


# BELMONT HERITAGE REPORT (INDIVIDUAL CITATIONS)

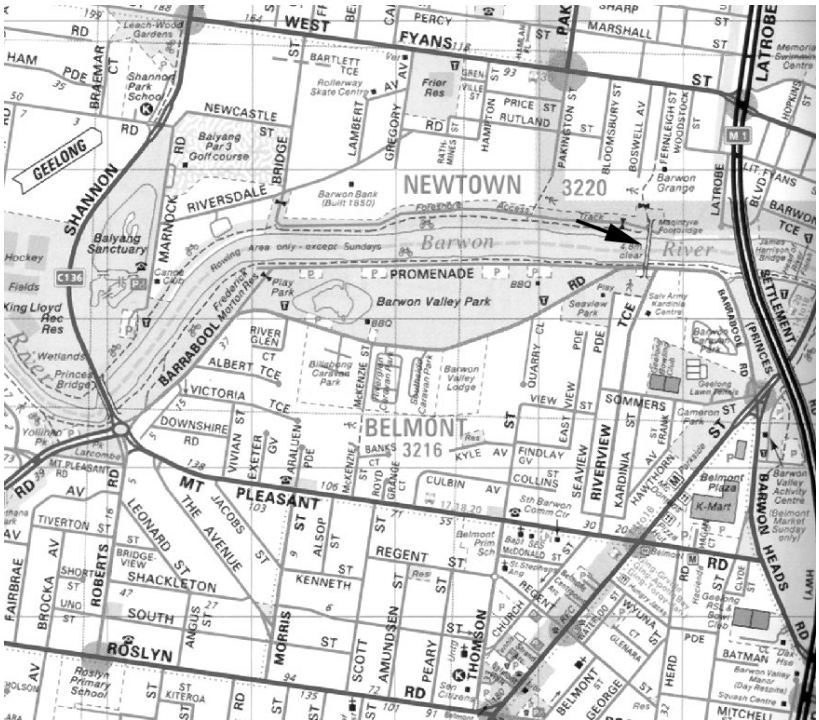
## (FORMERLY PART OF THE GREATER GEELONG OUTER AREAS HERITAGE STUDY STAGE 2)

<p><b>Existing Use/Type</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center;">Structure</div> <p><b>Survey Date</b> 16/04/1998</p> <p><b>Cons Man Plan</b> High Priority</p> <p><b>Recorded By</b> David Rowe</p>	<p><b>Key Dates</b></p> <p>Original 1968</p> <p>Major Changes</p>	<p><b>Site Address</b></p> <p>No. <span style="border: 1px solid black; display: inline-block; width: 50px; height: 20px;"></span> Street/Site Name Over Barwon River</p> <p>Town/Suburb Belmont Postcode 3216</p> <p><b>Current Site Name</b> Macintyre Foot Bridge</p>	<b>A D M I N I S T R A T I V E  S H E E T</b>												
<p><b>Precinct Name</b> Kardinia</p>															
															
