looking SE

Figure G.182 Aerial image (2006) of homestead remains (Google Earth Pro 2011)

Figure G.183 Aerial image of homestead complex in 1958 (SHI Dapto-Ulladulla NSW Run GK11 699-5037 23/07/58)

Recording ID: G2B H58

GDA Map Reference:
Original position: 289326.6149627
Current position: 289344.6149573

Name/Description:	***Uniting Church Hall (formerly Wesleyan Chapel)***	*Cadastral Location*:	Lot 1 DP745962
		Street address:	69 Albert St
		(formerly:	140-146 North St) Berry
Item/Site Type:	Late nineteenth century Carpenter Gothic Chapel		

Context/setting:	This building was originally located on the southern side of, and parallel to North St, on an east-west alignment, with its entrance facing east (Figures 6.184-6.185). Following the recent sale of this land, the building has been retained by the Uniting Church and moved to a new location (October 2011), 50 metres to the southeast, next to the 1932 church building, on a north-south alignment, with the entrance facing south (Albert St) (Figures 6.187-6.188). As part of the preparation for this move, a skillion roofed weatherboard addition to the western end of the building was demolished (Figure G.186).
Description/fabric:	Victorian Carpenter Gothic style chapel, constructed using timber frame, horizontal weatherboards and corrugated iron roof. - gabled roof, attached porch, finial to porch, pointed arch (gothic) windows, brick footings.
Dimensions:	Chapel dimensions are approximately 20 x 10 metres
Physical condition:	Good. Deterioration issues noted in 2002 (paint condition, weatherboard rot, roof leaks) appear to have been addressed. Following the recent re-positioning of the building, the consequential installation of new piles and higher ground clearance will address previously noted issues of dampness from soil contact.
Integrity:	Decorative bargeboards, observable in past photography, have at some time been removed from the building. These are currently being re-created and reinstated. Roof iron has been replaced with Colorbond. A skillion roofed weatherboard room (including a wheel chair access ramp) was added to the western end of the building sometime before 1949. This was demolished prior to the re-positioning of the building (Figure G.186). The Chapel retains its original form and character. The new building location maintains its historical association with the Wesleyan Church but substantially changes its landscape context. The original position was associated with mature tree plantings, surrounded by open space and included pastoral views across the road to the north. The original east-west alignment related to the large area of the surrounding Lot owned by the Church. The new position and alignment, parallels an adjacent church building. In contrast to the pastoral and open space character of the original location, this new paired arrangement, merges with adjoining urban lots and reinforces the urban character of the streetscape.
Associated features:	Twentieth century church and buildings on same Lot
Current use:	Church Hall
Heritage listings:	Shoalhaven LEP 1985 (as amended) Schedule 7, as an item of local significance Shoalhaven Heritage Inventory

Historical background/interpretation:

The building was erected as a Wesleyan Church in 1884 following donation of the land by David Berry in 1883. At its opening, by the Rev. J.W. Brown on 13 April 1884, it was reported to be the first building to be erected on land legally acquired in the "new township" (Peter Freeman Pty Ltd 1998).

The building functioned as a Chapel until a new church was built in 1932 (Wesleyan to 1907, and then as part of the Methodist church). After 1932 it was used as a Church Hall until 1965 when a new church hall was completed (Conybeare Morrison and Partners 1999).

The opening of the chapel was reported in the Shoalhaven Telegraph (17/4/1884):-

> The chapel is a neat weatherboard structure 43 x 23 feet on wooden block foundations in the designing management of which Mr William Boyd of the firm of English and Boyd, Broughton Creek was the leading chief spirit. It is built of stud and weatherboard, lined with clear pine and roofed with corrugated iron. The building is entered by a porch 8 x 8 with a door at each side. The principal entrance into the main building is by a 4 feet door opening in two parts. It is lighted through 8 spacious Gothic topped windows, 4 on each side, the place being built east and west.
>
> The chapel is furnished with 24 pews, 12 on each side, and will seat up to 200 worshippers if required, and the officiating worshipper is provided with a light and handsome open rostrum, of varnished cedar, decorated with panels, and turned work, and is reached by a flight of steps on each side. The communion rail is also of turned work, lined with green rep.
>
> The walls inside are painted a stone colour, and bordered with a lilac paint up to about 4 feet above the floor. The height of the walls is 12 feet and the roof being half opened and ceiled (sic). Outside the building is painted in a stone colour, and the gables of the roof and porch are decorated with barge boards of unique design and finished with turned finials. Mr Herbert Pettit was the contractor, and he has completed a very creditable piece of work. (in Shoalhaven Heritage Inventory - Shoalhaven City Council).

Figure G.184 General view of original location of Chapel, looking SW

Figure G.185 General view of original location of chapel, looking SE

Figure G.186 Detail of demolition of skillion roofed addition to rear of chapel prior to relocation of main building (October 2011)

Figure G.187 General view of former chapel location, with new building position visible in middle distance, looking SE

Figure G.188 The new location of the former chapel, on the west side of the 1932 church building looking SE

G.4 Known or potential archaeological deposits

Recording ID: G2B H14		**GDA Map Reference:**	**290063.6149874 to 290019.6149750**
Name/Description:	**Former buildings at northern end of Broughton Creek township**	*Cadastral Location*:	Princes Highway easement Lot 4 DP602348
		Street address:	Nos. A29, A45 and adjacent highway easement Princes Highway Berry
Item/Site Type:	Archaeological deposit – former buildings at northern end of Broughton Creek township		

Context/setting: This deposit is situated between the pre 1955 alignment of the Princes Highway and Broughton Mill Creek, and may potentially extend for approximately 180 metres across the interval where the post and pre 1955 alignments diverge. Archaeological test pits conducted within the grassed land surface between the highway platforms confirm the presence of archaeological material (refer Chapter 7). The potential for archaeological deposits below the existing highway platform remains untested. This potential is greatest under the downslope side of the platform where fill probably overlays original slope deposits. The area of confirmed or likely archaeological deposit, based on test excavation results equates roughly to the grassed area between the old and new highway platforms – with approximate dimensions130 x 15 metres.

Description/fabric: The site is defined as the archaeological deposit which potentially preserves traces of former nineteenth and twentieth-century Broughton Creek town buildings that were located along the western side of the former highway alignment (G2B H15), roughly opposite *Mananga*. Based on historical research compiled by members of the Berry and District Historical Society (refer Figure G.192), the following structures are known or reliably predicted to have once occurred in this area:

- The Berry Butter Factory (1889).
- Court House (1870s).
- Roman Catholic Church (1866).
- The Council Chambers (1868).
- Overseers Cottage (1858).
- A Carpenter's Cottage.

Refer Chapter 7 for a description of the deposits and archaeological items encountered during test excavations.

It should be noted that the G2B H14 deposit, by definition, does not include the potential archaeological remains of the original Mananga homestead, which was situated immediately south of this recording, and on the east side of the pre-1955 highway alignment. Remains of this former homestead may partially occur under the current highway pavement, and on the slope immediately to its east. Similarly, the infilled trench through which the water race for the Berry Estate saw mill traversed the spurline would also be present under the current highway and probably indivisible from the original Mananga homestead site.

Dimensions: Potential area including area under existing highway platform: 180 x 55 metres

Confirmed area (grassed areas between highway platforms: 130 x 15 metres

Physical condition: Results from an archaeological subsurface testing program confirm that archaeological deposits occur under a variable layer of construction related overburden in the grassed area situated between the pre and post 1955 highway alignments. The deposit has probably been totally or substantially removed along the upslope (eastern) half of the current highway platform. However, due to the probable use of fill to create an elevated and benched platform on the downslope margin of the highway, there remains good potential for archaeological deposits to remain under the western half of the highway platform.

Integrity: The deposit has been partially impacted by cable trenching in the first half of the twentieth century, road construction in the 1950s, root displacement from the extant tree avenue, and the installation of the current Berry sign and pediment.

Despite this, the remaining areas of confirmed and potential deposit have considerable research value and potential.

Associated features: This archaeological deposit forms part of a related group of items which relate to the history, economy, development and structure of the Broughton Creek township. Some of these items are located outside of the area of interest for this assessment:

- G2B H15 1870s - 1955 highway alignment (Adjacent to *Mananga* homestead)
- G2B H12 Remnant of 1870s – 1955 highway alignment (around Stewarts Hill)
- G2B H16 *Mananga* Homestead and property, including archaeological sites of old Mananga homestead and portion of Berry Estate saw mill water race
- G2B H55 Remnant of 1856 Berry Estate Road
- Archaeological remains of Berry Estate saw mill industrial complex, including the mill race, mill site, and Tannery works
- *Wyndree*, Former Constables Cottage A15 Princes Highway (Schedule 7, Shoalhaven LEP 1985)
- Pulman Street Heritage Conservation Area (Schedule 7, Shoalhaven LEP 1985)

Current use: Easement and platform of the current Princes Highway,

Rural residential Lots: Lot 7 DP1040653
Lot 4 DP602348

Heritage listings: no current listings

Historical background/interpretation:

The documentary basis for the identification of the potential location of former town structures and works within the G2B H14 area is based on historical research conducted by the Berry and District Historical Society. Sources used in this research include:

- Published references based on historical accounts and research conducted by Cousins (1948), Bayley (1975), Antill (1982), Lidbetter (1993).
- Original and local and State newspaper articles. Examples specific to the Berry Butter Factory include Sydney Morning Herald (SMH) (27 July 1888 p7, 23 Jan 1889 p9, 4 Feb 1890 p7, 11 Sep 1901; Clarence and Richmond Examiner and New England Advertiser 8 June 1889 p8.
- Various oral histories from local identities documented by the Berry and District Historical Society.

The Berry Butter Factory (Berry Dairy Company, 1889 - 1901)

A decision to establish a butter factory at Broughton Creek with a capital of 2000 pounds was taken at a meeting chaired by the Mayor, Lewis McIntyre in July of 1888 (SMH 27 July 1888 p7). A factory site was suggested in John Stewarts paddock, opposite his residence [old Mananga homestead], on the northern side of the South Coast Road beside Broughton Mill Creek where there was good permanent water. It was recommended they sell "refuse milk" rather than have piggeries near the factory. The latter proposal however was not adopted (Bayley 1975:150).

In January 1889 it was reported that directors of the Berry Dairy Company had been elected and the factory was nearly completed and operations were expected to commence in early February (SMH 23 Jan 1889 p9).

The *Broughton Creek Register* provided a description of the Berry Butter Factory when it was opened in March 1889. This description is presented by Bayley (1975:151):

> It was built of timber on brick piers, lined and ceiled with tongued and grooved pine, with floors of tallow wood. It had a manager's room, office, director's room and a large room for the separators and churns. Piggeries were nearby with drainage away from the factory. The hill became known as Factory Hill and overlooked the growing township of Berry. It was proposed to install refrigeration in 1901 but it was decided to close instead.'

In 1890 it was reported that the factory was processing 2000 gallons of milk daily (SMH 4 Feb 1890 p7)

On the 7 September, 1895 John Hay established the, The Berry Central Butter Factory, with the considerable financial backing of the Berry Estate. This was sited adjacent to the newly completed rail line on the site of the present Co-operative factory. The company aimed to provide a state of the art facility with the aim of promoting the Dairy industry across the Estate and its tenant farms. This factory would later be bought by a consortium of dairyman from the Estate for 5,500 pounds in 1911 and formed a Co-Operative, the Berry Rural Co-Operative Society Ltd (SMH 6 Apl 1911 p7).

In 1897 it was reported that the Berry Dairy Company was supplying cream to Dr Hay's Central Butter Factory, paying suppliers 6 ¾ d per gallon of milk (SMH 8 July 1897; also The Queenslander 24 July 1897 p37).

In 1900 a report of the annual meeting of the Berry Dairy Company indicated that the 'shareholders pronounced against pasteurisation' (Clarence and Richmond Examiner 24 July 1900 p4). In contrast, and in the same year the Berry Central Creamery became the first factory in NSW to adopt pasteurisation of cream for manufacture into butter (http://www.southcoastdairy.com.au/our-history.htm, accessed June 2011).

Faced with the competition, rail line location, and superior Estate resourcing of the Berry Central Creamery, the viability of, and justification for the Berry Dairy Company appears to have been substantially and progressively eroded.

In September of 1901, it was reported that a meeting of the shareholders of the Berry Dairy Company Limited, ratified the previous resolution to dispose of the goodwill of the premises to Dr John Hay, proprietor of the Berry Central Factory, for £1000. It was resolved to wind up the Berry Dairy Company by voluntary liquidation Mr James Stewart was appointed liquidator, subject to confirmation on October 1 (SMH 11 Sept 1901 p10).

The eventual fate of the building is yet to be determined. It is shown standing in a 1903 photograph published in the Town and Country Journal 11 Feb 1903 (Figure G.193).

A photograph entitled “The Factory” from Broughton Creek, shows the Berry Butter Factory building, looking south along, and viewed from the bottom of Broughton Mill creek. The estimated date of the image is circa 1910 (Wollongong City Library, image no. P01/P01210).

The building is no longer present, or traces in evidence, in aerial photography taken in 1949 (SVY 552/Nowra 5164 Run2(155-166) 4/04/1949).

Recording ID: G2B H14

Archaeological deposit – northern end of Broughton Creek township

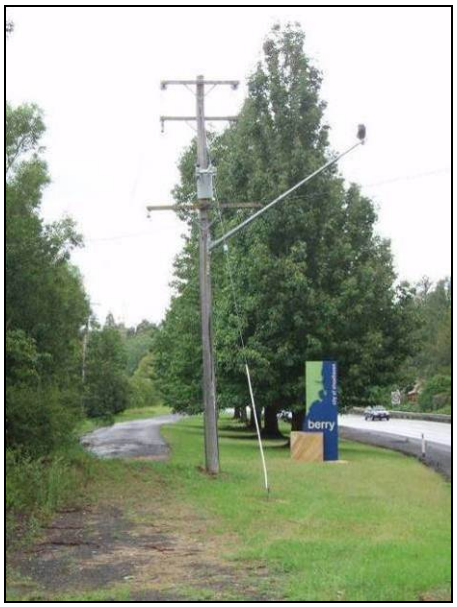


Figure G.189 General view of the portion of archaeological deposit G2B H14 situated between the former (left) and current (right) highway platforms, looking S

Figure G.190 General view of archaeological deposit G2B H14, looking N from its southern end. Note 1870s to 1955 highway alignment diverging from current highway on right hand side (middle of picture). The potential for archaeological deposits under the road platform remains untested

Figure G.191 General view of archaeological deposit G2B H14, looking N W, along the downslope side of the current highway platform. There is an untested potential for archaeological deposits to survive under the fill which supports this 1955 roadway

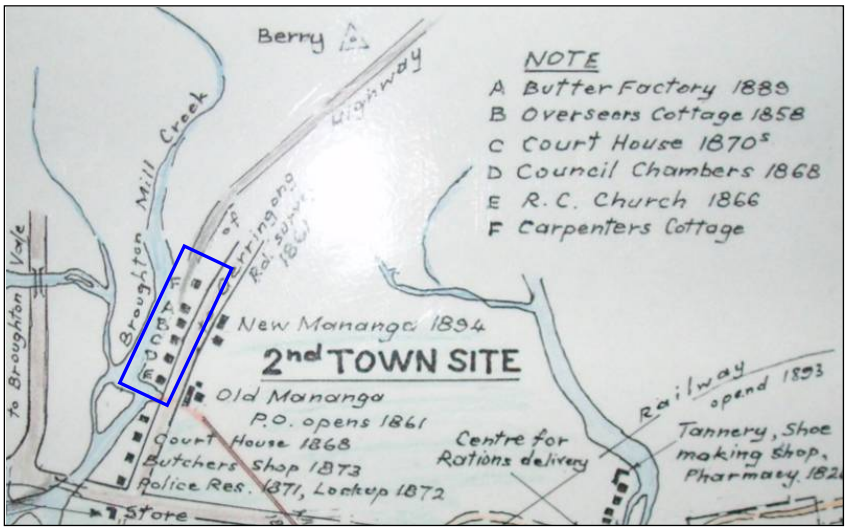
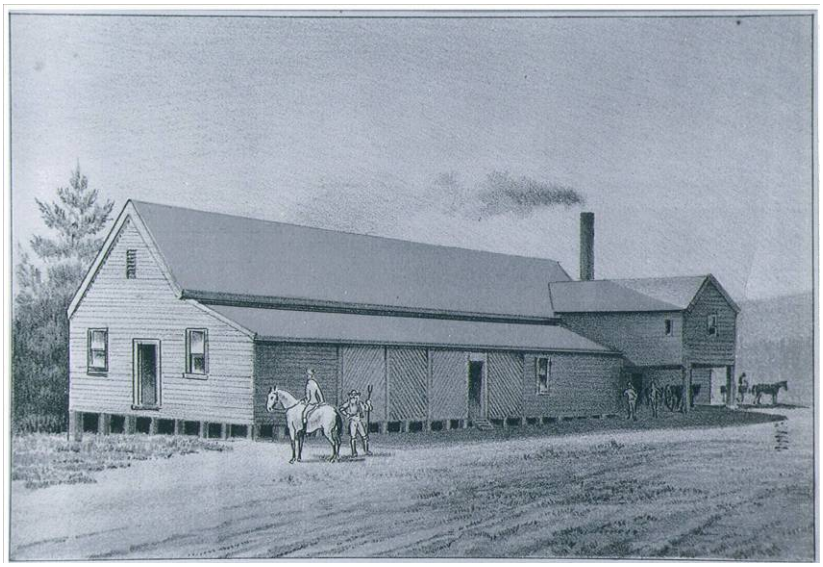


Figure G.192 Extract from display map in Berry Museum, showing potential former structures which may have been located within the G2B H14 area (blue) (courtesy Berry and District Historical Society Inc.)

Figure G.193 View looking SW down highway in area of G2BH14 (left end of photo) ('The town of Berry, from Stewarts Hill' *Town and Country Journal* 11th February, 1903)

Figure G.194 'Butter Factory, Berry' (from Shoalhaven Estate page 19, Wollongong City Library Image no. P03/P03737; also [this copy, dated 1891] courtesy Berry and District Historical Society)



Recording ID: G2B H48 **GDA Map Reference: 294547.6152597**

Name/Description:	**Site of former Berry Estate Tenant farm**	*Cadastral Location*:	Lot 9 DP3344
		Street address:	161 Princes Highway Broughton Village

Item/Site Type: Potential Archaeological Deposit - Site of former Berry Estate Tenant Homestead

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Context/setting: This site is situated on locally elevated ground (a low gradient and broad spurline, grading into creek flats), adjacent to a small tributary streamline which drains southwards into Broughton Creek. It is situated on the northern basal slopes of the open Broughton Creek valley, as they merge with the valley floor and flood plain.

Description/fabric: Apart from two large old growth trees, a fig and a deciduous species (Figures 6.197 & 6.198), which pre-date the current farmhouse and probably relate to a former phase of European occupation, there are no surface traces of the former Berry Estate tenant farm which is indicated at this location on an 1890s map (Figure G.200). This map appears to show a main building surrounded by four outbuildings.

Both of the remnant trees are likely to have been planted. The deciduous tree is an exotic species, and the fig tree is low and spreading, indicating development in an open and cleared (unforested) context. As such they are likely to have been planted in relative proximity to the former homestead. Given its close proximity, the current farmhouse may be wholly or partly superimposed on the footprint of the former homestead building(s)

Dimensions: Not determined. The area of potential probably occurs within an approximate area of 100 x 100 metres (inclusive of former outbuildings).

Physical condition: Potential for subsurface archaeological remains. The construction of the existing farmhouse (sometime between 1958 and 1975), is likely to have substantially disturbed or removed at least portions of this potential deposit.

Integrity: The integrity of this deposit has not been determined but it is probable that at least a portion of the site has been substantially disturbed or removed by the construction of the current buildings.

Associated features: -

Current use: Rural residential farmhouse (leased and tenanted by the RMS)

Heritage listings: no current listings

Historical background/interpretation:

An 1890s map of tenant farms across the northern portion of the Berry Estate (probably dating from 1892, refer Graham 1998), shows a homestead complex at this location leased by a J. Hicks. The farm consisted of approximately 28 acres (Figure G.200).

Figure G.195 General view of location of former Berry Tenant farm homestead, note slightly elevated spur (right) adjacent to the valley floor, looking S

Figure G.196 View of current *Greystanes Lodge* farmhouse, showing two large old growth trees (a fig tree(right), and a deciduous tree (left)) which predate the farmhouse, looking SW

Figure G.197 Views of the large old growth trees which pre-date the current farmhouse, looking S (left picture) and W (right picture)

Figure G.198 Aerial image of location of former homestead in 1958. Note remnant trees (blue circled) (SHI Dapto-Ulladulla NSW Run GK10 697-5101 10/07/58)

Figure G.199 2007 aerial image showing current homestead, remnant trees (blue circled) (Google Earth Pro 2011)

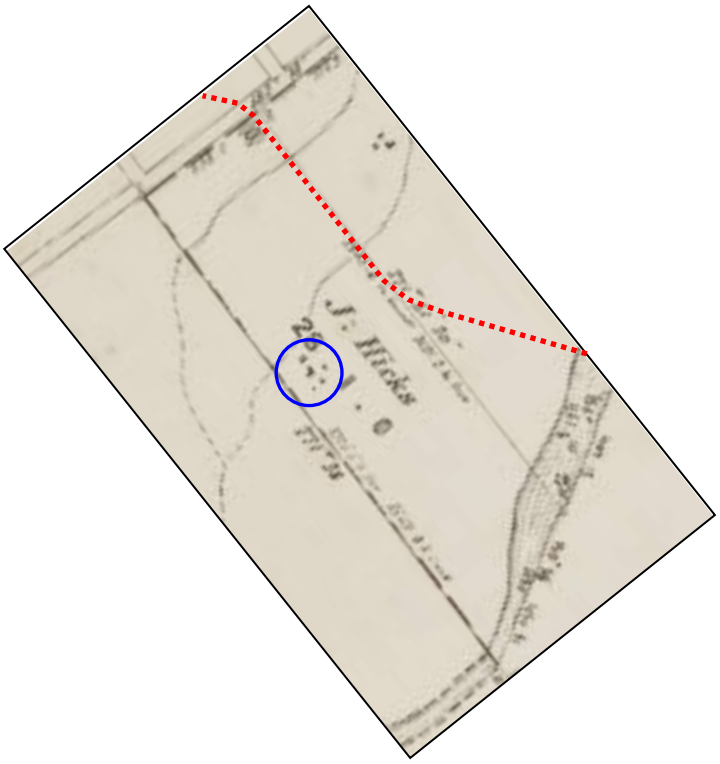

Figure G.200 Extract from 1890s map of the northern Berry Estate, showing a group of former tenant estate farm buildings located at the current Greystanes farmhouse (blue circle). The current highway is shown in red for reference. ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

Recording ID: G2B H52	**GDA Map Reference:**	**293659.6151844 (approx.)**

Name/Description:	**Site of former Berry Estate Tenant homestead**	*Cadastral Location*:	Lot 2 DP593476
		Street address:	A441 Princes Highway Broughton Village

Item/Site Type: Potential Archaeological Deposit - Site of former Berry Estate Tenant Homestead

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Context/setting: This site is situated on the floor of a small tributary valley, adjacent to a minor tributary stream. The stream flows roughly west-east into Broughton Creek at Broughton Village. The homestead was situated close to the 1856 Berry Estate road, and the subsequent 1870s to 1930s highway alignment. In both cases, the roads appear to have been purposefully aligned to connect with the homestead site, creating a 'corner'. In the latter alignment this corner approximated 60 degrees and came to be known as "Bink's Corner" after the adjacent land owner family.

The exact micro-topographic location of this site is yet to been determined. The only map of the site, identified to date (Figure G.203), from 1892 (Graham 1998), shows the homestead slightly to the southwest of the highway bend and on the northern bank of the streamline. The current alignment of the stream is now further north of this mapped course and the mapped homestead location is uncharacteristically situated on moderately graded slopes. If some or all of the mapped locations, and associations, are indicative or relative, then a wide field of possible homestead locations can be predicted. For this reason a large approximate area of potential, has been identified, within which this archaeological site is likely to be situated (Figure G.204, Appendix A).

Description/fabric: This site was not subject to surface archaeological survey, as it is situated more than 200 metres away from the bypass. Apart for some nearby Coral trees, there are no traces (observable from aerial photography) of the former Berry Estate tenant farm which is indicated at this location on an 1890s map (Figure G.203). This map appears to show a main building with three outbuildings to one side and the back.

Dimensions: Not determined. The area of potential probably occurs within an approximate area of 100 x 100 metres (inclusive of former outbuildings).

Physical condition: Potential for subsurface archaeological remains. The site has probably been subject to ploughing and cropping since the removal/destruction of the homestead. The extent to which this has impacted the deposit is not known.

Integrity: The integrity of this deposit has not been determined. Its proximity to the former highway alignment, which was bypassed in the mid 1930s, means that this is the only surviving archaeological site of a former Berry tenant estate farm which retains its original configuration to the 1856 and 1870s highway alignment, exclusive of the impact from later twentieth century highway upgrading including widening, sealing, and side railing.

Associated features: This deposit forms part of a complex of recordings which, as a group, have value in understanding and interpreting the evolution of the highway, its various alignments, and its interrelation with adjoining land holdings and homesteads. These recordings are:

- G2B H27 remnant section of 1856 Berry Estate Road.
- G2B H26 remnant section of 1870s – 1930s Highway ("Binks Corner").
- G2B H25 *Sedgeford* homestead.

Current use: Agricultural pasture grassland

Heritage listings: no current listings

Historical background/interpretation:

An 1890s map of tenant farms across the northern portion of the Berry Estate (probably dating from 1892, refer Graham 1998), shows a homestead complex at this location leased by a Mrs. Wiley The farm consisted of approximately 50 acres (Figure G.203).

Figure G.201 General view of site area (middle distance, behind and to left of trees) from current highway, looking W

Figure G.202 General view of site area (lower middle distance, behind and to left of deciduous trees) from spurline on opposite side of current highway, looking W

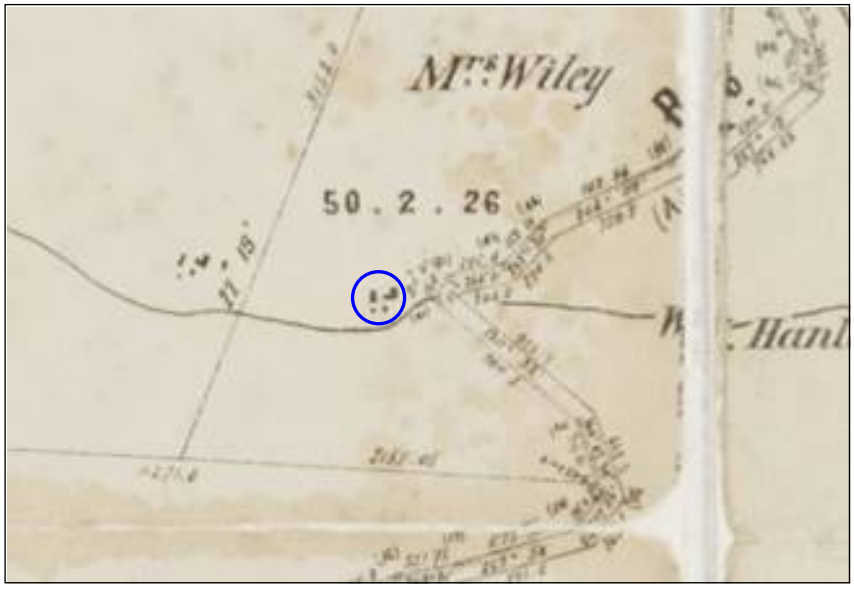


Figure G.203 Extract from 1890s map of the northern Berry Estate, showing a group of former tenant estate farm buildings at "Bink's Corner" (blue circle) ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLM SS315_Map 17

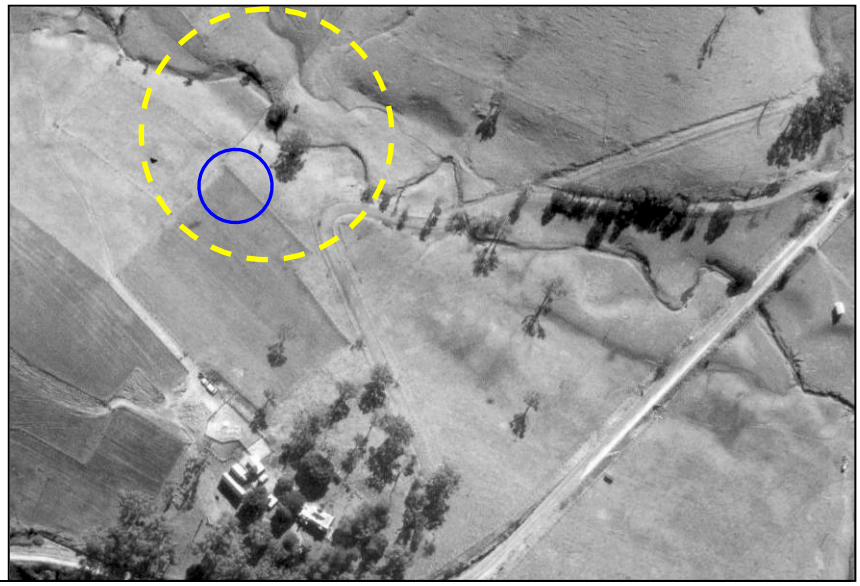


Figure G.204 1958 aerial image of location of former homestead based on 1892 map (blue circle) and potential actual location based on topography and map interpretation options (yellow dashed circle) (SHI Dapto-Ulladulla NSW Run GK10 697-5103 10/07/58)

Recording ID: G2B H53 **GDA Map Reference: 296227.6152738**

Name/Description:	**Site of former Berry Estate Tenant Farm Structure**	*Cadastral Location*:	Lot 1 DP255171
		Street address:	403 Princes Highway Broughton Village (Toolijooa Ridge)
Item/Site Type:	Potential archaeological deposit and indeterminate rock rubble alignment		

Context/setting: This recording is located on the moderately graded crest and upper slopes of a prominent spurline which forms part of the eastern fall of the Toolijooa Ridge. The current Princes highway is located 35 metres downslope to the north.

Description/fabric: This recoding combines the location of a former structure, shown as part of a Berry tenant farm on an 1890s map, and an indeterminate alignment of rock rubble situated within the same area. Apart from the alignment, there is no other surface evidence which could relate to nineteenth and early twentieth century occupation.

The former structure is drawn on the 1890s map as a single structure, and could conceivably be a farmhouse or homestead (without out-buildings), or a less substantial and non-residential structure (Figure G.208).

A modern sealed driveway, aligned east-west, is situated immediately south and adjacent to the location of the former structure, and follows the original alignment of the 1856 Berry Estate Road. The structure may thus relate to this first, or the subsequent existing highway alignment (1870s onwards).

The alignment of stone rubble extends for approximately 35 metres and runs exactly parallel with (and north of) the driveway and alignment of the former Berry Estate Road. The driveway, and a downslope (disused) extension of this alignment into the adjoining property, is significantly recessed into the natural ground level. Construction of the driveway, or its antecedent, would have involved excavation of a substantial degree of sub-surface rock.

The rubble consists of natural bedrock (latite) cobbles, with both larger gravels and smaller boulders represented. The alignment has an average height of around 0.9 metres and a width at its base of around 1.5 – 2.0 metres. A majority of the cobbles appear to have been quarried, with sharp angular faces, but there are no jumper marks or other traces of careful or hand shaping/working. In addition there are cobbles with natural rounded cortex.

Dimensions: The area of potential, within which it is likely the former tenant farm structure was located is approximately 30 x 30 metres.

The stone rubble alignment is approximately 35 metres long, and averages 0.9 metres high and 1.5-2.0 metres in width. It is aligned approximately 290 degrees (grid north)

Physical condition: Potential for subsurface archaeological remains. The site has been subject to vegetation clearance and driveway construction since the removal/destruction of the homestead. The extent to which this has impacted the deposit is not known.

Integrity: The integrity of this deposit has not been determined.

Associated features:	A portion of the 1856 Berry Estate Road which has not been impacted by modern road construction occurs 20 metres downslope of the rubble alignment (G2B H30).
Current use:	Mown landscape setting for modern residence.
Heritage listings:	no current listings

Historical background/interpretation:

An 1890s map of tenant farms across the northern portion of the Berry Estate (probably dating from 1892, refer Graham 1998), indicates that a farm of around 52 acres was leased by a B. Fields (Figure G.208).

There are a number of possible interpretations of the stone rubble alignment:

1. It is the graded remains of a former agricultural dry stone wall (a surviving wall is located 80 metres to the northwest).
2. It is the graded/disturbed remains of stone walls or foundations from the former tenant farm structure.
3. It is a spoil dump from the construction of the 1856 Berry Estate Road.
4. It is the spoil dump from the construction of a more recent road, either the 1870s highway (35 metres downslope), or a farm access track and/or the most recent residential driveway.

Of these, option 3 seems least likely given the form of the Berry Estate roadway elsewhere across the study area, and especially the general disregard for gradient (and thus the need for excavation) evident in its design. Based on the present evidence, option 4 seems the most likely, however the close spatial association of the alignment with the former tenant farm structure cannot yet be discounted.

