

**BEFORE INDEPENDENT HEARING COMMISSIONERS APPOINTED BY THE  
TASMAN DISTRICT COUNCIL**

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

**AND**

**IN THE MATTER OF**     application for resource consent by  
                              **Māpua Community Boat Ramp Trust**

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**STATEMENT OF EVIDENCE OF ARI JOSEPH ALBERT FON**

**(Traffic)**

**Dated this 14th day of November 2024**

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## **1. INTRODUCTION**

### *Current Position*

- 1.1 My name is Ari Joseph Albert Fon. I am the director of Affirm NZ Limited, a private engineering consultancy.

### *Qualifications and Experience*

- 1.2 I hold a Bachelor's Degree in Civil Engineering with honours from Canterbury University. I am a Chartered Member of Engineering New Zealand (CMEng), a member of the Transportation Group of Engineering New Zealand and a member of the Safety Practitioners subgroup of the Transportation Group.
- 1.3 I established Affirm NZ approximately eight years ago, following a long period of employment with Aurecon NZ Ltd, a multi-disciplinary engineering consultancy. For the previous 15-year period I was manager of the Aurecon Nelson office, with specific responsibility for land development and transportation projects.
- 1.4 I am experienced in traffic and transportation engineering and have worked in these disciplines throughout the Nelson, Tasman and Marlborough regions and New Zealand. I have also completed many traffic and access assessments for developments adjacent to both local roads and state highways throughout the Tasman region over the past 20 years. I am also an experienced road safety and safe system auditor and have completed numerous Safety Audits for NZ Transport Agency Waka Kotahi as well as for Tasman District Council (the Council) on local road projects.

## **2 EXPERT WITNESS CODE OF CONDUCT**

- 2.1 Although this is not an Environment Court hearing, I confirm that I have read the code of conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the code in preparing this statement of evidence.
- 2.2 Unless I state that I am relying on the evidence of another witness, my evidence is within my knowledge and expertise. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence below, along with the reasons for the opinions expressed.
- 2.3 Where relevant, I have stated why alternative interpretations of data are not supported. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express. I specify the material that I have relied on in support of my opinions I

have described, and identified the person who carried out, any examination, test or other investigation on which I have relied.

- 2.4 I have identified the nature and extent of uncertainties in any scientific information and analyses I rely on, and the potential implications of any uncertainty. I have applied any technical terminology used in my evidence according to its generally accepted meaning among experts in my field.
- 2.5 Where I consider that my evidence may be incomplete or inaccurate without some qualification, I have included such qualifications. I have identified any knowledge gaps I am aware of, and the potential implications of such gaps. If I consider that my opinion is not firm or concluded because of insufficient research or data or any other reason, I have stated this. I provide an assessment as to my level of confidence, and the likelihood of any outcomes specified, in my conclusions.
- 2.6 I am a Māpua resident and a submitter in opposition to this application. I acknowledge that I have an interested in the outcome of the application, and to that extent I am not a fully independent witness. However, my evidence is focussed solely on the topic of traffic and effects, and does not address wider issues associated with the proposal. I have sought to provide an objective assessment on this topic, independent of my personal views on the proposal.

### **3 BACKGROUND**

3.1 In preparing this evidence I have reviewed many of the documents and drawings provided by the Māpua Community Boat Ramp Trust (the Applicant), along with documents prepared for and on behalf of Council. The main documents that I reference in this evidence are:

- Proposed Boat Ramp, Māpua Transportation Assessment, Tim Kelly Transportation Planning Limited, 9 April 2023, Document A10, (the TA)
- Proposed Boat Ramp, Māpua Transportation Assessment – Response to Peer Review, Tim Kelly Transportation Planning Limited, 14 December 2023, Document C07, (Peer Review Response)
- Transport Engineering Peer Review, Chris Rossiter, Stantec, 24 September 2024, Document H10, (Stantec Review)
- Statement of Evidence of Mr Gary Clark (Traffic), 4 November 2024, Document J03, (Mr Clark's Evidence)

- Section 42A Hearing Report, Victoria Woodbridge and Leif Pigott, (Sec 42A Report)

3.2 In mid-2023 I was asked by Council to carry out a review of the initial TA carried out for the proposed boat ramp but declined as I wished to provide a submission in opposition should the ramp proceed to a consent application. This review was subsequently carried out by Stantec.

3.3 When I reviewed the Applicant's evidence, and in particular the traffic evidence of Mr Clark I subsequently decided to provide expert traffic evidence, as in my opinion the matters identified in the Stantec Review with regards to potential traffic effects, as further discussed in Section 14 of the Sec 42A report, haven't been fully addressed.

3.4 In that regard, I confirm that I notified Council Planning staff at the time of making my submission, that I wished to reserve the right to provide expert traffic evidence.

#### **4 MĀPUA MASTER PLAN**

4.1 The draft Māpua Masterplan and Supporting Document was released by Council for comment in early November. Submissions on the Masterplan close in February 2025.

