

**BEFORE A BOARD OF INQUIRY  
MACKAYS TO PEKA PEKA EXPRESSWAY PROPOSAL**

**UNDER** the Resource Management Act 1991

**IN THE MATTER OF** applications for resource consents and a notice of requirement in relation to the MacKays to Peka Peka Expressway Proposal

**BY** New Zealand Transport Agency

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**STATEMENT OF EVIDENCE OF IAN COLIN MUNRO  
ON BEHALF OF THE KĀPITI COAST DISTRICT COUNCIL**

**URBAN DESIGN AND PLANNING**

**DATE: 5 October 2012**

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## 1. INTRODUCTION

1.1 My full name is Ian Colin Munro.

1.2 I am an urban planner and designer specialising in strategic urbanism and urban sustainability. I have approximately 12 years of industry experience. I have included my standard CV, which outlines my qualifications, as **Annexure 1**. By way of summary I have a Masters degree in Planning, a Masters degree in Architecture (Urban Design), a Masters degree in Environmental Legal Studies, and by the time of the hearing will have completed the requirements for the degree of Master of Transport Engineering Studies. All of these have been attained at the University of Auckland. I am a full member of the New Zealand Planning Institute.

1.3 I am experienced with large-scale strategic projects and the relationship between transport infrastructure and urban form. I have been involved in a range of strategic growth and transport projects, a number of which have received awards from the New Zealand Planning Institute. I was recently the lead author of Auckland Transport's Corridor Management Plan guideline, a key reference to lead high-level transport corridor projects for over 450km of primary and secondary arterials and to ensure land use/transport integration is always prioritised.

1.4 I concur with the description of the fields of urban design (detail spatial integration) and urban planning (wider spatial integration) briefly mentioned by **Mr Marc Baily** for the New Zealand Transport Agency (**NZTA**). This is a helpful delineation accepted internationally but which is not yet well established in New Zealand.

1.5 I am authorised by the Kāpiti Coast District Council (**Council**) to present this evidence on its behalf.

1.6 I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2011. I agree to comply with that Code. Other than where I state that I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I am familiar with the local environment and specific route of the proposed MacKays to Peka Peka Expressway (**Expressway**) and have visited the site.

## 2. SCOPE OF EVIDENCE

### 2.1 My evidence will cover:

- (a) a summary of my involvement to date;
- (b) supported aspects of the Expressway;
- (c) restriction of development pressures at Interchanges;
- (d) future east / west road linkages;
- (e) access to Nga Manu and to State Highway 1;
- (f) pedestrian overbridges;
- (g) cycleway, walkway and bridleway;
- (h) future signage associated with the expressway;
- (i) the Mazengarb Road bridge; and
- (j) new conditions of consent proposed by Mr Marc Baily.

## 3. EXECUTIVE SUMMARY

3.1 I have carried out an urban design assessment of the Expressway. I will not set that assessment out in full so as to avoid repeating material covered adequately by NZTA's urban design assessment. My evidence is limited to the matters raised in the Council's submission, where I consider there remains a risk that the proposal will deliver inappropriate outcomes.

3.2 I support the high-level approach proposed by the NZTA for the Expressway. The approach reflects the rigour of work undertaken in the identification and assessment of options by NZTA.

3.3 I am of the view that the location and provision of on/off vehicular access points proposed will have the least detrimental impact on established settlements and their planned expansion (growth). However it is my opinion that changes affecting the detail design are required at the Te Moana Road and Kāpiti Road interchanges.

3.4 There will be some relatively modest benefits arising from NZTA's proposed changes to the existing State Highway as it passes through Paraparaumu and Waikanae. However, there are greater potential adverse effects associated with commercial displacement and relocation from those centres towards new high capacity strategic junctions. I particularly support NZTA's plan to only have all-access interchanges at Kāpiti Road and Te Moana Road, and indeed see it as essential if the overall Kāpiti Coast District (**District**) development strategy is to be supported.

- 3.5** I would not support any high level changes to this configuration. In the interests of minimising impacts on Paraparaumu and Waikanae settlements, the partial interchanges at Poplar Avenue and Peka Peka should not be increased to full interchanges. I am in particular agreement with the proposal for the alignment to avoid Queen Elizabeth Park. This park is a premier amenity for the District and I cannot imagine how a major Expressway could traverse it without creating lasting adverse severance effects and a loss of a strategically important contiguous area of open space.
- 3.6** I support the approach taken by NZTA in respect of urban design and planning issues (subject to my comments below), including the effort and care taken to develop the Urban and Landscape Design Framework (**ULDF**). This framework and the proposed conditions associated with it will help to ensure that urban design considerations will not become lost in detailed design and project implementation. I note however that a lack of quantitative minimum standards for key pedestrian, cycle and landscape components is anomalous, when such have been provided for other elements like vehicular travel lanes.
- 3.7** I also note that the use of Management Plans proposed by NZTA does bring with it a real potential for many small changes over time to have a cumulatively appreciable and negative impact. For this reason, my support of this approach is qualified as described below and by my recommendation that the Council should have a role in the certification of any Management Plan related to urban design matters, including any amendments. For example, I could not support any reduction in road bridge width that reduced the space available or trip quality for pedestrians, cyclists, or compromised important landscape and visual design features incorporated as part of the project's overall mitigation measures.
- 3.8** I also recommend several changes to the proposal, achievable by way of conditions imposed in the designation (including possibly by way of conditions relating to Management Plans), in order to promote sustainable management. These changes are of such actual or potential significance that leaving them for a later exercise of detail design, or purely to chance, would not be appropriate. I note that for the specific wording of those conditions I rely on the expert planning evidence of **Ms Emily Thomson**.

**3.9** The most significant changes necessary in my opinion are:

- (a) The roundabout-based interchange at Te Moana Road should be changed to a traffic signal control. This is necessary because of the combination of safety hazards at this location and to give an equitable priority to pedestrians and cyclists. Without this change, the pedestrian and cycle facility would inappropriately channel pedestrians and cyclists directly into the eastern “off ramp” roundabout. It is therefore difficult to reconcile such a proposition with best practice urban design principles or indeed the specific principles of NZTA’s ULDF.
- (b) Conditions on the designation should prohibit vehicular property access from any road in NZTA’s control within one kilometre of the Expressway unless such access has been explicitly agreed between the Council and NZTA. This will ensure development pressures associated with access ramps can be assuredly and reliably managed.
- (c) Conditions on the designation should set out a clear process for providing future cross-Expressway connections, including at Leinster Avenue, Ferndale Road and Ngarara Road (north). The Council has undertaken many years of growth planning around its settlements to support sustainability-based policies including consolidation, convenience and contiguity. The Expressway route will inevitably cause a degree of disruption to the success of this planning by way of severing key future connections that could have been previously established. A necessary mitigation of the Expressway’s growth area severance is the provision for planned as well as existing cross connections. This to my mind must include a commitment by NZTA to cover any increased costs of achieving those modified connections than would have existed without the Expressway (such as if a bridge is required instead of an at-grade link). Such issues fall clearly into the category of future effects contemplated by the Resource Management Act 1991 (**RMA**).

