

Before the Board of Inquiry  
Waterview Connection Project

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*in the matter of:* the Resource Management Act 1991

*and*

*in the matter of:* a Board of Inquiry appointed under s 149J of the Resource Management Act 1991 to decide notices of requirement and resource consent applications by the NZ Transport Agency for the Waterview Connection Project

Statement of evidence of Dr Rodney Clough (Archaeology) on behalf of the  
**NZ Transport Agency**

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REFERENCE: Suzanne Janissen (suzanne.janissen@chapmantripp.com)  
Cameron Law (cameron.law@chapmantripp.com)

**Chapman Tripp**  
T: +64 9 357 9000  
F: +64 9 357 9099

23 Albert Street  
PO Box 2206, Auckland 1140  
New Zealand

www.chapmantripp.com  
Auckland, Wellington,  
Christchurch



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**STATEMENT OF EVIDENCE OF DR RODNEY CLOUGH ON BEHALF OF  
THE NZ TRANSPORT AGENCY**

**INTRODUCTION**

- 1 My full name is Rodney Edward Clough. I am the Director of Clough & Associates Limited, Heritage Consultants.
- 2 I have the following qualifications, experience and professional affiliations relevant to the evidence I shall give:
  - 2.1 I hold a Doctorate in Archaeology from the University of London and a Master of Arts in Anthropology from the University of Auckland.
  - 2.2 I am currently President of the New Zealand Archaeological Association (*NZAA*).
  - 2.3 I am a member of the New Zealand Historic Places Trust (*NZHPT*) and the International Committee on Monuments and Sites (*ICOMOS*).
  - 2.4 I am a member of a heritage landscape group which is a subgroup of the Institute of Landscape Architects, and a member of the Queens Redoubt Trust.
  - 2.5 I have over 35 years experience in the field of archaeology including research, survey, investigation, analysis and report preparation, covering a variety of time periods and geographic locations. Over the last 22 years, this work has largely focused on New Zealand archaeology.
  - 2.6 I lectured in archaeology at the University of Auckland for several years prior to establishing my consultancy (1987-1994), and have continued to carry out joint research projects with the University.
  - 2.7 My practice carries out a range of work relating to cultural heritage management - in particular, archaeological assessments relating to Resource Management Act 1991 (*RMA*) and Historic Places Act 1993 (*HPA*) requirements, conservation and management plans, survey, inventory and mitigation investigations. This has included hundreds of surveys and heritage assessments throughout New Zealand, but predominantly in the North Island.
  - 2.8 Of particular relevance, Clough & Associates Ltd undertook a comprehensive resurvey and significance assessment of recorded archaeological sites in the Auckland Isthmus area on behalf of Auckland City Council (*ACC*) in 2008-2009, for the purpose of identifying significant archaeological sites for protection through District Plan provisions, several of which have been in the vicinity of State Highway 16 (*SH16*) and State

Highway 20 (*SH20*) within the Waterview Connection project area. I have also carried out a number of archaeological surveys and investigations on the Rosebank and Te Atatu peninsulas in the vicinity of SH16.

- 2.9 I have recent and relevant experience working on a wide variety of projects involving consenting and construction of major infrastructure in the Auckland region. These have included:
- (a) the continuation of SH20 from Hillsborough to Mt Roskill (NZ Transport Agency (*NZTA*): completed);
  - (b) the Victoria Park Tunnel project (Victoria Park Alliance: under construction);
  - (c) the Auckland Rail Electrification project (OnTrack: part consented and part under construction);
  - (d) the Hunua to Newmarket Pipeline (Hunua 4) project (Watercare Services Ltd: at the hearing stage);
  - (e) the Additional Waitemata Harbour Crossing project (NZTA: at the options assessment stage);
  - (f) the Puhoi to Wellsford motorway project (SKM Consulting Ltd: at the options assessment stage);
  - (g) the Auckland CBD Rail Link Study (APB&B: at the heritage assessment (AEE) stage); and
  - (h) the Waikato Wind Farm project (Contact Energy: currently being heard by the Board of Inquiry).
- 3 My evidence is given in support of notices of requirement and applications for resource consents lodged with the Environmental Protection Authority (*EPA*) by the NZTA on 20 August 2010 in relation to the Waterview Connection Project (*Project*). The Project comprises works previously investigated and developed as two separate projects, being:
- 3.1 The SH16 Causeway Project; and
  - 3.2 The SH20 Waterview Connection Project.
- 4 I am familiar with the area that the Project covers, and the State highway and roading network in the vicinity of the Project.
- 5 I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Consolidated Practice Note (2006), and agree to comply with it. This evidence is within my area of expertise, except where I state that I am relying on facts or information provided by others. In preparing my evidence I have not omitted to

consider any material facts known to me that might alter or detract from the opinions that I express.

### **SCOPE OF EVIDENCE**

- 6 My evidence will deal with the following:
  - 6.1 Executive summary;
  - 6.2 Background and role;
  - 6.3 Summary of methodology;
  - 6.4 Summary of assessment of archaeological effects;
  - 6.5 Post-lodgement events;
  - 6.6 Comments on submissions; and
  - 6.7 Proposed archaeological conditions.

### **EXECUTIVE SUMMARY**

- 7 Extensive archaeological surveys and background research were undertaken to identify archaeological and other heritage sites with the potential to be affected by the proposed Project. The locations of heritage sites were taken into account during project planning and avoided, where possible.
- 8 A number of recorded archaeological sites, relating to both Maori and early European settlement are located within the construction footprint. The majority of recorded sites affected by the Project are located in the Rosebank Peninsula (Sector 3), but these sites have either been destroyed or are heavily modified and are of limited archaeological value. The effects of the Project on these sites are therefore considered to be minor.
- 9 Only at the Great North Road Interchange (Sector 5) will any significant archaeological remains be affected. This sector contains the Oakley Inlet Heritage Area, which includes significant remains relating to the Star Mill/Garrett Brothers Tannery/quarry (*Star Mill site*), and to a Maori settlement. The mill, tannery and Maori settlement remains have been avoided by the proposed motorway ramps, but there will be physical impacts on the quarry elements of the heritage area from access and construction, and minor physical effects at the reserve restoration stage from the provision of boardwalks. There will also be adverse visual effects from motorway ramps passing over and adjacent to the Oakley Inlet Heritage Area, and in combination, I consider the physical and visual effects to be significant in view of the high heritage values of this area. Part of a historic dry stone wall of moderate heritage significance (also in Sector 5) will be affected, but the major part of the wall will be retained.

- 10 The Project will not affect any of the Maori habitation sites on the eastern bank of Oakley Creek in Sectors 5 and 7 that are scheduled in the District Plan.
- 11 As in any area where archaeological sites have been recorded in the general vicinity, there is potential for effects on as yet unrecorded sites exposed during construction. However, I consider that any such remains are unlikely to be extensive or significant.
- 12 In my opinion, the adverse effects of the Project can be appropriately mitigated through a range of measures that have been identified in both the Archaeological Site Management Plan (*ASMP*) (that will form part of the Construction Environmental Management Plan (*CEMP*)), and in the proposed archaeological conditions. These measures include:
- 12.1 Protective fencing of specified sites adjacent to proposed works;
  - 12.2 Archaeological monitoring of specified areas to establish whether unrecorded subsurface remains are present;
  - 12.3 Archaeological investigation and recording of affected archaeological remains (which will also require an Authority under the Historic Places Act 1993);
  - 12.4 Implementation of Accidental Discovery Protocols;
  - 12.5 Vegetation removal and repairs to the unaffected part of the stone wall in Sector 5, and appropriate reuse of surplus stone;
  - 12.6 At the Oakley Inlet Heritage Area, vegetation management, remedial and restoration work, provision of public access (including reinstatement of a historic bridge connection beneath the north and south banks) and provision of interpretation signage.
- 13 If these measures are adopted and implemented, I consider that the adverse effects of the Project will be acceptable, and that there will be positive heritage benefits from improved public access to and management of the Oakley Inlet Heritage Area.

