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05 February 2025

Ref: 1031

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Dear Mark

# Maitahi Village Project – 7 Ralphine Way – Kākā Valley Integrated Transportation Assessment (ITA)

### 1. Introduction

This ITA has included a review of the site and development plans, assessment of the planning framework and an assessment of effects which is provided below. This assessment forms part of the resource consent application for the project outlined above. The report sets out and describes the following:

- The existing transport environment in the vicinity of the site
- The development proposal
- Assessment of the development against the provisions of the Nelson Resource Management Plan (NRMP), and
- An assessment of the network effects from the proposed development.

The assessment provided below provides an analysis of the matters as set out above.

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### 3. Background

The development site was recently rezoned under PPC28, with the specific provisions now being an operative part of the NRMP.

As part of that First Schedule process a set of special rules and standards were incorporated into the NRMP under Schedule X of the NRMP. These rules and standards include apply within the scheduled site and also require off site works to address transport constraints in order to qualify as a restricted discretionary. An analysis of these requirements is provided within this assessment.

### 4. Site Location and Description

The site of this project is located at 7 Ralphine Way in the Maitai Valley which is very close to Nelson City.

Figure 1 shows the location of this project.



Figure 1: Site Location. (Source Top of the South Maps)

The development is located in Kākā Valley with access to the wider road network from Ralphine Way, Maitai Valley Road, Maitai Road and Nile Street East. The site consists of a flat valley floor with relatively steep sided slopes to the east and west. As the site climbs to the north, the land also becomes relatively steep. The Maitai River is located to the south of the site.

The land is currently used for grazing cattle and is typical of a rural farm. The Kākā Stream runs to the south along the valley floor and connects with the Maitai River.

The site is around 2.5 kilometres from the centre of Nelson which provides goods, services and employment opportunities. Recreation areas are also close by with the Maitai Valley sports grounds, mountain bike areas up the valley, a golf course and swimming holes.

### 5. Transport Environment

This section provides information about the existing road network. As noted above the development site provides a number of transport options to access the wider community which includes the following:

- Vehicular access from Ralphine Way, Maitai Valley Road, Maitai Road and Nile Street East
- Cycle access via Maitai Valley Road, Maitai Road and Nile Street East
- Walking access via Maitai Valley Road, Maitai Road and Nile Street East

These various transport routes are discussed in more detail below.

In accordance with the urban road hierarchy identified in the NRMP, the roads will functionally change from a "Local Road" to a "Sub Collector" from Nile Street East to Bay View Road.

## 5.1 Ralphine Way

Ralphine Way is a short cul de sac which is around 170 metres long that provides access to the development site and seven rural-residential homes/properties.

Figure 2 shows the road layout of Ralphine Way.



### Figure 2: Ralphine Way

The road is around nine metres wide and has kerb and channel along both sides of the road. There are no footpaths along the road which is sealed. Currently no vehicles park on Ralphine Way with existing homes having ample off-street parking.

The intersection of Ralphine Way and Maitai Valley Road is uncontrolled with Maitai Valley Road having the vehicle priority due to the nature of the intersection layout. Motorists exiting Ralphine Way have excellent sight lines when vegetation is maintained on the road reserve in both directions.

The formation width of Ralphine Way is much wider than would be required to serve the number of homes it currently provides for. Ralphine Way was constructed with future growth in mind. Its current width of nine metres is consistent with the requirements for a local residential road and a sub collector as set out in the NTLDM.

# 5.2 Maitai Road

Maitai Road has a posted speed limit of 50 km/h even though it is rural in nature with no development along its edges. Typically, this road type would have an 80 or 100km/h speed

limit, but it is assumed that it has the lower speed limit because it sits within the urban area of Nelson City and the recreational activities along its length.

The road itself varies noticeably along its length with narrow sections with no shoulders to wide portions of road with a flush median.

Figure 3 shows the first section of Maitai Road.



#### Figure 3: First Section of Maitai Road

As shown the first section of Maitai Road is narrow and is constrained by the Maitai River on one side and a steep bluff on the other.

There is a kerb and channel on the northern side of the road along with a footpath. The image also shows the rock barrier on the northern side of the road.

Council has recently completed remedial work to the road edge on the river side of the road.

Figure 4 shows the road layout along the middle section of Maitai Road.



#### Figure 4: Middle Section of Maitai Road

The middle section of Maitai Road is around 10 metres wide with a painted flush median along its length. There is no kerb and channel or footpaths along this section of road. Edge lines are also provided with heavy bollards along the edge of the road. A number of these treatments would appear to be an attempt to reduce the speed along this section of road. The police regularly enforce the speed along this section of road.

Figure 5 shows the road environment at Jickells Bridge.



#### Figure 5: Maitai Valley Road at Jickells Bridge

The road narrows as it comes to Jickells Bridge where the flush median is replaced with a dashed centreline and no edge lines. The width of the road is around seven metres between kerbs with 1.2 metre wide footpaths along both sides.

Figure 6 shows Maitai Valley Road as it approaches Gibbs Bridge.

Maitai Valley Road at Gibbs Road (one lane bridge) narrows further and has a width of around 7.5 metres. The width of the bridge is around 3.7 metres with an area that is used as a footpath on the southern side and is less than one metre wide.





#### Figure 6: Maitai Valley Road at Gibbs Bridge

Vehicles approaching Gibbs Bridge are provided with good forward sight distances that allow opposing traffic to react and stop should the need arise. The bridge does reduce the operating speed at this location due to the need to give way to opposing traffic.

Moving further along Maitai Valley Road, past Ralphine Way, the route becomes slightly narrower in some places with more horizontal curves.

#### 5.3 Nile Street East

Nile Street East is listed as a Collector Road in the Nelson Resource Management Plan. Its main function is to provide for vehicle movements with its secondary purpose being for property access.

Figure 7 shows the road environment along Nile Street East.



Figure 7: Nile Street East

Nile Street East is a straight, flat road with two lanes, one lane in each direction with parking lanes along both sides of the road. There are footpaths/cycleways along both sides of the road which are separated by a wide grass berm. Nile Street East varies in width from around nine metres to 17 metres. There is kerb and channel along most of its length.

The intersections along Nile Street East have excellent sight distances and motorists are provided with a relatively safe environment. The sight lines at its intersection with Maitai Road are restricted.

Immediately east of the intersection of Nile Street East and Maitai Road is a one lane bridge providing access to residential properties to the east and up into the hills.

### 5.4 Maitai Road/Nile Street East Intersection

Figure 8 shows the intersection of Nile Street East and Maitai Road.



#### Figure 8: Nile Street East/Maitai Road Intersection

As shown the one lane bridge has been set up to provide priority to vehicles travelling east along Nile Street East. The sight distance along Nile Street East is sufficient for vehicles approaching along this road to see across the one lane bridge.

Figure 9 shows the Maitai Road approach to its intersection with Nile Street East.



Figure 9: Maitai Road approach to Nile Street East.

Maitai Road is controlled by give way signs requiring vehicles to give way to traffic moving along Nile Street East. There is guardrail on the approaches to the intersection along with a chevron board to highlight the intersection. The guidance provided to motorists approaching the intersection is excellent, allowing drivers to easily identify the intersection and its controls.

Figure 10 shows the sight distance for vehicles exiting Maitai Road to the west.



Figure 10: Maitai Road Sight Distances to the West

As shown the sight distance to the west towards Nelson City is excellent, even with angled parked vehicles on the approach.

Figure 11 shows the sight distance to the east from the intersection.