**3.10** I also consider it is necessary for the conditions to provide greater certainty in relation to how proposed pedestrian overbridges will be integrated into the local movement network so that a high quality, direct, safe and appealing route exists not only across the Expressway (the bridges themselves), but through to the existing local network as well (how readily people can get to or from the bridges).

#### **4. INVOLVEMENT TO DATE**

**4.1** I have worked on a number of projects in the Kāpiti Coast since 2005 and am familiar with the local environment.

**4.2** The Council engaged me prior to preparing its submission on the Expressway. I was asked to undertake an urban design review and to identify to the Council the elements that needed to be improved. My evidence is limited to those matters that remain of concern as expressed in the Council's submission.

#### **5. SUPPORTED ASPECTS OF THE EXPRESSWAY**

**5.1** In line with my recommendations, the Council's submission states the following at paragraph 130:

130. The Council therefore strongly supports the following components of NZTA's proposal:

(a) the provision of a full interchange at Kāpiti Road and at Te Moana Road. These provide for improved internal access and connectivity;

(b) the provision of half interchanges at Poplar Avenue and at Peka Peka. The latter in particular reduces development pressures in that area;

(c) the alignment north of Leinster Avenue. This helps reduce severance for the local communities, protects valuable indigenous systems north of Poplar Avenue and avoids unacceptable effects on Queen Elizabeth Park;

(d) the provision of a pedestrian/cycle facility parallel to the Expressway, including its off-road component where it is not possible to achieve it immediately adjacent to the Expressway; and

(e) provision for east-west pedestrian/cycling connections north of Leinster Avenue and south of Raumati Road and between Kāpiti Road and Mazengarb Road.

**5.2** These above aspects of the Expressway, particularly (a), (b), and (c), are amongst the most important strategic urban design advantages of the proposed Expressway and illustrate how adverse effects will be avoided, remedied or mitigated.

#### **Items (a) and (b) – managing strategic access**

**5.3** My support of these aspects relies on an understanding of the way in which road access shapes land settlement patterns and changes thereto. These land settlement patterns also inform the recommendations I make throughout my evidence about amendments to the project.

**5.4** The Expressway will create a new order of State Highway 1 junctions in the District and this will have the effect of reducing the appeal of some existing commercial sites and significantly increasing the appeal of new potential sites based in the shift of potential customers attributable purely to the Expressway. To my mind one of the greatest risks

presented by projects such as the Expressway is the erosion of existing centres that have been developed over many decades by many stakeholders. Public investments tend to be fixed and cannot be easily replicated (such as amenity rich main-streets suddenly without a number of key stores and enjoying lower patronage).

- 5.5** The proposed distribution and high-level design of the proposed Expressway access points are desirable as they will support as much as possible the existing settlements of Paraparaumu and Waikanae. I concur with the view of Mr Marc Baily in this respect and agree that full access points should not be provided other than has been proposed at Kāpiti and Te Moana Roads. This interchange strategy would continue to support Paraparaumu and to a lesser extent Waikanae.
- 5.6** While access to and from the Expressway is an obvious necessity, there is in my mind real potential risk to those two key settlements (Waikanae due to its relatively small scale and the fact that it is to be entirely bypassed, and Paraparaumu due to the amount of commercial development needed within the centre just to fully establish and “in fill” the central commercial area around Rimu Road). Active restrictions on access points at Poplar Avenue and Peka Peka are therefore well justified. In urban design terms, benefits to Paraparaumu and Waikanae outweigh any local disadvantages to Poplar Avenue or Peka Peka arising from those latter locations having limited access interchanges. Given the population of the District, altering the proposal in a way that would enable additional commercial centres (whether intentionally or not) would in my view not be sustainable.
- 5.7** My reasons for this view are derived from the urban design concept of the “movement economy”. This describes the relationship between commercial development and customer access, especially retail given the extent to which it is reliant on spontaneous custom from passers-by (the store needs to be where the people are) in addition to rationally planned premeditated custom (the customers will come to the store). It is not uncommon for every-day item retailers including large international chains, to be reliant on spontaneous or chance custom for up to or more than 50% of total trade. But in summary, the most appealing site for a commercial operation will be the one that has the greatest access to the greatest number of actual and potential customers, and hence the greatest opportunity for total trade. This is why across New Zealand essentially every major centre’s main street is (or was originally) on the busiest road around the busiest junction.

- 5.8** The advent of strategic highway networks and successive urban bypasses to prioritise high speed vehicle movement over the past fifty years has been seen in many places (and in many countries) to have had a profound effect on the nature of settlement growth and change. In particular, where an established centre based in large part on the presence of high vehicle volumes is suddenly sans-volumes, the centre has little commercial prospect of remaining and will look to move (where possible). This may prove difficult for expensive public investments that cannot be moved as easily as a retail tenancy, and hence significant disruption can occur as a dense agglomeration disperses at an uneven and uncoordinated rate.
- 5.9** The other side of that equation relates to the price of land in a zoned, busy part of the environment such as in an existing commercial site (high) compared with what is almost inevitably land in a less developed (often rural) site that is suddenly the focus of a significant increase in traffic moving outside the front gate. Such sites, although not arising as a result of any deliberate land use planning for such, can often meet all of the relevant commercial operator requirements but at a notably lower price (at least until a District Plan can catch up). This practical consideration can prove additionally tempting to commercial developers.
- 5.10** To mitigate any loss of through traffic caused by a major change in the transport system, increased attention falls on the role of retail anchors within centres as these, by virtue of their significant traffic generation (the largest supermarkets can generate over 750,000 trips per year), can still allow a prosperous and high amenity main street and commercial centre environment to flourish. Around that other services needed by a community can in turn find a home. Managing the placement and orientation of such uses within centres is a very difficult and often only partially successful technique due to the level of meticulous control over ingress and egress flows required of sites in relation to key streets. As a rule of thumb, a major anchor retail activity can often generate enough traffic to support small scale or speciality retail in the order of 15 - 20% of its floor area (so in the right location a 4,000m<sup>2</sup> supermarket could support up to 800m<sup>2</sup> of 'parasitic' retail that in the absence of the high concentration of passers-by would be otherwise unlikely to prove viable at that location).
- 5.11** This very simplified summary is the basis of the two major retail planning strategies employed by councils at present to manage the way in which certain commercial premises respond to the movement system including major changes to it:



- (a) Where the transport system deposits high traffic volumes into established and successful centres, 'big retail boxes' can occasionally be supported in 'out of centre' locations because:
- their attractor role for traffic is not as crucial; and
  - their large visual and other operational effects (which can be problematic) can be avoided from sensitive character areas.
- (b) But usually there are restrictions on the extent of small-scale speciality retail permitted to accompany the out-of-centre location to prevent the bleeding of such from existing centres. This is seen as allowing flexibility for big retail boxes without creating rival or competitor town centres. An example of this can be seen at the Paraparaumu Airport, where the Council has enabled big retail boxes (amongst other commercial development), but has restricted small scale speciality retail.
- (c) Where the transport system has been changed to divert traffic flows, or in some new-centre locations where traffic flows are low, 'big retail boxes' can be required to locate within centres so as to magnify the intensity and concentration of customers and in turn generate more demand in a shorter timeframe for other commercial activity. This can be seen underpinning new centres planned in Auckland at the Albany and Massey North Sub Regional Centres, and the Hobsonville Village. Albany and Massey North are of additional interest as they demonstrate an attempt to coordinate the provision of strategic infrastructure with corresponding land use change.

**5.12** Because of these land use/transport relationships, urban planners and designers have developed two key approaches with which the loss of movement potential from a centre can be mitigated.

**5.13** The first approach is to shape new transport infrastructure access points so as to maintain a clear relationship with the most important existing community exchange points and centres, and to avoid the creation of competitor commercial centre locations. It is often desirable to control where vehicles can get on and where they can get off strategic transport infrastructure, so that the flows between these can contribute to local commercial activity in movement economy terms, at locations identified as being the most advantageous to the whole community rather than just in the interests of individual operators.

- 5.14** An example of this first approach in the Expressway is where reduced accessibility at Poplar Avenue and Peka Peka will help to cool inevitable out-of-centre development opportunism and in so doing help reinforce the Council's planning efforts to implement its Community Outcomes and related strategic direction based around Paraparaumu and Waikanae centres. In this strategic respect the Expressway clearly reflects best-practice urban design.
- 5.15** The second approach to mitigate the loss of movement potential from a centre is to control the distribution and location of major 'anchor' or attractor commercial uses such as supermarkets, department stores, shopping malls, and large format retail parks (in my mind three or more large format stores), including controlling the extent to which (if any) speciality or additional retail activities may locate with the primary big retail boxes. This is a complementary means by which specific restrictions on key uses that can disrupt centres as well as notably spoil the capacity around new strategic infrastructure manages the effects of this behaviour.
- 5.16** The Council, for instance via its Plan Change 78, has used this second approach and in my view it would be inappropriate if the Expressway were a means to unintentionally undermine these efforts. Mr Marc Baily (at paragraph 107) suggests it is the Council's problem to resolve. I support a more reliable approach because I have seen Mr Baily's optimistic attitude fail to achieve its intended outcome across the country (Lincoln Road in Waitakere City is often used as an example of the poorest outcomes arising from ad hoc management, but the recent "Outer Limits" large format retail development in Blenheim is another). This is especially so where the provision of transport infrastructure has been decoupled from any District Plan process to specifically manage those potential land uses (as is the case here). I will discuss this issue further in my next section "restriction of development pressures at interchanges".

#### **Item (c) – Queen Elizabeth Park alignment**

- 5.17** My support of this aspect relates to maintaining the contiguity of this regionally significant open space. The Park provides recreational access to a dune-based ecosystem including remnant forest and regenerating wetlands. Its contiguous scale over 650 hectares contributes to its pleasantness and what could be described as the wellbeing services it provides to the local and regional community.

**5.18** The Expressway is currently aligned so as to minimise impacts including severance of this amenity. I cannot imagine how a realignment that severed the space could be mitigated and I am reminded of a similarly unfortunate outcome at Smiths Bush in North Shore City where the alignment of State Highway 1 has severed a small but notable remnant of native bush into a larger component (part of Onewa reserve), and a smaller space. The two spaces have no functional or amenity connection and other than birdlife connections there is no opportunity for animal passage or other recreational access between the spaces. Instead users must leave one of the spaces, cross State Highway 1 at the Northcote Road interchange and then re-enter the remnant side – a very circuitous route that is highly inconvenient for pedestrians. The amenity of the space as a native bush is also lost due to the presence of a major urban highway and its visual and other effects (noise and emissions). I consider that a similarly negative outcome would occur in Kāpiti Coast. I therefore support NZTA's proposed alignment of the section of the Expressway near Queen Elizabeth Park.

## **6. RESTRICTION OF DEVELOPMENT PRESSURES AT INTERCHANGES**

**6.1** I now turn to the first area where I recommend changes to the designation conditions. The Council's submission seeks the following condition at paragraph 137:

137. A condition to ensure no vehicle access or road links will be provided by NZTA within one kilometre of any Expressway access point to any land use activity other than as agreed with the Council, particularly at Te Moana Road with agreement to be achieved prior to any decision being reached.

**6.2** While the partial access interchanges proposed at Poplar Avenue and Peka Peka will go a long way to avoiding the de facto creation of new centres at these locations, there will still in my view be considerable interest from larger-scale and other commercial activities (those that do not rely on agglomeration benefits and co-location to meet their needs) in seeking development at the interchanges. While I support full access at Te Moana Road, this access may also give rise to commercial activity close to but still very detrimental to Waikanae.

**6.3** I do not agree that the District Plan and resource consent processes, even by way of non-complying activity status for vehicle access and road links near interchanges, will reliably control such an important strategic issue. I similarly do not agree with the approach of essentially hoping that no such accesses will be proposed in the intervening period until a suitable Plan Change could be developed and made operative. Practice, such as the development of case law around cumulative effects, is much more focussed on avoiding the 'thousandth cut' than in preventing the first one. In

the case of major retail boxes such as supermarkets it only takes a few cuts to cause significant damage to centres when major traffic bypasses are also in place. Risks to Waikanae are, in my mind, of particular concern.

