

APPENDIX A AUP E27 and PC79 Assessment

CHAPTER E27 TRANSPORT ASSESSMENT

E27 Standards assessment

Table A 1: Chapter E27 transport standards and assessment

E27 Standard	Assessment
E27.6.1. Trip generation	
(1) Where a proposal (except where excluded in Standard E27.6.1(2)) exceeds one of the following thresholds: (a) a new development in Table E27.6.1.1 (b) 100 v/hr (any hour) for activities not specified in Table E27.6.1.1 requiring a controlled or restricted discretionary land use activity consent in the applicable zone where there are no requirements for an assessment of transport or trip generation effects. This standard does not apply to development activities provided for as permitted in the applicable zone Resource consent for a restricted discretionary activity is required	Applicable (T1) more than 100 dwellings (T3) more than 100 visitor accommodation units (T8A) retail exceeding 1,667m² GFA
E27.6.2. Number of parking and loading spaces	
(1) The number of parking spaces must meet rates specified in Table E27.6.2.4	Complies No minimum nor maximum parking rates apply.
(6) Bicycle parking (a) the activities specified in Table E27.6.2.5 must provide the minimum number of bicycle parking spaces specified; and (b) the following bicycle parking requirements apply to new buildings and developments (T81) Residential – all residential developments - visitors: 1 per 20 dwellings - long-stay: 1 per dwelling without a dedicated garage or basement car parking space (T81) Residential – visitor accommodation and boarding houses - visitors: 1 space + 1 space per 20 rooms/beds - long-stay: 1 per 10 FTE employees (T87) Retail – food and beverage greater than 350 m² GFA - visitors: 1 per 350 m² GFA - long-stay: 1 per 300 m² GFA (T89) All other retail – greater than 500 m² GFA up to 5000 m² GFA - visitors: 1 per 500 m² GFA - long-stay: 1 per 300 m² GFA (T92) Industrial activities and storage and lockup facilities - visitors: 1 space + 1 space per 750 m² GFA of office space - long-stay: 1 per 300 m² GFA of office (T93) Care centres - visitors: 1 space + 1 space per 50 people to be accommodated - long-stay: 1 per 10 FTE employees (T101) Major recreation facility - visitors: 1 space + 1 space per 1000 m² GFA of office and other accessory activities - long-stay: 1 per 300 m² GFA of office and other accessory uses	Complies The apartments will have space to store bicycles in the basement parking and bicycle parking for visitors will be provided outside in clusters within proximity of the apartment buildings. All other dwellings will have space within each lot for visitor bike parking. Each dwelling without a garage will have a secure space sheltered from the weather that can store bicycles. All other activities requiring bicycle parking will have visitor bike parking distributed throughout each precinct, or in the case of the data centres, will have parking in its own lot, and secure bike parking for staff.

(T102) Community facilities ♦ visitors: 1 per 200 m² GFA ♦ long-stay: 1 per 500 m² GFA	
(7) End-of-trip facilities: (a) the activities specified in Table E27.6.2.6 must provide end-of-trip facilities as listed below; and (b) the following end-of-trip facilities requirements apply to new buildings and development	Not applicable The Proposal does not include offices, education facilities nor hospitals
(8) Number of loading spaces: (a) all activities must provide loading spaces as specified in Table E27.6.2.7 (T111) retail and industrial activities greater than 5,000 m² GFA up to 10,000 m² GFA ♦ 2 loading spaces (T113) All other activities where located in rural zones ♦ No minimum rate (b) In addition, where the only vehicle access for residential activities is from an arterial road as identified on the planning maps, a small loading space must be provided in accordance with Table E27.6.2.7A.	Complies All non-residential precincts (including Live/Work Precinct) will have on-site loading. Neighbourhood Precincts will not have dedicated on-site loading spaces given their proposed dwelling typologies. All loading and rubbish collection will be undertaken from the road or JOAL that the individual dwellings front on to, as is most practical.
E27.6.3.1. Size and location of parking spaces	
(1) Every parking space must (a) comply with the minimum dimensions given in Table E27.6.3.1.1 and Figure E27.6.3.1.1; except accessible parking dimensions and accessible route requirements must be designed in accordance with the New Zealand Standard for Design for Access and Mobility – Buildings and Associated Facilities (NZS: 4121- 2001); and (b) be located on the same site as the activity to which it relates unless one of the following criteria is met (i) the parking is located in an H7 Open Space Zone and the reserve, park or recreation area consists of more than one adjoining Certificate of Title. In that case, the parking must be located within the same reserve, park or recreation area as the activity to which it relates; or (ii) resource consent is granted to an alternative arrangement, such as shared parking, offsite parking, or non-accessory parking (c) not be used for any other purpose; and (d) be kept clear and available at all times the activity is in operation, except where stacked parking is permitted by Standard E27.6.3.3(3) below (e) be located outside any area designated for road widening; and (f) parking located in part of any yard on the site (where it is permitted in the zone) must not: (i) impede vehicular access and movement on the site; and (ii) infringe any open space and landscape requirements for the relevant zone; and (g) not to be sold or leased separately from the activity for which it provides parking required under a resource consent	Complies
E27.6.3.2. Size and location of loading spaces	
(1) Every loading space must: (a) comply with the minimum dimensions given in Table E27.6.3.2.1; and (b) be located on the same site as the activity to which it relates and be available at all times while the activity is in operation; (c) be located outside any area designated for road widening; and (d) comply with the following when any yard of a site is used to provide the loading space (where it is permitted within the zone): (i) ensure that the footpath or access to the rear of the site or access to an adjacent property is not blocked at any time; and (ii) (ii) the use of the loading space does not create a traffic hazard on the road at any time. (T137) Industrial activities ♦ 11 x 3.5m (T137) All other activities	Complies

◆ 8 x 3.5m (T137) All sites and developments designed to accommodate articulated vehicles ◆ 18 x 3.5m (e) have a maximum crossfall of 1:50 (2%) in all directions	
E27.6.3.2(A) Number and Design of Accessible Parking	
(1) Accessible parking must be provided for all new buildings, extension to existing buildings and changes of activity from non-residential to residential land uses, in accordance with in E27.6.3.2(A)(2) to (5) below (2) For residential developments where car parking is provided on site, accessible parking spaces must be provided for developments of 10 or more dwellings (3) For all non-residential developments, accessible parking must be provided when car parking is provided on-site. (4) Accessible parking is not required to be provided where no car parking is provided on site, except for the following activities in the following zones, where accessible parking must be provided even when there is no car parking on-site. (5) Where accessible parking is required to be provided on-site in accordance with E27.6.3.2 (A) (1) to (4) above, the required number of accessible parking spaces must be calculated as set out in E27.6.3.2(A) (6) and (7). (6) For non-residential land uses, the required number of accessible parking spaces is to be determined using Steps 1 to 3 below: Step 1 - For non-residential land uses in the following Business Zones: (i) Business – City Centre Zone; (ii) Business – Metropolitan Centre Zone; (iii) Business – Town Centre Zone; (iv) Business – Local Centre Zone; (v) Business – Mixed Use Zone; (vi) Business – Neighbourhood Centre Zone. Use Table E27.6.2.1 (maximum parking rates for the Business – City Centre), Table E27.6.2.2 (maximum parking rates for the Centre Fringe Office Control area) or Table E27.6.2.3 (maximum parking rates area 1) to determine theoretical demand where a maximum parking rate is stipulated that results in a lesser parking requirement to that based on the Parking Demand Guidelines in Appendix 23. For other non-residential land uses in the above Business zones and in all other Zones - use the Parking Demand Guidelines in Appendix 23 to determine the theoretical parking demand. Step 2 - Use Table 1 – Number of accessible parking spaces – Non- Residential, below to determine the required number of accessible car park spaces for non-residential land uses based on either the number of parking spaces that are existing or proposed to be provided or the theoretical parking demand for non-residential land uses calculated in step 1, whichever is the higher. Step 3 – Provided that the number of accessible car parks calculated using Table 1 shall not be less than presently exist on the site. (7) For dwellings in all zones (including dwellings in the residential component of mixed use developments) which provide car parking, the required number of accessible parking spaces provided must be in accordance with Table 2 below. (8) For retirement villages, supported residential care, visitor accommodation and boarding houses The same method for calculating the required number of onsite accessible parking spaces for non-residential uses in (6) applies. (9) Accessible car parks must be marked as accessible and connected by an accessible route to the building, unit(s) or facility they serve, except that: (a) for residential developments where an accessible car park is located within a garage, carport or parking pad that directly adjoins the dwelling it serves, the space may be, but is not required to be, marked as accessible; and (b) for accessible parking spaces in grouped or communal areas of residential developments that do not directly adjoin the dwellings they serve, such spaces must be marked as accessible, and may include additional signage indicating private allocation to specific dwellings. The marking for these residential parking spaces may be supplemented beyond standard accessible parking markings to clearly indicate their residential and private/allocated nature. For all non-residential developments, or non-residential components of mixed-use developments, standard accessible parking markings must be used.	Complies • Most of the housing typologies can accommodate parking in their own individual lot which complies with the accessible parking dimensions. • Based on both theoretical parking demand and overall car parking numbers, 12 accessible spaces are required for the Surf Lagoon Precinct, Accommodation Precinct and the Village Centre and 4 are required for the Surf Industry Precinct. The proposed accessible parking spaces meet the requirement and are spread within the public car park areas in the Surf Lagoon Precinct, Accommodation Precinct and the Village Centre. No formal car parking spaces are proposed in the Surf Industry Precinct, given the size of the lots. Sufficient accessible parking spaces will be provided on-site to comply with the requirement.

Note 1: Refer to NZS 4121:2001 – Design for Access and Mobility - Buildings and Associated Facilities for information on marking / signage of accessible car parks. Note 2: For accessible parking dimensions and accessible route requirements, see standard E27.6.3.1(1)(a). Note 3: Accessible parking spaces provided in communal parking areas must be marked, however for the avoidance of doubt can be allocated to individual units and do not need to be held in common. (10) The requirements of this standard E27.6.3.2(A) do not apply to activities within I208 Port Precinct. Note: Accessible parking requirements are further controlled by the Building Code. Plan users should refer to the Building Code to ensure compliance can be achieved at building consent stage. Granting of a resource consent does not imply that waivers of Building Code requirements will be granted.	
E27.6.3.3. Access and manoeuvring	
(1) Every parking space must have driveways and aisles for entry and exit of vehicles to and from the road and for vehicle manoeuvring within the site. Access and manoeuvring areas must accommodate the 85 percentile car tracking curves in Figure E27.6.3.3.1	Complies
(2) For every loading space accommodating heavy vehicles the access and manoeuvring areas associated with that loading space must comply with the tracking curves set out in the NZTA guidelines: RTS 18: NZ on-road tracking curves (2007) (2A) For every small loading space required by Table E27.6.3.2.1.(T137A) the access and manoeuvring areas associated with that loading space must accommodate the 6.4m van tracking curves set out in Figure E27.6.3.3.3.	Complies
(3) Where a dwelling provides more than one parking space, these may be stacked. Stacked parking means access is required through another parking space.	Complies
E27.6.3.4. Reverse manoeuvring	
(1) Sufficient space must be provided on the site so vehicles do not need to reverse off the site or onto or off the road from any site where any of the following apply: (a) Four or more parking spaces are served by a single access; (b) there is more than 30m between the parking space and the road boundary of the site; or (c) access would be from an arterial road or otherwise within a Vehicle Access Restriction covered in Standard E27.6.4.1. (2) Where E27.6.3.4(1)(a), (b) or (c) requires a heavy vehicle to turn around within a site in a residential zone, to avoid reversing off the site or onto or off the road, sufficient space must be provided on the site so an 8m heavy vehicle can turn around with a maximum reverse manoeuvring distance of 12m. (a) Heavy vehicle access and manoeuvring areas associated with access required by the above must comply with the tracking curves set out in the Land Transport New Zealand Road and traffic guidelines: RTS 18: New Zealand on-road tracking curves for heavy motor vehicles (2007).	Complies
E27.6.3.5. Vertical clearance	
(1) To ensure vehicles can pass safely under overhead structures to access any parking and loading spaces, the minimum clearance between the formed surface and the structure must be (a) 2.1m where access and/or parking for cars is provided for residential activities (b) 2.3m where access and/or parking for cars is provided for all other activities (c) 2.5m where access and/or accessible parking for people with disabilities is provided and/or required; (ca) 2.8m where loading is required for residential activities denoted with an asterisk (*) in Table E27.6.2.7A; (cb) 3.8m where heavy vehicle access in Standard E27.6.3(2) is provided; or (d) 3.8m where loading is required	Complies The height clearance in the apartment block parking areas are more than 2.1 m. All overhead structure above loading areas are at least 3.8 m high.
E27.6.3.6. Formation and gradient	
(1) Except for Standard E27.6.3.6(2) below, the whole area of parking and loading spaces, and manoeuvring areas and aisles must be formed, drained, provided with an all-weather surface to prevent dust and nuisance, and be marked out or delineated. This must be done before the activity to which those parking and loading spaces relate commences, and maintained for as long as that activity is continued.	Complies

(3) The gradient for the surface of any parking space must not exceed: (a) 1 in 25 in any direction for accessible spaces for people with disabilities; or (b) 1 in 20 (five per cent) in any direction for other spaces.	Complies
(4) The gradient for the manoeuvring area must not exceed 1 in 8	Complies
E27.6.3.7. Lighting	
(1) Lighting is required where there are 10 or more parking spaces which are likely to be used during the hours of darkness. The parking and manoeuvring areas and associated pedestrian routes must be adequately lit during use in a manner that complies with the rules in Section E24 Lighting. (2) Lighting is required, in residential zones to primary pedestrian access, vehicle access, parking and manoeuvring areas, where any of the following apply: (a) There are four to nine dwellings accessible from a primary pedestrian access which is not adjacent to a vehicle access; (b) There are 10 or more parking spaces; or (c) There are 10 or more dwellings. Lighting must be provided during the hours of darkness in a manner that complies with the rules in Section E24 Lighting.	Can comply
E27.6.4.1. Vehicle Access Restrictions	
(1) Vehicle Access Restrictions apply and new vehicle crossings must not be constructed to provide vehicle access across that part of a site boundary which is subject to: (a) a Vehicle Access Restriction – General Control as shown on the planning maps in the Business – City Centre Zone; or (b) a Key Retail Frontage Control as shown on the planning maps	Not applicable The Site is not subject to the specified Controls
(2) Standard E27.6.4.1(3) below applies in any of the following circumstances (a) a new vehicle crossing is proposed; (b) a new activity is established on a site; (c) there is a change of type of activity	Applicable
(3) Vehicle Access Restrictions apply and vehicle crossings must not be constructed or used to provide vehicle access across that part of a site boundary which (a) is located within 10m of any intersection as measured from the property boundary (b) is subject to the following types of Vehicle Access Restriction as identified on the planning maps in the zones listed in Table E27.6.4.1.1; (c) has frontage to an arterial road as identified on the planning maps; (d) is located closer than 30m from a railway level crossing limit line	Does not comply (a) In the North-East Neighbourhood Precinct – 2 private roads (assessed as vehicle crossings) create an intersection leg at the roundabout on the vested road. In the Surf Village Centre Precinct, the private road to the BOH Surf Lagoon and staff car park is within 10 m of the intersection across the road. In the North-West Neighbourhood Precinct, some vehicle crossings to the corner lots are be situated within 10 m of the intersection setback requirement. The private road to the Surf Industry Precinct (assessed as vehicle crossings) create an intersecting leg onto the Postman Road roundabout. (c) A vehicle crossing for the surf park car park is proposed on Dairy Flat Highway, an arterial road. An existing vehicle crossing on Dairy Flat Highway is proposed to be used as a left-out exit-only by vehicles associated with the water treatment plant.
E27.6.4.2. Width and number of vehicle crossings	
(1) <i>The maximum number of vehicle crossings permitted for any site and separation distance between crossings is specified in Table E27.6.4.2.1.</i> (T146) All other sites ♦ One crossing per 25m of site frontage ♦ 2m separation from adjacent vehicle crossings, or combined with adjacent vehicle crossings and not exceeding 6m width	Does not comply The main entry/exit vehicle crossing for the data centre is approximately 3 m apart – does not comply with minimum separation of 6.0 m for crossings serving the same site.

Minimum of 6m separation between crossing serving the same site	All lots within the Neighbourhood Precincts will have a single vehicle crossing to each lot, 2 m apart. Complies
(2) The width of a vehicle crossing(s) must meet the minimum width and not exceed the maximum width as specified in Table E27.6.4.3.2. (T156) Rural zones - Minimum width of crossing at site boundary of 3.0m - Maximum width of crossing at site boundary of 6.0m. Provided that a maximum width of 9.0m is permitted where the crossing needs to accommodate the tracking path of large heavy vehicles	Does not comply The vehicle crossing on the Postman Road roundabout to the Surf Industry Precinct is about 10 m wide. Vehicle crossings to the main surf park car park, the data centres will be no more than 9 m wide to accommodate the tracking path of heavy vehicles. Complies
(3) With the exception of vehicle crossings on unsealed roads, all vehicle crossings must be designed and constructed to maintain the level, colour, and materials of the footpath to clearly identify to vehicles that pedestrians have priority.	Will comply
(4) Vehicle crossings on unsealed roads: (a) where the vehicle crossing is served by an access steeper than 1 in 8, the vehicle crossing must be sealed for 6m between the site boundary and the unsealed road. (b) vehicle crossings not covered by Standard E27.6.4.2(3)(a) above must be formed using materials similar to the existing road surface or better.	Not applicable
(5) Where a vehicle crossing is altered or no longer required, the crossing, or redundant section of crossing, must be reinstated as berm and/or footpath and the kerbs replaced. The cost of such work will be borne by the owner of the site previously accessed by the vehicle crossing	Complies
E27.6.4.3. Width of vehicle access and queuing requirements	
(1) Every on-site parking and loading space must have vehicle access from a road, with the vehicle access complying with the following standards for width: (a) passing bays are provided in accordance with Table E27.6.4.3.1; (T147) Rural zones - Where the length of access exceeds 100m and the width of access is less than 5.5m, passing bays are required at a maximum of 100m spacing - Increase formed width of access to 5.5m over a 15m length (to allow two vehicles to safely pass each other) (b) meeting the minimum formed access width specified in Table E27.6.4.3.2. (T156) Rural zones - No minimum specified (c) meeting the minimum speed management measure spacing specified in Table E27.6.4.3.3	Complies
(2) Access must be designed so that vehicles using or waiting to use fuel dispensers, ticket vending machines, remote ordering facilities and devices, entrance control mechanisms, or other drive-through facilities do not queue into the adjoining road reserve or obstruct entry to or exit from the site.	Complies
E27.6.4.4. Gradient of vehicle access	
(1) The gradient of the access must not be steeper than specified in Table E27.6.4.4.1: (T158) vehicle access used by heavy vehicles Maximum gradient of 1:8	Complies
(2) To avoid the underside of the car striking the ground, as illustrated in Figure E27.6.4.4.2, access with a change in gradient exceeding 1 in 8 (greater than 12.5 per cent change) at the summit or a 1 in 6.7 (15 per cent change) at a sag must include transition sections to achieve adequate ground clearance, refer to Figure E27.6.4.4.3. Typically, a transition section requires a minimum length of 2m.	Complies
(3) All vehicle access must be designed so that where the access adjoins the road there is sufficient space onsite for a platform so that vehicles can stop safely and check for pedestrians and other vehicles prior to exiting. This is illustrated in Figure E27.6.4.4.4. The platform must have a maximum gradient no steeper than 1 in 20 (5 per cent) and a minimum length of 4m for residential activities and 6m for all other activities	Complies
E27.6.5. Design and location of off-road pedestrian and cycling facilities	
(1) The design and location of the proposed facility to ensure good connections to existing facilities.	Complies
(2) The width of the path is designed to accommodate the anticipated number and type of users.	

(3) <i>The surface of the path is designed to safely provide for the anticipated number and type of users.</i>	The Proposal includes a connected series of off-road shared paths throughout the Site, connecting to the footpath and cycle path on the proposed spine road through the Surf Village Centre Precinct and the east-west Collector Road.
E27.6.6. Design and location of pedestrian access in residential zones	
(1) This standard applies to development of two or more dwellings in residential zones. (2) For the purposes of this standard and standard E38.8.1.2 (Access to rear sites), and the associated provisions and related assessment criteria, “physically separated” means separation of primary pedestrian access from vehicle access, parking and manoeuvring areas by way of: a) 150mm high, non-mountable vertical kerbs to primary pedestrian access; b) Minimum 1 m wide landscape buffer between primary pedestrian access and vehicle access, manoeuvring or parking areas; or c) wheel stops or similar barriers positioned to avoid vehicle access onto or over an adjacent primary pedestrian access. (3) Primary pedestrian access must be provided to each dwelling. The primary pedestrian access requirements specified in Table E27.6.6.1 apply for the full length of the pedestrian access: (4) Clear Width / Height Requirements for emergency responders a. Where primary pedestrian access is adjacent to a vehicle access on the same site, no additional clear width/height requirement applies beyond the primary pedestrian access requirements in E27.6.6(3). b. Where primary pedestrian access is not adjacent to a vehicle access as described in (a), the following further requirements apply in addition to those in E27.6.6(3): i. Minimum clear width of 3m; ii. Minimum clear height of 2.1m; iii. The clear width may include the minimum formed primary pedestrian access width of 1.8m required in E27.6.6(3), but shall be free of permanent obstructions and spaces within which vehicles may park with the exception of: ◆ Soft/frangible landscape treatment with a maximum mature height of 600mm; ◆ Wall-mounted, fence-mounted or building-mounted lighting infrastructure. Note 1: Works within the legal road, such as connections to public footpaths, require prior approval from Auckland Transport as the road controlling authority. This approval is separate and additional to any land use or subdivision approval required. Note 2: E27.6.6(4) is intended to provide access for emergency responders. Emergency responder access requirements are further controlled by the Building Code. Plan users should refer to the Building Code to ensure compliance can be achieved at building consent stage. Granting of a resource consent does not imply that waivers of Building Code requirements will be granted. Fire and Emergency New Zealand publishes guidance in the context of Building Code requirements.	Not applicable The Site is now within a residential zone.
E27.6.7. Provision for electric vehicle charging	
(1) Any new dwellings with undercover car parking (with the exception of new detached dwellings) must provide each undercover car park with the capability to install Electric Vehicle Supply Equipment with sufficient space for the necessary conduit, circuit and metering between the car park and an electrical distribution board on the same building storey, or ground level if the undercover car parking space is at ground level. (2) For developments requiring resource consent, compliance with this standard may be through one of the following: a. Resource consent drawings showing schematically the space identified for future Electric Vehicle Supply Equipment as required by (1); or b. An appropriate condition of resource consent (offered by the applicant and agreed by the Council) requiring that a detailed plan or plans be provided and certified by Council prior to the lodgement of any building consent application, showing the space identified for future Electric Vehicle Supply Equipment as required by (1). For developments not requiring resource consent, compliance with this standard must be demonstrated at building consent stage through building consent drawings showing the space identified for future Electric Vehicle Supply Equipment as required by (1).	Complies The parking spaces in the apartment basement and garages will have the capability to install Electric Vehicle Supply Equipment.

The Proposal infringes the following transport standards:

- ♦ **E27.6.1 Trip generation**
 - ♦ The Proposal includes more than 100 dwellings, more than 100 visitor accommodation and retail exceeding 1,667m² GFA.
- ♦ **E27.6.4.1 (3) Vehicle Access Restrictions**
 - ♦ A vehicle crossing is proposed on Dairy Flat Highway, an arterial road, for the surf park car park
 - ♦ An existing vehicle crossing on Dairy Flat Highway, is proposed to be used by vehicles exiting the water treatment plant, which is proposed to be a left-out only
 - ♦ Several private roads (vehicle crossings) create an intersecting leg onto roundabouts within the public road reserve, thereby are within 10 m of the intersection
 - ♦ Vehicle crossings in the Surf Village Centre Precinct and North-West Neighbourhood Precinct are within 10 m of a T-intersection
- ♦ **E27.6.4.2 Width and number of vehicle crossings**
 - ♦ The vehicle crossing to the Surf Industry Precinct at the roundabout is 10 m wide, exceeding the permitted 9.0 m maximum width
 - ♦ The separate entry and exit vehicle crossings to the data centre is proposed to be about 3 m apart at the boundary where 6.0 m is the minimum separation distance.

The infringements above are assessed against the relevant assessment criteria in E27.8.2, summarised in the table below.

Table A 2: Chapter E27 Assessment criteria

E27.8.2.(3) – Activity/subdivision exceeds trip generation thresholds under E27.6.1	
Assessment Criteria	Comment
a) the effects on the function and the safe and efficient operation of the transport network as they relate to active modes (walking and cycling) and public transport infrastructure, particularly at peak traffic times; and b) the implementation of mitigation measures proposed to address adverse effects which may include measures such as travel planning, providing alternatives to private vehicle trips including accessibility to public transport, staging development, or contributing to improvements to the local transport network; or; c) the trip characteristics of the proposed activity on the site.	Refer to Section 5 of this ITA which includes an assessment of traffic effects on the key intersections of the Site and the proposed threshold for a secondary access point on Postman Road. Refer to Section 15 of this ITA which outlines proposed mitigation measures.
E27.8.2.(7) – Fewer than minimum loading spaces under E27.6.2.(8)	
(A) effects of the loading arrangements proposed for the site on the safe and efficient operation of adjacent transport network; (B) the specific business practice, operation or type of customer associated with the proposed activities; (C) the extent to which an accessible and adequate on-street loading space is available nearby or can be created while having regard to other demands for kerbside use of the road; (D) the extent to which loading can be provided informally on site or on another site in the immediate vicinity; or (E) the extent to which the reduction in loading spaces will contribute to the efficient use of land and the growth and intensification provided for in this Plan.	The Neighbourhood Precincts will not have dedicated on-site loading spaces given their proposed dwelling typologies. All loading and rubbish collection will be undertaken from the road or JOAL that the individual dwellings front on to, as is most practical.
E27.8.2.(8) – Infringes on design standards for parking/loading areas or access	
Assessment Criteria	Comment
a) effects on the safe and efficient operation of the adjacent transport network having regard to: (i) the effect of the modification on visibility and safe sight distances; (ii) existing and future traffic conditions including speed, volume, type, current accident rate and the need for safe manoeuvring; (iii) existing pedestrian numbers, and estimated future pedestrian numbers having regard to the level of development provided for in this Plan; or (iv) existing community or public infrastructure located in the adjoining road, such as bus stops, bus lanes, footpaths and cycleways. b) effects on pedestrian amenity or the amenity of the streetscape, having regard to:	Applicable infringement 1: The private road to the Surf Industry Precinct will create an intersecting leg onto the Postman Road roundabout, measuring more than 9.0 m wide at the boundary. the wider vehicle crossing is proposed to cater for simultaneous semi-trailer entering at the same time as a medium rigid truck is stopped at the give-way line. Refer to vehicle tracking plan provided which shows the vehicle crossing width is not wider than it needs to be.