#### **BACKGROUND AND ROLE**

- 14 The NZTA retained Clough and Associates Ltd as archaeological consultants for the Project. I have been involved in the Project since June 2009, when I was asked to review the archaeological survey work carried out for NZTA by Bioresearches and to prepare an AEE for the SH16 Corridor Widening project. This work was subsequently incorporated into the AEE for the larger Waterview Connection Project. Prior to 2009, I had undertaken archaeological investigations of sites within the SH16 corridor on the Rosebank Peninsula,<sup>1</sup> and

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<sup>1</sup> Clough & Best 1997. (See References section at the end of my evidence).

close to the corridor in the Te Atatu Peninsula.<sup>2</sup> In 2008, I had also assessed and partially mapped the historic mill and tannery site within the designation at Waterview on behalf of Auckland City Council (see paragraph 2.8 above).

- 15 I prepared an Assessment of Archaeological Effects Report (*Report*) in relation to potential effects of the Project on archaeological sites. The Report was prepared by myself and my colleagues Sarah Macready and Dr Simon Bickler.<sup>3</sup> Simon Bickler assisted in field survey and background research for the earlier SH16 Causeway project, while Sarah Macready undertook historic research relating to the Great North Road Interchange area and assisted me in preparing the final report.
- 16 The Report incorporates field survey information previously compiled by Brent Druskovich<sup>4</sup> of Bioresearches at various stages in the planning of the Project.
- 17 My Report was lodged with the EPA on 20 August 2010 as part of the overall Assessment of Environmental Effects (*AEE*) (specifically, Part G, Technical Report No. G.2).

#### **SUMMARY OF METHODOLOGY**

- 18 A literature search and field surveys were undertaken to identify potential and recorded archaeological sites and historic structures in the Project area. The initial surveys and assessments of effects on archaeological values were carried out by Mr Druskovich of Bioresearches between 2000 and 2010, and a final archaeological survey report was prepared by Mr Druskovich in 2010.<sup>5</sup>
- 19 Clough & Associates was asked to prepare an overall Assessment of Archaeological Effects, based on Bioresearches' survey results and any further research and assessment that might be required.
- 20 Clough & Associates reviewed Bioresearches' reports and survey results in detail. Further field survey of most of the route was not considered necessary as Mr Druskovich's surveys were thorough. In addition, Clough & Associates had carried out previous survey and

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<sup>2</sup> Best & Clough 2000.

<sup>3</sup> Simon Bickler and Sarah Macready are both qualified archaeologists. Simon Bickler has a PhD in Archaeology from Virginia State University and an MA (Hons) in Archaeology from the University of Auckland, and has worked with Clough & Associates since 2002. Sarah Macready has an MA degree in Archaeology from the University of London, was previously employed as Technical Support Supervisor (Historic Resources) for the Department of Conservation, and has worked full time with Clough & Associates since 2007. Both have many years' experience as field archaeologists and researchers.

<sup>4</sup> Brent Druskovich has an MA (Hons) degree in Archaeology from the University of Auckland, and has many years' experience as a field archaeologist.

<sup>5</sup> See Appendix A of Technical Report G.2.

archaeological site investigation on both the Te Atatu and Rosebank peninsulas in the immediate vicinity of the proposed works.<sup>6</sup>

- 21 However, additional research and field assessment relating to a recorded stone wall at Point Chevalier near the Great North Road Interchange (Sector 5) was carried out in order to supplement the earlier work.
- 22 Further research and fieldwork was also carried out at the site of a historic mill and tannery also located in Sector 5 (the Star Mill/Garrett Brothers Tannery). I had previously visited and assessed this site for the Auckland City Council Isthmus Archaeological Upgrade Project, and had organised vegetation clearance and detailed total station mapping of the site by Thorne Archaeology. A further survey was carried out by Beca under the guidance of Mr Druskovich. These maps and surveys formed the basis for the site plans included in the Druskovich survey report and in my Report.
- 23 I have revisited the site on a number of occasions as part of the current Project, and organised and assisted in a geophysical survey of the site by ScanTec Ltd in March 2010 in an attempt to identify potential additional subsurface remains.<sup>7</sup>
- 24 I also undertook consultation with current owners of the Star Mill site, Peter McCurdy and Robyn Mason, who are also heritage professionals and who had undertaken considerable research into the site and made this available as a resource for our assessment.
- 25 It is acknowledged that archaeological survey techniques (based on visual inspection and minor sub-surface testing) cannot necessarily identify all sub-surface archaeological features, or detect wahi tapu and other sites of traditional significance to Maori, especially where these have no physical remains.

#### **SUMMARY OF ASSESSMENT OF ARCHAEOLOGICAL EFFECTS**

- 26 In this section of my evidence I will describe the key points of my Report.

##### **Summary of Effects**

- 27 The effects of the Project on archaeological and other heritage sites are summarised in Table 10 of my Report, which lists the recorded archaeological sites, their current condition and the effects on the sites of the Project. This Table is attached to my evidence (as **Annexure A**) for ease of reference.
- 28 The Project will have no adverse effects on any significant archaeological remains outside the Great North Road Interchange area (Sector 5).

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<sup>6</sup> Clough 1995; Prince and Clough 2002; Best and Clough 2000; Clough and Prince 2000; Clough et al. 1997. (See References section at the end of my evidence.)

<sup>7</sup> See Section 6.5.1 of Technical Report G.2.



- 29 In Sector 5, a heritage area of regional significance containing sites R11/2191 (Star Mill/Garrett Tannery/quarry), R11/2203 (Maori settlement), R11/2202 (midden/karaka trees) and R11/2459 (midden) will be modified. Depending on machine access and construction methodology relating to the piers for Ramps 3 and 4, physical effects on the site complex should be minor, and will mainly affect quarry features. However, there will be adverse visual effects from the presence of motorway ramps passing over and adjacent to the site complex, and overall, the effects must be considered significant.<sup>8</sup> There may also be some minor physical effects from walkways proposed as mitigation. In Sector 5, part of a stone wall (R11/2213) of moderate significance will also be affected. **Annexure B** attached to my evidence shows the locations of the proposed ramps in relation to the heritage features in Sector 5.
- 30 Rosebank Peninsula (Sector 3) is the only other area where recorded archaeological sites are located within areas affected by the proposed works. However, these sites have for the most part already been destroyed or modified and are of limited archaeological value.
- 31 The significant group of sites recorded on the eastern bank of the Oakley Creek (Sectors 5 and 7) will not be affected.
- 32 Effects on unrecorded subsurface deposits are possible (mainly in Sectors 1, 3, 5, and 7), but if such deposits are present they are unlikely to be extensive or significant. A possible exception to this would be any remains of the millworkers' houses, former mill race or other structures in the area north of Cowley Street and west of Great North Road. If present, these would have the potential to provide significant information relating to site R11/2191.
- 33 Overall, effects on the Oakley Inlet and Oakley Creek heritage landscape (which includes the series of sites along Oakley Creek east of Great North Road) will be limited in terms of physical impacts, and are mainly visual, with motorway ramps carried over and adjacent to the significant Oakley Inlet Heritage Area in Sector 5 (this is referred to as the Waterview Inlet Heritage Area in my Report). However, access to and appreciation of the heritage landscape will be greatly improved by the proposed walkways, bridge connection and interpretation signage.