#### Figure 11: Maitai Road Sight Distances to the East

As shown, the sight distances to the east are obstructed by the handrail structure associated with the one lane bridge. The sight distance for motorists coming from the east along Nile Street East (across the bridge) is also limited. These limitations in the sight distance create a potential safety hazard.

#### 5.5 Walk/Cycle Connections

The site is located close to the central area of Nelson with Nile Street East having excellent walking and cycling connections.

As noted above the development site is located very close to central Nelson which is around a 30-minute walk and a five-minute bike ride.

Figure 12 shows the existing walking and cycling paths near the development site.

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Figure 12: Existing cycle and walking paths.

As shown, there are a number of facilities provided near the site and the development will be connected to these existing facilities with a new shared path. The Maitai River path (in purple) is on the southern side of the Maitai River. Botanical Hill, Centre of New Zealand and wider recreational areas are also accessible by walking and cycling.

Nile Street East has shared paths along both sides of the carriageway that are separated from the traffic lanes. From Nile Street there are a number of different routes that pedestrians and cyclists can use to access the central area.

### 5.6 Planned Upgrades and Shared- Pathway

As set out in Schedule X of the NRMP a number of specific projects are required to be completed before titles can be issued for the new development. These works are already progressing with preliminary designs completed for the shared path, traffic signals and changes to the intersection of Ralphine Way and Maitai Valley Road intersection. These improvements are part of a separate resource consent for works within the road reserve and are not on the subject site.

The ITA assesses the effects within the development on the understanding that the off-site works have been completed as required by Schedule X of the NRMP and dealt with in the separate consent process.

# 6. Traffic Flows

## 6.1 General

This section provides traffic count data for the key roads that will service the development site. The traffic count information has been obtained from Mobile Road software.

## 6.2 Ralphine Way

The traffic flows on Ralphine Way at its intersection with Maitai Valley Road are estimated to be 80 vehicles per day. The posted speed limit is 50 km/h with the operating speed estimated to be around 40 km/h.

## 6.3 Maitai Road and Maitai Valley Road

The traffic flows were recorded on Maitai Valley Road, just east of Jickells Bridge in April 2024. The count data showed daily flows of around 1700 vehicles (April 2024) and peak hourly flows of around 150 vehicles. It should be noted that Maitai Valley Road has high seasonal variations and high weekend flows due to a number of recreational activities in this area. Therefore, the traffic flows are expected to be higher than the volumes recorded in April 2024.

Speed data was also collected which showed that the 85th percentile speed was around 64 km/h which is 14 km/h above the posted speed limit of 50 km/h. Westbound traffic was travelling slightly slower than eastbound traffic.

## 6.4 Nile Road East

Traffic count data has been provided by Nelson City Council for traffic movements and speeds along Nile Street East and Maitai Valley Road.

The traffic flows were recorded on Nile Street East, east of its intersection with Tory Street in April 2024. The count data showed daily flows of around 2,400 vehicles per day and around 230 vehicles in the peak hour.

Speed data was also collected which showed the 85th percentile speed to be around 54 km/h. Vehicles were travelling slightly faster in the westbound direction compared with the eastbound traffic.

## 6.5 Nile Street East/Maitai Road Intersection

Turning surveys were carried out at the intersection of Nile Street East and Maitai Road on 9 March 2024 (Saturday midday) and 15 March 2024 (Tuesday AM and PM). The turning surveys recorded vehicle, pedestrian and cycle movements for each of the time periods.

**Table 1** provides the vehicle turning counts at the intersection of Maitai Road and Nile StreetEast.

		AM Peak (8:00 to 9:00)	PM Peak (16:00 to 17:00)	Saturday (10:15 to 11:15)
Nile Street Fast	L	41	94	103
Mie Street Lust	т	21	47	26
Nile Street Fast	т	57	36	41
	R	3	3	2
Maitai Boad	L	1	1	0
Matar Houd	R	31	88	44

Table 1: Turning Counts at Maitai Road and Nile Street East

As shown, the majority of movements are in and out of Maitai Road having origin/destinations towards the city centre. The straight through movements on Nile Street East are around half the flows that were recorded using Maitai Road.

The left turn movements out of Maitai Road and the right turn movements out of Nile Street East were mostly zero with only the very infrequent vehicle making these turns.

The majority of cycle movements were left turn into Maitai Road and right turn out of Maitai Road. There were also a number of cyclists using Nile Street East in the straight through direction. Most of the pedestrian movements were straight through movements on Nile Street East with some pedestrians going right from Nile Street East into Maitai Road.

Only small queues were observed for the right turn out of Maitai Road and using the one lane bridge. Generally, the intersection was free flowing.

Overall, the flows align well with traffic count data which shows the road carries relatively modest flows.

# 7. Crash History

This section provides details of the crash history for the key roads related to the proposed subdivision. The search has included the roads that can be used by pedestrians and cyclists. A detailed search of the New Zealand Transport Agency crash database was carried out for the five-year period from 2019 to 2023. The part year of 2024 was also reviewed and considered as part of the crash analysis. The roads that were included: Ralphine Way, part of Maitai Valley Road (for shared path), Maitai Road and Nile Street East.

The crash history for these roads is provided below.

Table 2 provides the details of the reported crashes,

Road	Location	TCR Reference	Collision Date	Accident Description	Severity
Maitai Road	Carpark 250 metres from Nile Street East.	2022215375	08/03/2022	A driver has passed out in the car park and hit a tree.	Minor
	450 metres east of Nile Street East.	201988596	30/12/2019	Car westbound lost control and veered off the road and hit bollard.	Non-injury
	550 metres east of Nile Street East.	2024277241	05/01/2024	Car westbound lost control and veered off the road into bollards. Medical event.	Minor
	620 metres east of Nile Street East.	2022222968	20/05/2022	Driver has fallen asleep heading east on Maitai Road and collided with bollards.	Non-injury
Maitai Valley Road	230 metres west of Ralphine Way.	2021178649	12/02/2021	Driver has lost control of their vehicle heading west on Maitai Valley Road and hit a bank.	Minor
	At Gibbs Bridge.	2021196384	01/08/2021	A vehicle was driving at high speed and the driver has lost control when crossing Gibbs Bridge. Driver heavily intoxicated.	Non-injury
	110 metres west of Ralphine Way.	2021200143	13/09/2021	A cyclist riding west on the road has been clipped by a passing vehicle. Driver did not stop.	Minor
Nile Street East	10 metres east of Maitai Road.	2023263821	03/08/2023	Car heading east on Nile Street East has lost control and collided into the one lane bridge. Driver was intoxicated.	Non-injury
	40 metres west of Maitai Road.	2023267870	11/09/2023	A motorcyclist heading west on Nile Street East has collided with a parked car and then a tree. Driver was intoxicated.	Minor
	Outside 193 Nile Street East.	2020185145	30/09/2020	A vehicle has collided with a parked car.	Non-injury

Table 2: Reported Crashes 2019 to 2024 (Source: NZ Transport Agency)

There are ten reported crashes on the roads within the search criteria. Three of the reported crashes involved intoxicated drivers and three crashes were medical events.

The reported crashes show no inherent deficiencies in the road network.

### 8. The Maitahi Village Project

### 8.1 General

There are three key components to this project:

1. The proposed subdivision involves the creation of 184 residential allotments (including one large lot for future development), one allotment for commercial use, along with roads to vest, reserve to vest, and also allotments to vest for utility / infrastructure purposes. The balance land (zoned rural) containing Kākā Hill will remain in one large title at the end of the subdivision and development process.