4.2 The Masterplan does make some provision for the possibility of a boat ramp, by maintaining the area known as 'Kite Park' as open space and enabling for parking on council owned land.

4.3 However, aside from development of a Cultural Heritage Management Plan for Grossi Point, there is no clear direction provided in the Masterplan that would preclude the launching of boats at Grossi Point. On that basis, it is likely that launching of boats at Grossi Point will continue for the foreseeable future.

4.4 This is a significant consideration, as it would mean that boats are able to carry on launching at Grossi Point even if consent is granted to the proposed boat ramp.

#### **5 TRAFFIC MATTERS**

5.1 Mr Clark has noted three key matters in Sections 32 to 35 of his evidence, summarised as follows:

- Key Issue 1 – arrival rate and potential for queuing on Tahi Street.
- Key Issue 2 – management of the boat trailer parking area in terms of expected demands.
- Key Issue 3 – operation of the boat ramp including the barrier arm.

5.2 I concur that these are the three key traffic issues regarding the proposed boat ramp, but my view is that they have not been adequately addressed by the Application nor in Mr Clark's evidence.

#### Traffic Generation

5.3 To be able to adequately assess the potential traffic effects of the ramp, the key traffic figures required are the traffic volumes on Iwa Street, and to a secondary extent Aranui Road as well as realistic forecasts of the ramp usage.

5.4 As identified in the peer review, the traffic volumes used for Aranui Road in the TA are several years out of date, which is acknowledged by Mr Clark in his evidence. While this is discussed in Sections 23 to 27 of Mr Clark's evidence, he is of the view that information is appropriate and states that *"any increase in traffic flows along Tahiti Street would be indiscernible against the previously recorded flows"*.

5.5 However, there is no recognition of the peak holiday traffic that will occur in summer. This is critical as the peak traffic volumes over the Christmas and New Year period, will coincide with the period of highest demand for the ramp use.

5.6 Similarly for demand for the new ramp, Mr Clark accepts the use of the boat launching figures used in the TA as the basis for the new ramp usage, stating in his Section 66 that *"the capacity of demand for the new boat ramp has to be based on the existing Grossi Point facility"*.

5.7 Reliance on the figures of the usage of Grossi Point launching site, even allowing for a 30% increase, is imperfect for the following reasons:

- These figures are now dated, as is accepted by both Mr Clark's evidence and the Stantec reviews.
- The Grossi Point usage figures have been provided by the Applicant, with no separate verification of their validity.
- The figures represent the Grossi Point launching site being tide-limited, whereas the proposed ramp will provide for access across a wider tidal range, limited only by the ramp operating hours.
- The Grossi Point launch site allows for launching of small to medium sized craft, while the proposed concrete surfaced ramp will allow for larger craft to be launched.

- While some adjustment was made in the Kelly TIA to increase figures, there is no acknowledgement of the capacity provided by the trailer park.

#### Layout of Ramp Facility

- 5.8 In preparation of my evidence, I have carried out a desktop review of dozens of boat ramps nationally. I couldn't find any with a layout similar to that of the proposed ramp, with a relatively long and narrow approach, a turning area positioned mid-way along the ramp approach and without an adjoining hardstand providing manoeuvring and stacking space.
- 5.9 This rather unique layout provides a constraint on capacity, as the ability for efficient operation of a boat ramp isn't solely related to the width of the ramp, but rather providing sufficient space immediately adjacent to the ramp to allow for the stacking (queuing) of those waiting to launch or retrieve boats, manoeuvring and reversing movements.
- 5.10 In an effort to address this constraint, Mr Clark has proposed an Operational Plan, which I discuss later in this evidence.
- 5.11 The amended application (prior to the introduction of the Operational Plan), set the barrier arm further within the ramp approach, which allowed for an alternative path to be taken by vehicles via direct connect between the ramp and the southern end of the Tahi East Carpark.
- 5.12 It is not clear from Mr Clark's evidence what impact the changed barrier gate position will have on the Tahi Street East Carpark. It is assumed that there is no longer any intended access possible between the two. I also comment on this matter further in my evidence.

#### Operational Plan and App- Based System

- 5.13 An Operational Plan is proposed by Mr Clark in his evidence. The general description of the process for queue management is described in Sections 69 to 80 of Mr Clark's evidence.
- 5.14 My understanding is that there are two related systems. The first is a software or app-based system that will be used to book or schedule launch times. The second system is for the activation of barrier arms via a unique PIN number, provided via the app-based system.
- 5.15 In providing comment on both systems, I acknowledge that I am not an expert in software and app-based tools, however as the use of these has been outlined in Mr Clark's expert traffic evidence, I consider it relevant to comment on its use. I do have previous experience in implementation of automated barrier arms and gate systems in car parking buildings and at various industrial sites.