#### **Mitigation and Conclusions in my Assessment<sup>9</sup>**

- 34 In most Sectors of the Project there will be little or no effect on any significant archaeological sites. The effects that have been identified can be appropriately mitigated through standard archaeological monitoring and investigation under an Authority from the NZHPT, and by protecting sites in close proximity to construction works by fencing them off for the duration of the Project.

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<sup>8</sup> These effects are recognised in Section 6.9 of Report G.20 Assessment of Visual and Landscape Effects and further addressed in the evidence of Stephen Brown.

<sup>9</sup> See pages 101-105 of Technical Report G.2.

35 Only in Sector 5 will there be any significant effects on archaeology, in the form of visual and minor physical effects on the Oakley Inlet Heritage Area, and demolition of part of a historic stone wall. In Sector 5, in addition to standard archaeological mitigation, I consider it appropriate that a range of other measures should also be adopted. The additional mitigation measures I recommended in my Report were:

35.1 Improved public access to the Oakley Inlet Heritage area via footpaths and through reinstatement of the bridge that historically connected the north and south banks of the Inlet;<sup>10</sup>

35.2 Appropriate vegetation management;<sup>11</sup>

35.3 Remedial works to deteriorating historic structures;<sup>12</sup> and

35.4 Interpretation signage.<sup>13</sup>

36 In the case of the wall affected by SH16 tie-in works, I recommended repairs to the remainder of the wall and vegetation control.<sup>14</sup>

37 Provided these measures are adopted and implemented, I consider the adverse effects of the Project would be acceptable and the improved access to, and condition of, the Oakley Inlet Heritage Area would have positive heritage benefits.

38 Effects on unrecorded sites exposed during construction, while possible, are unlikely to be significant, and in my opinion would be appropriately managed through Accidental Discovery Protocols.

#### **Archaeological Site Management Plan (ASMP)**

39 I drafted an ASMP which is attached to my Report as Appendix D.

40 The purpose of the ASMP is to ensure that adverse effects on the recorded archaeological sites are avoided or appropriately mitigated, and to set out procedures for the discovery of any previously unidentified sites during construction.

41 The ASMP will form part of a comprehensive suite of environmental controls within the CEMP for the construction phase of the Project.

42 The ASMP identifies all the recorded archaeological sites and includes maps showing their locations. It provides for the protection of sites located immediately adjacent to proposed works, and where effects cannot be avoided, it sets out requirements for archaeological monitoring, recording and investigation, which would be carried out

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<sup>10</sup> See proposed archaeology condition ARCH.5(g) (now ARCH.6(a) in **Appendix D** to my evidence).

<sup>11</sup> See proposed archaeology condition ARCH.5(f) (**Appendix D**).

<sup>12</sup> See proposed archaeology condition ARCH.5(e) (**Appendix D**).

<sup>13</sup> See proposed archaeology condition ARCH.5(h) (now ARCH.6(b) in **Appendix D**).

<sup>14</sup> See proposed archaeology condition ARCH.7 (**Appendix D**).

by way of mitigation under an Authority from the NZHPT. The specific areas where such archaeological work is required are identified in the ASMP. The ASMP also refers to additional mitigation to be undertaken in the form of remedial work, improved public access, interpretation and vegetation management, as detailed earlier in my evidence. It includes Accidental Discovery Protocols and provides for the training of contractors to ensure that the appropriate procedures are followed.

- 43 One of the proposed archaeological conditions ARCH.1 (discussed below, and see **Annexure D**) requires that the NZTA shall complete and implement the ASMP as part of the Project.

#### **POST-LODGEMENT EVENTS**

- 44 After the AEE was lodged with the EPA, I prepared an addendum to my Report, which was lodged as Appendix 2 of Technical Addendum Report G.31. The addendum provides an explanatory note relating to the criteria used for evaluation of effects. The addendum is attached to my evidence (as **Annexure C**) for ease of reference.
- 45 I am otherwise not aware of any post-lodgement changes to the Project (including those relating to the proposed ventilation buildings) or further information received that would cause me to revisit my assessment of effects or my conclusions or recommendations relating to archaeological issues.

#### **COMMENTS ON SUBMISSIONS**

- 46 I have read submissions lodged on the Project that raise archaeological or related issues relevant to my area of expertise. In this section of my evidence I will address issues raised in submissions to the extent not already covered in my earlier Report or the preceding evidence.

#### **Auckland City Council (ACC)<sup>15</sup>**

- 47 The ACC considers the methodology employed for the archaeological surveys to be 'rigorous and comprehensive' and supports the proposed mitigation measures as being practical and relatively proven techniques.<sup>16</sup>
- 48 However, the ACC does not agree that damage in the area of the Star Mill/Garrett Brothers Tannery/Quarry site (*Star Mill site*) from the Waterview Connection is unavoidable, and seeks that ACC heritage experts be involved in all aspects of finalising the details of works and mitigation in this area.<sup>17</sup> I note that the NZTA has already made

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<sup>15</sup> Submitter No. 111. (See Section 4.4 which addresses Archaeological and Heritage Issues).

<sup>16</sup> Ibid at paragraph 243.

<sup>17</sup> Ibid at paragraphs 245 and 253. The ACC also refers to the NZTA "developing the outline plan of works" (*OPW*) but I understand an OPW is not proposed given the level of detail already provided.

considerable efforts to avoid the main and most significant features of the Star Mill site, and has been successful in doing so. In view of the engineering constraints of the Project, I consider it unlikely that all features of the site (i.e. those relating to quarrying) can be avoided. I fully support the involvement of ACC heritage experts in the detailed planning, which is provided for in proposed open space consultation condition SO.1.

- 49 In paragraph 247 of its submission, the ACC agrees generally with the identification of archaeological sites and the descriptions used in the Report, but states that the terminology used in relation to the relative values of archaeological sites (moderate and significant) does not align with the ACC's terminology. The ACC considers the Star Mill site to be 'iconic' rather than significant, which I understand relates to new evaluation terminology recently developed by the ACC. Both terms indicate that this site is of high archaeological value and significance. The evaluation of the Star Mill site undertaken by Clough & Associates for ACC in 2008 gave it a high numerical score which would more than meet the threshold for scheduling in the District Plan,<sup>18</sup> whatever terminology is used to describe its values.
- 50 The ACC submission notes that the Oakley Creek Esplanade Reserve is a scheduled archaeological site, as well as being subject to the HPA, and seeks further archaeological assessment of the sites within Oakley Creek Esplanade Reserve to inform the project design.<sup>19</sup>
- 51 I do not agree that there is any need for further assessment, as the Esplanade Reserve has been thoroughly surveyed and assessed by archaeologists on a number of occasions both prior to and as part of the planning for the Project. The sites and scheduled area were identified at an early stage of the Project and have been avoided. The scheduled sites are mainly located along the eastern bank of Oakley Creek *outside* the area of works.
- 52 The only site which has the potential to be affected is in the Oakley Creek Esplanade Reserve within Construction Yard 7 (site R11/2383), and provision has already been made in the proposed conditions (**Annexure D**, ARCH.4(b)) to protect this site by fencing it off prior to construction under archaeological supervision.
- 53 Condition ARCH.2 also provides for archaeological monitoring of any ground disturbance works in the construction yard to ensure that if any additional subsurface archaeological remains are present, they will be managed appropriately. I consider these provisions to be appropriate and effective in protecting archaeological values within the Esplanade Reserve. Furthermore, I would note that the site within the construction yard is a 'hole in the bank' c.1x1.5m in size, of unknown origin and limited archaeological value. If it relates to

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<sup>18</sup> Bickler, S., R. Clough and K. Tatton. June 2009. Auckland City Isthmus District Plan Review ff Archaeological Sites Supporting Documentation. Clough & Associates report prepared for Auckland City Council Heritage.

