

Before a Board of Inquiry
MacKays to Peka Peka Expressway Proposal

under: the Resource Management Act 1991

in the matter of: Notice of requirement for designation and resource consent applications by the NZ Transport Agency for the MacKays to Peka Peka Expressway Proposal

applicant: **NZ Transport Agency**
Requiring Authority

Statement of evidence of Ian Bowman (Built Heritage) for the NZ Transport Agency

Dated: 6 September 2012

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STATEMENT OF EVIDENCE OF IAN BOWMAN FOR THE NZ TRANSPORT AGENCY

QUALIFICATIONS AND EXPERIENCE

- 1 My full name is Ian Alexander Bowman.
- 2 I am an historian, a registered architect and a built heritage conservator. My qualifications are a Bachelor of Arts in History and Economic History from Victoria University, a Bachelor of Architecture from the University of Auckland, and a Master of Arts in Conservation Studies from the University of York.
- 3 I have certificates from the International Centre for the Study of the Preservation and Restoration of Cultural Property (*ICCROM*) in the conservation of stone and earthen architecture. I have completed an Association of Preservation Technology (*APT*) course in Canada in the conservation of timber buildings and a Plymouth University/*ICCROM* course on cob building conservation in England.
- 4 I am a past Chairman of the New Zealand Institute of Architects (*NZIA*) Wellington Branch and I was made a Fellow of the *NZIA* for services to conservation and the Institute. I am an elected member of the International Council on Monuments and Sites (*ICOMOS*) and the International Scientific Committee on the Conservation of Earthen Architectural Heritage (*ISCEAH*). I am a founding member and current committee member of the New Zealand National Committee of *ICOMOS*, a member of the New Zealand Conservators of Cultural Material (*NZCCM*) and co-convenor of the Australasian Chapter of *APT*.
- 5 I have almost 30 years' experience working in the United Kingdom, Australia and New Zealand in the field of architecture and building conservation. I have been a principal in my own practice since its establishment in 1992.
- 6 I have provided built heritage advice on a number of projects for the NZ Transport Agency (*NZTA*) and its predecessor Transit New Zealand. These include the Wellington Inner City Bypass, between 1986 and 2007, the Otaki Te Horo Expressway in 2003-2004, the Western Corridor Study in 2004-2005 and Transmission Gully from 2010 to 2012. I am currently working with the *NZTA* on the Basin Reserve, Peka Peka to Otaki and Tunnel Duplication projects.
- 7 My evidence is given in support of the Notice of Requirement (*NoR*) and applications for resource consent lodged with the Environmental Protection Authority (*EPA*) by the NZ Transport Agency for the construction, maintenance and operation of the MackKays to Peka Peka Expressway Project (*the Project*).

- 8 I am familiar with the area that the Project covers and the State highway and local roading network in the vicinity of the Project.
- 9 I am the author of the Assessment of Built Heritage Effects (Technical Report 10) which formed part of the Assessment of Environmental Effects (*AEE*) lodged in support of the Project.
- 10 I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Consolidated Practice Note (2011), and I agree to comply with it as if this Inquiry were before the Environment Court. My qualifications as an expert are set out above. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

- 11 My evidence will deal with the following:
- 11.1 Background and role;
 - 11.2 Methodology for assessment;
 - 11.3 Effects of the Project on built heritage sites in the vicinity of the Project area;
 - 11.4 Response to submissions;
 - 11.5 Proposed conditions; and
 - 11.6 Conclusions.

EXECUTIVE SUMMARY

- 12 I have determined that there are two statutorily recognised structures of built cultural heritage value that are in close proximity to and that have the potential to be affected by the Project. These are:
- 12.1 The former St Luke's Church at El Rancho which is included on the Kāpiti Coast District Council (*KCDC*) Heritage Register number B41; and
 - 12.2 The Greenaway Homestead which is included on the Kāpiti *KCDC* Heritage Register number B72.
- 13 The effects on both these structures during the Project's construction and operation are not significant. Therefore, no

mitigation or consent conditions are proposed in respect of these structures.

- 14 In addition, the Stringer 'Wind Rain House' at 224 Main Road (State Highway 1), Raumati, identified by the New Zealand Historic Places Trust (NZHPT) as a building of potential built heritage value, was also assessed as it is directly affected by the proposed Project alignment (*Alignment*). Following the preparation of a desk-top heritage assessment of the house, I have confirmed that the building has built heritage values and recommended relocation of the building to an appropriate location. A relevant designation condition is proposed.¹
- 15 I have reviewed submissions lodged on the Project relevant to my area of expertise. Nothing raised in those submissions causes me to depart from the conclusions reached in my technical assessment of the Project.