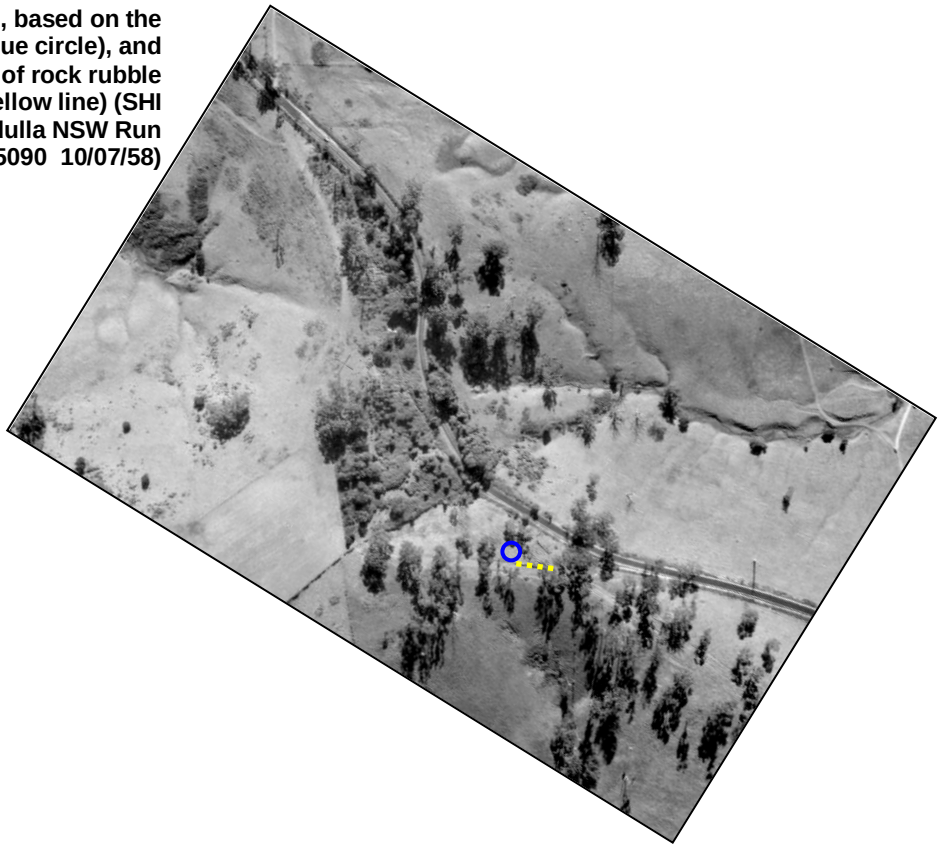
Figure G.205 General view of piled alignment of rock rubble, looking NE

Figure G.206 View of piled alignment of rock rubble, looking NW

Figure G.207 View looking SE along modern driveway (which parallels the rubble alignment, just left of the picture) and which follows the alignment of the 1856 Berry Estate Road (yellow dotted line), G2B H30 along spurline shoulder in middle distance

Figure G.208 Extract from 1890s map of the northern Berry Estate, showing a single structure on the B.Fields leasehold (blue circle ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

Figure G.209 Location of the site of the former tenant farm structure, based on the 1890s map (blue circle), and the alignment of rock rubble (dotted yellow line) (SHI Dapto-Ulladulla NSW Run GK9 697-5090 10/07/58)



Recording ID: G2B H59 **GDA Map Reference: 294612.6152138**

Name/Description:	**Site of former homestead former Portion 181, (Finn/Wood/Grant/Stewart/Dinning)**	*Cadastral Location*: *Street address:*	Lot 181 DP751254 - Broughton Village
Item/Site Type:	Early Nineteenth century homestead site (Archaeological deposit and remnant plantings)		

Context/setting:	This site is located 80 metres south of the southern bank of Broughton Creek, on former portion 181 (parish of Broughton). It is situated at the junction of creek flats and the low gradient basal slopes of a spurline which descends towards the west. This spur forms a partial bedrock barrier along the eastern side of the valley floor, forcing the course of the Broughton Creek to turn eastwards before meeting steep slopes on the western side and turning southwards again.
Description/fabric:	The site consists of a range of remnant garden plants, including a mature live pine tree, two standing pine tree stumps, and ground storey succulents. The pine trees are aligned approximately north south. An extensive area (at least 10 x 10 metres) of low mounded and aligned rock cobbles (most being alluvial in origin) are evident at the northern end of the grouping of pine trees. These appear to relate to former hearth and wall foundations. There may be remnants of earthen building platforms situated between the tree grouping and the creek bank to the north.
Dimensions:	The area of remnant plantings and surface cobbles is approximately 35 x 25 metres. This may approximate the area of the former homestead residence and immediate surrounds. A broader area which may include the location of former outbuildings has been defined as 100 x 120 metres.
Physical condition:	The presence of remnant trees and garden plants, and of stone alignments and low mounds suggests that ploughing and other ground disturbance has been minimal in the area of the surviving trees. Elsewhere there is likely to have been some degree of disturbance to subsurface features from ploughing. One mature pine tree remains alive and standing, stumps of two further examples survive. Some ground cover plants remain. This site presents considerable archaeological potential for *in situ* and largely undisturbed remains.
Integrity:	The occupation of this site as a residence may potentially extend from the 1830s, to the 1940s. The site may have undergone a number of phases of construction, renovation and/or demolition in this time. There is considerable potential for the integrity of this site, as an archaeological record of this occupation sequence.
Associated features:	The above ground residential building from this site was dismantled and re-assembled to form the front section of the Brookside homestead (G2B H28). This possibly occurred sometime in the 1930s or 40s.
Current use:	Agricultural pasture grassland
Heritage listings:	no current listings

Historical background/interpretation:

This recording is situated in portion 181, Parish of Broughton, County of Camden. This portion was a land grant of 100 acres to Antony (or Anthony) Finn. The date of the grant was 23 Dec 1829, and was formalised by Lt Gen Sir Richard Bourke on the 27 July 1837. Authority to take possession occurred on 4 June 1830. The grant was advertised in Government Notice of 17 November 1835. Lands department documentation of the grant describes it as a 'Deed …of the situation allotted for small settler' and in 1837 lists the property name as "Finn Valley", and states that Finn was in residence (SRNSW Reel 1127 Item 27857).

There is an Anthony Finn recorded on the NSW 1828 Census. He is listed as a retired soldier, 30 years of age, and living in Kent Street, Sydney. The listing is paired, as a family grouping, with an Ann Finn, who is 29 years old. Anthony is noted as 'Came Free' and arriving in the Colony on the *Caledonia* in 1822. Ann is noted as 'Free by Servitute', having served a seven years sentence after arriving in 1818 on the *Friendship* (Sainty and Johnson 1980:146).

Lands department documentation describes Finn as "late a soldier in the Buffs (from which regiment he has been discharged)" (SRNSW Reel 1127 Item 27857 Finn; and Land Title records). 'Buffs' is a reference to the Royal East Kent Regiment which served in Australia in four separate detachments between 1823 and 1827. Anthony Finn is listed as one of the Third Regiment soldiers sent to Australia on Garrison Duty. The third detachment is reported to have left Deptford for Sydney in 1823, arriving the same year (Chapman 2010). Finn was supported by his former regiment captain, Archibald Clunes Innes, later a brigade Major, as a referee in his grant proceedings (SRNSW Reel 1127 Item 27857 Finn).

When the regiment returned to England Finn remained in Australia and joined the Police Force. He was appointed an Ordinary Constable on 19th January 1928, serving in the Cumberland area (Government Gazette Notice 25 Jan 1828, in Florance 2011:9).

Finn's Broughton Creek property is notable in that it constitutes the only land grant on the floor of the middle and lower Broughton Creek valley, which does not constitute a grant or purchase by Alexander and David Berry. It appears that Finn had already selected this land, and entered into a Bond, prior to being awarded the grant, which then allowed him to secure freehold.

Frank McCaffrey, an Illawarra historian active in the first half of the twentieth century noted that Finn's 100 acre land grant was in recognition of his role in the apprehension of a bushranger (McCaffrey 1914 in Caldwell 1999). This reference relates to the capture of William Dalton on the 22 June 1830 in the neighbourhood of Liverpool, Parramatta.

Dalton, a runaway from a government convict work gang, was one of a party of five bushrangers who were involved in a shoot out on the Windsor Road (close to its modern junction with Pennant Hills Road), with a party of at least six, persons including two wardsmen, (Wells and Samuel Horn) a constable (Ratty) and a chief constable (John Thorn). Three of the bushrangers were shot dead (Cook, Ward and McNamara), one escaped (Currey) and Dalton was later caught following some hours of tracking by Horn and Thorn. Dalton was executed at the gallows on 28 June 1830 (Alexandra and Yea Standard, Gobur, Thornton and Acheron Express, 2 Sep 1904, Uebel 2001).

McCaffrey was probably mistaken in linking the portion 181 grant with the capture of Dalton, because the grant dates from December 1829, six months prior to Dalton's capture. However, Finn's role in Dalton's capture, and his consequential reward with a further grant of lands is documented in a notice of Land Grants in April 1836:

> '32 Anthony Finn, Three hundred and twenty acres, parish of Branxton, at Anvill Creek…
> Promised to him on 1st July, 1830, by General Darling, for his zeal in capturing the bushrangers Dalton and Macnamara, and possession authorised on 1st October 1830, free of quit rent.' (Sydney Gazette and New South Wales Advertiser 5 April 1836 p.4)

In December 1836 this grant was readvertised in the name of John Thompson, with a note that it was, 'originally promised' to Finn and 'is now readvertised at his [Finn's] request in favour of the claimant' (The Sydney Gazette and New South Wales Advertiser 24 Dec 1836 p4).

Possibly as a result of a financial transaction surrounding the transfer of this subsequent grant, Finn appears to have ceased residence at Broughton Creek and subsequently leased the property, first to a William Kerr in 1837, and subsequently to Charles Edwards and Edward Bailey in 1838. The lease was in respect of "…all that Messuage or Tenement and Farm House situate in the District of Illawarra …. Called and known as Finn's Valley together with 100 acres of land thereunto belonging" (Land Title records Bk M No.904). This is the first reference to a residence on the portion.

Finn subsequently became a publican, and owned and operated several Sydney Hotels including the William Street Hotel in 1854, and the Pelican Hotel, South Head Road, prior to 1860 (The Empire 3 May 1854 p.3; Sydney Morning Herald 22 March 1860 p.3). He died in 1871 at his residence in Darlinghurst, aged 75 years, leaving a widow and five children (Sydney Morning Herald 28 November 1871 p1; Florance 2011:9).

Richard Woods (or Wood), of Shoalhaven, purchased portion 181 in 1842 for 400 pounds. The property is referred to as 'Finns Valley or the Little Meadow" (Land Title records Bk 9 No.203, but see also Elliott 2009, and McCaffrey 1914 in Caldwell 1999)). 'Dick' Woods was employed at one time as a cook on one of the boats owned by the Berry and Wollstonecraft partnership. He was joined by his brother William, a carpenter, who is reported to have built the second house erected in Goulburn (McCaffrey 1914 in Caldwell 1999). Dick Woods was remembered to have bred dairy cows and horses on the property and was considered an 'excellent horse doctor". Both of the Woods brothers had been transported to New South Wales, and neither married (McCaffrey 1914 in Caldwell 1999).

In 1866 Richard Woods of Broughton Vale, farmer, sold to George Tate, also of Broughton Vale, Farmer, for 2000 pounds (Land Title records Bk 100 No.853). A mortgage of 1000 pounds was subsequently discharged from Woods to Tate in 1870 (Land Title records Bk 100 No.855; Bk119 No.124).

McCaffrey notes that following the death of William Woods, Richard sold the farm to George Tate for 1000 pounds. The horses and cattle on the property realised 250 pounds which was "handed over" to George Adams of the Steam Packet Hotel, Kiama, 'to keep him for life – which was most faithfully carried out" (McCaffrey 1914 in Caldwell 1999).

At this time, George Tate owned a large proportion of the original Broughton Vale town subdivision which he called "The Pines" (Elliott 2009; Plan of Broughton Creek Village Reserve 1855, folio 256-672). Portion 181 thus became part of a larger estate holding and it is probable that Tate's primary residence was, and remained, elsewhere. This was most probably the homestead complex still known as *The Pines* today, situated west of the bend in the current highway 285 metres west of the Thompson Rd intersection. It is worth noting that one live and two dead mature pine trees are evident at G2B H59, suggesting that this site may have formed the Tate residence

In 1879, the portion was subdivided into two 50 acre lots, with the Broughton Creek dividing the two. The southern lot was purchased by James Mitchell of Gerringong (Land Title records Bk191 No. 56). In 1900, the northern portion was still owned by George Tate, but occupied by George Thompson. The southern lot was owned by Dinning (Crown Plan 6721-1603).

In 1914 McCaffrey noted that the property was "in the hands of the executors of the estate of George Thompson", and added that the Wiley Brothers "have a stiff mortgage over it" (McCaffrey 1914 in Caldwell 1999).

Given that the homestead site, G2B H59, is situated in portion 181, on the south bank of the creek, and in association with a track marked on the 1866 County map (and which most certainly pre-dates the Berry Estate Road constructed in 1856), there is a high probability that this site dates from its earliest European settlement under Finn, possibly from 1830 onwards. (Figures 6.216 & 6.217). The association of the homestead site with a pre 1865 track strongly suggest that it was, at least, the residence for the Woods' occupation, between 1842 and 1866. The residence may have been leased during Tate's ownership, followed possibly by a return to owner-occupation after subdivision in 1879. Later owners, south of the creek were Dinning, Stewart, and then Johnson (refer below).

Mrs Chittick, the current owner of the original portion 181 lands, south of the creek, told of the following relevant information (pers. comm. 20 Sep 2012):

- The surname Finn remains known to locals through the use of the name "Finn's Valley", a nearby gully.
- The property was purchased by Irvin and Charlie Johnson, and Mrs Johnson (Mrs Chittick's mother) in 1948, from Eddie Stewart (Jnr).
- Eddie Stewart used the property as a "dry run" for cattle, together with a larger property in Kiama. Eddie Stewart was Mrs Chittick's grandfather's cousin.
- In Mrs Chittick's grandmother's time (her father's mother) the house (the above ground structure) located at G2B H59, was purchased from the Stewarts, dismantled in sections, dragged using horse drawn skids to the present site of "Brookside" and re-assembled to form the front portion of the Brookside homestead. This portion of the home now consists of three rooms, however on an occasion when an electrician was working in the roof he commented that the structure of the roof suggested that the front room may originally have been made up of two rooms. The relocation of the G2B H59 building possibly occurred in the 1930s or 40s.
- Prior to the Stewarts owning the property, it was owned by members of the Dinning family, three sisters and a brother. The brother died, and the three sisters finally left to reside in Berry around 1904. Mrs Chittick's grandfather always referred to the property as Dinnings.
- The homestead used to include stables which were situated between the homestead and the creek, they may have been made of brick.
- There are still remnant garden plantings at the homestead site. Mrs Chittick can remember a large quince tree (possibly now dead), a pink and red rose, a large spiky Lilly and Aloe Vera plants, as well as the obvious large pine trees.
- The Hamilton family used to own the land on the north side of the creek (Mrs Chittick's fathers grandmother was a Hamilton).
- The Mitchells may also have owned land (belonging to the original portion 181).

Recording ID: G2B H59 **Site of former homestead (plantings and archaeological deposit)**

Figure G.210 General view across the southern portion of former portion 181, looking E, location of G2B H59 outlined with yellow dotted line

Figure G.211 View looking SE at G2B H59 site, showing remnant mature pine plantings

Figure G.212 Detail of remnant garden plantings (succulents in foreground) at site, looking NE

Figure G.213 Detail of aligned cobbles, probably indicative of relatively undisturbed foundations and associated archaeological deposits

Figure G.214 Extract from 1890s map of the northern Berry Estate, showing the land grant to A.Finn ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17

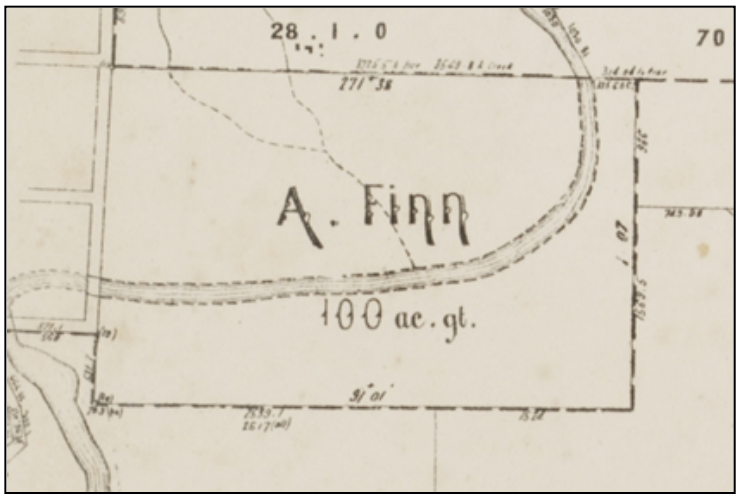
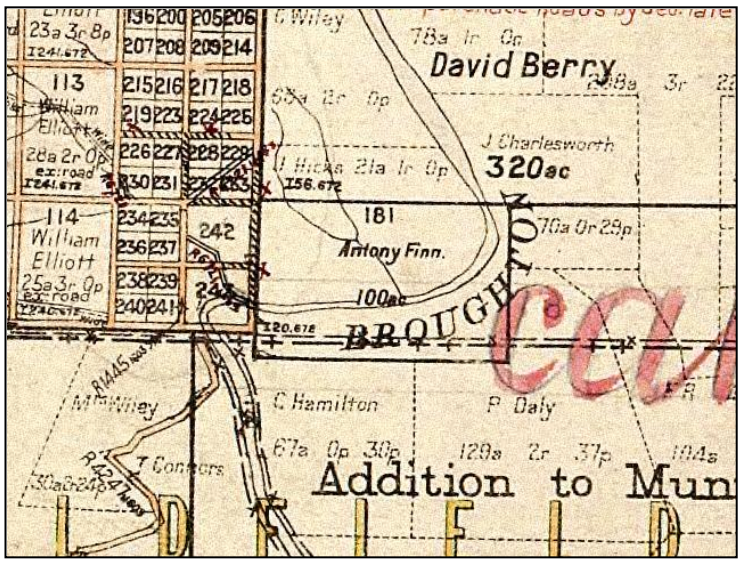


Figure G.215 Extract from 4th Edition parish map for Broughton, showing portion 181 and adjacent Broughton Village Lots (1893, cancelled 1902, Parish map preservation project ID no. 10353801)



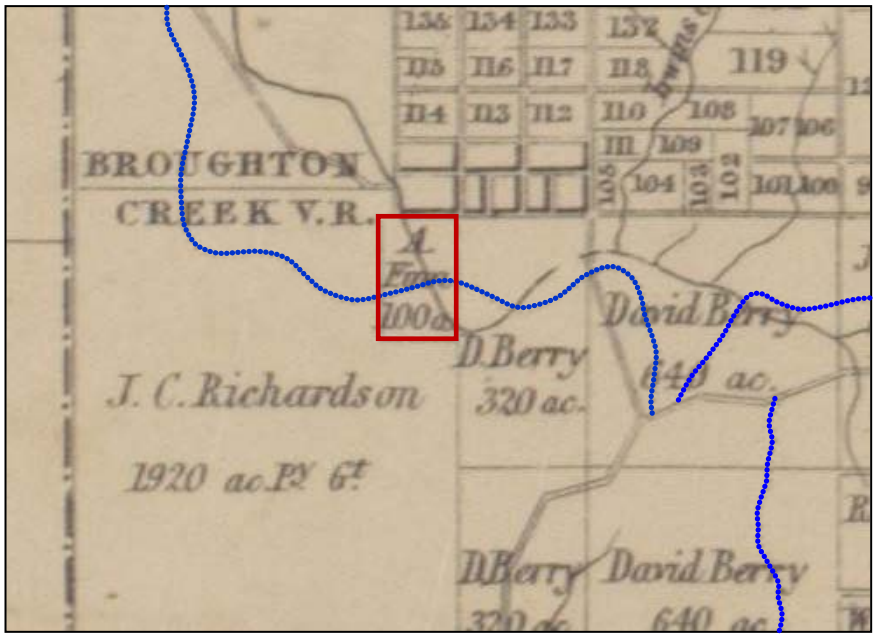


Figure G.216 Extract from County map showing location of the Finn land grant (red line), relative to: surrounding Berry Estate landholdings; and early tracks (dotted blue lines) (County of Camden, National Library of Australia (Braddock and Baly 1866))

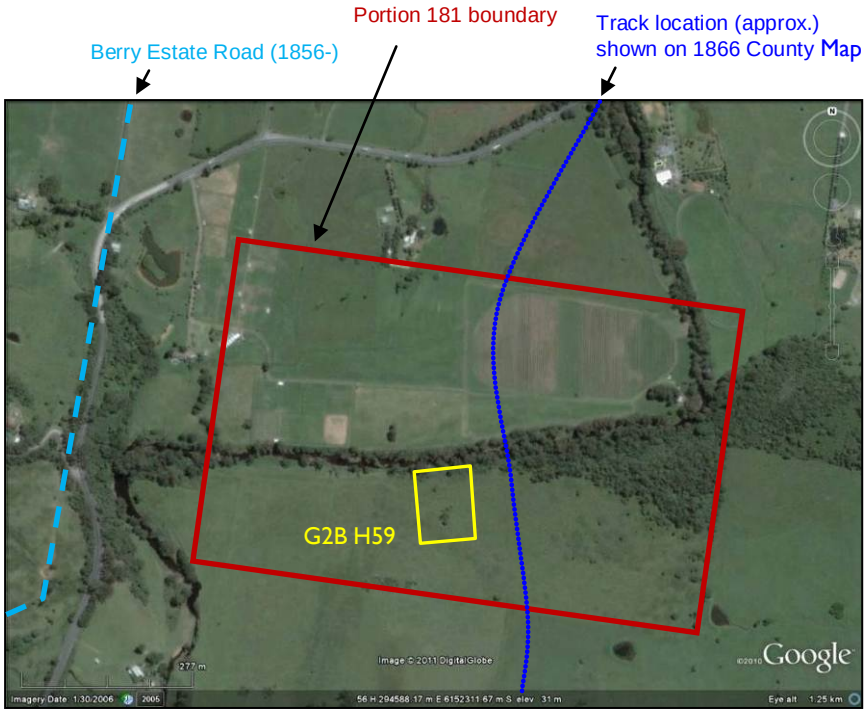


Figure G.217 Location of G2B H59 relative to former portion 181 boundary and nineteenth century tracks and roads (2006 aerial photo, Google Earth Pro 2011)

G.5 Miscellaneous sites types

Recording ID: G2B H61 **GDA Map Reference: 292261.6150863**

Name/Description:	**Quarried stone outcrop**	*Cadastral Location*: *Street address:*	Lot 4 DP801512 A350 Princes Highway Broughton
Item/Site Type:	Quarried rock outcrop		

Context/setting:	This site consists of a natural sandstone outcrop exposed within the bed of a minor tributary streamline. The outcrop forms three benches over which the stream forms a cascade, approximately two metres in total fall. The stream drains roughly southwest into Broughton Creek. The rock exposure is situated on south facing basal slopes within the Broughton Creek valley. The outcrop is situated immediately adjacent to and south of the current highway platform. A concrete highway culvert now directs water flow across the rock outcrop. It is probable that sandstone exposures of this nature, and in this low valley context, are relatively rare across the region.
Description/fabric:	The site consists of a series of three rock benches which display evidence of quarrying along their roughly vertical edges. Quarrying is indicated by a small number of vertical drill (or jumper) marks, and quarrying scars created by the removal of stone blocks from the leading edge of the benches (Figures 6.220 & 6.221).
Dimensions:	The rock exposure extends across a creek bed interval of approximately 10 metres, and averages three metres in width.
Physical condition:	The rock outcrop and quarrying features are well preserved
Integrity:	The modern concrete culvert and property fenceline above the outcrop provide modern visual intrusive elements, but overall, the integrity of the quarry features and outcrops has not been compromised.
Associated features:	The age of the quarrying is yet to be determined. If associated with early road construction, it may relate to the 1856 Berry Estate Road which at this point was located approximately along the current highway platform, immediately adjacent to outcrop. Remnants of the Berry Estate road have been recorded 45 metres to the northeast (G2B H22), and 240 metres to the west (G2B H19).
Current use:	Natural drainage line.
Heritage listings:	no current listings

Historical background/interpretation:

The age of the stone quarrying evidenced at this site is yet to be determined. There are a number of alternative interpretations of the quarrying activity:

1. Early quarrying related to the construction of the 1856 Berry Estate Road (which followed the current highway alignment at this location. Procures stone may have been used for the construction of a culvert or gutter.
2. Quarrying related to the construction of the later 1870s highway alignment, or for later upgrading or maintenance of this road.
3. Quarrying unrelated to the adjacent road, and most probably associated with construction of piers and foundations for local homesteads.

Recording ID: G2B H61 **Quarried rock outcrop**

Figure G.218 General view of quarried outcrop, during rain event, looking N

Figure G.219 View of upper rock ledge with area of drill or jumper mark indicated, looking N

Figure G.220 Detail of drill or jumper mark (yellow dotted line) and quarried edge (blue dotted line) evident on upper ledge, looking NW

Figure G.221 drill or jumper mark (yellow dotted line) and quarried edge (blue dotted line) evident across the second ledge

Recording ID: G2B H62		**GDA Map Reference:**	**289862.6149907 to 289819.6149672**
Name/Description:	**Avenue of Mature Poplar Trees**	*Cadastral Location*:	Woodhill Mountain Road easement *and/or:* Part Lot 24 DP5270 Lot 8 DP1040653
		Street address:	76 Woodhill Mountain Road Berry
Item/Site Type:	Avenue of mature Poplar Trees, Woodhill Mountain Road		

Context/setting: This avenue of trees is located on the east side of Woodhill Mountain Road between its intersection with the Princes Highway and just north of the Bundewallah Creek bridge. The terrain consists of relatively level valley floor flats and flood plain.

Description/fabric: The description of this avenue in Schedule 7 of the Shoalhaven LEP 1985 specifies nine Lombardy poplars (*Populus nigra*). The Shoalhaven Heritage Inventory includes a sketch of the avenue which makes it clear that only the nine mature poplars at the southern end of Woodhill Mountain Road are included. These trees are around 40 to 50 years old. They are absent in 1958 aerial photography, and appear as nine (only) trees in 1986 and 1992 aerial photography (NSW 2625-138 XD15 7 March 1986; NSW 3108-205 ACD15 8 Nov 1992).

Sometime after 1992, several phases of poplar tree planting are in evidence, forming avenues on both sides of Woodhill Mountain Road, north from Bundewallah Creek bridge, up to the driveway of Broughton Mill Farm Guesthouse (almost as far as the intersection with Bong Bong Road). There are twenty eight on the western side (of varying ages), and forty six on the eastern side, many very young, especially towards the northern end. Many of the trees on the eastern side of the road have been cut to protect overhead powerlines.

The mapping of heritage items associated with the 1985 Shoalhaven LEP and Draft 2009 Shoalhaven LEP includes all of the poplar trees along Woodhill Mountain Road between the Princes Highway and Bong Bong Road. This is contrary to the specification of nine trees in the Schedule, and the mapping in the Shoalhaven Heritage Inventory. As a consequence, the definition of this LEP listed heritage item is unclear. This assessment has adopted the Schedule definition and includes only the area of the original nine plantings.

Since 1992, two of the original trees have fallen and are no longer extant. Another example, the southernmost, has recently died but remains standing.

Dimensions: The original nine trees created an avenue 244 metres long. The total length of the avenue, including the additional plantings to the present time is 760 metres. The Shoalhaven Heritage Inventory states that the average height of the original poplars is 25.6 metres, and average canopy diameter is four metres.

Physical condition: Of the remaining seven of the original nine trees (from the original Schedule citation), one is dead and standing, and the remaining six, alive and standing. The health and vigour of some of the live trees may be compromised, as evidenced by the gradual attrition of three trees since 1992. These losses may be due in part to strong winds, but may also relate to structural instability and disease.

Integrity:	Due to past and recent tree losses, the remaining avenue formed by the original trees presents an incomplete and irregularly spaced avenue. The original avenue appears to have had a planting interval of approximately 12 metre.
Associated features:	-
Current use:	Roadside tree avenue, which presents a landscaped entry and departure from Berry.
Heritage listings:	Shoalhaven LEP 1985 (as amended) Schedule 7
	Shoalhaven Heritage Inventory

Historical background/interpretation:

The original tree avenue appears to have been planted in the 1970s.

Figure G.222 General view of poplar avenue, looking S from the bridge over Bundewallah Creek

Figure G.223 View looking N from the Bundewallah Creek bridge. Note the northern most of the mature poplars at the near end of the avenue

Figure G.224 View, looking W at the same section of tree avenue shown in the figure above. Note the northern most of the mature poplars situated at the left end of the avenue shown in this picture

Figure G.225 View looking SW towards Bundewallah Creek in the late 1890s. No poplars are evident at this time along Woodhill Mountain Rd (then known as Broughton Vale Rd) and appear not to have been a feature of the roadscape until the second half of the twentieth century ("Town of Berry from Stewarts Hill" Government Printing Office , 1898 State Library of NSW d1_12472r.jpg; also Wollongong Library)

Recording ID: G2B H63 **GDA Map Reference: 288189.6149433**

Name/Description:	**Mark Radium Park**	*Cadastral Location*:	Lot 1 DP925241
		Street address:	Victoria Street Berry
Item/Site Type:	Mark Radium Park		

Context/setting:	Mark Radium Park is located at the intersection of Victoria Street and the Princes Highway, at the western margin of the town grid of Berry. The Park is located on southeast facing, low gradient basal slopes of a low spur which extends in a south-easterly direction from Berry Mountain. A small intermittent tributary stream traverses the southwestern corner of the park.
Description/fabric:	The park serves as a general recreation and rest area and includes: a public toilet block, gas BBQ, shelter and picnic furniture, car parking bays on a looped single entrance gravelled track, a shallow ornamental pond retained by a low masonry dam wall, landscaped and planted grounds, walking paths and seats. The trees and other plantings in the park follow a local area native theme. All but a small number of the established trees are relatively young. An arboretum of local endemic species has recently been established at the northern upslope end of the park. The name of the park commemorates a local champion show ring pony named “Mark Radium”, owned by Jack McGee. An outline of the pony’s story is provided on a park sign (Figure G.226). The pony held high jump records at Adelaide, Albury and Melbourne (1938) and between 1947 and 1955 competitions was beaten only once. He was 23 in his last year of competition (1955). Although Mark Radium was foaled in 1932 at Taree, he was stabled at Berry during non-competitive times.
Dimensions:	Approximately 170 x 107 metres
Physical condition:	Good condition – eastern abutment of pond wall is leaking.
Integrity:	not applicable
Associated features:	-
Current use:	Community space - public recreational park and rest area
Heritage listings:	Shoalhaven LEP 1985 (as amended) Schedule 7 Draft Shoalhaven Local Environmental Plan 2009 – Schedule 5 Shoalhaven Heritage Inventory

Historical background/interpretation:

The park was initially developed by the Berry Apex Club and some years later handed over to the Shoalhaven Shire Council. The park continues to be developed with the aid of Landcare grants and community volunteers.

The park was established on the site of the old pound.

Recording ID: G2B H63 **Mark Radium Park**

Figure G.226 View of park sign at southern entrance to park

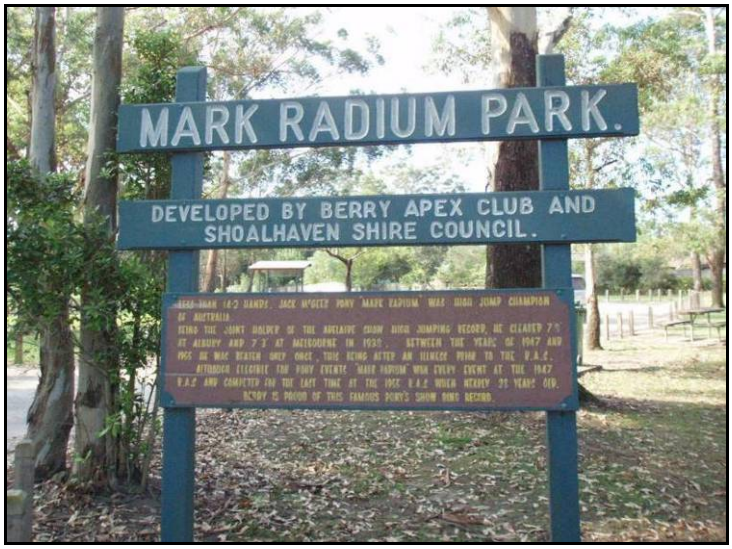


Figure G.227 Park area (blue line) relative to 1958 aerial image (SHI Dapto-Ulladulla NSW Run GK11 699-5039 23/07/58)

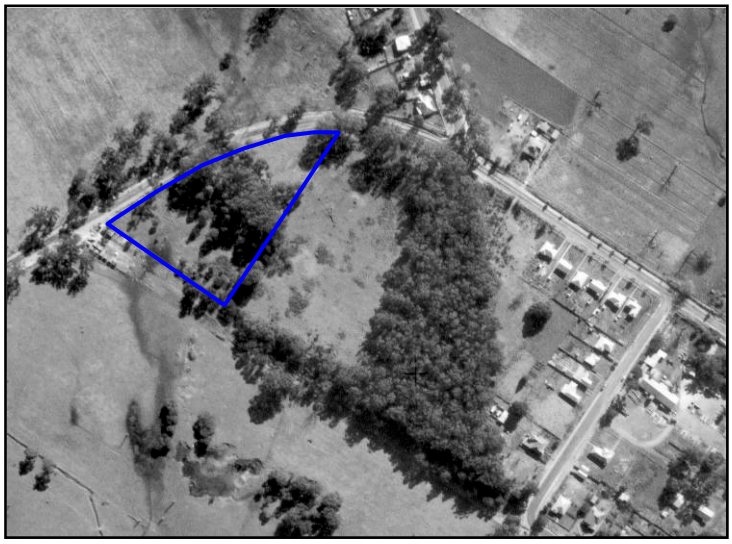
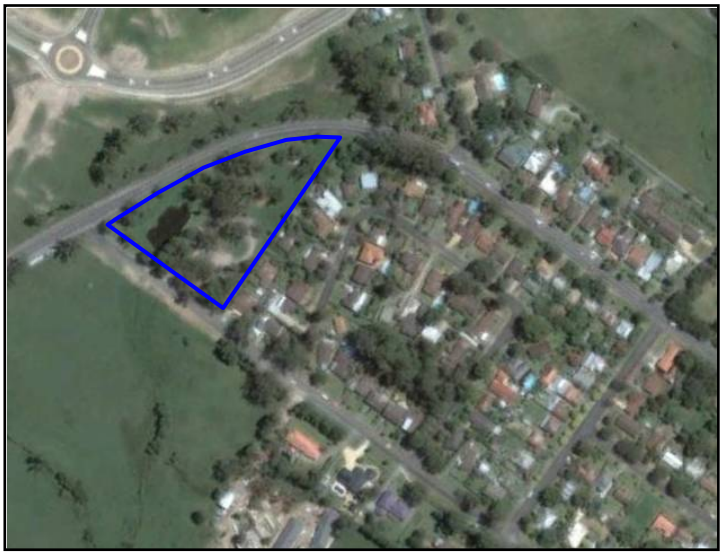


Figure G.228 Park area on 2006 aerial image (Google Earth Pro 2011)



Recording ID: G2B H54		**GDA Map Reference:**	**296197.6152799 to 296152.6153045**
Name/Description:	**Dry Stone Wall**	*Cadastral Location*: *Street address:*	Lot 2 DP224377 455 Princes Highway Broughton Village
Item/Site Type:	Dry stone wall, Toolijooa Ridge		

Context/setting:	This site consists of a section of dry stone wall located approximately along the western (upslope) boundary of the current highway easement where it traverses the upper slopes of the Toolijooa Ridge.
Description/fabric:	Access to the wall is currently severely limited by dense overgrowth. As a consequence, the remaining length of the wall and its condition over that interval remains to be confirmed. The wall is accessible and visible in only a small number of places. Based on limited observation, and an interpretation of the contouring of the densely vegetated western side of the highway easement, it is possible that an approximately 230 metres section of wall may be present. The wall appears to vary in height above the road, from roughly level or below at its southern end, where it appears to end at a small gully, and up to three metres above mid way along its possible length. Based on observations at its southern end, the wall appears to have been constructed using the 'double dyke' technique which is characteristic of the Kiama and Foxground walls (Figures 6.229 & 6.234). The wall is currently acting as a partial retaining wall, with a substantially higher ground level on the upslope side. It is unclear however if the wall was constructed with this function in mind, or downslope soil creep has created this effect.
Dimensions:	The base of the wall is approximately 1.0 metres to 1.2 metres wide and the height roughly 1.1 metre. The confirmed length of wall is in the order of 100 metres. The potential surviving length is around 230 metres.
Physical condition:	Areas of partial collapse and missing copestones are noted. The full condition of the wall remains to be documented. The wall is no longer relied upon to define or enforce an enclosure.
Integrity:	Yet to be determined.
Associated features:	-
Current use:	Disused, partially ruined
Heritage listings:	The Kiama Municipal Council considers that all dry stone walls within the Kiama Local Government Area are included within a listed item for 'dry stone walls' on Schedule One (Items of Environmental Heritage) of the Illawarra Regional Environmental Plan No. 1 (first gazetted in 1986) (pers. comm.. Andrew Knowlson, Director of Environmental Services, Kiama Municipal Council, 5 Oct 2011). This Schedule listing consists of: 'Dry stone walls, Jamberoo, Dunmore and Foxground Areas, Kiama.' Given the reference to specific areas, the degree to which this definition is inclusive or exclusive of walls elsewhere across the Kiama LGA remains ill-defined. The Draft Kiama LEP 2010 (Kiama Heritage Inventory), contains an inclusively defined item for all 'stone walls' in the Kiama Local Government Area.