<sup>19</sup> Paragraph 248 of the ACC submission.

early European industrial activity, as has been suggested, its scheduled status would be arguable, as the scheduled item (D04.19) is described as 'Maori habitation sites'.

- 54 The ACC further suggests that interpretation of and improved public access to the scheduled area of Maori habitation sites east of the Oakley Creek (D04.19) should be provided.<sup>20</sup> While I support this in principle, I note that many of the sites relating to Maori heritage have limited potential for interpretation in comparison with the Oakley Inlet Heritage Area.
- 55 The ACC seeks that plans for public access to and interpretation of the Oakley Inlet Heritage Site should be submitted for the approval of the Heritage Manager at Auckland Council.<sup>21</sup> I note that a draft Oakley Inlet Heritage Plan (*OIHP*) has already been developed,<sup>22</sup> and it is intended that ACC, as well as the NZHPT and tangata whenua would be involved in the more detailed development of this plan. This is provided for in open space consultation condition SO.1.
- 56 I do not consider ACC's proposal<sup>23</sup> to carry out more detailed surveys of archaeological sites R11/74, 1699 and 2212 (in Sector 3, Rosebank Peninsula) to be either necessary or feasible. The sites are all considered to have been destroyed, and consist of:
- (a) R11/74 (Maori settlement). As set out on page 28 of my Report, this site was not recorded on the basis of any known archaeological features, but from general references to the general area having been used by Maori in the 19<sup>th</sup> century as a temporary campsite. Only shell fragments redeposited with modern rubbish have ever been noted in the recorded location, and it does not meet the criteria of an archaeological site under the HPA.
  - (b) R11/1699 (Dr Daniel Pollen's House). This site, as noted on page 33 of my Report, was investigated by Clough & Associates under authority from the NZHPT during previous works for the Rosebank Road off-ramp. Having investigated the site, I consider further in situ finds unlikely.
  - (c) R11/2212 (Midden). This has been destroyed by earthworks which have pushed material containing former shell midden down the southern bank adjacent to the road that links the kart track to Patiki Road (see page 30 of my Report).
- 57 Further investigation to "confirm the low archaeological values" of these sites as suggested by ACC<sup>24</sup> is therefore not necessary in my

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<sup>20</sup> Paragraph 249 of the ACC submission.

<sup>21</sup> Paragraph 254 of the ACC submission.

<sup>22</sup> Sheet 224 of Plan Set F.16.

<sup>23</sup> Paragraphs 255 and 251 of the ACC submission.

<sup>24</sup> Paragraph 255 of the ACC submission.

opinion. In addition, confirming the absence of any additional associated deposits would require earthmoving machinery and large scale soil removal, especially at R11/1699, where there is a great deal of redeposited rubbish. It would be far more practical (and less disruptive to the public) to monitor the earthmoving carried out during construction, under Authority from the NZHPT, and to halt works and record any remains exposed. This is provided for in the ASMP and proposed conditions ARCH.2 (a) and ARCH.3 (see **Annexure D** to my evidence).

**New Zealand Historic Places Trust (NZHPT)<sup>25</sup>**

- 58 The NZHPT is generally supportive of the measures taken by the NZTA to avoid, remedy or mitigate adverse effects of the Project on historic heritage, and in particular, supports the mitigation/restoration plan proposed for the Oakley Inlet Heritage Area.<sup>26</sup>
- 59 In part 2 of its submission, the NZHPT requests that the stone wall (site R11/2213) be protected to the greatest extent possible, reducing impacts to a 15m length of wall rather than 30m, if feasible, and that parts of the wall affected by the Project should be sympathetically reused. I support this request, and note that there would be opportunities for sympathetic reuse in the nearby Oakley Inlet Heritage Area, which could be further discussed with NZHPT during the more detailed development of the OIHP.
- 60 The NZHPT specifically seeks the amendment of proposed designation condition ARCH.7 so that works to the dry stone wall are minimised. This requirement was already included in proposed condition ARCH.7, but I recommend that the condition is strengthened by additional wording as set out in **Annexure D** to my evidence. The NZHPT also seeks to be consulted when consideration is being given to the reuse of material from demolished sections of the wall. I recommend that specific provision is made for this by a minor amendment to proposed condition ARCH.7(a), as set out in **Annexure D**.
- 61 In part 3 of its submission, the NZHPT requests that proposed condition ARCH.5 be supplemented by a clear plan that outlines areas of archaeological value to be fenced off and protected from any adverse effects during the construction process. I agree that such a plan should be developed once construction methodology and access requirements have been determined, but consider that the appropriate place for this plan is in the Archaeological Constraints layer of the GIS layers that form an Appendix of the ASMP in the CEMP. I recommend therefore that a reference to the preparation of this plan should be made in proposed condition ARCH.5, as now shown in **Annexure D** to my evidence.
- 62 In part 4 of its submission, the NZHPT seeks that there should be no lowering or relocation of the Great North Road Interchange ramps so as to avoid any increase in adverse physical or visual effects on the

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<sup>25</sup> Submitter No. 158.

<sup>26</sup> Page 1 and part 5 of the NZHPT submission.

Star Mill/Garrett Tannery site. I support this submission and understand that proposed general designation condition DC.1 requires that construction works are undertaken in general accordance with the plan, and that this includes the structural concept design for the Great North Road Interchange.

***Auckland Regional Council***<sup>27</sup>

- 63 Auckland Regional Council (ARC) states that the Project will have considerable impact on the Waterview (Oakley) Inlet Heritage Area, which contains the regionally significant Star Mill/Garrett Brothers Tannery.<sup>28</sup> The ARC supports the mitigation proposals for Sector 5, in particular, those relating to public access and interpretation, but notes that careful management will be required to prevent vandalism to the site.<sup>29</sup> Future management issues will be addressed in the Open Space Restoration Plan provided for in proposed conditions SO.1 and SO.2.
- 64 The ARC notes that it “does not support NZTA’s proposal to further damage fifteen known archaeological sites and potentially as yet undiscovered archaeological evidence”,<sup>30</sup> and states that priority should be given to avoiding adverse effects in the first instance. However, as discussed in my Report, nine of the affected sites are considered to be destroyed or probably destroyed,<sup>31</sup> and if any associated subsurface remains were present they would have very limited archaeological value. A further two midden sites are in very poor condition (R11/2459 and 2550), and one of these (R11/2459) will probably be unaffected by the Project. Two further sites (R11/2202 and 2203) only have the potential to be affected to a minor extent by the provision of amenities such as walkways which would protect the sites from damage by foot traffic, and I consider that the benefits of the relevant works would outweigh any adverse effects.
- 65 The main physical effects would be on two sites:
- 65.1 R11/2191 (the Star Mill site), where only the quarry elements, rather than the more significant mill and tannery elements, would be affected; and
- 65.2 R11/2213 (the stone wall), which will be partially affected, although the majority of the feature will remain.
- 66 In my opinion, full consideration has been given to the heritage sites in the planning of the Project, and I consider that adverse effects have been avoided to the extent possible, and mitigated appropriately where they are unavoidable. Contrary to the ARC submission, I do

<sup>27</sup> Submitter No. 207 (see section 4.4).

