

7 February 2025

Dave Lang
Director
Inovo

Dear Dave,

SURF PARK DEVELOPMENT IN DAIRY FLAT, AUCKLAND – TRANSPORT MEMO

Flow Transportation Specialists (Flow) has been commissioned by AW Holdings 2021 Limited (the Applicant) to assess transport matters relating to a proposal that includes a Surf Park, visitor accommodation, supporting retail, food and beverage activities, a data centre (all of which have been approved through the COVID-19 Recovery (Fast-track Consenting) Act 2020), as well as residential and commercial activities in Dairy Flat, Auckland.

The Surf Park, visitor accommodation, supporting retail, food and beverage activities, solar farm and data centre was granted consent in 2024. The consented development is shown in Figure 1 and includes a new east-west road that intersects with Dairy Flat Highway.

Having secured additional land adjacent to the initial site, this application substitutes the consented solar farm for residential activities and extends the residential component into the additional land now available. To cater for the projected increase in traffic demand associated with further development, the east-west road is proposed to extend through to Postman Road providing 2 access points onto the surrounding roading network. A masterplan of the application has been developed by Studio Pacific Architects (SPA) is shown in Figure 2.

The transport effects of the proposed development build upon and consider the transport outcomes and effects approved as part of the consented project. That is, the trip generation associated with consistent activities remains unchanged, as does the east-west road layout design and new intersection at Dairy Flat Highway.

We have prepared this letter to support the application to the Minister for the Environment for Fast-Track referral under the Fast-track Approvals Act 2024.

Figure 1: Approved Surf Park Application (baseplan produced by WAM)



Figure 2: Development masterplan (the Proposal) with labels added



In summary, we consider that the Proposal

- ◆ will generate some 730 vehicles per hour (vph)
 - some 200 vph are associated with the consented surf park, accommodation and restaurant activities
 - up to 120 vph are expected to be generated by the data centres
 - about 50 vph will be added by the proposed light industrial lots
 - the proposed 404 residential units is expected to generate up to 360 vph and can be accommodated by extending the east-west road through the site to a new intersection on Postman Road
 - We have undertaken preliminary traffic modelling of the intersection on Dairy Flat Highway and confirm that it can accommodate up to 300 additional dwellings on top of the consented traffic generated by the surf park and data centre, noting that the peak times of the surf park and residential activities do not overlap

- A new intersection onto Postman Road is proposed in order to support and distribute traffic that is generated by the balance of the additional activities.
- ◆ can provide safe access onto the existing transport network and provide for safe access to the strategic transport network
- ◆ is aligned with the future network upgrades that the Private Plan Change 103 for Silverdale West Industrial Area¹ (PPC103) will bring
- ◆ will integrate well with the Silverdale West Dairy Flat Industrial Area Structure Plan (the Structure Plan)
- ◆ will benefit from the future Rapid Transit Corridor (RTC) running north-south through the site, which has Designation confirmed through a Notice of Requirement (NOR) 1 for North (NOR1), and Dairy Flat active modes upgrades through a Notice of Requirement 8 for North (NOR8). The Proposal is not reliant on these.
- ◆ the east-west road intersecting Dairy Flat Highway, will provide safe access and connectivity to the surrounding network when extended and connected to Postman Road, which will also include a safe intersection layout which considers the adjacent and neighbouring property accesses.

1 THE SITE LOCATION

The site will be the amalgamated addresses of 1350 Dairy Flat Highway and adjacent lots (the Site), indicated in Figure 3. The part of the Site that has already been granted consent is shaded in white.

- ◆ The Site is accessed by Dairy Flat Highway to the west and Postman Road to the east.
- ◆ The northern end of the Site currently has a vehicle crossing on Lascelles Drive and the southern end of the Site currently has a shared vehicle crossing onto Dairy Flat Highway. The Proposal is not reliant on access from Lascelles Drive or the shared vehicle crossing onto Dairy Flat Highway, and will instead rely on the new east-west road that connects with safe intersections to Dairy Flat Highway and Postman Road.
- ◆ The Site is currently zoned as Future Urban Zone in the Auckland Unitary Plan (AUP).