Historical background/interpretation:

The following historical outline has been drawn from Mayne-Wilson 1998, 2000; and RTA Environmental Technology 2006).

As part of the land clearing process, loose and surface rock was often removed and d. Where the collected rock was of a suitable quality, this practise provided a ready resource for early landowners to define property boundaries and enclose sections of their properties through the construction of dry stone walls. The earliest examples were probably built using convict labour or by early farmers in the 1840s lacking technical knowledge of dry stone wall building. As a result, it is expected that few walls of this period have survived (Mayne-Wilson 1998: 2).

The earliest skilled stone wall builder in the Kiama region is recognised as being Thomas Newing (1832 – 1927), who arrived from Kent in 1857 aged 22. Newing was taught stone wall building by Mr W. Cook of Longbrush (south of Kiama), and built his first wall in Foxground that same year. He soon perfected the 'double dyke' or twin skin technique of dry stone wall construction, and after 18 months began to undertake work independently throughout the region, having been said to have surpassed the skills of Mr Cook (Mayne-Wilson 1998: 3). This method, which is well distributed throughout Kiama, consists of two walls leaning toward each other (in an A-frame), with smaller stones used as infill, and heavier coping stones laid on top to bind the walls together (Figure G.229). The walls were generally built for the demarcation of property alignments, both along roads and Lots, as well as internal subdivisions.

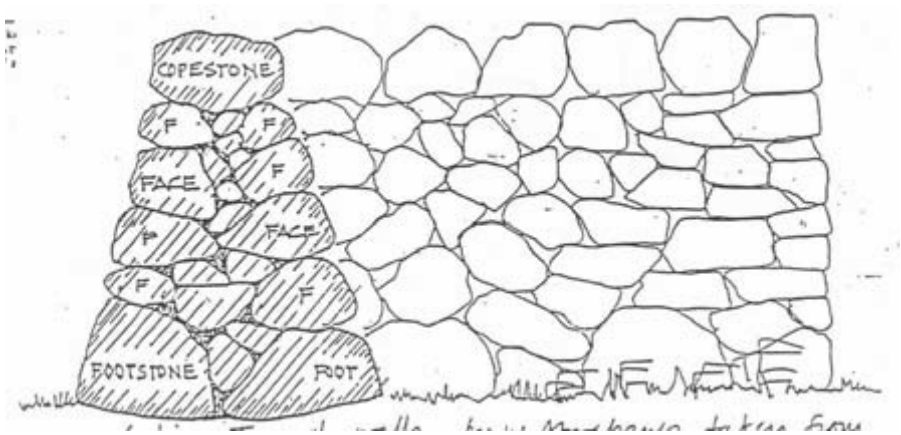


Figure G.229 Diagram illustrating the typical form of a 'double dyke' dry stone wall (from Register of the National Trust inventory listing for 'Dry Stone Walls Conservation Area' Kiama, In RTA Environmental Technology 2006)

From an account in the Sydney Morning Herald (24th March 1936), Newing's son Thomas, recounted that following the successful construction of a stone wall for Mr Joseph Pike of Kiama, his father sought to master the trade, and later became an expert at it. He was noted for his skill in manipulating the local stone and for his ability to interlock the facing stones to attain maximum stability and strength. Having generated interest from local landowners, Newing continued to construct walls around Kiama with his son until 1917, aged 85. Newing Jr stated that his father was responsible for the creation and/or overseeing of 95% of the stone walls in Kiama, with other wall builders of the time, Prott and Dietz, unable to compete to the same degree (Mayne-Wilson 1998: 16).

Stone walls were built extensively until 1880, when wire became cheaply available for fencing.

In a 2000 study commissioned by the Kiama Shire Council, Mayne-Wilson and Associates aimed to locate, record and assess the heritage values of every wall within the Shire. Over a three month period 379 walls were located and recorded (Mayne Wilson and Assoc 2000). Five different types of walls were identified:

- Roadway boundaries.
- Lot and paddock boundary fences (the most numerous).
- Holding yards (often found surrounded by stands of cultural plantings).
- Retaining walls (uncommon).
- modern examples (including town markers and private constructions in suburban subdivisions).

The G2B H54 wall has not been formally recorded before and does not appear in the inventory of known walls within the Mayne-Wilson 2000 study. It is the only dry stone wall as yet to be formally recorded on the Toolijooa Ridge. Given the surface geology of the ridge crest, there is potential for other dry stone walls to be present, although no obvious examples are visible on aerial photography (including the G2B H54 example).

The alignment of the G2B H54 wall along the upslope boundary of the highway easement suggests that it served as a roadway boundary. An alternative, or additional function, would be as a retaining wall on this steep slope. The close association with the current highway corridor provides a maximum age of approximately the 1870s - the period when the current highway alignment, replaced the Berry Estate Road, which is situated on the spur crest some 80 metres to the south. The construction of this wall may have been a component of the 1870s highway alignment, or subsequently sponsored by the Berry Estate for a leasehold farm, or by a freehold farmer following the sale of the farm around the turn of the twentieth century.

These potential time frames place construction within the active career of Thomas Newing, however further research and site recording is required before this wall can be linked with the Newing legacy.

Figure G.230 General view of the Princes Highway corridor, just east of the Toolijooa Ridge crest, looking S. A dry stone wall, obscured by vegetation, is located approximately along the western road easement boundary (yellow dotted line)

Figure G.231 General view of the Princes Highway corridor, east of the Toolijooa Ridge crest, looking NW. A dry stone wall, obscured by vegetation, is located approximately along the western road easement boundary (yellow dotted line)

Figure G.232 Extract from 1890s map of the northern Berry Estate, with an overlay of the approximate location of the G2B H63 dry stone wall (blue line. The condition and extent of the northern end of the wall is yet to be determined ('Part of the Berry Estates, Parishes of Broughton and Coolangatta, County of Camden' original at State Library of NSW, M_Ser4_000_1_MLMSS315_Map 17)

Figure G.233 Detail of dry stone wall , looking NW from near the southern known extent of the wall. Note partial collapse in foreground and large foot stones

Figure G.234 Detail of dry stone wall , looking NW from near the southern known extent of the wall. . Note clear double-dyke technique and higher ground level on upslope side of fence

G.6 Movable items

Recording ID: G2B H60 **GDA Map Reference: 294536.6152562**

Name/Description:	**Skid mounted work-site shed**	*Cadastral Location*:	Lot 9 DP3344
		Street address:	161 Princes Highway Broughton Village
Item/Site Type:	**Skid mounted work-site shed**		

Context/setting:	This recording is a movable (towable) shed, currently located at the rear (southeastern end) of the Greystanes Lodge farmhouse, 161 Princes Highway, Broughton Village.
Description/fabric:	The shed consists of a rectangular sawn hardwood stud frame clad with corrugated iron on the exterior walls and roof (painted green), and masonite panelling on the interior (painted cream). The floor is hardwood boards. The roof has a single slope, elevated on the door side. A single window is set on one side, opposite a ply and cross-boarded single door. The window is protected by a metal grid mounted over the exterior of the window. Two cupboards (now missing doors and shelves) have been installed into the two corners on the right side of the door, and a bench top spans the two cupboards. Two hardwood skids, separated and supported by two horizontal metal supports and a diamond configuration of angle iron, have been attached to the floor beams parallel to the long axis of the shed Use of the shed in the past as a horse bridle and tackle shed has been accompanied by the fixing of multiple wooden boards around the walls to fix nails and hooks for hanging items.
Dimensions:	The shed has approximate dimensions of 2.3 x 3m and up to 2.3 metres high
Physical condition:	The shed is in relatively good condition with the exception of some missing and torn sections of the masonite cladding on the interior (window) wall and, all of the ceiling cladding. A limited amount of paint and spirit felt tip pen graffiti is evident on the interior walls. Some related to the recent use as a horse tackle shed.
Integrity:	The cupboards installed into two corners of the shed and associated bench appear to be contemporaneous with the construction of the shed. Apart from the superficial addition of wall boards to affix hooks and nails, there does not appear to have been major additions or renovations to the shed. The original exterior swing bolt door latch has been replaced for a larger example.
Associated features:	-
Current use:	Ad hoc storage (especially for swimming pool equipment and supplies.
Heritage listings:	no current listings

Historical background/interpretation:

Masonite was invented in the USA in 1924 and production started in 1925. It was licensed for production in Australia and became available from 1931 (http://www.fundinguniverse.com/ company-histories/Masonite-International- Corporation-Company-History.html; http://mileslewis.net/australian -building/pdf/05-timber-frame/5.11%20bldg%20boards.pdf).

The 1930s are thus a maximum age for this structure. It is considered likely that by the 1960s metal framed and prefabricated sheds would have replaced this form. The utilitarian character of this structure, including the window grill, and absence of air vents, suggests a function as a storage or low frequency works shed/site office for a building site or other industrial activity area. The installation of skids points to a need for flexibility in positioning and ease of re-location. These all point to an original function as an on-site work shed or office at a construction site or depot. Skids are still used on work sheds today.

The materials, construction, colour, fittings all suggest a 1940s or 50s origin.

Recording ID: G2B H60 **Skid mounted work-site shed**

Figure G.235 Exterior of shed and door side, viewed from a corner

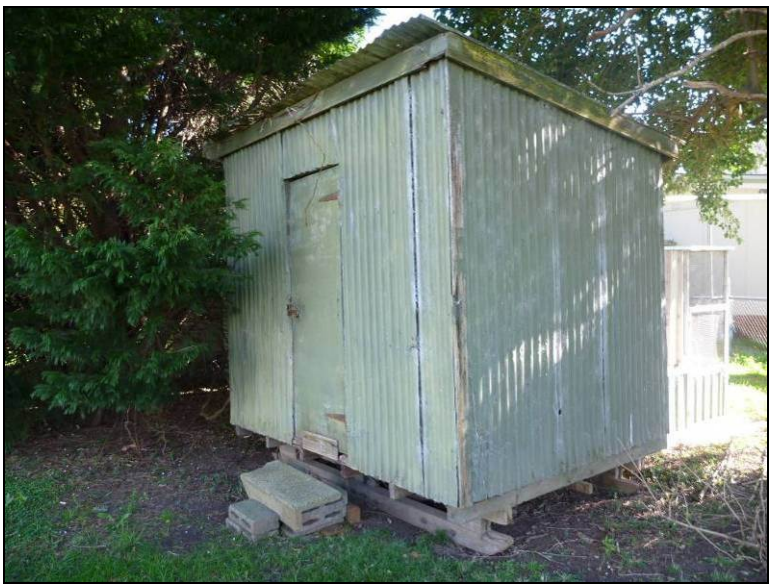


Figure G.236 Detail of metal grid over window

Figure G.237 Detail of the metal cross bracing between the wooden skids and floor

Figure G.238 Interior views, showing interior of door and cupboards and bench constructed at one end.

Figure G.239 Interior view showing damage to interior wall cladding and addition of wall boards for hanging items

Figure G.240 Detail of wood skid mounted below floor (door side)

Appendix H

Detailed significance assessment

Detailed significance assessment

H.1 Nineteenth century road remnants

Recording ID:	**G2B H19, 22, 23, 27, 30 & 55**	**Name/*Description*:**	**Remnants of Berry Estate road (c.1856 – 1870s)**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The nineteenth century remnants of the Berry Estate road are examples of a former transport corridor that was locally important as the first north-south communication route that moved inland and bypassed Seven Mile Beach. These remnants are also important as an example of a private road that was distinctive in its use of long straight sections, which often traversed steep spurs and ridges without apparent regard for the consequentially steep gradients. The Berry Estate road is also important as a transport corridor that has in many places been retained to the present day by the current Princes Highway alignment.

The six remnants (G2B H19, 22, 23, 27, 30 and 55) of this road identified in the course of this project are all assessed to be of local importance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The remnants of the Berry Estate road have a strong association with Messrs Alexander and David Berry, who were instrumental in the private construction of this road. Alexander and David were also of local importance due to their prominent role in European settlement. They were key figures in the nineteenth century development of the lower Shoalhaven through their development and promotion of their estate lands. This included the establishment of private towns, promotion of local industry and development of agricultural infrastructure.

The six remnants (G2B H19, 22, 23, 27, 30 and 55) of this road identified in the course of this project are all assessed to be of local importance against *criterion b*.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The nineteenth century remnants of the Berry Estate road are not of importance in terms of demonstrating aesthetic characteristics or a high degree of technological or creative achievement. These items are assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the remnant sections of the Berry Estate road. These items are assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The remnant sections of the Berry Estate road have the potential, both individually and as a group, to yield information that would contribute to an understanding of nineteenth century road construction and use. In particular, these items have the potential to provide insights into the nature of what was once a ubiquitous road type, but for which relatively little information or evidence is readily available.

A combination of archaeological excavation and survey could potentially provide information on road dimensions, pavement types, methods of construction, drainage and other aspects of design, phases of modification and site chronology.

While all six of the road remnants identified in the course of this project are assessed to have local significance against *criterion e*, it is noted that items G2B H23, 27 and 30 are all particularly good examples with relatively good integrity.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Examples of nineteenth century private roads are a relatively little known site type. Moreover, the once ubiquitous bullock dray roads that provided one of the primary transport routes between many nineteenth century settlements are rarely preserved/identified. It is also unusual to be able to identify a series of road sections such as these that can all be traced to the same road alignment at a fairly discrete period in time.

The six remnants (G2B H19, 22, 23, 27, 30 and 55) of this road identified in the course of this project are all assessed to be of local importance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The remnant nineteenth century road sections are important as local examples of bullock dray routes; they are also locally important as examples of the private road established by Alexander and David Berry across the Berry Estate. Item G2B H23 is of note as the longest and best conserved example identified. G2B H27 is notable for containing a series of straight section, which are characteristic of the Berry Estate road. G2B H30 is important as an example that demonstrates both shallow road cuttings and well defined sections of road with side ditches. G2B H55 notable as a remnant that is easily discernible due to the significant relief of its features.

Four (G2B H23, 27, 30 and 55) of the six remnants of this road identified in the course of this project are assessed to be of local importance against *criterion g*. Items G2B H19 and 22 are assessed as not having significance against this criterion.

Assessment of constituent elements

Element	Grading	Justification
G2B H19	Moderate	Comprises vestigial remnants
G2B H22	Moderate	Is a relatively small section that is used as a modern track - contributes to the overall significance of this group of items.
G2B H23	High	Large, well conserved remnant
G2B H27	High	Series of original characteristic straight segments
G2B H30	High	Well preserved road section that displays side ditches and varying ground relief
G2B H55	High	Readily discernible road remnant

Statement of heritage significance:

The remnant sections of the nineteenth century Berry Estate road are representative and relatively rare examples of a transport corridor that was locally important as a private road and as the first inland route that bypassed Seven Mile Beach.

These road remnants have a strong association with Messrs Alexander and David Berry, who were of local importance due to their prominent role in European settlement. They also display the potential to yield information, through archaeological excavation and survey, that would contribute to an understanding of nineteenth century road construction and use.

H.2 Twentieth century highway remnants

Recording ID:	**G2B H12, 15, 18, 20, 21, 24, 26 & 57**	**Name/*Description*:**	**Remnant portions of twentieth century highway**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The section of remnant highway at G2B H26 was established in the late nineteenth century; it replaced the 1856 Berry Estate road and was in use until the 1930s. This item encompasses a corner that was known as "Binks' Corner", a danger spot that was eventually bypassed in 1936. This recording is locally important as an example of significant changes to the road network, including modifications in response to dangers for motorised transport on a road initially developed for non-motorised transport.

Item G2B H26 is assessed as being of local significance against *criterion a*.

Items G2B H12, 15, 18, 20, 21, 24 and 57 are assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The remnant highway at G2B H26 is directly linked to a family of local importance: the Binks Family. The name, T. Binks, presumably Thomas Binks, is listed on an 1890s map as the tenant farmer of 128 acres of upper catchment slopes within the Berry Estate. The Binks' were also a large family who made a lasting contribution to the local and wider community through the dairy industry. The link between the Binks family and G2B H26 is demonstrated by the fact that the tight corner within this remnant portion of highway is known as "Binks' Corner"; it owes its name to its proximity to the Binks Family property, *Sedgeford* (G2B H24)

Item G2B H26 is assessed as being of local significance against *criterion b*.

Items G2B H12, 15, 18, 20, 21, 24 and 57 are assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The twentieth century highway remnants are not of importance in terms of demonstrating aesthetic characteristics or a high degree of technological or creative achievement. These items are assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the remnant sections of the twentieth century highway. These items are assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

Items G2B H20, and 21 are remnant sections of the 1930s highway that appear to be relatively well preserved. It is likely that further investigation, such as archaeological survey and excavation, would contribute to an understanding of construction standards and tolerances of a main road corridor from the first half of the twentieth century.

Similarly, G2B H26 appears to be a well preserved and relatively extensive section of road. Further investigations at this item may reveal whether culverts exist in association with the creek crossings, and if any original road surface has survived, which would in turn contribute to an understanding of early twentieth century highway design and construction.

Items G2B H20, 21 and 26 are assessed as being of local significance against *criterion e*.

Items G2B H12, 15, 18, 24 and 57 are assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Items G2B H15 and 26 are both notable for their rarity. G2B H15 is unusual as a portion of the early twentieth century highway (alignment formalised in the 1880s) that is preserved as a sealed section of road that, while no longer part of the Princes Highway, remains in use for access to private properties. This item retains many features of the 1950s highway easement.

The recording G2B H26 is unusual as a relatively well preserved example of an early twentieth century danger spot on the highway. It is rare to have an extant section of road that is directly associated with a fatal accident from the early years of motorised transport.

Items G2B H15 and 26 are both assessed as being of local significance against *criterion f*.

Items G2B H12, 18, 20, 21, 24 and 57 are assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The remnant sections of twentieth century highway at G2B H15 and 26 are important in demonstrating the principal characteristics of late nineteenth century road alignments and early twentieth century road design and construction (specifically the characteristics of 1930s (G2B H26) and 1950s (G2B H15) highway easements). As outlined above, these items are relatively rare, which adds to their importance as items that display these characteristics.

Items G2B H15 and 26 are assessed as being of local significance against *criterion g*.

Items G2B H12, 18, 20, 21, 24 and 57 are assessed as not having significance against this criterion.

Assessment of constituent elements

Element	Grading	Justification
G2B H12	Little	Poorly preserved, difficult to interpret
G2B H15	Moderate	Well preserved section of road that displays elements of the 1950s highway easement.
G2B H18	Little	Poorly preserved, difficult to interpret
G2B H20	Moderate	Relatively well preserved corner from the turn of the century; has the potential to contribute to overall understanding of the twentieth century highway.
G2B H21	Moderate	Relatively well preserved corner from the turn of the century; has the potential to contribute to overall understanding of the twentieth century highway.
G2B H24	Little	Poorly preserved, difficult to interpret
G2B H26	High	Well preserved section of road that is integral to the overall significance of this group of items.
G2B H57	Little	Poorly preserved, difficult to interpret

Statement of heritage significance:

The twentieth century road remnants comprised by the recordings G2B H15, 20, 21 and 26 form an important example of elements of early twentieth century highway design, construction and modification.

In particular, G2B H26 is important in the course of local highway upgrades; it is also directly associated with the Binks, an early tenant farming family that is of importance due to its involvement with the development of the local dairy industry.

Items G2B H20, 21 and 26 all have the potential to yield information regarding standards in early twentieth century road design and construction, and G2B H15 and 26 are notable in terms of their rarity and representativeness.

Remnant recordings G2B H12, 18, 24 & 57 all fall below the threshold of significance defined in the assessment criteria.

H.3 Standing buildings and structures

Recording ID: G2B H10 **Name/*Description*: Cottage (72 North St. Berry)**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The cottage at G2B H10 was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The cottage at G2B H10 does not have strong or special association with the life or works of a person or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The cottage at G2B H10 is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the cottage at G2B H10. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The cottage at G2B H10 does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Early twentieth century cottages such as the one at G2B H10 are a relatively common site type. There are numerous local examples of such buildings. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The cottage at G2B H10 is not a good example of its type, it has few original exterior materials or features. This item is assessed as not having significance against this criterion.

Statement of heritage significance:

The cottage at G2B H10 does not meet any of the significance criteria. This item falls below the threshold for heritage listing.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The house at G2B H11 was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The house at G2B H11 does not have strong or special association with the life or works of a person, or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The house at G2B H11 is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the house at G2B H11. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The house at G2B H11 does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The house at G2B H11 is not rare or uncommon. There are numerous local examples of Federation period farms. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The *GlenDevan* house is a well conserved example of Federation architecture and it is representative of accommodation constructed late in the history of the Berry Estate. As such, G2B H11 is important in demonstrating the principal characteristics of a Federation period tenant farm house on the Berry Estate.

The house at G2B H11 is assessed as having local significance against *criterion g*.

Statement of heritage significance:

The *GlenDevan* house (G2B H11) is of local significance as a representative example of Federation period housing on the Berry Estate.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The overseer's cottage at G2B H13 was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The overseer's cottage at G2B H13 does not have strong or special association with the life or works of a person or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The overseer's cottage at G2B H13 is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the overseer's cottage at G2B H13. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The overseer's cottage at G2B H13 does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The overseer's cottage at G2B H13 is not rare or uncommon. There are numerous local examples of early twentieth century cottages. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

With the exception of the enclosed verandah, the overseer's cottage at G2B H13 is in original condition. It is a very good example of an early twentieth century, horizontal weatherboard cottage and is typical of an overseer's cottage from this period.

The Burnett Estate Overseer's Cottage at G2B H13 is assessed as having local significance against *criterion g*.

Statement of heritage significance:

The Burnett Estate Overseer's Cottage at G2B H13 is a well preserved and locally representative example of an early twentieth century weatherboard overseer's cottage.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

Mananga Homestead is of local historical importance as the former residence for the Berry Estate Manager. It was a key component of the Berry Estate and as such is of integral importance to the course of the history of the estate.

This item is also of local importance as a component of the development and operation of Broughton Creek village.

G2B H16 is assessed to be of local significance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The original 'Mananga Cottage' was built for William Stewart, who was an individual of local importance. He was an acquaintance of David Berry and he helped control the Berry Estate through his role as first Commissioner of Peace for the Broughton district. William's brother, Donald, was the first Post Master at Berry, the Post Office being 'Old Mananga Cottage'.

William's son John purchased the Mananga land following the break-up of the Berry Estate. He built the existing 'Mananga Homestead', within which he set up his office as the first registered auctioneer in NSW.

William and John were also both involved in the formation of the Municipality of Broughton Creek and Bomaderry and the establishment of the local Agricultural Society and the School of Arts.

The Mananga homestead remained in the ownership of the Stewart family until 1992.

Due to this item's association with the Stewart family, and in particular William, Donald and John, G2B H16 is of local significance against *criterion b*.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

Mananga Homestead has landmark qualities and is important in demonstrating a Federation Queen Anne homestead with Art Nouveau character within in a mature garden setting.

G2B H16 is assessed as being of local significance against *criterion c*.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the Mananga Homestead complex at G2B H16. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

G2B H16 comprises a series of buildings that relate to a variety of activities and phases of occupation from the nineteenth century through to the present day. The site also includes traces of water race for the 1830s Berry Estate saw mill.

Further investigation in the form of archaeological survey and excavation would be likely to yield information that would contribute significantly to an understanding of the history and development of Mananga homestead, Broughton Village, the Berry Estate mill and the Berry Estate as a whole.

Mananga Homestead is assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The Mananga homestead complex is not rare or uncommon. There are numerous local examples of late nineteenth to early twentieth century homesteads. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The Mananga homestead complex demonstrates the principal characteristics of a site that has been occupied and modified over various phases since the early nineteenth century, including an accretion of outbuildings and a shift in location of the main house from 'Mananga Cottage' to the current 'Mananga Homestead'. The current homestead is also an excellent example of a Federation Queen Anne style house with Art Nouveau character.

G2B H16 is assessed as being of local significance against *criterion g*; it is representative of its type.

Assessment of constituent elements

Element	Grading	Justification
Old Mananga	Exceptional	An integral component of the complex that is linked to William, Donald and John Stewart.
Mananga Homestead	Exceptional	An excellent example of its type, readily interpretable, directly linked to John Stewart.
Outbuildings	Moderate	Important in understanding the site complex as a whole, not of direct heritage significance on their own
Mill race deposits	High	An important component of the complex that has direct potential to yield information.

Statement of heritage significance:

The Mananga Homestead and the broader site complex are of local historical importance due to their role in the course of the history and development of the Berry Estate and Broughton Creek Village. Mananga Cottage and Mananga Homestead are both directly linked to important members of the Stewart Family, and as such have a strong and special historical association.

The complex as a whole, and the Mananga Homestead in particular, display landmark qualities and are important in demonstrating aesthetic characteristics of a Federation period homestead. The site also has the potential to yield information that would contribute significantly to an understanding of the history of and development of the site, the Berry Estate and Broughton Creek Village. Of particular note is the existence of traces of the water race from the 1830 Broughton Creek saw mill.

This item is also locally representative of a complex with multiple phases of occupation and a Federation Queen Anne style farm house with Art Nouveau character.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The *Hillview* homestead is not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The *Hillview* homestead does not have strong or special association with the life or works of a person, or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The *Hillview* homestead is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the *Hillview* Homestead. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The homestead at *Hillview* is an example of a relatively early vertical slab 'L' shaped house from the Berry Estate. It is likely that archaeological/architectural survey of the building, and possibly even excavation of associated deposits, would yield significant information regarding the construction techniques, influencing styles, and occupation phases. Investigations of this nature would contribute to an understanding of the organisation and operation of the Berry Estate as well as the living conditions and social status of tenant farmers.

G2B H17 is assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

This item is a well preserved example of an early slab house from the Berry Estate. While the sites of structures of a similar age are known to occur locally (eg G2B H52), examples of extant buildings such as this, particularly slab structures, are rare.

G2B H17 is assessed as being of local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The *Hillview* homestead is a relatively well preserved example of a vertical (sawn) slab homestead with hipped roof and five original rooms on a revered 'L' shaped plan with kitchen forming the back wing. It is characteristic of a Scottish style of house layout that appears to be associated with the Berry Estate.

This item is assessed as being of local significance against *criterion g*.

Statement of heritage significance:

The *Hillview* homestead is a locally rare and representative example of a mid-nineteenth century slab house from a Berry Estate tenant farm. It is characteristic of a Scottish style of house layout and it has the potential to contribute, through archaeological survey/excavation to an understanding of organisation and operation of the Berry Estate as well as the living conditions and social status of tenant farmers.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The *Sedgeford* homestead and gardens were not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The *Sedgeford* homestead and gardens were established by Thomas Binks and Mary Hetherington. The Binks' were a large family who made a lasting contribution to the local and wider community through the dairy industry. All of Thomas and Mary's daughters were married in the front room of the homestead.

This item is assessed as having local significance against *criterion b*.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The *Sedgeford* homestead and gardens are not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the *Sedgeford* homestead and gardens. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The *Sedgeford* homestead and gardens do not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The *Sedgeford* homestead and gardens form a relatively common site type. There are numerous local examples of Federation period farms. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

While the *Sedgeford* homestead and gardens are not a rare site type, G2B H25 is representative of an early twentieth century dairy farm in association with a disused highway alignment; it retains well preserved examples of the Federation period homestead and the associated gardens.

G2B H25 is assessed as having local significance against *criterion g*.

Statement of heritage significance:

The *Sedgeford* homestead and gardens have a strong and special association with the Binks Family, a well-known local family who have, since the beginning of the twentieth century, made a lasting contribution to the local and wider community through the dairy industry.

G2B H25 is representative of an early twentieth century dairy farm in association with a disused highway alignment; it retains well preserved examples of the Federation period homestead and the associated gardens.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The Brookside homestead was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The Brookside homestead comprises two salvaged structures, one of which appears to be from portion 181, a 100 acre block associated initially with Anthony Finn and later with Dicky Woods. Anthony Finn was an individual of local importance as someone granted land, due to his role in the apprehension of a bushranger, in an area dominated by larger estates. The element of the homestead that originates from portion 181 appears to date to the mid to late nineteenth century, and as such is unlikely to be the original Finn residence; it is more likely the residence of Dicky Woods, who does not have the same level of local importance.

On the basis of the available information from research and field survey, G2B H28 cannot be definitively assessed against this criterion. It appears unlikely to be of significance against *criterion b,* however this may be revised if stronger link can be established between this site and Anthony Finn.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The Brookside homestead is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the Brookside homestead. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The sandstone retaining walls and earth platforms that mark the location of former structures and yards, notably in association with a former dairy, and a former structure on slopes to the south of the tributary stream at G2B H28 have the potential to yield information, through archaeological excavation and survey, that will contribute to an understanding of the history of the local dairy industry.

The Brookside homestead comprises two salvaged structures, one of which appears to be from portion 181, a 100 acre block associated initially with Anthony Finn and later with Dicky Woods. This portion is somewhat unique in the local area as an example of an early small farm that was not a tenant farm of one of the larger estates. As such, investigation and analysis of the Brookside homestead's constituent elements, in particular the section from portion 181, may yield information that will help in interpretation of deposits at G2B H59.

The Brookside homestead is assessed as having local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The Brookside homestead is a relatively common site type. There are numerous local examples of similar early twentieth century farms. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The retaining walls, earth platform and yards associated with the former dairy at G2B H28 have the potential to be representative of archaeological remains of an early twentieth century dairy.

This item is assessed as potentially having significance against *criterion g*.

Statement of heritage significance:

The Brookside homestead comprises two salvaged structures, one of which appears to be from portion 181, a 100 acre block associated initially with Anthony Finn and later with Dicky Woods. Investigation and analysis of the Brookside homestead's constituent elements, in particular the section from portion 181, may yield information that will help in interpretation of deposits at G2B H59.

The archaeological traces of former structures, including a dairy, at G2B H28 have the potential to yield information that will contribute to an understanding of the history of the local dairy industry. They also have the potential to be representative of such a site.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The Broughton Creek Bridge was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The Broughton Creek Bridge does not known for any strong or special association with the life or works of anyone of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The Broughton Creek Bridge embodies the design principles and construction techniques applied to modest concrete bridges during the period 1925-1948, being a sturdy structure of a standard concrete beam design, poured on site and neatly finished. The widened bridge represents an excellent adaptation to achieve a wider deck without the need for additional piers, and has retained the spacious and clean lines of the original structure, with most of the original fabric remaining unaltered, and the views to and from the structure, which allow its interpretation, have been maintained.

G2B H29 is assessed as being of local significance against *criterion c*.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the Creek Bridge. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The bridge has the ability to contribute to an understanding of heritage conservation itself and to sympathetic approaches to the continued use and adaptation of older structures.

G2B H29 is assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

This bridge is apparently unique in its method of widening which has minimised the impact of supporting the extra width on the basic structural support system.

G2B H29 is assessed as being of local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

Although widened, the bridge retains the capacity to demonstrate the key structural and aesthetic characteristics of reinforced concrete beam bridges of the period 1925-48.

G2B H29 is assessed as being of local significance against *criterion g*.

Statement of heritage significance:

The Broughton Creek Bridge's construction is associated with the grand scheme of highway improvement undertaken by the Main Roads Board cum Department of Main Roads in an attempt to bring the State's main roads up to the standard required by the modern motoring age emerging in the inter-war period. As a widened bridge, it represents the continual process of upgrading required in response to the increased volume, weight and speed of traffic on this busy highway.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The *Glenvale* homestead is not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The *Glenvale* homestead does not have strong or special association with the life or works of a person, or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The *Glenvale* homestead is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the *Glenvale* Homestead. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The homestead at *Glenvale* is an example of a relatively early vertical slab 'L' shaped house from the Berry Estate. It is likely that archaeological/architectural survey of the building, and possibly even excavation of associated deposits, would yield significant information regarding the construction techniques, influencing styles, and occupation phases. Investigations of this nature would contribute to an understanding of the organisation and operation of the Berry Estate as well as the living conditions and social status of tenant farmers.

G2B H45 is assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

This item is a well preserved example of an early slab house from the Berry Estate. While the sites of structures of a similar age are known to occur locally (eg G2B H52), examples of extant buildings such as this, particularly slab structures, are rare.

G2B H45 is assessed as being of local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The *Glenvale* homestead is a well preserved example of a vertical (sawn) slab homestead with hipped roof and five original rooms on a revered 'L' shaped plan with kitchen forming the back wing. It is characteristic of a Scottish style of house layout that appears to be associated with the Berry Estate.

This item is assessed as being of local significance against *criterion g*.

Statement of heritage significance:

The *Glenvale* homestead is a locally rare and representative example of a mid-nineteenth century slab house from a Berry Estate tenant farm. It is characteristic of a Scottish style of house layout and it has the potential to contribute, through archaeological survey/excavation to an understanding of organisation and operation of the Berry Estate as well as the living conditions and social status of tenant farmers.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

St Patrick's Church and grounds is not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

St Patrick's Church is not notable in terms of a strong or special association with the life or works of a person or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

St Patrick's Church is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

St Patrick's Church (constructed 1936), and associated grounds, has a history of association with the Catholic Church dating back to the 1880s, when the original weatherboard church was built on this site. It continues in use as a Church and the convent is used as a Church centre.

Due to this continued strong association with the local Catholic community this item is assessed as being of local significance against *criterion d.*

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

St Patrick's Church and grounds do not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The former St Patrick's Convent is a locally rare item. Examples of convents are uncommon.

This item is assessed as being of local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

St Patrick's Church and former Convent are locally representative in terms of an early twentieth century Catholic site complex and inter-war religious architecture.

G2B H47 is assessed as being of local significance against *criterion g*.

Assessment of constituent elements

Element	Grading	Justification
St Patrick's Church	High	The Church is a well preserved and integral component of this site; it is readily interpreted and continues in use.
St Patrick's Convent	High	This is an excellent example of a locally rare site type.

Statement of heritage significance:

St Patrick's Church and grounds, including the former St Patrick's Convent, are strongly associated with the local Catholic community; the site has been associated with the Catholic Church since the late nineteenth century.

The former convent is a locally rare site type and the complex as a whole is representative of inter-war religious architecture and a Catholic site complex.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The *Oakleigh* homestead at G2B H49 is not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The *Oakleigh* homestead at G2B H49 does not have strong or special association with the life or works of a person or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The *Oakleigh* homestead at G2B H49 is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the *Oakleigh* homestead at G2B H49. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The *Oakleigh* homestead does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The *Oakleigh* homestead is not rare or uncommon. There are numerous local examples of 'inter war' period farmhouses. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The farmhouse at *Oakleigh* homestead is in excellent condition and retains its original 1930s configuration, including the characteristic incorporation of many pre 1930s architectural items that were recycled. This building is representative of construction from this period.