<sup>28</sup> Paragraph 4.4.1 of the ARC submission.

<sup>29</sup> Paragraph 4.4.2 of the ARC submission.

<sup>30</sup> Paragraph 4.4.3 of the ARC submission.

<sup>31</sup> Being R11/74, 444, 1698, 1699, 2214, 2215, 2216, 2253, 2508 – see Annexure A to my evidence.

not consider it feasible to plan to avoid “as yet undiscovered sites” in a project such as this. Adverse effects on as yet undiscovered sites can be appropriately mitigated through investigation and recording under Authority from the NZHPT.

- 67 The ARC submits that Auckland Council heritage experts should be involved in all aspects of the detailed planning of works affecting historic heritage resources and proposed mitigation in the Waterview (Oakley) Inlet Heritage Area, including the final design and implementation of the OIHP.<sup>32</sup> I fully support this submission, which is consistent with the recommendation in my Report that “The final details of the plan should be subject to further discussion with the project archaeologist, tangata whenua, NZHPT and the Auckland Council”.<sup>33</sup> Consultation with the Auckland Council is provided for in proposed open space consultation condition SO.1.
- 68 Some explanation relating to the OIHP is required. The ARC submits that the OIHP is not referred to in the Assessment of Archaeological Effects Report, it is unclear whether it was developed with consideration of archaeological matters, and that the proposed footbridge and reconstruction of stone walls have the potential to adversely affect such matters.<sup>34</sup> I should clarify again that the ‘Oakley Inlet Heritage Area’, referred to in the AEE and proposed conditions, is the same heritage area that is referred to in my Report as the ‘Waterview Inlet Heritage Area’, and that the OIHP was referred to in my Report as ‘a draft landscape concept plan’.<sup>35</sup>
- 69 My Report sets out the key heritage elements of the OIHP (although it is not referred to by that name), and I can confirm that these were developed with my input, including the proposal to reinstate the historically recorded footbridge in some form (subject to the requirement for further consultation as noted in the previous paragraph of my evidence). I consider that reinstatement of the historically recorded bridge that linked the north and south banks of the Inlet is a key component of the proposed mitigation, but agree that it should be designed in such a way that it avoids adverse effects on heritage remains. It is certainly not the intention to adversely affect the sea walls, as is clear from my Report, which states:<sup>36</sup>
- “Remedial or limited restoration works should be carried out to the basalt walls, wheel pit and bridge abutment, to specifications prepared by a heritage professional, to ensure their long term preservation”.
- 70 Regarding the relief sought by the ARC (paragraph 4.4.6), I consider that item (a) (“The NZTA prioritise the avoidance of adverse effects on archaeology”) has already been addressed through the planning

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<sup>32</sup> Paragraph 4.4.4 of the ARC submission.

<sup>33</sup> Paragraph 3, page 103 of Technical Report G.2.

<sup>34</sup> Paragraph 4.3.5 and 4.4.5 of the ARC submission.

<sup>35</sup> Page 103 of Technical Report G.2.

<sup>36</sup> Page 102, paragraph 10, item 4 of Technical Report G.2.



process, through provisions in the ASMP and conditions that provide for fencing off and protection of adjacent known sites during construction,<sup>37</sup> and by the Environmental Performance Standard in the ASMP: "To minimise any potential adverse environmental effects on archaeological sites".<sup>38</sup>

- 71 I support the relief sought in items (b) and (c) (paragraph 4.4.6), regarding the involvement of Auckland Council heritage experts in works and detail affecting historic heritage resources and mitigation involving historic heritage features; and Auckland Council and NZHPT involvement in the development of the OIHP. At item (d) (paragraph 4.4.6) the ARC seeks that the matters in items (a)-(c) are included in the ASMP and are subject to approval by the Auckland Council. As noted above, I consider that item (a) has already been provided for within the ASMP. Items (b) and (c) are provided for in the proposed open space consultation condition SO.1 and general designation condition DC.3, and do not in my opinion require amendments to the ASMP. Once the OIHP has been finalised, the ASMP should be reviewed, and if necessary, amended (as provided for under section 9 of the ASMP and proposed condition CEMP.12).

**Star Mills Preservation Group (SMPG)<sup>39</sup>**

- 72 The SMPG opposes the application on a number of grounds, one of which is that the Project will have significant negative effects related to the heritage sites within the Project area. The submission claims that the Project will threaten the preservation and integrity of important archaeological and heritage sites, including the highly significant Star Mill Site. The submission claims that the NZTA has not avoided the sites as its first choice, but has chosen a degree of mitigation in some areas and not shown how it will protect the sites during construction.
- 73 As noted in response to the ACC submission above, I consider that the NZTA has made considerable and successful efforts to avoid the main and most significant features of the Star Mill site, but in view of the engineering constraints, it would not be possible to avoid all impacts. The protection of sites during construction will be achieved by clearly defining the areas to be fenced off during construction (see amended condition ARCH.5 (a)) and by archaeological monitoring in accordance with condition ARCH.5 (b).

**Pita Turei, Te Kawerau Iwi Tribal Authority<sup>40</sup>**

- 74 Mr Turei's submission is made in partial support of the Project. It seeks the protection of significant heritage sites, which I consider has been achieved through the avoidance of the majority of the features the Oakley Inlet Heritage Area (including the Maori settlement site) and all sites along Oakley Creek.

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<sup>37</sup> ASMP Section 5.2 and proposed archaeology condition ARCH.4 (**Annexure D**).

<sup>38</sup> ASMP Section 2, first bullet point.

<sup>39</sup> Submitter No. 199.

<sup>40</sup> Submitter No. 241.

75 I support the submitter's request that provision should be made for iwi monitoring of excavations impacting on archaeological and heritage sites. The extent and detail of iwi monitoring would be determined through further consultation with the relevant iwi groups. I recommend that the details of any agreements relating to iwi monitoring are incorporated into the final version of the ASMP and that proposed condition ARCH.1 is amended to provide for this, as set out in **Annexure D**. I also support the submitter's request for "provision to identify significant heritage features throughout the site with inbuilt design features". I would envisage this being achieved through input by tangata whenua into the OIHP, as recommended in my Report<sup>41</sup> and provided for in proposed open space consultation condition SO.1.

**Friends of Oakley Creek – Te Auaunga<sup>42</sup>**

76 The Friends of Oakley Creek oppose the application in part on the basis of effects on historic heritage sites at the Great North Road Interchange. The submission seeks that if the application is approved, the development of the heritage area and improved public access is designed to ensure that there is no risk of further damage to or degradation of the sites. I support this submission, and consider that protection of the sites will be well provided for through further refinement of the OIHP, as well as through the provisions of an Authority under the HPA. While there may be some minor impact from the provision of boardwalks, the boardwalks would serve to protect site features from damage by foot traffic.

77 This submission also seeks that the Oakley Inlet Heritage Area be listed under the Auckland City District Plan to ensure that it is appropriately protected and maintained. As noted earlier in my evidence, a significance assessment carried out by Clough & Associates for ACC in 2008 gave the site a sufficiently high rating to merit scheduling on the District Plan, using the ACC heritage criteria for archaeological sites. However, scheduling on the District Plan is a separate process.

78 I support the submission that the development and implementation of the Restoration Plan for Oakley Inlet Heritage Area be carried out in consultation with Ngati Whatua o Orakei, Te Kawerau a Maki and the Star Mill Preservation Society [Group].

79 I note that the historic culvert under the Great North Road, also referred to in this submission, will not be affected.