(i) <i>the effect of additional crossings or crossings which exceed the maximum width; or</i> (ii) <i>effects on pedestrian amenity and the continuity of activities and pedestrian movement at street level in the Business – City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone and Business – Local Centre Zone.</i> c) the practicality and adequacy of parking, loading and access arrangements having regard to: (i) <i>site limitations, configuration of buildings and activities, user requirements and operational requirements;</i> (ii) <i>the ability of the access to accommodate the nature and volume of traffic and vehicle types expected to use the access. This may include considering whether a wider vehicle crossing is required to:</i> <i>comply with the tracking curve applicable to the largest vehicle anticipated to use the site regularly;</i> <i>accommodate the traffic volumes anticipated to use the crossing, especially where it is desirable to separate left and right turn exit lanes;</i> <i>the desirability of separating truck movements accessing a site from customer vehicle movements;</i> <i>the extent to which reduced manoeuvring and parking space dimensions can be accommodated because the parking will be used by regular users familiar with the layout, rather than by casual users;</i> (iii) <i>any use of mechanical parking installation such as car stackers or turntables does not result in queuing beyond the site boundary; or</i> (iv) <i>any stacked parking is allocated and managed in such a way that it does not compromise the operation and use of the parking area.</i>	- vehicles exiting the Site will be able to see towards the footpath and the road. Any fencing proposed will maintain visual permeability Applicable infringement 2: The separate entry and exit vehicle crossings to the data centre is proposed to be 3.1 m apart at the boundary where 6.0 m is the minimum separation distance. - The entry and exit vehicle crossings are separated by a central island of about 3 m wide at the site boundary. This central island is provided so it can allow for a future gate house. To provide a compliant 6.0 m separation will be too large for a gate house and will reduce the manoeuvring area in front of the loading docks; impacting the operation of the site. - The island between the entry/exit vehicle crossings provide a 2.5 m gap where footpath can stop between the vehicle crossings. This gap is sufficient for a cyclist to wait on (a bicycle being about 1.8 m long) without conflicting with the path of a vehicle. - vehicles exiting the Site will be able to see towards the footpath, cycle path and the road. The fencing proposed will maintain visual permeability.
E27.8.2.(11) – Construction/use of new vehicle crossing where vehicle access restriction applies	
Assessment Criteria	Comment
a) this applies where a Vehicle Access Restriction is identified in Standard E27.6.4.1(2) and Standard E27.6.4.1(3), other than a Vehicle Access Restriction Level Crossing or a Vehicle Access Restriction Motorway Interchange: (i) <i>effects of the location and design of the access on the safe and efficient operation of the adjacent transport network having regard to:</i> <i>visibility and safe sight distances</i> <i>existing and future traffic conditions including speed, volume, type, current accident rate, and the need for safe manoeuvring;</i> <i>proximity to and operation of intersections;</i> <i>existing pedestrian numbers, and estimated future pedestrian numbers having regard to the level of development provided for in this Plan</i> <i>existing community or public infrastructure located in the adjoining road, such as bus stops, bus lanes and cycleways;</i> (ii) <i>the effects on the continuity of activities and pedestrian movement at street level in the Business – City Centre Zone, Business – Metropolitan Centre Zone, Business – Town Centre Zone and Business – Local Centre Zone; or</i> (iii) <i>the practicability and adequacy of the access arrangements considering site limitations, arrangement of buildings and activities, user requirements and operational requirements, proximity to and operation of intersections, having regard to:</i> <i>the extent to which the site can reasonably be served by different access arrangements including:</i> <i>access from another road;</i> <i>shared or amalgamated access with another site or sites</i> <i>via a frontage road, such as a slip lane or service road; or</i> <i>the extent to which the need for access can reasonably be avoided by entering into a shared parking and/or loading arrangement with another site or sites in the immediate vicinity</i> b) for any proposed access within a Vehicle Access Restriction Motorway Interchange Control: (i) <i>the intensity, scale and traffic generating nature of activities on the site are such that any adverse effects on the safe and efficient operation of the motorway interchange are avoided, remedied or mitigated; or</i> (ii) <i>the extent to which, when considered against other access opportunities for the site, comparable or better outcomes are achieved in terms of effects on the safe and efficient operation of the interchange</i> c) for any proposed access within a Vehicle Access Restriction Level Crossing Control:	a) A new vehicle crossing is proposed on Dairy Flat Highway for the surf park car park. An existing vehicle crossing on Dairy Flat Highway, is proposed to be used by vehicles associated with the water treatment plant, which is proposed to be a left-out exit-only (i) <i>effects of the location and design of the access on the safe and efficient operation of the adjacent transport network having regard to:</i> For the new vehicle crossing for the surf park car park: - visibility requirements can be met, refer to Section 7.1.1 and Appendix D of this ITA for assessment on visibility from the proposed car park vehicle crossing - this access is proposed as a secondary access to the main car park, mainly used by servicing vehicles, as such will not have a lot of traffic. This is proposed to minimise service vehicles mixing with customer traffic in the main car park. For the existing vehicle crossing to be used by the WTP: - this access is proposed as an exit-only only by trucks associated with the WTP and is proposed to only allow left-out only onto Dairy Flat Highway. The frequency of vehicles to the WTP is only expected to be once or twice a week, which is significantly less than the current residential land use. As such effects relating to the proposed use is expected to be no more than the current use. - visibility requirements can be met, refer to Section 8.1 and Appendix E of this ITA for assessment on visibility from the existing vehicle crossing b) Not within Control specified. c) Not within Control specified.

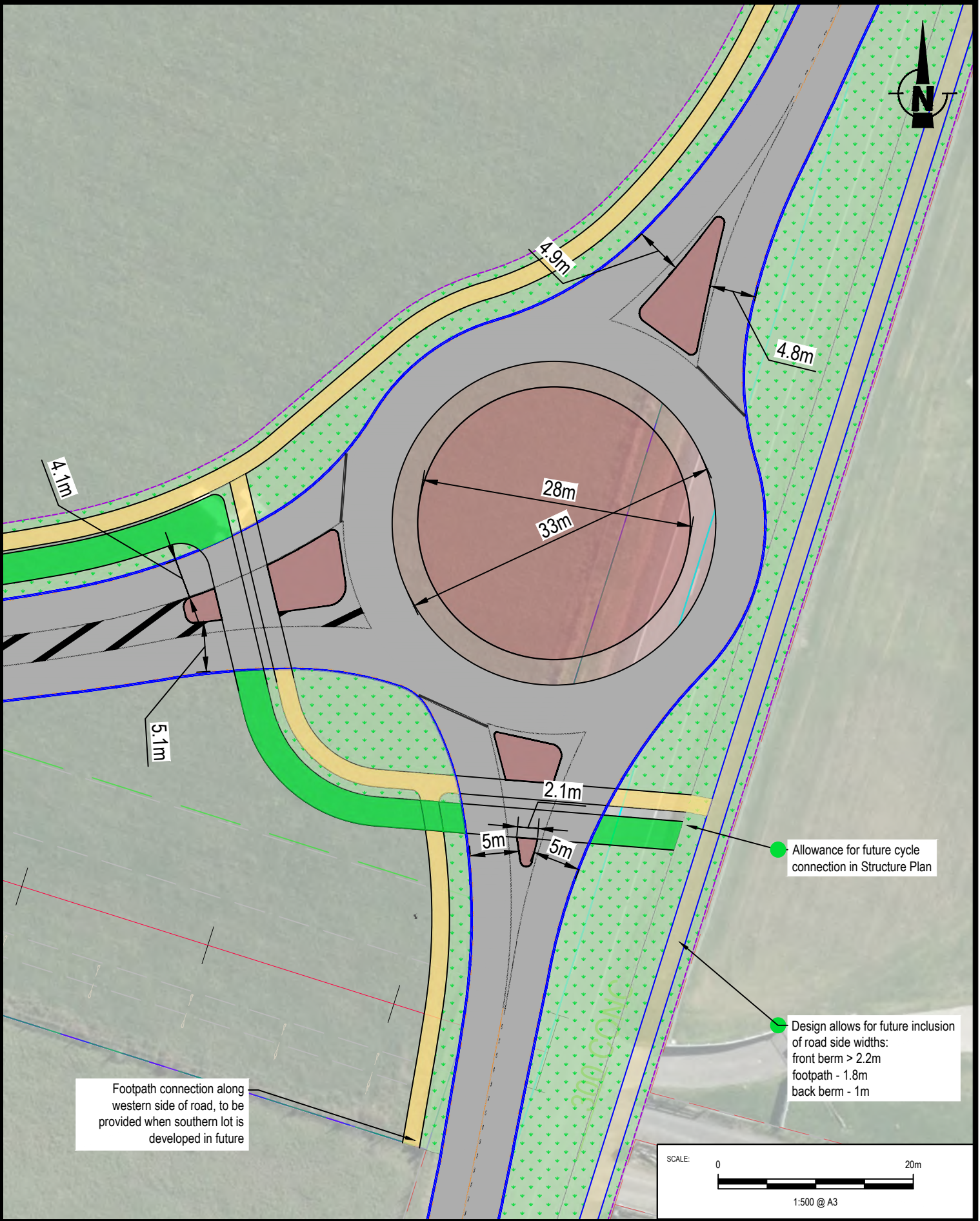
(i)	<i>effects on the safe and efficient operation of the level crossing; or</i>	
(ii)	<i>the practicability and adequacy of the access arrangements having regard to site limitations, arrangement of buildings and activities, user requirements and operational requirements.</i>	



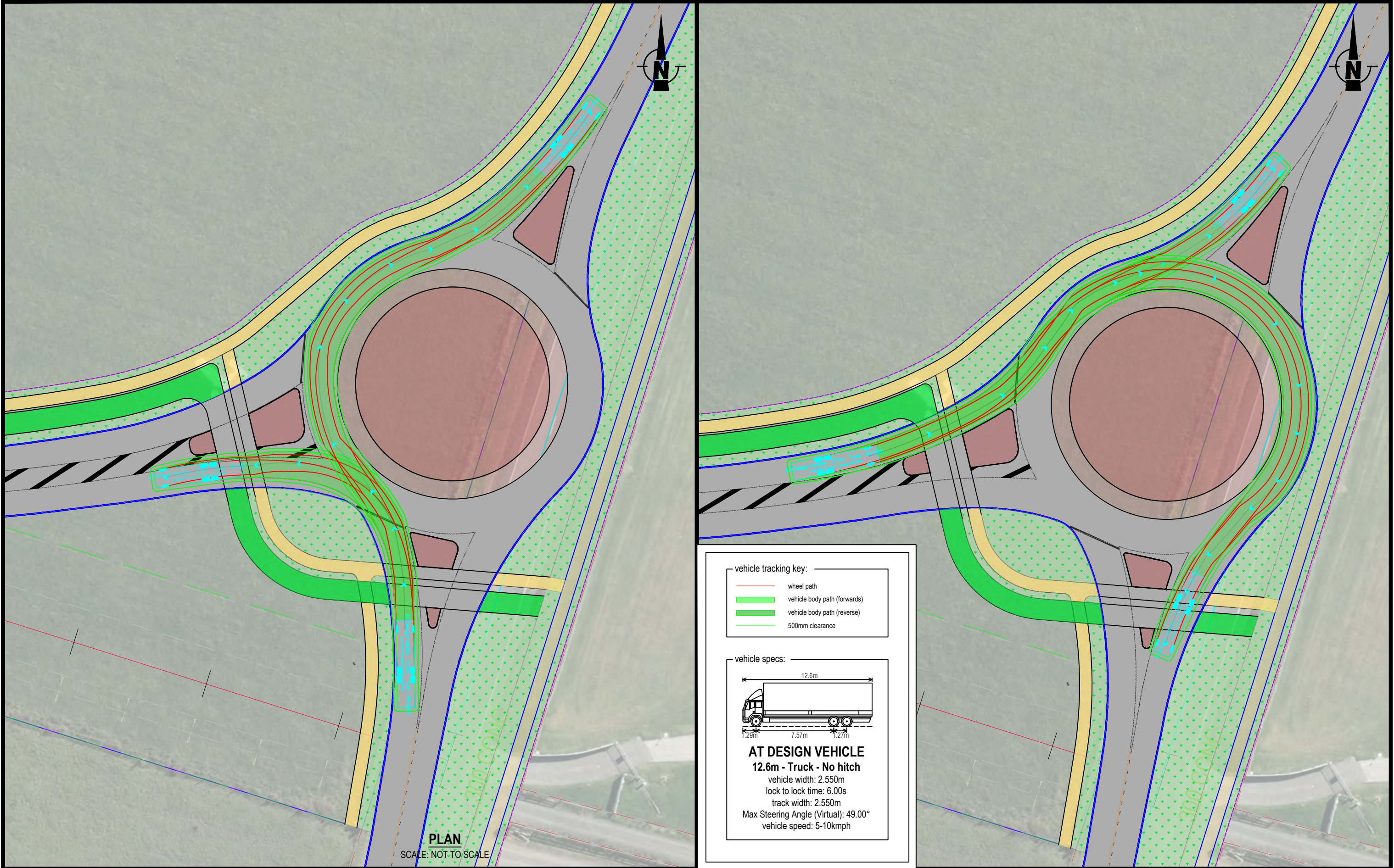
APPENDIX B

Postman Road roundabout





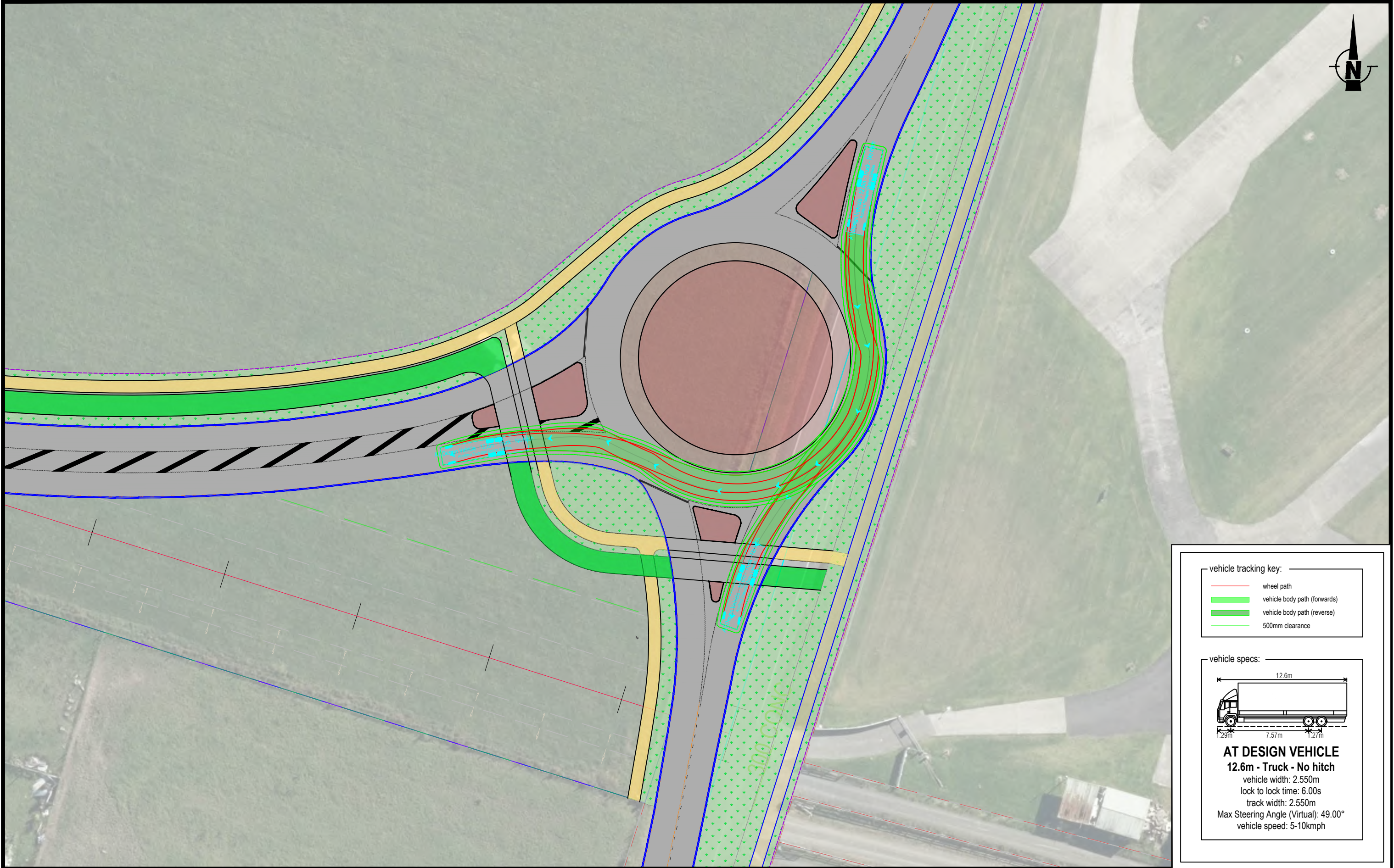
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A	First Issue	09/02/2026	CHECKED: ET	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-PR-SK05	REV: A	
			SCALE: 0 NTS		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			NTS		FOR RESOURCE CONSENT			



REV	AMENDMENT	DATE OF ISSUE	DESIGN: SC	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: POSTMAN ROAD - INTERSECTION VEHICLE TRACKING - DESIGN VEHICLE	SHEET: 02 of 07	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		REV: A	
					LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INOV002-PR-SK05		
					FOR RESOURCE CONSENT			

SCALE: 1:500 @ A3

020m



vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 500mm clearance

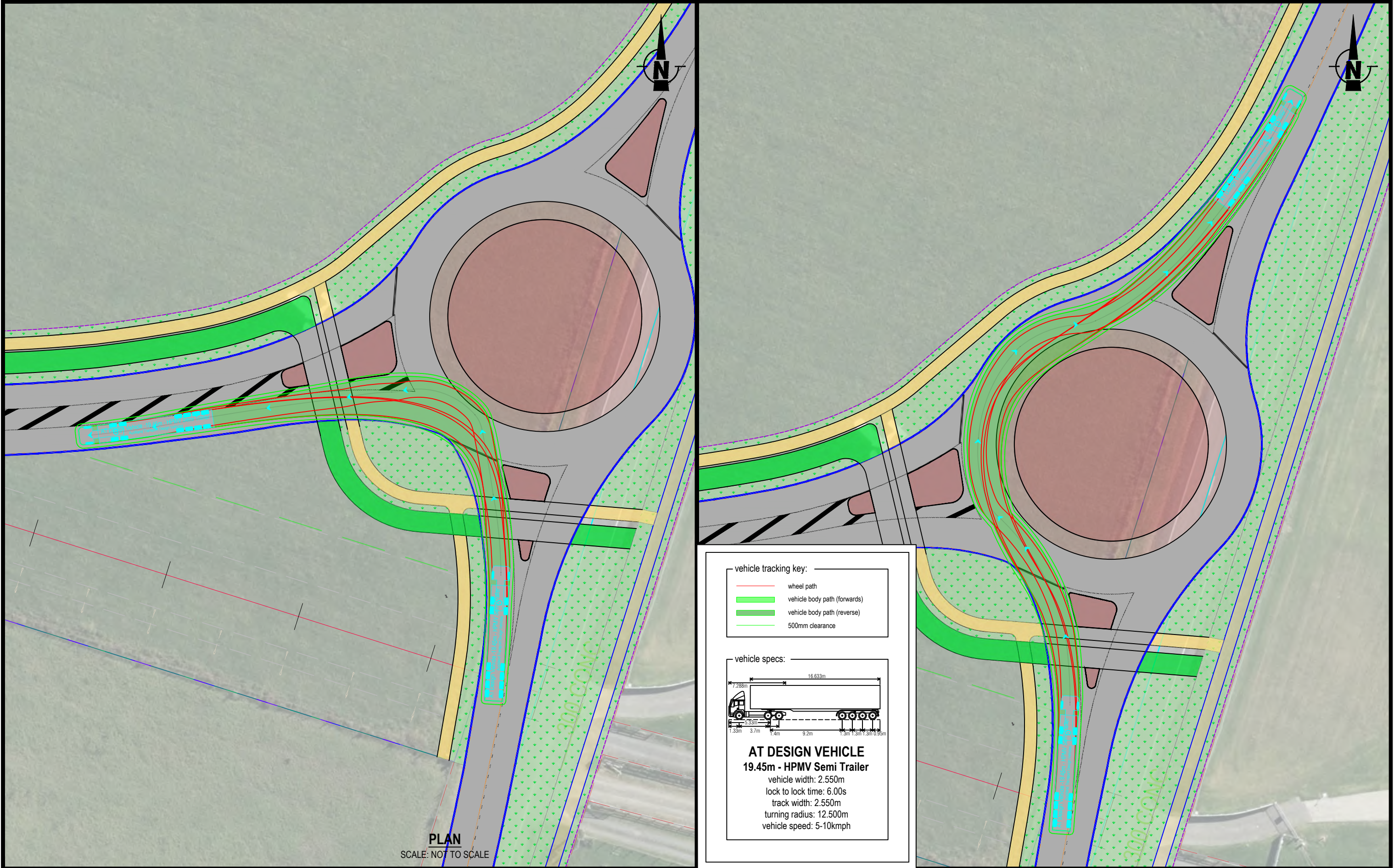
vehicle specs:

AT DESIGN VEHICLE
12.6m - Truck - No hitch
vehicle width: 2.550m
lock to lock time: 6.00s
track width: 2.550m
Max Steering Angle (Virtual): 49.00°
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: SC	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: POSTMAN ROAD - INTERSECTION VEHICLE TRACKING - DESIGN VEHICLE	SHEET: 03 of 07
A	First Issue	09/02/2026	CHECKED: ET	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		
			SCALE: 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INOV002-PR-SK05	REV: A
					FOR RESOURCE CONSENT		

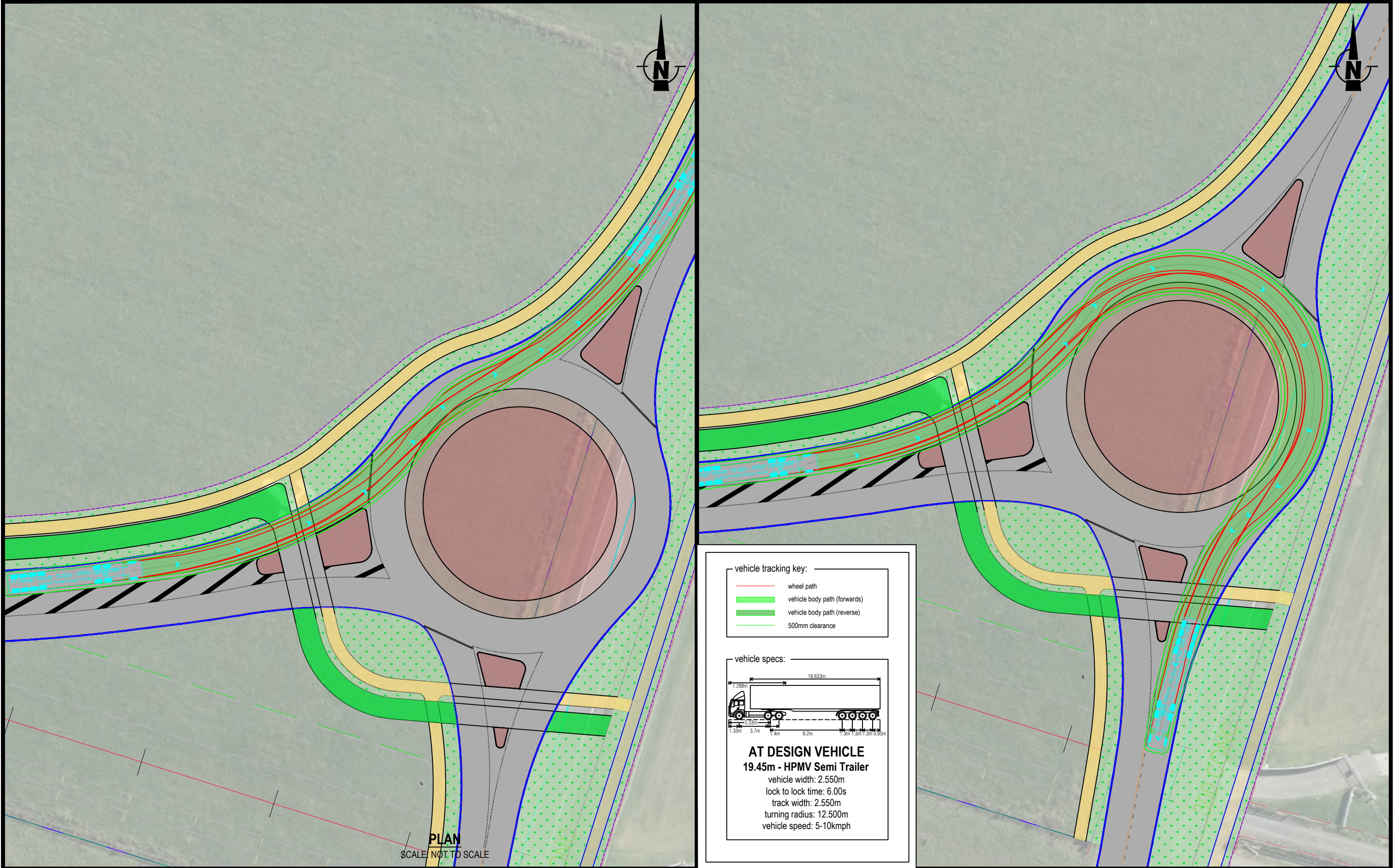
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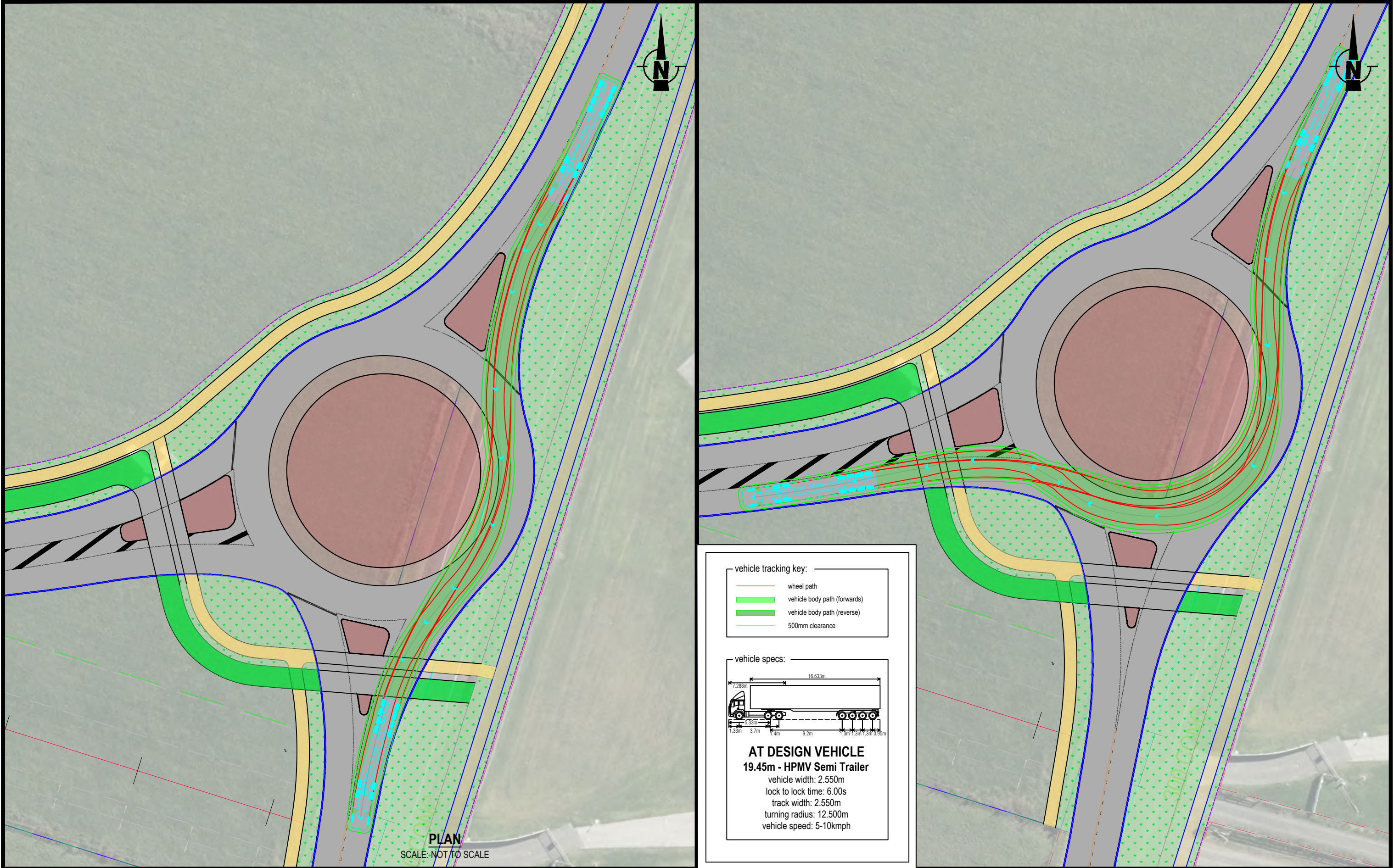


REV	AMENDMENT	DATE OF ISSUE	DESIGN: SC	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: POSTMAN ROAD - INTERSECTION VEHICLE TRACKING - DESIGN VEHICLE	SHEET: 04 of 07
A	First Issue	09/02/2026	CHECKED: ET	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		
			SCALE: 0 20m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:500 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-PR-SK05	REV: A

flow
TRANSPORTATION SPECIALISTS
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p 09 970 3820 | f 09 970 3890 | www.flownz.com



REV	AMENDMENT	DATE OF ISSUE	DESIGN: SC	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: POSTMAN ROAD - INTERSECTION VEHICLE TRACKING - CHECK VEHICLE	SHEET: 05 of 07	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		REV: A	
					LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT			