- 6.4** Once those initial cuts have been approved, especially for large retail boxes, it can be difficult to then stop consequential commercial development attracted by the new customer concentrations. For example, a contentious Pak 'n Save supermarket was approved in Wairau Road, North Shore City. In its wake a significant amount of speciality retail has been approved, despite discretionary activity status. Each application is of such inconsequentially small Gross Floor Area compared to the scale of the supermarket, that the concept of a cumulative effect, even if a threshold could be definitively identified, could not in practice ever be realistically attributed to such a fractionally small increase of the total retail concentration. This outcome has been described negatively as a de facto centre, and I would agree with that description. If the issue arose in the Kāpiti Coast, I cannot see why a different sequence would eventuate.
- 6.5** These issues are in my view more problematic in the context of a rural zone. Rural zones are low hanging fruit for non-complying activities as they tend to be very large, and very sparsely populated. Development evaluations are often reduced to little more than visual and landscape character considerations, as rural zones tend to be very loose in their enablement of “rural” industry and commercial activity. Compounding this, the environment around a major transport junction will always be functional or utilitarian in character, making it less likely that applications for commercial development could be justifiably refused on the basis of legitimate urban form effects that are unfortunately very difficult to quantify definitively (due to the number of variables to be worked though).
- 6.6** Looking at the possible management options, and in particular the Council's adopted policy position on the importance of commercial consolidation in town centres, in my opinion a clear restriction of vehicle access is the most efficient and effective means of achieving what I see as a key resource management effect caused by the Expressway. My view is that a one kilometre distance is appropriate (bearing in mind that the designation conditions could only impose this restriction on roads controlled by NZTA). I recommend that a condition to this effect is imposed.
- 6.7** Such an approach would also give additional certainty to NZTA in terms of the long term resilience and capacity of its network by way of a more direct regime controlling not only

vehicle volumes and flow on its roads but friction and delay caused by (potentially significant) vehicle access points near its interchanges.

**6.8** Mr Baily appears to agree that the issue is relevant, but considers that an appropriate solution is available that does not require the involvement of NZTA. At his paragraph 107 he mentions District Plan and possibly road controlling tools. District Plan tools, as I have discussed, will take many years to put in place (allowing opportunistic consents to be pursued in the intervening years), and will not give the certainty that an outright landowner access restriction would. District Plan changes would also cost much more to develop and potentially litigate. I am confident that a condition on the designation as I seek will be both more efficient and more effective than Mr Baily's suggestion.

**6.9** In respect of road controlling tools, I remain concerned that narrowing the issue to one of road management and Land Transport Management Act considerations will not allow an informed and holistic approach to all land use and transport effects to be retained. In my experience, considering transportation interests in isolation tends to detrimentally affect the achievement of strategic land use outcomes. My concern is that there needs to be a suitably informed and strategic perspective taken that is beyond what is possible in a land use consent. This is because a land use consent is confined only to the scope of a given application or a pure consideration of traffic efficiency and safety. A broader approach can ensure that any development will benefit the District and its strategic directions – even if in an incremental manner. Hence I do not agree that the tools suggested by Mr Baily will be either efficient or effective. Following on from that, they would not promote sustainable management because they would leave unaddressed a potential effect of significant probability and severity.

## **7. FUTURE EAST/WEST ROAD LINKAGES**

**7.1** The Council's submission states the following at paragraphs 139 – 141:

139. There are three east/west crossing points which are either required in principle, or where actual requirements are already established, and the Council is open to deferring their construction for a period of time.

140. These are:

(a) North of Leinster Avenue, Raumati South: The Council is of the view that provision of an east/west connection at Leinster Avenue, Raumati South for all or some modes is essential for wider community connectivity and to mitigate the severance effects created by the Expressway.

(b) Ferndale Road, Waikanae: The need for an east/west crossing at or near Ferndale Road is a proven necessity and a proposed connection is clearly set out in the Ngarara Structure Plan in the operative District Plan. The area of land it links is a major part of the low impact urban development area provided for under the District Plan for further urban development. The linkage is essential to the planned connectivity through the area.

(c) Ngarara Road (north) which is a paper road crossing with an existing rural zoning. It is essential that the capacity for this crossing is retained.

**Outcome sought**

141. A condition is needed to set out a clear process for providing future connections at Leinster Avenue, Ferndale Road and Ngarara Road (north).

- 7.2** I support this request. I have been impressed with the Council's efforts in promoting sustainability and settlement planning and often refer to it in my work across the country as an example to follow. One characteristic of the Council's work has been to carefully plan future road links and associated infrastructure. This integration is a critical component of successful settlement planning, and in my experience its absence can lead to poor development outcomes and increased pressure on existing infrastructure.
- 7.3** Waikanae in particular will change into the future as a consequence of growth and the Expressway has the potential to either support this or undermine it. Growth areas identified by the Council are the result of deliberate planning and urban design work taking into account and responding to the existing road network and achieving direct, convenient links. There is a relationship between the Ngarara Structure Plan road networks, land areas zoned, densities proposed and the ability to achieve subdivisions that deliver the various urban amenity expectations identified by the Council. Structural changes such as key roads being removed necessarily flow on to the deliverability of that entire vision. These would in my mind represent adverse future effects of the Expressway that should therefore be addressed by the Expressway project.
- 7.4** Central to the Council's strategic approach to growth has been the facilitation of compact, consolidated and convenient patterns that make people's daily needs as easy to meet as possible. This represents the implementation of best practice urban design and planning principles. Any reduction in local connectivity arising from the Expressway inevitably raises conflict with the achievement of those policies. I note here that many local-connectivity based daily need activities undertaken in the Kāpiti Coast rendered less convenient as a consequence of the Expressway would not necessarily be offset or compensated by the Expressway's strategic transport improvements, as many of those activities do not involve the use of State Highways at all. The ongoing confirmation that these links will be provided in the future is direct mitigation of an adverse effect caused by the Expressway.
- 7.5** Mr Baily has suggested at paragraph 130 of his evidence that the Council and NZTA have agreed these linkages are not required as Expressway mitigation. My understanding is that these linkages are needed in the future and that the Expressway project will make them more difficult and costly to provide, for example by meaning that

planned at-grade linkages may now need to involve bridges. It is these future challenges that in my mind need to be accounted for, and I understand that the agreement reached between NZTA and the Council reflects that position. To that extent, I disagree with Mr Baily. I consider that while not needing to be constructed as part of the Expressway on “day 1”, the future viability and provision of these important local links and their costs affected by the Expressway cannot be treated as being unrelated to the project or its effects.