**Cycle Action Auckland (CAA)<sup>43</sup>**

80 The CAA submission notes (on p 19) that the paths proposed for the Star Mill archaeological site are too narrow to allow cycling. I would like to clarify that it is not the intention to have a cycleway crossing

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<sup>41</sup> Paragraph 3, page 103 of Technical Report G.2.

<sup>42</sup> Submitter No. 179.

<sup>43</sup> Submitter No. 79.

the Star Mill site. Only narrow walking paths are proposed, so that any effects on this significant heritage area will be minimal.

#### **Other Submissions**

- 81 Rory and Heather Docherty (Submitter No. 191) and the North Western Community Association (Submitter No. 185) submit that the historical and archaeological areas, and in particular, the Maori and Star Mill site, require further assessment and design, that the Great North Road brick culvert should be retained, and that informed local people and tangata whenua should be involved in the preservation and interpretation of these areas.
- 82 The OIHP will provide the mechanism for more detailed design in the Waterview Inlet Heritage Area, and should involve consultation with the relevant parties, including tangata whenua. However, I do not agree that there is any need for further archaeological assessment, as this has already been comprehensive. I would note that knowledgeable local people, including the current owners of the Star Mill site, were consulted during the preparation of the Report and provided historical information which has been detailed in the Report. I would support their continued involvement in the OIHP. As noted earlier, the Great North Road brick culvert will not be affected by the Project.
- 83 Mr Storz (Submitter No. 41) and Hiltrud Gruger (Submitter No. 42) oppose the application on grounds which include "loss of historical sites" and request "full mitigation of all negative effects". The submissions do not identify any specific historic sites. In response, I would note that the only sites likely to be lost (i.e. completely destroyed) are sites of limited archaeological significance, and that the only significant sites in the Project area that are affected would suffer relatively minor damage (rather than being lost). In my opinion, the proposed mitigation for these effects is full and appropriate, and will bring positive benefits in terms of research, remedial work, vegetation management, public access and public information.
- 84 The submissions by Rob Black (Submitter No. 186) and Robert Guttenbeil and Family (Submitter No. 230) both seek that the heritage sites are "managed and supported by way of separate Kaitiaki Groups engaging throughout the life of the Project". As already noted, tangata whenua will be involved in the further development of the OIHP, and monitoring of sites being investigated is provided for in the proposed amendment to condition ARCH.1 (see **Annexure D**) Consultation with tangata whenua will also be a requirement of the Authority application under the HPA.

85 A number of submissions oppose the application on grounds which include general reference only to adverse effects on historic heritage, but provide no specific detail relating to these effects.<sup>44</sup> These submissions seek that if consent is granted the heritage and archaeological sites are avoided and protected during construction. While there will be some adverse effects on heritage sites, and not all can be avoided, I consider that the effects are acceptable if the proposed mitigation measures are implemented.

### PROPOSED ARCHAEOLOGICAL CONDITIONS

86 In the documentation lodged with the AEE, the NZTA included a set of Proposed Consent Conditions (see Part E, Appendix E.1). This included proposed archaeological conditions which I recommended would be appropriate to attach as conditions to the designations sought.

87 I consider that those conditions are still appropriate, with some amendments now recommended in response to submissions. The proposed amended conditions are shown in **Annexure D** to my evidence, with the changes highlighted.

88 Apart from some minor changes in wording, the recommended changes to conditions are:

- (a) ARCH.1 (d). Insert a requirement for the ASMP to include: "Any agreement with tangata whenua relating to the supervision of archaeological work at specific sites". This amendment responds to the submission of Pita Turei on behalf of Te Kawerau Iwi Tribal Authority.
- (b) ARCH.5 (a). Insert the following: "Once details of the construction methodology and access requirements have been determined, a plan will be prepared in consultation with the Project archaeologist that outlines the areas of archaeological value to be fenced off and protected from any adverse effects during the construction process. This plan will be added to the Archaeological Constraints layer in the GIS layers included as an Appendix to the ASMP in the CEMP." This amendment is recommended in response to the NZHPT submission.
- (c) Moving the content from ARCH.5 (g) and (h) into ARCH.6. This change has been made at the suggestion of the NZTA in order to make a clearer distinction between operational and future reserve management measures.
- (d) ARCH.7 (a). This condition relates to the dry stone wall (site R11/2213) at the Great North Road Interchange. I recommend

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<sup>44</sup> These include submissions by Kim Ace (No. 223); Rob Black (No. 186); Robert Guttenbeil and Family (No. 230); Margi Watson (No. 225); Helga Arlington (No. 202, by reference to submission No. 225); Stephen McCurdy (No. 213); David Shearer (No. 178); Belinda Chase (No. 126); Dr Alison Towns (No. 121); and Wendy John (No. 229).

that item (a) is amended by substituting a second sentence reading: "Appropriate reuse of any surplus stone will be determined following consultation with the NZHPT and Auckland Council". This change is recommended in response to the NZHPT submission.

89 Finally, it should be noted that:

89.1 Those elements of the conditions involving archaeological recording and investigation or remedial work to archaeological features will also require an Authority from the NZHPT;<sup>45</sup> and

89.2 Those elements relating to repairs to basalt sea walls and reinstatement of a bridge at the Waterview Inlet Heritage Area in Sector 5 will require resource consents from the [Auckland Council];<sup>46</sup> and

89.3 The 'Oakley Inlet Heritage Area' referred to in the proposed conditions is the same heritage area that is referred to in my Report as the 'Waterview Inlet Heritage Area'.




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**Dr Rodney Clough**  
**November 2010**

**Annexures:**

- A - Table 10 from Assessment of Archaeological Effects (Technical Report G.2)
- B - Plan of Sector 5 showing the relationship of the proposed ramps in relation to heritage sites
- C - Appendix 2 to the Technical Addendum Report – G.31
- D – Proposed Archaeological Conditions (amended to address submitter issues)

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<sup>45</sup> Clough & Associates will assist the NZTA in applying for the required Authorities from the NZHPT.

<sup>46</sup> The bridge reinstatement consent is being sought by the NZTA as part of the suite of consent applications lodged with the EPA. I understand the repairs to the basalt sea walls may require a controlled activity consent under the Auckland Regional Plan: Coastal.

**References:**<sup>47</sup>

- Best, S. and R. Clough. March 2000. The Auckland Brick & Tile Co. Site, Whau Creek, Te Atatu, Auckland (R11/1724): Section 18 Investigation. Clough & Associates report prepared for Waitakere Properties.
- Clough, R. 1995. Rosebank-Patiki Rd Interchange, Whau Peninsula, Auckland: Assessment for Authority to Modify Archaeological Sites R11/1698 and R11/1699. Clough & Associates report to NZHPT and Beca Carter Hollings and Ferner.
- Clough, R. and D. Prince. March 2000. Harbour View Estate, Te Atatu Peninsula: Section 18 Investigation of Archaeological Site R11/460. Clough & Associates report prepared for Waitakere Properties Ltd.
- Clough, R., D. Prince and S. Best. 1997. Rosebank and Patiki Roads Interchange, Whau Peninsula, Auckland: Archaeological Monitoring. Clough & Associates report prepared for Beca Carter Hollings & Ferner.
- Prince, D. and R. Clough. September 2002. Harbour View Land, Te Atatu North, Waitakere City: Archaeological Assessment. Clough & Associates report for Universal Homes Ltd.

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<sup>47</sup> Survey and archaeological site investigation work, referred to earlier (in footnotes 1, 2, 6 and 18).