The *Oakleigh* homestead is assessed as being of local significance against *criterion g*.

Statement of heritage significance:

The homestead at G2B H49 is locally representative of 1930s farm house construction. It is a well preserved example of its type.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The *Clare May* Cottage was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The *Clare May* Cottage is not known for any strong or special association with the life or works of anyone of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The *Clare May* Cottage is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the *Clare May* Cottage. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The *Clare May* cottage does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The *Clare May* Cottage is a relatively common site type. There are numerous local examples of similar late nineteenth/early twentieth century farms. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The *Clare May* Cottage is not a good example of its type; many of its exterior materials or features have been altered. This item is assessed as not having significance against this criterion.

Statement of heritage significance:

The *Clare May* Cottage does not meet any of the significance criteria. This item falls below the threshold for heritage listing.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

Graham Park Research Station is of importance at local and State levels as one of the first Artificial Insemination Breeding Stations (the AIBS) in New South Wales. The Graham Park research station was the first commercial artificial stock breeding centre in NSW and made major contributions to Australia's stock breeding industry.

This item is important at local and State levels in terms of the history of agricultural research, and in particular stock breeding. The historical importance of the research station derives in part from the fact that it is a legacy of earlier agricultural research (the Experiment and Stud Farms), established by the Berry Estate in 1899 under the direction of Alexander Hay.

G2B H51 is assessed as being of local and State significance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

This item is named after the Hon. Edward Graham, one of the longest serving NSW Minister's for Agriculture. As such, Graham Park Research Station has a direct link with the life and work of an individual of State importance.

The research station is also historically linked with Alexander Hay and the sponsorship of agricultural research in the final decades of the Berry Estate by its trustees.

G2B H51 is assessed as being of State significance against *criterion b*.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

Graham Park Research Station played an important role in the development of artificial insemination in NSW; it also made major contributions to Australia's stock breeding industry.

Due to the role of Graham Park in agricultural research during the twentieth century, this item is assessed as being of local and State significance against *criterion c*.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for *Graham Park*. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

Archaeological analysis of the Graham Park Research Station, inclusive of survey and potentially excavation, has the potential to contribute to an understanding of the establishment, development and operation of agricultural research stations. While there are various historical documents that relate to different aspects of the site's history, archaeological investigation of such a comprehensive and well conserved site would undoubtedly provide alternative insights into the complex's history.

G2B H51 is assessed as being locally significant against *criterion e*. There is also the potential that this item may be of State significance against this

criterion, however this could only be determined through investigation of, and comparison with, similar sites across NSW

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

This item is relatively unusual as a fairly intact example of an agricultural research institute. It is also rare in terms of its role in the early development of artificial insemination in NSW.

G2B H51 is assessed as being of local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

Graham Park Research Station is an excellent example of a twentieth century agricultural research station. The site remains relatively intact and includes administration buildings, laboratories and entrance grounds.

G2B H51 is of local and state significance against *criterion g*.

Statement of heritage significance:

Graham Park Research Station is of local and State importance in terms of its role in the development of agricultural research, in particular artificial insemination and stock breeding. It is also historically linked to pioneering research sponsored by the Berry Estate under Alexander Hay, and directly linked to the life and works of Edward Graham, an individual of State importance in the context of government policy on agriculture and agricultural development.

Graham Park also derives significance at local and State levels due to its contributions to agricultural research. The complex of buildings, laboratories, sheds and enclosures has the potential to yield information, through archaeological investigation, that would contribute to an understanding of the development and operation twentieth century agricultural research stations.

It is a locally rare site that is also representative of its type at local and State levels.

Recording ID: G2B H56 **Name/*Description*: *Broughton Mill* homestead and dairy**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The Broughton Mill homestead and dairy was not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The Broughton Mill homestead and dairy is not known for any strong or special association with the life or works of anyone of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The Broughton Mill homestead and dairy is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the Broughton Mill homestead and dairy. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The Broughton Mill homestead and dairy site does not have the potential to yield significant information regarding local cultural history that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The Broughton Mill homestead and dairy is a relatively common site type. There are numerous local examples of similar early twentieth century dairy farms. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The Broughton Mill homestead and dairy was constructed in the early twentieth century and abandoned around the middle of the century. During its period of use it appears to have undergone relatively few modifications. As such, it is a good and locally representative example, albeit somewhat dilapidated, of an early twentieth century dairy farm.

G2B H56 is assessed as having local significance against *criterion g*.

Statement of heritage significance:

The Broughton Mill homestead and dairy is a good and locally representative example, albeit somewhat dilapidated, of an early twentieth century dairy farm.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The Uniting Church Hall was the first building to be erected on land legally acquired in the new township of Berry; it was constructed in 1884 following donation of the land by David Berry in 1883.

The building originally operated as a chapel, and then as a church hall when a new church was built in 1932.

This item is important in the course of the development of Berry township and, in particular, the history of local religious worship. G2B H58 is assessed as being of local significance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The Uniting Church Hall is not known for any strong or special association with the life or works of anyone of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The Uniting Church Hall is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

This item continues in use as a church hall; it has a strong association with the local Uniting Church community.

G2B H58 is assessed as being of local significance against *criterion d*.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The Uniting Church Hall does not have the potential to yield significant information regarding local cultural history that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Examples of Victorian Carpenter Gothic style buildings are locally rare. While there are other examples of Victorian Gothic churches (eg St Luke's Anglican Church), they are not weatherboard. The rarity of this item is increased by the fact that it was the first building erected on legally acquired land in the town and the building's history of use as, first a chapel and then a church hall.

This item is assessed as being of local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The Uniting Church Hall is a good example of a Victorian Carpenter Gothic style chapel. It displays the characteristic elements of the style including horizontal weatherboards and pointed gothic windows. Decorative bargeboards, consistent with the building's original style are currently being re-created and installed. The Chapel retains its original form and character.

This item is assessed as having local significance against *criterion g*.

Statement of heritage significance:

The Uniting Church Hall is of local historical importance as the first building to be erected on land legally acquired in the new township of Berry; it is also important in the course of the development of the township and its places of religious worship.

This item is also of local social significance due to its ongoing connection with the Uniting Church community.

The church hall is also a locally rare and representative item in terms of a Victorian Carpenter Gothic building.

H.5 Known or potential archaeological deposits

Recording ID: G2B H14 **Name/*Description*: Archaeological deposit (former C19th *Broughton Creek* town buildings)**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

On the basis of the available historical and archaeological information for G2B H14, the site appears to have played an important role in the nineteenth-century development of local commercial and government premises. While much of the site has been destroyed or disturbed by the current highway alignment, the test excavations at this site suggest that the site still contains evidence relating to spatial and chronological aspects of the urban development at Broughton Creek.

This item is assessed to be of local significance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

On the basis of the available historical and archaeological information regarding this item, it does not appear to have a strong or special association with the life or works of a person or group of local or State importance.

G2B H14 is assessed as not having significance against this criterion

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The site is not of importance in terms of demonstrating aesthetic characteristics or a high degree of technological or creative achievement. While the Berry Butter Factory was undoubtedly of importance at local and state levels as an early dairy factory, the site has been significantly impacted by construction of the current Princes Highway alignment, which has compromised the site's value against this criterion.

This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for this item; it is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The archaeological deposits at G2B H14 have been assessed, on the basis of the test excavations, as having potential to provide information on the following aspects of the site's history:

- The width of the street frontage and the activities that took place in this area.
- The location of individual buildings or portions of their eastern limits.
- The location of individual lot boundaries that extend east to west across the site.
- Differing site functions across these lots.
- Overall site chronology from the mid nineteenth to mid twentieth-century.

As such, this item is assessed as having local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The archaeological deposits at G2B H14 are likely to be the only remaining evidence of the northernmost urban development at Broughton Creek. Furthermore, the deposits have not been subject to the same levels of ongoing development and disturbance as the street frontages in the centre of Berry.

As such, the deposits at G2B H14 are assessed to be of local importance against *criterion f* in terms of their rarity.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

G2B H14 is not considered to be exemplar in terms of archaeological evidence for either butter factories or nineteenth-century urban landscapes. This is due primarily to the extent of prior disturbance across the site.

However, given that the surviving portion of the site relates primarily to remains of street frontages from the turn of the nineteenth to twentieth-century, including early service easements; and since the site has not seen continued development into the twentieth and twenty first-century, it provides a potentially valuable window into a local example of the relationship between public and private spaces.

This item is assessed as having local significance against *criterion g* as a representative example of archaeological evidence for street frontages from the late nineteenth to early twentieth-century.

Statement of heritage significance:

The site G2B H14 is of importance in terms of the local history, particularly the development of nineteenth-century commercial and government premises and the road network. Excavations at the site have demonstrated that the G2B H14 archaeological deposits have the potential to yield information that will contribute to an understanding of site function(s), the spatial organisation of the urban landscape at Broughton Creek, and site chronology and formation processes.

The remaining deposits at G2B H14 are rare within the local Berry context as the only remnants of this northernmost portion of the urban landscape and as a representative example of a relatively undisturbed portion of a nineteenth century street frontage.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The site of the former Berry Estate tenant farm at G2B H48 is not a place that could be described as important in the course, or patter, of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

On the basis of the available historical and archaeological information regarding this item, it does not appear to have a strong or special association with the life or works of a person or group of local or State importance.

G2B H48 is assessed as not having significance against this criterion

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The site is not of importance in terms of demonstrating aesthetic characteristics or a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for this item; it is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

While it appears likely that construction of the twentieth century farmhouse has disturbed, or removed a portion of, the potential archaeological deposit at this site, potential remains for G2B H48 to yield information regarding late nineteenth century settlement. In particular, it has the potential to contribute to an understanding of the chronology, social status, living conditions and architecture of nineteenth century tenant farms on the Berry Estate.

The archaeological deposits at G2B H48 are assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Berry Estate tenant farms, both extant houses and places with potential archaeological deposit, are not locally rare or endangered.

This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

Given that this site has been disturbed by later phases of occupation, it is not a particularly good example of its type.

This item is assessed as not having significance against this criterion.

Statement of heritage significance:

The potential archaeological deposits at G2B H48 are locally significant as a site that may contribute to an understanding of life on Berry Estate tenant farms.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The site of the former Berry Estate tenant farm at G2B H52 is not a place that could be described as important in the course, or patter, of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

On the basis of the available historical and archaeological information regarding this item, it does not appear to have a strong or special association with the life or works of a person or group of local or State importance.

G2B H52 is assessed as not having significance against this criterion

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The site is not of importance in terms of demonstrating aesthetic characteristics or a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for this item; it is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

Although the integrity of deposits at this location have not been confirmed, its proximity to a former highway alignment that was bypassed in the mid 1930s means that this is the only surviving archaeological site of a former Berry tenant estate farm which retains its original configuration with the 1856 and 1870s highway alignment. As such, it forms part of a complex of recordings (including G2B H25, G2B H26 and G2B H27), and it has the potential to contribute to an understanding of the history of road alignment modifications as well as the history and nature of Berry Estate tenant farms as a whole.

This item is assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

As outlined above, this item is unusual as the only known local example of a former Berry tenant estate farm which retains its original configuration with the 1856 and 1870s highway alignment. It is also likely to be one of the less disturbed archaeological deposits associated with a Berry Estate tenant farm.

The potential archaeological deposits at G2B H52 are assessed as having local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

Because this site appears to be a relatively rare example of a former Berry tenant estate farm which retains its original configuration with the 1856 and 1870s highway alignment, it is also important as a site that demonstrates the interrelationship between these early transport corridors and the locations of early farms.

The site is also important as an example of archaeological deposits for an early tenant farm that appears to potentially be relatively undisturbed.

Statement of heritage significance:

The potential archaeological deposits at G2B H52 relate to a nineteenth century Berry Estate tenant farm. This site is of local significance as a place that has the potential to yield information about tenant farms and the interrelationship between such sites and sequences of transport corridor modifications through the nineteenth and early twentieth centuries. It is also locally important as an example of a former tenant farm that maintains its original configuration with the 1856 and 1870s highway alignment and as a representative example of such a site.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The site of the former Berry Estate tenant farm structure at G2B H53 is not a place that could be described as important in the course, or patter, of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

On the basis of the available historical and archaeological information regarding this item, it does not appear to have a strong or special association with the life or works of a person or group of local or State importance.

G2B H53 is assessed as not having significance against this criterion

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The site is not of importance in terms of demonstrating aesthetic characteristics or a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for this item; it is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

While it appears likely that the potential archaeological deposit at this site have been disturbed by more recent vegetation clearance and driveway construction, potential remains for G2B H53 to yield information regarding late nineteenth century settlement. In particular, it has the potential to contribute to an understanding of the chronology, social status, living conditions and architecture of nineteenth century tenant farms on the Berry Estate.

The archaeological deposits at G2B H53 are assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Berry Estate tenant farms, both extant houses and places with potential archaeological deposit, are not locally rare or endangered.

Given the relatively limited extent of this site, this item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

Given that this site has appears to have been disturbed by later phases of occupation, and given the apparently limited extent of deposits, it is not a particularly good example of its type.

This item is assessed as not having significance against this criterion.

Statement of heritage significance:

The potential archaeological deposits at G2B H53 are locally significant as a site that may contribute to an understanding of life on Berry Estate tenant farms.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The archaeological deposits at G2B H59 are potentially directly associated with the original land grant of Anthony Finn. This grant is of local importance as the only early small-scale land grant amongst the larger Berry *et al* grants. It is also important as a grant made in relation to Anthony Finn's role in apprehending a bushranger.

Due to this site's place in the local pattern of land alienation G2B H59 is assessed as having local significance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The archaeological deposits at G2B H59 are on portion 181, a 100 acre block associated initially with Anthony Finn and later with Dicky Woods. Anthony Finn was an individual of local importance as someone granted land, due to his role in the apprehension of a bushranger, in an area dominated by larger estates.

The deposits at G2B H59 are provisionally – to be confirmed through additional archaeological/historical investigations confirming this as the site of the Finn settlement – to be of local significance against *criterion b*.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The archaeological deposits at G2B H59 are not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for this item; it is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

This site appears to display relatively high levels of integrity in terms of the potential archaeological deposits. G2B H59 has the potential to yield information, through archaeological excavation/survey, to an understanding of early European settlement on a relatively small land grant. Investigations at this site may clarify the timing and nature of Finn's settlement and the subsequent occupation by the Woods. This is a period of local history, and a location, for which there are relatively few historical records; archaeological investigations would thus contribute significantly to an understanding of this aspect of local history.

The potential archaeological deposits at G2B H59 are assessed as being of local significance against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Portion 181 was an unusual land grant as it was such a small parcel of land amongst much larger estates. The potential archaeological deposits at this site are also relatively unusual as an example of early to mid-nineteenth century occupation that appears to have been subject to limited disturbance from later phases of occupation.

The potential archaeological deposits at G2B H59 are assessed as having

local significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

This item is important as an example of nineteenth century occupation on a small land grant. The potential archaeological deposits at this location appear to be a relatively well preserved example of a site with multiple phases of occupation dating back to the 1840s.

This item is assessed as having local significance against *criterion g* as a representative example of archaeological evidence for a small nineteenth century farm.

Statement of heritage significance:

The potential archaeological deposits at G2B H59 are of local significance as a site associated with early land alienation, in particular an unusually small land grant amongst a series of larger estates. The site also appears to be directly associated with Anthony Finn, an individual of local importance.

The potential deposits at G2B H59 have the potential to contribute to an understanding of the nature and phases of nineteenth century occupation. This site is also important as a relatively intact, rare and representative example of archaeological deposits relating to a local, small nineteenth century farm.

H.6 Miscellaneous site types

Recording ID: G2B H54 **Name/*Description*: Dry Stone Wall**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The dry stone wall at G2B H54 is not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

The dry stone wall at G2B H54 does not have strong or special association with the life or works of a person or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

While the dry stone wall at G2B H54 is largely obscured by vegetation, dry stone walls are regionally (within the Illawarra) recognised as items with important aesthetic characteristics. As such, this item has the potential to be of local significance against *criterion c*.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the dry stone wall at G2B H54. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The dry stone wall at G2B H54 has potential to yield information that is not readily available from other sources, given that it is a geographic outlier from the main distribution of walls and this may provide a revealing basis for comparison. It may be found that it reflects the traits of a separate builder, or owner. This item is assessed as having local significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

There are no other dry stone walls recorded on Toolijooa Ridge (although this does not mean that they do not exist). This recording is potentially the southernmost site of its type in the broader Illawarra region. Furthermore, dry stone walls built as retaining walls are rare: this recording currently acts as a retaining wall, although it is unclear whether it was originally built as such.

This item is potentially of local significance against *criterion f.*

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The dry stone wall at G2B H54 has been constructed using the ‘double dyke’ technique, which is characteristic of the Kiama and Foxground walls. It is locally important as the only known example demonstrating a construction technique that is locally characteristic.

This item is assessed as being of local significance against *criterion g*.

Statement of heritage significance:

The dry stone wall at G2B H54 is of local significance in terms of its aesthetic values, research potential, and its rarity as a fence type and regional outlier.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

This shed was not notable in the course or pattern of local cultural history. The item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

Based on currently available information, the shed G2B H60, does not have strong or special association with the life or works of a person, or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The shed G2B H60, is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the shed G2B H60. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The shed G2B H60, appears to have been constructed using materials and methods that are typical and conventional for its time. However, the design of the skids, towing attachments, and their method of attachment to the floor of the shed may not be represented or easily found in contemporary documentation. This component of the structure may have potential to contribute to an understanding of the economic, technical and social dynamics of works sites from the early to mid twentieth century. This item is assessed as having local significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The construction of sheds on skids is a common solution to the requirement for a periodically portable shed. The G2B H60 example, based on its design is suggestive of a shed used on a construction or similar work site where security and robustness was required. Owing to the lack of a suitable reference database, it has not been possible to determine if work-site sheds of this type, mounted on skids, and dating from around the middle of the twentieth century are rare. Certainly it is a reasonable proposition to consider that sheds of this type due to their function and context would have been subject to considerable use-wear, deterioration, and attrition/replacement. It is also likely that, as a category, they are absent or poorly represented in museum collections or reserves. With this background in mind, and taking a precautionary approach, this item is assessed as having local significance against this criterion.

Criterion (g):	*important in demonstrating the principal characteristics of a class of cultural place*	
	The G2B H60 shed is a relatively well preserved example of its type and is representative of the design and functional requirements of such a building.	
	This item is assessed as having local significance against this criterion.	

Statement of heritage significance:

The G2B H60 work-site shed on skids is a relatively well preserved and representative example of its type and demonstrates the design and functional requirements of such a structure. It is likely to be a rare example of this shed type, which is unlikely to be well documented, or represented in collections, museums or reserves. It is considered to have local significance under criteria e, f and g.

Recording ID: G2B H61 **Name/*Description*: Quarried Rock Outcrop, Broughton**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

This item is not notable in the course or pattern of local cultural history; it is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

There is no evidence for a strong or special association between this item and the life or works of a person, or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The quarried rock outcrop at Broughton is not notable in terms of aesthetic characteristics nor does this item demonstrate a high degree of technological or creative achievement. This item is assessed as not having significance against this criterion.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the quarried rock at Broughton. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The rock outcrop does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Sandstone rock quarries such as this are not uncommon or rare sites. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The quarried rock outcrop at Broughton is a well preserved and representative example of a local quarry for stone, probably used for early road construction.

This item is assessed as having local significance against *criterion g*.

Statement of heritage significance:

Quarried rock at Broughton (G2B H61) is a locally representative example of a small sandstone quarry for rock, probably used in early road construction.

Recording ID: G2B H62 **Name/*Description*: Avenue of Poplar Trees, Woodhill Mountain Rd, Berry**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

This item is not notable in the course or pattern of local cultural history; it is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

There is no evidence for a strong or special association between this item and the life or works of a person, or persons of local importance. This item is assessed as not having significance against this criterion.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

The Poplar trees planted at Woodhill Mountain Road are important in demonstrating the aesthetic characteristics of a planned avenue of trees. This recording has landmark values in a local context.

The recording G2B H62 is assessed as being of local significance against *criterion c*.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the Poplar trees at G2B H62. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The trees at G2B H62 do not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The trees at G2B H62 are not rare or uncommon. There are numerous local examples of similar tree plantings. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The Poplar trees at G2B H62 are not important in demonstrating the principal characteristics of a tree planting; only six of the original nine trees are alive. This item is assessed as not having significance against this criterion.

Statement of heritage significance:

The Poplar trees planted at G2B H62 are a locally significant landmark and aesthetic landscape component.

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

Mark Radium Park is not notable in the course or pattern of local cultural history. This item is assessed as not having significance against this criterion.

Criterion (b): *strong or special association with the life or works of a person, or persons*

Mark Radium Park is named in commemoration of Jack McGee's show ring pony (Mark Radium), that held high jump records at Adelaide, Albury and Melbourne (1938). Between 1947 and 1955 Mark Radium was defeated only once in competition. Jack McGee and his pony are of sufficient local importance to have a park named after the pony, and as such, this item is assessed to be of local importance against *criterion b*.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

Mark Radium Park has landmark qualities as a local picnic area with native plantings, ornamental pond and associated landscaping.

This item is assessed as being of local significance against *criterion c*.

Criterion (d): *strong or special association with a particular community or cultural group*

There are no known strong or special community or cultural associations for the Mark Radium Park. This item is assessed as not having significance against this criterion.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

Mark Radium Park does not have the potential to yield information that is not readily available from other sources. This item is assessed as not having significance against this criterion.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

Recreation areas such as Mark Radium Park are a relatively common site type. This item is assessed as not having significance against this criterion.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

Mark Radium Park is not particularly notable as an example of a modern recreation area. This item is assessed as not having significance against this criterion.

Statement of heritage significance:

Mark Radium Park is listed on the Shoalhaven LEP heritage schedule as a place of local importance due to its aesthetic qualities and historical association with Jack McGee and his pony Mark Radium.

H.7 Cultural landscapes

Recording ID: SICPH CL **Name/*Description*: Southern Illawarra Coastal Plain and Hinterland Cultural Landscape**

Analysis against significance criteria

Criterion (a): *important in the course, or pattern, of cultural history*

The SICPH CL is of importance in the course of local history as an artefact of over 150 years of pastoral activity.

The cultural landscape contains readily identifiable evidence for a variety of historically significant themes including general land clearance and alienation, establishment and operation of the Berry Estate, development of nineteenth and twentieth century homesteads and development of the transport network that interlinked these places and joined them to places across the broader landscape of NSW.

The SICPH CL is assessed as being of local significance against *criterion a*.

Criterion (b): *strong or special association with the life or works of a person, or persons*

Creation of the SICPH CL has direct links to Alexander and David Berry through their roles in the establishment and operation of the Berry Estate. The evolution of this landscape can also be linked to important groups of people such as other early land grantees, tenant farmers and Robertson Land Act selectors, all of whom were important in local history.

The SICPH CL is assessed as being of local significance against *criterion b*; this is primarily due to the readily identifiable physical evidence of private towns, in particular Berry, and tenant farms created as components of the Berry Estate.

Criterion (c): *important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement*

One of the most significant aspects of the SICPH CL is the aesthetic value of the cleared pastoral landscape nestled at the base of the wooded Illawarra Escarpment. This striking contrast in natural landforms and differing extent of human impact creates a unique landscape quality. There is no comparable landscape displaying this aesthetic characteristic within NSW.

The SICPH CL is assessed as being of State significance against *criterion* c.

Criterion (d): *strong or special association with a particular community or cultural group*

The area encompassed by the SICPH CL has a strong and special association with the local Aboriginal community in terms of places with cosmological, ceremonial, traditional and historical importance. It includes elements such as Coolangatta Mountain and Toolijooa Ridge that are examples of places of particular significance to the local Aboriginal community. The SICPH CL also includes Aboriginal pathways, historical encampments and Aboriginal reserves.

The SICPH CL is assessed as being of local significance against *criterion d*.

Criterion (e): *potential to yield information that would contribute to an understanding of cultural history*

The SICPH CL contains evidence for a variety of phases of human occupation, including evidence of a variety of activities and historical themes. Given that this southern portion of the Illawarra coastal plain hinterland has been subject to relatively limited impacts from twentieth century urban development, there is enormous potential for archaeological and historical research into this landscape at micro and macro levels. Such research would have the potential to contribute significantly to an understanding of settlement history within the Berry Estate, the Illawarra as a whole and the history of land use across NSW as a whole.

The SICPH CL is assessed as being of local importance in particular, and to a lesser extent State significance, against *criterion e*.

Criterion (f): *possesses uncommon, rare or endangered aspects of cultural history*

The combination of nineteenth century landscape structure with the aesthetics of the landforms present in the SICPH CL makes this cultural landscape unique within NSW. The juxtaposition between the Illawarra Escarpment and the coastal plain is of itself unique within the State. Moreover, the Southern Illawarra component is the only portion of this landscape that has not been significantly impacted by urban infill over the past 50-100 years. As such, the SICPH CL is a rare and endangered landscape at local and State levels.

The SICPH CL is assessed as being of local and State significance against *criterion f*.

Criterion (g): *important in demonstrating the principal characteristics of a class of cultural place*

The SICPH CL is important at local and State levels as a landscape that demonstrates readily identifiable and interpretable examples of nineteenth century private towns, tenant farms, private road transport corridors and the influence of these features on the modern landscape (eg the way in which the alignment of the current highway relates to homesteads and roads established by David and Alexander Berry). This item is an excellent example of a cultural landscape with multifaceted layers that are quite easily discerned by the viewer. It is also an excellent example of the relationship between European pastoral practices and broader topographic landforms.

Statement of heritage significance:

The Southern SICPH CL is of local significance in terms of its historical associations and importance in the pattern of local history. It is also locally significant in terms of its strong and special association with the local Aboriginal community.

More notably, it is of local and State significance in terms of its aesthetic qualities, which relate in part to the unique natural character of the junction of the coastal plain with the Illawarra escarpment, and in part from the striking contrast between the culturally modified elements of the landscape and the more natural elements. The clearly identifiable nineteenth century structure of the landscape also contributes to the aesthetic value of the SICPH CL.

The SICPH CL is a rare landscape type, both in terms of its natural features and also the retention of such clear examples of the late nineteenth and early twentieth century pastoral landscape and associated private towns. It is the only remaining such portion of the broader Illawarra cultural landscape that has not been substantially impacted by urban infill. As such it is also representative of its type and displays considerable research potential in terms of historical themes at local and State levels.

Appendix I

Statements of heritage impact

Statements of heritage impact

I.1 Introduction

Statements of Heritage Impact are provided in this section for all field recordings subject to direct impact (18), or indirect impact only, such as to their visual and landscape context (13 recordings).

The following items, not subject to direct or indirect impacts, are not covered in this section (G2B H20, 26, 27, 51, 52, 57 and 60).

I.2 Nineteenth century road remnants

Recording ID: G2B H19 **Name/*Description*: Remnant of Berry Estate road (west of Gembrook lane)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in the loss of the whole of the known extent of the item.

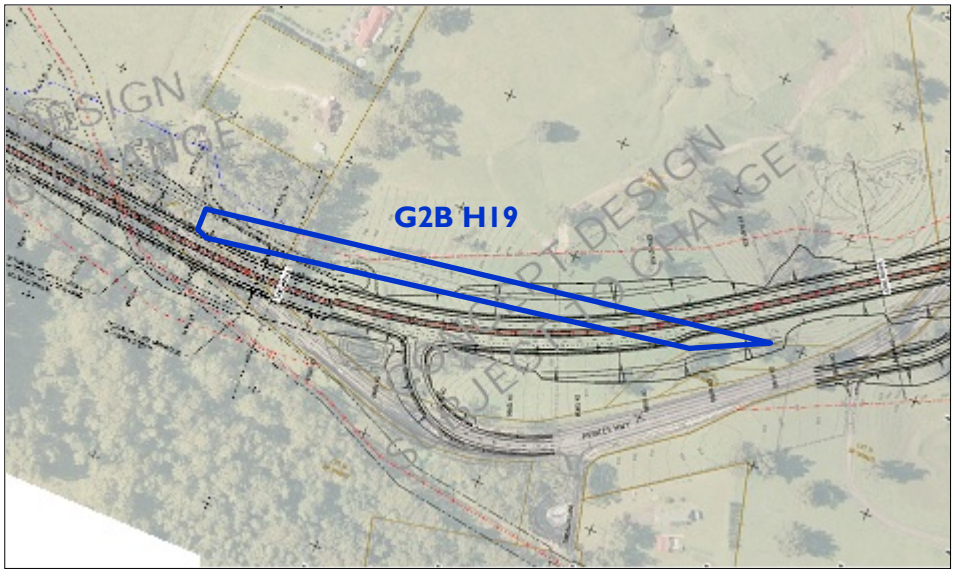


Figure I.1 Location of G2B H19 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, e, f & g.
- It is proposed to conduct an archival recording of this item prior to any direct impact. The creation of the record addresses the need to realise the research and information potential of the item. The resulting record would respect those values and provide a degree of mitigation.
- It is proposed to conserve and interpret a representative, and high value remnant of the Berry Estate Road at a separate location, Bink's Corner at Broughton Village (G2B H27). The intent of this action is to compensate for the loss associated with the road remnants that would be directly impacted by bypass construction.

- The construction of the bypass in relative proximity to the Bink's corner remnant of the Berry Estate road (G2B H27) enhances the interpretive value of the remnants in this area by providing a twenty first century example of highway construction for contrast and comparison with the 1856-1970s (G2B H27) and 1870s-1830s (G2B H26) remnants.
- These impact mitigation strategies would provide a means of promoting and communicating knowledge about the former road. In this way, the representative and historical significance of the impacted road remnants would be recognised and respected. Previously, the physical remains of the road have remained unprotected and largely overlooked. The historical importance of the former road has been acknowledged only by scattered references in local historical publications.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting and a section of raised carriageway. This would not only remove the remnant road, but also its immediate landscape setting and visual context.

Impact on existing structures

- This item consists of ground surface relief and possible subsurface traces. There are no existing structures related to this heritage item

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of the road remnant is difficult to determine based on the current data. If the road is only evidenced by ground surface relief, then it may not constitute a relic. If there is a subsurface foundation or constructed road surface, then these may constitute a relic.
- Apart from the road remnant, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.

- The location of the bypass across this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may be associated with the road remnant remains untested. There is potential for subsurface archaeological evidence of the following:
  - Road surface treatment (such as the application of gravels or timbers).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - Drainage features, such as cross drains or minor culvert works.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Minimise impact to native vegetation.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Balance cut and fill requirements.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Prior to development impact, an integrated program of archival recording, including archaeological excavation, would be conducted across all of the known remnants of the Berry Estate Road effected by the project.
- In order to compensate for, and mitigate the loss of heritage values associated with direct impact to Berry Estate road remnants; G2B H19, 22, 23, 30 & 55, it is proposed to conserve and interpret a representative, and high value remnant of the road at 'Binks Corner', Broughton Village. This remnant is recording G2B H27, and consists of a 550 metres portion of the road, including a creek crossing and a highly visible cut and benched section. This remnant occurs in close association with a contemporary homestead site (G2B H52), a subsequent highway alignment, abandoned in the 1930s (G2B H26), and an extant early twentieth century homestead, Sedgeford (G2B H25). The length, inclusion of a creek crossing, the highly visible nature of the cut and benched section, and the interrelation of the associated items, makes this a unique and high value remnant. Of all the known remnants, this example presents the greatest potential for public interpretation.

Recording ID: G2B H22 **Name/*Description*: Remnant of Berry Estate road (south of *Glenvale* homestead)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in the loss of the whole of the known extent of the item.

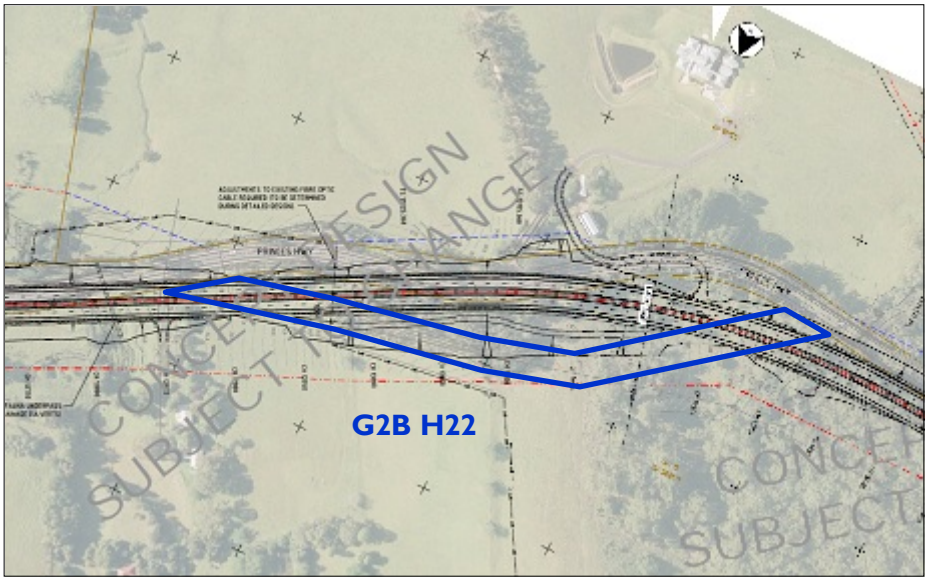


Figure I.2 Location of G2B H22 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, e, & f.
- It is proposed to conduct an archival recording of this item prior to any direct impact. The creation of the record addresses the need to realise the research and information potential of the item. The resulting record would respect those values and provide a degree of mitigation.
- It is proposed to conserve and interpret a representative, and high value remnant of the Berry Estate Road at a separate location, Bink's Corner at Broughton Village (G2B H27). The intent of this action is to compensate for the loss associated with the road remnants that would be directly impacted by bypass construction.
- The construction of the bypass in relative proximity to the Bink's corner remnant of the Berry Estate road (G2B H27) enhances the interpretive value of the remnants in this area by providing a twenty first century example of highway construction for contrast and comparison with the 1856-1970s (G2B H27) and 1870s-1830s (G2B H26) remnants.
- These impact mitigation strategies would provide a means of promoting and communicating knowledge about the former road. In this way, the representative and historical significance of the impacted road remnants would be recognised and respected. Previously, the physical remains of the road have remained unprotected and largely overlooked. The historical importance of the former road has been acknowledged only by scattered references in local historical publications.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting and a section of raised carriageway. This would not only remove the remnant road, but also its immediate landscape setting and visual context.

Impact on existing structures

- This item consists of ground surface relief and possible subsurface traces. There are no existing structures related to this heritage item

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of the road remnant is difficult to determine based on the current data. If the road is only evidenced by ground surface relief, then it may not constitute a relic. If there is a subsurface foundation or constructed road surface, then these may constitute a relic.
- Apart from the road remnant, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may be associated with the road remnant remains untested. There is potential for subsurface archaeological evidence of the following:
  - Road surface treatment (such as the application of gravels or timbers).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - Drainage features, such as cross drains or minor culvert works.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Minimise impact to native vegetation.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Balance cut and fill requirements.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Prior to development impact, an integrated program of archival recording, including archaeological excavation, would be conducted across all of the known remnants of the Berry Estate Road effected by the project.
- In order to compensate for, and mitigate the loss of heritage values associated with direct impact to Berry Estate road remnants; G2B H19, 22, 23, 30 & 55, it is proposed to conserve and interpret a representative, and high value remnant of the road at 'Binks Corner', Broughton Village. This remnant is recording G2B H27, and consists of a 550 metres portion of the road, including a creek crossing and a highly visible cut and benched section. This remnant occurs in close association with a contemporary homestead site (G2B H52), a subsequent highway alignment, abandoned in the 1930s (G2B H26), and an extant early twentieth century homestead, Sedgeford (G2B H25). The length, inclusion of a creek crossing, the highly visible nature of the cut and benched section, and the interrelation of the associated items, makes this a unique and high value remnant. Of all the known remnants, this example presents the greatest potential for public interpretation.

