

**IN THE MATTER** of the Resource Management Act  
1991

**AND**

**IN THE MATTER** **Kapiti Coast District Council**  
Proposed Plan Change 2:  
Intensification (PPC2) to the Kapiti  
Coast District Plan.

**STATEMENT OF EVIDENCE OF HARRIET BARBARA FRASER ON BEHALF  
OF THE MANSELL FAMILY SUBMITTER No. #S023**

**1. INTRODUCTION**

**Qualifications**

- 1.1 My full name is Harriet Barbara Fraser. I hold the qualification of Chartered Professional Engineer and Chartered Member of Engineering NZ. I hold a Bachelor of Civil Engineering degree from Imperial College, University of London and a Master's degree of Science in Transportation Planning and Engineering awarded with distinction by the University of Leeds.

**Experience**

- 1.2 My background of experience includes over 29 years consultancy experience in traffic and transportation matters, initially in the UK and Hong Kong. From August 1998 to August 2012, I worked as a Transportation Planner in Lower Hutt in the firm of Traffic Design Group Limited (now Stantec) practicing as a transportation planning and traffic engineering specialist throughout New Zealand. Since September 2012 I have been working as a sole practitioner in the field of transportation planning and traffic engineering.
- 1.3 I am a certified Hearing Commissioner, having completed the MfE Making Good Decisions training and most recently was a commissioner on the panel for the hearing of a private plan change application in Upper Hutt.

## **2. CODE OF CONDUCT**

- 2.1 Although not necessary in respect of council hearings, I can confirm I have read the Expert Witness Code of Conduct set out in the Environment Court's Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving any oral evidence before the hearing committee. Except where I state that I am relying on the evidence of another person, this written 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 expressed in this evidence.

## **3. BACKGROUND**

- 3.1 I understand that as part of Proposed Plan Change 2 (PPC2) the Mansell Family have made a request to re-zone their land at Otaihanga as part of their submission. This includes a request to rezone the site from Rural Lifestyle to General Residential and amend plans and any relevant provisions.
- 3.1 I confirm that I have previously provided advice and undertaken assessment in support of the Mansell's subdivision of that site into 46 residential lots (RM210147) as part of a non-complying resource consent application. That application was publicly notified and went through a hearing process. It is described in more detail in the evidence of the Mansell's planning expert Mr Hansen. The Mansell family obtained subdivision consent with conditions from Kapiti Coast District Council dated 2<sup>nd</sup> November 2022, which has been appealed by a submitter to the Environment Court, and non-notified non-complying discharge consents from Greater Wellington Regional Council in October 2021.
- 3.2 I note the findings of this assessment was accepted by both KCDC, and in the Commissioners' decision.
- 3.3 The Mansell family also obtained an Archaeological Authorisation for earthworks from Heritage New Zealand in January 2020 and Wildlands consultants Ltd, on behalf of the Mansell family, has also applied for lizard relocation permits from the Department of Conservation under the Wildlife Act.

- 3.4 I provided transportation advice on the subdivision consent. Specifically, this involved:
- (a) Multiple site visits including undertaking local traffic counts;
  - (b) Design advice regarding transport connections to the existing road network as well as the layout of the internal roads and paths;
  - (c) Preparation of a Transportation Assessment to accompany the resource consent application;
  - (d) Assisted the Applicant to respond to Further Information Requests by Council;
  - (e) Participation in meetings and expert conferencing with Council with regard to transport matters and in particular Tieko Street; and
  - (f) Attended the resource consent hearing and gave evidence on behalf of the Mansell Family.
- 3.5 As a result of my very recent prior involvement in the resource consent project, I have a very good understanding of the site and surrounds and the site and potential effects of residential development in this location.
- 3.6 In preparation for my evidence on PPC2 I have read:
- (a) PPC2 Intensification Plan Change.
  - (b) Chapter 6 of the Section 32 Evaluation Report regarding Qualifying Matters;
  - (c) Appendices D, E, L and M of the Section 32 Evaluation Report; and
  - (d) The sections of the Officers Report that reference the Mansell's submission.

#### **Description of the site**

- 3.7 The site is located on the northern side of Otaihanga Road, immediately to the west of the Expressway as shown approximately in the following Figure.