**7.6** To illustrate the type of impact that the Expressway will have on these linkages, I have attached a map prepared by the Council (Annexure 2). The map shows the Ngarara Structure Plan area and illustrates to the Board the detail of planning work undertaken, where an indicative urban layout is shown by virtue of the many indicative roads (predominantly local roads) shown. Highlighted in light blue are the Ferndale Drive and Ngarara Road links where the Council seeks NZTA acceptance in M2PP, and co-funding of the connections across M2PP when they are required. These and the other links shown on the maps are not in my view arbitrarily located but have an intelligence and logic to them. In the context of all road links shown in the Ngarara Structure Plan area, I consider that the Council’s request to NZTA is a reasonable one.

**7.7** I recommend that a designation condition be imposed that sets out the process that will be followed by the Council and NZTA to develop these links in the future. I suggest the following could be helpful in developing a condition:

- (a) The future links at Leinster Avenue, Ferndale Road and Ngarara Road should be recognised by NZTA in the final design of the Expressway.
- (b) NZTA and the Council should agree the development or time thresholds at which each link should be investigated, agreed and then provided.
- (c) The Council and NZTA should agree on the extent of the link to be provided including the modes to be served at what level of service.
- (d) NZTA should meet any costs associated with providing these links over and above the costs that would have been incurred in the absence of the Expressway (this may be appropriate if included as an advice note to inform those later discussions).

## **8. ACCESS TO NGA MANU AND TO STATE HIGHWAY 1**

**8.1** The Council's submission states the following at paragraphs 142 – 143:

142. In the Waikanae North / Ngarara Road area, the Application provides for a local road bridge from Ngarara Road across the Expressway to link to Nga Manu and adjacent properties to the extension to Smithfield Road severed by the Expressway. The District Plan provides for an east/west linkage from SH1 through to Ngarara Road. There is a benefit in achieving a linkage to Nga Manu which is consistent with the long term planned linkage design.

The Council is prepared to fund part of the linkage, net of the amount that would be incurred by the applicant for the currently proposed point of connection.

### **Outcome sought**

143. A condition is needed requiring provision of access to Nga Manu which is consistent with the District Plan provisions (to be part funded each by NZTA and KCDC, as per this submission).

**8.2** Ngarara Road and Nga Manu are part of the wider Waikanae area that has been subject to structure planning by the Council (discussed previously). Nga Manu is a nature reserve that in the context of the Kāpiti Coast is an activity of some community significance. It relies on visitor patronage for its success and in this respect I would not support an outcome where as a result of the Expressway it became less accessible or otherwise was harder or more onerous to find. It is appropriate that the Expressway mitigates the severance impacts it has on the accessibility and ease with which visitors are able to access the facility. To my mind this cannot be separated from the logical development of the wider growth area around it.

**8.3** NZTA appears to have conceded that the linkage sought by the Council is an appropriate part of the Expressway project mitigation, with Mr Nancekivell stating (paragraph 120) that designs for this have already been developed by NZTA that could be workable. I have not seen these designs and cannot comment either in agreement or disagreement with Mr Nancekivell's view on consistency with the Council's vision.

**8.4** I consider it important that the access solution for Nga Manu has certification from the Council so that the solution will definitely meet the Council's strategic framework. Specifically I am of the view that the solution for Nga Manu should be integrated and coordinated with the wider Structure Plan areas adjacent to it as well as the key road linkages at Ferndale and Ngarara Roads discussed in Section 7 above.



**8.5** I recommend the inclusion of a designation condition requiring the following:

- (a) That a connection to Nga Manu be required as a part of the Expressway mitigation package, to be provided as a part of the project's construction works.
- (b) That the final design of this link including its route and connections with the local road network be prepared in consultation between NZTA and the Council, with the Council having a certification role in relation to the final design.

## **9. PEDESTRIAN OVERBRIDGES**

**9.1** The Council's submission states the following at paragraphs 144 – 145:

144. The Council seeks greater certainty on the design and placement of pedestrian overbridges, including the process through which the final placement and local road network connectivity will occur. The Council wishes to have a role in ensuring the best outcome, from a community need and use, and from a design perspective. The Council also seeks assurance that the costs of local network connections to the pedestrian overbridges form part of the Proposal, and not just the cost of the bridges themselves.

### **Outcome sought**

145. Prior to construction, greater certainty is needed on the design and placement of pedestrian overbridges and involvement of the Council in that design process, including the process through which the final placement and local road network connectivity will occur.

**9.2** I support the provision of pedestrian overbridges that have been proposed in the Expressway. I am comfortable with the approximate locations that have been indicated on the plans and agree with their general distribution along the route. They can become iconic features associated with State Highways, as has been shown by NZTA for overbridges on State Highway 20 in Auckland adjacent to Queenstown Road, and also on State Highway 18 in Auckland adjacent to Clarks Lane (this latter bridge received an urban design award from the New Zealand Institute of Architects).

**9.3** Mr Baily has responded to the Council's submission by concluding that the location of the overbridges is sufficiently certain on the plans and does not need to be made more certain. I would agree with this in broad, route-wide terms.

**9.4** But while the overbridge locations are relatively straight forward, the bigger concern is the uncertainty over how those bridges would connect with and be integrated into the local street network and existing pedestrian routes. In particular, the change of grade from ground level to a height of the bridge deck can present a number of challenges (for

ramps). If this integration is not seamless, the success of the bridges will be diminished. In particular, if pedestrians looking to cross the Expressway are subjected to unreasonable obstruction and inconvenience getting to or from the overbridges, then this would reduce the effectiveness of the overall mitigation proposed.

- 9.5** In my opinion the Expressway design and proposed conditions do not sufficiently address (or provide a means for the resolution of) this uncertainty. Directly flowing from this, the overall appeal and accessibility of the bridges will be determined by the safety and convenience of the approaches from the local network. Bridges are a well discussed topic in Crime Prevention Through Environmental Design (**CPTED**) literature as they create inevitable entrapment spots needing careful route design and maximum opportunities for route choice and dispersal at either bridge end. Related to this are design considerations of visual route surveillance (being able to see where one is going and avoiding blind turns).
- 9.6** For NZTA, Mr Nancekivell has suggested that ongoing consultation will occur with the Council, which I support. I would disagree with him however that the Outline Plan of Works stage is the most appropriate means of facilitating that consultation. In my opinion, requiring consultation with the Council throughout the bridge design process would provide more meaningful input than limiting the Council's role to one of reviewing an Outline Plan.
- 9.7** The final design of the overbridges and their integration into the local road and pedestrian networks is a matter of considerable urban design concern. The bridges have potential to contribute to local identity and character and should be expected to do such. The approaches could vary from high quality to very low and potentially unsafe quality. The Council has an important role in contributing an essential local input into both of those processes and it would be in my view appropriate that the Council be involved as a partner in developing these solutions. For this reason, I recommend that the Council be consulted and then have a certification role in the final design of the pedestrian overbridges and in the way in which NZTA integrates them into the local network.