It should be noted that two of the 184 residential lots will be created for Arvida. Leaving 182 lots for general residential development.

- 2. Two of the allotments to be created are to be sold to Arvida for the development of a retirement village containing **192** residential units, a care facility containing **36** beds, and the full range of communal facilities such as a Residents Clubhouse and Pavillion.
- Development of the commercial site for the cultural base for Ngati Koāta (Te Whare or Koāta), containing offices, meeting rooms, function and event spaces, and a commercial kitchen.

**Figure 13** shows the overall subdivision plan for this project. Note that larger scale and more detailed plans are provided in the consent application.



Figure 13: Maitahi Village subdivision. (Source: Davis Ogilvie Drawing 351 – Issue E)

The numbers on the plan above indicate the proposed staging of the subdivision, with Arvida (Labelled 1 and 2) also having its own internal construction staging.

As shown the development involves a new sub-collector road from Ralphine Way up into the valley. This new sub-collector road has been designed to eventually extend up to the ridgeline and connect eventually with Bayview Road and Walters Buff Road. This subdivision will provide 184 new residential lots accessed by a several new connecting roads. The Arvida Village (retirement and care facility) is located within Stages 1 and 2, with the commercial development for Ngati Koāta within the land to be created in Stage 5.

The development includes large open space areas and a large balance lot (labelled 11).

### 8.2 Road Design

The road layout and design involve new roads to a residential standard. The road requirements are generally covered by the NTLDM and Schedule X.



Figure 14 shows the road layout.

Figure 14: Proposed development. (Source: Davis Ogilvie Drawing C400 – Issue P5)

As shown, there is a main spine road (Road 1) that extends from Ralphine Way. Road 1 will eventually extend up to the ridgeline, Walters Bluff and the Bay View Road. This first section of road forms part of the proposed Sub-Collector route identified in the NRMP.

Due to the project being within Kākā Valley and the adjacent topography, all of the other roads will essentially be cul de sacs except Road 2. Road 3 will be extended as it provides access to the upper valley floor and the future lots in this area. All other roads as shown are short cul de sacs. The layout is generally consistent with the Maitahi Bayview Structure Plan provided within Schedule X of the NRMP.



**Figure 15** shows the three typical cross sections of the road types within the development. Larger scale plans are provided within the consent application.





#### Figure 15: Typical Road Cross sections. (Source: Davis Ogilvie Dwg c412 Rev P5)

As shown above there are three typical road cross sections. The 20-metre-wide road forms the proposed sub collector route (Road 1) and main spine road for the development. The layout of this road type exceeds the dimensional provisions of the NTLDM.

Road	NTLDM Requirements	Proposed Road	Compliance
Road 1 Sub collector	A 5600mm wide sealed moving lane	A 9200mm wide sealed moving lane.	Complies
	One car park per two dwellings	Provided above within the carriageway.	Complies
	Berm - Min 0.3m, Max 6.0m Area ≥ 3.0m2 /lm averaged over 50m or 2 x 1.5. Note:	Berm is 2100mm on each side of the carriageway.	Complies
	Footpaths - 2 x 1.5	One 1.5 wide footpath and one 3.0 metre shared are provided.	Complies
	Service Berms- 2 x 1.6 Note: The 'Service Strip' may be reduced to 0.5m where there is sufficient space to locate services under the footpath	The service berm is 850mm wide on both sides of the road.	Complies when added with Berm

Table 3 provides an assessment of the proposed roads against the NTLDM requirements.

	without precluding the introduction of street trees		
	A legal road reserve width of 19 metres.	The legal width is 20 metres.	Complies
Road 2 and 11 Residential	A 5500mm wide sealed moving lane	A 7500mm wide sealed moving lane.	Complies
Over 20 lots	One car park per two dwellings	Provided above in carriageway	Complies
	Berm - Min 0.3m, Max 6.0m Area ≥ 3.0m2 /lm averaged over 50m or 2 x 1.5	Berm is 1500mm wide on both sides of the carriageway.	Complies
	Footpaths - 2 x 1.5 Note: In 'Hillside Environments' on unclassified roads in Nelson the berm and footpath may be excluded from the uphill side of the road.	A 1500mm wide footpath is provided on one side of the carriageway.	Complies
	Service Berms- 2 x 1.6 Note: The 'Service Strip' may be reduced to 0.5m where there is sufficient space to locate services under the footpath without precluding the introduction of street trees	1 x 1000mm wide service strip on one side of the carriageway. The Berm is wider than .6mm and would be used as a service strip.	Complies
	A legal road reserve width of 19 metres.	The legal road is 13.0 metres wide.	Does not comply
Road 3 Local Road	A 5500mm wide sealed moving lane	A 7500mm wide sealed moving lane.	Complies
	One car park per two dwellings	Provided above in carriageway	Complies
	Berm - Min 0.3m, Max 6.om Area ≥ 3.0m2 /lm	Berm is 1500mm wide on one side and 1000mm	Complies

	averaged over 50m or 2 x 1.5	wide on the other side of the carriageway.	
	Footpaths - 2 x 1.5	A 1500mm wide footpath is provided on both sides of the carriageway.	Complies
	Service Berms- 2 x 1.6 Note: The 'Service Strip' may be reduced to 0.5m where there is sufficient space to locate services under the footpath without precluding the introduction of street trees	2 x 500mm wide service strip is provided on both sides of carriageway. The Berm is wider than .6mm and would be used as a service strip.	Complies
	A legal road reserve width of 19 metres.	The legal road is 14.0 metres wide.	Does not comply
Roads 4 through to 10	A 5500mm wide sealed moving lane	A 7500mm wide sealed moving lane.	Complies
Residential Less than 20 lots	One car park per two dwellings	Provided above in carriageway	Complies
	Berm - Min 0.3m, Max 6.0m Area ≥ 3.0m2 /lm averaged over 50m or 2 x 1.5	Berm is 1500mm wide on both sides of the carriageway.	Complies
	Footpaths - 1 x 1.5	A 1500mm wide footpath is provided on one side of the carriageway.	Complies
	Service Berms- 2 x 1.6 Note: The 'Service Strip' may be reduced to 0.5m where there is sufficient space to locate services under the footpath without precluding the introduction of street trees	1 x 1000mm wide service strip on one side of the carriageway. The Berm is wider than .6mm and would be used as a service strip.	Complies
	A legal road reserve width of 13 metres.	The legal road is 13.0 metres wide.	Complies

Table 3: Roads Compliance Table.

As shown the proposed roads generally meet the requirements of the NTLDM except for the legal road widths for Roads 2, 3 and 11. All other provisions are meet. An assessment of the reduced legal is provided later in this report.

## 8.3 Cycle and Walk Connections

As part of the development, it is proposed to enhance the connections that this site has with the wider existing network. These were proposed by the applicant as part of the wider objectives of achieving a more sustainable transport choice for future residents.

As noted above the site is ideally placed to take advantage of walking and cycling to the central area of Nelson.

## 8.4 Nile Street East and Maitai Road Intersection

The intersection of Nile Street East and Maitai Road was identified as having an existing safety deficiency as a result of limited sight lines due to the one lane bridge.

The existing deficiency along with the increased use of the intersection will require an improvement to the junction to make it safe for its increased use. An assessment is provided later in this report.

## 9. Arvida Maitahi Village

As noted above the development includes a retirement village and care facility which will be located on the southern side of Road 1 and have access from Road 1 at its eastern and western ends. The Village is separated into two parts being on the eastern and western side of Kākā Stream.