**Figure 1: Site Location**

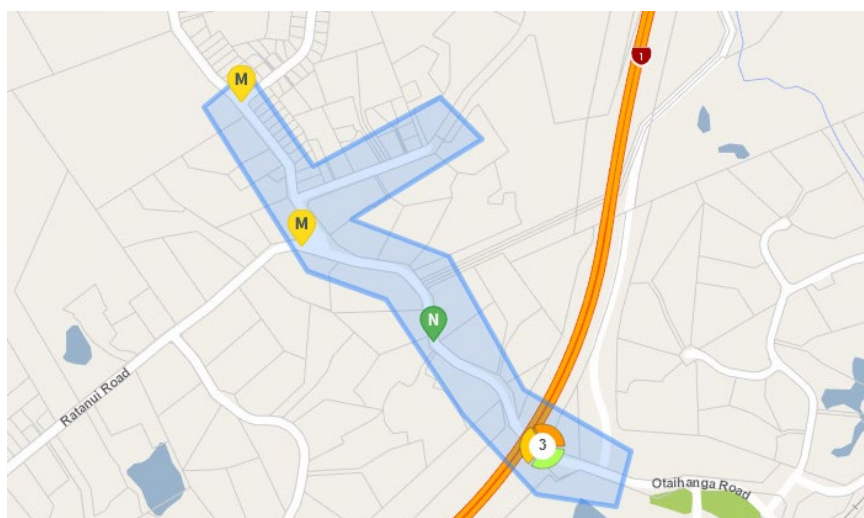
- 3.8 In this location, the site has the following transportation characteristics:
- (a) Is within a five-minute drive of Paraparaumu train station, less than a 15-minute cycle ride from central Paraparaumu and within easy cycling distance of Paraparaumu College;
  - (b) Otaihanga Road is a Local Community Connector in the road hierarchy and has a 60km/h speed limit. There is a centreline and edgelines marked along Otaihanga Road;
  - (c) There is an existing unsealed shared path running along the Otaihanga Road site frontage, this connects with the cycle path along the Expressway to the east and continues along Ratanui Road to the west;
  - (d) Council traffic counts from February 2019 show Otaihanga Road carrying 4,853 vehicle movements per day with two-way peak hour flows of 470vph on weekdays between 5pm and

6pm. Traffic flows reduced when the Expressway opened. The surveyed 85th percentile vehicle speeds were within the 60km/h speed limit;

- (e) The site can also be accessed via a right of way from Tieko Street. Tieko Street is around 270m long and has a generally straight alignment with a curve towards the left at the end. The road rises slightly from Otaihanga Road along its length. There is no kerb and channel. The road has a sealed width of around 5.6m at each end with the width typically varying between 4.5 and 5.0m along its length with around a 50m length with a width of less than 4.5m;
- (f) Peak hour traffic counts on weekdays and during the Saturday midday period on Tieko Street showed overall peak movements of 29vph during the midday peak on Saturday. This is equivalent to on average one vehicle movement every two minutes;
- (g) At the Tieko Street intersection with Otaihanga Road there is a clear sight line to the left from Tieko Street all the way along Otaihanga Road to the adjacent intersection with Ratanui Road, a distance of some 95m. There is a potential sight distance to the right from Tieko Street along Otaihanga Road of 128m which is obstructed by vegetation next to the power pole;
- (h) In addition to the consent held by the Mansell family for 46 lots, I note that the surrounding existing environment also includes, a number vacant and consented but unimplemented resource consents in the vicinity. Resource consent RM 170306 provides for five additional dwellings to access Tieko Street and improvements to the Tieko Street right of way are provided for through conditions of consent.
- (i) Traffic movements at the intersection of Tieko Street and Otaihanga Road were counted in May 2018 and showed total peak hour traffic movements of 175vph through the intersection. Based on the observed traffic flows and allowing for a further nine dwellings (already consented or on

undeveloped sites) base peak hour traffic volumes of 32vph, 26vph and 40vph during the weekday morning, weekday afternoon and Saturday midday peaks respectively have been assumed; and

- (j) A search of the Waka Kotahi crash database for the five year period to June 2021, for the area shown in Figure 2, showed six reported crashes.- Of these none occurred on Tiekō Street or at its intersection with Otaihanga Road and five were single vehicle incidents. One crash involved serious injury with the crash factors including alcohol test above limit or refused and attempted suicide. The other five crashes resulted in minor or no injury.



**Figure 2: Reported Crashes for Five Years to June 2021**

- 3.9 In summary, the location of the site results in good transport connectivity for all travel modes. Otaihanga Road and Ratanui Road provide direct links into the wider road network via their connections into Old SH1 and Mazengarb Road. As residential and population densities increase, the route along Ratanui Road and Otaihanga Road will become increasingly viable as a bus route providing regular services to Paraparaumu Town Centre and the train station. As with the existing resource consent there is the potential for any development of the site to deliver internal pedestrian and cycle paths to connect into existing shared paths along Otaihanga Road (and into the Expressway shared path) and Ratanui Road. The site is within cycling distance of Paraparaumu Town Centre, the train station and Paraparaumu College.