¹ <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/unitary-plan/auckland-unitary-plan-modifications/Pages/details.aspx?UnitaryPlanId=268>

Figure 3: Site location bounded in red. Shaded in white is part of the original application (indicative boundaries)



North Shore Airport is directly across Postman Road from the Site. The Site is some 4 km south of Silverdale interchange with State Highway 1 (SH1) via Dairy Flat Highway and the Hibiscus Coast Station. The area of the Site where activities are consented is shaded in white, with the wider site comprising land to the north-west and south.

Both Dairy Flat Highway and Postman Road have a posted speed limit of 80 km/h, with a road reserve width of 20 m. Both roads have one lane in each direction and shoulders and swales on both sides. There is a bus route that travels along Dairy Flat Highway which travels between Albany Station and Hibiscus Coast Station in Silverdale providing 10 services per day on weekdays, and there is a bus stop pair within 500 m of the Site on Dairy Flat Highway. There are no footpaths or cycling facilities currently nearby though there is a Designation to upgrade Dairy Flat Highway with a shared path under NOR8. NOR8 is discussed below.

2 THE FUTURE CONTEXT OF THE WIDER AREA

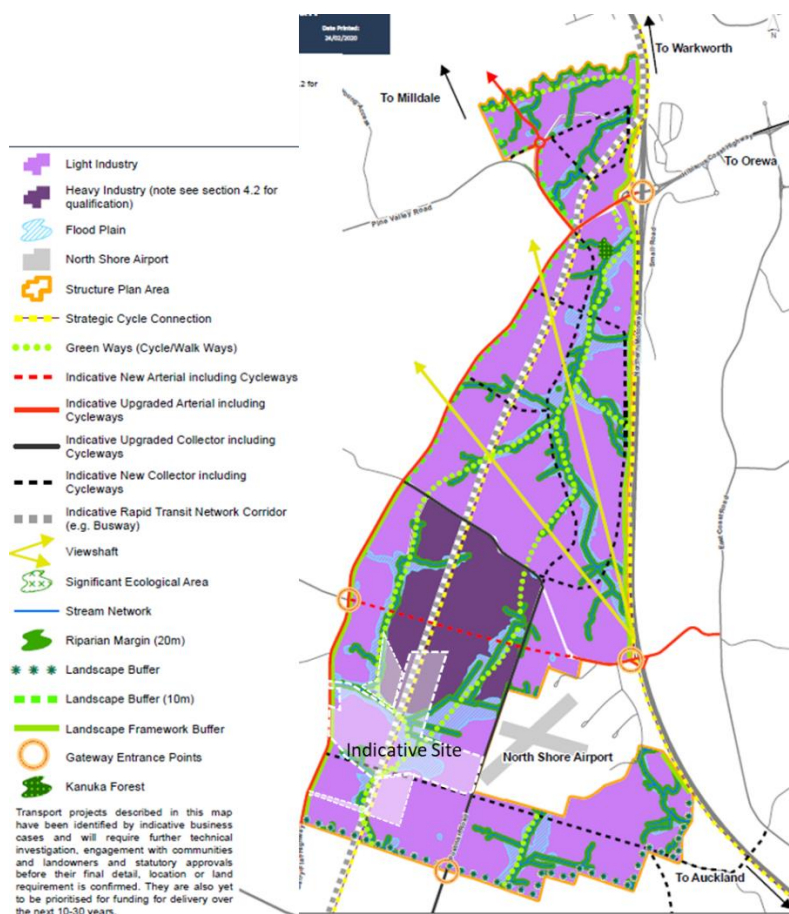
The wider Dairy Flat area is set to undergo development in the near future.

- ◆ We have reviewed Silverdale West Dairy Flat Industrial Area Structure Plan, dated April 2020 (Structure Plan)² that is of relevance to the area.
- ◆ We have taken into account the NORs and approved Designations for future transport upgrades in the wider area.
- ◆ We have reviewed the PPC103, its impacts on the roading network and triggers for upgrades.

2.1 How the Proposal aligns with the Structure Plan

In the Structure Plan, this area is anticipated to be business land to provide local employment. The Structure Plan indicates the land to be zoned light and heavy industry (Figure 4).