Recording ID: G2B H23 **Name/*Description*: Remnant of Berry Estate road (east of *Glenvale* homestead)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?:

Construction of the bypass would result in the loss of the whole of the known extent of the item.

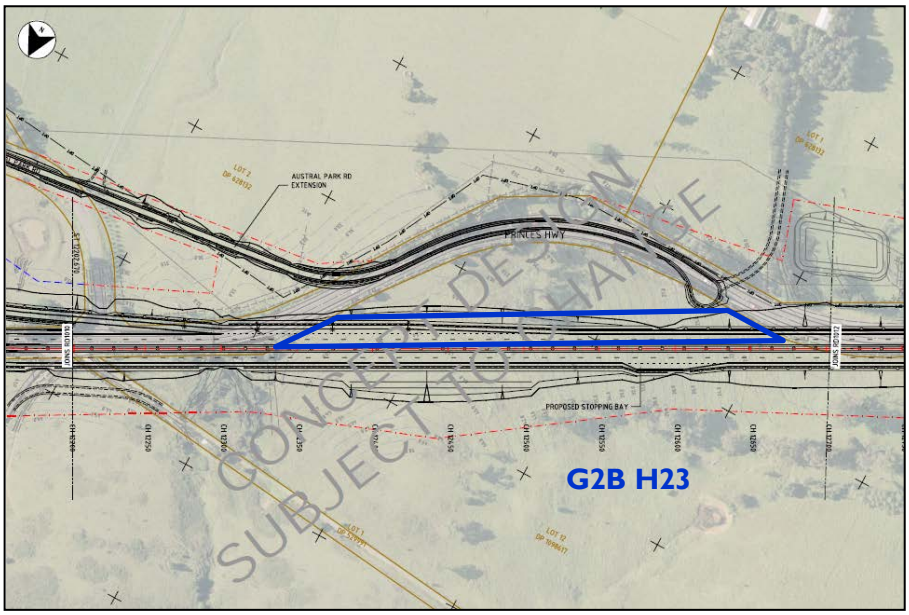


Figure I.3 Location of G2B H23 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, e, & f.
- It is proposed to conduct an archival recording of this item prior to any direct impact. The creation of the record addresses the need to realise the research and information potential of the item. The resulting record would respect those values and provide a degree of mitigation.
- It is proposed to conserve and interpret a representative, and high value remnant of the Berry Estate Road at a separate location, Bink's Corner at Broughton Village (G2B H27). The intent of this action is to compensate for the loss associated with the road remnants that would be directly impacted by bypass construction.
- The construction of the bypass in relative proximity to the Bink's corner remnant of the Berry Estate road (G2B H27) enhances the interpretive value of the remnants in this area by providing a twenty first century example of highway construction for contrast and comparison with the 1856-1970s (G2B H27) and 1870s-1830s (G2B H26) remnants.
- These impact mitigation strategies would provide a means of promoting and communicating knowledge about the former road. In this way, the representative and historical significance of the impacted road remnants would be recognised and respected. Previously, the physical remains of the road have remained unprotected and largely overlooked. The historical importance of the former road has been acknowledged only by scattered references in local historical publications.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting and a section of raised carriageway. This would not only remove the remnant road, but also its immediate landscape setting and visual context.

Impact on existing structures

- This item consists of ground surface relief and possible subsurface traces. There are no existing structures related to this heritage item

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of the road remnant is difficult to determine based on the current data. If the road is only evidenced by ground surface relief, then it may not constitute a relic. If there is a subsurface foundation or constructed road surface, then these may constitute a relic.
- Apart from the road remnant, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may be associated with the road remnant remains untested. There is potential for subsurface archaeological evidence of the following:
  - Road surface treatment (such as the application of gravels or timbers).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - Drainage features, such as cross drains or minor culvert works.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Minimise impact to native vegetation.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Balance cut and fill requirements.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Prior to development impact, an integrated program of archival recording, including archaeological excavation, would be conducted across all of the known remnants of the Berry Estate Road effected by the project.
- In order to compensate for, and mitigate the loss of heritage values associated with direct impact to Berry Estate road remnants; G2B H19, 22, 23, 30 & 55, it is proposed to conserve and interpret a representative, and high value remnant of the road at 'Binks Corner', Broughton Village. This remnant is recording G2B H27, and consists of a 550 metres portion of the road, including a creek crossing and a highly visible cut and benched section. This remnant occurs in close association with a contemporary homestead site (G2B H52), a subsequent highway alignment, abandoned in the 1930s (G2B H26), and an extant early twentieth century homestead, Sedgeford (G2B H25). The length, inclusion of a creek crossing, the highly visible nature of the cut and benched section, and the interrelation of the associated items, makes this a unique and high value remnant. Of all the known remnants, this example presents the greatest potential for public interpretation.

Recording ID: G2B H30 **Name/*Description*: Remnant of Berry Estate road (eastern spur of Toolijooa Ridge)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?:

Construction of the bypass would result in the loss of the whole of the known extent of the item.

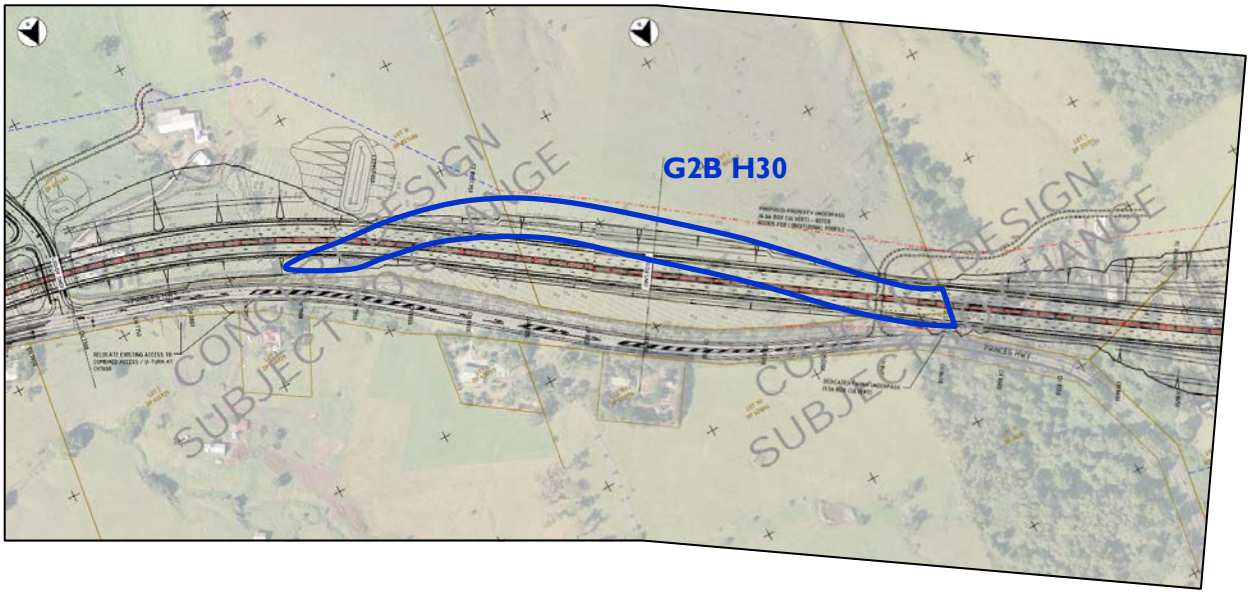


Figure I.4 Location of G2B H30 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, e, f & g.
- It is proposed to conduct an archival recording of this item prior to any direct impact. The creation of the record addresses the need to realise the research and information potential of the item. The resulting record would respect those values and provide a degree of mitigation.
- It is proposed to conserve and interpret a representative, and high value remnant of the Berry Estate Road at a separate location, Bink's Corner at Broughton Village (G2B H27). The intent of this action is to compensate for the loss associated with the road remnants that would be directly impacted by bypass construction.
- The construction of the bypass in relative proximity to the Bink's corner remnant of the Berry Estate road (G2B H27) enhances the interpretive value of the remnants in this area by providing a twenty first century example of highway construction for contrast and comparison with the 1856-1970s (G2B H27) and 1870s-1830s (G2B H26) remnants.
- These impact mitigation strategies would provide a means of promoting and communicating knowledge about the former road. In this way, the representative and historical significance of the impacted road remnants would be recognised and respected. Previously, the physical remains of the road have remained unprotected and largely overlooked. The historical importance of the former road has been acknowledged only by scattered references in local historical publications.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting. This would not only remove the remnant road, but also its immediate landscape setting and visual context.

Impact on existing structures

- This item consists of ground surface relief and possible subsurface traces. There are no existing structures related to this heritage item.

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of the road remnant is difficult to determine based on the current data. If the road is only evidenced by ground surface relief, then it may not constitute a relic. If there is a subsurface foundation or constructed road surface, then these may constitute a relic.
- Apart from the road remnant, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Allow the retention of the existing highway as a service road.
  - Take advantage of the elevated topography of the spurline to construct the most effective vertical and horizontal carriageway alignment on the eastern fall of the Toolijooa Ridge.
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may be associated with the road remnant remains untested. There is potential for subsurface archaeological evidence of the following:
  - Road surface treatment (such as the application of gravels or timbers).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - Drainage features, such as cross drains or minor culvert works.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment either to the north or south, which avoids direct impact to the heritage item. Both alternatives would require construction of major artificial embankments. A northern alternative would prevent the use of the existing highway as a service road.
- These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maintain the most effective vertical and horizontal carriageway alignment up to, and from, the planned Toolijooa cutting.
  - Maintain horizontal and vertical design standards.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Prior to development impact, an integrated program of archival recording, including archaeological excavation, would be conducted across all of the known remnants of the Berry Estate Road effected by the project.
- In order to compensate for, and mitigate the loss of heritage values associated with direct impact to Berry Estate road remnants; G2B H19, 22, 23, 30 & 55, it is proposed to conserve and interpret a representative, and high value remnant of the road at 'Binks Corner', Broughton Village. This remnant is recording G2B H27, and consists of a 550 metres portion of the road, including a creek crossing and a highly visible cut and benched section. This remnant occurs in close association with a contemporary homestead site (G2B H52), a subsequent highway alignment, abandoned in the 1930s (G2B H26), and an extant early twentieth century homestead, Sedgeford (G2B H25). The length, inclusion of a creek crossing, the highly visible nature of the cut and benched section, and the interrelation of the associated items, makes this a unique and high value remnant. Of all the known remnants, this example presents the greatest potential for public interpretation.

Statement of heritage impact

What is the nature and extent of anticipated development Impact?:

Construction of the bypass and an associated service road would result in the loss of the whole of the known extent of the item.

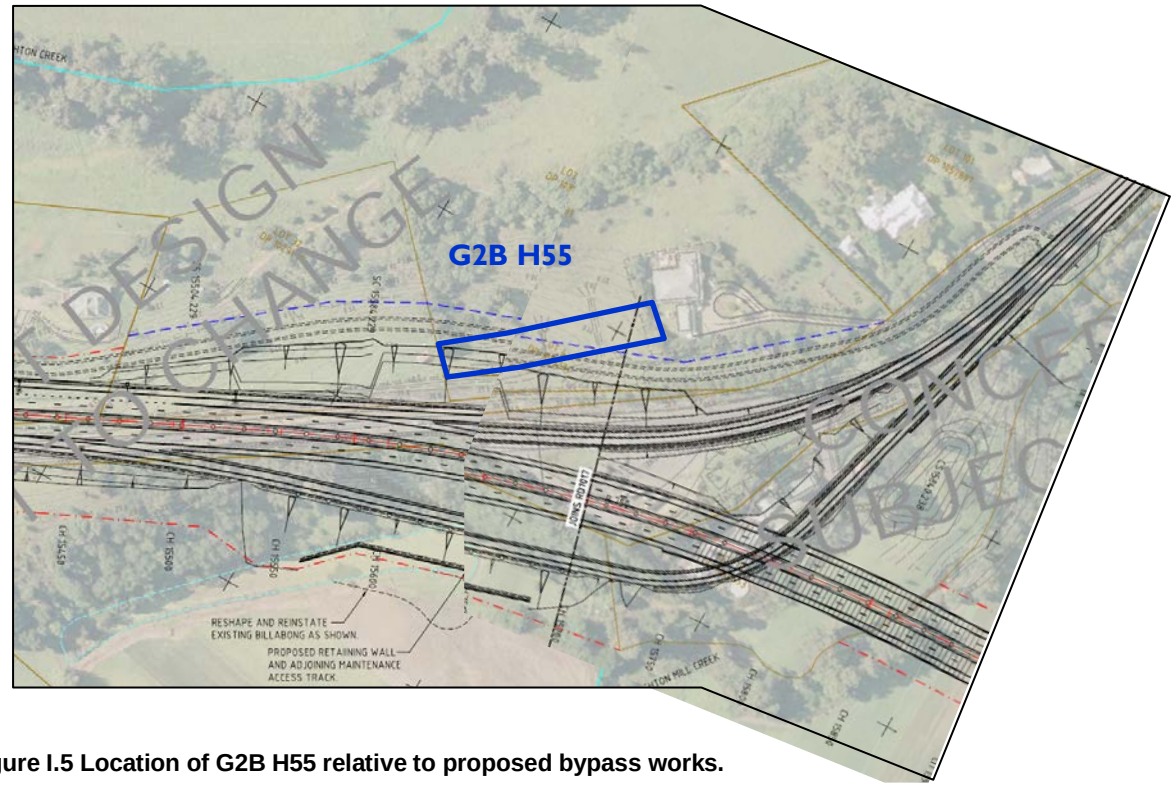


Figure I.5 Location of G2B H55 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, e, f & g.
- It is proposed to conduct an archival recording of this item prior to any direct impact. The creation of the record addresses the need to realise the research and information potential of the item. The resulting record would respect those values and provide a degree of mitigation.
- It is proposed to conserve and interpret a representative, and high value remnant of the Berry Estate Road at a separate location, Bink's Corner at Broughton Village (G2B H27). The intent of this action is to compensate for the loss associated with the road remnants that would be directly impacted by bypass construction.
- The construction of the bypass in relative proximity to the Bink's corner remnant of the Berry Estate road (G2B H27) enhances the interpretive value of the remnants in this area by providing a twenty first century example of highway construction for contrast and comparison with the 1856-1970s (G2B H27) and 1870s-1830s (G2B H26) remnants.
- These impact mitigation strategies would provide a means of promoting and communicating knowledge about the former road. In this way, the representative and historical significance of the impacted road remnants would be recognised and respected. Previously, the physical remains of the road have remained unprotected and largely overlooked. The historical importance of the former road has been acknowledged only by scattered references in local historical publications.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting. This would not only remove the remnant road, but also its immediate landscape setting and visual context.

Impact on existing structures

- This item consists of ground surface relief and possible subsurface traces. There are no existing structures related to this heritage item

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of the road remnant is difficult to determine based on the current data. If the road is only evidenced by ground surface relief, then it may not constitute a relic. If there is a subsurface foundation or constructed road surface, then these may constitute a relic.
- Apart from the road remnant, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass and service road across this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Provide access to private property independent of the bypass carriageway.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may be associated with the road remnant remains untested. There is potential for subsurface archaeological evidence of the following:
  - Road surface treatment (such as the application of gravels or timbers).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - Drainage features, such as cross drains or minor culvert works.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Prior to development impact, an integrated program of archival recording, including archaeological excavation, would be conducted across all of the known remnants of the Berry Estate Road effected by the project.
- In order to compensate for, and mitigate the loss of heritage values associated with direct impact to Berry Estate road remnants; G2B H19, 22, 23, 30 & 55, it is proposed to conserve and interpret a representative, and high value remnant of the road at 'Binks Corner', Broughton Village. This remnant is recording G2B H27, and consists of a 550 metres portion of the road, including a creek crossing and a highly visible cut and benched section. This remnant occurs in close association with a contemporary homestead site (G2B H52), a subsequent highway alignment, abandoned in the 1930s (G2B H26), and an extant early twentieth century homestead, Sedgeford (G2B H25). The length, inclusion of a creek crossing, the highly visible nature of the cut and benched section, and the interrelation of the associated items, makes this a unique and high value remnant. Of all the known remnants, this example presents the greatest potential for public interpretation.

I.3 Twentieth century highway remnants

Recording ID: G2B H12 **Name/*Description*: Remnant portion of twentieth century highway (Stewarts Hill cutting and wayside stop, northern entry to Berry)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?:

Construction of the bypass would result in the loss of the whole of the known extent of the item.

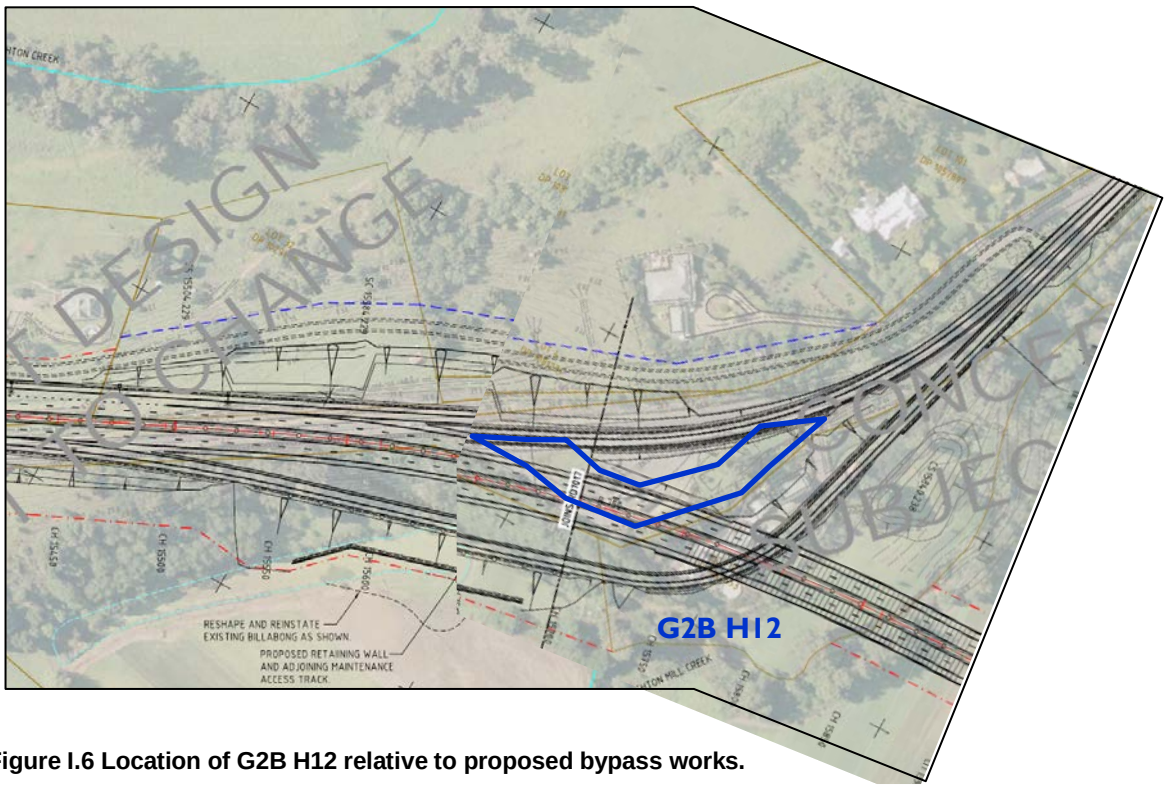


Figure I.6 Location of G2B H12 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- The significance of this item is assessed as falling below the threshold of the assessment criteria.
- There are no aspects of the proposal which respect or enhance the significance of this particular item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- Construction of the bypass in the area of this road remnant would involve the extension and widening of the existing cutting, and the construction of a north bound on-ramp. This would not only remove the remnant road, but also its immediate landscape setting and visual context.

Impact on existing structures

- This item consists of a remnant bitumised road platform, excavated bench, and boundary fence. Apart from the fence line, there are no existing structures related to this heritage item.

Impact on relics

- The significance of this item has been assessed as falling below the threshold in the assessment criteria specified by the NSW Heritage Branch. As such this item is not consistent with a definition of a relic, which must be of State or Local significance under these criteria.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may form part of the road remnant is assumed but remains untested. There is potential for the following subsurface archaeological evidence, however none of these are likely to have significance above the assessment criteria thresholds:
  - Road surface treatment (such as the application of gravels).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item.
- This alternative has been rejected based on the low significance of the item, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Based on the low significance assessment for the item (below the criteria threshold), no further heritage related management action is recommended for this item.

Recording ID: G2B H15 **Name/*Description*: Remnant portion of twentieth century highway (adjacent to *Mananga* Homestead)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

This remnant section of highway would continue its current function as a service road but would be directly impacted in two locations, at its northern end by construction of an off-ramp and an additional service road, and towards its southern end by construction of a new intersection with the current highway/new off-ramp. Construction of a south bound off-ramp, along the alignment of the current highway, and an additional service road would result in direct impact to a small proportion of the remnant highway at its far northern end (an interval of up to 30 metres, and north of the driveway to A40A Princes Highway). A new, squared-off intersection with the off-ramp would be constructed near the southern end of the remnant. This would alter the original alignment of the remnant to a certain degree but maintain the integrity of the more significant and better conserved portion in front of the Mananga homestead and gardens. The addition to the remnant of a new service road for nine allotments would mean greater vehicle use of the remnant, and a higher frequency of maintenance and possible upgrading.

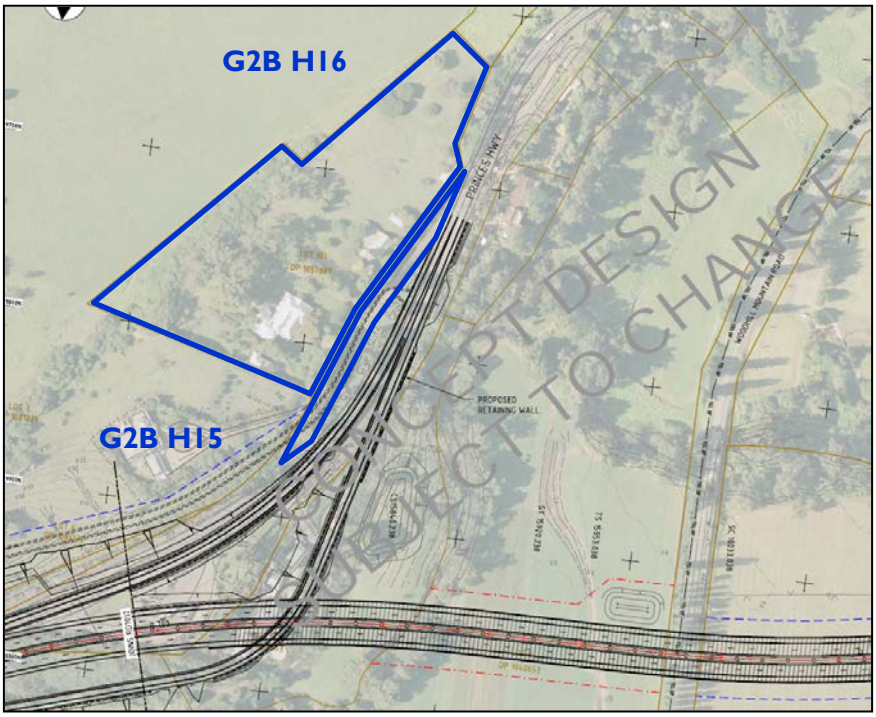


Figure I.7 Location of G2B H15 relative to proposed bypass works and item G2B H16.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria f & g.
- Substantial impact to the better maintained and most significant portion of the road remnant, (which is adjacent to the Mananga homestead and outbuildings), would be avoided. The alignment of the remnant, which remains the same as the original road at the time of the homestead construction, would be maintained as an actively used road. This would maintain the historical context and integrity of the property frontage.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The visual impact of the off-ramp and service road additions would only be marginally greater than the existing situation caused by the current highway carriageway and associated cutting. Although the intrusion of modern infrastructure would be marginally closer to the Mananga property boundary, there would remain an effective spatial margin, and visual barrier provided by existing fences and planted vegetation.

Impact on existing structures

- This item consists of a remnant bitumised road platform. There are no existing structures related directly to this heritage item.

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of this road remnant is difficult to determine. The subsurface foundation of the carriageway and the constructed road surface, may constitute a relic.
- There are known archaeological deposits situated on the western side of this road remnant. These are included in a separate recording G2B H14. Please refer to the Statement of Heritage Impact for that recording for an analysis of construction impacts to these deposits.

Summary

- Construction of the bypass would result in direct impact to a minority proportion of the road remnant, and avoid impact to the most significant portion. Impact to contextual values would be marginal only.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass and service road across this heritage item is required in order to:
  - Avoid direct impact to the Mananga homestead property.
  - Provide access to private property independent of the bypass carriageway.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maximise the use of the existing highway easement.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- The extent to which archaeological deposits may form part of the road remnant is assumed but remains untested. There is potential for the following subsurface archaeological evidence:
  - Road surface treatment (such as the application of gravels).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The only alternative to impacting this recording would be to move the bypass alignment further to the north. This would require either an extensive area of landfill and/or an extensive additional bridge interval. This would also result in additional loss of agricultural land.
- This alternative has been rejected based on the relative significance of the portion of road remnant subject to impact, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Avoid use of bridges where a viable alternative exists.
  - Maximise the use of the existing highway alignment and easement.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Impact to this road remnant would be limited to essential works within the construction footprint at the northern and southern ends of the remnant.
- Direct impact to the road remnant adjacent to the Mananga property would be minimised.
- It is proposed to conduct an archival recording of the item, (relative in scope to the type and quality of information which can be recovered), prior to construction impact.

Recording ID: G2B H18	Name/*Description*:	Remnant portion of twentieth century highway (close to Tindalls Lane intersection with Highway)

Statement of Heritage Impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in the loss of the whole of the known extent of the item.

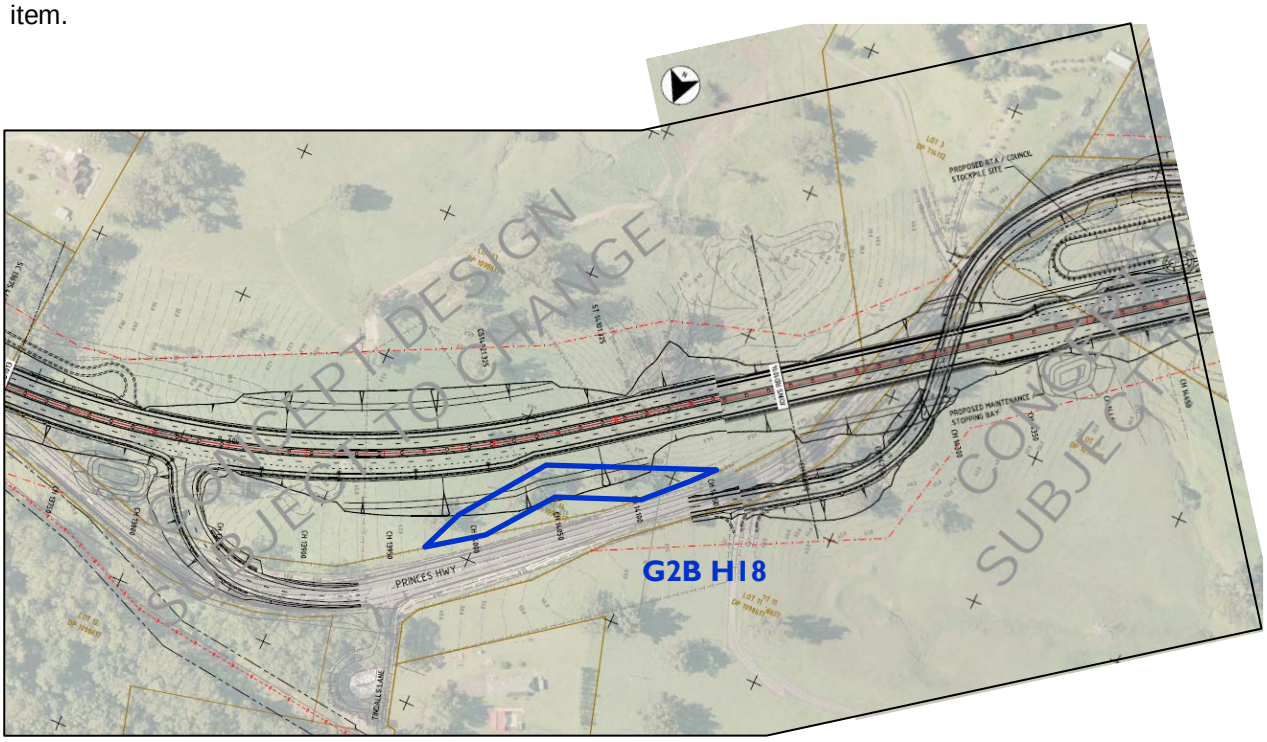


Figure I.8 Location of G2B H18 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- The significance of this item is assessed as falling below the threshold of the assessment criteria.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting and changes to the existing highway carriageway. This would not only remove the remnant road, but also substantially alter the immediate landscape setting and visual context.

Impact on existing structures

- This item consists of a remnant road platform, indicated by eroded low ground relief. There are no existing structures related to this heritage item.

Impact on relics

- The significance of this item has been assessed as falling below the threshold in the assessment criteria specified by the NSW Heritage Branch. As such this item is not consistent with a definition of a relic, which must be of State or Local significance under these criteria.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may form part of the road remnant is assumed but remains untested. There is potential for the following subsurface archaeological evidence, however none of these are likely to have significance above the assessment criteria thresholds:
  - Road surface treatment (such as the application of gravels).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - What alternatives to the anticipated development impact have been considered? Why are they rejected?
- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item.

- This alternative has been rejected based on the low significance of the item, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Based on the low significance assessment for the item (below the criteria threshold), no further heritage related management action is recommended for this item.

Recording ID: G2B H21	Name/*Description*:	Remnant portion of twentieth century highway (south of *Glenvale* homestead)

Statement of heritage impact

What is the nature and extent of anticipated development Impact?:

Construction of the bypass would result in the loss of the whole of the known extent of the item.

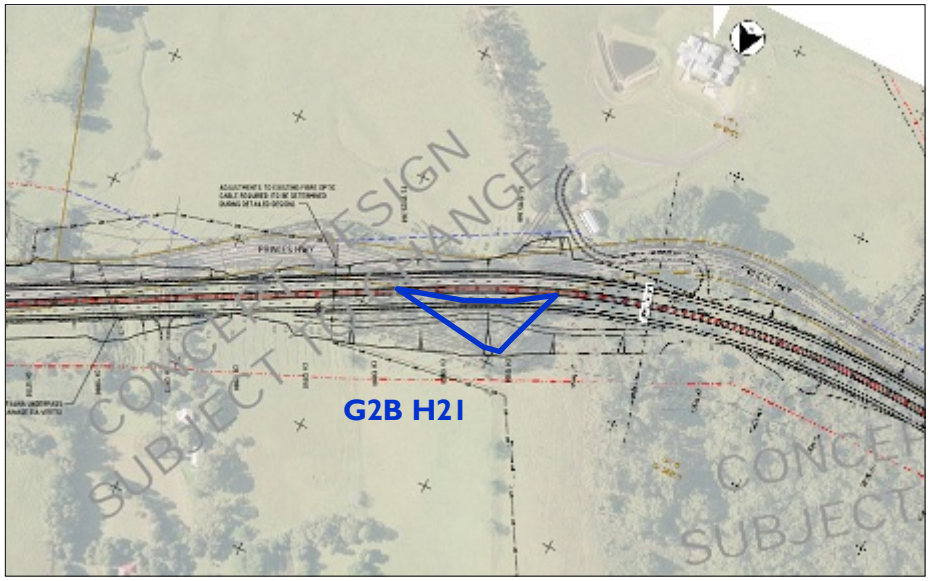


Figure I.9 Location of G2B H21 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criterion e.
- It is proposed to conduct an archival recording of this item prior to any direct impact. The creation of the record addresses the need to realise the research and information potential upon which the significance assessment is based. The resulting record would respect those values and provide a degree of mitigation.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting and replacement of the existing highway carriageway. This would not only remove the remnant road, but also the immediate landscape setting and visual context.

Impact on existing structures

- This item consists of a remnant road platform and upslope cutting. There are no existing structures related directly to this heritage item.

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude [earth] 'works' (refer Section 8.1.5 of this report), the 'relic' status of this road remnant is difficult to determine. The subsurface foundation of the carriageway and the constructed road surface may constitute a relic.
- Apart from the road remnant, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Maximise the use of the existing highway easement.
  - Maintain horizontal and vertical design standards.
  - Minimise impact to native vegetation.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- The extent to which archaeological deposits may form part of the road remnant is assumed but remains untested. There is potential for the following subsurface archaeological evidence:
  - Road surface treatment (such as the application of gravels).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- Alternatives to impacting this recording would be to move the bypass alignment either further north or south. The northern alternative would cause substantial impact to the contextual values of the Glenvale homestead, impact native vegetation, and require a more extensive cutting. The southern alternative would have high property infrastructure impacts.
- The alternatives have been rejected based on the significance of the item, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway easement.
  - Maintain horizontal and vertical design standards.
  - Minimise impact to native vegetation.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to conduct an archival recording of the item, (relative in scope to the type and quality of information which can be recovered), prior to construction impact.

Recording ID: G2B H24	Name/*Description*:	Remnant portion of twentieth century highway (west of *Sedgeford* homestead)

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in the loss of the whole of the known extent of the item.

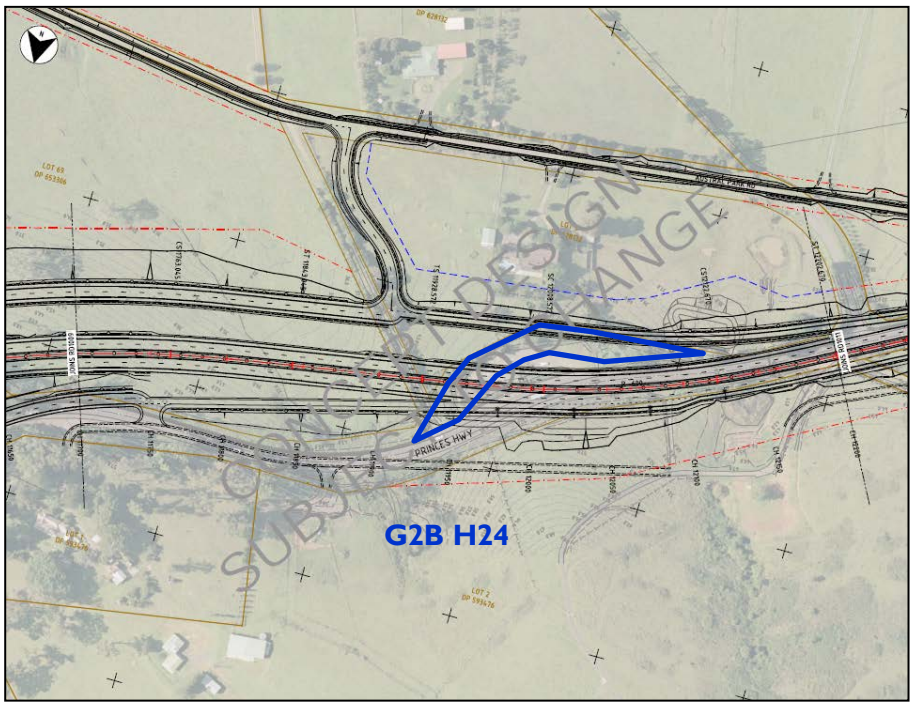


Figure I.10 Location of G2B H24 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- The significance of this item is assessed as falling below the threshold of the assessment criteria.
- There are no aspects of the proposal which respect or enhance the significance of this particular item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass in the area of this road remnant would involve the creation of a substantial cutting and replacement of the existing highway carriageway. This would not only remove the area of the remnant road, but also the immediate landscape setting and visual context.