#### **4. SCOPE AND STRUCTURE OF EVIDENCE**

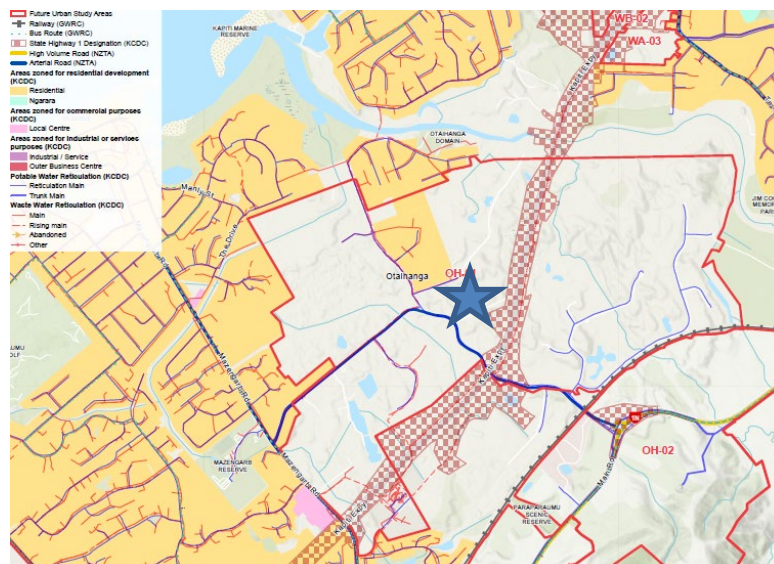
4.1 I have structured my evidence as follows:

- (a) Transport effects associated with the requested rezoning from rural lifestyle to general residential and application of the MDRS standards;
- (b) Review of the need for a Structure Plan;
- (c) Response to transport matters raised in further submissions and the s.42A Officers Report regarding the Mansell's submission; and
- (d) Conclusion.

#### **5. TRANSPORT EFFECTS ASSOCIATED WITH REQUESTED REZONING**

5.1 I note that the existing qualifying matters set out in Appendix D of the Section 32 Evaluation Report do not include any land transport qualifying matters. In Appendix E the Kapiti Expressway is included as a qualifying matter that informs the shape of intensification areas.

5.2 The approximate location of the land owned by the Mansell family is shown by the star in Figure 3. Figure 3 is an extract from the Boffa Miskell report Kapiti Coast Urban Development Greenfield Assessment July 2022 (Greenfield Assessment) (Appendix E to the s.32 evaluation report). The Mansell property falls within the wider Otaihanga OH-01 future urban area.



**Figure 3: Extract from Kapiti Coast Urban Development Greenfield Assessment**

- 5.3 The Greenfield Assessment includes a theoretical dwelling estimate for Otaihanga OH-01 of 3,501 dwellings. With the area assessed to have an overall rating of Priority 2A, which is described as, the intensification of the area is likely to achieve a range of positive outcomes, however there are a number of constraints that need to be overcome.
- 5.4 The Greenfield Assessment includes the following comments with regard to transport and access in Appendix 3B:
- (a) The dividing effect of the Expressway is included as a constraint;
  - (b) Reasonable access to Paraparaumu is included as a key opportunity;
  - (c) Good access to existing open spaces is included as a key opportunity;
  - (d) There is the potential to include a new train station along the railway line to service the area in the future;
  - (e) Paraparaumu station is about 4km by active modes along the Expressway and Kapiti Road; and
  - (f) Development of the area may put pressure on existing park and ride facilities at the station.



- 5.5 Figure 4 is an extract from the Greenfield Assessment and shows the gross theoretical development area. At a glance, I estimate that the Mansell property (I have added an approximate boundary shown in red) might form around 15% of the gross theoretical development area included in OH-01. Given what is already known about the site with regard to wetlands, ecology, accommodating stormwater and setbacks from the Expressway, my expectation is that the area of the site that could accommodate dwellings might be around 10% of the overall site area. If this percentage is applied to the gross theoretical development area, the yield for the site would be 350 dwellings. I note that Mr Compton-Moen has estimated that there is the potential for the site to yield around 372 dwellings.