Figure 4: Silverdale West Dairy Flat Industrial Area Structure Plan (April 2020). Site shown in white (indicative boundaries only)



² <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/Silverdale%20West%20Dairy%20Flat%20Industrial%20Area%20Structu/silverdale-west-dairy-flat-industrial-area-structure-plan-april-2020.pdf>

There are a number of indicative transport network elements indicated in the Structure Plan within or about the Site, such as

- ◆ a Strategic Cycle connection
- ◆ an indicative RTC corridor
- ◆ Green Ways (off road shared paths), roughly in the areas of flood plains
- ◆ Along the southern boundary of the Site, a new collector road is indicated connecting Dairy Flat Highway to the west and SH1.

A number of these elements are being protected (not constructed) through Designations, discussed further below. This application provides the new collector road to the south of the Site, connecting Dairy Flat Highway to Postman Road, while maintaining a corridor free of development which allows for the RTC. The consented development obtained the necessary approvals from and the NZ Transport Agency with respect to s176/s178 for confirming the east-west road alignment and design as it crossing the RTC corridor.

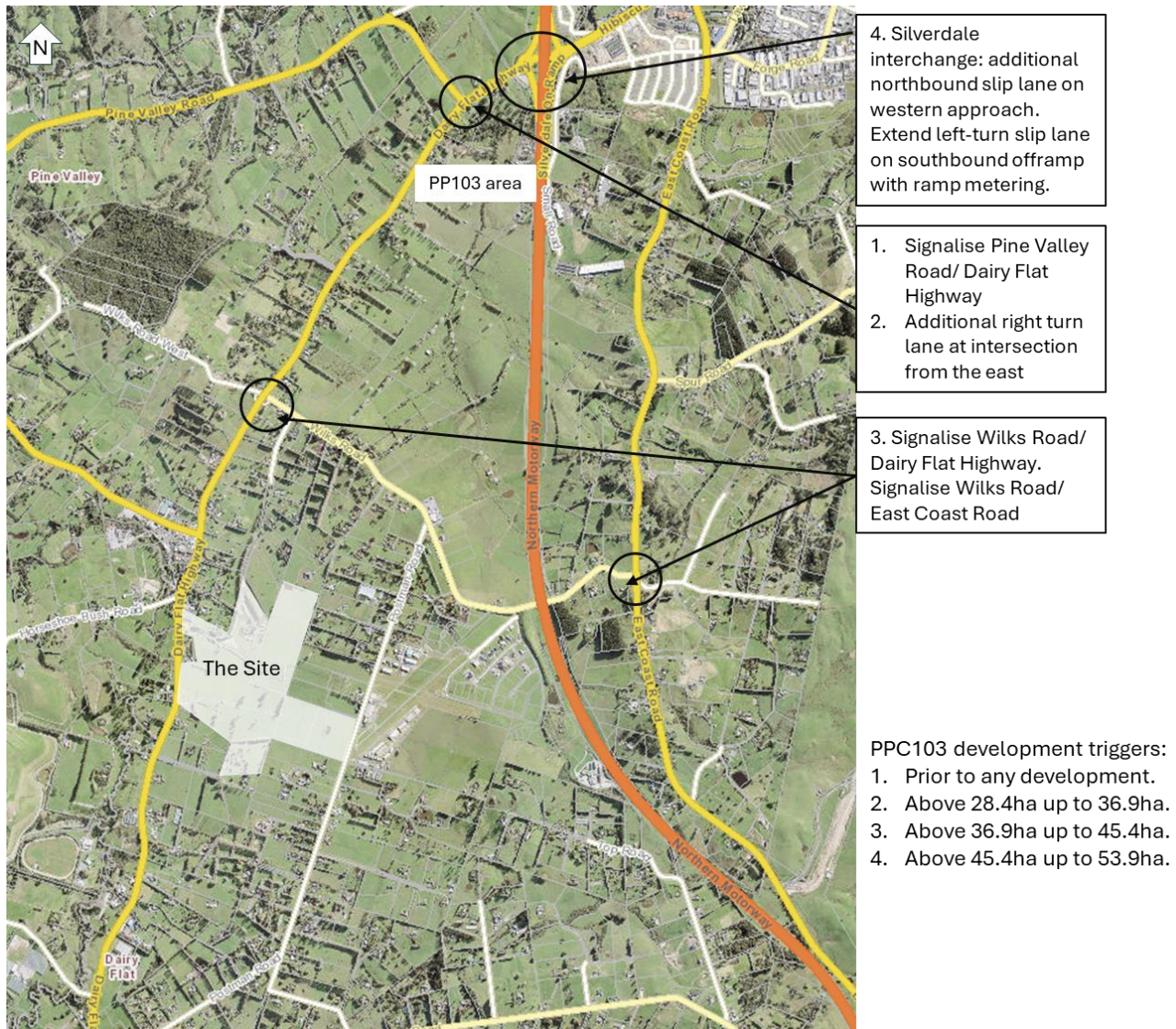
Overall, the proposed Site layout has considered what the Structure Plan has indicated thus far and has not precluded further development in the wider area by others.