**9.8** I am confident that this matter can be resolved and that the current suite of proposed conditions would be generally suitable in this respect if the following are added:

- (a) That the design and construction of the pedestrian overbridges must include their integration into local road and pedestrian networks including the construction of any necessary approach structures and connecting links.
- (b) That the Council be consulted in the development of the bridge design, and certifies the final design of the bridges and necessary approaches/local network integration solution.
- (c) That the final bridge and approach / local network design be subjected to a safety audit undertaken by a suitably qualified and experienced person on behalf of NZTA to ensure they are designed to optimise CPTED opportunities. This analysis and accompanying documentation should form part of the Council certification described above.

## **10. CYCLEWAY, WALKWAY AND BRIDLEWAY (CWB)**

**10.1** The Council's submission states the following at paragraphs 168 – 173:

168. The Council seeks a well designed off-road (i.e. separate from the Expressway) pedestrian/cycle/bridle way that promotes user safety and enjoyment, and provides good connectivity through the District (particularly to services, schools and amenity/recreational facilities).

169. The Council strongly supports the provision of:

- (a) A continuous segregated pedestrian/cycle facility (separate from the Expressway), including its off-road component where it is not possible to achieve it immediately adjacent to the Expressway;
- (b) A pedestrian/cycle bridge between Kāpiti Road and Mazengarb Road; and
- (c) A pedestrian/cycleway through Queen Elizabeth Park, although the application is not clear that this facility forms part of the current project.

### **Further Detail Required**

170. The Council is of the view that the overall proposed off-road cycleway/walkway system is of good quality and is generally well-designed. More detailed information is needed in relation to some particular aspects such as:

- (a) details/specifications for pedestrian and cycle access under or over bridges where the Expressway crosses local roads, rivers and streams;
- (b) an analysis of the need for lighting, sightlines, restrictions on vegetation in the detailed design of the cycleway/walkway; and
- (c) Detail on signage, particularly at intersections.

171. The Council also seeks assurance that the integrity of non-vehicular modes and amenity provision relative to vehicle lane requirements will be maintained through construction. Vehicle lanes are currently supported by minimum dimensions; however other modes such as pedestrians are currently subject to ambiguous qualitative statements rather than minimum dimensions.

### **Outcome sought**

172. Conditions specifying standards for CWB design at local road and river/stream crossings, and appropriate minimum dimensions for non vehicular modes, as indicated above.

173. Clarity is needed in the conditions on the design for the two additional pedestrian/cycle bridges that will be undertaken through the outline plan process and therefore have no detail provided in the plan sets.

**CWB facilities through Queen Elizabeth Park**

174. The application is unclear as to whether the proposed pedestrian/cycleway through Queen Elizabeth Park forms part of the Proposal or whether it is outside the scope of the AEE. Treatment is also required to improve the substandard shoulder on the state highway northbound lane between MacKays Crossing and Poplar Avenue to provide adequate space for on road cycling.

**Outcome sought**

175. The Council seeks confirmation through conditions that a pedestrian/cycleway through Queen Elizabeth Park will be provided by NZTA in association with the Expressway project and completed within the first two years after construction of the Expressway commences.

**10.2** The CWB will be one of the most beneficial mitigation measures associated with the Expressway. It will not only enhance what has become a successful network of cycleways, walkways and bridleways in the District but could become a premier amenity in its own right. The ambiguity around whether NZTA proposes to include a section of the CWB in Queen Elizabeth Park is unfortunate. In my view it should be included as this will have the effect of firmly and effectively integrating the new Expressway CWB into a major recreational amenity for the District and hence ensure that the contribution to local amenity the Expressway CWB is intended to provide is fully delivered. As such I consider that it forms part of the reasonable and necessary mitigation of the Expressway's adverse effects. I recommend that a condition be imposed clarifying that the Queen Elizabeth Park section of the CWB is a part of the Expressway project and is to be implemented within two years of commencement of operation of the Expressway.

**10.3** I support the off-road nature of the CWB. The speed environment of the Expressway would make an on-road CWB unsafe and, for CWB users, offer a low-amenity experience. Notwithstanding this, the elevation of the Expressway and the separation distances from it and adjacent uses will create a key urban design limitation affecting the CWB, being the limited means available to provide natural surveillance over the space. Two-way passive surveillance has been linked in literature to safety benefits and as such any opportunities to enhance this should be taken. The most obvious opportunity to achieve surveillance would be to have the CWB in proximity to the Expressway so that passing traffic could have a visual exposure over the CWB (and vice versa). I recommend that the final design of the CWB should maximise adjacency to the Expressway and avoid departing from clear carriageway visibility as much as possible (accepting that there will be parts of the route where the CWB and the

Expressway will not be able to be located side-by-side. One advantage of a side-by-side configuration is that lighting towers needed for the Expressway can also provide lighting fixtures for the CWB.

- 10.4** I support comprehensive landscaping of the CWB. However, given that the route is likely to be used by a full cross-section of the community including children, there is a practical imperative that a safety audit and clear CPTED approach be adopted in its final design. I recommend that this should be a requirement, with a report confirming this to be prepared by a suitably qualified and experienced person. This detail design should include lighting not only for the CWB, but from the point of view of coordinating it with landscaping so as to avoid the creation of blind spots or entrapment spots. As a minimum, lighting on the CWB should be sufficient for a pedestrian at night to see at least 20m of the CWB in front of them.
- 10.5** The CWB intersects frequently with local roads, which I agree with to achieve permeability and accessibility. It also travels beneath Expressway bridges as part of its overall route. It is anomalous that some elements of the design, predominantly vehicular traffic related ones, are supported by quantitative standards, but others, predominantly urban design and pedestrian facility elements, are only provided with qualitative statements. I do not consider that this is desirable as in later detail design processes qualitative elements are the more likely ones to be changed and reduced.
- 10.6** I am particularly concerned with what may happen underneath the bridges (as there will be practical financial drivers to make the spans as operationally short as possible). Reduced width means less space for generous cycle lanes and footpaths and landscaping. Without clear minimum numeric standards for these components of all Expressway bridges in the designation's conditions, there is a chance that these components may be inappropriately delivered. Given the priority and importance of the CWB and under-bridge amenity in the Expressway design, this situation is not justified. Although such an outcome may seem to have a low probability, the severity of getting it wrong is such that in terms of the RMA definition of effect it is in my view appropriate to manage it by providing a greater level of detail and Council input prior to construction.
- 10.7** I recommend that a condition be imposed requiring consultation with the Council in the detailed design of the CWB and under-bridge pedestrian or cycle facilities, with a certification role for the Council in relation to minimum design standards for the CWB including carriageway widths, lighting standards, and standards for the crossing of all local roads and under-bridge amenity/quality. This should include the nature of any

buffer space needed to separate cyclists and pedestrians from vehicular traffic (if any). With such a requirement in place, I am confident that the detail design process will continue to provide appropriately for all modes without spatial discrimination.