**Figure 4: Extract from Kapiti Coast Urban Development Greenfield Assessment – Gross Theoretical Development Area OH-01**

- 5.6 Based on the observed household trip generation rates for Tieko Street of 1.0, 0.8 and 1.2 vehicle movements per household during the weekday morning, weekday afternoon and Saturday midday peaks respectively, I would estimate that the traffic activity associated with 372 dwellings would be some 3,000 to 3,720 vehicle movements per day with up to 450 vehicle movements per hour during peak hours. Based on observed patterns, I would expect an even directional split in the traffic flows. This even split is due to similar travel times between this part of the road network and central Paraparaumu, whether travelling via Old SH1 or

Mazengarb Road, which usefully provides options and flexibility with route choices.

- 5.7 During the peak hours I estimate that there might be around an additional 225 vehicle movements per hour on Otaihanga Road towards Old SH1 and the same on Ratanui Road towards Mazengarb Road. The resultant traffic flows will remain below those on other existing two-lane roads in the District.
- 5.8 I consider that transport matters that would require consideration should the site be rezoned to General Residential would include:
- (a) If Tieko Street provides access to more than a total of 100 dwellings (existing and future), that is, carries more than 1,000 vehicle movements per day, further changes to the road cross-section are likely to be needed. This is likely to include measures such as indented parking bays to ensure two-way traffic flow. The internal roading layout of a future subdivision can also be used to control the amount of traffic that would use Tieko Street;
  - (b) Assessment of the safety and performance of the Otaihanga Road intersection with Ratanui Road and whether the intersection needs to be signalised or have a roundabout installed;
  - (c) It will be preferable to load as much of the traffic as possible onto internal roads that connect directly onto Otaihanga Road. If a roundabout or signals were needed rather than a T intersection as included in the current consent, this would likely need to be located in the vicinity of the existing main driveway as I expect that the Expressway structures and topography will be a constraint to accommodating a larger intersection at the currently proposed intersection location towards the Expressway; and
  - (d) Provision for the development to be serviced by buses either from the Otaihanga Road frontage or via a loop through the site.
- 5.9 The inclusion of strong pedestrian and cyclist connectivity within and through the site would continue to be important. My observation is that

there is significant existing spare capacity within the existing cycling and pedestrian network. Increased residential development will usefully increase the viability and likelihood of bus services being introduced to serve this part of the district.

- 5.10 Within the wider network there are already roundabouts at the intersections of Ratanui Road/ Mazengarb Road and Otaihanga Road/ Old SH1.
- 5.11 I consider that there are roading solutions available that could be required at any future resource consent stage should the site be rezoned General Residential to reasonably accommodate the additional traffic. I consider that these mitigation measures will most likely include upgrades to the local intersections and as with the current consent using the internal road layout to direct most vehicle traffic to and from Otaihanga Road.

## **6. STRUCTURE PLAN DISCUSSION**

- 6.1 In my experience, and with regard to transport matters, the main advantages of Structure Plans are to increase the likelihood of transport connections being made across property boundaries and in the case of large areas, establishing a road hierarchy of Collector and Arterial Roads within the internal road network.
- 6.2 With regard to the Mansell site, the full length of the eastern boundary is with the Kapiti Expressway. The site has boundaries with the existing sections of Otaihanga Road and Tieko Street. My expectation is that most of the traffic will access Otaihanga Road via one or possibly two internal local roads. The existing length of the Otaihanga Road site frontage and the horizontal road alignment results in a limited number of locations for any new intersections. The traffic volumes generated by the site will not be sufficient for any of the internal roads to have Collector or Arterial classifications.
- 6.3 Accordingly, I do not consider that from a transport perspective there is a need to wait for a Structure Plan of the wider area to be developed.

## 7. KEY FINDINGS

7.1 In summary the key findings of my review of the potential transport effects associated with the requested rezoning are:

- (a) The positive transport effects identified as part of the transportation assessment for the recently obtained resource consent are also valid with more intense residential development of the site including:
  - (i) The opportunity for pedestrian and cycling facilities within the site to tie-in with the existing shared path networks along Otaihanga Road, Ratanui Road and the Kapiti Expressway for both commuter and recreational purposes. The site is within cycling distance of Paraparaumu Town centre, the train station and Paraparaumu College;
  - (ii) The opportunity to provide pedestrian and cycling connections through the site which will improve connectivity to and from Tiekō Street;
  - (iii) Any associated roading upgrades to Tiekō Street have the potential to improve road safety for all users of the street; and
  - (iv) Otaihanga Road and Ratanui Road provide direct links into the wider road network via their connections into Old SH1 and Mazengarb Road.
- (b) With increased residential density, the route along Ratanui Road and Otaihanga Road will become increasingly viable as a bus route with mode choice benefits for existing and future residents of the area;
- (c) The only mention of a transport feature as a qualifying matter is that the Kapiti Expressway informs the shape of intensification areas;
- (d) The theoretical development potential for the site is around 372 dwellings which would have an associated traffic generation of 3,000 to 3720vpd with up to 450 vehicle movements during the

busiest hours. The traffic flows will be evenly split towards Mazengarb Road and Old SH1 which usefully balances the additional traffic loadings on the wider road network;