BACKGROUND AND ROLE

- 16 I am the author of the Assessment of Built Heritage Effects (Technical Report 10). The role of this report was:
- 16.1 to identify any built heritage either included on the KCDC Heritage Register or the New Zealand Historic Places Trust Register of Historic Places that is within or in close proximity to the proposed MacKays to Peka Peka Expressway alignment;
 - 16.2 to use national and international criteria, and assess the effects of the Project on any identified built heritage;
 - 16.3 to make recommendations for mitigation if required.
- 17 I also prepared a desk-top heritage assessment of the Stringer Wind Rain house (although it is not statutorily recognised as built heritage). The assessment also discussed mitigation options.
- 18 I made one site visit to inspect the statutorily recognised heritage buildings potentially affected by the Project on 11 October 2011. In order to assess whether the Stinger Wind Rain house could be relocated, I made a site visit with engineer David Wood on 21 June 2012.

METHODOLOGY FOR ASSESSMENT

- 19 My methodology for undertaking the built heritage assessment of the Project was as follows:

¹ Refer evidence of **Mr Robert Schofield**.

- 19.1 To identify statutorily recognised built heritage assets within the proposed designation boundaries and also located generally within 1km of the proposed Project alignment. Beyond this distance, it was assumed that there would be little or no visual or physical effects on built heritage values as a result of the Project;
- 19.2 To review information on distances of statutorily recognised built heritage assets from the centre line of the proposed Alignment as supplied by Boffa Miskell; relevant contour plans showing the proposed Alignment and other project information;
- 19.3 To review a heritage assessment of the Greenaway Homestead prepared by historian Michael Kelly;²
- 19.4 To make a site visit to all identified built heritage properties to visually assess and photograph the properties and to compare their locations with the proposed Alignment contour plans;
- 19.5 In accordance with best practice, to assess effects on built heritage by reference to relevant national and international guidance documents.³
- 20 The assessment of the Stringer Wind Rain house was based on the Resource Management Act (RMA) definitions of historic heritage as interpreted by the NZHPT *Sustainable Management of Historic Heritage Guidance Information Sheet 2, 2007*.

EFFECTS ON BUILT HERITAGE SITES IN THE VICINITY OF THE PROJECT AREA

- 21 As noted above, from the results of those investigations, I established that there were two statutorily identified structures of built heritage value that would be potentially affected by the Project, these being:

² Kelly, M., Murray, R., *Greenaway Homestead and environs Kauri and Puriri Roads, Waikanae, Heritage Assessment (draft) for MacKays to Peka Peka Alliance*, November 2010.

³ These included the NZHPT Sustainable Management of Historic Heritage Guidance Information Sheet 1 Principles for Assessing appropriate or inappropriate Subdivision, Use and Development on Historic Heritage Values; Sustainable Management of Historic Heritage Guidance Information Sheet 16 Assessing Impacts in Surroundings associated with Historic Heritage; Sustainable Management of Historic Heritage Guidance Information Sheet 22 Assessing Impacts of Designations on Historic Heritage; the ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, 1996; and the KCDC District Plan Section 8 Heritage Objectives and Policies.

- 21.1 The former St Luke's church, Kauri Road, El Rancho, listed as an historic building on the Heritage Register in the KCDC District Plan, register number B41;
- 21.2 The Greenaway Homestead, 14 Kauri Road, listed as an historic building on the Heritage Register in the KCDC District Plan, register number B72.
- 22 In addition, the Stringer Wind Rain house (which was identified by the New Zealand Historic Places Trust as having some historic heritage values) would be directly affected by the proposed Alignment, as the Expressway would pass in very close proximity to the house.
- 23 I now discuss my assessment of the potential effects of the Project on these heritage structures.

Effects on the former St Luke's Church

- 24 The former St Luke's Anglican Church was relocated to El Rancho in 1990, from its original location opposite 713 Oroua Valley Road at Apiti, Manawatu. Construction of the church began in 1896 and it was consecrated in 1902. Based on readily available information on the church, I determined that the building had moderate heritage values of significance only to the local area.
- 25 The church will be 180 metres away from the centre line of the proposed Alignment.
- 26 I am advised by the operators of El Rancho that the church is used infrequently for wedding services and also is used from time to time as a place of quiet reflection by some guests.
- 27 There is a small private cemetery to the north of the church where the founders of El Rancho are buried. It is not anticipated that there will be further burials.