**10.8** Related to this is the relationship between the CWB and Te Moana Road. Currently the CWB intersects with Te Moana Road at the Expressway's off-ramp roundabout. This intersection appears to have been designed to maximise the efficiency of dispersal movements from the Expressway.

**10.9** In urban design terms, roundabouts are the least desirable solution for pedestrians and cyclists. There are many reasons for this, but principal ones include:

- (a) Roundabouts are so efficient at distributing vehicles that pedestrians get significantly fewer opportunities to cross the road in between vehicle platoons.
- (b) Drivers' attention is to the right on the basis of a necessary give way consideration. Cyclists and pedestrians on the vehicle's left may not be seen readily or until the last possible moment.
- (c) Roundabouts inherently require larger intersection footprints, widening the vehicular carriageway space needing to be crossed by pedestrians.
- (d) Roundabouts relating to state highway off ramps are large and designed to be driven through at speed.

**10.10** I recommend that the Te Moana interchange be redesigned to use signals including a pedestrian call (ie giving pedestrians a "turn" to cross in the traffic signal sequence). I consider the current layout clearly disadvantages pedestrians and cyclists in a way that does not correspond to the quality and amenity otherwise likely to be enjoyed by CWB users. I am particularly concerned at the prospect of children walking bikes across Te Moana Road (limiting their reaction or evasive manoeuvre options) adjacent to a major Expressway off-ramp, with nothing but passive interventions available to protect them.

**10.11** Mr Baily has suggested that a range of design tools could be applied to make the area safe. I do not agree that any of the methods he proposes will be as effective or efficient – from a cyclist and pedestrian point of view – as signals. I note that a marked zebra crossing would not be safe or appropriate, and could create more disruption to vehicle flow than a signal in some periods of the day.

**10.12** It may have been appropriate to rely on a non-signal solution if the proposal was solely to introduce the CWB to Te Moana Road in its current form. But overall I do not consider that the Expressway would be enabling community wellbeing, health and safety if a premier cycle and pedestrian facility was channelled directly into a large high speed vehicle-based roundabout as is currently proposed.

## **11. FUTURE SIGNAGE**

**11.1** The Council's submission states the following at paragraphs 135 – 138:

135. Expressway interchanges tend to attract commercial, particularly retail activities to locate around them. The Council has a clear policy of consolidation of such activity around its town centres as a way of reducing adverse environmental, social and economic effects. Clarification is needed that no vehicle access or road links will be provided by NZTA within one kilometre of any Expressway access point to any land use activity other than as agreed with the Council, particularly at Te Moana Road, Peka Peka Road and Poplar Avenue. This is essential to prevent sporadic and unplanned commercial activity outside existing town centres; reliance solely on District Plan zoning is inadequate to achieve this outcome.

136. The issue of directional signage is important to Council, including signage to key destinations such as the Airport and Southwards Car Museum.

### **Outcome sought**

137. A condition to ensure no vehicle access or road links will be provided by NZTA within one kilometre of any Expressway access point to any land use activity other than as agreed with the Council, particularly at Te Moana Road with agreement to be achieved prior to any decision being reached.

138. Further information is needed on detailed signage, particularly to significant local destinations.

**11.2** I agree that future signage on the Expressway is operational in nature and would be subject to standard NZTA requirements for such, subject to my comments below.

**11.3** In practice I consider there is a risk that NZTA's focus in providing signage will relate to its road controlling function and road safety. While information signs, including local landmark and activity directional signage, are established State Highway elements and are likely to be implemented, the NZTA alone may not fully appreciate the significance of signage for directing the community and through-traffic to local features.

**11.4** Specifically, the Expressway will bypass Waikanae and this will cause a number of adverse effects relating to a loss of movement economy and opportunities for trade and general commercial viability. Paraparaumu will not be bypassed but there will not be an immediate relationship between exiting traffic and the commercial core, as there is

currently. I recommend signage associated with other access points at Poplar Road and Peka Peka to direct users to Paraparaumu and/or Waikanae.

- 11.5** These signs, and possibly other signs on land controlled by the Council outside of the designation area, would help mitigate the effects of removal of through traffic from the town centres by encouraging people to visit the town centre and generally alerting visitors to their presence.
- 11.6** I would recommend the design of these signs to be distinctive or otherwise outside of usual State Highway function-based formats. In any event, the wording of such signs will be of interest to the Council and it should to my mind be involved in approving the design, wording, and placement of such signs.
- 11.7** I therefore recommend that signage associated with the Expressway that relates to the town centres of Paraparaumu and Waikanae, and other significant local destinations including the airport and major recreational areas, located anywhere along the route, should have Council input. Designation conditions should require such signs to receive the Council's certification in terms of sign appearance, wording and placement.

## **12. MAZENGARB ROAD BRIDGE**

- 12.1** The Council's submission states the following at paragraphs 146 - 149:

146. Bridge configuration (under and over) and design as set out in the application, including architectural detailing of bridge side walls, pier design and treatment of the local road environment under the bridges are supported, with the exception of the design at Mazengarb Road. Council wishes to ensure that these designs are continued through to construction and is aware of the potential for them to be compromised through subsequent design processes.

147. At Mazengarb Road the current design provides for high retaining walls for the approach to the bridge crossing with poor sight lines and a sense of enclosure. The Council considers this approach to be inconsistent with CPTED design and urban design principles. The Council is strongly opposed to this solution and is of the view that it needs to be reviewed and a new solution provided.

### **Outcome sought**

148. The Council strongly seeks that the integrity of the current bridge configuration/design is retained and seeks consultation with NZTA prior to any further changes to the current design.

149. Design improvements are needed at Mazengarb Road to address the issues raised above. The Council seeks consultation with NZTA on these improvements.

- 12.2** I agree that the current design for Mazengarb Road is not appropriate. In my view the current design is engineering-heavy, and would benefit from being considerably softened and otherwise made more compatible with local character prompts relating to



how retaining structures can be worked into the landform rather than strongly and bluntly cut in. Given the high costs of major engineering works, I expect that a more locally appropriate design better relating to the existing landforms would probably also be more cost-effective because it would not require such extensive earthworks.