REV	AMENDMENT	DATE OF ISSUE	DESIGN: SC	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: POSTMAN ROAD - INTERSECTION VEHICLE TRACKING - CHECK VEHICLE	SHEET: 06 of 07
A	First Issue	09/02/2026	CHECKED: ET	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		
			SCALE: 0 20m 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-PR-SK05	REV: A

flow
TRANSPORTATION SPECIALISTS
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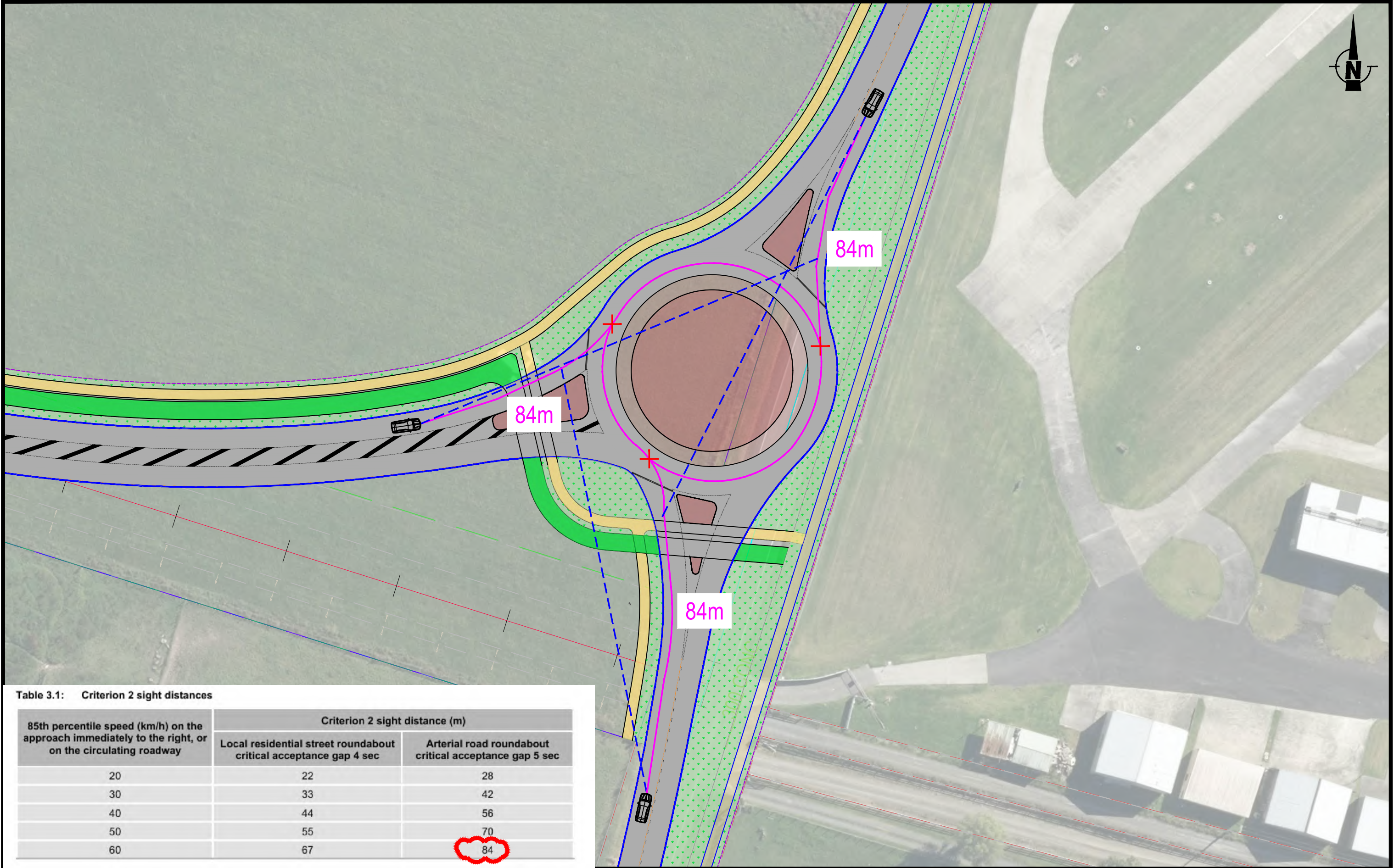


Table 3.1: Criterion 2 sight distances

85th percentile speed (km/h) on the approach immediately to the right, or on the circulating roadway	Criterion 2 sight distance (m)	
	Local residential street roundabout critical acceptance gap 4 sec	Arterial road roundabout critical acceptance gap 5 sec
20	22	28
30	33	42
40	44	56
50	55	70
60	67	84



APPENDIX C SIDRA movement summary results



Figure 1: Dairy Flat Highway and Collector Road layout

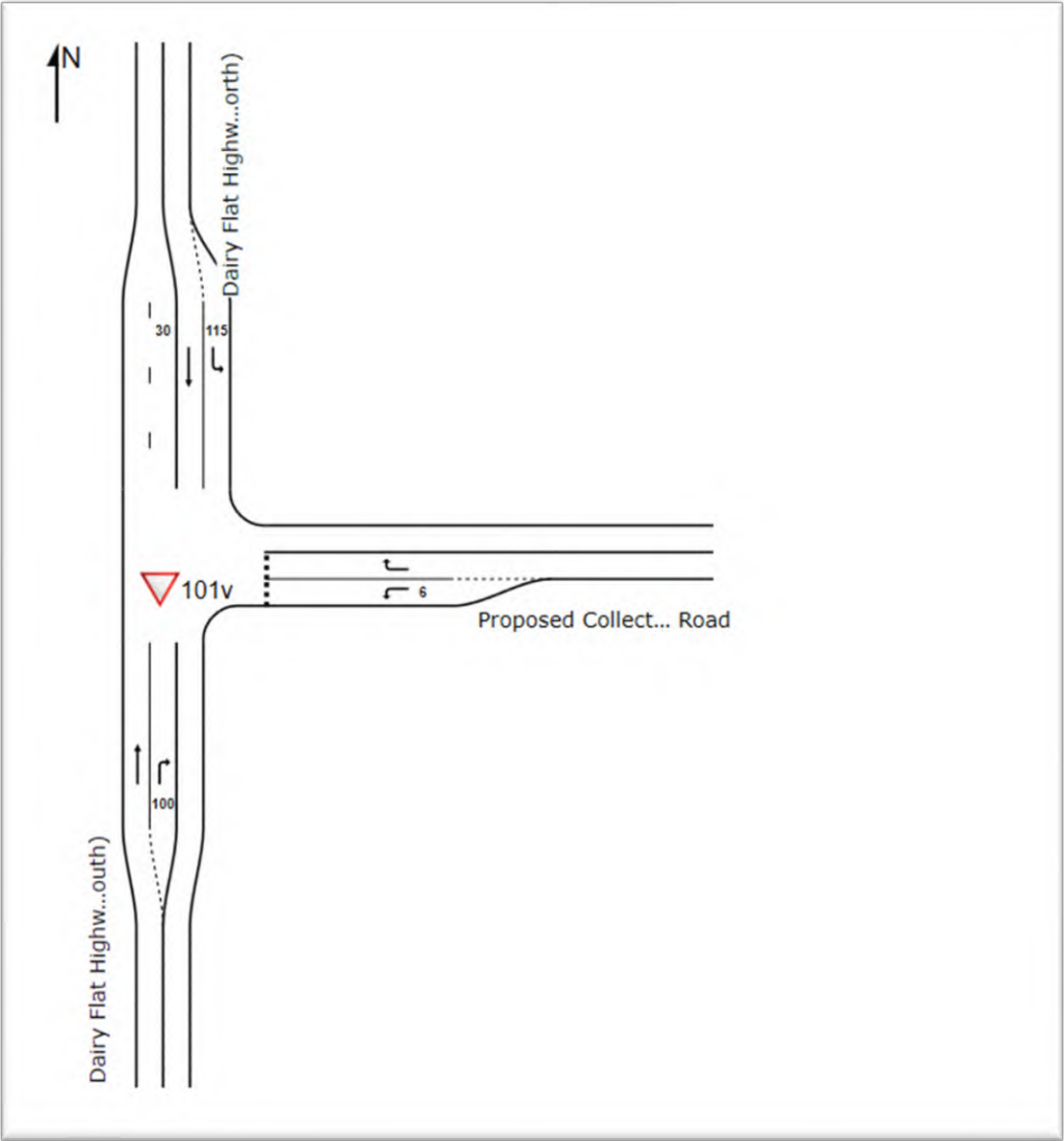


Figure 2: Postman Road and Collector Road Layout - Full built-out Scenario

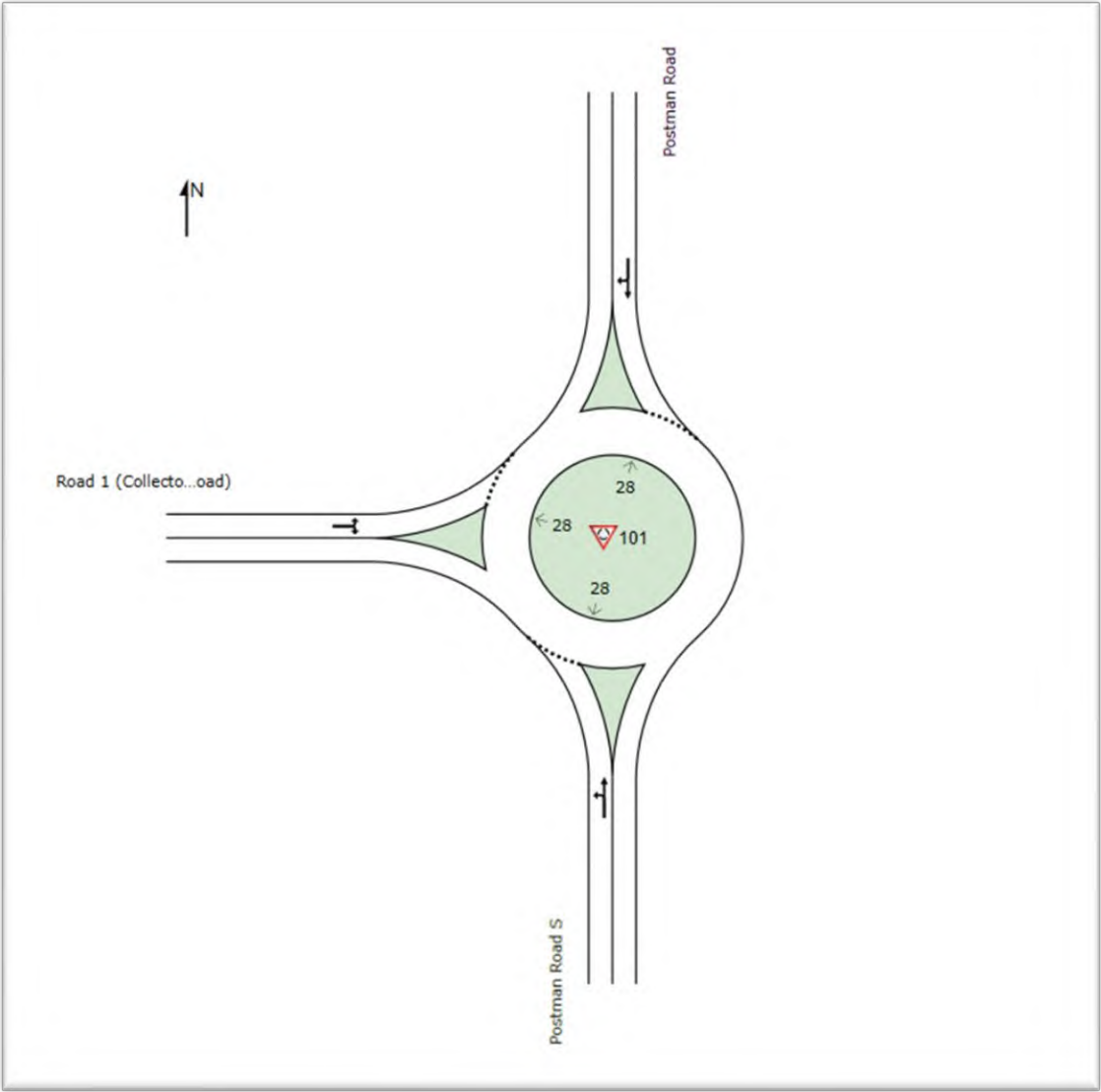


Figure 3: Scenario 1 with 200 Dwellings – AM Peak - Dairy Flat Highway

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Dairy Flat Highway (South)															
2	T1	All MCs	458	4.0	458	4.0	0.241	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	All MCs	61	4.0	61	4.0	0.088	8.2	LOS A	0.3	2.3	0.55	0.75	0.55	43.8
Approach			519	4.0	519	4.0	0.241	1.1	NA	0.3	2.3	0.07	0.09	0.07	49.1
East: Proposed Collector Road															
4	L2	All MCs	76	4.0	76	4.0	0.108	7.8	LOS A	0.4	2.7	0.51	0.73	0.51	44.1
6	R2	All MCs	87	4.0	87	4.0	0.288	17.7	LOS C	1.0	7.6	0.81	0.96	0.95	39.4
Approach			163	4.0	163	4.0	0.288	13.1	LOS B	1.0	7.6	0.67	0.85	0.75	41.5
North: Dairy Flat Highway (North)															
7	L2	All MCs	70	4.0	70	4.0	0.039	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.9
8	T1	All MCs	526	4.0	526	4.0	0.277	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			596	4.0	596	4.0	0.277	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.4
All Vehicles			1278	4.0	1278	4.0	0.288	2.4	NA	1.0	7.6	0.11	0.17	0.12	48.1

Figure 4: Scenario 1 with 200 Dwellings – AM Peak - Dairy Flat Highway

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Dairy Flat Highway (South)															
2	T1	All MCs	774	4.0	774	4.0	0.407	0.2	LOS A	0.0	0.0	0.00	0.00	0.00	49.8
3	R2	All MCs	99	4.0	99	4.0	0.130	7.8	LOS A	0.5	3.6	0.54	0.74	0.54	44.1
Approach			873	4.0	873	4.0	0.407	1.1	NA	0.5	3.6	0.06	0.08	0.06	49.1
East: Proposed Collector Road															
4	L2	All MCs	124	4.0	124	4.0	0.163	7.4	LOS A	0.6	4.2	0.50	0.72	0.50	44.3
6	R2	All MCs	75	4.0	75	4.0	0.458	34.1	LOS D	1.6	11.4	0.92	1.05	1.21	33.6
Approach			199	4.0	199	4.0	0.458	17.5	LOS C	1.6	11.4	0.66	0.84	0.77	39.6
North: Dairy Flat Highway (North)															
7	L2	All MCs	60	4.0	60	4.0	0.033	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.9
8	T1	All MCs	471	4.0	471	4.0	0.248	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			531	4.0	531	4.0	0.248	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.4
All Vehicles			1603	4.0	1603	4.0	0.458	2.9	NA	1.6	11.4	0.12	0.17	0.13	47.7

Figure 5: Full buildout - Dairy Flat Highway & Collector Road – AM Peak

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue [Veh. Dist]		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%				v/c	sec				
South: Dairy Flat Highway (South)															
2	T1	All MCs	458	4.0	458	4.0	0.241	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
3	R2	All MCs	56	4.0	56	4.0	0.080	8.2	LOS A	0.3	2.1	0.55	0.74	0.55	43.9
Approach			514	4.0	514	4.0	0.241	1.0	NA	0.3	2.1	0.06	0.08	0.06	49.2
East: Proposed Collector Road															
4	L2	All MCs	95	4.0	95	4.0	0.135	7.9	LOS A	0.5	3.4	0.52	0.75	0.52	44.1
6	R2	All MCs	109	4.0	109	4.0	0.356	18.5	LOS C	1.4	9.9	0.82	0.99	1.04	39.0
Approach			204	4.0	204	4.0	0.356	13.6	LOS B	1.4	9.9	0.68	0.87	0.80	41.3
North: Dairy Flat Highway (North)															
7	L2	All MCs	64	4.0	64	4.0	0.035	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	45.9
8	T1	All MCs	526	4.0	526	4.0	0.277	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach			590	4.0	590	4.0	0.277	0.6	NA	0.0	0.0	0.00	0.06	0.00	49.4
All Vehicles			1308	4.0	1308	4.0	0.356	2.8	NA	1.4	9.9	0.13	0.19	0.15	47.8

Figure 6: Full buildout - Dairy Flat Highway & Collector Road – PM Peak

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of [Veh.	Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Dairy Flat Highway (South)															
2	T1	All MCs	774	4.0	774	4.0	0.407	0.2	LOSA	0.0	0.0	0.00	0.00	0.00	49.8
3	R2	All MCs	114	4.0	114	4.0	0.151	7.9	LOSA	0.6	4.2	0.55	0.75	0.55	44.0
Approach			888	4.0	888	4.0	0.407	1.2	NA	0.6	4.2	0.07	0.10	0.07	48.9
East: Proposed Collector Road															
4	L2	All MCs	111	4.0	111	4.0	0.146	7.4	LOSA	0.5	3.8	0.50	0.72	0.50	44.4
6	R2	All MCs	68	4.0	68	4.0	0.430	34.3	LOS D	1.4	10.4	0.92	1.04	1.17	33.5
Approach			179	4.0	179	4.0	0.430	17.6	LOS C	1.4	10.4	0.66	0.84	0.75	39.5
North: Dairy Flat Highway (North)															
7	L2	All MCs	70	4.0	70	4.0	0.039	4.6	LOSA	0.0	0.0	0.00	0.53	0.00	45.9
8	T1	All MCs	471	4.0	471	4.0	0.248	0.1	LOSA	0.0	0.0	0.00	0.00	0.00	49.9
Approach			541	4.0	541	4.0	0.248	0.7	NA	0.0	0.0	0.00	0.07	0.00	49.3
All Vehicles			1608	4.0	1608	4.0	0.430	2.8	NA	1.4	10.4	0.11	0.17	0.12	47.8

Figure 7: Full buildout – Postman Road & Collector Road – AM Peak

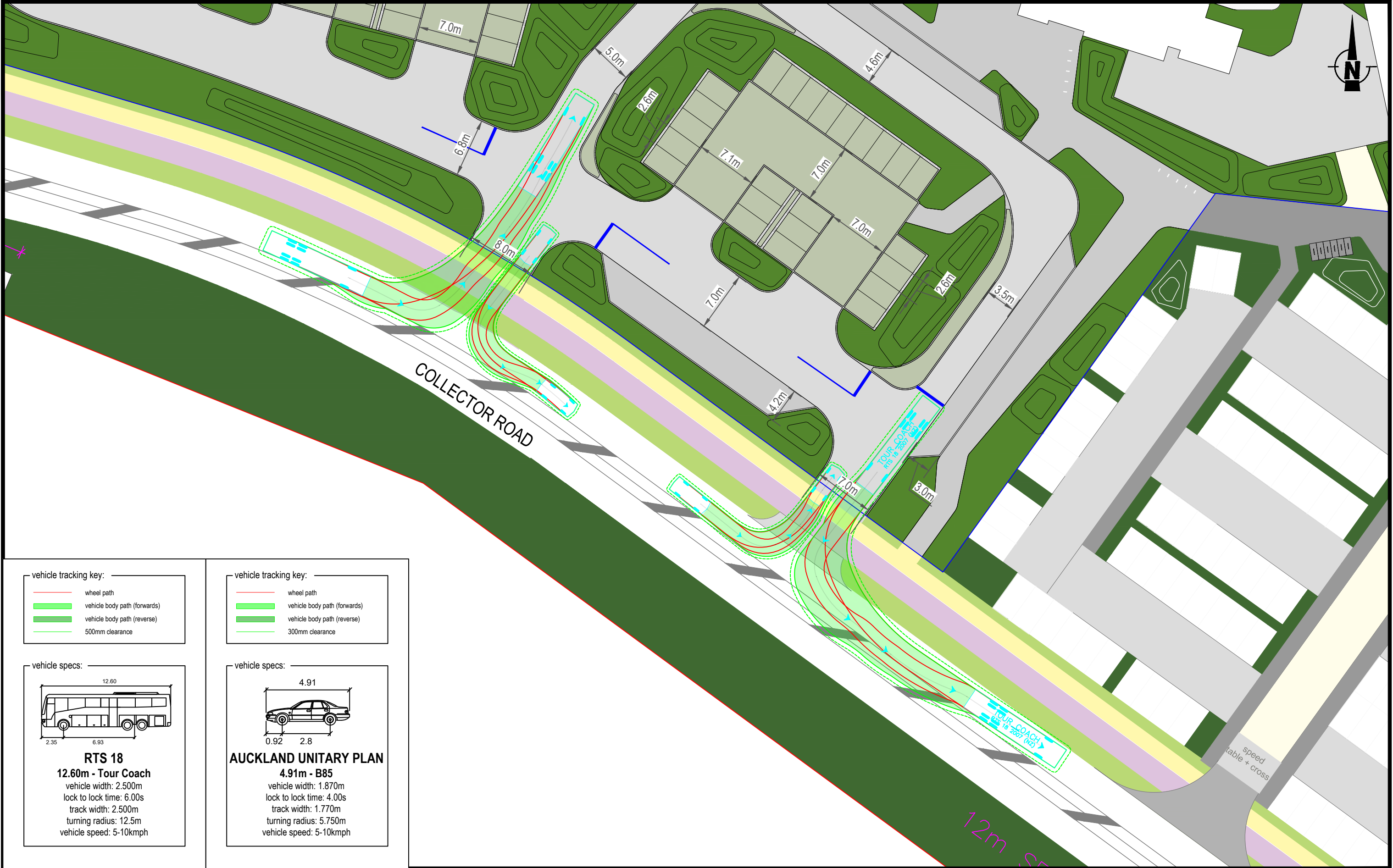
Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand [Total	Flows HV]	Arrival [Total	Flows HV]	Deg. Satn	Aver. Delay	Level of Service	95% Back Of [Veh.	Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Postman Road S															
1	L2	All MCs	44	8.0	44	8.0	0.217	3.8	LOS A	1.3	9.4	0.17	0.36	0.17	54.5
2	T1	All MCs	263	8.0	263	8.0	0.217	3.9	LOS A	1.3	9.4	0.17	0.36	0.17	54.9
Approach			307	8.0	307	8.0	0.217	3.8	LOS A	1.3	9.4	0.17	0.36	0.17	54.9
North: Postman Road N															
8	T1	All MCs	232	8.0	232	8.0	0.201	4.0	LOS A	1.2	9.0	0.24	0.41	0.24	54.0
9	R2	All MCs	39	8.0	39	8.0	0.201	9.5	LOS A	1.2	9.0	0.24	0.41	0.24	53.0
Approach			271	8.0	271	8.0	0.201	4.8	LOS A	1.2	9.0	0.24	0.41	0.24	53.9
West: Road 1 (Collector Road)															
10	L2	All MCs	76	8.0	76	8.0	0.134	5.1	LOS A	0.7	5.2	0.44	0.59	0.44	52.0
12	R2	All MCs	67	8.0	67	8.0	0.134	10.6	LOS B	0.7	5.2	0.44	0.59	0.44	51.4
Approach			143	8.0	143	8.0	0.134	7.6	LOS A	0.7	5.2	0.44	0.59	0.44	51.7
All Vehicles			721	8.0	721	8.0	0.217	5.0	LOS A	1.3	9.4	0.25	0.43	0.25	53.9

Figure 8: Full buildout – Postman Road & Collector Road – PM Peak

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV]		Arrival Flows [Total HV]		Deg. Satn	Aver. Delay	Level of Service	95% Back Of [Veh.	Queue Dist]	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Postman Road S															
1	L2	All MCs	66	8.0	66	8.0	0.279	4.0	LOS A	1.7	12.8	0.24	0.38	0.24	54.2
2	T1	All MCs	314	8.0	314	8.0	0.279	4.0	LOS A	1.7	12.8	0.24	0.38	0.24	54.6
Approach			380	8.0	380	8.0	0.279	4.0	LOS A	1.7	12.8	0.24	0.38	0.24	54.5
North: Postman Road N															
8	T1	All MCs	302	8.0	302	8.0	0.265	4.0	LOS A	1.7	12.9	0.24	0.42	0.24	53.9
9	R2	All MCs	63	8.0	63	8.0	0.265	9.4	LOS A	1.7	12.9	0.24	0.42	0.24	52.9
Approach			365	8.0	365	8.0	0.265	4.9	LOS A	1.7	12.9	0.24	0.42	0.24	53.7
West: Road 1 (Collector Road)															
10	L2	All MCs	64	8.0	64	8.0	0.123	5.3	LOS A	0.6	4.8	0.48	0.60	0.48	51.8
12	R2	All MCs	61	8.0	61	8.0	0.123	10.8	LOS B	0.6	4.8	0.48	0.60	0.48	51.2
Approach			125	8.0	125	8.0	0.123	8.0	LOS A	0.6	4.8	0.48	0.60	0.48	51.5
All Vehicles			871	8.0	871	8.0	0.279	5.0	LOS A	1.7	12.9	0.28	0.43	0.28	53.8

APPENDIX D

**Surf Park car park and
Accommodation Precinct**



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT VEHICLE CROSSING ON ROAD 1	SHEET: 01 of 09	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION		REV: A	
					LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND	DRAWING NUMBER: INVO002-007		
					FOR RESOURCE CONSENT			



vehicle tracking key:

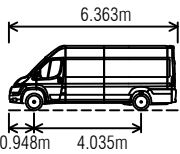
— wheel path

— vehicle body path (forwards)

— vehicle body path (reverse)

— 300mm clearance

vehicle specs:



AT DESIGN VEHICLE

6.3m - Delivery Van

vehicle width: 2.050m

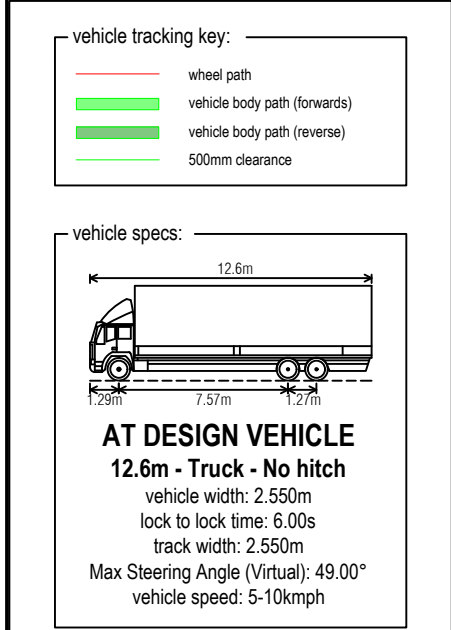
lock to lock time: 4.00s

track width: 1.810m

turning radius: 7.200m

vehicle speed: 5-10kmph

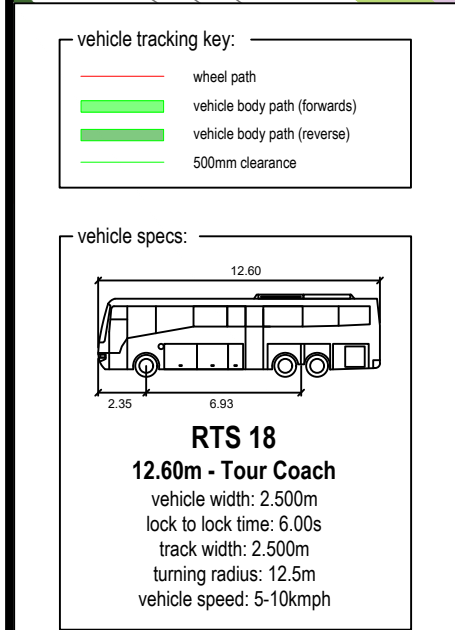
REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT VEHICLE CROSSING - DAIRY FLAT HIGHWAY	SHEET: 02 of 09	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 20m 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-007	REV: A	



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT VEHICLE CROSSING - DAIRY FLAT HIGHWAY	SHEET:	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com	
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION		03 of 09		REV:
			SCALE:  1:400 @ A3	LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND	FOR RESOURCE CONSENT		DRAWING NUMBER: INVO002-007		A

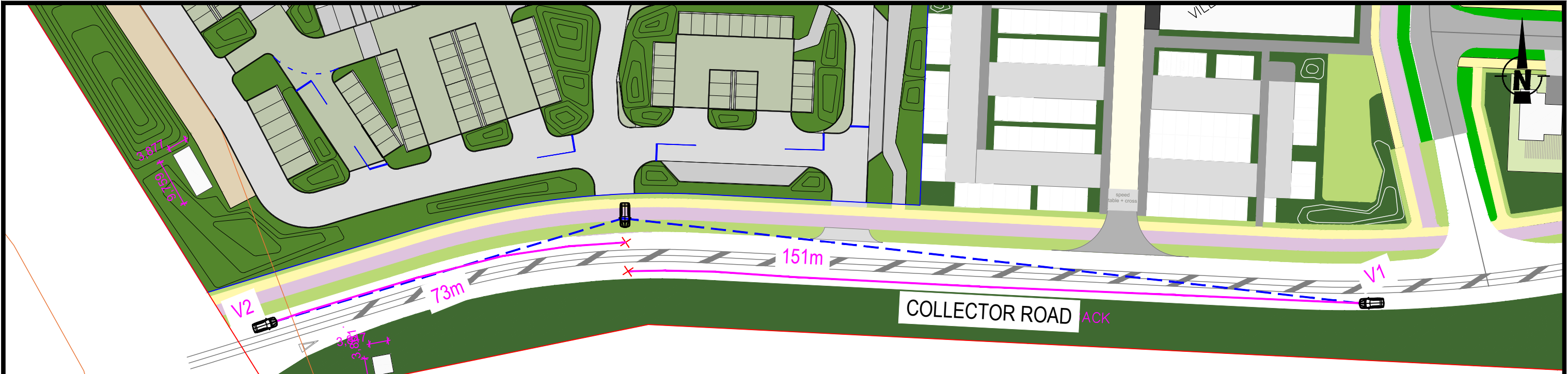


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT 12.6m TOUR COACH	SHEET: 04 of 09	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND			
			1:400 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-007	REV: A	