2.2 Roading upgrades by PPC103

The land (some 107 hectares) located 3km north of the Site bound by Dairy Flat Highway and SH1 is undergoing a private plan change, PPC103 to Business – Light Industry zone. While not approved, the proposed Precinct rules for PPC103 include a number of relevant roading upgrades triggered by development staging. The roading upgrades relevant to this Surf Park Proposal is shown in Figure 5 numbered according to the proposed development triggers (though not an exhaustive list).

We have reviewed the traffic modelling for Dairy Flat Highway undertaken as part of PPC103 and taken into account the predicted traffic volumes into our modelling for this Proposal. We note that the northbound traffic volumes on Dairy Flat Highway are predicted to increase. We have considered northbound volumes doubling at the Site frontage to ensure the safe operation and need for 2 access points to support development of the Site.

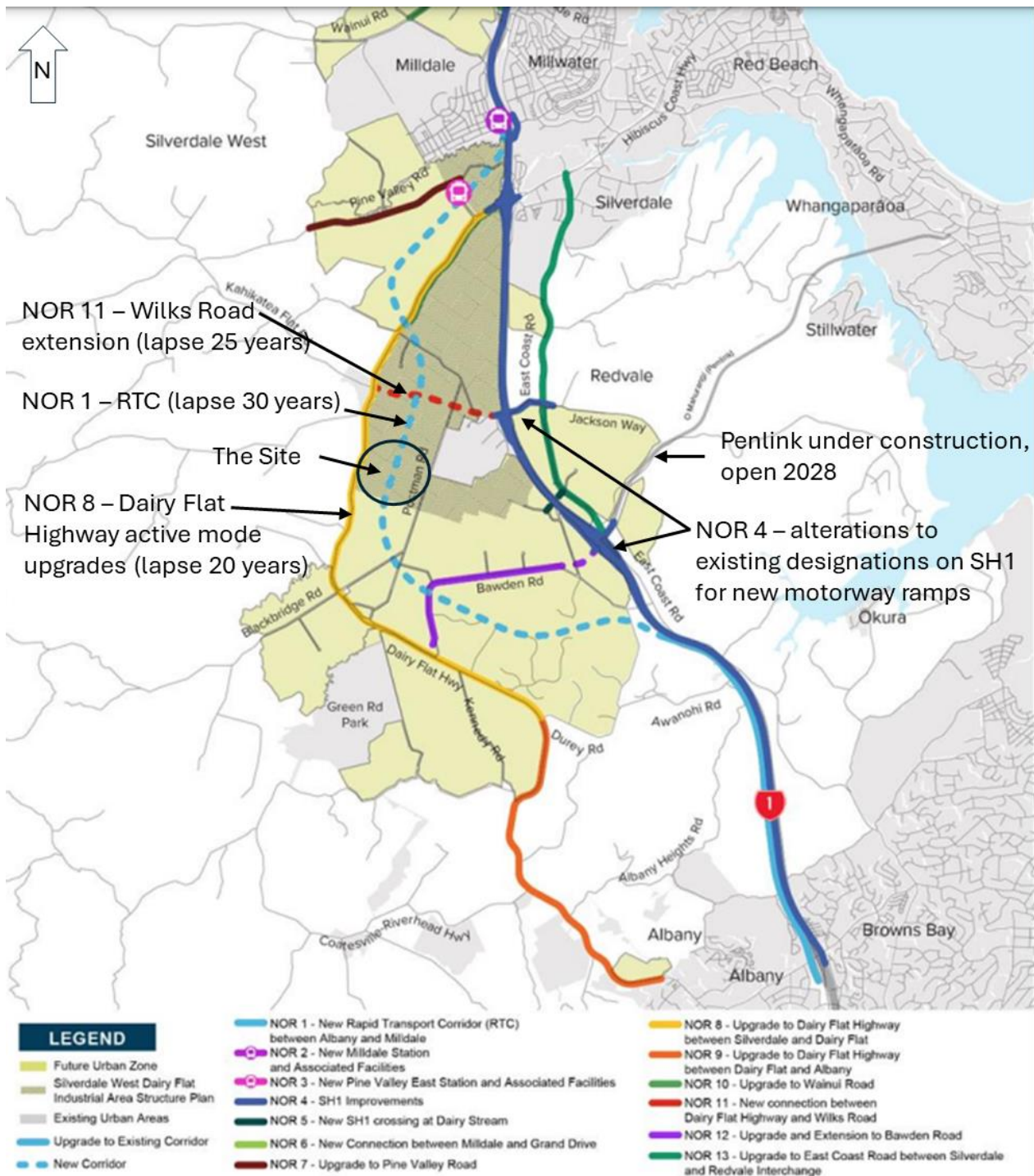
Figure 5: Relevant network upgrades as part of PPC103 and proximity to the Site (boundaries indicative)