- 5.16 Mr Clark provides no examples of a similar app-based booking system currently in use in New Zealand for boat ramp access. While some ramps do have app-based systems for payment, using relatively straightforward QR scanner app type readers, as far as I'm aware there is no boat ramp facility in New Zealand that operates with an app-based system for queue management and access.
- 5.17 There would likely be comparable PIN activated barrier arm systems in use nationwide. The Motueka Power Boat Club ramp at Ward Street, Motueka has a credit card activated barrier arm as has the barrier arms at the entrance and exit to Nelson Airport.
- 5.18 The Operational Plan as proposed doesn't cater for those boaties who decide to pull out of their scheduled booking slot for whatever reason or similarly those that may decide at the last minute that they want to launch their boat.
- 5.19 Any boaties attempting to use the ramp for the first time, unaware of the requirements and means for pre-booking will likely be frustrated at not being able to launch when they want to. When faced with likely queues, boaties could well be tempted to launch at Grossi Point and bypass the proposed ramp entirely.
- 5.20 There is also no discussion in Mr Clark's evidence of the boat retrieval process. Based on the description of the booking and barrier arm/ ramp access systems it is understood that returning boaties would also need to schedule their take-out times as well, in order to gain access to the ramp with their trailer for retrieval.
- 5.21 This adds another level of complexity, with boaties needing to schedule take-out times while on the water and with the likelihood of changed plans. The potential for variable arrival times of vessels back at the ramp could be problematic should they arrive outside of their allocated time slot.
- 5.22 Lastly, any technology from time to time is affected by faults and network outages could also occur from time to time. For example, many electric vehicle charging facilities are app-based, but despite these systems being in place in New Zealand for many years they are still affected by outages from time to time.
- 5.23 In my opinion, managing queue demand at the ramp through the proposed Operational Plan and associated software and technology-based approach creates too many uncertainties around implementing a system that is untried and untested, with few specific details provided in supporting evidence.

5.24 The Operational Plan and App Based system are a necessity due to the lack of available queuing and manoeuvring space immediately adjacent to the ramp. If there was sufficient on-site queuing and manoeuvring capacity to cater for a known and quantified expected demand, as there should be for a facility such as this, there would simply not be a need for an app-based system to manage arrivals.

#### Barrier Gate Position

5.25 As discussed previously in this evidence, the location of the barrier gate on the ramp access has shifted to the ramp access vehicle crossing off Tahi Street.

5.26 Should consent be granted, my view is that the barrier gate should be set back within the site to allow for a vehicle towing a boat to completely turn into the ramp entrance such that the rear of their trailer is entirely clear of the street. This will also allow for a vehicle to exit via the Tahi Street East carpark, should any issue with the barrier arm not opening occur.

#### Swept Path

5.27 Indicative vehicle swept path, or tracking circles, are shown on the Vehicle Tracking B99 + Trailer drawing, Ref 21-001-141-SK101, 4/11/2024, provided as Document J03a. This drawing shows the availability of sufficient space within the turnaround area on the ramp approach, for vehicles towing boats to complete a U-Turn from two locations side by side.

5.28 Mr Clark in Section 71 of his evidence states that *“The boat ramp area can accommodate up to four vehicles, two loading or unloading and two waiting.”* On this basis, there is unlikely to be a need for vehicles to queue side by side as shown on the Vehicle Tracking B99 + Trailer drawing, as there is sufficient length for two vehicles towing trailers to queue nose to tail, prior to making their U-Turn.

5.29 The Vehicle Tracking B99 + Trailer drawing shows a noticeable change in angle on the inside of the respective swept paths, which is presumably where the inside edge of the towed trailer tracks within the path of the towing vehicle.

5.30 Regardless, there should be more than sufficient space within the turning area for vehicles towing boats to carry out the U-Turn. It is expected that that the largest vehicles using the ramp would be utility type vehicles. For the New Zealand vehicle fleet, these vehicles have a turning circle (diameter) of between 12 to 13m.



## **6 SUMMARY AND CONCLUSIONS**

- 6.1 In my opinion, it is not possible to definitively state that adverse traffic effects would be less than minor, due the lack of adequate analysis provided in the Application and supporting documentation, including the TA and the Peer Review Response. Mr Clark has not fully addressed these uncertainties in his evidence.
- 6.2 Mr Clark has set out in his evidence an Operational Plan using a software and technology-based approach in to manage demand. However, there are uncertainties around implementing a system that is untried and untested, with few specific details provided in his evidence.
- 6.3 The Operational Plan and App Based system are a necessity due to the lack of available queuing and manoeuvring space immediately adjacent to the ramp. If there was sufficient on-site queuing and manoeuvring capacity to cater for a known and quantified expected demand, as there should be for a facility such as this, there would simply not be a need for an app-based system to manage arrivals.
- 6.4 In my opinion, it is not possible to definitely state that adverse traffic effects would be less than minor, due the lack of quantification of the traffic volumes and the uncertainty over the assumptions around the level of demand for the proposed ramp.
- 6.5 Rather, I am of the view that the traffic effects remain largely unknown and therefore there is the potential for these to have a more than minor effect.

Dated this 14th day of November 2024



Ari Joseph Albert Fon