The Village will have 192 units with each dwelling having at least one on-site parking space. The 36 bed Care Facility (Number 7) and Community Centre (Number 3) are located within the eastern part of the Village.

**Figure 16** shows the overall Village layout along with its access points. Larger scale plans are provided in the consent application.



Figure 16: Arvida Maitahi Village. (Source: Davis Ogilvie)

The access for the eastern Village is via a new roundabout which is also close to the care facility that will be on the site. There are also 24 units (number 11) along Road 1 which will have access directly from the Unclassified Road. There will be ten shared vehicle crossings for the eastern side of the Village.

The western Village will have a main centralised access point for all the units with four townhouses having direct access to Road 1 via two shared crossings.

The total number of vehicle crossings for the Village site is 16 along with the leg off the proposed roundabout.

## 10. Commercial Development Hub (Koāta House)

As noted above it is proposed to construct a building to be known as Koāta House. The building will consist of meeting rooms, administration areas and two auditoriums.

There will be 18 permanent car parks around a circle with at least 27 overflow car parks. The servicing vehicles use the permanent parking area for the pick-up and drop off of goods.

Figure 17 shows the proposed Koāta House.



Figure 17: Koāta House. (Waka Group Architecture)

As shown access is from Road 2 with the nearby intersection of Road 1, Road 2 and Road 3 being formed as a tee junction. The internal car park layout easily meets the accepted parking standards.

### 11. Planning Framework

This section provides information relating to the Nelson Resource Management Plan (NRMP).

#### 11.1 General

This analysis is an assessment of the design of the development roading and traffic matters and its compliance with the requirements of the Nelson Resource Management Plan (NRMP), Schedule X and the Nelson Tasman Land Development Manual (NTLDM).

It is important to note that the design and layout of the development has been commissioned and carried out by Davis Ogilvie.

Traffic Concepts has been independently commissioned to consider the transportation matters and assess the potential positive and adverse effects on the wider road network. The analysis includes an assessment and evaluation of any non-compliances with the NRMP for the internal roads and other traffic related requirements.

Traffic Concepts has been also commissioned to complete a Road Safety Audit of the preliminary design for the development as the auditor has not been involved in the design of the development.

Separately Traffic Concepts has been involved in the design and analysis of the off-site mitigation works as required by Schedule X. A Road Safety Audit of the off-site works has been undertaken by independent auditors which will include cycle facilities and the signalisation of the Nile Street East and Maitai Road intersection.

There are various sections in the NRMP that provide policy direction and standards for development. The parts relevant to transportation matters are found in various sections of the NRMP and include AD11.3.3, AD11.3.10, AD11.4D, RI10, RI14A, RI14B, RI15, DO10, DO13A, DO14.3.

The various sections generally have the same overarching theme which is clearly set out in DO10 of the NRMP which states "A land transport system that is safe, efficient, integrated and context responsive, and that meets the needs of Nelson in ways that are environmentally, socially and economically sustainable."

The NRMP seeks to provide a safe and efficient transport network that also provides sustainable transport modes such as pedestrian, cyclists and public transport. The development of this land such as proposed was able to meet the transportation related policies and objectives of the NRMP. This was confirmed by the PC28 process and the inclusion of Schedule X in the NRMP to mitigate effects.

The development parking, loading and access provisions are provided within Appendix 10 to 12 of the NRMP. These standards provide details of the parking, loading and site access requirements for developments. The NRMP also has cross references to the Nelson Tasman Land Development Manual (NTLDM).

The proposed development has four distinct parts. One part is the subdivision which will provide roads and paths for new dwellings, secondly a retirement village, the commercial space for iwi and lastly the open space.

The roads within the subdivision will be vested in Council and have been designed in general accordance with the NRMP and Schedule X. Due to the topography some of the roading to be vested does not meet the NTLDM provisions with regard to legal road width. However dimensionally they are still able to function as a road and provide a safe and convenient environment for the intended users.

The other part is the Arvida Village which will provide access and homes for the older part of the community population. There are no relevant standards or provisions for internal roading for these types of developments in the NRMP or NTLDM due to the number of dwellings. This part of the proposed development was assessed using AS/NZS 2890.1. The iwi commercial space will also be designed to AS/NZS 2890.1 for its parking and access.

An assessment of the parts of the development against the provisions of the NRMP is provided below. These parts are set out in the table below, along with discussion and compliance.

It should be noted that some of these requirements will typically be considered at the time of the Building Consent, as the subdivision does not generally have sufficient detail to assess these compliances. These requirements are post consent and relate to the construction of homes. The assessment reviews the preliminary design plans and identifies if compliance can be achieved based on the detail provided. The assessment is against the NRMP and NTLDM where relevant.

### 11.2 Schedule X

A set of specific requirements for the development of the site are contained within Schedule X of the NRMP.

### X.3 Subdivision – General (Residential Zone)

Subdivision is a restricted discretionary activity if:

- a. it is accompanied by the design and information requirements as detailed in AP14.2 in Appendix 14, as well as the Special Information Requirements set out within Rules X.11-X.16 of Schedule X;
- b. the required transport upgrades set out in X.9 Services Overlay Transport Constraints and Required Upgrades of Schedule X have been completed and are operational;
- c. it complies with all relevant standards in Appendices 10 to 12;
- d. it complies with the mandatory matters in the Nelson Tasman Land Development Manual 2020, except for:
  - i. The final gradient of the north-south spine road to be designed to ensure that where there is no practicable impediment, the road achieves as low a grade as possible within the southern hillside environment, being no steeper than 1:8 and with sections no steeper than 1:15 where bus stops are to be provided; and
  - ii. Off-road paths that serve a transport function to be constructed to a minimum 2500mm width and with grades no steeper than 1:20, and no steeper than 1:15 through the hillside environment. Where constraints are proven to prevent 1:15 grades being achieved, then sections no steeper than 1:12 will be required to be constructed to a minimum 3000mm width;

As noted, there are two exceptions against the NTLDM for the development which are noted in (d) above. The development is also required to meet the provisions set out in Appendices 10 and 11. Appendix 12 provide standards relating to tracking curves and are provided as part of the Engineering Approval Plans. **Table 4** provides the compliance assessment against the requirements of Schedule X.3 forthe internal subdivision.

Standard	Requirement	Proposal	Compliance
Schedule X.3.d (i)	The final gradient of the north-south spine road to be designed to ensure that where there is no practicable impediment, the road achieves as low a grade as possible within the southern hillside environment, being no steeper than 1:8 and with sections no steeper than 1:15 where bus stops are to be provided	The main spine road (Road 1) has been designed with the maximum grade being no more than 1 in 8. The grades are much less than 1 in 8 for most of its length with steeper grades occurring as the spine road climbs the hill towards the ridgeline.	Complies
Schedule X.3.d (ii)	Off-road paths that serve a transport function to be constructed to a minimum 2500mm width and with grades no steeper than 1:20, and no steeper than 1:15 through the hillside environment. Where constraints are proven to prevent 1:15 grades being achieved, then sections no steeper than 1:12 will be required to be constructed to a minimum 3000mm width;	The off-road path provided for Road 1 is 2500mm wide and meets the grade requirements for most of its length. Where the grade increases up to 1 in 12 the path has been widened to three metres. The upper section of Road 1 is at 1 in 8. It is not possible to meet the 1 in 12 grade requirements of PC28 due to the road being in a hillside environment.	Does not comply. The top 450 metre section of the off-road path on Road 1 will be at a grade of 1 in 8. It should be noted that if the path was on the road then the requirements would be met.

