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PRIVATE PLAN CHANGE 83, MANGAWHAI HEADS; RESPONSE TO COMMENTS FROM FLOW, 15 MARCH 2023

By Dean Scanlen

BE(Hons)(Civil), CPEng, IntPE(NZ)

Flow Transportation Specialists has reviewed my traffic report and subsequent response to a request for further information from the council and provided three overall recommendations. I reproduce each of them here and provide a response to each in green.

Recommendation 1: We recommend the ITA be updated to provide a more detailed transport plan for the precinct. The ITA should include

- **the indicative locations of roads, walking and cycling connections and intersections with external roads and within the precinct to enable Council to assess how the precinct is likely to function once fully developed**
- **the estimated number of dwellings accessed from each road and intersection, to ensure transport infrastructure is fit for purpose and the impact on the surrounding transport network can be mitigated once the full precinct has been developed**

This is given in the attached plan marked A, which is superimposed onto the indicative road and on/offroad pathway network plan provided with the application. The shaded areas are the estimated catchment of each road and the text gives the estimated lot yield from each at ultimate development. The marked connection points are also only indicative, although there are existing connections at five out of six of them (all except the possible connection #2 on Cove Road).

In general, this layout shows how the traffic can be distributed over several connection points rather than being concentrated into a small number of, or a single, intersection.

Recommendation 2: We recommend the applicant undertake SIDRA modelling and safe system assessments for all proposed intersections onto Cove Road and Mangawhai Heads Road to ensure impacts are captured and intersections can operate safely and effectively

This is not necessary. SIDRA modelling already carried out on the Cove Road/Mangawhai Heads Road intersection showed it will continue to operate at an acceptable level of service even at full development of the plan change area as enabled by it, during holiday periods and with future growth in the traffic. None of the intersections that lead to the plan change area will have anywhere near that level of demand on them.

I also maintain that, with the future intersections being so far below the levels of traffic that has the potential to create stress on them, that additional counts on existing roads are not warranted.

Safe system assessments are only feasible on specific intersection designs (and, even then, are challenging because the assessment framework is impractical, at best, for assessing specific intersections). It is not feasible, nor necessary, to carry out such designs at this stage. Rather, it is only necessary to demonstrate that there is sufficient space for likely future intersection designs without encroaching into private land not controlled by the applicant.

As already demonstrated in both my traffic report and subsequent response to a previous RFI, standard at-grade tee intersections will almost certainly be adequate for the future intersections and there is ample space for those, even in the unlikely event that “channelised” turn treatments are required.

Recommendation 3: We recommend Council include any required transport upgrades (within or outside the precinct) within the precinct rules in the District Plan, along with triggers determining when upgrades need to be delivered.

I disagree with this. I have already shown that the proposal will not trigger transport upgrades external to the precinct and the Flow reviewer agrees. The proposed provisions and rules for this precinct will ensure the progressive development of a suitable and adequate internal road network.

I acknowledge the potential for roadways to be constructed at a lower standard than that applicable to their ultimate catchment. This is likely, for example, with subdivisions close to existing roads but which have a large undeveloped catchment beyond them. I also say that this is no different from any other residential area, or indeed any zone, and that the proposed rules will not reduce the powers the council has to manage this potential.

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