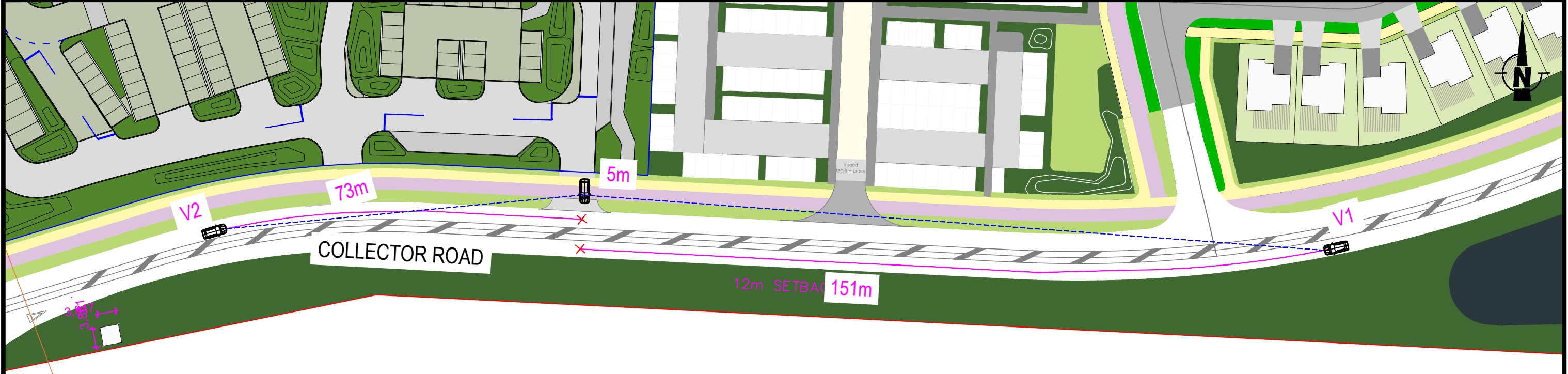


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT 12.6m TOUR COACH	SHEET: 05 of 09	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com	
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION		DRAWING NUMBER: INVO002-007		REV: A
			SCALE: 0 16m  1:400 @ A3	LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND					
				FOR RESOURCE CONSENT					





Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SSD (m)	Compliant
V1	70	2	3	151	YES
V2	40	2	3	73	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)		0



Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SSD (m)	Compliant
V1	70	2	3	151	YES
V2	40	2	3	73	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)		0

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026
			SCALE: 0 32m	
			1:800 @ A3	

CLIENT: AW HOLDINGS LTD
PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION
LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND
FOR RESOURCE CONSENT

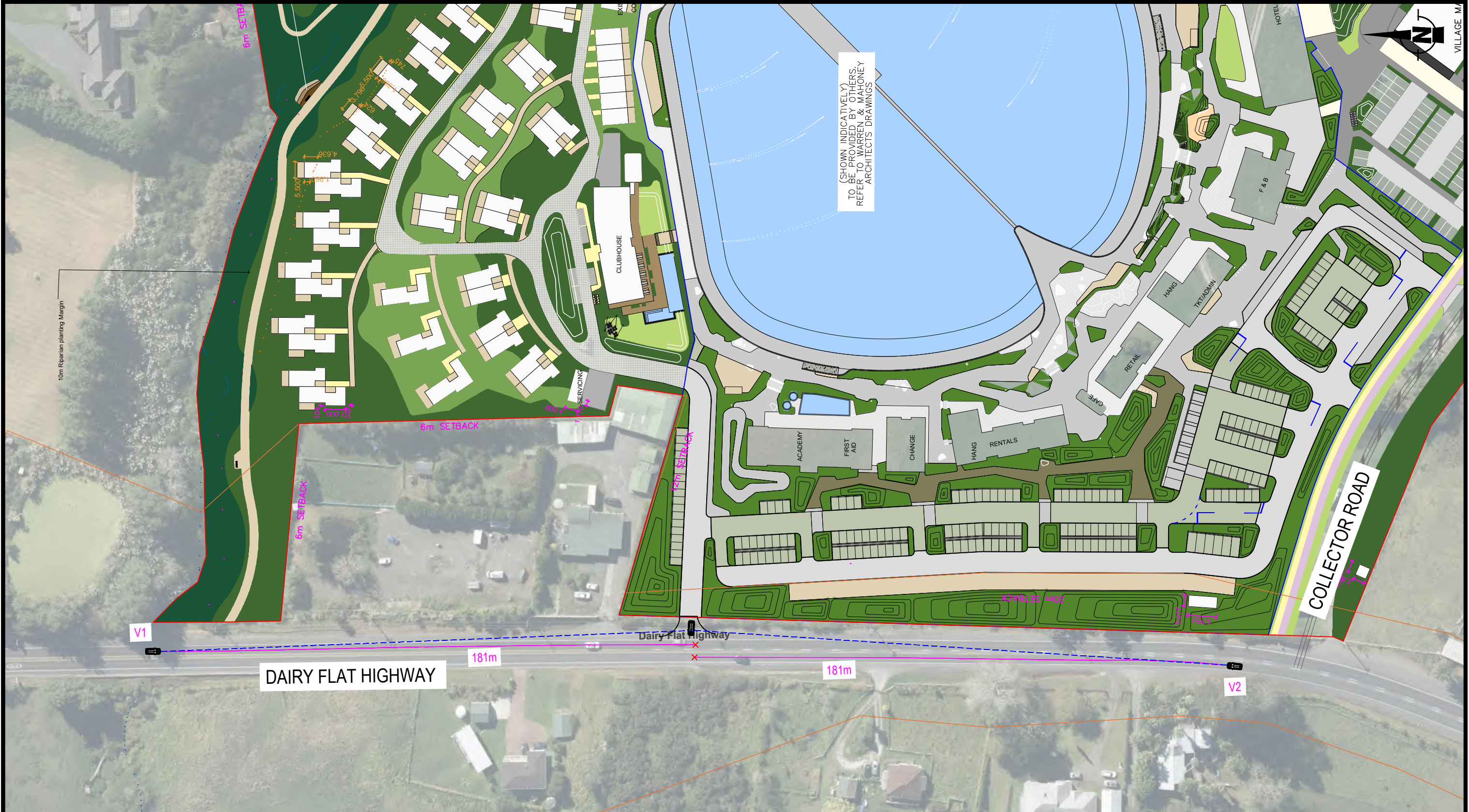
SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT SAFE INTERSECTION SIGHT DISTACE
DRAWING NUMBER: INVO002-007

SHEET: 07 of 09
REV: A

flow

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Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SSD (m)	Compliant
V1	80	2	3	181	YES
V2	80	2	3	181	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)		0

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026
			SCALE: 0 50m	
			1:1250 @ A3	

CLIENT: AW HOLDINGS LTD
PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION
LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND
FOR RESOURCE CONSENT

SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT SAFE INTERSECTION SIGHT DISTACE
DRAWING NUMBER: INVO002-007

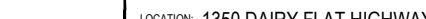
SHEET: 08 of 09
REV: A

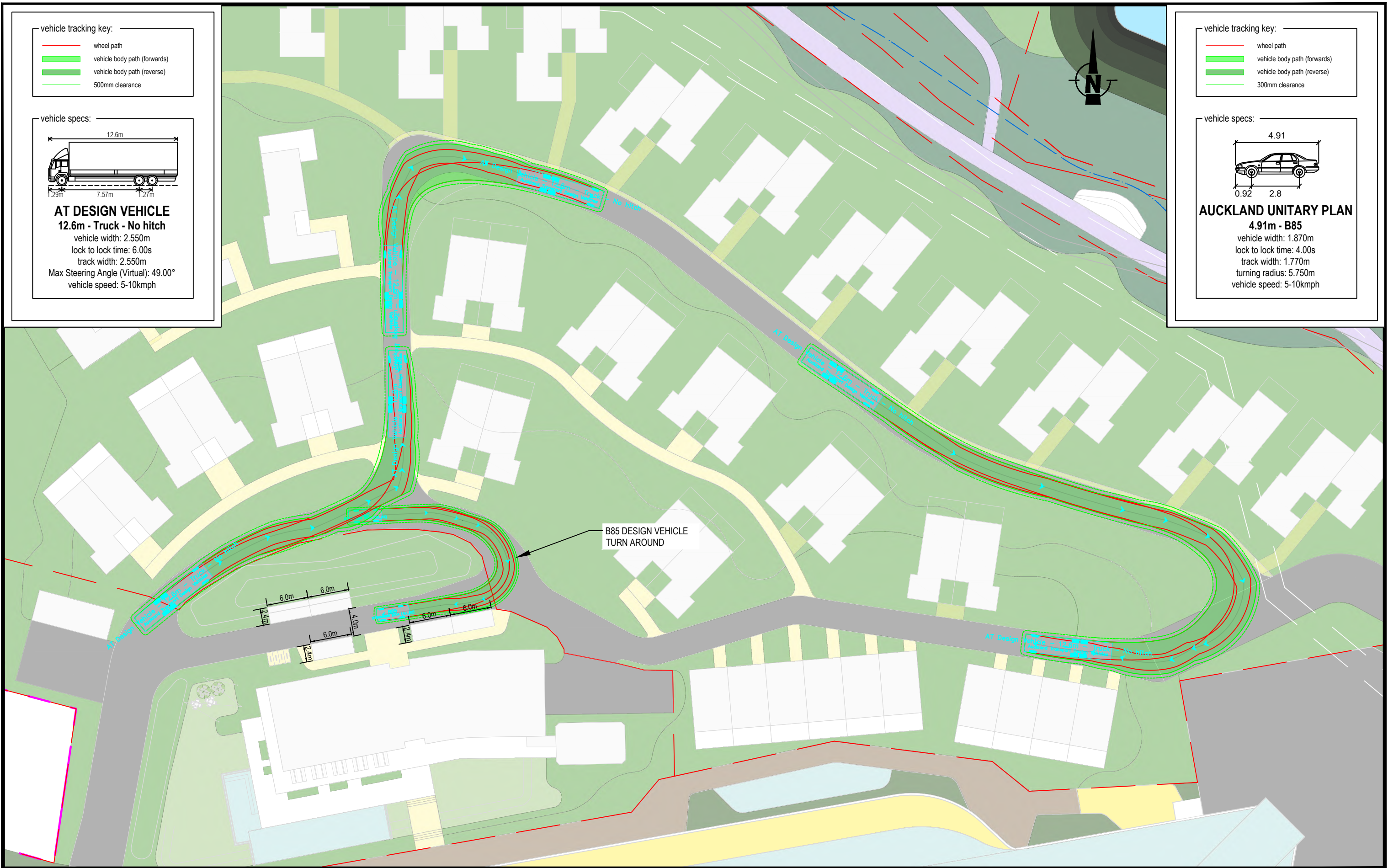
flow
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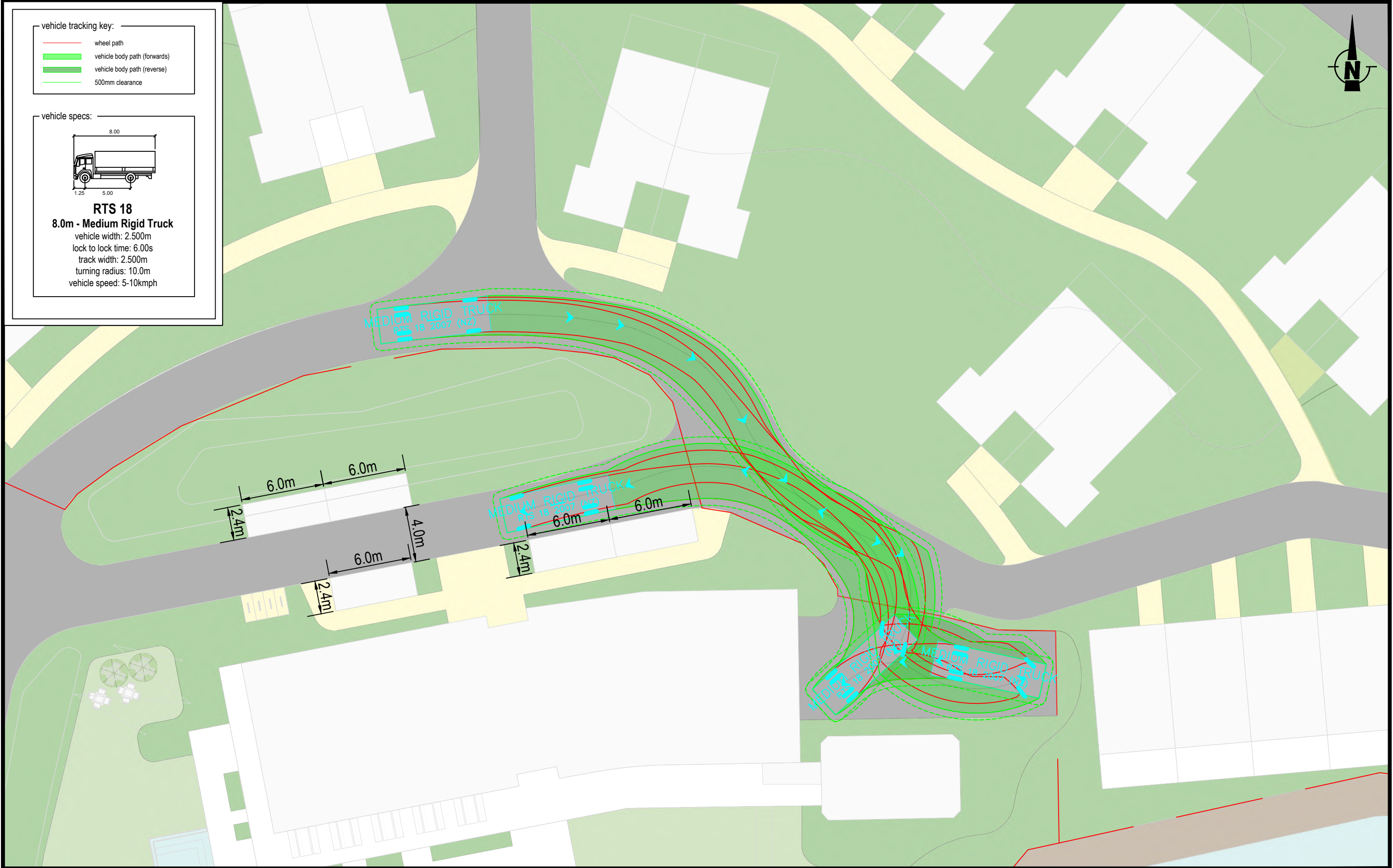


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LOCATION.

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF LAGOON AND AMENITY PRECINCT DIMENSION PLAN	SHEET:	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION		09 of 09	
			SCALE:  1:400 @ A3	LOCATION: 1350 DAIRY FLAT HIGHWAY, AUCKLAND	FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-007	REV: A	



REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: ACCOMMODATION PRECINCT CIRCULATING AROUND THE ACCESSWAY	SHEET: 01 of 02	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: TC/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 20m 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-001	REV: A	



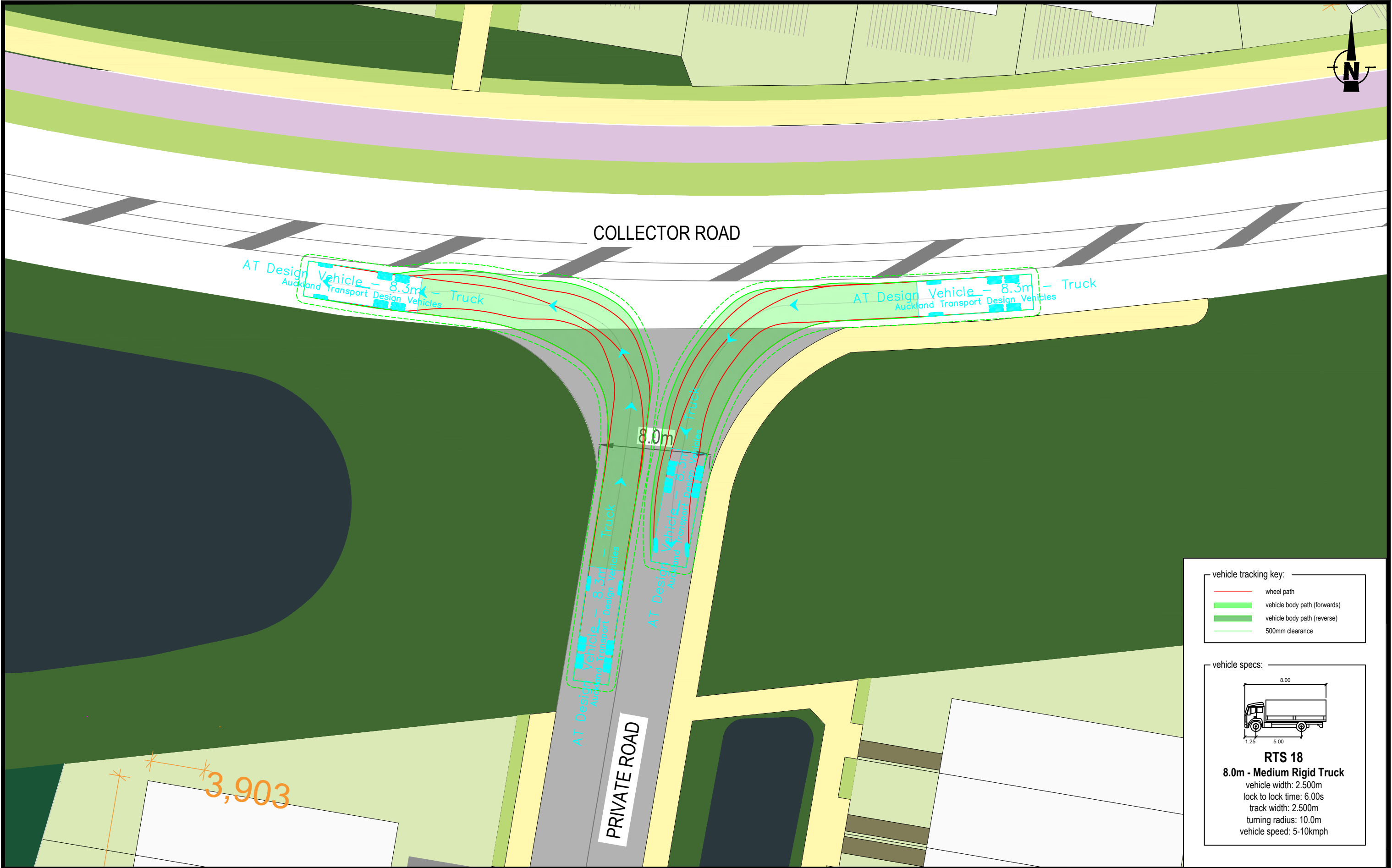
REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: ACCOMMODATION PRECINCT TRUCK TURN AROUND	SHEET: 02 of 02	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: TC/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:250 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-001	REV: A	



APPENDIX E

Live/Work Precinct





vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 500mm clearance

vehicle specs:

RTS 18
8.0m - Medium Rigid Truck
vehicle width: 2.500m
lock to lock time: 6.00s
track width: 2.500m
turning radius: 10.0m
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT VEHICLE CROSSING ON COLLECTOR ROAD	SHEET: 01 of 08
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-002	REV: A
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:250 @ A3		FOR RESOURCE CONSENT		

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REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT VEHICLE CROSSING ON COLLECTOR ROAD	SHEET: 02 of 08
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-002	REV: A
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT		

flow
TRANSPORTATION SPECIALISTS
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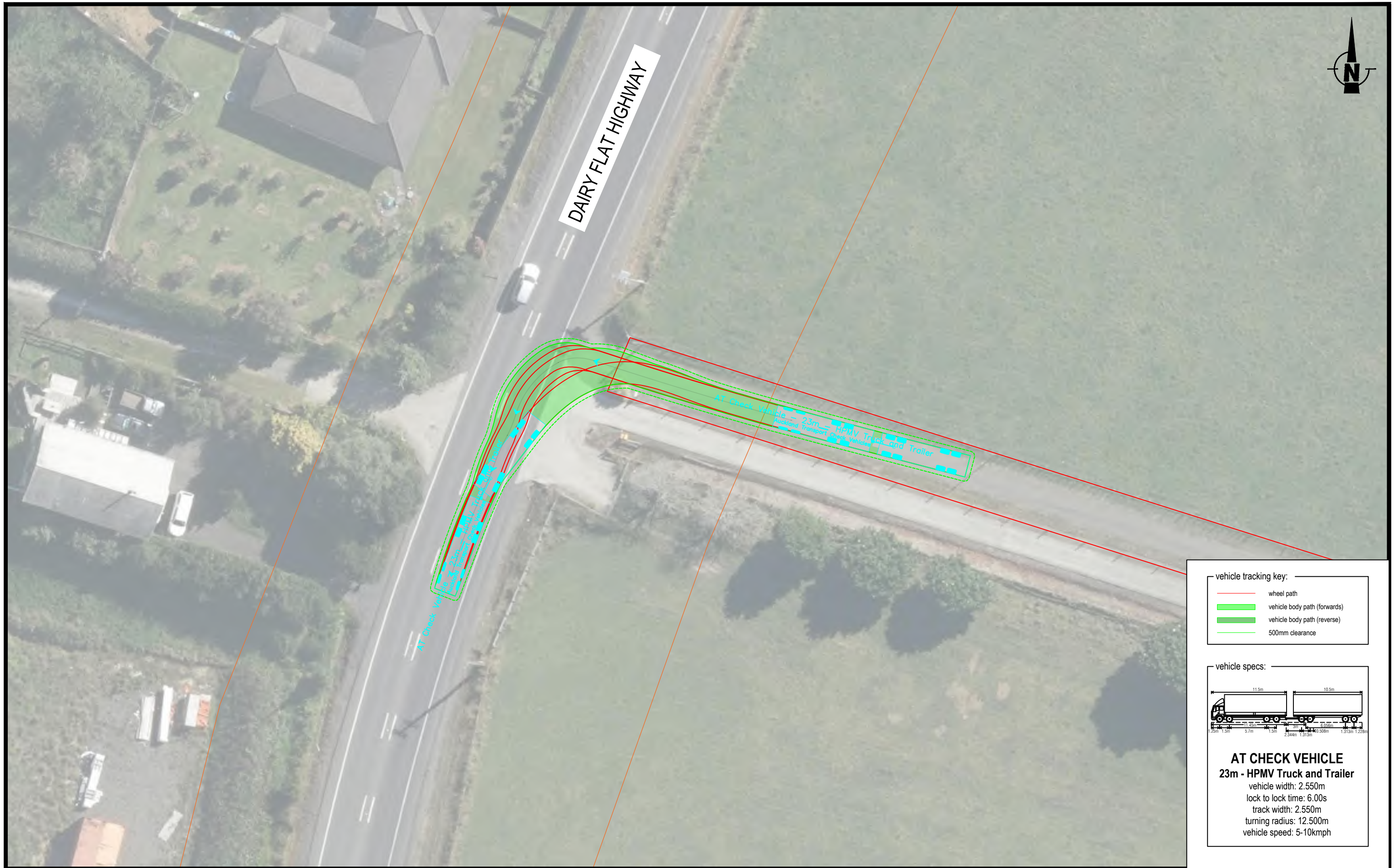


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT B-TRAIN INTO THE WWTP	SHEET: 03 of 08
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-002	REV: A
			SCALE: 0 20m 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT		

flow

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- wheel path
-  vehicle body path (forwards)
- vehicle body path (reverse)
- 500mm clearance

vehicle width: 2.550m
lock to lock time: 6.00s
track width: 2.550m
turning radius: 12.500m
vehicle speed: 5-10kmph

CLIENT: AW HOLDINGS LTD
PROJECT: AUCKLAND SURF PARK STAGE 2
FAST TRACK APPLICATION
LOCATION: 1350 DAIRY FLAT HIGHWAY

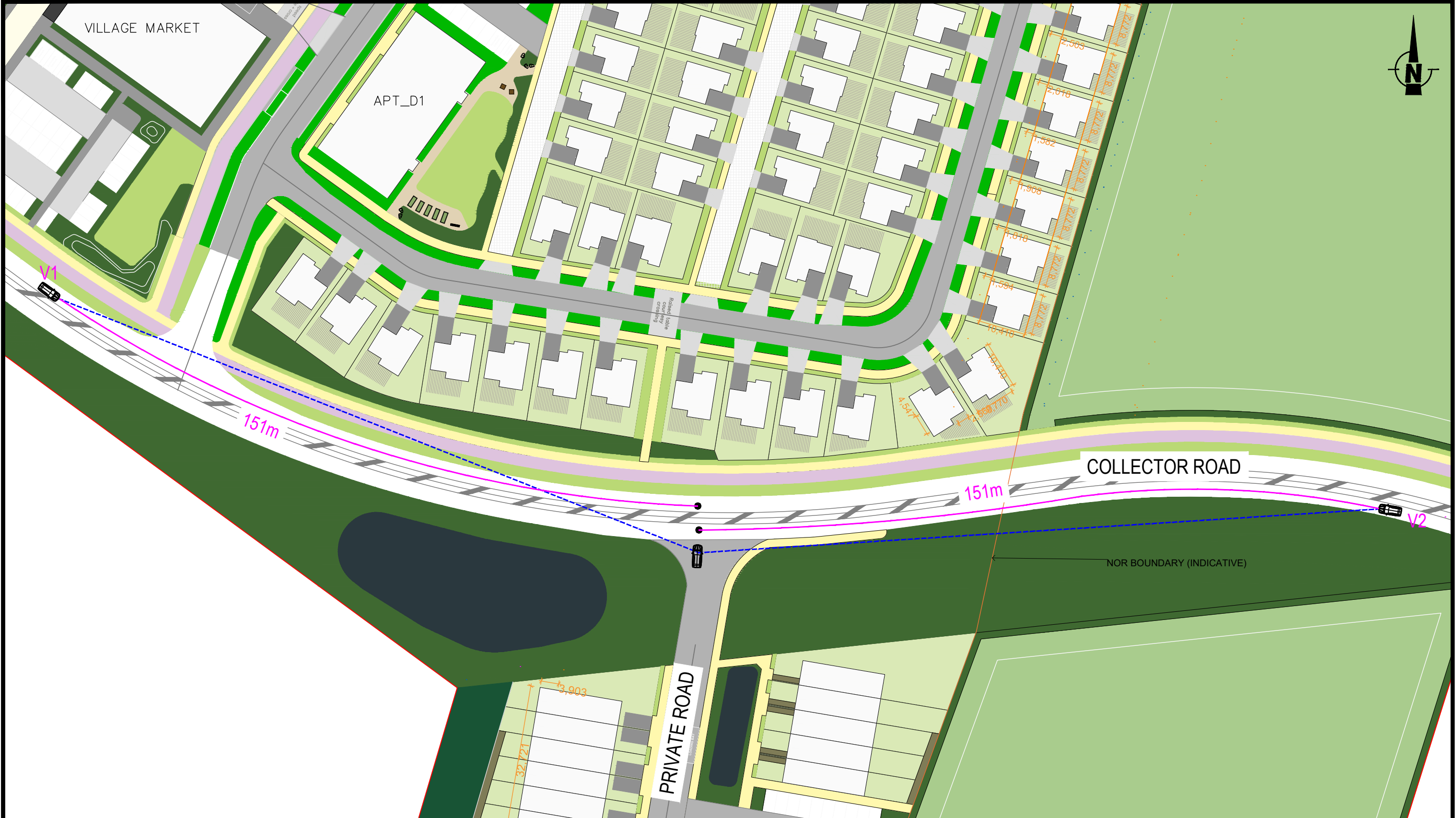
FOR RESOURCE CONSENT

SHEET: 04 of 08	
REV: A	

flow
TRANSPORTATION SPECIALISTS
Level 1, 11 Blake Street, Ponsonby, Auckland | PO Box 47497 Ponsonby
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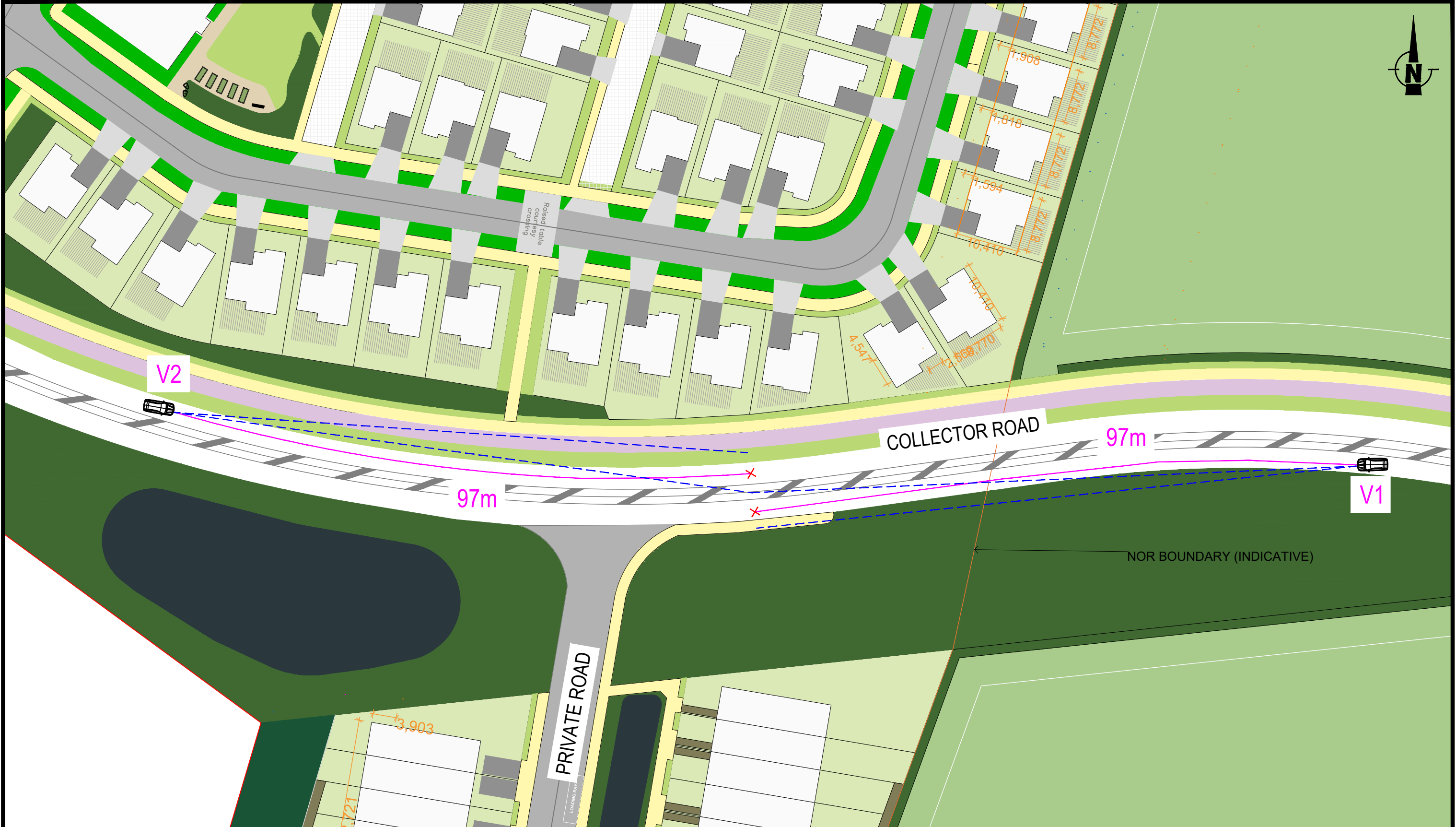