**ANNEXURE A - TABLE 10 FROM ASSESSMENT OF ARCHAEOLOGICAL EFFECTS (TECHNICAL REPORT G.2)**

NZAA	Site Type	Condition	Effects
<b>Sector 1 (Te Atatu Interchange)</b>			
R11/458	Midden (Shell)	Fair, some trampling	None
R11/459	Midden (Shell)	Fair, eroding	None
R11/460	Midden (Shell)	Good, partly excavated	None
R11/1375	Drains (Historic)	Fair, eroding	None
R11/1724	Brickworks	Fair, partly excavated	None
R11/2503	Midden	Poor, eroding	None
R11/2549	Midden	Poor	None
n/a	Concrete foundation	Fair	Within construction footprint but outside construction yard - not affected
n/a	Brick foundation	Poor	Within construction footprint but outside construction yard - not affected
<b>Sector 2 (Whau River)</b>			
ARC CHI 202	Hulk ( <i>Edith</i> )	Destroyed	None
<b>Sector 3 (Rosebank Peninsula)</b>			
R11/74	Settlement	Destroyed	Effects only if associated subsurface deposits are present
R11/444	Midden (Shell)	Heavily modified, possible intact deposits/features	Subsurface deposits likely to be destroyed
R11/1698	Midden (Shell)	Excavated/destroyed	Effects only if associated subsurface deposits are present
R11/1699	Building Site (Historic)	Excavated/destroyed	Effects only if associated subsurface deposits are present
R11/2212	Midden	Destroyed	None
R11/2216	Midden	Disturbed, possible intact deposits	Subsurface deposits likely to be destroyed
R11/2253	Midden	Damaged or destroyed	Effects only if associated subsurface deposits are present
R11/2504	Tramway	Good	None (just outside construction footprint)
R11/2505	Landing	Good	None (just outside construction footprint)
R11/2506	Landing	Moderate, some erosion	On the boundary of the construction footprint, but unlikely to be affected if care is taken during construction
R11/2507	Midden	Moderate	Just outside the boundary of the construction footprint. Unlikely to be affected if care is taken during construction
R11/2508	Landing	Not known	Subsurface deposits likely to be damaged/ destroyed

NZAA	Site Type	Condition	Effects
R11/2550	Midden	Poor	If any physical remains are present, they would be destroyed
<b>Sector 4 (Reclamation)</b>			
R11/2199	Midden	Damaged, extent unknown	None
R11/2200	Midden	Damaged, extent unknown	None
R11/2201	Midden	Damaged, extent unknown	None
<b>Sector 5 (Great North Road Interchange)</b>			
R11/521	Midden / Karaka	Fair	None
R11/522	Midden	Not known (?buried)	None
R11/523	Midden	Not known (?buried)	None
R11/1452	Midden	Not known (?buried)	None
R11/2191	Flourmill/ Tannery/ Quarry	Good	Most known features of site avoided, some damage to eastern and extreme western part of site from ramp piers and access; care will be required during construction  Possible minor effects from walkways, reinstatement of bridge, and remedial work proposed as mitigation.  Adverse visual effects from overhead ramps
R11/2202	Midden/ Karaka Trees	Good	Avoided by construction works  Possible minor effects from walkways proposed as mitigation
R11/2203	Settlement	Good	Avoided by construction works  Possible minor effects from walkways proposed as mitigation
R11/2204	Midden	Poor, eroding	None
R11/2213	Dry stone Wall	Excellent	Impact on part of wall
R11/2214	Midden	Probably destroyed	Effects only if intact subsurface deposits are present
R11/2215	Midden	Probably destroyed	Effects only if intact subsurface deposits are present
R11/2224	Mill	Good, but rubbish dumping	None
R11/2231	Midden	Poor	None
R11/2459	Midden	Poor, eroding	Possible effects from access to ramp construction
n/a	Carrington Hospital	In use as part of Unitec	None (except for surrounds near motorway)
n/a	Military Camp	Location not known	No impact on any known features
<b>Sectors 7 &amp; 8 (Great North Road Underpass &amp; Avondale Heights Tunnel)</b>			
R11/518	Midden	Destroyed or under vegetation	None
R11/519	Midden	Fair, some erosion/slumping	None
R11/520	Midden	Same site as R11/519	None
R11/524	Midden/Pits	Fair, some slumping/erosion	None



<b>NZAA</b>	<b>Site Type</b>	<b>Condition</b>	<b>Effects</b>
R11/525	Midden	Not known	None
R11/2108	Stone Wall	Good	None
R11/2109	Midden	Destroyed	None
R11/2205	Mill	Good	None
R11/2206	Stone Wall	Good-excellent	None
R11/2207	Stockyard/ Pen	Good-excellent, some damage	None
R11/2208	Stone Wall	Good-excellent, some re- building	None
R11/2209	Stone Wall/ Farm Crossing	Good-excellent, some damage	None
R11/2210	Pit/Terraces	Fair	None
R11/2211	'Stone wall'	Not a site	None
R11/2247	Historic Quarry/ Railway Bridge/ Embankment	Fair	None
R11/2248	Midden	Disturbed by gardening	None
R11/2373	Bridges/Track / Wall	Fair, damage to wall	None
R11/2383	Hole in bank	Good	None
R11/2473	Stone Wall	Excellent	None
R11/2497	Midden	Largely destroyed	None
R11/2500	Stone Wall	Good	None

**ANNEXURE B - PLAN OF SECTOR 5 SHOWING THE RELATIONSHIP OF  
THE PROPOSED RAMPS IN RELATION TO HERITAGE SITES**



**Legend**

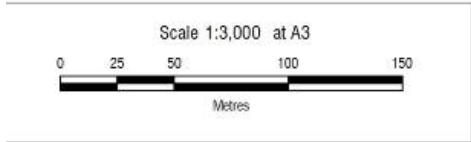
- Piers Ramp 1
- Piers Ramp 2
- Piers Ramp 3
- Piers Ramp 4
- Proposed Alignment July 2010
- Existing Cycleway
- Archaeological Site Location
- Indicative Cycleway
- Archaeological Area

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Revision	By	Verified	Appd	Date
0	ISD	AYF	AH4	1/03/2010
1	ISD	AYF	AH4	12/07/2010

**Great North Road Interchange Constraints**

Client: **NZ Transport Agency (Auckland)**

Project: **Waterview Connection Project SH16/20**



Discipline: **GIS**

Drawing No: **GIS - 3814238-2.1**

Great North Road Interchange showing proposed motorway ramps and other works in relation to the Oakley Inlet Heritage Area and the stone wall (R11/2213). (Figure 6.45 from Technical Report No. G2, Assessment of Environmental Effects (AEE), Part G)

**ANNEXURE C - APPENDIX 2 TO THE TECHNICAL ADDENDUM REPORT  
- G.31**

**Appendix 2**  
**Addendum to Technical Report G.2**  
***Assessment of Archaeological***  
***Effects***

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**Technical Assessment:** G.2 Assessment of Archaeological Effects

**Respondent:** Rod Clough and Sarah MacReady, Clough and Associates

**Explanatory Note Relating to Criteria Used for Evaluation of Effects**

Adverse effects on individual archaeological sites, or on an associated group of sites in the case of the Waterview Inlet Heritage Area, have been assessed in the report as being either Minor or Significant<sup>1</sup>.