2.3 Designations applicable to the Site

A number of NORs for the North area were lodged in October 2023, of which 2 (NOR1 and NOR8) interact with the Site and have been taken into account as part of the original consent for the Site. NOR11 is located to the north of the site and cuts through Lascelles Drive. These are shown in Figure 6.

Figure 6: The Site and its context within wider NORs



- ♦ NOR1 – a Rapid Transit Corridor (RTC) running north-south through the middle of the Site, including active mode provision.
- ♦ NOR8 – upgrades and widening of Dairy Flat Highway to urbanise and include active mode provision.
- ♦ NOR11 – Wilks Road extension, providing an urban arterial including active mode provision.
- ♦ On the northern portion of the Site is NOR11 which will extend Wilks Road west to Kahikatea Flat Road intersection. This Designation falls within the accessway belonging to the Site on Lascelles

Drive, however the Proposal will not rely on the use of this accessway and therefore the Designation will not be impacted.

We have been in close discussions with Auckland Transport and NZ Transport Agency's Supporting Growth team at the time of the original consent to ensure that the proposed development of the Site does not preclude the NORs going ahead, particularly NOR1 and NOR8. The necessary s176/s178 approvals have been obtained from the respective road controlling authorities, with these being consistent with this application.

Of importance to the assessment of the transport network, as shown in Figure 6 is the opening of Penlink which is currently under construction until 2028. This new road will connect Whangaparāoa to SH1, relieving traffic at Silverdale interchange, with new motorway ramps to the south, near Bawden Rd (between Albany and Silverdale interchanges) removing a considerable amount of traffic from Silverdale interchange.

3 THE PROPOSED DEVELOPMENT

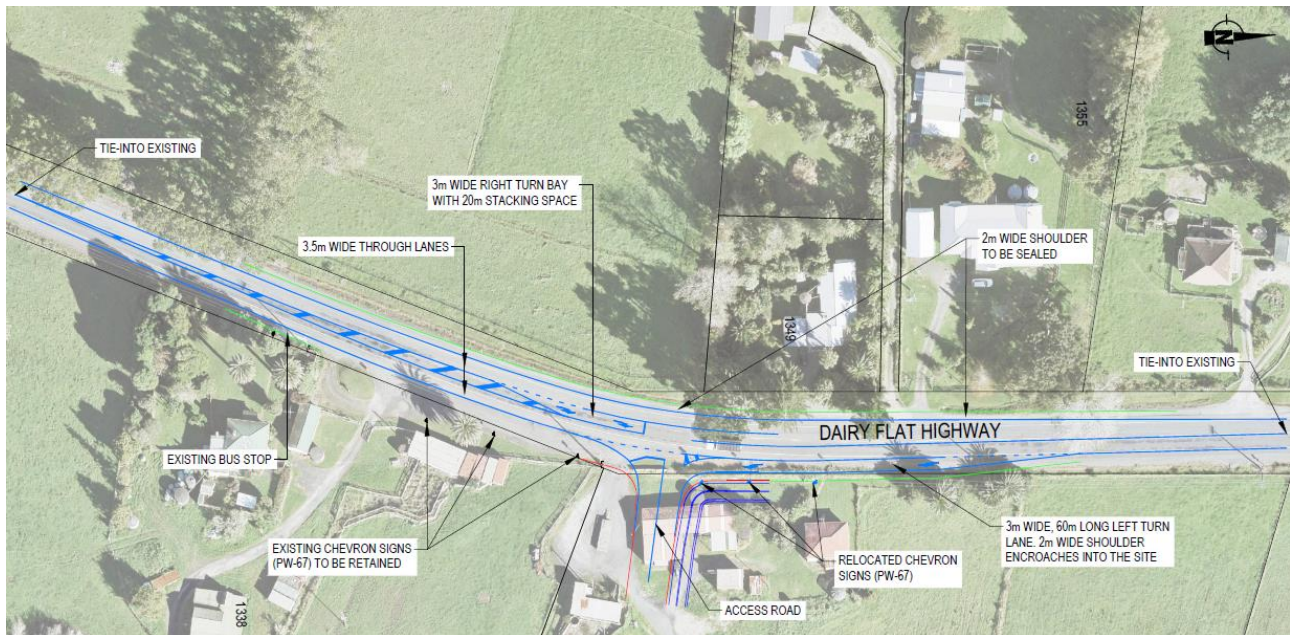
The land uses that have already been consented are the surf park and ancillary retail, 128 accommodation units (cabins and lodge), restaurant, a data centre and solar farm. Apart from the solar farm, these activities are intended to remain under this Proposal with some variations to the yield and the location about the Site.