Impact on existing structures

- There are no existing structures related to this heritage item.

Impact on relics

- The significance of this item has been assessed as falling below the threshold in the assessment criteria specified by the NSW Heritage Branch. As such this item is not consistent with a definition of a relic, which must be of State or Local significance under these criteria.

Summary

- Construction of the bypass would result in the loss of the whole of the known extent of the item

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Avoid impact to Sedgeford homestead.
  - Maximise the use of the existing highway alignment and easement.
  - Maintain horizontal and vertical design standard.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known former structures or other features associated with this road remnant which may have left archaeological traces.
- The extent to which archaeological deposits may form part of the road remnant is assumed but remains untested. There is potential for the following subsurface archaeological evidence, however none of these are likely to have significance above the assessment criteria thresholds:
  - Road surface treatment (such as the application of gravels).
  - Preparation or maintenance of the road platform (evidenced by transported and compacted materials).
  - Artefacts within infill deposits in side ditches.
  - What alternatives to the anticipated development impact have been considered? Why are they rejected?
- The alternative would be to construct the bypass on an alignment further south, which avoids direct impact to the heritage item and to Sedgeford to the northeast.

- This alternative has been rejected based on the low significance of the item, impact to residential buildings to the south of the item. and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Based on the poor condition and low significance assessment for the item (below the criteria threshold), no further heritage related management action is recommended for this item.

I.4 Standing buildings and structures

Recording ID: G2B H10 **Name/*Description*: Victorian Cottage**
72 North St. Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The footprint of a reinforced soil noise barrier and an adjacent footpath on the south side of the southbound off-ramp for the south Berry interchange, will encroach to within two metres of the existing cottage building. Associated property acquisition would include the whole cottage.

Construction of the bypass would result in direct impact to the whole cottage and the front (northern) half of the urban lot. Removal of the house is required either through demolition or the full or partial salvage of the structure.

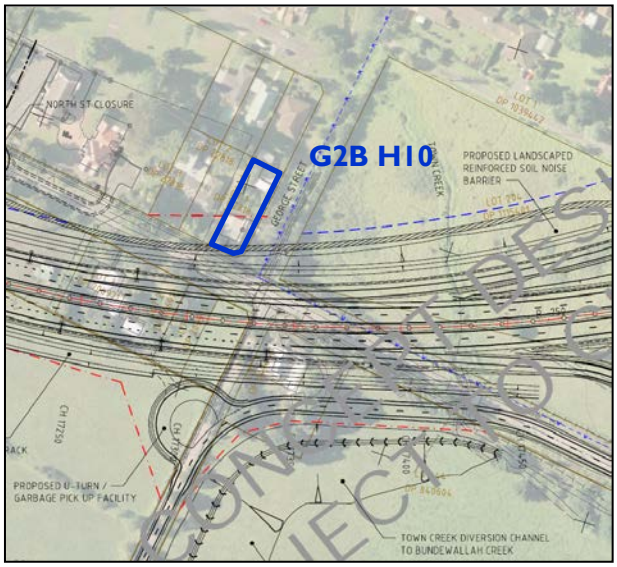


Figure I.11 Location of G2B H10 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- The significance of this item is assessed as falling below the threshold of the assessment criteria.
- There are no aspects of the proposal which respect or enhance the significance of this particular item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass would not only remove the cottage, but also the immediate landscape setting and visual context. The noise barrier would obscure existing views to the north across pastoral farmland.

Impact on existing structures

- All structures being part of this item would be directly impacted.

Impact on relics

- The significance of this item has been assessed as falling below the threshold in the assessment criteria specified by the NSW Heritage Branch. As such this item is not consistent with a definition of a relic, which must be of State or Local significance under these criteria.

Summary

- Construction of the bypass would result in direct impact to the whole of the cottage and associated front grounds.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass close to this heritage item is required in order to:
  - Minimise land take and property severance.
  - Maintain horizontal and vertical design standards relative to crossing Kangaroo Valley Road within the most effective and least impactive road interval.
  - Utilise the North Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Maximise the use of the existing highway alignment and easement (especially with regard to aligning with the existing carriageway south of Mark Radium Park) .

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.
- What alternatives to the anticipated development impact have been considered? Why are they rejected?
- The alternative would be to construct the bypass on an alignment further to the north and or east.
- This alternative has been rejected based on the low significance of the item, and the poor balance of outcomes which would result relative to the objectives to:

- Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise land take and property severance.
  - Utilise the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Maintain horizontal and vertical design standards relative to crossing Kangaroo Valley Road within the most effective and least impactive road interval.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Based on the low significance assessment for the item and the absence of direct impact, no further heritage related recording or documentation is recommended for this item.

Recording ID: G2B H11 **Name/*Description*:** ***GlenDevan***
Federation House
77 North St. Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in direct impact to the whole of the known extent of the house and surrounding lot. Removal of the house and plantings is required either through demolition or the full or partial salvage of the structure (and/or plantings).

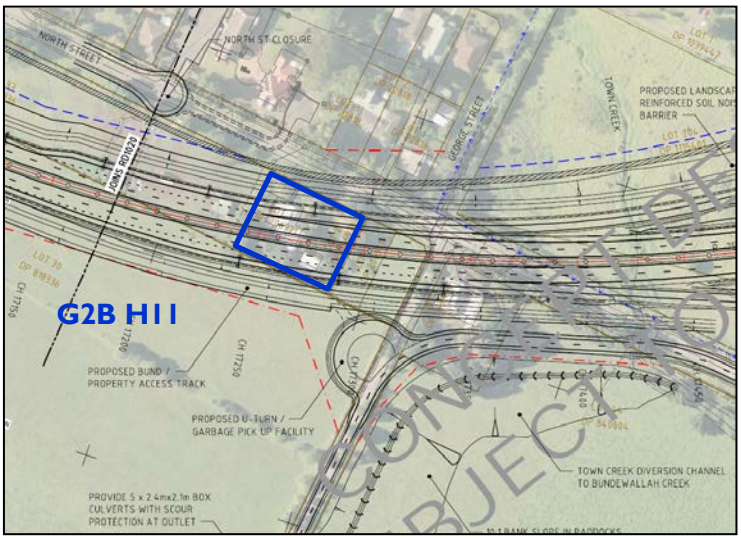


Figure I.12 Location of G2B H11 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criterion g.
- It is proposed to conduct an archival recording of the house prior to any direct impact. The creation of the record addresses the need to reduce the loss of local representative heritage significance which would result from the demolition of the item. The resulting record would respect those values and provide a degree of mitigation

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- Construction of the bypass would remove the house and grounds, as well as its immediate landscape setting and visual context.

Impact on existing structures

- All structures being part of this item would be directly impacted.

Impact on relics

- Based on the local level of assessed significance for this item (criterion g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. All such relics would be directly impacted by the bypass.

Summary

- Construction of the bypass would result in direct impact to the whole of the house and associated grounds.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Minimise land take and property severance.
  - Utilise the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Maintain horizontal and vertical design standards relative to crossing Kangaroo Valley Road within the most effective and least impactive road interval.
  - Maximise the use of the existing highway alignment and easement (especially with regard to aligning with the existing carriageway south of Mark Radium Park) .

Will any known or potentially significant archaeological deposits be subject to development impact?

- There is potential for archaeological deposits to be associated with this heritage item, notably refuse dumps, under floor deposits, and the remains of former outbuildings. All would be directly impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on an alignment further to the north and/or east, or to the south. A southern alternative is unviable as it would require the demolition of multiple urban town lots, including St Patrick's former convent and St Patrick's Church (both of which are of local heritage significance). A northern and/or more eastern alternative would exclude the use of the North Street corridor and cause significant property severance.

- The alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise land take and property severance.
  - Utilise the North Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Maintain horizontal and vertical design standards relative to crossing Kangaroo Valley Road within the most effective and least impactive road interval.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to conduct an archival recording of the house and grounds prior to any development impact. Ground disturbance in the area of G2B H11 would be monitored by an archaeologist with the aim of recording any features relevant to the archival recording, and recovering any significant relics.
- It is also recommended that RMS consider providing financial and/or logistical support in the event that an agent proposes to conserve all or part of the G2B H1 structure by moving it to a new location within or near Berry. In the event of simple demolition, suitable materials (such as bricks and stone masonry) would be recovered and reused (with commemorative identification) in appropriate local, infrastructure such as interpretive or entrance features, way-side stop facilities, landscaping or artwork.

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The cottage would not be directly impacted. The bypass works would be situated between 90 and 45m of the cottage, and consequently pose a loss of contextual heritage value.

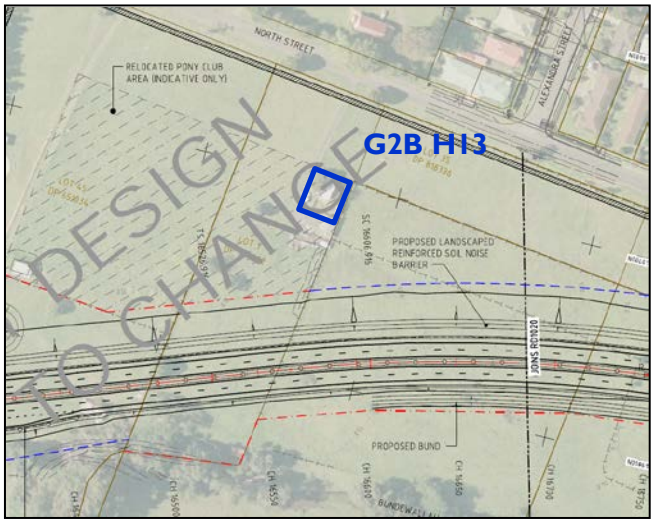


Figure I.13 Location of G2B H13 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criterion g.
- One of the determining factors for the selection of the bypass alignment was the avoidance of direct or close indirect impact to this Cottage residence. Previously contemplated alignment proposals, would have directly impacted the structure, or traversed the front grounds, resulting in a severe loss of contextual values.
- The visual impact of the bypass, from the south, would be mitigated by the construction of a landscaped barrier on the southern and eastern side of the bypass adjacent to Berry. This would provide a visual barrier that was consistent with the rural setting, and would obscure the main carriageway and its traffic from south side viewers. The upper portion of the existing escarpment vista would be unaffected for viewers positioned further away from the barrier.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- The main bypass carriageway would be constructed within 65m of the rear of this cottage. An associated landscaped noise barrier would be positioned on the southern side and extend to within 45 metres of the cottage. This would foreshorten the lower portion of the existing pastoral views to the north and west. Views from the cottage of the upper escarpment slopes would be unaffected by the barrier.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criterion g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The bypass would impact upon the visual context of the cottage with foreshortening of the valley floor views to the north and west.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the relative proximity this heritage item is required in order to:
  - Minimise land take and property severance.
  - Minimise impact to the sporting fields to the east, by locating the bypass on the north of Bundewallah Creek and then crossing the creek west of the fields and turning south to run parallel with the North Street corridor.
  - Utilise the North Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on an alignment further to the north.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise land take and property severance.
  - Utilise the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- The visual impact of the bypass, from the south, would be mitigated by the construction of a landscaped barrier on the southern and eastern side of the bypass adjacent to Berry. This would provide a visual barrier that was consistent with the rural setting, and would obscure the main carriageway and its traffic from south side viewers. The upper portion of the existing escarpment vista would be unaffected for viewers positioned further away from the barrier.
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H16 **Name/*Description*: *Mananga* Homestead Complex**
A40 Princes Highway. Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The complex (including the associated land holding) would not be directly impacted. Construction of a south bound off-ramp from the bypass would pass within 30 metres of the property boundary and would approximate the alignment of the existing highway. An additional service road would be appended to the northern end of a highway remnant which acts as the current access to the Mananga homestead and adjoining lot. There would a marginal loss of contextual heritage value.

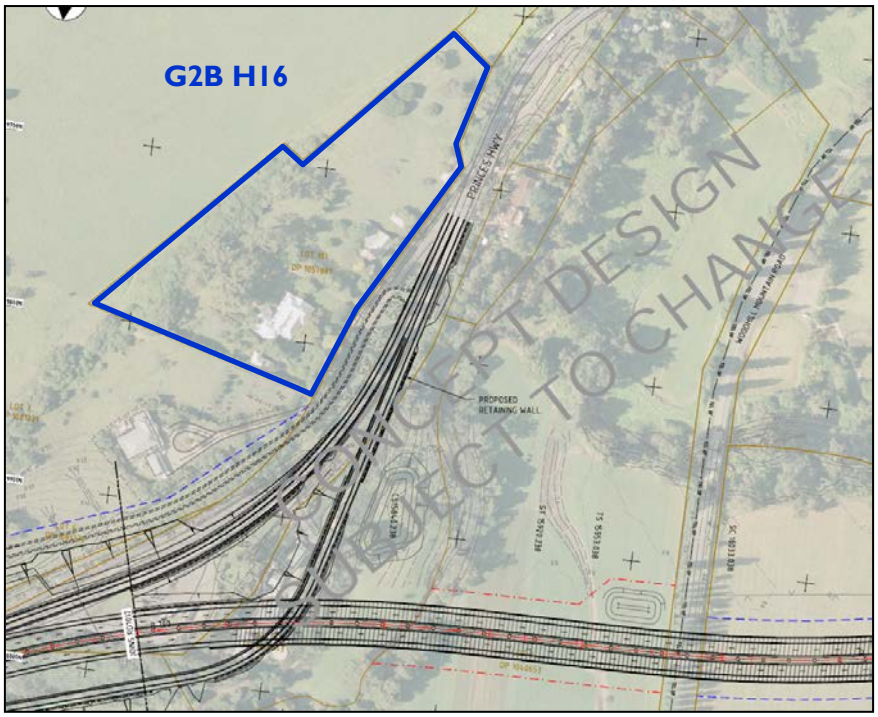


Figure I.14 Location of G2B H16 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, c, e, & g.
- One of the determining factors for the selection of the bypass alignment was the avoidance of direct impact to the Mananga homestead and property, and the minimisation of indirect impacts. A former alignment proposal, would have traversed the rear grounds of the homestead, resulting in a severe loss of contextual values, and impact to archaeological deposits.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The visual impact of the new access road, bypass off-ramp, and carriageway would only be marginally greater than the existing situation created by the current highway carriageway and neighbouring lot driveway. There would remain an effective spatial margin, and visual barrier provided by existing fences and planted vegetation.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criteria a, b, c, e & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The bypass would marginally impact upon the contextual values of the complex.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass works in the relative proximity this heritage item is required in order to:
  - Avoid direct impact to the Mananga homestead property.
  - Provide for car access to nine lots situated further to the northeast.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maximise the use of the existing highway easement.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.
- What alternatives to the anticipated development impact have been considered? Why are they rejected?
- The only alternative to impacting this recording would be to move the bypass alignment further to the north. This would require either an extensive area of landfill and/or an extensive additional bridge interval. This would also result in additional loss of agricultural land.

- This alternative has been rejected based on the relative significance of the portion of the remnant subject to impact, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Avoid use of bridges where a viable alternative exists.
  - Maximise the use of the existing highway alignment and easement.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping.
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H17 **Name/*Description*:** ***Hillview* Homestead**
Former Berry Estate homestead
A111 Princes Highway. Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The homestead would not be directly impacted. The bypass works would be situated approximately 38m from, and upslope of the front of the homestead. A service road would be situated 30 metres away. The boundary of the bypass easement would be approximately 14m from the front of the homestead. This cartilage is a little larger than a former front yard enclosure around the homestead evident in a 1958 aerial photograph (refer Figures 6.115 & 6.116). Some garden plantings at the front of the cottage would be directly impacted. All of these plantings post date 1960. Due to the elevated bypass carriageway and associated embankments, there would be a substantial loss of contextual heritage value on the front (entrance) side of the homestead.

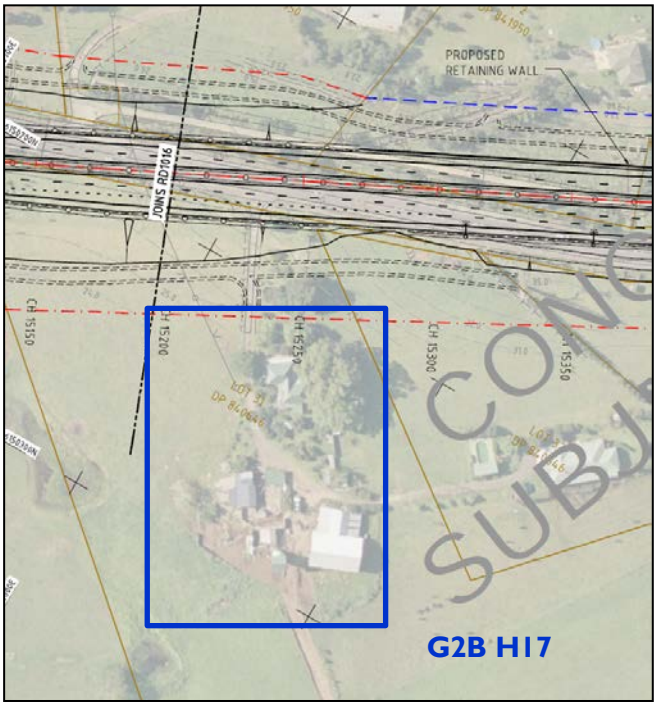


Figure I.15 Location of G2B H17 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria e, f & g.
- One of the determining factors for the selection of the bypass alignment was the avoidance of direct impact to the Hillview homestead.
- The original southern entrance to the property will be maintained by the proposed service road access.
- The distance between the bypass easement boundary and the homestead is in excess of the front yard enclosure evident in 1958.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The bypass works would be situated approximately 38m from the homestead, and would include the carriageway on an elevated embankment. The carriageway and embankment would place a visually intrusive landscape element into the front (southern) aspect of the homestead and obscure the original relationship of the building with the highway.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criteria e, f & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The bypass would substantially impact upon the south facing contextual values of the homestead.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the proximity of this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the indirect impact to this recording would be to move the bypass alignment either to the north or south. The southern alternative would involve direct impact to three residences together with extensive landfill and earthworks. The northern alternative would require a major alignment change which would involve direct impact to two farmhouses, significant property severance, and require an alternative crossing of Broughton Mill Creek and Woodhill Mountain Road. .
- These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping.
- It is recommended that, where feasible, the existing front yard plantings which would fall within the bypass easement (and particularly the Oak tree) should be retained. This may require a minor deviation of the proposed service road.
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H25	Name/*Description*:	***Sedgeford*** **Homestead and Grounds A495 Princes Highway. Broughton Village**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Neither the homestead nor its grounds would be directly impacted. The existing highway carriageway is located along the southern boundary of the homestead grounds, and the bypass works would not encroach further from this alignment. The eastern half of the current highway carriageway would be reused as a service road, the western portion would be modified as upslope end of an off-ramp onto that road. Existing tree plantings provide a visual buffer and barrier between the homestead and grounds, and the highway easement. There would be considerable impact to local landscape context values to the south of the existing highway, where construction of the bypass carriageway would involve a substantial cutting and downslope embankment. The main carriageway would be situated approximately 90 metres to the south of the homestead, and the off-ramp, approximately 70 metres.

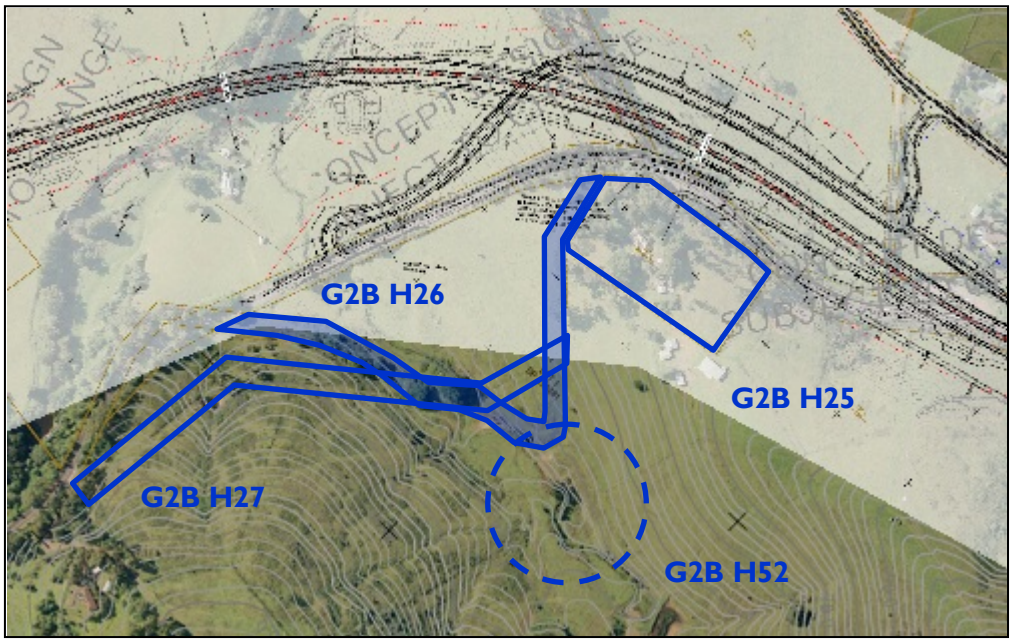


Figure I.16 Location of G2B H25 relative to associated recordings in the 'Bink's Corner' group, and the proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria b & g.
- One of the determining factors for the selection of the bypass alignment was the avoidance of direct impact to the Sedgeford homestead and grounds. A former alignment proposal, which was shorter and therefore cheaper, would have required demolition and removal of both the buildings and grounds.
- The spatial relationship between the homestead, its grounds, and the current and a former highway alignment (G2B H26), is a valuable component of the heritage and interpretive values of the Bink's Corner grouping of heritage items (G2B H25, 26, 27 & 52). The bypass design respects this relationship by allowing for the continued vehicle use of the existing highway as a service road, and avoiding direct impacts on the eastern and northern side of the existing highway.

- The construction of the bypass in relative proximity of the Bink's Corner grouping of heritage items, enhances the interpretive value of the road remnants by providing a twenty first century example of highway construction for contrast and comparison with the 1856-1970s (G2B H27) and 1870s-1830s (G2B H26) examples.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- There would be considerable impact to local landscape context values to the south of the Sedgeford grounds (boundary runs adjacent to the existing highway), where a substantial cutting and downslope embankment would be constructed. The main carriageway would be situated approximately 90 metres to the south of the homestead, and the off-ramp, approximately 70 metres. Existing tree plantings would provide a visual buffer and barrier between the homestead, its grounds, and the highway easement.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criteria b & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The bypass would substantially impact upon the contextual values of the homestead.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the proximity of this heritage item is required in order to:
  - Avoid direct impact to the Sedgeford homestead and grounds, and the Brookside homestead, 400 metres to the northeast.
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the indirect impact to this recording would be to move the bypass alignment either substantially to the north, or further south. The northern alternative is limited by a major ridge slope, with the consequence that the nineteenth and twentieth century road remnants (G2B H27 and 26) would be directly impacted. The southern alternative would require a major alignment change which would involve direct impact to potentially two farmhouses, and significant property severance.
- These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H28 **Name/*Description*:** ***Brookside* homestead A540 Princes Highway Broughton Village**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The bypass carriageway, which at this point is a bridge over Broughton Creek, would be situated approximately 75 metres to the southeast (and to the rear) of the *Brookside* homestead building. A separate, recently constructed cottage (incorporating some recycled materials) would be within 45 metres of the carriageway. The bridge is approximately 190 metres in length and would form a dominant visual backdrop in south and east directed views of the homestead. The bridge would cross the Broughton Creek at an oblique angle and would be angled upwards towards a spur in the southwest.

The northern property boundary of the required bypass easement passes through the rear storage shed and associated former dairy platform, and a former building platform on basal slopes on the opposite side of a small tributary southwest of the homestead grouping. The resumed land for the bypass easement would also include the former orchard and pump remains.

Construction of the bypass would require the demolition of the storage shed, possible impact to the former building platforms, and a substantial impact to local landscape context values to the east and south.

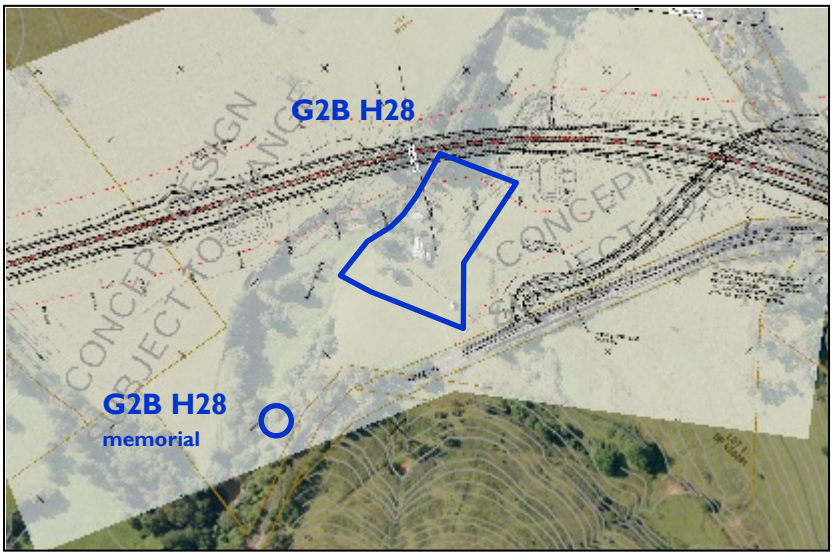


Figure I.17 Location of G2B H28 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria e & g.
- One of the determining factors for the selection of the bypass alignment was the minimisation of direct impact to the Brookside homestead. A former alignment proposal, which was shorter and therefore cheaper, would have required demolition of the homestead.

- It is proposed to conduct an archival recording of this item prior to any impact. The creation of the record addresses the need to realise the research and information potential of the item. The resulting record would respect those values and provide a degree of mitigation.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- There would be a substantial impact to the landscape context values of this item. The bridge and adjoining carriageway embankments would form an immediate backdrop and a dominant twenty-first century, visually intrusive element to the context of the homestead. This would significantly detract from the current early twentieth century character of the homestead, and dramatically shift the aesthetic values of its context. The maintenance of the creek corridor, and the visual continuity of viewsheds via the under-bridge space, are important moderating elements to this impact. Both the creekline and the bypass present strong directional landscape elements which could be appreciated as complementary and aesthetic landscape elements.

Impact on existing structures

- The bypass would directly impact the storage shed and associated small outbuilding.

Impact on relics

- Based on the local level of assessed significance for this item (criteria b & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. The incorporated elements of a former dairy, now part of the storage shed, would be impacted by the project. In the event that the construction of easement boundary fencing requires levelling and ground preparation, then archaeological deposits associated with former dairy and out-building platforms would be impacted.

Summary

- The bypass would directly impact upon a storage shed, remnants and traces of a former dairy complex, and substantially impact upon the contextual values of the homestead.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.

- The location of the bypass in the proximity of this heritage item is required in order to:
  - Minimise direct impact to the Brookside homestead group and avoid direct impact to the Sedgeford homestead and grounds, 400 metres to the southwest.
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There is potential for archaeological deposits to be associated with the platforms for a former dairy complex and former outbuilding, which would be subject to direct impact.
- What alternatives to the anticipated development impact have been considered? Why are they rejected?
- The alternatives to the impact to this recording would be to move the bypass alignment either to the east, or west. The eastern alternative would require a major alignment change involving a substantially longer carriageway and significant land take and property severance issues. The western alternative could not reduce indirect impacts due to limited space imposed by a major ridge slope. A consequence is that the nineteenth and twentieth century road remnants (G2B H27 and 26) would be directly impacted. These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Prior to impact, it is proposed to conduct an archival recording at the Brookside homestead (G2B H28), inclusive of those features subject to direct impact, and the homestead building which incorporates structures previously moved from site G2B H59.
- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping.

- The natural character of the Broughton Creek and its banks in the vicinity of the bypass bridge, immediately south of the Brookside homestead, would be maintained and enhanced as much as feasible. The aim of this strategy is to ameliorate impact to the landscape context by maintaining and reinforcing the visual quality of the creek corridor. This can be achieved by maintaining and augmenting native bank side vegetation, and maximising the distance between the banks and bridge abutments.
- Where there is no anticipated direct construction impact to components of this site, it is recommended that measures be instigated, where and as considered warranted, to protect these components from accidental or incidental impact during construction, or other form of RMS use.

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

This heritage listed bridge would not be directly impacted by the project development. A new bypass bridge would be constructed immediately downstream of the existing bridge. The function and integrity of the existing bridge would be maintained through the retention of the existing highway carriageway as part of a local service road between the Toolijooa Rd intersection and *Sedgeford*.

The landscape context of the bridge would be substantially altered by the addition of the new and higher bypass bridge on its downstream side.

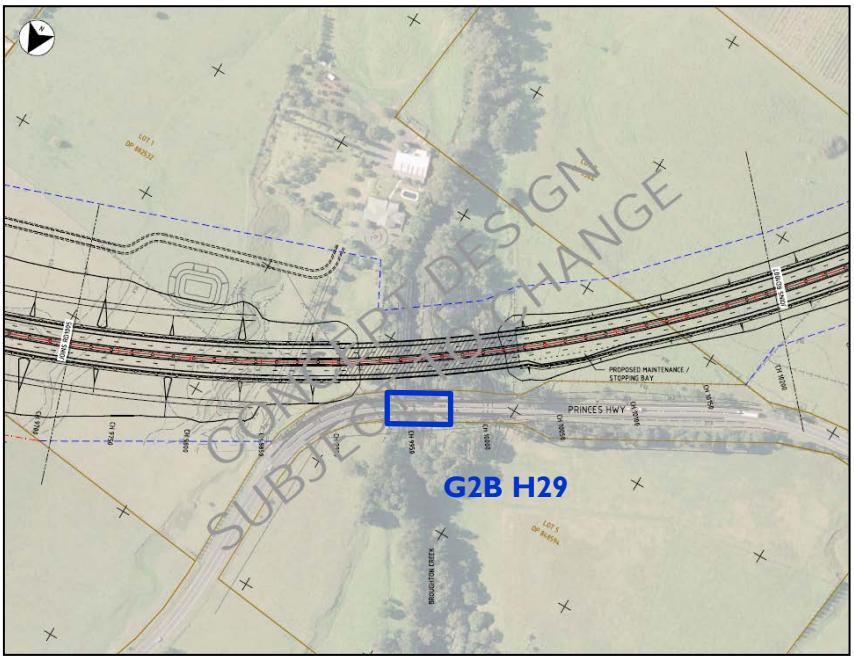


Figure I.18 Location of G2B H29 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, c, f & g.
- The existing bridge structure would not be directly impacted by the development.
- The construction of the bypass bridge immediately adjacent to the existing bridge would provide an interpretive opportunity to contrast and compare differences and developments in concrete bridge construction. The continued use of this crossing point continues a practise first established by perhaps the first European pathway along the valley floor, indicated on the 1860s county map (refer Figure 6.216 & 217).
- The reduction in vehicle traffic on the existing highway provides an opportunity to make it easier for visitors to stop and inspect the heritage bridge.

- It is proposed to promote, interpret and present the cultural values of this site to a public audience using formats, locations and strategies defined in a Heritage Interpretation Plan (HIP) to be developed as part of the project. This would recognise and enhance the heritage significance of the site by promoting the largely un-appreciated heritage of concrete structures and the development of highway bridge design. Such a program could potentially integrate interpretation with other related items, such as the 'Bink's Corner' highway remnants (refer Statements of Heritage Impact for G2B H19, 22, 23, 30 and 55).

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- The construction of the new bypass bridge would pose a substantial change to the landscape context of this item. The consequential loss of aesthetic quality is however, compensated by the interpretive opportunity and functional continuity represented by the new bridge. The new bridge

Impact on existing structures

- The bypass would not directly impact the heritage bridge.

Impact on relics

- Based on the local level of assessed significance for this item (criteria b & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. There are no known or suspected relics within the area of the adjacent bypass.

Summary

- The bypass would not directly impact the heritage bridge. The landscape context of the bridge would be substantially altered by the proximity of the new bypass bridge. This indirect impact is however, compensated for by the functional continuity of the new bridge, and the interpretive opportunities.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the proximity of this heritage item is required in order to:
  - Minimise disturbance to the ecological values of the Broughton Creek corridor.
  - Minimise the extent of excavation and batter length (and therefore also visual impact) associated with the Toolijooa Ridge cutting.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or suspected archaeological deposits within the area of the adjacent bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the indirect impact to this recording would be to move the bypass alignment further downstream (south). This would involve direct impact to a farmhouse, the creation of a new disturbance corridor across the Broughton Creek riparian vegetation/corridor, and potentially greater excavation along the Toolijooa Ridge cutting in order to accommodate horizontal design (curve) requirements. This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise disturbance to the ecological values of the Broughton Creek corridor.
  - Minimise the extent of excavation and batter length (and therefore also visual impact) associated with the Toolijooa Ridge cutting.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to promote, interpret and present the cultural values of this site to a public audience using formats, locations and strategies defined in a Heritage Interpretation Plan (HIP) to be developed as part of the project. This would recognise and enhance the heritage significance of the site by promoting the largely un-appreciated heritage of concrete structures and the development of highway bridge design. Such a program could potentially integrate interpretation with other related items, such as the 'Bink's Corner' highway remnants (refer Statements of Heritage Impact for G2B H19, 22, 23, 30 and 55).
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H45 **Name/*Description*: *Glenvale* homestead**
A371 Princes Highway, Broughton

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Neither the homestead nor its grounds would be directly impacted. The closest sections of the bypass are situated on the same corridor of the existing highway. The construction footprint of the bypass comes within 150 metres of the homestead. Existing tree plantings provide a visual buffer and barrier between the homestead, its grounds, and the bypass easement. There would not be an appreciable impact to landscape context values of the homestead.

The listing of the *Glenvale* homestead on the Shoalhaven Local Environmental Plan Heritage Schedule includes the whole property, and the southern margin of the property would be discontinuously and directly impacted by the bypass development. Included in this category is direct impact to two remnants of the 1856 Berry Estate Road (G2B H22 & 23). These remnants are likely to have been contemporary with the *Glenvale* homestead and their loss would therefore pose an impact to the associative heritage values of the homestead.