<p><b>Heritage Status</b></p> <p><b>Register of the National Estate</b></p> <p>Database No. <span style="border: 1px solid black; display: inline-block; width: 80px; height: 20px;"></span> File No. <span style="border: 1px solid black; display: inline-block; width: 80px; height: 20px;"></span></p> <p><b>Victorian Heritage Register</b></p> <p><span style="border: 1px solid black; display: inline-block; width: 150px; height: 20px;"></span></p> <p><b>Planning Scheme:</b></p> <p>C.G.G. <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></p> <p><b>Heritage Inventory (Archaeological)</b></p> <p><span style="border: 1px solid black; display: inline-block; width: 150px; height: 20px;"></span></p> <p><b>National Trust Register:</b></p> <p><span style="border: 1px solid black; display: inline-block; width: 50px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></p> <p><b>Other:</b></p> <p><span style="border: 1px solid black; display: inline-block; width: 200px; height: 30px;"></span></p> <p><b>Recommended Heritage Listings</b></p> <p> <input type="checkbox"/> Victorian Heritage Register  <input type="checkbox"/> Victorian Heritage Inventory  <input checked="" type="checkbox"/> Register of the National Estate  <input checked="" type="checkbox"/> HO City of Greater Geelong         </p>	<p><b>Heritage Study Degrees of Significance</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">A H C Assessment Criteria</th> <th style="width: 40%;">Significance Level</th> </tr> </thead> <tbody> <tr> <td>Aesthetic value <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> <td><span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> </tr> <tr> <td>Historic value A.4 <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> <td>Regional <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> </tr> <tr> <td>Scientific value F.1 <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> <td>Regional <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> </tr> <tr> <td>Social value <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> <td><span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span></td> </tr> <tr> <td><b>Overall Significance Level</b></td> <td><b>Regional</b></td> </tr> </tbody> </table>			A H C Assessment Criteria	Significance Level	Aesthetic value <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	<span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Historic value A.4 <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Regional <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Scientific value F.1 <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Regional <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Social value <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	<span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	<b>Overall Significance Level</b>	<b>Regional</b>
A H C Assessment Criteria	Significance Level														
Aesthetic value <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	<span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>														
Historic value A.4 <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Regional <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>														
Scientific value F.1 <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	Regional <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>														
Social value <span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>	<span style="border: 1px solid black; display: inline-block; width: 100px; height: 20px;"></span>														
<b>Overall Significance Level</b>	<b>Regional</b>														
<p><b>Condition of the fabric</b></p> <p> <input type="checkbox"/> Excellent  <input checked="" type="checkbox"/> Good  <input type="checkbox"/> Fair  <input type="checkbox"/> Poor  <input type="checkbox"/> Ruinous  <input type="checkbox"/> Unexposed         </p>		<p><b>Integrity of the site</b></p> <p> <input checked="" type="checkbox"/> Excellent  <input type="checkbox"/> Good  <input type="checkbox"/> Fair  <input type="checkbox"/> Poor  <input type="checkbox"/> Partially excavated  <input type="checkbox"/> Fully excavated         </p>		<b>P A G E  1 o f  4</b>											

# BELMONT HERITAGE REPORT (INDIVIDUAL CITATIONS)

## (FORMERLY PART OF THE GREATER GEELONG OUTER AREAS HERITAGE STUDY STAGE 2)

TECHNICAL SHEET

<p>Precinct Name <span style="border: 1px solid black; padding: 2px 20px;">Kardinia</span></p> <p><b>Site Plan/Location Sketch (not to scale)</b></p> 	<p style="text-align: center;"><b>Site Address</b></p> <p>No. <span style="border: 1px solid black; padding: 2px 20px;"></span> Street/Site Name <span style="border: 1px solid black; padding: 2px 20px;">Over Barwon River</span></p> <p>Town/Suburb <span style="border: 1px solid black; padding: 2px 20px;">Belmont</span> Postcode <span style="border: 1px solid black; padding: 2px 20px;">3216</span></p> <p>Site Name <span style="border: 1px solid black; padding: 2px 20px;">Macintyre Foot Bridge</span></p> <p style="text-align: center;"><b>Australian Map Grid Co-ordinates</b></p> <p>E 267470km N 5772425km</p> <p>Map <span style="border: 1px solid black; padding: 2px 20px;">Melway map 227</span></p> <p>Scale <span style="border: 1px solid black; padding: 2px 20px;">1:20,000</span></p> <p>Ownership <span style="border: 1px solid black; padding: 2px 20px;"></span></p> <p style="text-align: center;"><b>Cadastral Location</b></p> <p>County <span style="border: 1px solid black; padding: 2px 20px;"></span></p> <p>Parish <span style="border: 1px solid black; padding: 2px 20px;">Barrabool</span></p> <p>Allotment <span style="border: 1px solid black; padding: 2px 20px;"></span></p> <p>Block <span style="border: 1px solid black; padding: 2px 20px;"></span></p>
--	--