#### Table 4: Schedule X.3 Compliance Table

As shown the proposed development can meet the requirements set out in Schedule X except for the grade of the off-road path on the upper section of Road 1. The section of off-road path is from around 20 metres east of Road 9 to the end of Road 1 to the west. A total length of around 450 metres will be at 1 in 8.

Also, as part of Schedule X there is a requirement to mitigate off site effects which were set out in Schedule X.9 of the plan change.

Table 5 sets out the transport requirements of Schedule X.9. and how they are addressed.

X.9 Services Overlay – Transport Constraints and Required Upgrades				
Transport Upgrade	Construction or Improvements	Proposed Works	Comment	
The existing intersection of Nile Street and Maitai Road;	Upgrade intersection to address safety deficiency. These improvement works are likely to be Traffic Signals, but other options can be considered.	Traffic signals are proposed.	Assessment provided in this report	
The active mode connections from the PC28 Plan Change area to the city centre (Collingwood Street). There may be separate routes to provide for recreational users and commuters (includes work and education);	Construct a separated shared path from PC28 to Nile Street East (sic) and/or Hardy Street. The shared path must be at least 3000mm wide. There are a number of design options that will be considered as part of Stage 1 of the subdivision.	There is a three- metre shared path provided from the PC28 land to Nile Street East. There is one short section where the path narrows down to 2.0 metres due to road corridor constraints.	Separate Consent	
Gibbs Bridge walk / cycle provision;	Construct a shared cycle/walk bridge across the Maitahi/Maitahi River. Note that this upgrade may be replaced with alternative shared path access from PC28 that removes the need for this project.	Two new cycle/service bridges will be constructed across the Maitai River. The shared path will be 3.1 metres wide.	Separate Consent	
The intersection of Ralphine Way and Maitai Valley Road;	Improve sight lines, install intersection control and provide right turn bay for Ralphine Way	The proposed design will install give way signs, remove some vegetation and install a raised cycle/pedestrian crossing facility across Maitai Valley Road.	Separate Consent	

Table 5: Schedule X.9 Compliance Table.

The connection from Ralphine Way to the construction of a new road to Bay View or Walters Bluff will not be provided. The land that this road will be formed on is not part of the development site and is not owned by the applicant. The applicant has no control or ability to form this link. However, the applicant has provided a road to the boundary to enable this link to be formed in the future by the adjacent landowner. As part of preparing the design, consultation has been undertaken with Council representatives to explain the constraints and get approval in principle to reduce the width of the shared path. Positive feedback was given due to the particular constraint at this location.

As noted above there are different parts of the development that need to be assessed. For convenience these have been separated into the different components being the main subdivision, the retirement village (Arvida Maitahi) and the iwi commercial space.

### 11.3 Maitahi Subdivision

This section provides an assessment of the main subdivision which will have the freehold titles, the new roads to be vested and other associated infrastructure.

 Table 6 provides an assessment of the subdivision part of the proposed development against the relevant Standards from the NRMP (Appendix 10 and 11).

Standard	Requirement	Proposal	Compliance		
Appendix 10	Standards and terms for parking and loading Note all parking requirements were removed from the NRMP as required by the National Policy Statement for Urban Development. This was a resolution of Council on 17 December 2020. On-street parking requirements still apply.				
AP10.4 - Parking Spaces for People with disabilities.	The Building Act 2004 includes requirements for the provision of parking for people with disabilities. The Building Act 2004 provisions must be complied with.	The new lots are for private use and no accessible car parks are required.	N/A		
AP10.5.i - dimensions – parking spaces and set down areas	Every parking space must be of a useable shape and condition and must meet the following requirements:	The car parks for the individual lots have not been designed at this stage of the development. The individual sites have sufficient room to meet the dimensional standards for car parking. The car park dimensions will need to be assessed at building consent stage.	Can Comply Note: Will comply with Table 10.5.1 or with the industry accepted AS/NZS 2890.1 standard.		
	For two or more parking spaces (side by side) carparking spaces and access thereto must comply with one of the two methods described below. Applicants must state which of the	As per the above.	Can comply Note: Will comply with Table 10.5.1 or with the industry		

	two methods below has been used to achieve compliance: i) Table 10.5.1 Method: Compliance with the parking layout provisions of Table 10.5.1 below, or ii) 85 Percentile Car Method: Compliance with the 85 percentile car tracking curve detailed in Appendix 12 (tracking curves). Provided these minimum parking space dimensions must apply: Side by Side Carparks: 5m long and 2.5m wide each, or Parallel Carparks: 6m long and 2m wide each.		accepted AS/NZS 2890.1 standard.
AP10.6 - Loading Spaces	Loading spaces must be provided within the net area of every site in accordance with Table 10.6.1.	The residential component of the development does not have to provide loading facilities.	N/A
AP10.8 - surfacing of parking spaces and loading spaces	<ul> <li>AP10.8.ii In the Residential Zone the following areas shall be permanently surfaced.</li> <li>a) all vehicular access from a public road from the sealed carriageway of the road to a point at least 5m into the site measured from the road boundary.</li> <li>b) all vehicular access which serves more than one household unit or site, and</li> <li>c) all vehicular access with a gradient steeper than 1 in 5.</li> </ul>	All parking and access areas will be sealed.	Complies
AP10.9 location of parking and loading areas	<b>AP10.9.i</b> All parking and loading spaces required by these rules must be located on the site of the activity they are intended to serve.	On-site parking is not required (NPS – UD). However, it is expected that all new dwellings will have at least one on-site car park.	Complies
AP10.10 availability of parking and loading areas	<b>AP10.10.i</b> All required parking and loading spaces, manoeuvring areas, access drives and aisles must be kept clear at all times for the purpose of	Parking areas and circulation aisles will be kept clear for motor vehicle use.	Complies

	motor vehicle use and may not be used for any other purpose.		
AP10.11 - manoeuvring/non -reversing streets	<b>AP10.11.i</b> Every off street parking, loading and queuing space must be provided with such access drives and aisles as are necessary for the access of vehicles to and from the vehicular entrance to the road and for any required manoeuvring of vehicles within the site.	All parking areas will be provided with accesses and aisles to meet this standard.	Complies
	<b>AP10.11.ii</b> The design of all required parking spaces and loading spaces must be such that manoeuvring is provided for the design vehicle of the vehicles in Appendix 12 (tracking curves).	Will meet the requirements of Appendix 12 or AS/NZS 2890.1 provisions where required.	Complies
	<ul> <li>AP10.11.iii No reverse manoeuvring onto or off a road is permitted where: a) the site has vehicular access to a Classified Road, or</li> <li>b) where any vehicle entrance serves more than 3 required car parking and/or loading spaces, or</li> <li>c) a rear site has access provided by a mutual right of way, or</li> <li>d) vehicular access to the site is from a road with a legal speed greater than 50kmh.</li> </ul>	The roads within the subdivision are not classified roads and will have a posted speed of 50 km/h or less. Lots with right of ways will provide on-site turning so vehicles enter and exit the legal road in a forward direction.	Complies
AP10.11.1. tracking curves for carparking	<b>AP10.11.1.i</b> Carpark manoeuvring must comply with the 85-percentile car tracking curve shown in AP12.1. Compliance with Table 10.5.1 (parking layout) of this appendix, will be deemed to be compliance with the 85 percentile car tracking curve.	Any on-site turning will meet AP12.1 or the industry accepted AS/NZS 2890.1.	Complies
AP10.11.2 - tracking curves for loading:	<b>AP10.11.2.i</b> Where loading spaces are required or voluntarily provided they must comply with the particular tracking curve identified in Ap10.8 (surfacing of parking and loading spaces), Table 10.6.1 (loading space,	No loading is proposed for the residential component. The commercial hub will have loading which is assessed later in this report.	N/A