This Proposal will include an addition of 404 dwellings (a mix of apartments, townhouses, duplex, Live Work units and single dwellings), 12 additional accommodation units (140 units in total), 2 additional data centres and 6 light industrial lots on top of the consented elements. In terms of roading network

- ♦ the approved east-west road intersecting Dairy Flat Highway is proposed to be extended east to intersect with Postman Road. As part of the consent, this road has been designed according to the cross-sectional elements of a collector road in Auckland Transport's Transport Design Manual (TDM) and would be suitable to continue the same cross-section through to Postman Road
- ♦ the north-south spine road accessing the proposed dwellings would be suitable to be vested as a local road, to be confirmed with Auckland Transport
- ♦ all other side roads would remain in private ownership, either designed as a private road or jointly-owned access lot
- ♦ the vehicle crossing on Dairy Flat Highway into the surf park car park (located north of the new east-west intersection) forms part of the original consent and is proposed to be retained. The exact location will be determined through detailed design and be based on achieving safe sight distance according to design standards
- ♦ some lots that are part of the Site are currently accessed via a vehicle crossing on Dairy Flat Highway or Lascelles Drive (to the north). The Proposal does not rely on the use of the accesses for the Site, and will instead use the proposed new roads.

Figure 7 shows the consented intersection on Dairy Flat Highway. It is anticipated that the proposed intersection on Postman Road will have similar layout and will not require third-party land.

Figure 7: Consented intersection on Dairy Flat Highway



4 TRIP GENERATION

A high-level trip generation assessment has been carried out for the Proposal. Since the consented activities are proposed to remain (with some variations to yield), the additional traffic will be generated by the proposed residential land use, additional data centres, accommodation and light industrial lots. We note that the previously consented solar farm generated very few vehicle movements.

We have undertaken traffic modelling for the intersection on Dairy Flat Highway. We have added 300 dwellings and have increased through-traffic (allowing for growth) on Dairy Flat Highway in line with PPC103 traffic volumes, and assuming no other external road connections are proposed, aside from the separate surf park car park access on Dairy Flat Highway.

- ◆ Based on vehicle trip rates taken from Roads and Traffic Authority 'Guide to Traffic Generating Developments' (Version 2.2 October 2022) (RTA guide), we have adopted a rate of 0.9 weekday peak hour vehicle trips per dwelling which is slightly higher than the 0.85 stipulated in the RTA guide, given the lack of public transport and nearby land uses being available during the early stages of development. As public transport services improve in the future (notably the RTC) traffic generation will reduce with mode-share increasing.
- ◆ 300 dwellings equates to 270 vehicles per hour (vph) being added on to the consented traffic, with the same directional split on Dairy Flat Highway as was assumed in the original consent. In the morning peak hour, this was almost a 50/50 north/south split, which is reasonable to assume given Dairy Flat School to the south and Silverdale Interchange to the north. In the evening peak hour, traffic to/from the north is heavier.
- ◆ The results of the modelling show that a single intersection on Dairy Flat Highway, with some background traffic growth, can accommodate up to 300 dwellings on the Site.