**12.3** I agree that there are questions remaining over how that bridge will eventuate and the extent to which the design will reinforce the high quality aspirations of the project's ULDF in the confines of such an engineering-heavy starting point. In particular, the combination of road curvature, bridge width, and retaining wall scale make this particular under-bridge environment notably more enclosed and intensely boxed-in than will be the case with other bridges. This will be further accentuated by the relative lack of urban intensity at this location, making the strongly defined retaining structures appear more out-of-place (as opposed to Kāpiti Road, which can accommodate a different under-bridge character as part of its more developed and urban context).

**12.4** I recommend that a designation condition be imposed to require that the Mazengarb Road bridge be re-designed in consultation with the Council. The following should be included in such a condition:

- (a) That the Mazengarb Road bridge should be re-designed in consultation with the Council so that necessary retaining structures:
  - (i) maximise sightlines around the Mazengarb Road curve;
  - (ii) reflect as much as is practicable a shallower incline angle more aligned to the underlying rolling dune landform (which could include further exaggerating any stepped-back nature of retaining structures especially those not directly beneath the bridge decks);
  - (iii) are integrated by way of theme and materials with the final architectural design of the bridge structure itself; and
  - (iv) are integrated with any landscaping, pedestrian or cycle space at the base of the retaining structures.
- (b) That the final bridge and retaining design be subjected to a safety audit undertaken by a suitably qualified and experienced person on behalf of NZTA to ensure they are designed to optimise CPTED opportunities. This analysis

and accompanying documentation should form part of the Council certification described below.

- (c) That the Council certify the final design of the bridge and its retaining structures.

### **13. FURTHER CONDITION PROPOSED BY MARC BAILY**

- 13.1** In his evidence, Mr Marc Baily suggests an additional condition that could be imposed on the Designation. At paragraphs 180-181 he states:

180 I recommend that an additional condition that sits alongside Condition DC.55 (which requires the preparation of the LMP) be formulated and added to the designation conditions.

181 The details of the condition will require conferencing with KCDC but would in principle have the following intent:

181.1 To demonstrate how the principles within the ULDF (Section 5.7 to 5.13) have been provided for within the Project's developed design;

181.2 To include the process involvement of the interested parties in its preparation and inputs;

181.3 To parallel the preparation of the LMP to ensure that the linkages between management and design are addressed; and

181.4 To address the matters of detail sought by KCDC and other submitters.

- 13.2** Mr Baily suggests that the full extent of the condition could be developed in conferencing and I am comfortable with this suggestion subject to my comment below. He proposes that the condition could focus on how the ULDF principles have been reflected in the final design, and also the numerous detail design issues identified by the Council.

- 13.3** Overall I support this approach as a pragmatic way of progressing points of difference where a solution should be found. However I am not convinced that such a 'blanket' design condition would render the matters I have discussed in this evidence redundant or for that matter be either more effective or efficient than the specific condition issues I have discussed. I therefore remain of the view that the matters I have discussed should be imposed as conditions in addition to Mr Baily's proposed condition.

### **14. CONCLUSIONS**

- 14.1** I have reviewed the proposal and the evidence of Mr Marc Baily on behalf of NZTA on the basis of urban design issues identified in the Council's submission. I support the

high-level approach proposed by NZTA and described by Mr Baily, and the way in which the Expressway will achieve its transport objectives while giving rise to the least detrimental impact on the Kāpiti Coast, in particular the settlements of Paraparaumu and Waikanae. Unlike State Highway infrastructure, these community investments, critical to the social, economic and cultural wellbeing of the Kāpiti Coast community, are fixed by virtue of the incremental and diverse cooperation of multiple private interests that has composed each agglomeration over time. They cannot shift to respond to significant changes in the movement dynamic, and hence proactive steps to ensure they are not undermined – especially in respect of Waikanae – are needed.

**14.2** There are several urban design weaknesses with the project, as identified in the Council’s submission. On the basis of an urban design assessment I have concluded that relatively modest changes to the proposal that could be achieved by way of conditions on the designation could ably address these deficiencies. In summary, the key conditions I seek in addition to the currently proposed conditions are:

- (a) That a prohibition on vehicle access, except for where both NZTA and the Council agree, be imposed within 1km of any Expressway vehicular on-off point, provided that this only applies to roads controlled by NZTA.
- (b) The future links at Leinster Avenue, Ferndale Road and Ngarara Road be accepted and provided for in the final design of the Expressway with details to be agreed between NZTA and the Council.
- (c) That a connection to Nga Manu be required as a part of the Expressway mitigation package, to be provided as a part of the project’s construction works and with the design to be agreed between NZTA and the Council.
- (d) That the design and construction of the pedestrian overbridges must include their integration into local road and pedestrian networks including the construction of any necessary approach structures and connecting links, with consultation with the Council in their design.
- (e) That the Queen Elizabeth Park section of the CWB is a part of the mitigation package for the Expressway project and is to be implemented within two years of commencement of operation of the Expressway.

- (f) That the final design of the CWB should maximise adjacency to the Expressway and avoid departing from clear carriageway visibility as much as possible, and be supported by a suitable CPTED assessment.
- (g) Prior to the undertaking of any detail design of the CWB, NZTA and the Council should agree on minimum design standards for the CWB including carriageway widths, lighting standards, and standards for the treatment of all local roads in terms of under-bridge amenity/quality.
- (h) That the Te Moana Road interchange be re-designed to use a signal control and include a pedestrian call.
- (i) That future signage associated with the Expressway relating to the town centres of Paraparaumu and Waikanae, and other significant local destinations, located anywhere along the route, should be required and subject to the Council's approval in terms of appearance, wording and placement.
- (j) That the Mazengarb Road bridge and its retaining structures be redesigned in consultation with the Council, to reduce its bulk, enclosure, and incongruity with local landform and visual character.
- (k) In respect of items (b) to (j) inclusive, I additionally recommend that the Council have a certification role in any final design.



**Ian Colin Munro**

Urban Planner and Urban Designer

B.Plan(Hons); M.Plan(Hons); M.Arch(Hons); M.EnvLS(Hons); MNZPI; WSE

5 October 2012

**Annexure 1: CV of Ian Colin Munro**

## **Annexure 2: Map prepared by the Council showing the Ngarara Structure Plan area**

The Structure Plan area including the land use / undeveloped footprints envisaged based on landform and landscape considerations; how these then lead to an urban structure and network of local roads around which high quality subdivisions could be established; and how these in turn lead to a need for logically spaced M2PP crossings at Ferndale Drive and Ngarara Road.

Highlighted in light blue are the two links of interest to the Council.