	size, and design vehicle specification) and that tracking curve specification in Appendix 12 (tracking curves).		
AP10.12. gradient of parking spaces	<b>AP10.12.i</b> Parking spaces must have a gradient of no more than 1 in 16 in any one direction except in the Residential Zone where the maximum gradient is 1 in 8.	The parking areas will be designed to comply. While not anticipated, where any parking areas that are steeper than 1 in 8, a separate consent will be applied for.	Can comply
AP10.13. Access Design	<b>AP10.13.i</b> Refer to Appendix 11 (access standards) for access design, location, gradients, and break over angles.	The accesses will be designed to meet Appendix 11.	<b>Can Comply</b> See Assessment below.
Appendix 11 -	Access Standards		
AP11.1 minimum distance of vehicle crossing from intersections	<b>AP11.1.1</b> Vehicle crossing spacing from intersections shall be in accordance with Section 4.10 Private Access and Crossings Nelson Tasman Land Development Manual 2020.	The vehicle crossings will meet the separation requirement.	Complies See NTLDM Assessment below.
AP11.2 maximum number and minimum spacing of vehicle crossings	<b>AP11.2</b> The maximum number of vehicle crossings permitted for each site shall be in accordance with Section 4.10 Private Access and crossings of the Nelson Tasman Land Development Manual 2020.	The new residential lots will have one vehicle crossing.	<b>Complies</b> See NTLDM Assessment below.
AP11.3 design of vehicle access	<b>AP11.3.1</b> Any access must comply with the relevant design and construction standards specified in Chapter 4, Section 4.10 Private Access and Crossings of the Nelson Tasman Land Development Manual 2019.	The accesses will be able to meet the requirements of Section 4 of the NTLDM.	<b>Complies</b> See NTLDM Assessment below.

#### Table 6: Nelson Resource Management Plan Standards Compliance Table

A review of the NRMP indicates that the proposed development complies with the required parking and loading standards. Further assessment under the NFLDM 2020 is provided below. It should be noted that this assessment is of the design provided in the application. Any changes that do not comply will require a consent at building consent stage.

The land development manual is separated into a number of sections dealing with different engineering matters. The relevant section of this assessment is set out in Chapter 4-Transportation. The NTLDM has a number of engineering requirements that land development is expected to meet.

**Table 7** below provides a statement of compliance against the relevant requirements of theNTLDM 2020 being Section 4 – Transport.

Standard	Requirement	Proposal	Compliance
4.3 - Design Pr	ocess	· · · · · · · · · · · · · · · · · · ·	
Section 4.3.1.4	A road safety audit report by a team of at least two suitably qualified and experienced road safety engineers. The safety audit stage will depend on the complexity of the proposed or existing transport network, the form of its intersections and the level of active transport activity and the size of the development as shown in Table 4-2 below.	Two separate road safety audits will be provided. One will be for the proposed development. The audits are proposed to be completed following changes that come from the Section 92 amendments and to accompany detailed design plans to council.	Will Comply
4.4 - Network	Layout Form and Function Design		
Section 4.4.1 Road Hierarchy	Each road within the proposed design must be defined in terms of its form and function according to the road hierarchy as set out in Table 4.3.	The new roads will be for local traffic. The main spine road will be a sub collector with other roads being local.	Complies
Section 4.4.3 Intersection Spacing	Minimum intersection spacing will be 40 metres.	The proposed subdivision has one location where Road 8 and Road 9 link to Road 1 where the roads are closer than 40 metres. The roads form a staggered crossroad separated by around 12 metres. Both roads are cul de sacs. The roads are located within a hillside topography.	Does not comply Road 8 and Road 9.
Section 4.4.4 Connectivity	4.4.4.1 Where future development on adjoining land is possible, land within the development will be set aside to ensure that future connection is not precluded. The spacing of road	Schedule X and the NRMP provides for the future connections to Bay View Road and Walters Bluff.	Complies

connections to adjacent future areas should consider the potential future network requirements of the wider area.	The sub collector (main spine) within the development has been designed for this future connection with it being formed to the adjacent property.	
4.4.4.2 Cul-de-sacs that may function as future through roads must be designed to the standard of the future function.	As noted above.	Complies
4.4.4.3 Isolation strips will not be permitted when properties are developed.	No isolation strips are proposed.	Complies
4.4.4.4 The number and length of cul-de-sacs will be minimised, to encourage connectivity and navigability. The roading layout presented in Figure 4- 4 shows a layout where the entire road network off the main road would be classified as a long cul-de- sac and is not permitted. The roading layout presented in Figure 4-5 shows how a connected road network can reduce the prevalence of cul-de-sacs.	The main spine road layout has been considered as part of the structure plan for PC28. The location and nature of the development leads to a layout with cul de sacs. The hillside topography and valley are the main influence on the design. It is not possible to link all of the cul de sacs due to the topography.	<b>Complies</b> PC28 Structure Plan
4.4.4.5 A cul-de-sac in residential zones will be no longer than 150m and serve no more than 25 potential residential dwellings, except in 'Hillside Environments' where subject to the Engineering Manager's approval a cul-de-sac may have a length of up to 400m while serving no more than 40 potential residential dwellings.	The road design has no cul de sacs with more than 25 dwellings apart from Road 11 and a short section of Road 9. Road 11 and Road 9 are in "Hillside Environments". Road 4, Road 9 and Road 11 are longer than 150 metres but less than 400 metres. It should be noted that most of the cul de sacs are within a "Hillside Environment" and Engineering Manager's approval is sought as part of the consent process.	Complies PC28 Structure Plan Subject to Engineering Manager Approval.
4.4.4.6 No more than 15 per cent of lots in any residential zone development,	As noted above. The cul de sacs are required due to the	Complies

	except in 'Hillside Environments', will have frontage to a cul-de-sac.	topography of some of the site.	PC28 Structure Plan
		Most of the cul de sacs are within the Hillside environment.	Subject to Engineering Manager Approval
		This was considered and accepted as part of PC28.	Approva.
	4.4.4.7 A cul-de-sac in Commercial or Industrial zones will be no longer than 120m.	The commercial area is not in a cul de sac.	Complies
	4.4.4.8 Cul-de-sacs must be designed so that pedestrians and cyclists have through access, especially where that access would link to local facilities, other roads or recreation opportunities, as illustrated in Figure 4-6.	Pedestrian and cycle links have been provided where appropriate links are available. Due to hillside topography the end of cul de sacs do not provide a connection to another road as there is no other road nearby.	Complies
Section 4.4.5 Pedestrian, Cyclist and Public Transportat ion	4.4.5.1 The transport network must facilitate walking, cycling and use of public transport for access to daily activities.	Off-road cycle facilities provided on the main spine road with footpaths provided along both sides of the road. Cyclists share the road on local roads as per the NTLDM. The development will also have connections to the wider road network with improvements to roads outside the development as required under Schedule X.	Complies
4.5 - Design fo	r the Speed Environment		
Section 4.5.1	The road designer will determine the target speed for each road as set out in Table 4-5.	Table 4.5 requires a target speed of 40 km/h for the main spine sub collector and 30 km/h for the local roads.	Will Comply
		The detailed design of the roads will be undertaken as part of the engineering plan approval. This process will include details around traffic calming measures and road design.	