Effects on heritage values

- 28 There will be no direct effects on the heritage values of the building as a result of the Project, but there is the potential for a slight but perceptible noise increase within the church grounds possibly affecting the usual quiet and respectful atmosphere observed during a church service.

Effects on views and setting

- 29 The church has been relocated. Therefore, its relationship with its original setting has been lost.
- 30 In its current location, only the views from the church rear to the north and east will be affected. The rear of the church is a narrow, unusable piece of land and is not a significant area.

Noise effects

- 31 Noise expert **Ms Siiri Wilkening** of Marshall Day has noted that the New Zealand operational road noise standard⁴ does not include churches as noise sensitive receiver locations. However, she has confirmed that noise levels around the church following construction of the Project would be within the most stringent noise category of NZS 6806 so that, if the standard did apply, there is no requirement for mitigation.⁵ She also suggests there will be an increase in noise levels during the construction period.⁶

Vibration effects

- 32 I have been advised by vibration expert James Whitlock⁷ of Marshall Day that there will be no construction vibration effects on the church because of its distance from the Alignment. I am advised by him that construction vibration effects may be felt up to 50 metres from the Expressway and the building is more than double that distance from it. He also advises that, provided there is the normal level of maintenance of the surface of the road, there will negligible operational vibration effects.

Effects on the Greenaway Homestead

Discussion

- 33 The former Greenaway Homestead was built in 1911 for locally significant figure, Leonard Greenaway. The house was designed by Cyril Mountfort, the son of widely recognised Christchurch architect Benjamin Mountfort. Cyril Mountfort used raft foundations for the house, an unusual technology for the period. A raft foundation is a reinforced concrete slab formed on the ground to enable a building to be constructed without piles. Such a foundation is often used when the ground under the building is not suitable for pile, strip or slab foundations. The raft foundation transmits the loads of the building evenly onto the ground.
- 34 The Homestead will be 150 metres away from the centre line of the proposed Alignment.
- 35 Overall, there will be little change to heritage values from the Project with a possible slight positive effect from the removal of four houses which would create a more open environment like that which existed when the house was originally built. The original setting contributed to the significance of the house and the Project partially reinstates this.

⁴ *Acoustics – Road traffic noise – New and altered roads* NZS 6806:2010.

⁵ Refer evidence of **Ms Wilkening** (Operational noise) at paragraphs 86-91.

⁶ Refer evidence of **Ms Wilkening** (Construction noise) at paragraphs 90-92.

⁷ Refer the evidence of **Mr James Whitlock**, at paragraph 37.

Effects on views and setting

- 36 As discussed above, there is the potential for a slight enhancement of the setting by the removal of the four houses creating a more open environment like that which existed when the house was built. The setting will also be modified to a minor extent with a bund, extending the existing sand dune to the north.
- 37 The existing views to and from the house are restricted by mature trees and these will be largely unchanged with the construction of the proposed Expressway. Based on an on-site visual assessment, the proposed Expressway should not be visible from the exterior or interior of the Homestead because of the height of the existing sand dunes and the proposed new bund.

Noise effects

- 38 I am advised by noise expert **Ms Wilkening** that she did not assess the auditory environment of the Homestead as the dwelling is outside the assessment area set out in the road noise standard NZS 6806. The dwelling would be affected by noise from the Expressway to a noticeable degree. However, the predicted noise level would be well below the most stringent noise criterion of NZS 6806, so no mitigation would be required.⁸ She considers that there may be a perceptible increase in noise levels from construction but any increase would be within NZS 6803.⁹

Vibration effects

- 39 I have been advised by vibration expert **Mr Whitlock**¹⁰ that there will be no construction vibration effects because of the distance of the Homestead from the Alignment. Construction vibration effects may be felt up to 50 metres from the Expressway and the house is at least double that distance from it.

Effects on the Stringer Wind Rain House

Discussion

- 40 Based on a desk-top assessment of the Stringer Wind Rain house conducted by me, the house has local to regional significance as the second of two Kāpiti Coast Wind Rain houses, designed by well-regarded Auckland architect, Nigel Cook. The house is the second of nine constructed in the series, which explore the use of technology to create benign indoor living environments with a glasshouse core and surrounded by conventional rooms. Although the houses have an 'eco' element to them and the Stringer house has been a regular site visit for 'Sustainable Architecture' students, Cook's main concern was to create a vernacular New Zealand house.