There are 104 dwellings, 12 additional accommodation units, 2 additional data centres and 6 light industrial lots unaccounted for in the above traffic model. In terms of traffic volumes this equates to

- ◆ Some 94 vph residential traffic (at a rate of 0.9 vph per dwelling)
- ◆ 5 vph associated with the accommodation units (at a rate of 0.4 vph per unit)
- ◆ Up to 80 vph associated with the data centres (assuming 50 staff in each centre and 80% travelling during peak hour)
- ◆ About 50 vph light industrial traffic for the estimated 1ha (RTA Guide specifies 0.5 per 100 m² gross floor area for warehouses in the morning peak hour).

To cater for the quantum of traffic predicted, and noting the predicted performance of the Dairy Flat intersection, we propose to extend the east-west road to intersect with Postman Road and we expect this can readily accommodate the additional traffic (some 230 vph) that was not modelled onto Dairy Flat Highway.

We expect to do more detailed traffic modelling for the consent application to confirm intersection performance at both intersections, and the design of the Postman Road intersection.

The existing vehicle crossings onto Dairy Flat Highway and Lascelles Drive from the wider site are not planned to be used for this Proposal, but we haven't precluded these accesses should they be required to support the Proposal's traffic and accessibility in the future and how adjacent land may develop.

We do not consider there to be any transport matters that can be overcome to support the safe operation of the Proposal.

5 TRANSPORT BENEFITS AND EFFECTS

There will be a portion of traffic generated by the Proposal that will be shared with the land uses that are already consented. The original consent has already provided the relevant roading infrastructure:

- ◆ a new road designed to a Collector Road status, intersecting Dairy Flat Highway
- ◆ existing bus stops on Dairy Flat Highway within vicinity of the Site will be upgraded with crossing facilities and footpath connections to the new road
- ◆ private shuttles between Hibiscus Coast bus station in Silverdale (about 5 km north from the Site) that can be used by staff and visitors to the surf park
- ◆ Designations affecting the Site have been accounted for.

While the consented activities and PPC103 will bring about new development, because of other land uses nearby, the current public transport provision and state highway connections, we anticipate that there will still be a high percentage of trips by private car until neighbouring land uses are developed and public transport infrastructure and services increased.

The Proposal has taken this into account by proposing a connection onto Postman Road, thereby increasing capacity to and from the Site, and better distributing traffic onto the surrounding transport network.

Inside the Site itself, there will be strong walking and cycling connections between all areas of the Site. When the long-term upgrades of Dairy Flat Highway, Wilks Road and the RTC are constructed, the Site will have excellent walking and cycling infrastructure both internally and externally.

6 CONCLUSIONS

To conclude

- ◆ We have prepared this letter to support the application to the Minister for the Environment for fast-track referral under the Fast-track Approvals Act.
- ◆ The transport effects of the proposed development build upon and consider the transport outcomes and effects approved as part of the consented project, which includes a surf park and ancillary retail, 128 accommodation units (cabins and lodge), restaurant, data centre and solar farm. Some variations to the yield of these elements are anticipated but we expect will result in negligible traffic effects.
- ◆ This Proposal will include an addition of 404 dwellings (a mix of apartments, townhouses, duplex, Live Work units and single dwellings), 12 additional accommodation units (140 in total), 2 additional data centres and 6 light industrial lots on top of the consented elements.
- ◆ To cater for the quantum of traffic predicted, and noting the predicted performance of the Dairy Flat intersection, we propose to extend the east-west road to intersect with Postman Road increasing capacity to and from the Site, and better distributing traffic onto the surrounding transport network.
- ◆ Inside the Site itself, there will be strong walking and cycling connections between all areas of the Site. When the long-term upgrades of Dairy Flat Highway, Wilks Road and RTC are constructed, the Site will have excellent walking and cycling infrastructure both internally and externally.
- ◆ We consider the transport effects of the development provide for a safe, effective and efficient operations of the Site and do not impact on the safe, effective and efficient operation of the surrounding transport network.

Yours sincerely



Elisa Tayler
PRINCIPAL TRANSPORTATION ENGINEER



Terry Church
DIRECTOR

Reference: P:\INOV\002 Surf Park Stage 2\4.0 Reporting\L1C250207 Transport Memo for fast track consent_Final.docx - Elisa Hardijanto