### Types of Sites

- |                                       |                                       |   |                                     |                                  |                                    |   |
|---------------------------------------|---------------------------------------|---|-------------------------------------|----------------------------------|------------------------------------|---|
| <input type="checkbox"/> monument     | <input type="checkbox"/> recreational | <input type="checkbox"/> residential    | <input type="checkbox"/> aviation   | <input type="checkbox"/> gate    | <input type="checkbox"/> landscape | <input type="checkbox"/> building                 |
| <input type="checkbox"/> industrial   | <input type="checkbox"/> public       | <input type="checkbox"/> infrastructure | <input type="checkbox"/> relic/ruin | <input type="checkbox"/> tree(s) | <input type="checkbox"/> religious | <input type="checkbox"/> educational              |
| <input type="checkbox"/> agricultural | <input type="checkbox"/> commercial   | <input type="checkbox"/> maritime       | <input type="checkbox"/> fence      | <input type="checkbox"/> garden  | <input type="checkbox"/> machinery | <input checked="" type="checkbox"/> miscellaneous |

### Historical Themes

Heritage Study Theme	AHC Theme No.	Heritage Study Theme	AHC Theme No.
Early settlement	<span style="border: 1px solid black; padding: 2px 20px;"></span>	Industry	<span style="border: 1px solid black; padding: 2px 20px;"></span>
Maritime	<span style="border: 1px solid black; padding: 2px 20px;"></span>	Community Life	<span style="border: 1px solid black; padding: 2px 20px;">clRecreation</span> <span style="border: 1px solid black; padding: 2px 20px;">3.7</span>
Tourism	<span style="border: 1px solid black; padding: 2px 20px;"></span>	Urbanization	<span style="border: 1px solid black; padding: 2px 20px;"></span>
Transport	<span style="border: 1px solid black; padding: 2px 20px;"></span>	Landscapes	<span style="border: 1px solid black; padding: 2px 20px;"></span>
Townships	<span style="border: 1px solid black; padding: 2px 20px;">tpsInfrastructure</span>	Miscellaneous	<span style="border: 1px solid black; padding: 2px 20px;"></span>

### Significant Architectural Features

- ☐ Original Materials
- ☐ Original Chimneys
- ☐ Wall Decoration
- ☐ Verandah Structure
- ☐ Verandah Decoration
- ☐ Original Parapet
- ☐ Other Prominent Elevations
- ☐ Appropriate Fence
- ☐ Early Garden

Roof	<span style="border: 1px solid black; padding: 2px 20px;"></span>
Openings	<span style="border: 1px solid black; padding: 2px 20px;"></span>
Decoration	<span style="border: 1px solid black; padding: 2px 20px;"></span>
Finish	<span style="border: 1px solid black; padding: 2px 20px;">Unpainted</span>
Stylistic Character	<span style="border: 1px solid black; padding: 2px 20px;">Concrete suspension bridge</span>

### Present Threats

- ☐ Human; mining
- ☐ Human; visitor erosion
- ☐ Human; vandalism
- ☐ Human; development
- ☐ Human; conservation/maintenance
- ☐ Human; stock
- ☒ Natural Forces; erosion
- ☐ Natural Forces; vegetation
- ☐ Not threatened

PAGE 2 of 4

**BELMONT HERITAGE REPORT (INDIVIDUAL CITATIONS)**  
**(FORMERLY PART OF THE GREATER GEELONG OUTER AREAS HERITAGE STUDY STAGE 2)**