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT DIMENTION PLAN	SHEET: 05 of 08	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION		REV: A	
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INOV002-002		
					FOR RESOURCE CONSENT			



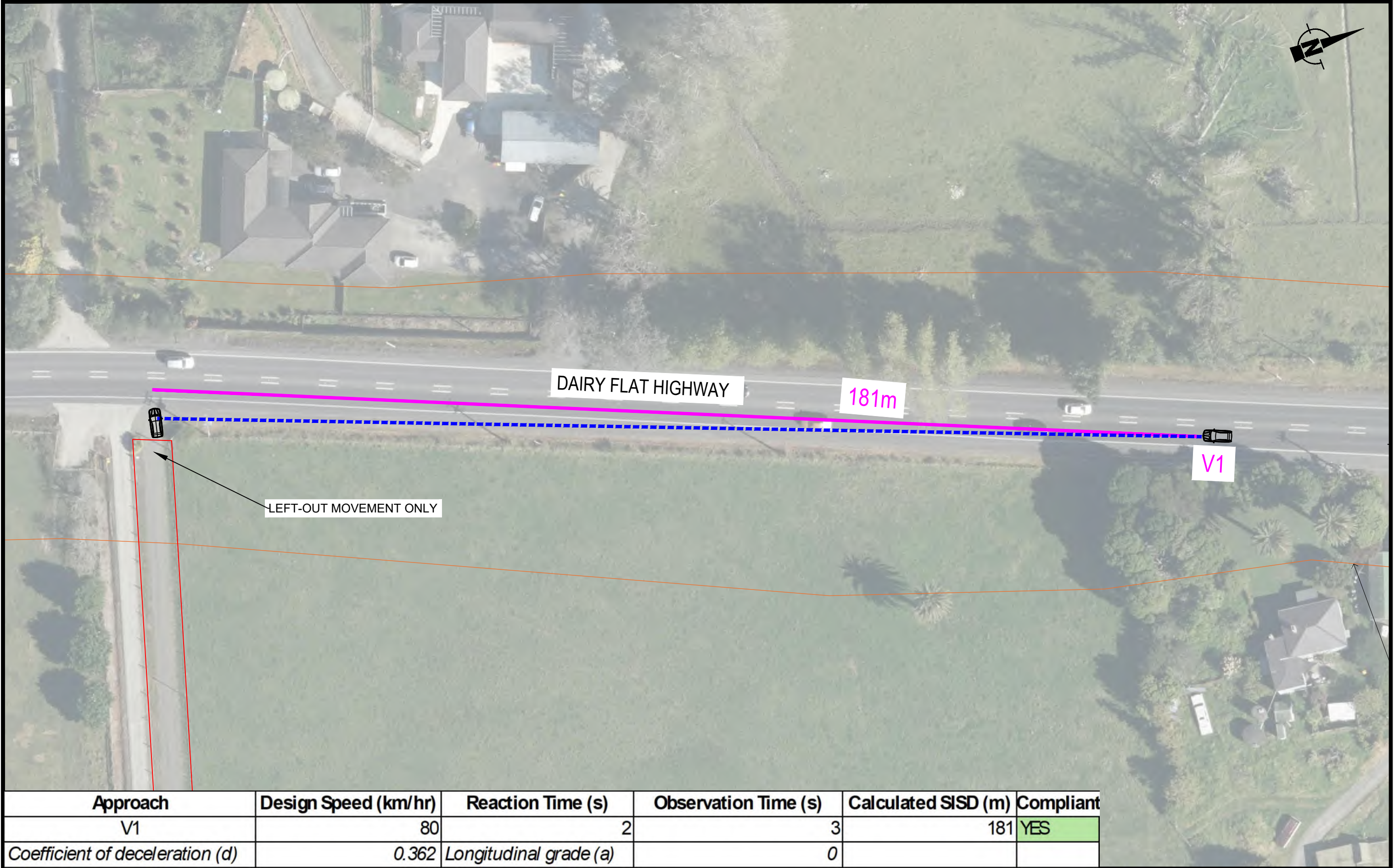
Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SISD (m)	Compliant
V1	70	2	3	151	YES
V2	70	2	3	151	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)		0

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT SAFE INTERSECTION SIGHT DISTANCE (SISD)	SHEET: 06 of 08	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
					LOCATION: 1350 DAIRY FLAT HIGHWAY			
FOR RESOURCE CONSENT						DRAWING NUMBER: INOV002-002	REV: A	



Approach			Crossing Distance	Walking Speed (m/s)	Approach Speed (km/hr)	Calculated CSD (m)	Compliant		
Eastbound (V1)			6	1.2	70	97	YES		
Westbound (V2)			6	1.2	70	97	YES		

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT CROSSING SIGHT DISTANCE (CSD)	SHEET: 07 of 08	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE:  SCALE @ A3 1:600		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-002	REV: A	

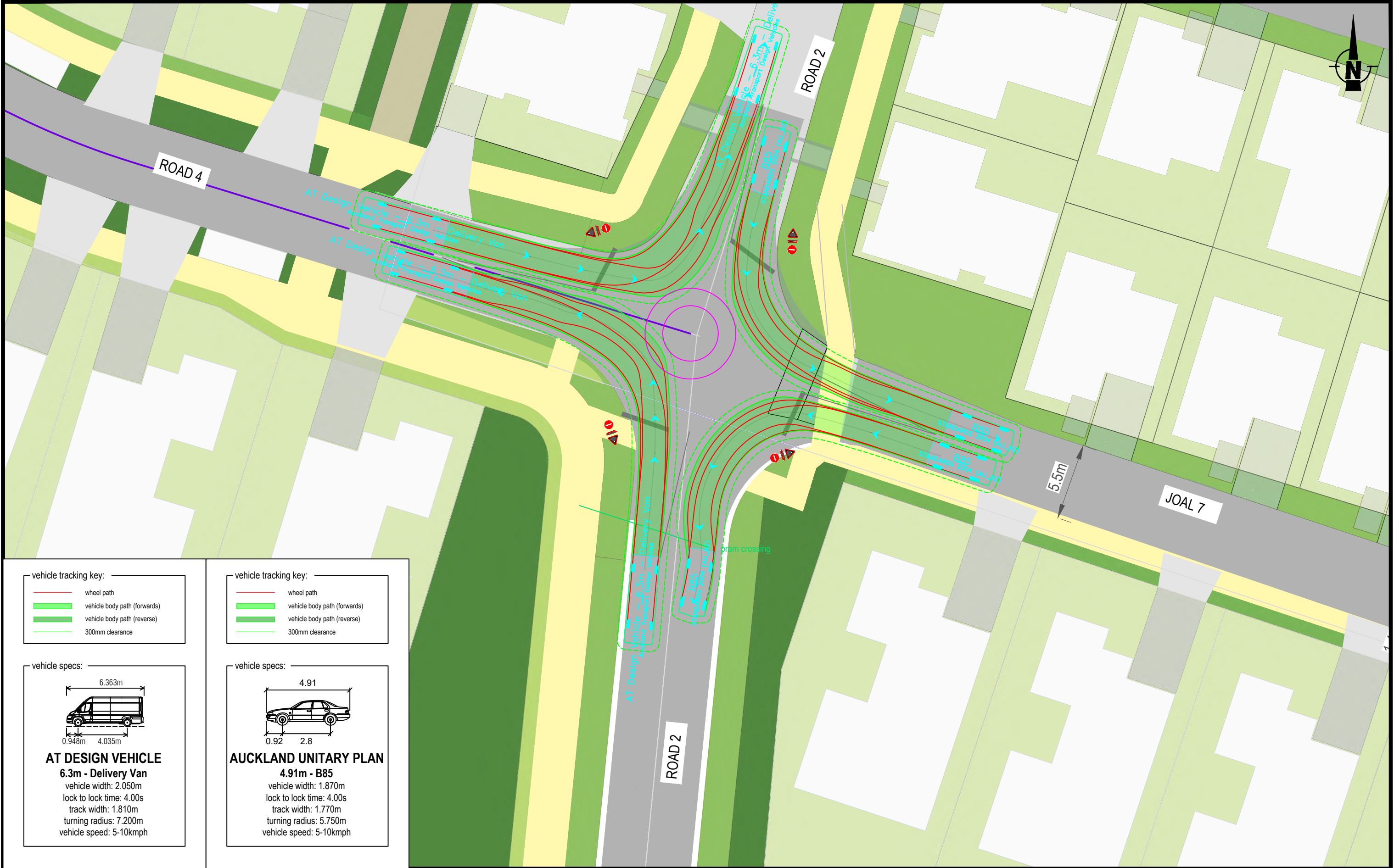


Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SISD (m)	Compliant
V1	80	2	3	181	YES
Coefficient of deceleration (d)	0.362	Longitudinal grade (a)	0		

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: LIVE AND WORK PRECINCT SAFE INTERSECTION SIGHT DISTANCE (SISD)	SHEET: 08 of 08	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
					LOCATION: 1350 DAIRY FLAT HIGHWAY			
SCALE: 1:800 @ A3					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-002	REV: A	

APPENDIX F

North-West and North-East neighbourhoods



vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 300mm clearance

vehicle specs:

AT DESIGN VEHICLE
6.3m - Delivery Van
vehicle width: 2.050m
lock to lock time: 4.00s
track width: 1.810m
turning radius: 7.200m
vehicle speed: 5-10kmph

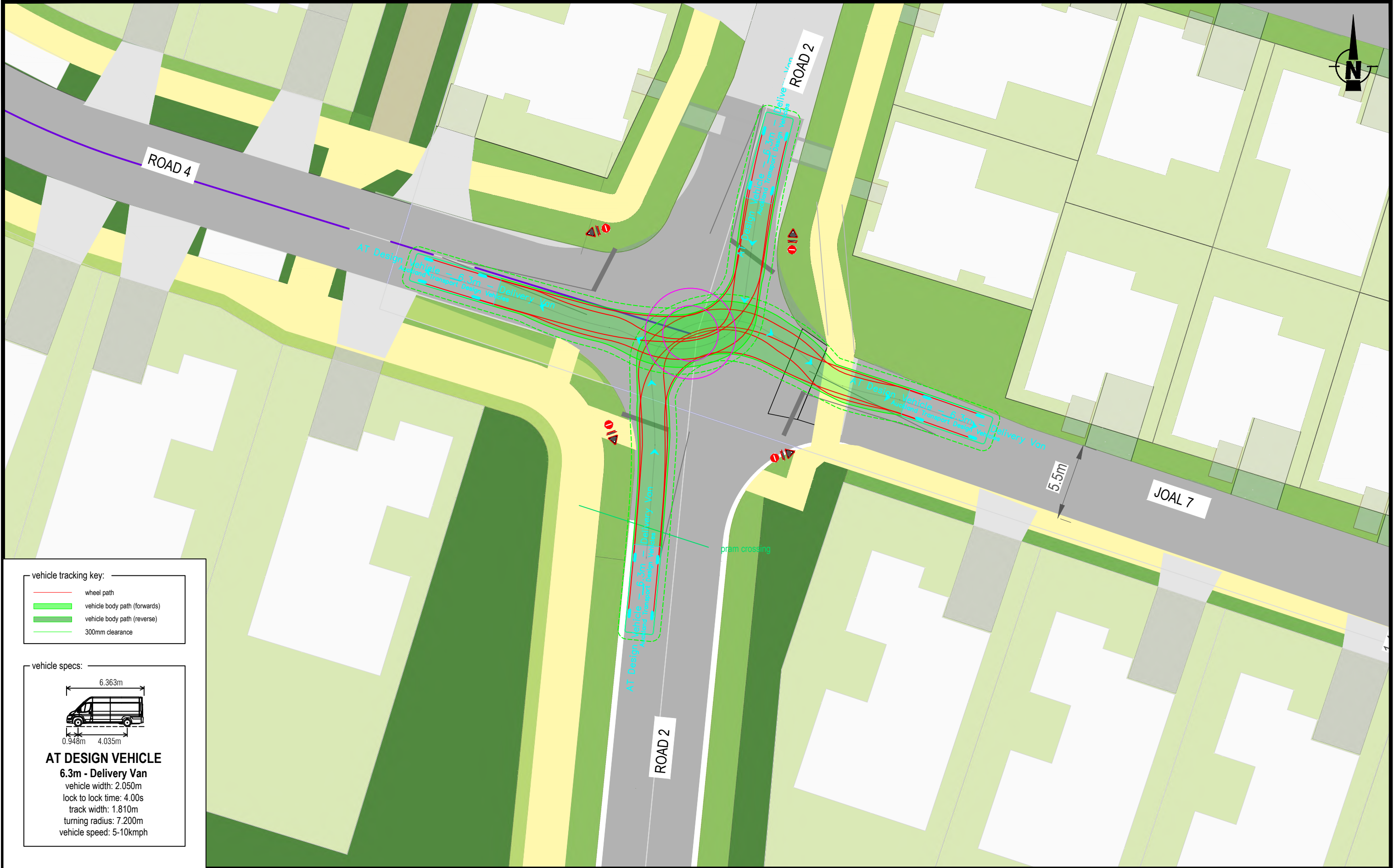
vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 300mm clearance

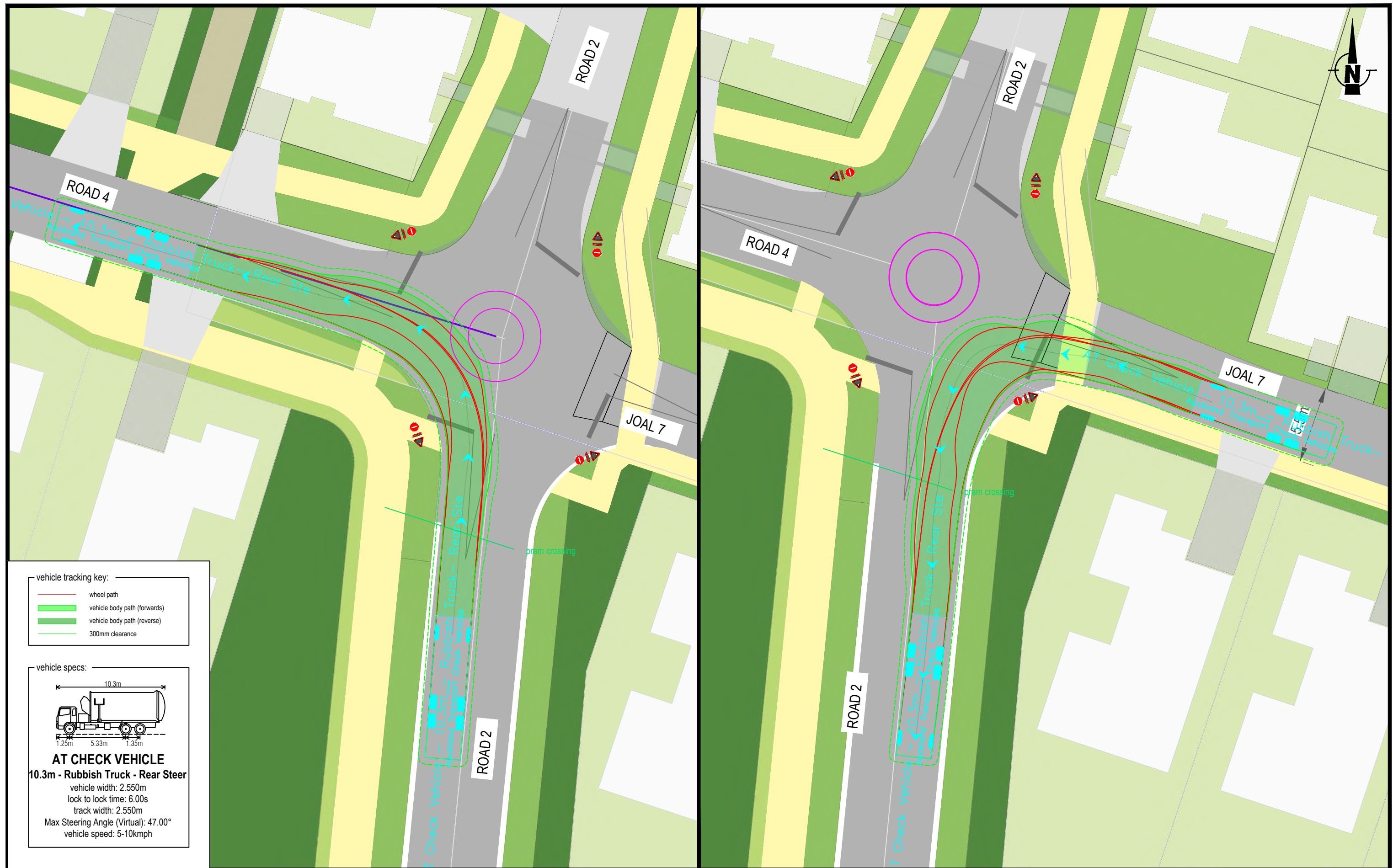
vehicle specs:

AUCKLAND UNITARY PLAN
4.91m - B85
vehicle width: 1.870m
lock to lock time: 4.00s
track width: 1.770m
turning radius: 5.750m
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT SOUTH ROUNDABOUT	SHEET: 01 of 18	 Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION		REV: A	
			SCALE: 0 10m 1:250 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INOV002-003		
					FOR RESOURCE CONSENT			



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT SOUTH ROUNDABOUT	SHEET: 02 of 18	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-003	REV: A	
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:250 @ A3		FOR RESOURCE CONSENT			



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT SOUTH ROUNDABOUT	SHEET:	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com	
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION		03 of 18		REV: A
			SCALE: 010m 1:250 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		DRAWING NUMBER: INOV002-003		
					FOR RESOURCE CONSENT				



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT INTERNAL ROAD - DELIVERY VAN & TRUCK	SHEET: 04 of 18
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION		REV: A
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INOV002-003	
			1:250 @ A3		FOR RESOURCE CONSENT		

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REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT INTERNAL ROAD - DELIVERY VAN & TRUCK	SHEET: 05 of 18	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:250 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-003	REV: A	



vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 500mm clearance

vehicle specs:

AT DESIGN VEHICLE
6.3m - Delivery Van
vehicle width: 2.050m
lock to lock time: 4.00s
track width: 1.810m
turning radius: 7.200m
vehicle speed: 5-10kmph

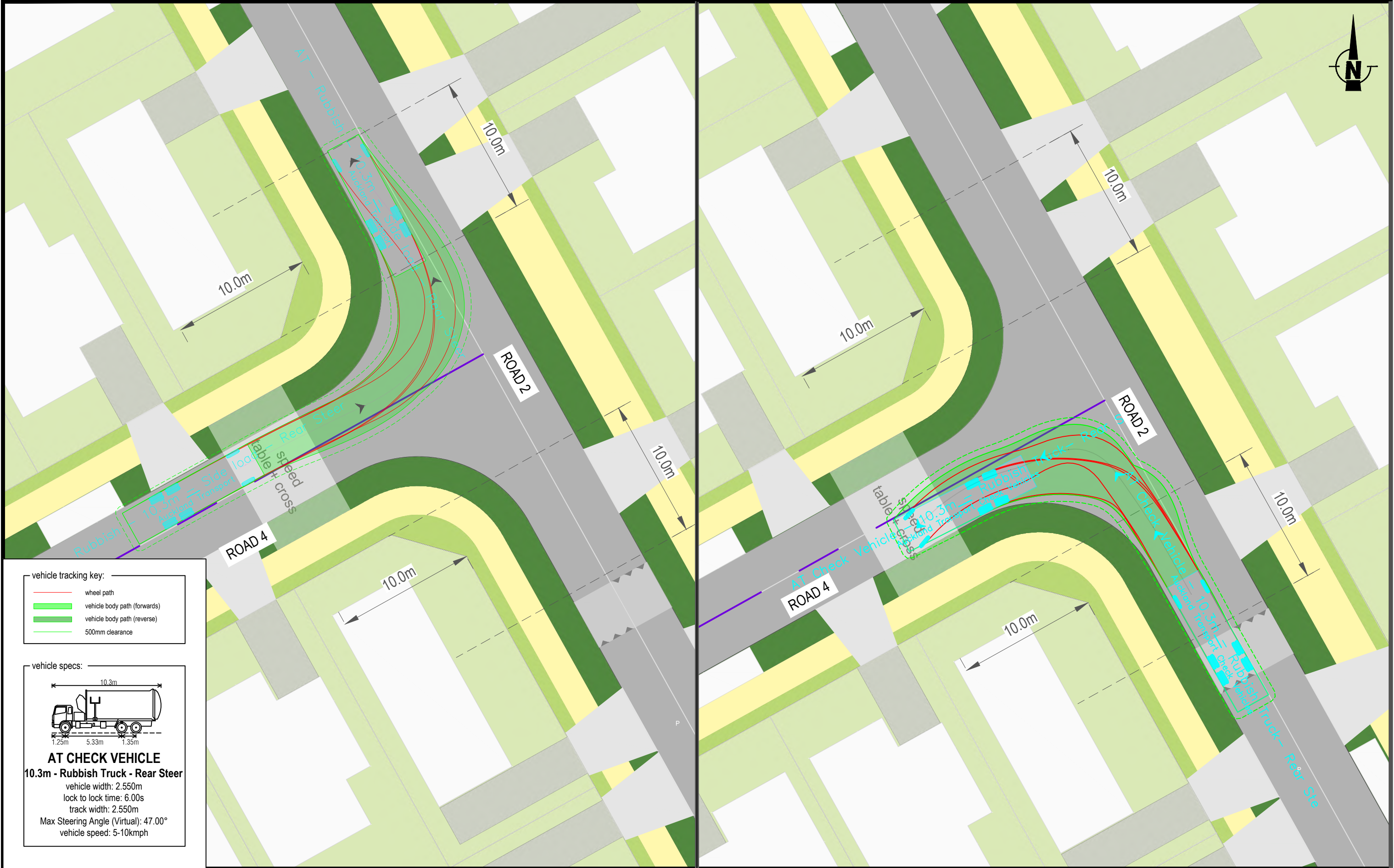
REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026
			SCALE: 0 10m	
			1:250 @ A3	

CLIENT: AW HOLDNGS LTD
PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION
LOCATION: 1350 DAIRY FLAT HIGHWAY
FOR RESOURCE CONSENT

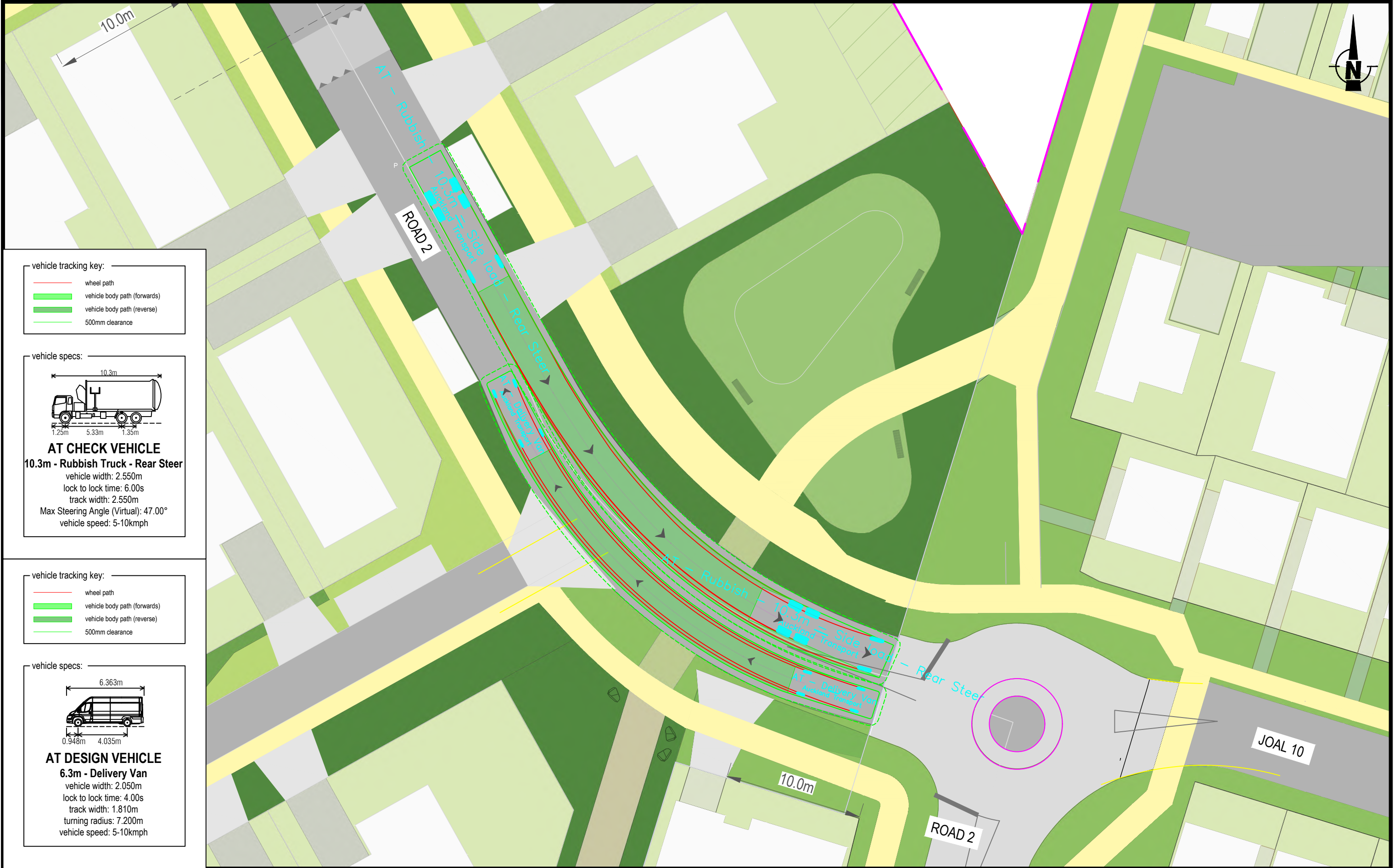
SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT INTERNAL ROADS - DELIVERY VAN
DRAWING NUMBER: INOV002-003