- (e) Transport matters that I would expect to be addressed through any ongoing planning process should the site be rezoned General Residential would include:
  - (i) Ensuring the safe operation of Tieko Street either by controlling the additional level of traffic activity or identifying further upgrades beyond those anticipated with the current consent;
  - (ii) Assessing whether any changes are needed to the existing intersection between Otaihanga Road and Ratanui Road;
  - (iii) Using the internal road layout to direct traffic flows directly to Otaihanga Road; and
  - (iv) Provision for the site to be serviced by buses whether from Otaihanga Road or a route that passes through the site.
- (f) Given the size, location and potential yield of the site, the development of the site could be advanced prior to the preparation of a Structure Plan for the wider Otaihanga OH-01 area; and
- (g) There are roading solutions available to accommodate the additional traffic.

## 8. RESPONSE TO FURTHER SUBMITTERS

8.1 The following transportation related matters have been raised in further submissions made on the Mansell's submission.

8.2 **Atiawa ki Whakarongotai Charitable Trust** support in part the Mansell's submission. The Trust requests that further assessment of the environmental effects of the requested rezoning is undertaken. With regard to the transport effects of intensified residential development, I

note that the capacity of transport infrastructure is not included as a qualifying matter. Notwithstanding this, I have given consideration to the transport effects associated with the theoretical yield for the Mansell site and consider that as well as a number of positive effects there are roading solutions available to accommodate the additional traffic that might be generated by the site.

8.3 **Malu Jonas** [S054.FS.1] supports the Mansell's request for extra zoning to accommodate housing on the basis that the property is suited to development as it is already well connected to the local cycle network.

8.4 **Brent and Leanne Morris** made a further submission in response to the Mansell's submission but no transport matters were included.

## 9. RESPONSE TO OFFICERS REPORT

9.1 The Officers Report has raised the following matter that is within my area of expertise.

9.2 **Structure Plan:** at paragraph (632), page 251 of the Officers Report, the evaluation is made that the site is sufficiently large and complex enough to require a structure planned approach. I have addressed this matter in Section 6 of my evidence above and I do not consider that from a transport perspective there is a need for a Structure Plan for the site or to wait for a Structure Plan of the wider area to be developed.

## 10. CONCLUSION

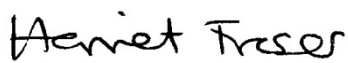
10.1 My overall findings can be summarised as follows:

- (a) The analysis undertaken for the recent resource consent application has provided an in depth understanding of local travel patterns which are also likely to apply to any future intensified development of the site;
- (b) The site has direct connections into the existing shared path network and is within cycling distance of Paraparaumu Town Centre, the train station and Paraparaumu College;
- (c) The site is well located for access to the local and regional road network and intensified residential development will bring

forward the likelihood of bus services being introduced into the area;

- (d) There are no transport constraints to the more intense development of the site. As with the recent resource consent application, the planning process to follow will allow for the detailed assessment of transport effects and for any adverse effects to be managed through the design of the internal road network, the location and form of connections with the existing road network and the upgrade of any existing road cross-sections or intersections as needed. I am confident that there are roading solutions to address these effects; and
- (e) Given the compact size of the site, the frontages onto Otaihanga Road and Tieko Street along with the long boundary with the Kapiti Expressway, a Structure Plan for the site is not warranted. The site boundaries are such that roading connections into adjacent properties will not be available and all the internal roads are likely to be local roads and therefore do not require an internal roading hierarchy to be established. The location of any intersections onto the existing Otaihanga Road frontage will be guided by safety considerations of which the most significant is available sight lines. Based on investigations to date, there are only likely to be one or two options for locating the intersections.

10.2 In conclusion, I support the rezoning request from a transportation perspective. The site is well located for connection into the existing active mode network, an increase in residential density could be a catalyst for the introduction of bus services into the Otaihanga area, and there are roading solutions, if needed, to ensure the safe and efficient operation of the immediate intersections.



**Harriet Barbara Fraser**

**7 March 2023**