

## **Summary**

The proposed development is generally consistent with the Wainui Precinct Plan, the indicative overall layout of the precinct, and the anticipated staging of the Milldale Development. No significant issues have been identified with respect to the roading infrastructure that would warrant major concern. However, Auckland Transport has expressed reservations regarding the operational performance and safety of the proposed roads and intersections, and stormwater management. These matters are discussed in further detail below.

### **Missing Technical Documentation**

The submission lacks long-section drawings and vehicle tracking diagrams. Without these, Auckland Transport (AT) is unable to assess the suitability of the proposed road design. This presents a significant risk to the approval process. Should these elements prove non-compliant at the Engineering Approval (EA) stage, the Applicant may be required to seek a variation to the consent because the road widths may not be sufficient.

### **Lack of Visibility Assessments**

No visibility assessments have been provided for the proposed intersections. As a result, AT cannot confirm whether the intersection treatments are adequate to ensure safe traffic operations. If visibility issues are identified at the EA stage and cannot be resolved without altering the scheme plan or lot boundaries, a consent variation may be necessary.

### **Pedestrian Safety**

AT is concerned about limited visibility for pedestrians at the zebra crossing, particularly when looking left. This issue may be exacerbated by buses stopped at adjacent bus stops. The Applicant is encouraged to assess this risk and provide appropriate mitigation.

### **Intersection Spacing on Waiwai Drive**

The proposed layout includes T-intersections in close proximity along Waiwai Drive between Stages 10 and 11. This configuration may lead to conflicts between turning vehicles. These intersections are detailed in Woods Drawing P24-128-00-2047-RD. AT is also concerned about the impact of nearby bus stops on visibility at these intersections and recommends that the Applicant assess and mitigate this issue at this stage.

### **Intersection Spacing on Collector Road 01 (Stage 12)**

A similar concern exists on Collector Road 01 in Stage 12, where T-intersections are located too closely. AT suggests relocating the eastern intersection one lot south to improve spacing and reduce potential conflicts.

### **Direct Lot Access to Collector Road**

Three lots on the west side of Waiwai Drive have direct access to the Collector Road, which is not considered desirable. AT recommends that the Applicant explore options to reduce or eliminate these accesses, such as adjusting lot boundaries or introducing a Jointly Owned Access Lot (JOAL).

### **Stormwater and Hazards**

#### **Stage 4C:**

As per Auckland Transports Raingarden Safety Practice Note 03, roadside raingardens are required to be in accordance with AT's Bioretention Design Guide Version 2 published in February 2025. The current design will not be in accordance with this guide and may not be feasible with the current road reserve boundaries, hence needing to be addressed at this stage.

#### **Stage 10-13:**

There are some concerns in relation to hazards:

- The Applicant has not provided Road long sections. Based on the Over Land Flow Path (OLFP) calculations it appears the slopes of roads exceed the maximum allowable slope of 12.5% for roads to be vested to Auckland Transport. E.g., Section A-A on drawing P24-128-00-3021-DR uses a road slope of 0.276 m/m, equating to 27.6% slope.
- OLFPs for the 1% AEP + climate change within roads to be vested to AT are required to meet the minimum safety requirements specified in Table 3 of the Road Drainage chapter of Auckland Transports Transport Design Manual. The calculations provided show the depth x velocity products significantly exceed the maximum value for safety of pedestrians. The slope of proposed roads should be confirmed and over land flow paths reassessed with the correct slope and demonstrated to meet the minimum Auckland Transport requirements.
- Although some provisions for fish passage have been shown in the details for the proposed culverts, no assessments have been provided that show the proposed culverts will meet the requirements of the National Environmental Standards for Freshwater 2020. The Applicant has proposed fish baffles, but also has the culverts 25% below upstream/downstream bed levels, meaning the baffles may become fully covered by bed substrate, negating any benefits they provide to fish passage. Specifically, it should be demonstrated that:
  - The culvert must provide for the same passage of fish upstream and downstream as would exist without the culvert, except as required to carry out the works to place, alter, extend, or reconstruct the culvert.

- The mean cross-sectional water velocity in the culvert must be no greater than that in all immediately adjoining river reaches.
- The bed substrate must be present over the full length of the culvert and stable at the flow rate at or below which the water flows for 80% of the time.