This evaluation has been based primarily on consideration of the scale of the physical effects and the archaeological value and significance of the site(s), as set out in the table below. Adverse visual effects have also been a factor in the case of sites which have visual and/or landscape value (notably the Waterview Inlet Heritage Area):

**Table 1 - Consideration of the Scale of the Physical Effects and the Archaeological Value and Significance of Site(s)**

Evaluation	Physical Effects	Archaeological Value	Examples of Affected Sites
Minor	Damage/Destruction	Low	Destroyed or heavily modified midden; historic sites with no known remains
Minor	Damage (partial)	Moderate	Stone wall
Significant	Destruction/Damage (extensive)	Moderate	N/A
Significant	Damage	High	Waterview Inlet Heritage Area

The archaeological value and significance of the sites within or near the construction footprint and the criteria used are discussed in Section 7.2 of the report.

<sup>1</sup> Note that different criteria would apply in situations where effects on an extensive archaeological landscape over a wider area are being considered.

**ANNEXURE D: PROPOSED ARCHAEOLOGY CONDITIONS<sup>1</sup>  
(AMENDED TO ADDRESS SUBMITTER ISSUES)**

ARCH.1	<p>The NZTA shall complete, and implement through the CEMP, the Archaeological Site Management Plan (ASMP) submitted with the notice of requirement, to include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a) Identification of the Project archaeologist, their role and responsibility on the Project;</li> <li>b) Who reports to the Project archaeologist;</li> <li>c) Specific sites requiring supervision, and measures to be undertaken to protect and manage these sites;</li> <li>d) <u>Any agreement with tangata whenua relating to the supervision of archaeological work at specific sites;</u></li> <li>e) Accidental discovery protocols in the event that unknown archaeological sites are uncovered.</li> </ul>
ARCH.2	<p>The NZTA shall employ at its expense a qualified archaeologist (the Project archaeologist) who shall be on site to monitor all initial earthworks, including surface stripping of the site, for all specific areas identified in the ASMP to establish whether any sub-surface archaeological features are present. This includes, but is not limited to, the following areas:</p> <ul style="list-style-type: none"> <li>(a) All unmodified areas in the vicinity of Rosebank Road;</li> <li>(b) All works in the vicinity of the "Oakley Inlet Heritage Area", located adjacent to the Great North Road Interchange;</li> <li>(c) Works in the vicinity of two midden sites (recorded R11/2214 and R11/2215) within Great North Road Interchange, and all previously unmodified areas near the banks of the Oakley Inlet;</li> <li>(d) Any ground disturbance works in Construction Yard 7 within Oakley Creek Reserve.</li> </ul>
ARCH.3	<p>If any archaeological sites, including human remains are exposed during site works, then the following procedures shall apply:</p> <ul style="list-style-type: none"> <li>(a) Immediately it becomes apparent that a possible archaeological or traditional site has been exposed, all site works in the immediate vicinity shall cease;</li> <li>(b) The site supervisor shall immediately secure the area in a way that ensures that any artefacts or remains are untouched and notify the Project archaeologist;</li> <li>(c) The Project archaeologist shall inspect the site to assess the relevance of the find, and then the [Auckland Council] shall be advised of the significance;</li> <li>(d) If the site is confirmed to be an archaeological site by the Project archaeologist, the site supervisor shall then notify tangata whenua, the New Zealand Historic Places Trust, and the [Auckland Council] that an archaeological site has been exposed so that appropriate action can be taken.</li> </ul>
ARCH.4	<p>In accordance with the ASMP, the following archaeological sites shall be fenced off and protected to the satisfaction of the Project archaeologist, prior to construction activities being undertaken:</p> <ul style="list-style-type: none"> <li>(a) Recorded sites R11/2504, R11/2505, R11/2506 and R11/2507, located on the northern boundary of the designation adjacent to the Rosebank Road peninsula.</li> <li>(b) Recorded site R11/2383 in the Oakley Creek Esplanade Reserve construction yard.</li> </ul>

<sup>1</sup> Contained in AEE, Appendix E.1, pages 36 - 38.

ARCH.5	<p>In accordance with the ASMP, the following specific measures shall be implemented in the area identified as the "Oakley Inlet Heritage Area" (including recorded sites R11/2191, R11/2202, R11/2203 and R11/2459), located adjacent the Great North Road interchange:</p> <ul style="list-style-type: none"> <li>(a) <u>Once details of the construction methodology and access requirements have been determined, a plan will be prepared in consultation with the Project archaeologist that outlines the areas of archaeological value to be fenced off and protected from any adverse effects during the construction process. This plan will be added to the Archaeological Constraints layer in the GIS layers included as Appendix of the ASMP in the CEMP.</u></li> <li>(b) All works in the <u>Oakley Inlet Heritage Area</u> shall be monitored by the Project archaeologist.</li> <li>(c) Machine access to construction works in this area shall be planned so as to minimise adverse effects on archaeological features;</li> <li>(d) During and following removal of houses north of Cowley Street and west of Great North Road in the area where the mill workers' cottages and mill race were once located, investigations shall be undertaken to establish and record any archaeological remains that may have survived;</li> <li>(e) Remedial or limited restoration works should be carried out to the basalt walls, wheel pit and bridge abutment of the mill/tannery/ quarry site (R11/2191), to a specification prepared by a heritage professional, to ensure their long term preservation;</li> <li>(f) A vegetation management plan shall be prepared and implemented to remove vegetation that is damaging archaeological features in this area and to protect and enhance features with appropriate vegetation cover;</li> <li><del>(g) A pedestrian bridge linking the northern and southern banks of the Oakley inlet shall be provided in the original location of the historical bridge to restore the historical connection between the two parts of the Oakley Inlet Heritage Area and make both parts easily accessible;</del></li> <li><del>(h) Provide interpretative signage of the Oakley Inlet Heritage Area for public information and educational purposes.</del></li> </ul>
ARCH.6	<p>The Project archaeologist, shall be made part of the Waterview Reserve Restoration Plan (refer Condition SQ.1) development team to provide advice on long term management of the "Oakley Inlet Heritage Area". <u>The Waterview Reserve Restoration Plan shall include provision for, as a minimum:</u></p> <ul style="list-style-type: none"> <li>(a) <u>A pedestrian bridge linking the northern and southern banks of the Oakley inlet shall be provided in the original location of the historical bridge to restore the historical connection between the two parts of the Oakley Inlet Heritage Area and make both parts easily accessible.</u></li> <li>(b) <u>Provide interpretative signage of the Oakley Inlet Heritage Area for public information and educational purposes.</u></li> </ul>
ARCH.7	<p>In accordance with the ASMP, any works to the dry stone wall (recorded site R11/2213) located on the north western boundary of the Great North Road Interchange, shall be minimised <u>as far as possible and managed</u> in accordance with the following:</p> <ul style="list-style-type: none"> <li>(a) If it is necessary to demolish part of the wall, the stone shall be used to repair the remainder of the wall. <del>Any surplus shall be offered to Auckland City Council for use in repairing other historic stone walls.</del> <u>Appropriate reuse of any surplus stone will be determined following consultation with the NZHPT and Auckland Council.</u></li> <li>(b) The remainder of the stone wall shall be protected from construction machinery by the use of warratahs and an adequate buffer area prior to earthworks commencing.</li> <li>(c) The remainder of the stone wall shall be carefully cleared of vegetation growth and repaired where necessary to a specification prepared by a heritage professional employed at the expense of the NZTA.</li> </ul>
ARCH.8	<p>All contractors and subcontractors working on the Project shall be trained <u>in</u> the archaeological requirements set out in the ASMP.</p>
Advice note	<p>Any archaeological sites within the area affected by the Project shall not be modified or disturbed in any way unless written authorisation has been obtained from the NZ Historic Places Trust.</p>