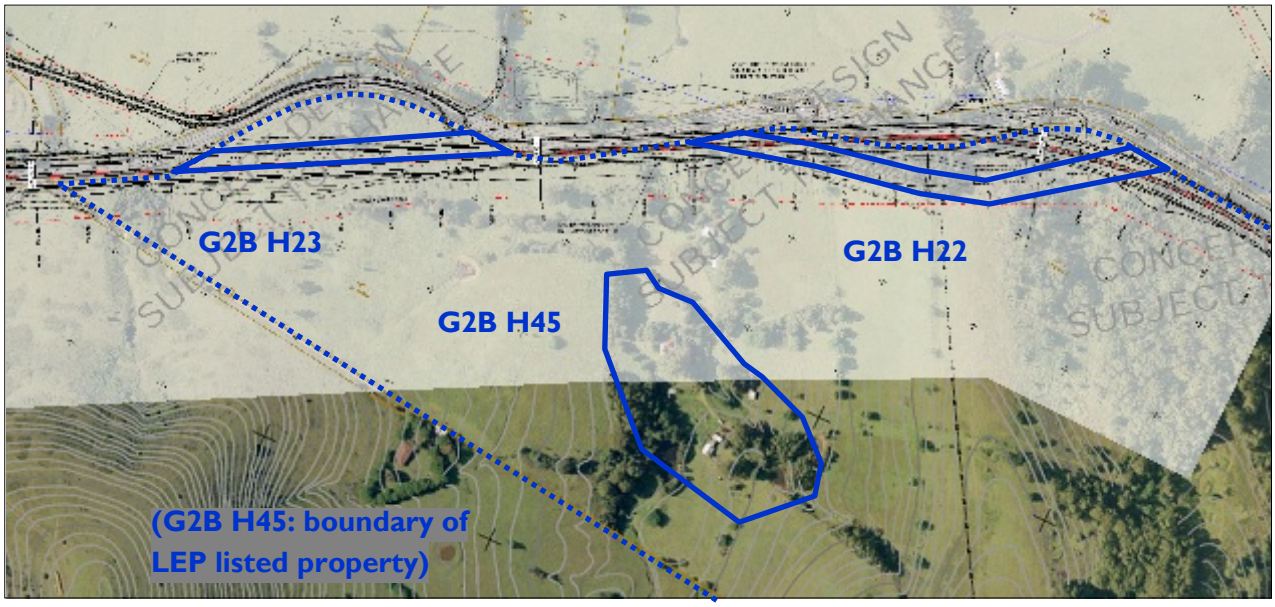


Figure I.19 Location of G2B H45 relative to associated recordings and proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria e, f & g.
- The construction of the bypass would not directly impact this item.
- It is proposed to conduct an archival recording of two Berry Estate road remnants prior to any direct impact. The creation of the record respects and addressed the research potential of the spatial relationship between the homestead and early estate roadway. It would also provide a degree of mitigation for the loss of associative and contextual values.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- There would not be any appreciable impact to the contextual landscape values of the homestead. Existing tree plantings would provide a visual buffer and barrier between the homestead, its grounds, and the bypass easement.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criteria e, f & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The homestead and grounds would not be directly impacted by the bypass. The indirect impacts of the bypass would not be appreciable given the extent of the visual and spatial buffers around the homestead. Direct impact to two remnants of the Berry Estate road on the same property holding would impact on associative heritage values shared by these items.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the proximity of this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with the homestead which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative to the indirect impact to this recording would be to move the bypass alignment further to the north. This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards.
  - Minimise impact to native vegetation.
  - Balance cut and fill requirements: and
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H47 **Name/*Description*: Former St Patrick's Convent and St Patrick's Church, *80 North St, Berry***

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The church and former convent and their grounds would not be directly impacted. The grounds of these two associated buildings comprises Lot 1 DP86897, approximately 0.8 hectares. The lot is bounded in the north by North Street, which provides rear access to both buildings. The bypass works in the vicinity of this item would be limited to the North Street easement, and further to the north.

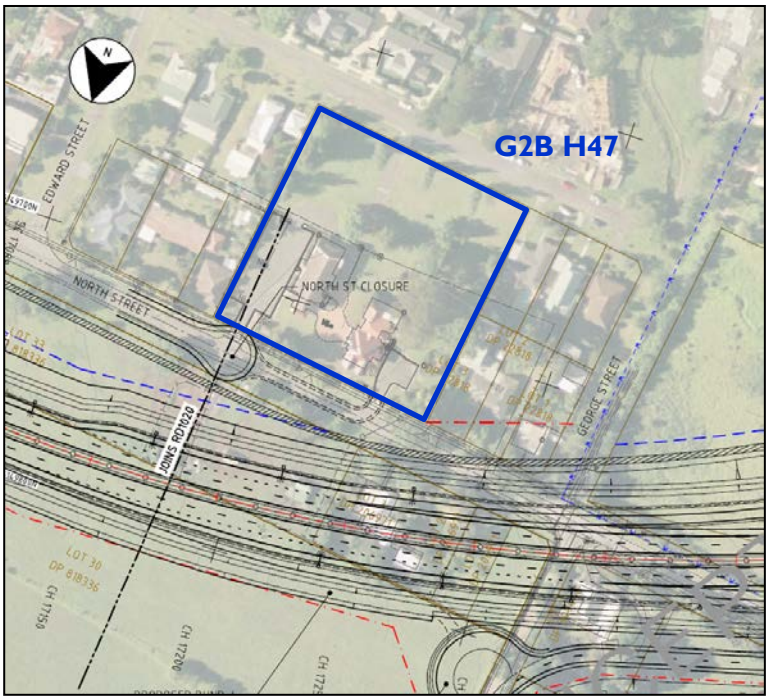


Figure I.20 Location of G2B H47 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- These items have an assessed local level of significance under criteria d, f & g.
- The construction of the bypass would not directly impact this item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- Despite the proximity of the bypass, the integrity of the large town lot on which the church group is situated would not be compromised. The contextual values of these buildings would not be significantly impacted based on the following reasons:
  - The 'front' and entrance aspects of both the church and former convent buildings are to the south and east.
  - An existing high boundary fence and associated border vegetation along the North Street frontage obscures potential short and mid-distance vistas to the north. This indicates that these components of the site's context are not an important part of current usage or appreciation of the site.
  - Relative to the surrounding urban lots, the spatial buffer around each building is already substantial.

Impact on existing structures

- The bypass would not impact existing structures on this lot.

Impact on relics

- Based on the local level of assessed significance for this item (criteria d, f & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The bypass works would not directly impact this item. The indirect impacts of the bypass would not be appreciable given the southerly aspect of the heritage buildings, the existing spatial buffers and visual barriers.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass close to this heritage item is required in order to:
  - Minimise land take and property severance.
  - Utilise the North Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on an alignment further to the north.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise land take and property severance.
  - Utilise the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H49 **Name/*Description*: *Oakleigh* Farmhouse**
59 Woodhill Mountain Rd, Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Neither the farmhouse nor its grounds would be directly impacted. The closest section of the bypass carriageway is 100 metres to the south. Existing tree plantings provide a visual buffer and barrier between the homestead, its grounds, and the bypass easement. An open field is situated between the farmhouse grounds and the bypass. There would not be an appreciable impact to the landscape context values of the farmhouse.

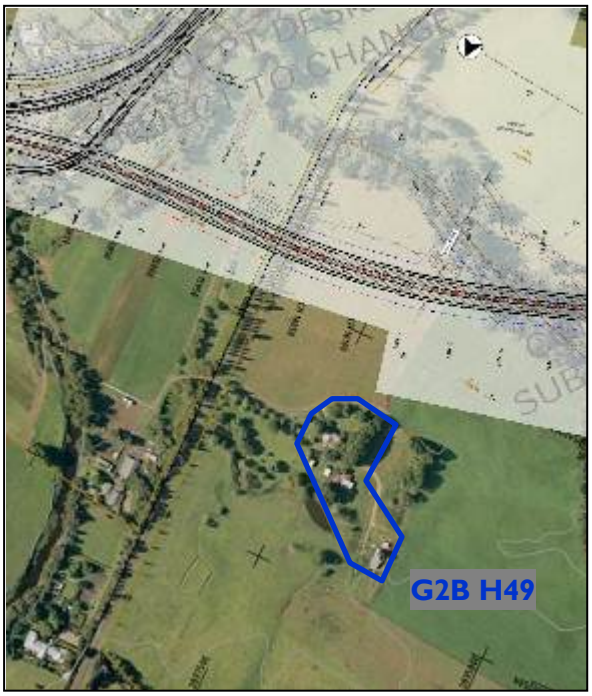


Figure I.21 Location of G2B H49 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria e & g.
- The construction of the bypass would not directly impact this item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- There would not be any appreciable impact to the contextual landscape values of the farmhouse. Existing tree plantings would provide a visual buffer and barrier between the homestead, its grounds, and the bypass easement. At least 200 metres of an open field system separates the homestead grounds from riparian vegetation situated to the south and west.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criteria e & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The farmhouse and grounds would not be directly impacted by the bypass. The indirect impacts of the bypass would not be appreciable given the extent of the visual and spatial buffers around the homestead.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the proximity of this heritage item is required in order to:
  - Minimise impact to the Berry sporting fields.
  - Minimise land take and property severance.
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with the farmhouse which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the indirect impact to this recording would be to move the bypass alignment further to the south. This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise impact to the Berry sporting fields.
  - Minimise land take and property severance.
  - Maintain horizontal and vertical design standards.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The cottage is located on the northern side of the current highway and would not be directly impacted. The bypass carriageway would be situated on an embankment, on the southern side of the current highway, within 35 metres of the cottage. The current highway would be retained as a service road. The construction of the carriageway on an elevated embankment to the northwestern corner of the cottage would pose an impact to the visual and landscape context of the item.

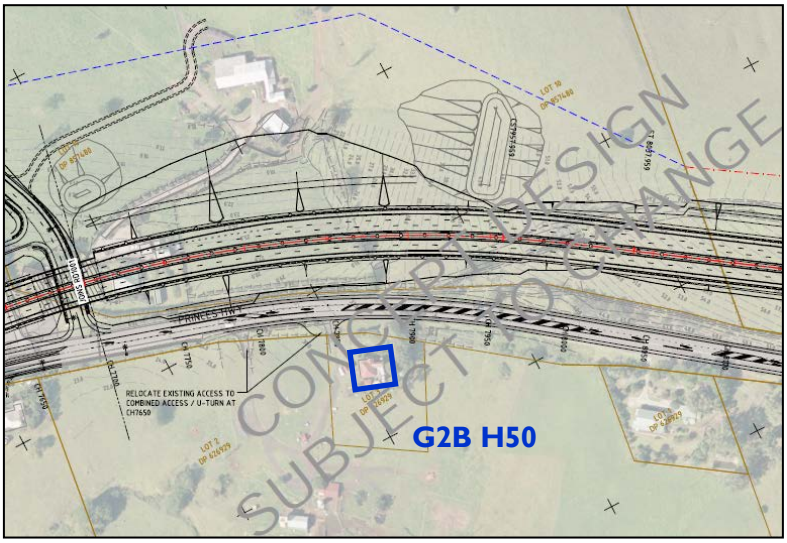


Figure I.22 Location of G2B H50 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- The significance of this item is assessed as falling below the threshold of the assessment criteria.
- The construction of the bypass would not directly impact this item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual Impact

- The construction of the carriageway on an elevated embankment to the northwestern corner of the cottage would pose an impact to the visual and landscape context of the item.

Impact on existing structures

- The bypass would not impact existing structures on this lot.

Impact on relics

- The significance of this item has been assessed as falling below the threshold in the assessment criteria specified by the NSW Heritage Branch. As such this item is not consistent with a definition of a relic, which must be of State or Local significance under these criteria.

Summary

- The bypass would substantially impact upon the contextual values of the cottage.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass close to this heritage item is required in order to:
  - Allow the retention of the existing highway as a service road.
  - Take advantage of the elevated topography of the spurline running adjacent to the cottage, to construct the most effective vertical and horizontal carriageway alignment on the eastern fall of the Toolijooa Ridge.
  - Provide for a suitable degree of carriageway elevation to accommodate an underpass for the Toolijooa Road intersection.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on an alignment further to the south or north.
- These alternatives have been rejected based on the low significance of the item, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Allow the retention of the existing highway as a service road.
  - Take advantage of the elevated topography of the spurline running adjacent to the cottage, to construct the most effective vertical and horizontal carriageway alignment on the eastern fall of the Toolijooa Ridge.
  - Provide for a suitable degree of carriageway elevation to accommodate an underpass for the Toolijooa Road intersection.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- Based on the low significance assessment for the item and the absence of direct impact, no further heritage related management is recommended for this item.

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The concept design allows for the retention of that portion of the existing Schofields Lane which is adjacent to and parallels the eastern boundary of the *Graham Park* property. This section includes the *Graham Park* entrance gates and sculpture which are an important, and publically accessible heritage feature of the former research station. This retention would be possible due the concept design specification for a new highway intersection with Schofields Lane 50 metres to the north.

As a consequence of the retention of the current Park entrance and adjacent portion of Schofields Lane, there would be no direct impact to the significant fabric of the *Graham Park* site.

The edge of construction works for the bypass carriageway would extend to approximately 20 metres of the eastern boundary of Graham Park. This would not pose an appreciable impact to the visual and contextual values of the site.

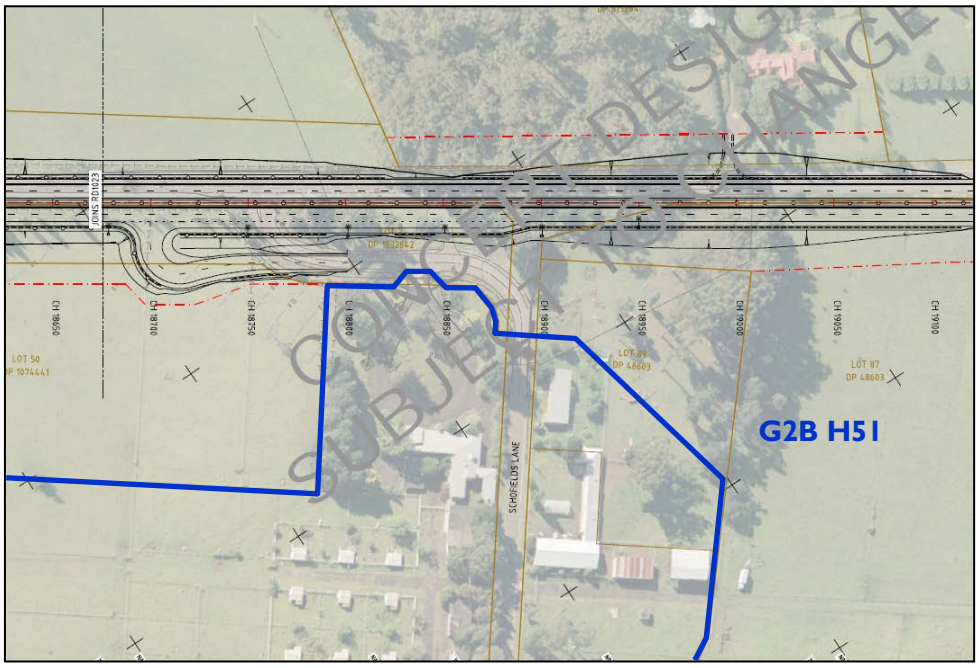


Figure I.23 Location of G2B H51 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed State level of significance under criteria a, b, c & g, and local significance under criteria a, c, e, f & g.
- The relocation of the bypass intersection with Schofields Lane has the consequence that the existing portion of Schofields Lane which includes the Graham Park entrance can be retained and continue to function. This will maintain the heritage values and integrity of the entrance way. Previously considered options for this intersection would have required a new entrance to the facility, and possibly also repositioning of the entrance feature.

- It is proposed that the design of any access roadworks in the vicinity of the *Graham Park* entrance should not exclude the capacity for visitors to pull over and safely inspect the entrance feature. If necessary, allowance should be made in the design for the potential future installation of interpretive signage.
- The increased proximity of the highway, and the associated vegetation clearance would make the entrance sculpture more visible to bypass users. This could both increase public awareness and curiosity about the site.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Despite the proximity of the bypass, the contextual landscape and visual values of this item would not be appreciably compromised. The contextual values of the former research station would not be significantly impacted based on the following reasons:
  - The bypass at this point simply duplicates the existing carriageway on its northern side.
  - Despite the proximity of the required bypass construction footprint, the area immediately in front of the existing Graham Park already consists of a public road, being an alteration to the Schofields Lane alignment and intersection with the highway, constructed sometime between 1992 and 2006.
  - The existing circular driveway behind the entrance provides an effective open space buffer (17 metres) in front of the former station buildings.

Impact on existing structures

- The bypass would not directly impact any of the significant structures which form part of Graham Park.

Impact on relics

- Based on the State and local level of assessed significance for this item (criteria a, b, c, e, f & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. There are no known relics which would be directly impacted by the bypass development.

Summary

- The bypass would not directly impact significant items, and would have no appreciable impact on contextual values.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.

- The location of the bypass in the proximity of this heritage item is required in order to:
  - Maximise the use of the existing highway easement.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the close proximity of the bypass to this recording would be to move the bypass alignment to the east. This would directly impact upon a modern farmhouse and native vegetation. This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Minimise impact to native vegetation.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is recommended that the design of any access roadworks in the vicinity of the *Graham Park* entrance should not exclude the capacity for visitors to pull over and safely inspect the entrance feature. If necessary, allowance should be made in the design for the potential future installation of interpretive signage.
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.
- During the period of bypass construction, temporary fencing would be erected around the feature to identify a 'no-go' area.

Recording ID: G2B H56 **Name/*Description*:** ***Broughton Mill* (disused) Homestead and Dairy**
117 North St Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

This disused homestead and dairy would not be directly impacted. The bypass would be situated approximately 50 metres to the south of the site, and consequently pose a loss of landscape context value.

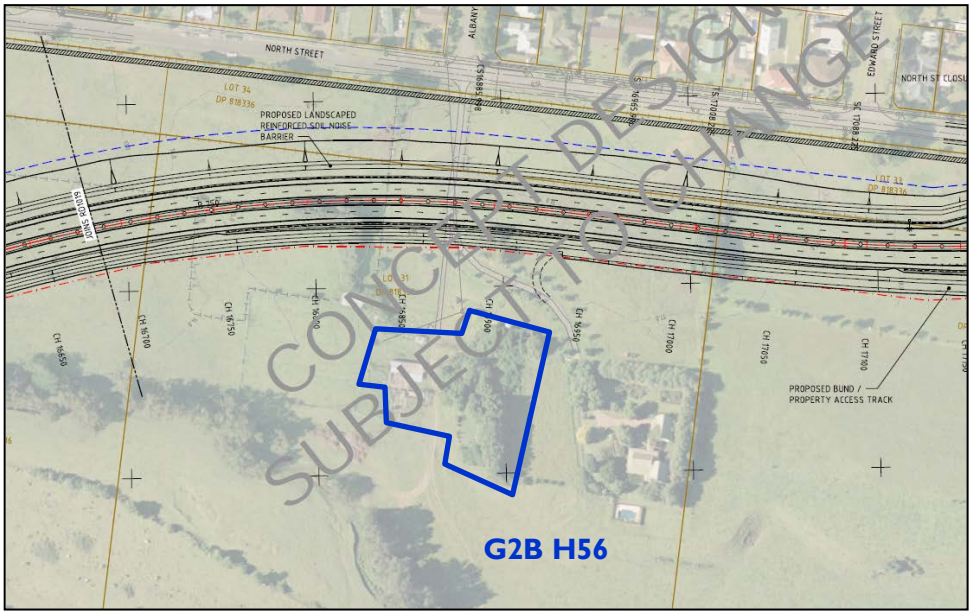


Figure I.24 Location of G2B H56 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria e & g.
- The bypass would not directly impact this item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The bypass works would be situated relative closely to the east and south of this item, coming as close as 50 metres to the south. This would place a visually intrusive landscape element into the current pastoral context of the homestead and dairy.
- This impact is substantially lessened by the fact that the homestead is now disused and in a ruinous state. The ruin is obscured by dense vegetation, and there are currently no practical outward looking vistas available from the building. Similarly, views towards the homestead provide no obvious indication of its presence.

Impact on existing structures

- The bypass would not impact existing structures related to this item.

Impact on relics

- Based on the local level of assessed significance for this item (criterion g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- The bypass would impact upon the landscape contextual values of the homestead and dairy to the south and east.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass in the relative proximity this heritage item is required in order to:
  - Minimise land take and property severance.
  - Utilise the North Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Minimise impact to the sporting fields to the east, by locating the bypass on the north of Bundewallah Creek and then crossing the creek west of the fields and turning south to run parallel with the North Street corridor.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on an alignment further to the north.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise land take and property severance.
  - Utilise the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping.
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H58 **Name/*Description*: Uniting Church Hall (former Wesleyan Chapel) 60 Albert St Berry**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

This former church building, until recently situated on the south side of North Street, and now re-positioned 50 metres to the south and, facing Albert Street, would not be directly or indirectly impacted. The building entrance now faces south, away from the bypass, and vistas from the building no longer include the pastoral view on the north side of North Street. The bypass would be situated 200 metres away to the northwest. Existing buildings occur between the former chapel and the bypass.

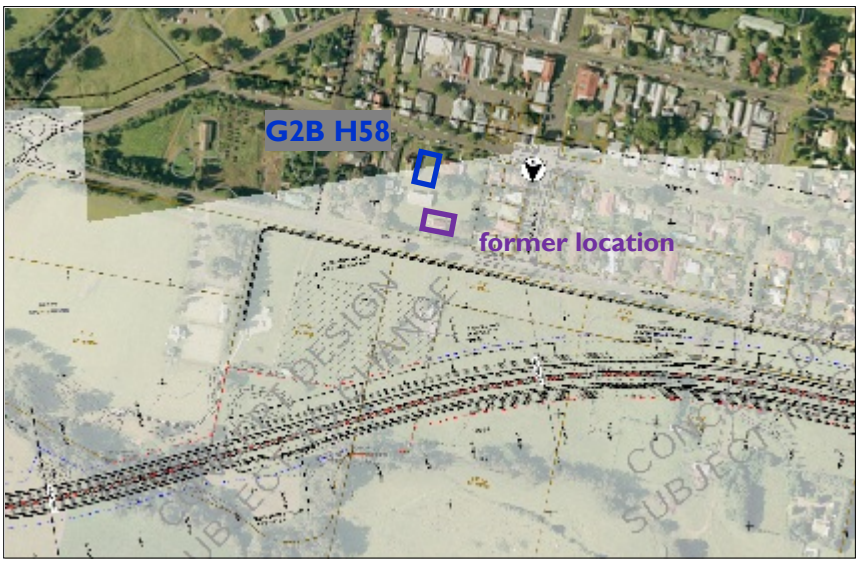


Figure I.25 Location of G2B H58 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, d, f & g.
- The construction of the bypass would not directly or indirectly impact this item.
- One of the determining factors for the selection of the bypass alignment was the avoidance of indirect impact to this building in its former location. Previously contemplated alignment proposals, would have had an indirect impact due to construction in close proximity next to North Street.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The visual and landscape context of this former church building would not be impacted by the bypass. This conclusion is based on the following points:
  - The bypass would be situated 200 metres away, on the opposite side of North Street.
  - The recent re-positioning of this building means that the entrance now faces south, away from the bypass, and the front of the building forms part of the Albert Street frontage.

- Buildings and an avenue of mature tree plantings are situated between the former chapel and North Street, and these provide a considerable visual buffer and boundary.

Impact on existing structures

- The bypass would not impact existing structures on this lot.

Impact on relics

- Based on the local level of assessed significance for this item (criteria a, d, f & g), above ground structures which contribute to this significance, and any related archaeological deposits comply with the definition of a relic. No such relics would be directly impacted by the bypass.

Summary

- This item would not be impacted, either directly or indirectly by the bypass.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass relative to this heritage item is required in order to:
  - Minimise land take and property severance.
  - Utilise the North Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Minimise impact to the sporting fields to the east, by locating the bypass on the north of Bundewallah Creek and then crossing the creek west of the fields and turning south to run parallel with the North Street corridor.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this heritage item which would be impacted by the bypass.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on an alignment further to the north and northwest.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise land take and property severance.
  - Utilise the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- This item would not be impacted, either directly or indirectly by the bypass.

I.5 Known or potential archaeological deposits

Recording ID: G2B H14 **Name/*Description*: Archaeological Deposit Former buildings at northern end of Broughton Creek township, Princes Highway, Berry**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

The north Berry interchange would include a south bound off-ramp positioned along the current highway alignment. Construction of the off-ramp would include widening and other works along the existing carriageway. This would encroach upon the G2B H14 archaeological deposit which extends up to the edge of the existing road shoulder on the eastern side. The degree of encroachment would vary and may extend up to five metres from the current shoulder edge.

An associated northbound on-ramp would be constructed on the western side of the existing highway alignment. This ramp would diverge from the current alignment opposite the *Mananga* homestead and descend to a level below the main bypass carriageway bridge. This alignment probably includes the location of the Berry butter factory building and the original (now filled) steep slope to Broughton Mill Creek. The latter may have been a refuse disposal area for the factory. Construction related excavation in this area may impact archaeological deposits which potentially remain beneath the existing road platform and the adjacent slopes.

The intersection of the new off-ramp with the former 1955 highway remnant (G2B H15), would be moved 100 metres further north, allowing the construction of a safer 90 degree angle of approach. This would involve direct impact to a roughly 190 m^2 (12.5 x 15 metres) portion of the G2B H14 archaeological deposit

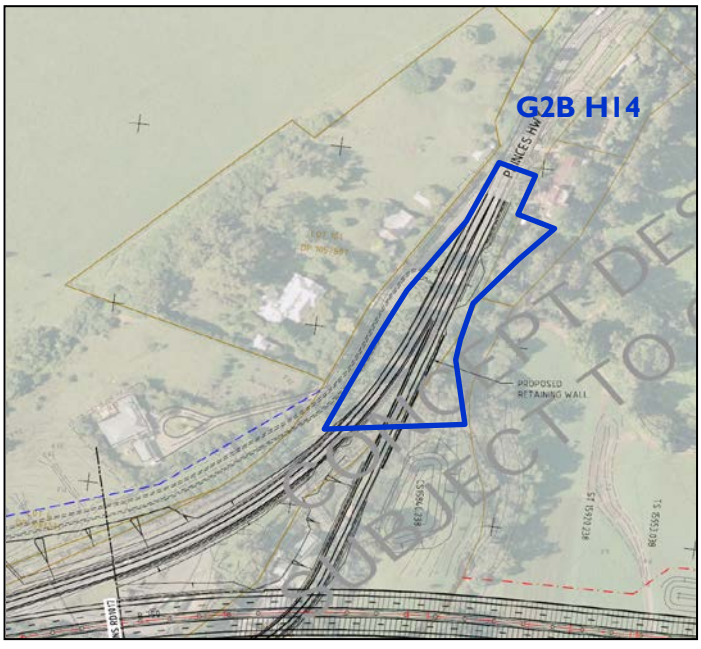


Figure I.26 Location of G2B H14 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, e, f & g.
- It is proposed to conduct a program of archaeological salvage excavation within those portions of the G2B H14 deposit subject to direct impact. The archaeological record generated by this action would address the need to realise the research, interpretation and information potential of the deposit. The resulting record would respect those values and provide a degree of mitigation.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the interchange and associated on and off-ramps would not impact upon the visual and landscape context of the archaeological deposit to any greater degree than has already occurred since the 1955 upgrade. Existing elements which are important to the landscape and visual context of the deposit are the former 1955 highway alignment (and now service road) G2B H15, and the Mananga homestead and grounds (G2B H16). The Mananga homestead and grounds will not be directly impacted. The significant portion of the remnant highway, that section adjacent to the Mananga homestead, will also remain intact.

Impact on existing structures

- This item does not include above ground structures.

Impact on relics

- Based on the local level of assessed significance for this item (criteria a, e, f & g), the sub-surface artefacts and archaeological deposits which comprise this item comply with the definition of a relic.
- The loss of deposit outlined in the first question corresponds to impact to relics.

Summary

- Construction of the bypass would result in direct impact to two known areas of archaeological deposit (a margin adjacent to the existing highway and 190 m^2 under a new access road intersection), and to potentially occurring deposits underlying the existing highway and adjacent slopes.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.

- The location of the bypass and service road across this heritage item is required in order to:
  - Avoid direct impact to the Mananga homestead property.
  - Provide access to private property independent of the bypass carriageway.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Maximise the use of the existing highway easement.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- Construction of the bypass would result in direct impact to two known areas of archaeological deposit (a margin adjacent to the existing highway and 190 m^2 under a new access road intersection), and to potentially occurring deposits underlying the existing highway and adjacent slopes.
- Impact to archaeological deposits is outlined in the answer to the first question.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The only alternative to impacting this recording would be to move the bypass alignment further to the north. This would require either an extensive area of landfill and/or an extensive additional bridge interval. This would also result in additional loss of agricultural land.
- This alternative has been rejected based on the relative significance of the portion of the remnant subject to impact, and the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Avoid use of bridges where a viable alternative exists.
  - Maximise the use of the existing highway alignment and easement.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that prior to development impact, a program of archaeological salvage be conducted within those portions of the deposit subject to direct impact.
- For those sections of the deposit not subject to direct impact, it is recommended that measures be instigated, where and as considered warranted, to protect them from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H48 **Name/*Description*: Potential Archaeological Deposit Site of former Berry Estate Tenant Farm 161 Princes Highway Broughton Village**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Two mature tree plantings mark the approximate location of this former homestead site. Based on an assessment of the tree locations and locally elevated micro-topography, it is estimated that the potential area in which the homestead was located falls outside of, but immediately adjacent to, the proposed bypass and associated easement.

A modern farmhouse has been constructed on the site of the former G2B H48 homestead. In the event that this building needs to be demolished, there could be an associated risk of impacting archaeological deposits related to the earlier occupation of the former homestead, and to the remnant tree plantings.

The bypass would be situated approximately 50 metres to the southeast of this item, and consequently pose a loss of landscape context value.

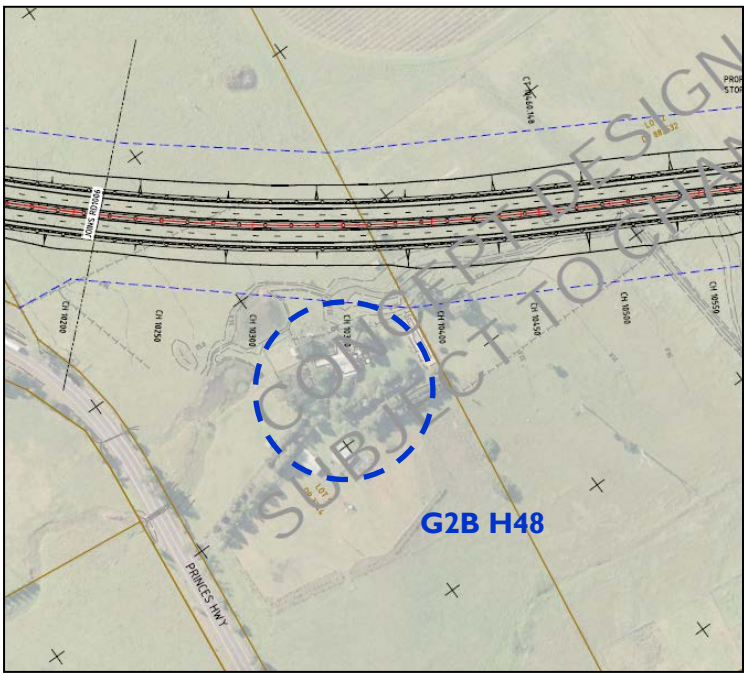


Figure I.27 Location of G2B H48 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criterion e, subject to confirmation through test excavation.
- The construction of the bypass would not directly impact this item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The bypass works would be situated relatively close to this item, coming as close as 50 metres. This would place a visually intrusive landscape element into the current pastoral context of the site. This impact is substantially lessened however by the fact that the site has already been substantially impacted by the construction of a modern farmhouse and its grounds. The significance of this item is based on its potential research value through archaeological investigation. The impact of the bypass on the landscape context of this item would not have a significant impact on this value.

Impact on existing structures

- This item does not include above ground structures. No structures associated with this recording would be impacted by the bypass.

Impact on relics

- Based on the local level of assessed significance for this item (criterion e), the sub-surface artefacts and archaeological deposits which may comprise this item would comply with the definition of a relic.
- It is considered unlikely that construction of the bypass poses a risk to relics given the distance from the former homestead and the lower ground surface of the construction footprint.
- If, due to constraints on re-sale and re-use, demolition of the current farmhouse becomes necessary, then there would be potential for the demolition to impact remnant archaeological deposits, and the remnant tree plantings.

Summary

- Construction of the bypass would result in the minor loss of contextual values, but is unlikely to result in direct impact to the deposit unless demolition of the modern farmhouse is required to satisfy re-sale constraints.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The close proximity of the bypass to this heritage item is required in order to:
  - Minimise disturbance to the ecological values of the Broughton Creek corridor.
  - Minimise the extent of excavation and batter length (and therefore also visual impact) associated with the Toolijooa Ridge cutting.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Will any known or potentially significant archaeological deposits be subject to development impact?

- It is considered unlikely that construction of the bypass poses a risk to potential archaeological deposits given the distance from the former homestead and the lower ground surface of the construction footprint.
- If, due to constraints on re-sale and re-use, demolition of the current farmhouse becomes necessary, then there would be potential for the demolition to impact remnant potential archaeological deposits.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the close proximity of the bypass to this item would be to move the bypass alignment further south. This would involve a new disturbance corridor across the Broughton Creek riparian vegetation/corridor, and potentially greater excavation along the Toolijooa Ridge cutting in order to accommodate horizontal design (curve) requirements. This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise disturbance to the ecological values of the Broughton Creek corridor.
  - Minimise the extent of excavation and batter length (and therefore also visual impact) associated with the Toolijooa Ridge cutting.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that in the event that construction related impacts are to occur at the G2B H48, then an archaeological program of monitoring and/or salvage excavation, as appropriate, be conducted with the aim of recording and recovering any artefacts or other information which relates to the former Berry Estate tenant farm at this location.
- In the event that demolition of the modern farmhouse is required, it is recommended that a program of archaeological monitoring by an archaeologist be conducted with the aim of recording and recovering any artefacts or information which relate to the former Berry Estate tenant farm.
- It is recommended that the remnant tree plantings, which predate the modern farmhouse, be conserved and protected from damage.

Recording ID: G2B H53 **Name/*Description*: Potential Archaeological Deposit Site of former Berry Estate Tenant Farm 403 Princes Highway Broughton Village (Toolijooa Ridge)**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in the loss of the whole of the known extent of the item.