		It should be noted that the road layout is in line with the NTLDM standards.	
4.6 - Transpor	t Cross-Sections		
Section 4.6.1.1	The number and minimum widths (specified in metres) of key road elements, categorised by hierarchy, are shown in Table 4-7 for Sub- Collector Roads and Local Roads.	The road layout for Road 1 has been designed to meet the NTLDM requirements and special provisions set out in Schedule X of the NRMP. The service berms are not 1.6metres with 850mm provided. Road 3 is a legal width of 14.0 metres, the NTLDM requires	Does not comply Road 1 service berm. Road 2, 3 and Road 11 for legal width. See assessment
		19 metres. All other roads have a legal width of 13 metres. These have been designed to a residential local road (< 20 dwellings) standard.	below.
		Road 11 has more than 20 dwellings and does not meet the legal width. It is located within the "Hillside Environment" and has one footpath.	
Section 4.6.4.1	A turning facility will be provided at the end of all cul-de-sacs.	Turning facilities have been provided at the end of cul de sacs.	Complies
Section 4.6.4.2	The minimum radius of the turning circle of a cul-de-sac will be seven metres in residential zones.	The minimum turning radius for the cul de sacs is seven metres.	Compiles
4.8 - Road Geo	ometry		
Section 4.8.1	Road gradients will not be steeper than those values specified in Table 4-8. Sub-collector - 1 in 8. Local roads - 1 in 7.	The new road to service the subdivision has been designed within the constraints of the hillside and this requirement. All roads will meet these requirements.	Complies
Section 4.8.4.3	Horizontal curves in 50 km/hr zones must have a minimum centreline radius of 25 metres for local roads in residential areas.	All horizontal curves within the development have a radius of more than 25 metres.	Complies
Section 4.8.5.1.	Table 4-9 shows the acceptable SSSD for various design speeds.	The operating speed for the development will be around 30 to 40km/h and therefore	Complies

		the required SSSD is 25 and 40 metres.	
		The design can also meet SSSD for 50 km/h.	
		The road design can easily meet this requirement.	
4.9 - Intersect	ion Design		
Section 4.9.1.	There are a number of general requirements in this section relating back to accepted standards and guidelines.	The requirements in this section are typically dealt with as part of the detailed engineering design.	Will comply
Section 4.9.2 Sight Distances-	4.9.2.5 SISD is to be provided in accordance with Table 4-11. For 30 km/h – 50 metres For 40 km/h – 73 metres For 50 km/h – 97 metres	Intersection Sight Distances are met on all new intersections except for Road 11 looking to the right onto Road 1. Based on 50km/h posted speed limit the required SISD is 97 metres excluding grade corrections. Available SISD is 70 metres. Safe Stopping Distance (SSD) is met.	Does not comply Road 11 with Road 1. See assessment below.
4.9.3 Kerb Radii	There are a number of general requirements in this section.	The road layout meets these requirements and will be confirmed as part of detailed engineering design approval.	Will comply
Private Acces	s - Section 4.10		
Section 4.10.2.1	Private access must: a) Be designed in accordance with the minimum specifications in Table 4-13.	The site access will be specifically designed to meet the dwellings to be constructed. The RoW design complies. All vehicle crossings will be less than six metres and meet	Complies
		NTLDM. Any exceptions will require separate resource consents and will be dealt with at building consent.	
	b) Only serve up to six users.	There are no rights of ways proposed within the development that provide for more than six users.	Does not comply Arvida Village accesses

		The Arvida Village is specifically designed for its activity.	provide for one user but a number of units.
	f) Be located at least one metre from any side boundary.	Separation from crossings will be more than one metre.	Complies
Section 4.10.2.3	Not more than one crossing is provided per site.	All residential lots have one vehicle crossing.	Does not Comply
		The Arvida Village will have two vehicle crossings. One of these crossings will in effect be a road as it connects to the central roundabout within the development.	Arvida Village lot will have more than one vehicle crossing.
		Due to the Village being in one large title the accesses onto Road 1 for the townhouses also does not comply. There will be 14 crossings for the 24 units that front Road 1.	
		There are also three crossings for the rest of the Arvida Village.	
Section 4.10.4	The minimum sight distance that must be available from any vehicle access point along the frontage road is shown in Table 4-14 for 50 km/h is	The site access locations provide sufficient sight distances to meet the NTLDM 2020.	Complies
	55 metres.	The operating speeds near intersections are lower. The requirements of Table 4-14 are met for accesses near intersections.	
Section 4.10.5.2	For all vehicle access points, a minimum visibility splay with the dimensions shown in Figure 4-10	The site accesses will provide splays that meet this provision as required.	Will comply
	must be provided. Items may be located within the visibility splay provided they do not obstruct visibility to pedestrians. Generally, this means avoiding objects and	In some instances, this may require covenants to control fence heights and/or positions.	
	vegetation with a height of more than 0.9m.	Dealt with at Engineering Approval.	
Section 4.10.6.2	Tracking paths and turning circles on private land will be provided in accordance with AS/NZS 2890.1 "off- street carparking" 2004.	The site accesses will meet these provisions where required.	Will comply

Section 4.10.6.3	Vehicle access points must be located so that no part of the access, nor tracking path crosses any part of another site except where there is a right of way or other similar legal easement over those parts of the other site.	All vehicle access is direct from the frontage of the individual sites.	Complies
4.10.7	The minimum distance of a vehicle crossing from an intersection for an unclassified road with a speed limit of 50 km/h is 10 metres.	The site accesses meet this requirement.	Complies

#### Table 7: Nelson Tasman Land Development Manual Compliance Table

As shown in the table above there are some non-compliances with the NTLDM 2020. These non-compliances are specifically the number of vehicle crossings for the Arvida Village, the number of units on a private access, the separation distance for Road 8 and Road 9, the percentage of lots that are served by cul de sacs, the Local Road design for Road 2, 3 and Road 11 (legal width) and the SISD for Road 11.

The assessment of the effects arising from the development are provided later in this report.

### 11.4 Arvida Village

The Arvida Village is a retirement village and aged care facility located within the Residential Zone.

The development is expected to meet the parking, loading and access requirements contained in Chapter 7 - Residential Zone provisions of the Plan as well as any other Rules or Standards that have come from Schedule X. It should be noted that the Nelson Land Development Manual also applies.

**Table 8** provides an assessment of the Arvida Village part of the proposed developmentagainst the relevant Standards from the NRMP (Appendix 10 and 11).

Appendix 10Standards and terms for parking and loadingNote all parking requirements were removed from the NRMP as required by the National Policy Statement for Urban Development. This was a resolution of Council 17 December 2020. On-street parking requirements still apply.AP10.4 - Parking Spaces for People with disabilities.The Building Act 2004 includes requirements for the provision of parking for people with disabilities. The Building Act 2004 provisionsThe new units are for private use.Will Comply	Standard	Requirement	Proposal	Compliance
AP10.4 - ParkingThe Building Act 2004 includesThe new units are for private useWill ComplySpaces for Peoplerequirements for the provision of parking for people with disabilities.The new units are for private useWill ComplyWill ComplyAccessible car parks are provisionsAccessible car parks are provided within the aged	Appendix 10	Standards and terms for parking and l Note all parking requirements were re National Policy Statement for Urban D 17 December 2020. On-street parking	loading emoved from the NRMP as requ Development. This was a resolu requirements still apply.	uired by the ution of Council on
must be complied with.	AP10.4 - Parking Spaces for People with disabilities.	The Building Act 2004 includes requirements for the provision of parking for people with disabilities. The Building Act 2004 provisions must be complied with.	The new units are for private use Accessible car parks are provided within the aged	Will Comply