⁸ Refer evidence of **Ms Wilkening** (Operational noise) at paragraphs 86-91.

⁹ Refer evidence of **Ms Wilkening** (Construction noise) at paragraphs 56-59.

¹⁰ Refer the evidence of **Mr Whitlock**, at paragraph 37.

Cook's chief contributions to New Zealand architecture are the Wind Rain houses and an addition to the house of friend, Frank Sargeson.

Effects on heritage values

- 41 The proposed Expressway will be in very close proximity to the house at 224 Main Road, Raumati. The building is located within the proposed designation and approximately 25 metres from the edge of the proposed Expressway. Because a primary heritage value of the building is that it was designed as a home, retention of this use is recommended to retain heritage values. I have recommended its relocation to a compatible site. The property is owned by the Crown and is currently tenanted.

RESPONSE TO SUBMISSIONS

- 42 A number of submissions were received that were concerned with effects of the Project on heritage, cultural heritage, historic sites and historical values. Their concerns in these areas were not elaborated on.¹¹

NZ Historic Places Trust (0647)¹²

- 43 The submission by the NZ Historic Places Trust (0647) considers that effects on the Greenaway Homestead and former St Luke's Church will be minor and limited to effects on amenity. The NZHPT confirms that measures proposed by the NZTA will mitigate adverse effects.¹³ I agree with this assessment.
- 44 The NZHPT submission discusses the effects of the Project on the Stringer Wind/Rain House. The NZHPT recommends that the building be relocated and that a conservation report be prepared to advise on an appropriate new location and its future care and management. The NZHPT also recommends a heritage covenant to be placed on the new certificate of title. Its conclusion, if these mitigation proposals are accepted, is to find the effects on the house of the Project to be less than minor.¹⁴ I agree with this assessment, however, instead of a covenant, I would recommend a listing on the District Plan and/or registration by the NZHPT, as this would give some certainty to an owner and is consistent with my assessment that the house is of local to regional significance.

¹¹ The submissions include: Kress (0070), Pomare (0309), W Sisarich (0331), A Cherrill (0399), R Cherrill (0400), J Cherrill (0401), R Mackay (0404), K Pomare (0465), Save Kapiti Incorporated (0505), K Pivac (0536), G Cherrill (0631), P Cherrill (0632), Woods (0723).

¹² **Mr Andrew Quinn** also responds to this submission in his evidence.

¹³ Refer NZHPT submission (0647), Appendix B at paragraph 208.

¹⁴ Refer NZHPT submission (0647), Appendix B at paragraphs 209-212.

G R Hooker (0680)

- 45 The submission by G R Hooker (0680) deals with the effects of the Project on the Greenaway Homestead. The submitter attached an earlier submission of 2011 in which he requested that the house be relocated because of effects on the setting and heritage values of the house. My assessment is that there are no effects on heritage values and that the setting will be slightly enhanced by the Project. Based on this assessment, I do not believe that it is necessary to relocate the house.

PROPOSED CONDITIONS

- 46 Because the effects of the Project on the heritage values of the former St Luke's Church at El Rancho and the Greenaway Homestead are negligible, no mitigation or conditions are proposed.
- 47 A new designation condition (DC.62A) is proposed to mitigate the assessed effects on the Stringer Wind Rain House. This condition provides for relocation to an appropriate location on the Kāpiti Coast in accordance with a conservation report, which shall include selection criteria for an appropriate location and an assessment of how the moving and re-establishment of the structure is to be achieved to minimise the potential for adverse effects on it.¹⁵

CONCLUSIONS

- 48 A thorough assessment of built heritage assets within the proposed designation boundaries and generally within 1km of the proposed Project alignment has been undertaken. This assessment has shown that two statutorily identified items of built heritage are affected to by the proposed Expressway. However, as they are affected to a negligible extent, no conditions are proposed.
- 49 The assessment has also shown that the Stringer Wind Rain house, not statutorily identified as being of heritage value, but considered to be a house of built heritage values, is affected to a major and permanent extent. Recommended mitigation is its relocation to an appropriate location on the Kāpiti Coast according to a conservation report.



Ian Alexander Bowman
6 September 2012

¹⁵ Refer to the evidence of **Mr Robert Schofield**.