<b>Site Address</b>	<b>No.</b>	<b>Street/Site Name</b>	<b>Town/Suburb</b>	<b>Postcode</b>	<b>C O N T E X T U A L  S H E E T</b>
	<input type="text"/>	<input type="text" value="Over Barwon River"/>	<input type="text" value="Belmont"/>	<input type="text" value="3216"/>	
			<b>Site Name</b> <input type="text" value="Macintyre Foot Bridge"/>		
<b>Description</b>					
<p>This bridge over the Barwon River at Belmont consists of a continuous reinforced concrete girder of trapezoidal cross-section, forming two 55 metre side spans and a 82 metre centre span.<sup>1</sup> Two vertical reinforced concrete stays are located at the centre of both pylons, to provide the necessary stiffness without haunches, which would interfere with both road clearance and floodway.<sup>1</sup> Tension cabling as additional supports and are pivoted about the stays. The concrete pipe underneath is a critical part of the girder, relying upon the PVC lining to resist chemical attack on the concrete.<sup>1</sup></p> <p>The bridge is a significant urban focus from the banks of the Barwon River and from the northern section of Riverview Terrace.</p>					
<b>History</b>					
<p>The Geelong Waterworks and Sewerage Trust designed an 82 metre span tubular steel tied arch (carrying a 1.07 metre diameter steel pipeline which would form three self-supporting 18 metre spans on either side of the arch) in 1967 as part of the \$5.8 million outfall sewer project.<sup>1</sup> A primary reason for the bridge was to relieve the demand on the ovoid sewerage aqueduct in Breakwater.<sup>2</sup> However in 1968, D.A. Constructions successfully tendered on the basis of an alternative design by J.L. van der Molen, engineer, which was subsequently constructed.<sup>1</sup></p> <p>This bridge is one of the first concrete structures to require a computer to control the construction.<sup>2</sup> The computer program, by D. Beresford of the CSIRO Division of Building Research, predicted deflection at each stage of construction, and determined form levels after allowance for shrinkage and creep.<sup>1</sup></p>					
<b>Heritage Precinct: Significant Urban Character Features visually connected to this place</b>					
<i>(this section is only applicable to places in precincts)</i>					
			<b>Precinct Name</b> <input type="text" value="Kardinia"/>		
<b>Neighbouring Buildings</b>	<input type="checkbox"/> Similar Types <input type="checkbox"/> Appropriate Bulk/Form				
	<input type="checkbox"/> Similar Styles <input type="checkbox"/> Appropriate Architectural Detailing				
	<input type="checkbox"/> Similar Construction Dates <input type="checkbox"/> Appropriate Materials & Finishes				
	<input type="checkbox"/> Appropriate Set Backs <input type="checkbox"/> Appropriate Fence Designs & Locations				
<b>Urban Design</b>	<input type="checkbox"/> Significant Historical Development <input type="checkbox"/> Original Paving				
	<input type="checkbox"/> Significant Urban Focii <input type="checkbox"/> Appropriate Allotment Sizes				
	<input type="checkbox"/> Significant Views <input type="checkbox"/> Appropriate Street Furniture				
	<input type="checkbox"/> Original Kerbing				
<b>Landscaping</b>	<input type="checkbox"/> Treelines <input type="checkbox"/> Public Gardens <input type="checkbox"/> Median Strips <input type="checkbox"/> Nature Strips				

BELMONT HERITAGE REPORT (INDIVIDUAL CITATIONS)  
(FORMERLY PART OF THE GREATER GEELONG OUTER AREAS HERITAGE STUDY STAGE 2)

S  
I  
G  
N  
I  
F  
I  
C  
A  
N  
C  
E  
S  
H  
E  
E  
T

Site Address	No.	Street/Site Name	Town/Suburb	Postcode
		Over Barwon River	Belmont	3216
Site Name Macintyre Foot Bridge				
Comparative Listings				
Statement of Cultural Significance				
<p>The Macintyre Foot Bridge over the Barwon River at Belmont is <i>historically</i> and <i>scientifically</i> significant at a <b>REGIONAL</b> level. It is associated with the further development of Geelong's sewage infrastructure and is one of the first concrete structures that relied upon the application of computer technology during its construction.</p> <p>Overall, the Macintyre Foot Bridge over the Barwon River at Belmont is of <b>REGIONAL</b> significance.</p> <p>It is highly recommended that a Conservation Management Plan be carried out on the structure.</p>				
References				
<p>1. M. Lewis, 'Engineering Structures of Geelong', Council for the Historic Environment, Institution of Engineers, Engineering Heritage Branch, tour notes, 25 February, 1990, p.11.</p> <p>2. J. Ferguson, 'Engineering Heritage Tour of Geelong', Engineering Heritage Committee tour notes, 13 September, 1995, p.3.</p>				

P  
A  
G  
E  
  
4  
o  
f  
4