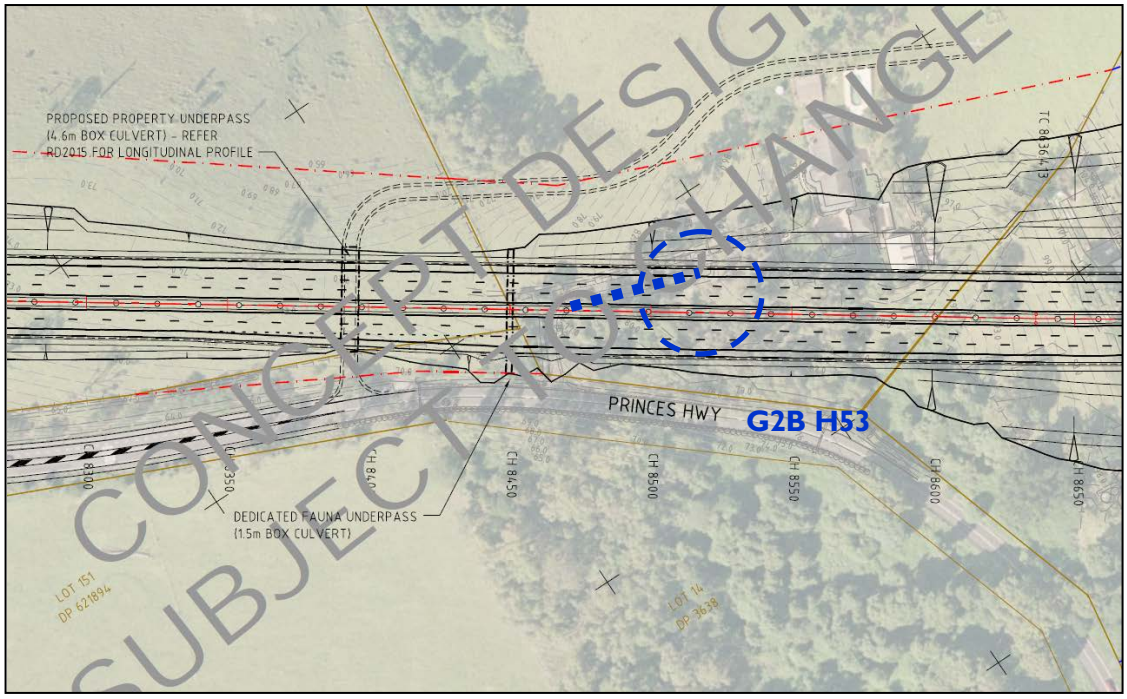


Figure I.28 Location of G2B H53 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criterion e.
- It is proposed to conduct a program of archival recording and archaeological salvage excavation, as appropriate, at G2B H14. The archaeological record generated by this action would address the research, interpretation and information potential of the deposit. The resulting record would respect those values and provide a degree of mitigation.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass would involve the creation of a number of substantial cuttings. These would not only remove the potential archaeological deposit and alignment of stones, but also their immediate landscape setting and visual context.

Impact on existing structures

- This item includes an alignment of stone rubble which may be the eroded or disturbed remnants of a dry stone wall. This feature would be directly impacted by bypass construction.

Impact on relics

- Based on the local level of assessed significance for this item (criterion e), the sub-surface artefacts and archaeological deposits which may potentially be present at this site would comply with the definition of a relic.
- All relics which constitute this item would be directly impacted.

Summary

- Construction of the bypass would result in the complete loss of the potential archaeological deposit and alignment of rock rubble which constitute this item.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Allow the retention of the existing highway as a service road.
  - Take advantage of the elevated topography of the spurline to construct the most effective vertical and horizontal carriageway alignment on the eastern fall of the Toolijooa Ridge.
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- All potential archaeological deposits occurring at this site would be subject to direct impact.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment either to the north or south, which avoids direct impact to the heritage item. Both alternatives would require construction of major artificial embankments. A northern alternative would prevent the use of the existing highway as a service road. A southern alternative would require a much deeper and larger cutting through the upper portion of Toolijooa Ridge.

- These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maintain the most effective vertical and horizontal carriageway alignment up to, and from, the planned Toolijooa cutting.
  - Maintain horizontal and vertical design standards.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that prior to development impact, a program of archival recording and archaeological salvage excavation be conducted at this site, as appropriate, and as required by the nature and significance of the relics encountered.

Recording ID: G2B H59 **Name/*Description*: Archaeological Deposit and Remnant Plantings Site of homestead on former Portion 181, Broughton Village**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

This site would not be subject to direct impact from the bypass. The bypass would be situated over 100 metres to the west.

The bypass would be clearly visible from the site, given its lower elevation and the surrounding pasture. The bypass would have an indirect impact on the heritage values of the wider landscape context of the site.

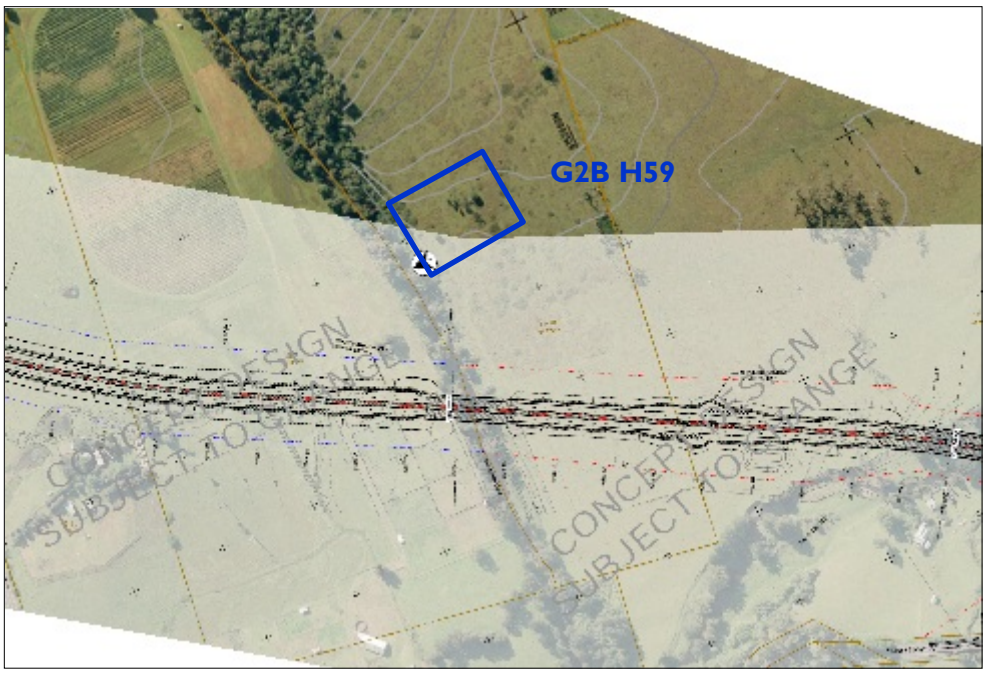


Figure I.29 Location of G2B H59 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria a, b, e, f & g.
- The construction of the bypass would not directly impact this item.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The bypass works would be situated in relative proximity to this item. This would impose a modern and intrusive element into the wider pastoral and largely nineteenth century landscape context of the site.

Impact on existing structures

- No structures associated with this recording would be impacted by the bypass.

Impact on relics

- Based on the local level of assessed significance for this item (criteria a, b, e, f & g), the above and below ground artefacts and archaeological deposits which comprise this item would comply with the definition of a relic. No relics would be directly impacted by the bypass.

Summary

- Construction of the bypass would pose an indirect impact to the heritage values of the wider landscape context of the site.

Why is the bypass required to traverse through/near the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The relative proximity of the bypass to this heritage item is required in order to:
  - Minimise direct impact to the Brookside homestead group and avoid direct impact to the Sedgeford homestead and grounds.
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- No known or potential archaeological deposits associated with this item would be subject to development impact.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternatives to the relative proximity of the bypass to this item would be to move the bypass alignment further to the west. This would require major, if not full direct impact to the Brookside (G2B H28) and Sedgeford (G2B H25) homesteads. This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise direct impact to the Brookside homestead group and avoid direct impact to the Sedgeford homestead and grounds.
  - Maintain horizontal and vertical design standards.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that where there are anticipated indirect impacts to the visual and landscape contextual values of heritage item(s), the design, construction and finishing of the bypass in the vicinity of the item(s) would be realised with the aim of minimising the visual impact caused by the road and its infrastructure. Possible means of achieving this aim include: minimising the height of the road platform and associated fencing or noise barriers; and careful selection of appropriate road side plantings and landscaping.
- Where there is no anticipated direct construction impact to heritage items, it is recommended that measures be instigated, where and as considered warranted, to protect these structures from accidental or incidental impact during construction, or other form of RMS use.

I.6 Miscellaneous sites

Recording ID: G2B H61 **Name/*Description*: Quarried rock outcrop**
A350 Princes Highway
Broughton

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would result in the loss of the whole of the known extent of the item. Although the footprint of the bypass carriageway is situated immediately adjacent to this site, it's location on a drainage line which would be directly impacted by culvert works means that full direct impact is most likely.

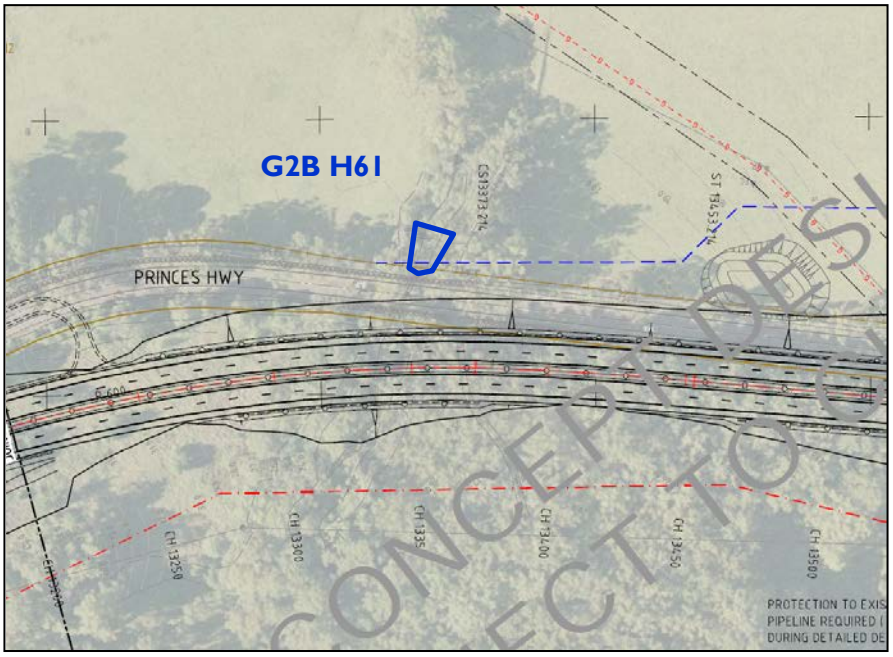


Figure I.30 Location of G2B H61 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criterion g.
- It is proposed to conduct an archival recording of this item prior to construction impact. The archaeological record generated by this action would address the research potential and representative value of the site. The resulting record would respect those values and provide a degree of mitigation.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass and any associated culvert works would result in both the loss of the site, and its immediate landscape setting and visual context.

Impact on existing structures

- This item does not include above ground structures.

Impact on relics

- Given that the definition of a 'relic' (s.4 Heritage Act 1977), is interpreted by the NSW Heritage Branch to exclude 'works' (refer Section 8.1.5 of this report), the 'relic' status of this quarried rock face is difficult to determine.
- Apart from the quarry and stone extraction marks, there are no other components of this item which may constitute a relic subject to impact.

Summary

- Construction of the bypass would result in the complete loss of the heritage item, and its context.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Maximise the use of the existing highway alignment.
  - Maintain horizontal and vertical design standards
  - Minimise land take and property severance.
  - Minimise impact to native vegetation.

Will any known or potentially significant archaeological deposits be subject to development impact?

- All potential archaeological deposits occurring at this site would be subject to direct impact.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment which avoids direct impact to the heritage item. A more northern alignment would impact native vegetation, both northern and southern alignments would have property severance implications.
- These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maximise the use of the existing highway alignment.
  - Minimise impact to native vegetation.
  - Maintain horizontal and vertical design standards.
  - Minimise land take and property severance.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed that prior to development impact, an archival recording of the site be conducted.

Recording ID: G2B H62 **Name/*Description*: Avenue of Mature Poplar Trees, Woodhill Mountain Rd, Berry**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would not involve direct impact to the remaining six poplar trees in this avenue, (which originally included nine trees). The bypass would be constructed in close proximity to the northern most tree, at right angles to the alignment.

A younger and more densely planted avenue of poplar trees, extends to the north of the northern most recorded tree in the G2B H62 avenue. Some of these trees would be directly impacted by the project. This younger avenue does not form part of the G2B H62 recording.

Figure I.31 Location of G2B H62 relative to proposed bypass works (dead or removed trees are shown by a dashed circle).

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This tree avenue has an assessed local level of significance under criterion c.
- The bypass avoids impact to this avenue
- It is proposed to temporarily fence the northern most tree for the duration of construction works in order to protect the root zone and prevent accidental impacts.
- Any post construction planting of the bypass easement in the area of the tree avenue (Woodhill Mountain Road) would aim to reinforce and replicate the existing landscape character created by the planted avenues of poplar trees.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass would interrupt the intended visual structure and rhythm of the tree avenue, which parallels Woodhill Mountain Road. The visual impact of the avenue is currently reinforced by younger plantings of poplar trees which are situated on both sides of Woodhill Mountain Road and extend to the north of the original avenue. These younger poplars are not included in the Shoalhaven LEP heritage listing upon which the G2B H62 recording is based. The bypass would directly impact an avenue interval of approximately 50 metres (approximately twelve trees along the eastern road side). This, together with the construction of the bridge at right angle to the avenue would pose a substantial visual interruption to the lengthwise appreciation of the whole avenue.
- The current effectiveness of the whole avenue (inclusive of unlisted trees) is lessened by:
  - The truncation of most of the trees on the west side of road to allow for overhead powerline clearance.
  - Gaps in the avenue and variable planting intervals.
  - Varying tree heights due to multiple stages of planting.

Impact on existing structures

- There are no existing structures related to this heritage item.

Impact on relics

- Based on the local level of assessed significance for this item (criterion c), the trees which comprise this item would comply with the definition of a relic. None of the trees in the G2B H62 recording will be directly impacted.

Summary

- Construction of the bypass would not directly impact upon the G2B H62 tree avenue, however there would be impacts to the visual context of the avenue and to the appreciation of the avenue.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.

- The location of the bypass in close proximity to this heritage item is required in order to:
  - Minimise property severance and loss of agricultural land.
  - Minimise visual and noise impacts as identified by Berry Community focus groups
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Minimise impact to the sports fields on the south side of Bundewallah Creek.
  - Maximise the use of the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Maintain horizontal and vertical design standards.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this item.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass further north of the avenue. This however would involve greater loss of agricultural land due to field severance.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Minimise property severance and loss of agricultural land.
  - Provide elevation for the bridge crossing of Broughton Mill Creek and Woodhill Mountain Road.
  - Minimise impact to the sports fields on the south side of Bundewallah Creek.
  - Maximise the use of the north Street corridor (which is based on a balanced appreciation of town related economic, community and social factors).
  - Maintain horizontal and vertical design standards.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to temporarily fence the northern most tree for the duration of construction works in order to protect the root zone and prevent accidental impacts.
- Any post construction planting of the bypass easement in the area of the tree avenue (Woodhill Mountain Road) would aim to reinforce and replicate the existing landscape character created by the planted avenues of poplar trees.

Recording ID: G2B H63 **Name/*Description*:** ***Mark Radium Park***
Victoria Street, Berry

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of a southbound on-ramp for the southern Berry interchange would require the loss of a narrow margin of land from the western boundary of the park, adjacent to the current Princes highway. This margin may be as wide as 25 to 30 metres at its southern end, and narrower at its northern end.

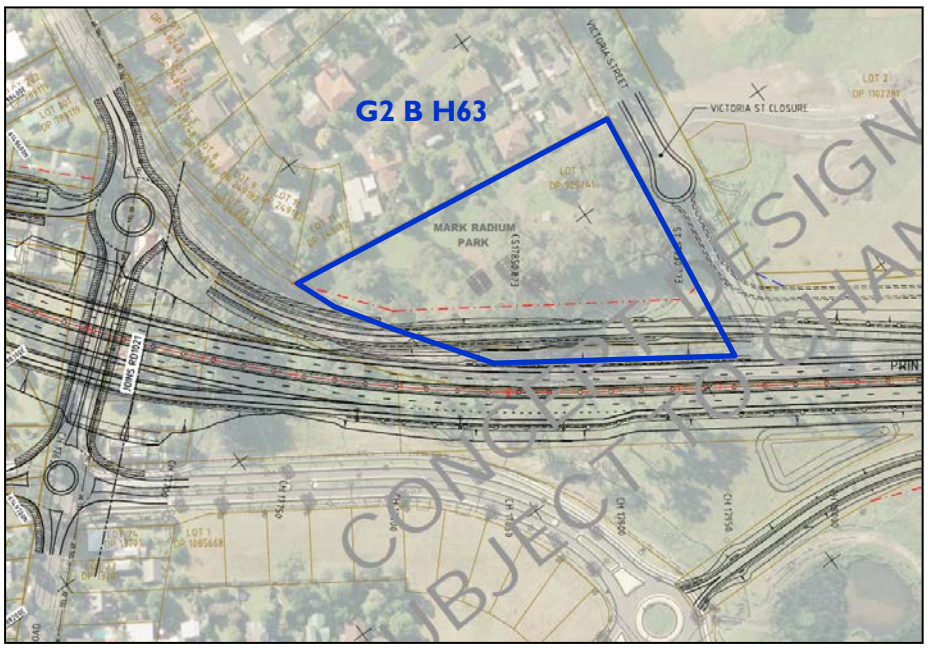


Figure I.32 Location of G2B H63 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This Mark Radium park has an assessed local level of significance under criteria b & c.
- The bypass minimises impact to the park by re-using as much of the original highway carriageway as possible.
- The change in use of the existing highway from main single carriageway to an on-ramp, means that this bordering roadway will undergo a reduction in vehicle traffic with possible positive results for the public amenity and safety of the park.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The bypass development will reduce the width of the park and create a wider corridor of carriageways and ramps along its western boundary.

Impact on existing structures

- The bypass may impact the western abutment of a low wall which impounds an ornamental pond located in the southwestern portion of the park.

Impact on relics

- Based on the local level of assessed significance for this item (criteria b & c), those components of the park which constitute the significant fabric of the item would comply with the definition of a relic. It is debatable if any of the specific park items to be impacted by the bypass - a number of trees, other plantings, footpaths and potentially the ornamental pool wall, could be considered the significant fabric of the park.

Summary

- Construction of the bypass would result in the loss of a margin of land along the western park boundary, and visual impact associated with a wider highway corridor.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Fulfil the requirements of the proposed southern interchange for Berry.
  - Minimise impacts to urban lots.
  - Maintain horizontal and vertical design standards relative to crossing Kangaroo Valley Road within the most effective and least impactive road interval.
  - Maximise the use of the existing highway alignment.

Will any known or potentially significant archaeological deposits be subject to development impact?

- There are no known or potential archaeological deposits associated with this item.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The only alternative would be to move the main carriageway further to the west. This would have a substantial impact to the Huntingdale Park Estate.
- This alternative has been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Fulfil the requirements of the proposed southern interchange for Berry.
  - Minimise impacts to urban lots.
  - Maintain horizontal and vertical design standards relative to crossing Kangaroo Valley Road within the most effective and least impactive road interval.
  - Maximise the use of the existing highway alignment.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to minimise construction impact to Mark Radium Park wherever feasible.
- Where there is no anticipated direct impact to Park components, it is recommended that measures be instigated, where and as considered warranted, to protect these components from accidental or incidental impact during construction, or other form of RMS use.

Recording ID: G2B H54 **Name/*Description*: Dry Stone Wall, Toolijooa Ridge**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

Construction of the bypass would probably result in direct impact to at least the southern end of the wall, and possibly a greater portion, depending on the batter and stepping requirements of the northern face of the cutting through Toolijooa Ridge.

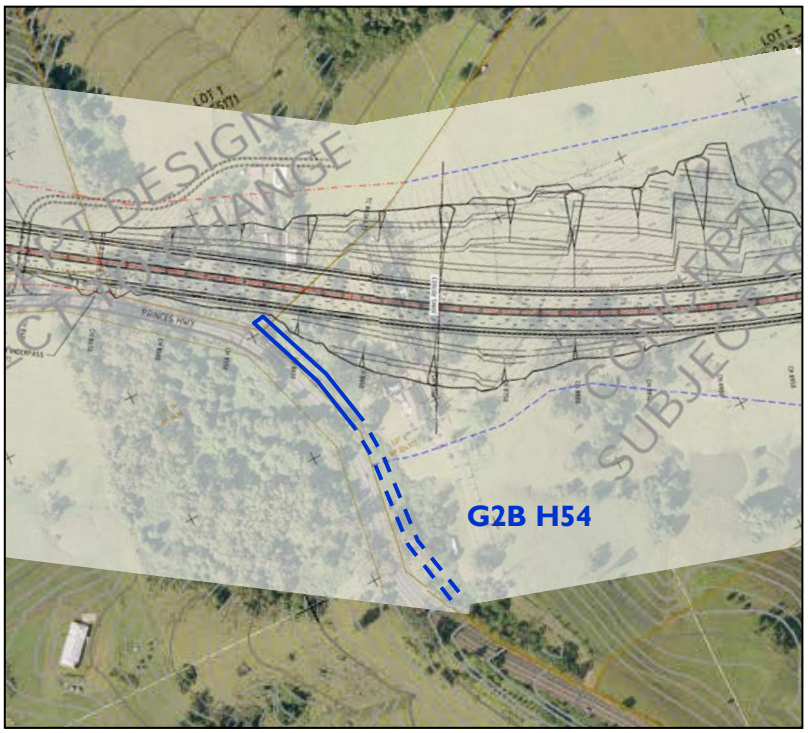


Figure I.33 Location of G2B H54 relative to proposed bypass works.

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under criteria c, f & g.
- It is proposed to avoid direct impact to the wall wherever feasible, and to actively conserve and manage the feature.
- It is proposed to conduct an archival recording of the wall prior to any construction impact. The archaeological record generated by this action would address the research potential and representative values of the site. The record would respect those values and provide a degree of mitigation.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- Construction of the bypass would involve the creation of a large, deep and visually imposing cutting immediately adjacent to the wall. Despite this, the immediate landscape context of the wall would be retained, due to the retention of the existing highway carriageway as a local access and service road. The wall is situated

upslope of this carriageway and probably served as a boundary wall for the original road easement.

Impact on existing structures

- Construction of the bypass would probably result in direct impact to at least the southern end of the wall, and possibly a greater portion, depending on the batter and stepping requirements of the northern face of the cutting through Toolijooa Ridge.

Impact on relics

- Based on the local level of assessed significance for this item (criteria c, f & g), the above and below ground elements of the wall, together with any sub-surface artefacts and archaeological deposits would comply with the definition of a relic.
- Those elements of this site that may be subject to direct impact (a portion of the wall at its southern end, and potentially any archaeological remains within the fill on the upslope side of the wall), would all constitute relics.

Summary

- Construction of the bypass would probably result in direct impact to at least the southern end of the wall, and possibly a greater portion. Despite this, the majority of the immediate context of the wall would probably be retained as part of the continuing function of the current highway as a service road.

Why is the bypass required to traverse through the identified heritage item?

- The project design has been determined following the consideration of multiple environmental, social, economic, design and engineering factors. Many of the constraints and opportunities posed by these factors present conflicting values and objectives. In these cases, project design has been drafted following a comparative assessment of the impacts and relative values. With regard to cultural heritage values, the project alignment was formulated with the following objectives:
  - Avoid impact to cultural heritage values where feasible or where significance values warrant compromise in other factors.
  - Minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - All anticipated impacts can be mitigated to a substantial degree through the conduct of management and salvage actions.
- The location of the bypass across this heritage item is required in order to:
  - Allow the retention of the existing highway as a service road.
  - Take advantage of the elevated topography of the adjacent spurline to construct the most effective vertical and horizontal carriageway alignment on the eastern fall of the Toolijooa Ridge.

Will any known or potentially significant archaeological deposits be subject to development impact?

- The upslope fill behind the wall may include archaeological material, and would be impacted if and where the wall itself was directly impacted.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- The alternative would be to construct the bypass on a different alignment either to the north or south. Both alternatives would require construction of major artificial embankments downslope of the wall. A northern alternative would prevent the use of the existing highway as a service road. A southern alternative would require a much deeper and larger cutting through the upper portion of Toolijooa Ridge.
- These alternatives have been rejected based on the poor balance of outcomes which would result relative to the objectives to:
  - Avoid or minimise impact to cultural heritage values where feasible and where warranted by significance values.
  - Maintain the most effective vertical and horizontal carriageway alignment up to, and from, the planned Toolijooa cutting.
  - Allow the retention of the existing highway as a service road.
  - Maintain horizontal and vertical design standards.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to avoid direct impact to the wall wherever feasible, and to actively conserve and manage the feature.
- It is proposed to conduct an archival recording of the wall prior to any construction impact.
- Any rock material displaced from the wall as a result of construction works, should be retained for use in the repair and conservation management of the original wall.

I.7 Cultural landscapes

Recording ID: SICPH CL **Name/*Description*: Southern Illawarra Coastal Plain and Hinterland**

Statement of heritage impact

What is the nature and extent of anticipated development Impact?

- The bypass would impose a modern structural component onto the landscape. The formal traits of the bypass would contrast with those of the existing landscape:
  - The horizontal alignment of the bypass would be curvilinear within the constraints of standardised and even radius curves. This would contrast with most of the existing broad scale man made landscape features which are based on grids, right angles, or straight intervals joined by relatively tight curves.
  - The vertical alignment of the bypass would be gradual and incremental, and would include ramps, embankments and cuttings to maintain standard rates of climb or descent. This is in contract to most of the existing broad scale man made landscape features which are more reflective of natural gradients and elevations.
  - The width of the bypass corridor (including the carriageways, ramps and associated easement) would vary from around 100 metres to up to 200 metres. This is in major contrast to existing man made corridors which are nearly all less than 50 metres in width.
  - Unlike the alignment of existing roads which, through their curves, and opportunistic alignments, manifest the natural topography they are traversing, the bypass alignment would create its own topography of cuttings and embankments as required by limited tolerances in vertical and horizontal alignment. As a consequence the bypass may run contrary to the natural flow of ridges, valley orientation, and slope contours.
- Whereas the overwhelming character of property boundaries, field delineation, artificial lowland drainage, and secondary and minor roads is one of a grid and rectangular divisions, the bypass would superimpose this patchwork with a visually dominant and curvilinear corridor, following its own independent directional agenda.
- In the general proximity of Berry, the bypass would:
  - Impact upon the short and mid-distance view-sheds from the town streetscapes.
  - Impose a contrasting and modern road form relative to those parts of the town structured on a grid pattern.
  - Impact upon some remnant pastoral open space situated along the northern margin of the town grid. This margin provides a visually appealing contrast between the urban and rural and contributes towards a general pastoral character for the town.

Visual Boundary of the BTUCA, also boundary of the *Berry District Landscape Conservation Area* and approximate boundary of SICPH CL

Buffer zone of the BTUCA

Sub-division Boundary of the BTUCA

FBB bypass

Figure I.34 Location of proposed bypass works relative to the SICPH CL. (After Figure 13 in Clarke and Duyker 2010; and The boundary of the Berry – Bolong Pastoral Landscapes (Shoalhaven Heritage Inventory) (base image: Google Earth Pro 2009)

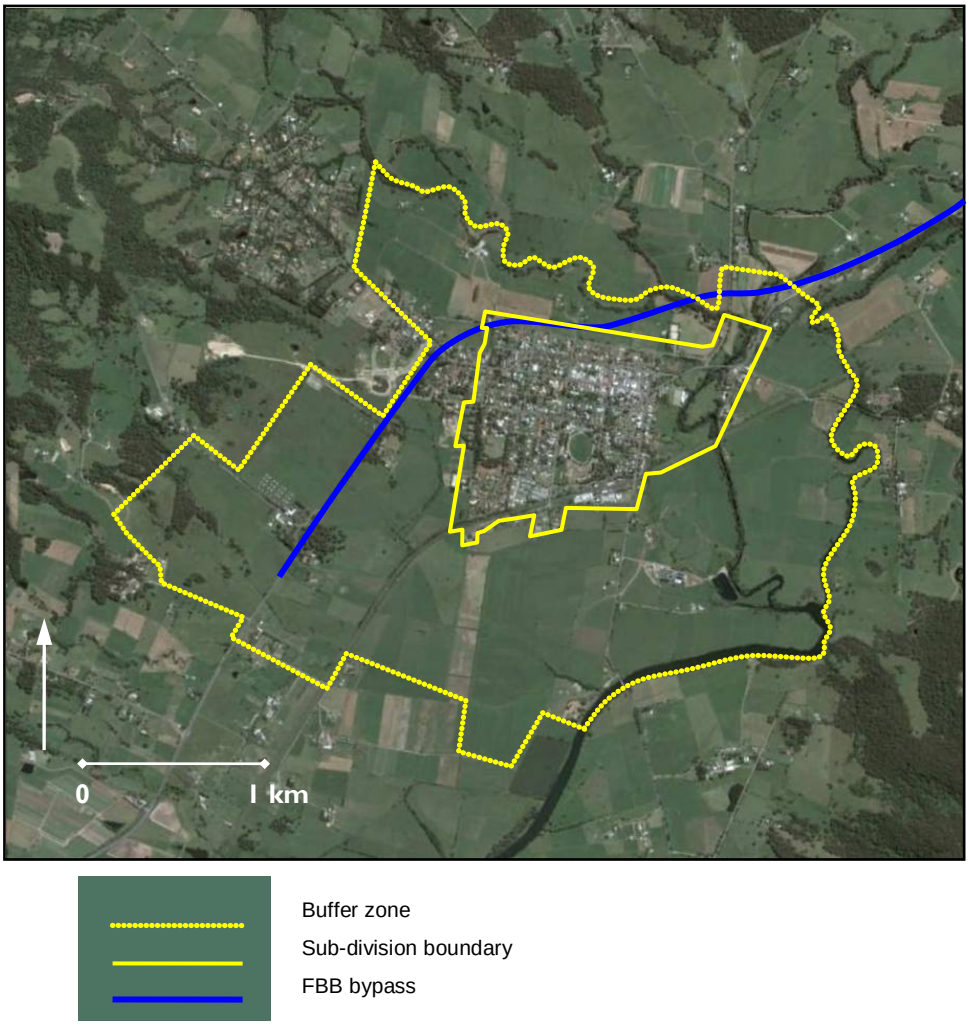


Figure I.35 Location of proposed bypass works relative to the Buffer Zone and Subdivision Boundary of the National Trust defined Berry Township Urban Conservation Area (After Figure 13 in Clarke and Duyker 2010) (Google Earth Pro 2006).

The following aspects of the proposal respect or enhance the heritage significance of the item for the following reasons:

- This item has an assessed local level of significance under all criteria: a, b, c, d, e, f & g.
- Apart from substantial deviations across the Broughton Creek valley and around Berry, the bypass would generally follow the original corridor of the first European road constructed for vehicles between Berry and Gerringong – the 1856 Berry Estate Road. This provides a degree of historical and functional continuity to the bypass. It would remain a modern manifestation of an original mid nineteenth century access and transport corridor.
- The construction of the Berry bypass would avoid the need to widen and transform one of the town grid streets to accommodate the highway traffic. If the latter option was adopted it would irrevocably change the amenity and heritage character of the town, and require the full or partial demolition of many properties with heritage value.
- It is proposed to minimise and ameliorate adverse visual impacts of the bypass, through careful design of the bypass corridor and its infrastructure, minimising cuttings, embankments and carriageway elevation where feasible, and the establishment of vegetation.

- The visual impact of the bypass, from the south, would be mitigated by the construction of a landscaped barrier on the southern and eastern side of the bypass adjacent to Berry. This would provide a visual barrier that was consistent with the rural setting, and would obscure the main carriageway and its traffic from south side viewers. The upper portion of the existing escarpment vista would be unaffected for viewers positioned further away from the barrier.

The following aspects of the proposal would detrimentally impact on heritage significance:

Visual impact

- The bypass would impose a visually obtrusive and modern contrasting structural feature across a largely nineteenth century and rectilinear landscape character.
- The soil noise barrier that would be constructed on the southern side of the bypass near Berry would foreshorten views across the valley floor to the north and west.

Impact on existing structures

- A very limited number of structures would be impacted by the bypass. Only one of these, GlenDevan (G2B H11) contributes to the overall visual and heritage character of the landscape and would be subject to full direct impact (demolition).

Impact on relics

- The identification of relics sits uncomfortably with the scale of cultural landscapes. Due to the constraints inherent in its statutory definition and interpretation the identification of relics remains most effective at the smaller scale of sites, structures, objects and deposits. Refer to the individual impact statements for each item for the assessment of relics.

Summary

- The bypass would impose a visually obtrusive and modern contrasting structural feature across a largely nineteenth century and rectilinear landscape character.
- As a consequence of the visual barrier function of the noise barrier that would be constructed adjacent to Berry, views across the valley floor towards the north and west would be foreshortened.

Why is the bypass required to traverse through the identified heritage item?

- The bypass is required to upgrade the safety, functionality and efficiency of the Princes Highway between two key population and economic nodes within the region.

Will any known or potentially significant archaeological deposits be subject to development impact?

- The following items consist of, or include, known or potential archaeological deposits which would be subject to direct impact from bypass construction: G2B H14, 28, 48, 53, and 54.

What alternatives to the anticipated development impact have been considered? Why are they rejected?

- There are no feasible alternatives to the upgrading of the Princes Highway in such a way that its form and visual impact would not pose a significant impact to the heritage values of the cultural landscape it traverses.
- Amongst a number of alternative upgrade alignments previously considered at a route selection assessment stage of the program, one included the construction of a tunnel through the Toolijooa Ridge (Maunsell Australia 2008). This alternative would have substantially reduced the visual and landscape impact of the bypass but was rejected given the poor balance between cost and other determining factors.

Has the advice of a heritage specialist been sought? Has the consultant's advice been implemented/adopted?

- This assessment constitutes the advice sought and accepted from a heritage specialist (Navin Officer Heritage Consultants Pty Ltd), to the proponent (RMS).
- The advice of the consultant is incorporated as the recommended management strategies in this report.

How is it proposed that development impact be avoided, minimised or mitigated?

- It is proposed to minimise and ameliorate adverse visual impacts where feasible through the appropriate design, construction and finishing of the FBB easements, embankments and cutting faces, and the re-establishment of vegetation.
- The establishment of appropriate forms of vegetation along the bypass easement and adjacent areas would be an important strategy in mitigating the broad scale landscape and visual impacts of the bypass corridor. This would be conducted with an awareness of maintaining important vistas from the road corridor, and the use of vegetation boundaries and alignments which conform to the rectangular patchwork of the surrounding landscape and serve to breakup or scatter the dominant curvilinear of the bypass corridor.
- Where there is an opportunity to incorporate artistic elements in structures adjacent to the carriageway, (such as bridgework, tunnel portals, and retaining and noise abatement walls), it is proposed that designs derived from local cultural heritage themes be considered, especially at locations in close association to places of significance.
- The design, construction and finishing of the bypass in the general vicinity of the Berry Township would be realised with the aim of minimising visual obstruction to views from the streetscape across the surrounding pastoral landscape to the Illawarra Range.
- The visual impact of the bypass, from the south, would be mitigated by the construction of a landscaped barrier on the southern and eastern side of the bypass adjacent to Berry. This would provide a visual barrier that was consistent with the rural setting, and would obscure the main carriageway and its traffic from south side viewers. The upper portion of the existing escarpment vista would be unaffected for viewers positioned further away from the barrier.