SHEET: 06 of 18
REV: A

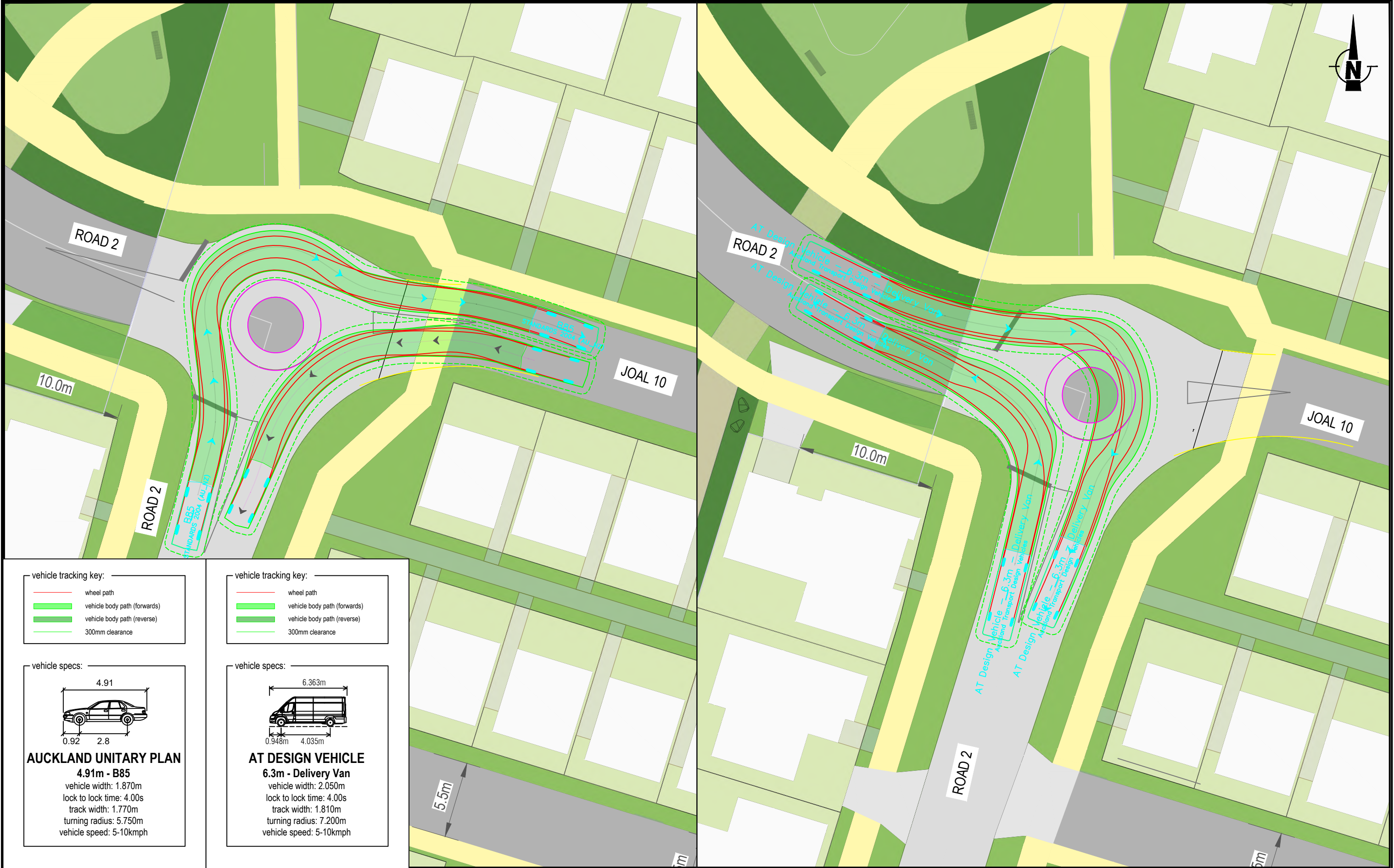
flow
TRANSPORTATION SPECIALISTS
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REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT INTERNAL ROADS - CHECK VEHICLE	SHEET: 07 of 18	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-003	REV: A	
					LOCATION: 1350 DAIRY FLAT HIGHWAY			

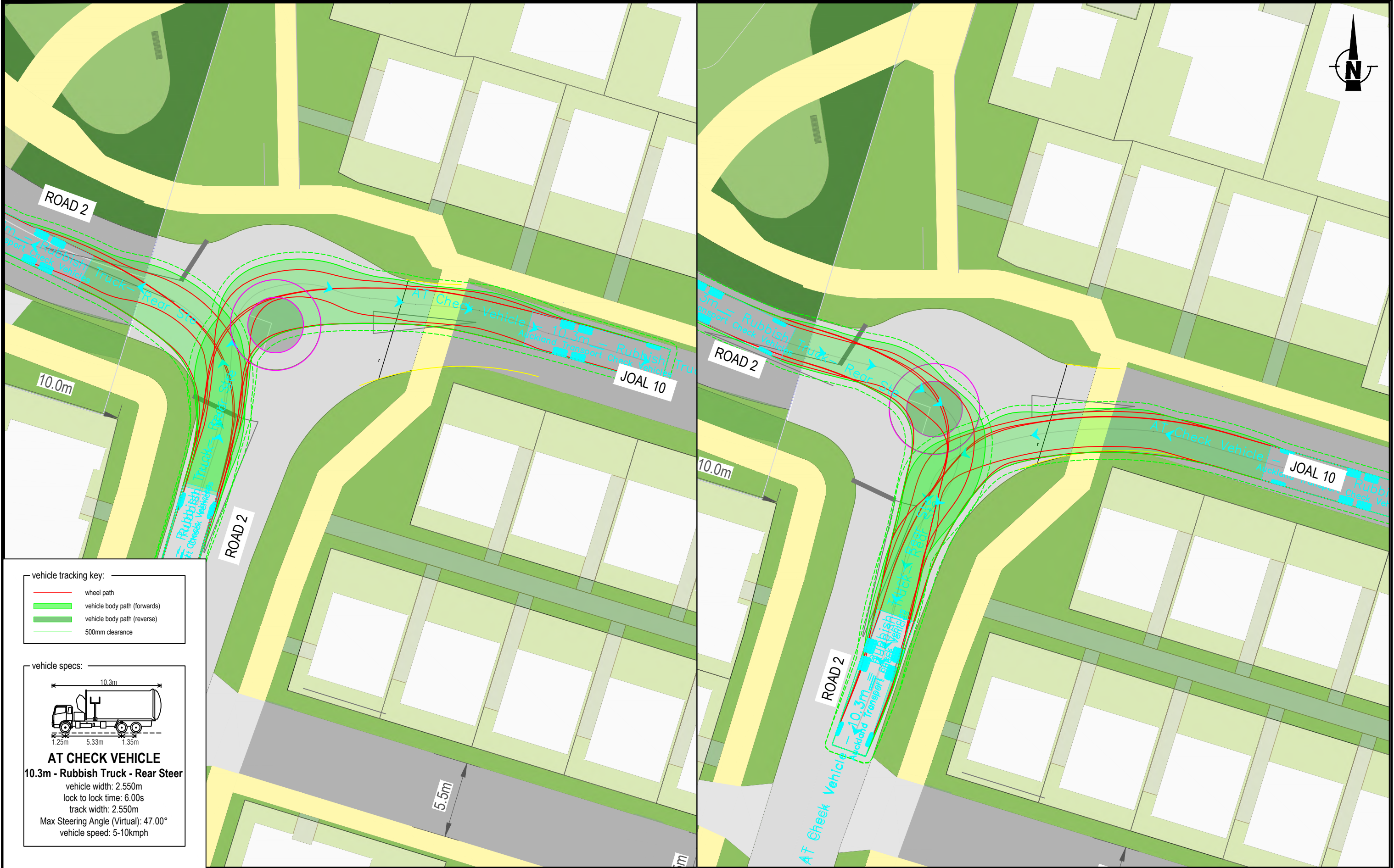


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT INTERNAL ROAD	SHEET: 08 of 18	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 10m 1:250 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-003	REV: A	



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT NORTH ROUNDABOUT	SHEET: 09 of 18
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-003	REV: A
			SCALE: 0 10m 1:250 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT		

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vehicle tracking key:

wheel path

vehicle body path (forwards)

vehicle body path (reverse)

500mm clearance

vehicle specs:

10.3m

1.25m 5.33m 1.35m

AT CHECK VEHICLE

10.3m - Rubbish Truck - Rear Steer

vehicle width: 2.550m

lock to lock time: 6.00s

track width: 2.550m

Max Steering Angle (Virtual): 47.00°

vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT NORTH ROUNDABOUT	SHEET: 10 of 18	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:250 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-003	REV: A	



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-EAST NEIGHBOURHOOD PRECINCT INTERNAL ROAD	SHEET:	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION		11 of 18	
			SCALE: 0 16m  1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		REV: A	
					FOR RESOURCE CONSENT		DRAWING NUMBER: INOV002-003	

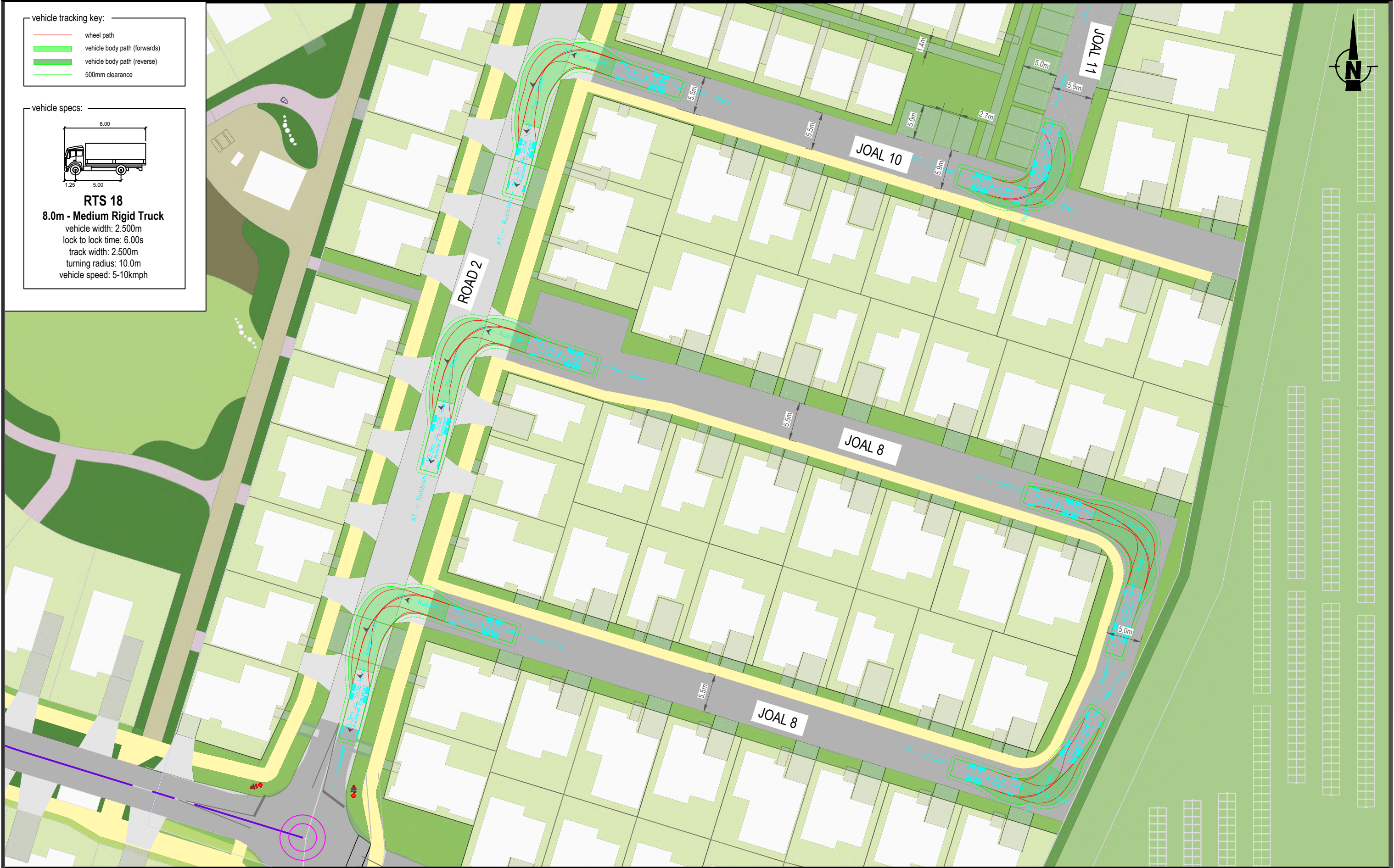


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-EAST NEIGHBOURHOOD PRECINCT INTERNAL ROAD	SHEET: 12 of 18
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-003	REV: A
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT		

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REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-EAST NEIGHBOURHOOD PRECINCT INTERNAL ROAD	SHEET: 13 of 18
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION		
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:400 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-003	REV: A

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vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 300mm clearance

vehicle specs:

4.91

0.92 2.8

AUCKLAND UNITARY PLAN

4.91m - B85

vehicle width: 1.870m

lock to lock time: 4.00s

track width: 1.770m

turning radius: 5.750m

vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-EAST NEIGHBOURHOOD PRECINCT INTERNAL ROAD	SHEET: 14 of 18
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-003	REV: A
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT		

flow

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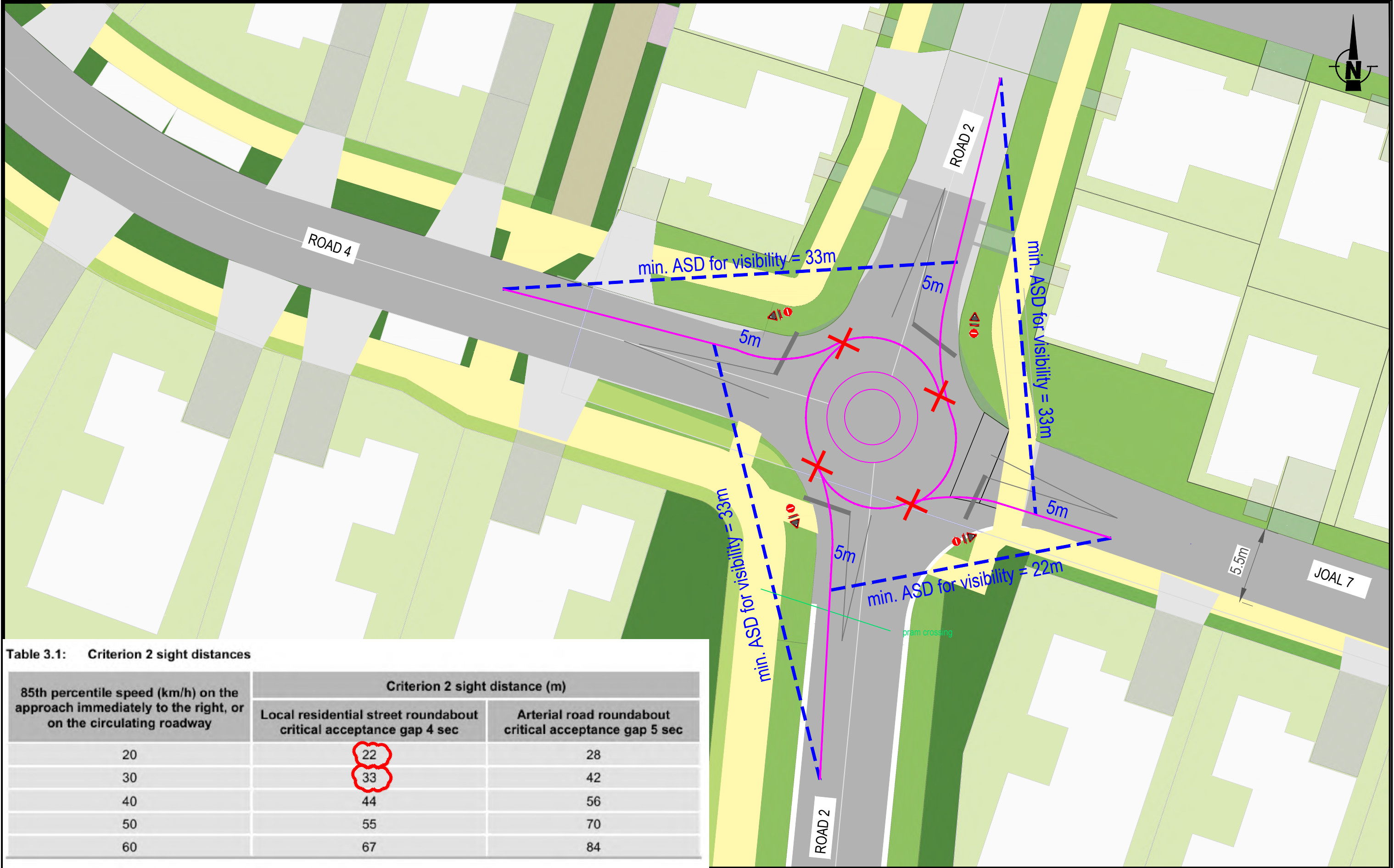
vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 300mm clearance

vehicle specs:

AUCKLAND UNITARY PLAN
4.91m - B85
 vehicle width: 1.870m
 lock to lock time: 4.00s
 track width: 1.770m
 turning radius: 5.750m
 vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: NORTH-EAST NEIGHBOURHOOD PRECINCT INTERNAL ROAD	SHEET: 15 of 18	 Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION		REV: A	
			SCALE: 0 10m 1:250 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INOV002-003		
					FOR RESOURCE CONSENT			



85th percentile speed (km/h) on the approach immediately to the right, or on the circulating roadway	Criterion 2 sight distance (m)	
	Local residential street roundabout critical acceptance gap 4 sec	Arterial road roundabout critical acceptance gap 5 sec
20	22	28
30	33	42
40	44	56
50	55	70
60	67	84

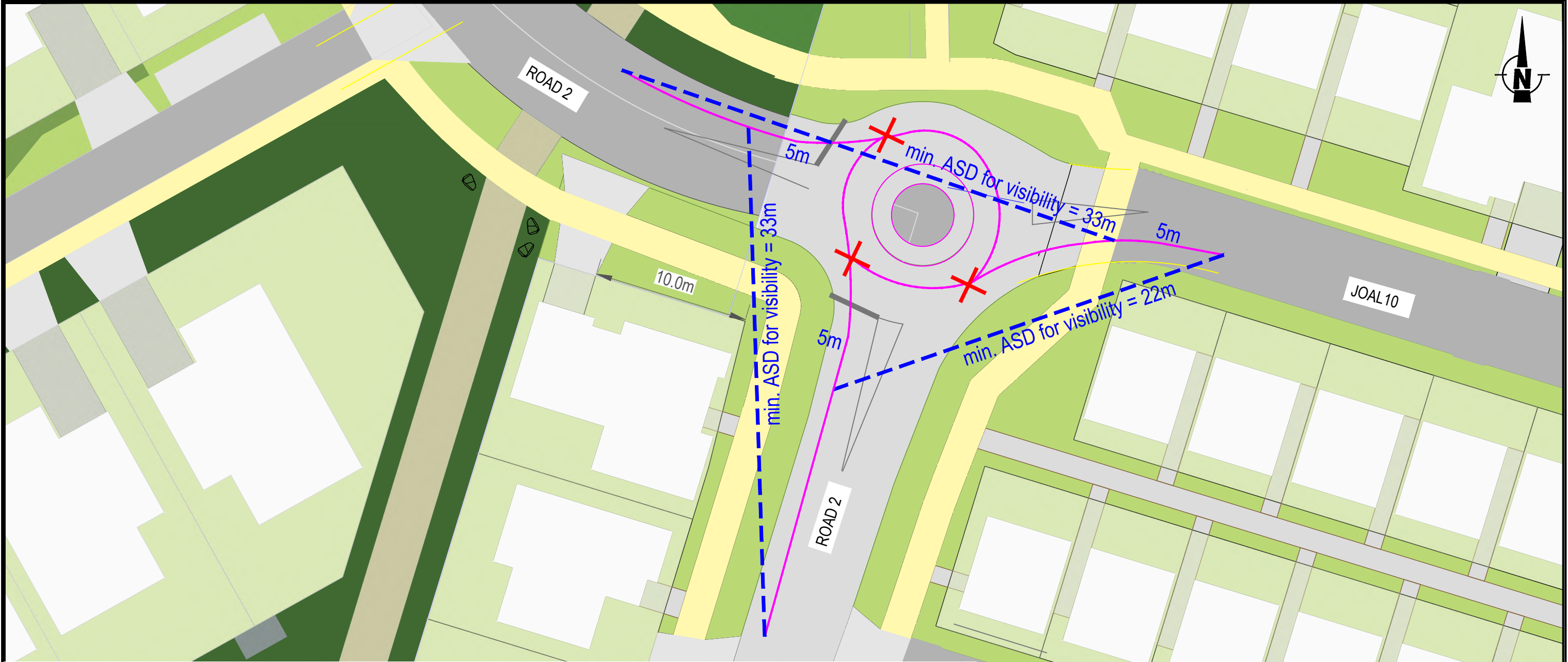


Table 3.1: Criterion 2 sight distances

85th percentile speed (km/h) on the approach immediately to the right, or on the circulating roadway	Criterion 2 sight distance (m)	
	Local residential street roundabout critical acceptance gap 4 sec	Arterial road roundabout critical acceptance gap 5 sec
20	22	28
30	33	42
40	44	56
50	55	70
60	67	84

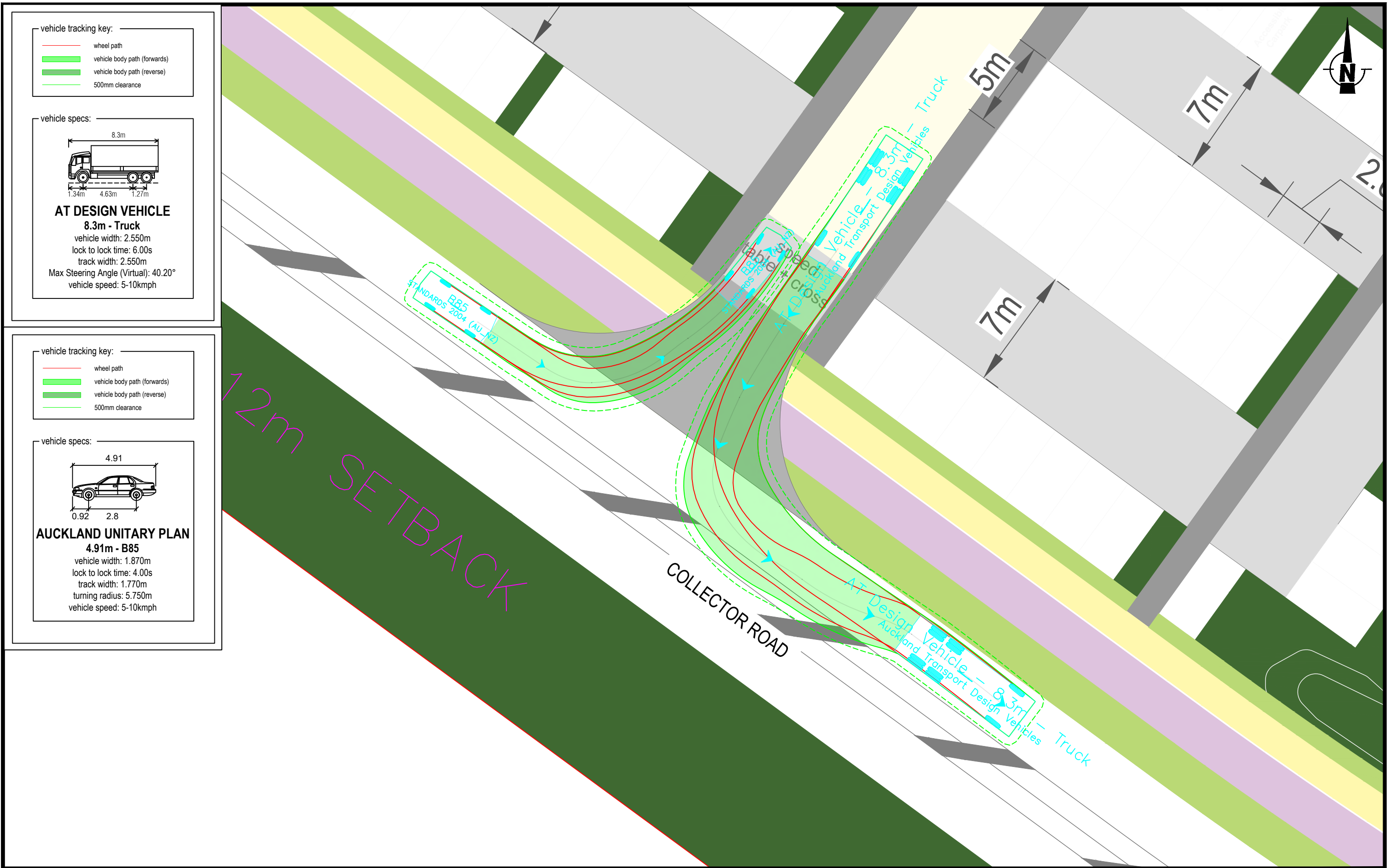


Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SISD (m)	Compliant
V1	30	2	3	51	YES
V2	30	2	3	51	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)		0

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: NORTH-WEST NEIGHBOURHOOD PRECINCT SAFE INTERSECTION SIGHT DISTANCE (SISD)	SHEET: 18 of 18	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PATH STAGE 2 FAST TRACK APPLICATION			
					LOCATION: 1350 DAIRY FLAT HIGHWAY			
SCALE: 1:250 @ A3					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-003	REV: A	

APPENDIX G

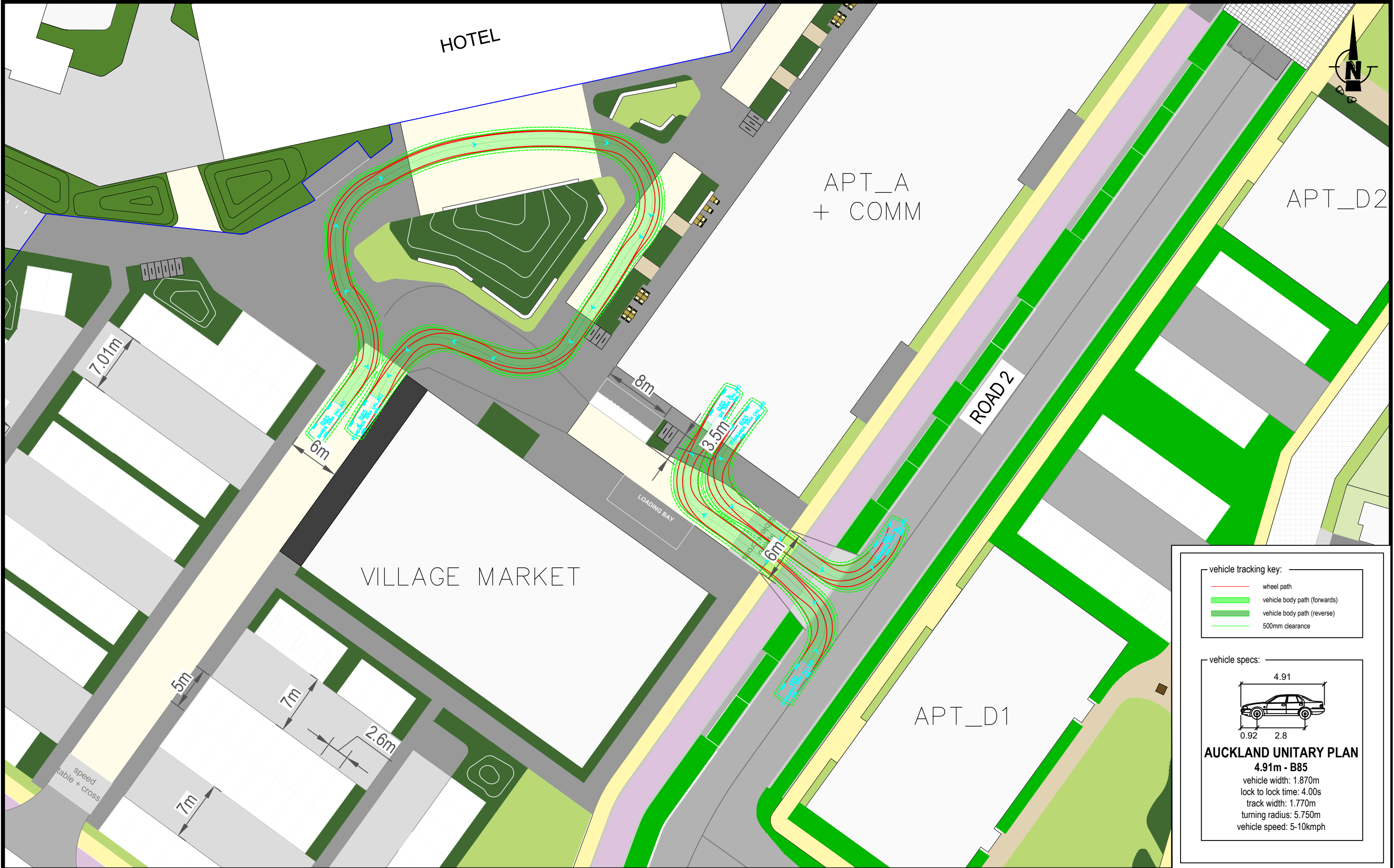
Village Centre and South Neighbourhood Precinct



REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT VEHICLE CROSSING - DAIRY FLAT HIGHWAY	SHEET: 01 of 10	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 8m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:200 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-008	REV: A	



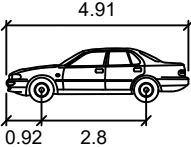
REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT INTERNAL CIRCULATION	SHEET: 02 of 10	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		REV: A	
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INVO002-008		
					FOR RESOURCE CONSENT			



vehicle tracking key:

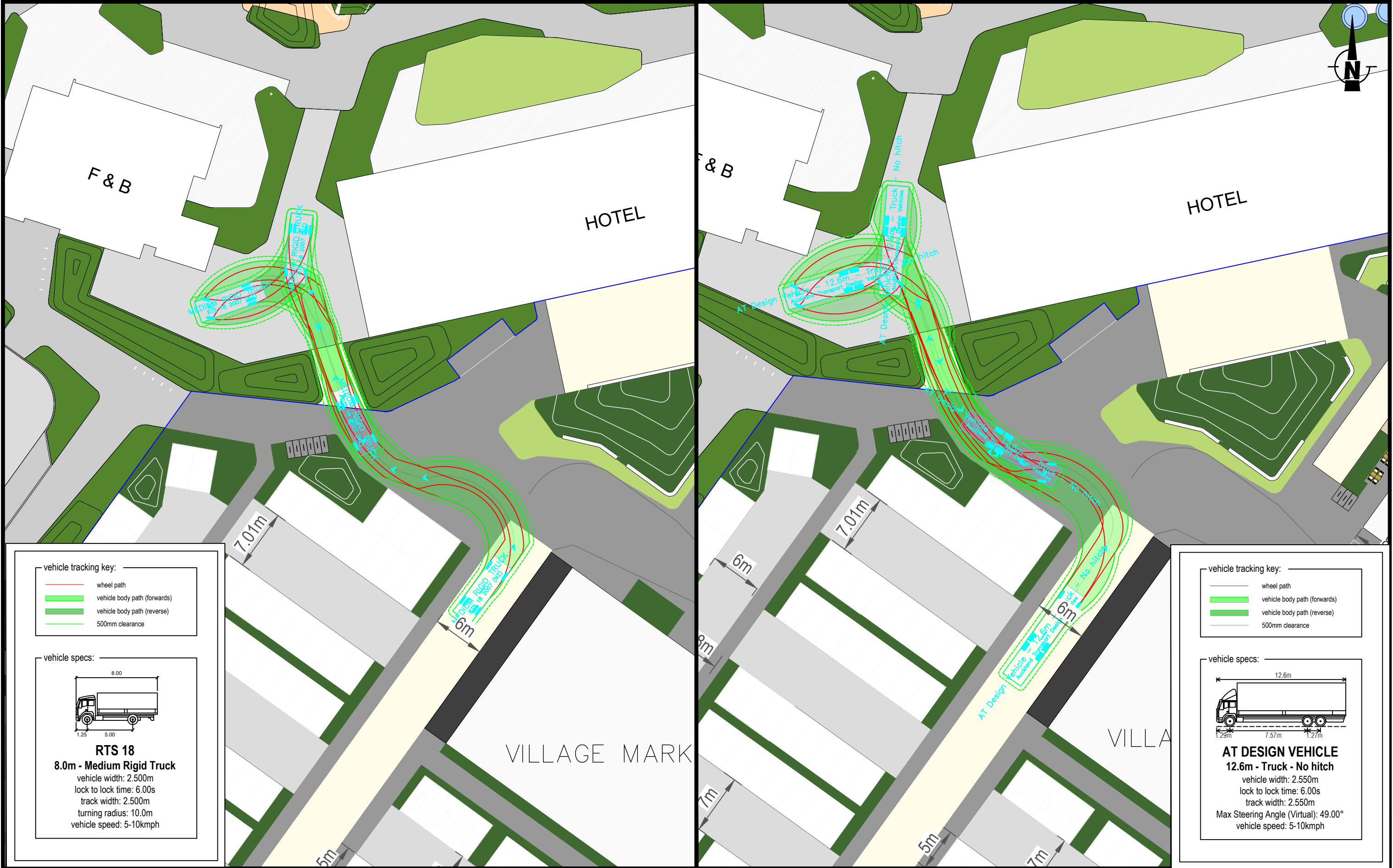
- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- - - 500mm clearance

vehicle specs:



AUCKLAND UNITARY PLAN
4.91m - B85
vehicle width: 1.870m
lock to lock time: 4.00s
track width: 1.770m
turning radius: 5.750m
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT INTERNAL CIRCULATION	SHEET: 03 of 10	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INVO002-008	REV: A	
					FOR RESOURCE CONSENT			



REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT INTERNAL CIRCULATION	SHEET: 04 of 10
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INVO002-008	REV: A
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:400 @ A3		FOR RESOURCE CONSENT		

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REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT INTERNAL CIRCULATION	SHEET: 05 of 10
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:400 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-008	REV: A

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REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT INTERNAL CIRCULATION	SHEET: 06 of 10	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:400 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-008	REV: A	



UNDARY (INDICATIVE)

Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SSD (m)	Compliant
V1	70	2	3	151	YES
V2	70	2	3	151	YES

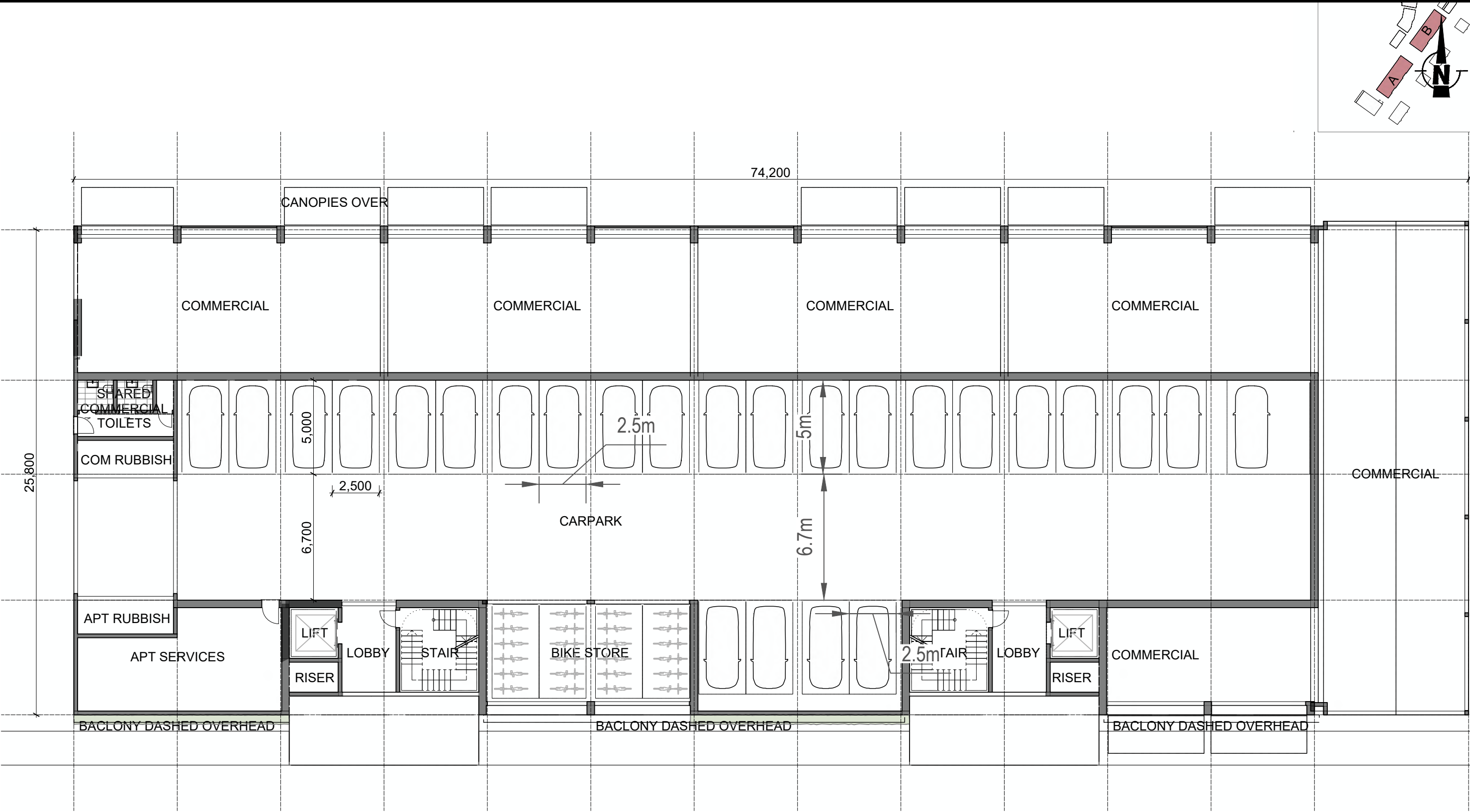
REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION LOCATION: 1350 DAIRY FLAT HIGHWAY	SHEET TITLE: VILLAGE CENTRE PRECINCT SAFE INTERSECTION SIGHT DISTANCE (SSD)	SHEET: 07 of 10	REV: A	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com	
	A	First Issue	09/02/2026	CHECKED: ET/NH						DATE: 09/02/2026
	SCALE: 0 32m 1:800 @ A3									
	FOR RESOURCE CONSENT									

DRAWING NUMBER: INVO002-008



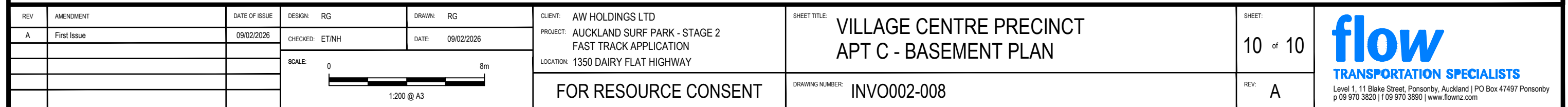
Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SISD (m)	Compliant
V1	30	2	3	51	YES
V2	30	2	3	51	YES

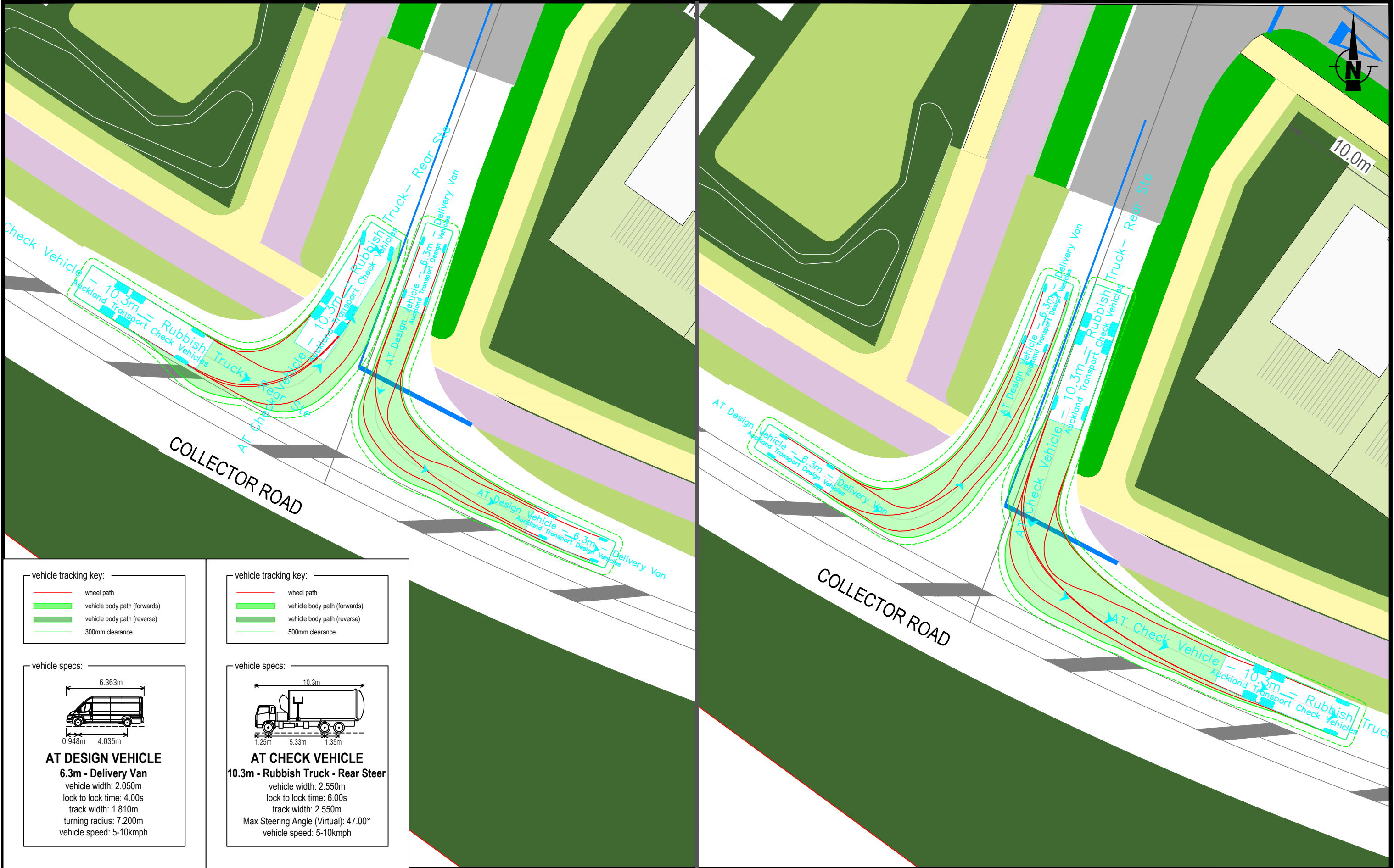
REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT SAFE INTERSECTION SIGHT DISTANCE (SISD)	SHEET: 08 of 10	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
					LOCATION: 1350 DAIRY FLAT HIGHWAY			
SCALE: 0 20m 1:500 @ A3					FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-008	REV: A	



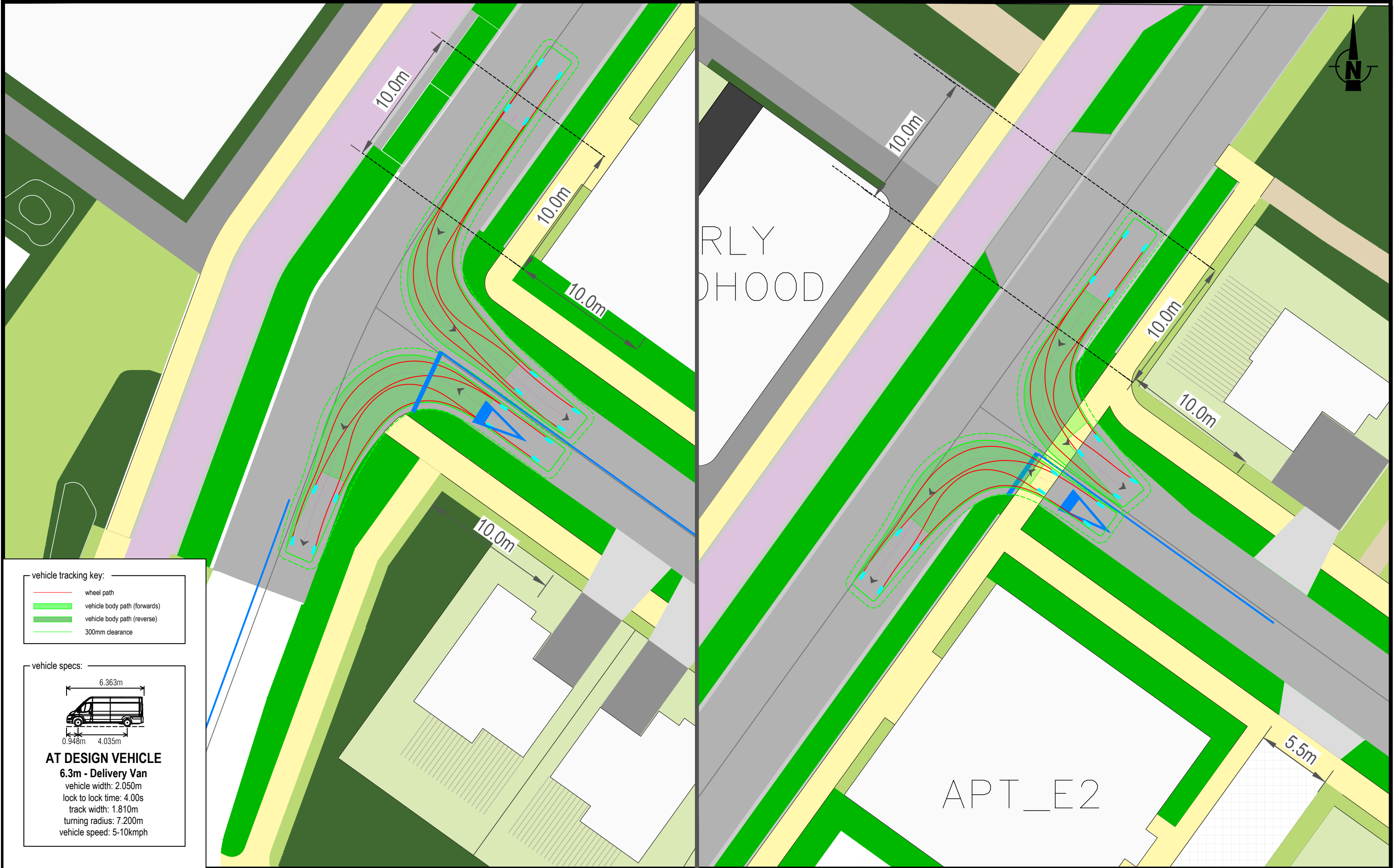
1 - APT A + B | Level 00 (Ground) - 1:200
: Note apartment B is mirrored

REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: VILLAGE CENTRE PRECINCT APT A + B - BASEMENT PLAN	SHEET: 09 of 10	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 8m 1:200 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-008	REV: A	





REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT ROAD 1 INTERSECTION	SHEET: 01 of 08	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 10m 1:250 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-004	REV: A	



vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 300mm clearance

vehicle specs:

AT DESIGN VEHICLE
6.3m - Delivery Van
vehicle width: 2.050m
lock to lock time: 4.00s
track width: 1.810m
turning radius: 7.200m
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT INTERNAL PUBLIC ROAD INTERSECTIONS	SHEET: 02 of 08	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 10m		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			1:250 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-004	REV: A	



REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT INTERNAL PUBLIC ROAD INTERSECTIONS	SHEET: 03 of 08	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			FOR RESOURCE CONSENT			DRAWING NUMBER: INOV002-004	REV: A	



vehicle tracking key:

— wheel path

— vehicle body path (forwards)

— vehicle body path (reverse)

— 300mm clearance

vehicle specs:

AT DESIGN VEHICLE
6.3m - Delivery Van
vehicle width: 2.050m
lock to lock time: 4.00s
track width: 1.810m
turning radius: 7.200m
vehicle speed: 5-10kmph

vehicle tracking key:

— wheel path

— vehicle body path (forwards)

— vehicle body path (reverse)

— 500mm clearance

vehicle specs:

AT CHECK VEHICLE
10.3m - Rubbish Truck - Rear Steer
vehicle width: 2.550m
lock to lock time: 6.00s
track width: 2.550m
Max Steering Angle (Virtual): 47.00°
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT INTERNAL PUBLIC ROAD CORNERS	SHEET: 04 of 08	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 16m 1:400 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
			FOR RESOURCE CONSENT		DRAWING NUMBER: INOV002-004		REV: A	

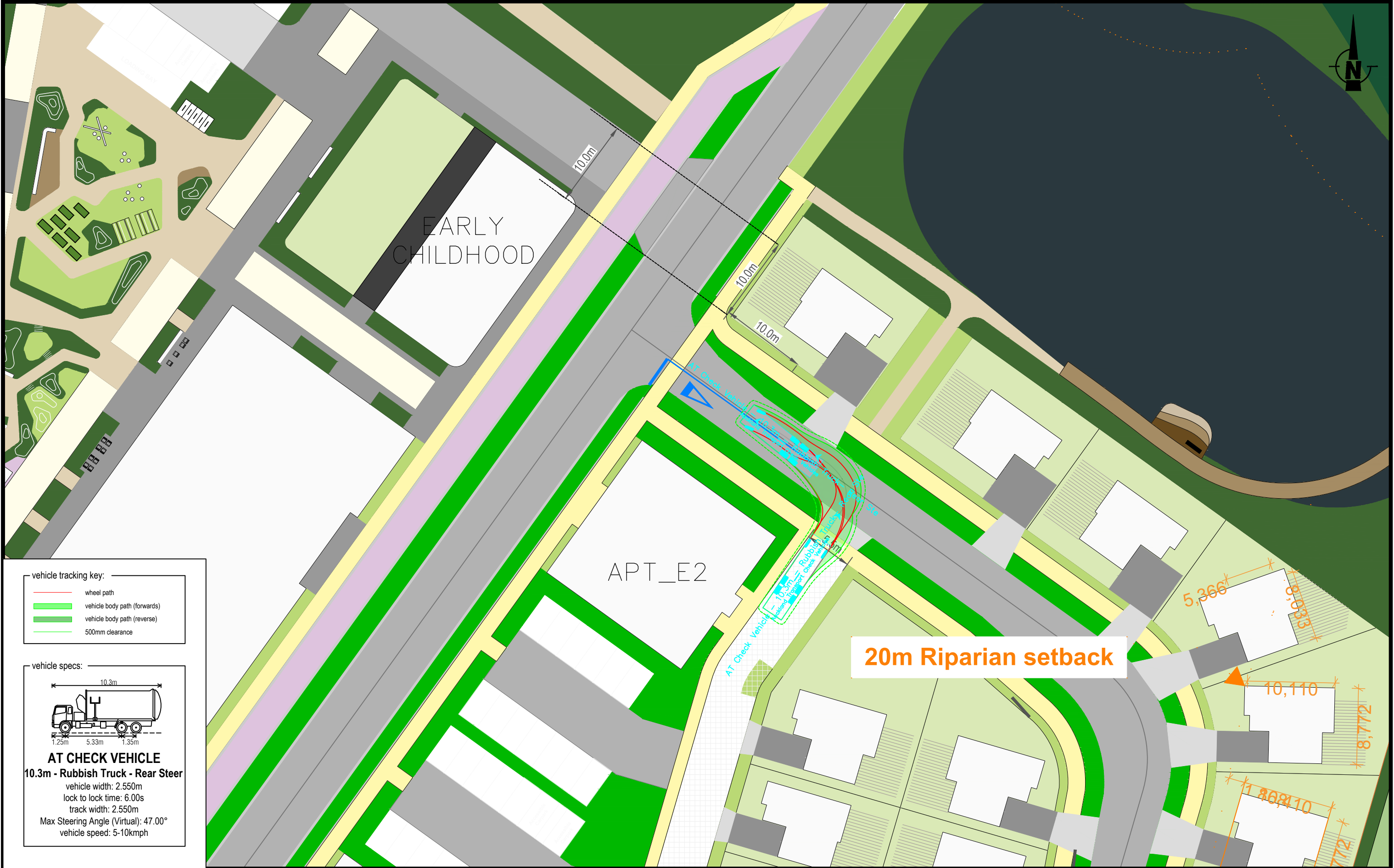


REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT RUBBISH TRUCK TRACKING WITH JOALS	SHEET: 05 of 08
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION	DRAWING NUMBER: INOV002-004	REV: A
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:400 @ A3		FOR RESOURCE CONSENT		

flow

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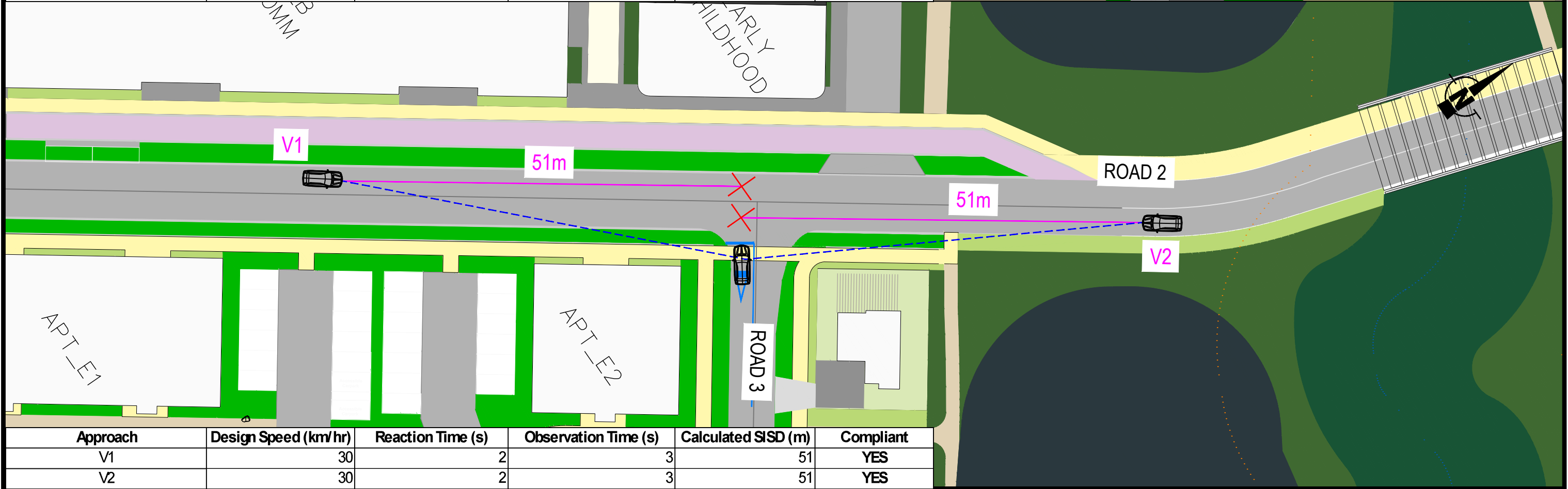
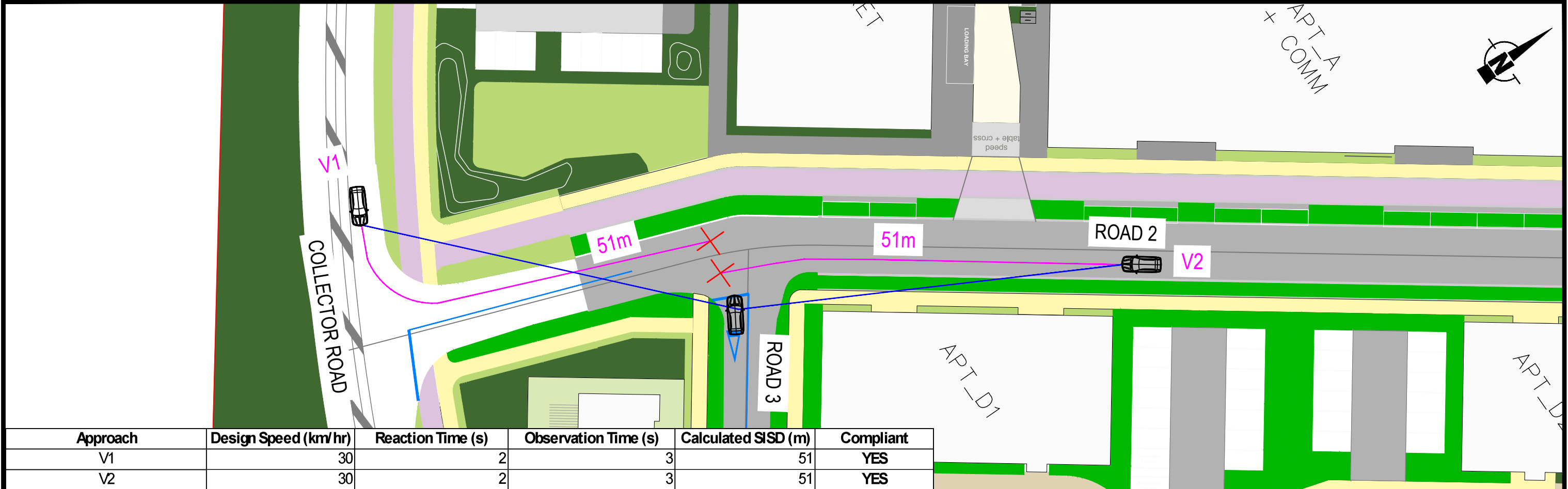
REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT RUBBISH TRUCK TRACKING WITH JOALS	SHEET: 06 of 08
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION		
			SCALE: 0 16m		LOCATION: 1350 DAIRY FLAT HIGHWAY		
			1:400 @ A3		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-004	REV: A

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Approach		Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SSD (m)	Compliant
V1		70	2	3	151	YES
V2		70	2	3	151	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)		0	

REV	AMENDMENT	DATE OF ISSUE	DESIGN: ET	DRAWN: RG	CLIENT: AW HOLDNGS LTD PROJECT: AUCKLAND SURF PARK STAGE 2 FAST TRACK APPLICATION LOCATION: 1350 DAIRY FLAT HIGHWAY	SHEET TITLE: SOUTH NEIGHBOURHOOD PRECINCT SAFE INTERSECTION SIGHT DISTANCE	SHEET: 07 of 08	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026				
			SCALE:  32m		FOR RESOURCE CONSENT	DRAWING NUMBER: INOV002-004	REV: A	
			1:800 @ A3					





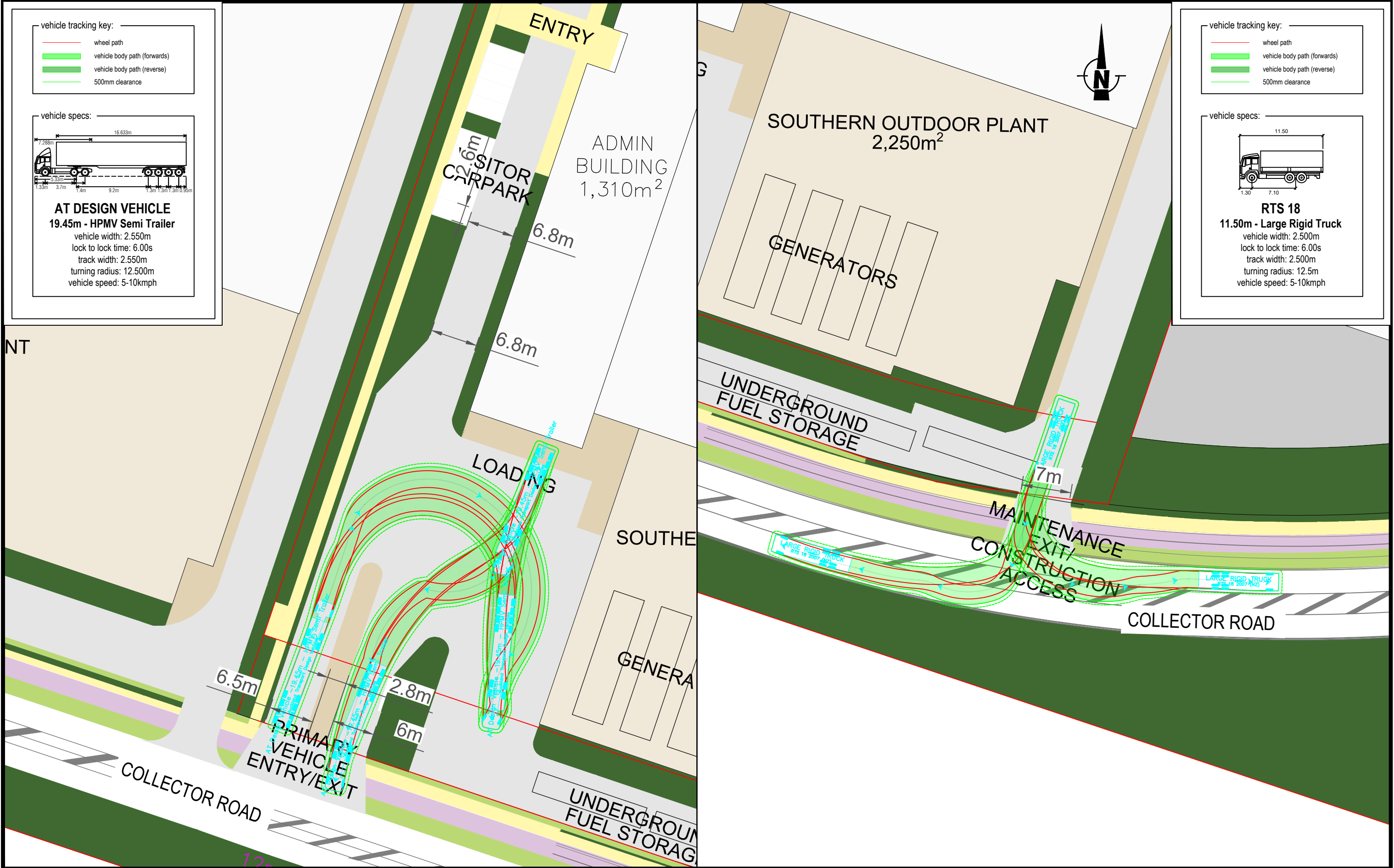
APPENDIX H

Data Centres

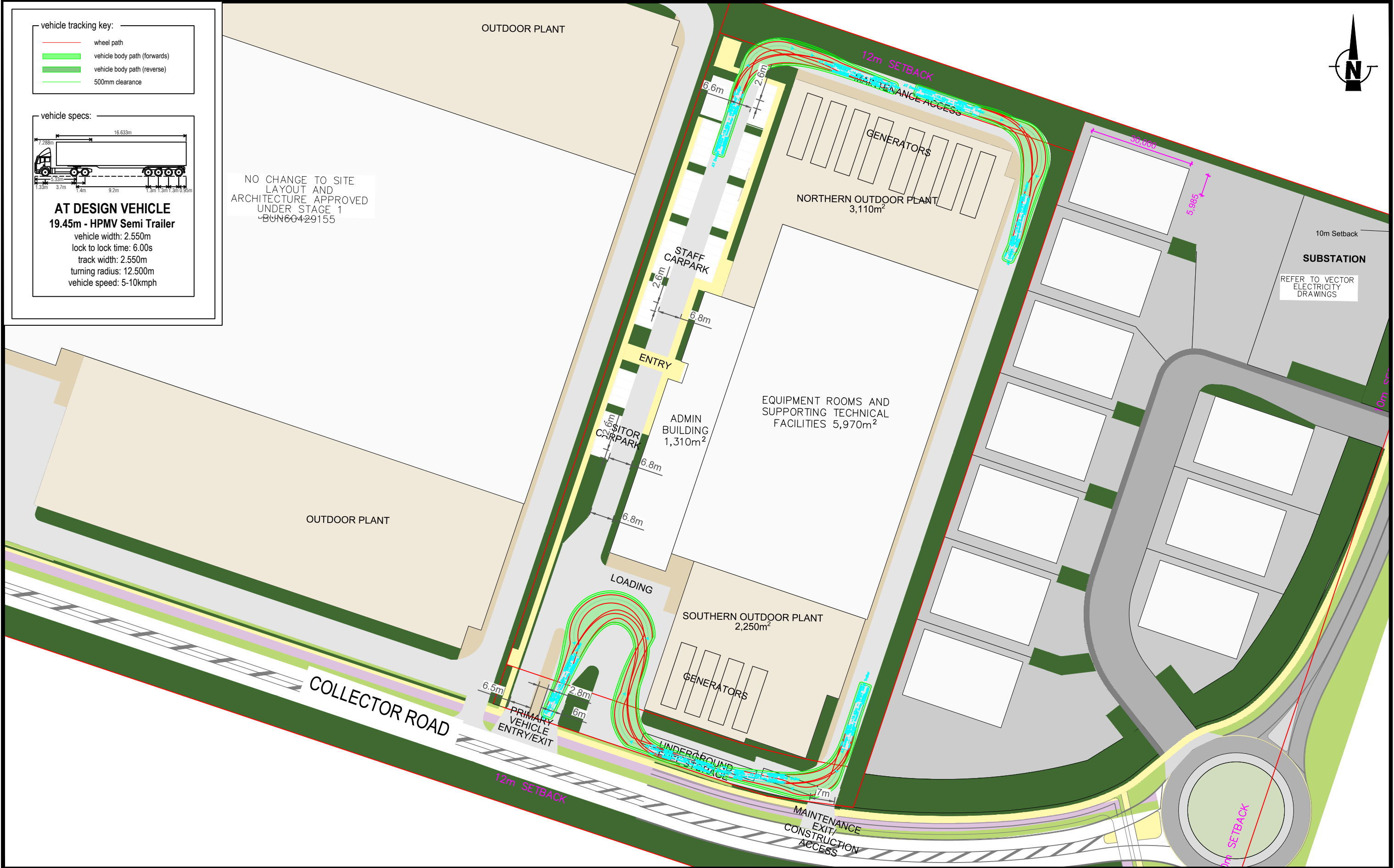




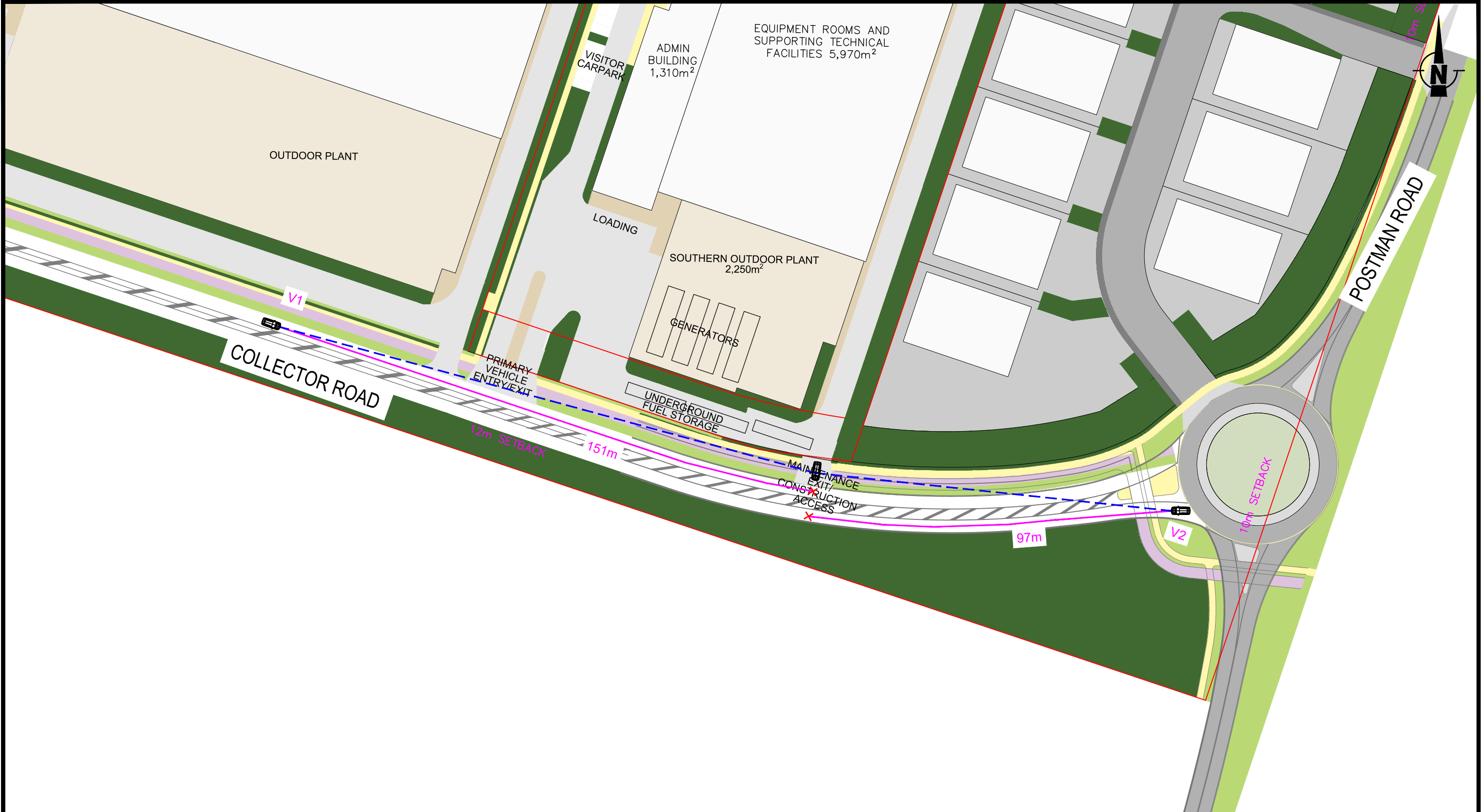
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A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 20m 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INVO002-006	REV: A	
					FOR RESOURCE CONSENT			



REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: DATA CENTRE PRECINCT DATA CENTRE STAGE 2	SHEET: 02 of 05	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.co.nz
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 20m 1:500 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INVO002-006	REV: A	
					FOR RESOURCE CONSENT			

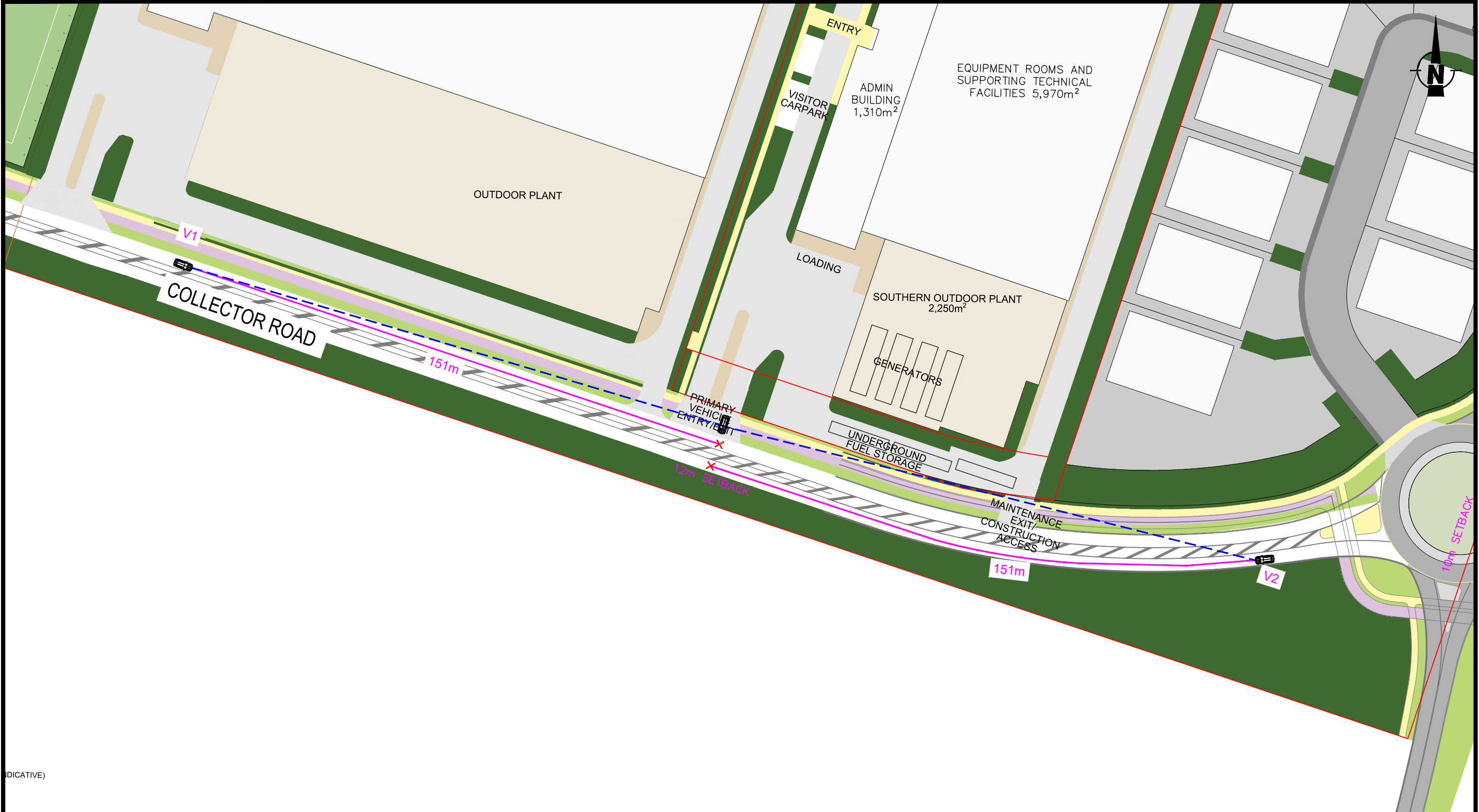


REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: DATA CENTRE PRECINCT DATA CENTRE STAGE 2 - CIRCULATION	SHEET: 03 of 05	flow TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		REV: A	
			SCALE: 0 40m 1:1000 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY	DRAWING NUMBER: INVO002-006		
					FOR RESOURCE CONSENT			



Approach		Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SISD (m)	Compliant
V1		70	2	3	151	YES
V2		50	2	3	97	YES
Coefficient of deceleration (d)		0.362	Longitudinal grade (a)	0		

REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: DATA CENTRE PRECINCT SAFE INTERSECTION SIGHT DISTANCE (SISD)	SHEET: 04 of 05	 TRANSPORTATION SPECIALISTS Level 1, 11 Blake Street, Ponsonby, Auckland PO Box 47497 Ponsonby p 09 970 3820 f 09 970 3890 www.flownz.com
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			 1:1000 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-006	REV: A	



INDICATIVE)

Approach	Design Speed (km/hr)	Reaction Time (s)	Observation Time (s)	Calculated SISD (m)	Compliant
V1	70	2	3	151	YES
V2	70	2	3	151	YES
Coefficient of deceleration (d)	0.362	Longitudinal grade (a)	0		

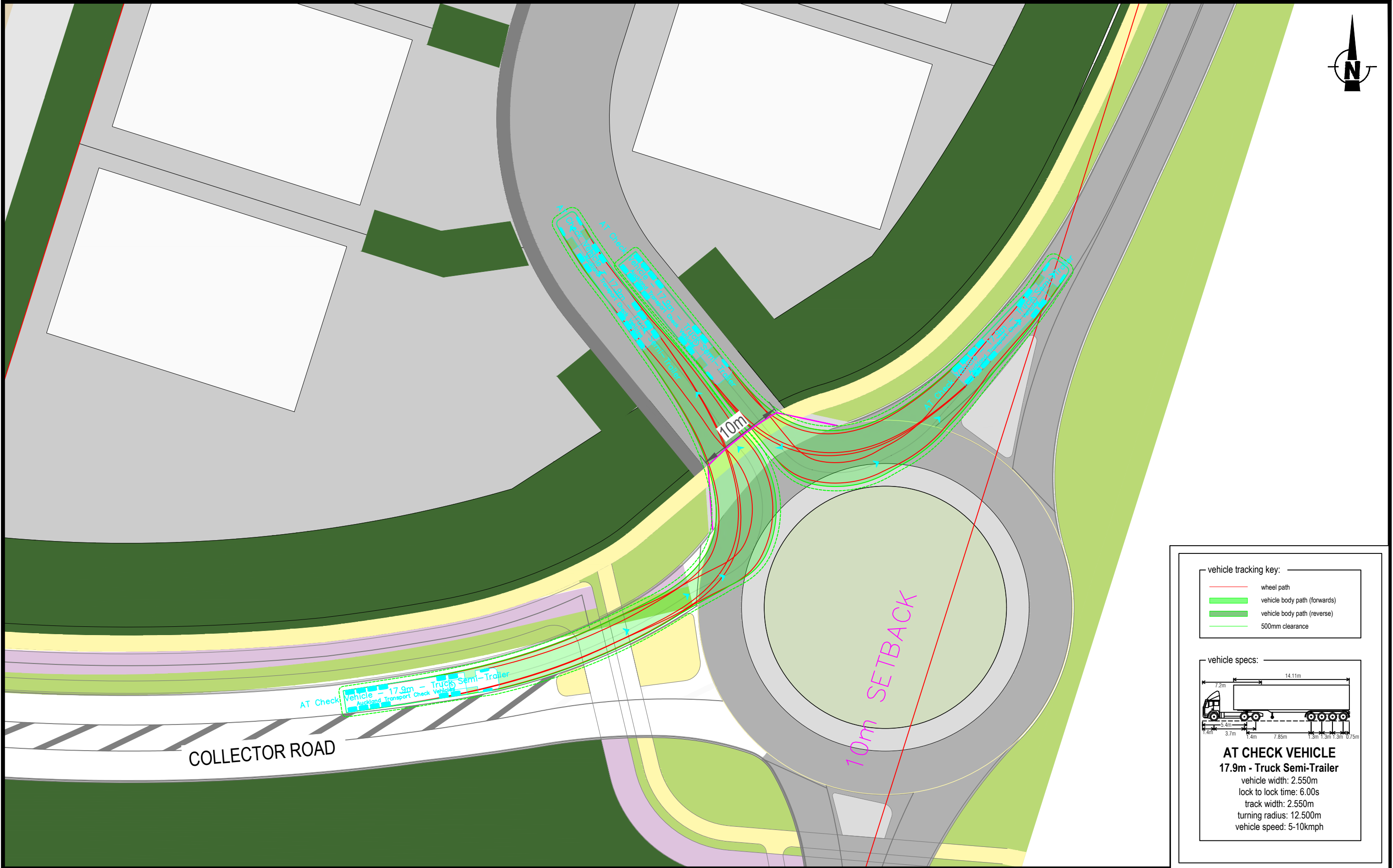
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A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION			
			SCALE: 0 40m 1:1000 @ A3		LOCATION: 1350 DAIRY FLAT HIGHWAY			
					FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-006	REV: A	



APPENDIX I

Surf Industry Precinct





vehicle tracking key:

- wheel path
- vehicle body path (forwards)
- vehicle body path (reverse)
- 500mm clearance

vehicle specs:

AT CHECK VEHICLE
17.9m - Truck Semi-Trailer
vehicle width: 2.550m
lock to lock time: 6.00s
track width: 2.550m
turning radius: 12.500m
vehicle speed: 5-10kmph

REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026

SCALE: 0 16m

1:400 @ A3

CLIENT: AW HOLDINGS LTD

PROJECT: AUCKLAND SURF PARK - STAGE 2
FAST TRACK APPLICATION

LOCATION: 1350 DAIRY FLAT HIGHWAY

FOR RESOURCE CONSENT

SHEET TITLE:

SURF INDUSTRY PRECINCT
POSTMAN ROAD ROUNDABOUT

DRAWING NUMBER:

INVO002-005

SHEET:

01 of 04

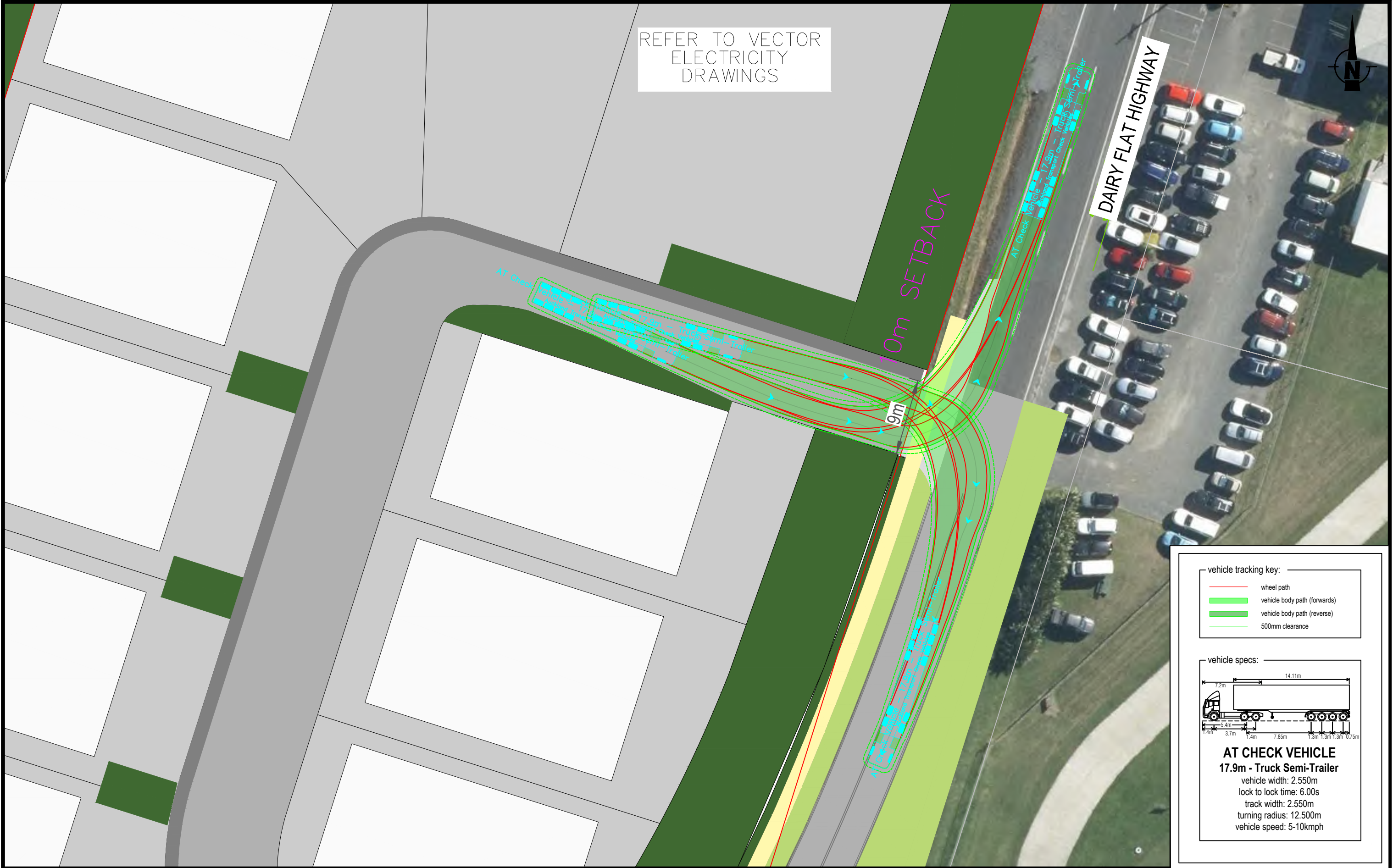
REV:

A

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REV	AMENDMENT	DATE OF ISSUE	DESIGN: RG	DRAWN: RG	CLIENT: AW HOLDINGS LTD	SHEET TITLE: SURF INDUSTRY PRECINCT POSTMAN ROAD VEHICLE CROSSING	SHEET: 02 of 04
A	First Issue	09/02/2026	CHECKED: ET/NH	DATE: 09/02/2026	PROJECT: AUCKLAND SURF PARK - STAGE 2 FAST TRACK APPLICATION		
					LOCATION: 1350 DAIRY FLAT HIGHWAY		
					FOR RESOURCE CONSENT	DRAWING NUMBER: INVO002-005	REV: A

SCALE: 0 16m

1:400 @ A3

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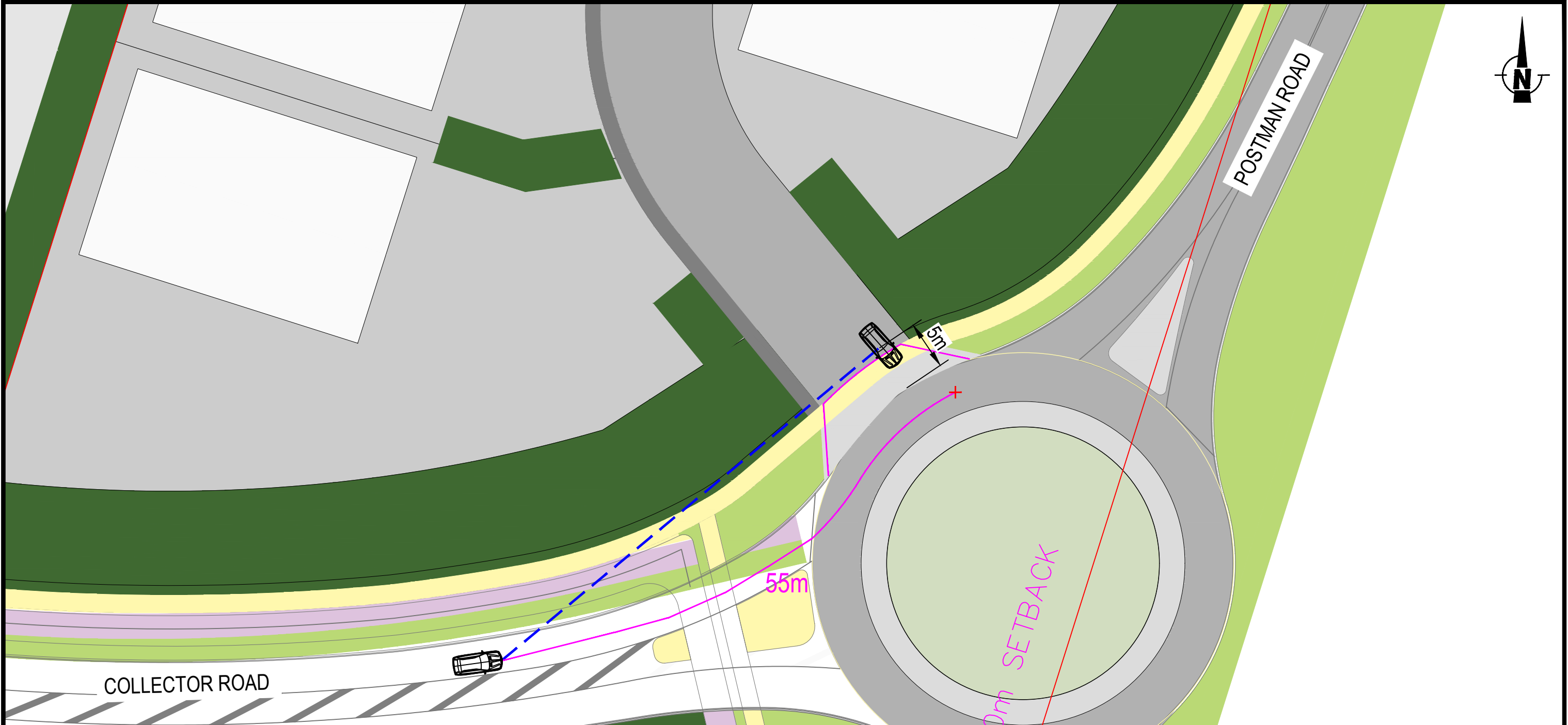
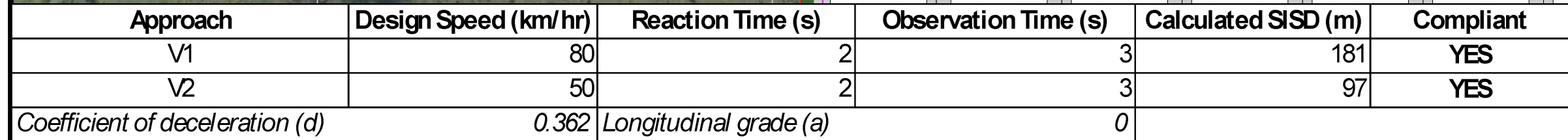


Table 3.1: Criterion 2 sight distances			
85th percentile speed (km/h) on the approach immediately to the right, or on the circulating roadway	Criterion 2 sight distance (m)		
	Local residential street roundabout critical acceptance gap 4 sec	Arterial road roundabout critical acceptance gap 5 sec	
20	22	28	
30	33	42	
40	44	56	
50	55	70	
60	67	84	



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