		care facility and the clubrooms.	
AP10.5.i - dimensions -	Every parking space must be of a useab following requirements:	le shape and condition and mu	st meet the
dimensions – parking spaces and set down areas	a. An individual parking space must have the minimum dimensions of 3m wide and 5m long which provides sufficient space for the doors of a 85 percentile design car to be opened to allow a person to enter or exit the design car, and	The car parks for the individual lots have been designed to be useable and meet the AS/NZS parking standards.	Complies Note: Complies with accepted AS/NZS 2890.1 standard.
	b. For two or more parking spaces (side by side) carparking spaces and access thereto must comply with one of the two methods described below. Applicants must state which of the two methods below has been used to achieve compliance:	The car parks for individual lots will meet AS/NZS 2890.1 for size and manoeuvring as an acceptable alternative.	<b>Complies</b> Note: Complies with accepted AS/NZS 2890.1 standard.
	i) Table 10.5.1 Method: Compliance with the parking layout provisions of Table 10.5.1 below, or		
	ii) 85 Percentile Car Method: Compliance with the 85 percentile car tracking curve detailed in Appendix 12 (tracking curves).		
	Provided these minimum parking space dimensions must apply: Side by Side Carparks: 5m long and 2.5m wide each, or Parallel Carparks: 6m long and 2m wide each.		
AP10.6 - Loading Spaces	Loading spaces must be provided within the net area of every site in accordance with Table 10.6.1.	The complex is a residential activity with the exception for the aged care facility. Specific loading areas are provided within the development that meet the NBMP requirements.	Complies

AP10.8 - surfacing of parking spaces and loading spaces	<ul> <li>AP10.8.ii In the Residential Zone the following areas shall be permanently surfaced.</li> <li>a) all vehicular access from a public road from the sealed carriageway of the road to a point at least 5m into the site measured from the road boundary.</li> <li>b) all vehicular access which serves more than one household unit or site, and</li> <li>c) all vehicular access with a gradient steeper than 1 in 5.</li> </ul>	All parking and access areas will be sealed.	Complies
AP10.9 location of parking and loading areas	<b>AP10.9.i</b> All parking and loading spaces required by these rules must be located on the site of the activity they are intended to serve.	On-site parking is not required (NPS – UD). The units will have at least one off-street car park. The aged care facility provides its own dedicated parking.	Complies
AP10.10 availability of parking and loading areas	<b>AP10.10.i</b> All required parking and loading spaces, manoeuvring areas, access drives and aisles must be kept clear at all times for the purpose of motor vehicle use and may not be used for any other purpose.	Parking areas and circulation aisles will be kept clear for motor vehicle use.	Will Comply
AP10.11 - manoeuvring/non -reversing streets	AP10.11.i Every off street parking, loading and queuing space must be provided with such access drives and aisles as are necessary for the access of vehicles to and from the vehicular entrance to the road and for any required manoeuvring of vehicles within the site. AP10.11.ii The design of all required parking spaces and loading spaces must be such that manoeuvring is	On-site manoeuvring is provided within the complex. All vehicles can enter and exit the Village in a forward direction. All car parking has been designed to the AS/NZS 2890.1 provisions.	Complies Complies Note: Complies with accepted
	provided for the design vehicle of the vehicles in Appendix 12 (tracking curves).		AS/NZS 2890.1

	<ul> <li>AP10.11.iii No reverse manoeuvring onto or off a road is permitted where:</li> <li>a) the site has vehicular access to a Classified Road, or</li> <li>b) where any vehicle entrance serves more than 3 required car parking and/or loading spaces, or</li> <li>c) a rear site has access provided by a</li> </ul>	All vehicles can enter and exit in a forward direction within the Village. Village units fronting Road 1 will use the street for driveway manoeuvres.	Complies
	mutual right of way, or d) vehicular access to the site is from a road with a legal speed greater than 50kmh.		
AP10.11.1. tracking curves for carparking	<b>AP10.11.1.1</b> Carpark manoeuvring must comply with the 85-percentile car tracking curve shown in AP12.1. Compliance with Table 10.5.1 (parking layout) of this appendix, will be deemed to be compliance with the 85 percentile car tracking curve.	The on-site parking layout has been designed to meet the alternative AS/NZS 2890.1.	<b>Complies</b> Note: Complies with accepted AS/NZS 2890.1
AP10.11.2 - tracking curves for loading:	<b>AP10.11.2.i</b> Where loading spaces are required or voluntarily provided they must comply with the particular tracking curve identified in Ap10.8 (surfacing of parking and loading spaces), Table 10.6.1 (loading space, size, and design vehicle specification) and that tracking curve specification in Appendix 12 (tracking curves).	The loading areas have been designed to provide turning that enables these vehicles to enter and exit the complex in a forward direction.	Complies
AP10.12. gradient of parking spaces	<b>AP10.12.i</b> Parking spaces must have a gradient of no more than 1 in 16 in any one direction except in the Residential Zone where the maximum gradient is 1 in 8.	The parking spaces will comply.	Complies
AP10.13. Access Design	<b>AP10.13.i</b> Refer to Appendix 11 (access standards) for access design, location, gradients, and break over angles.	The accesses will be designed to meet Appendix 11.	Will comply See Assessment below.
Appendix 11 -	Access Standards		

AP11.1 minimum distance of vehicle crossing from intersections	<b>AP11.1.i</b> Vehicle crossing spacing from intersections shall be in accordance with Section 4.10 Private Access and Crossings Nelson Tasman Land Development Manual 2020. The requirement is ten metres.	Access to the complex is via two separate locations. The main access is from a four-leg roundabout. The secondary access is for residents only. The access to the units fronting Road 1 meet the spacing requirements.	Complies
AP11.2 maximum number and minimum spacing of vehicle crossings	<b>AP11.2</b> The maximum number of vehicle crossings permitted for each site shall be in accordance with Section 4.10 Private Access and crossings of the Nelson Tasman Land Development Manual 2019.	The Arvida Village site will have 17 vehicle crossings.	Does not comply See assessment below.
AP11.3 design of vehicle access	<b>AP11.3.1</b> Any access must comply with the relevant design and construction standards specified in Chapter 4, Section 4.10 Private Access and Crossings of the Nelson Tasman Land Development Manual 2019.	The development will be able to meet the requirements of Section 4 of the NTLDM.	Will comply See assessment below.

Table 8: Nelson Resource Management Plan Standards Compliance Table

As shown, there is one non-compliance with the NRMP Rules which relates to the number of vehicle crossings. The Arvida Village will have three vehicle accesses to the new vested roadway. The main vehicle access to the Arvida retirement village is essentially a road by its function and design. There will also be 14 shared vehicle crossings to the townhouse units along Road 1.

The Nelson Tasman Land Development Manual (NTLDM) is separated into a number of sections dealing with different engineering matters. The relevant section of this assessment is set out in Chapter 4-Transportation.

The design of the internal roading for Arvida Maitahi Village is based on other facilities this company has across the country. These other locations have provided workable layouts that are specific to the needs of their users.

The NTLDM does not have any relevant standards for this type of development. The focus of this standard being more ideally relevant to single lot sections and homes rather than multi-unit or comprehensive housing such as a retirement village. A high-level assessment has been carried out against the NTLDM for completeness.

 Table 9 below provides a statement of compliance against the relevant requirements of the

 NTLDM being Section 4.10 – Private Access and Crossings.

Standard	Requirement	Proposal	Compliance
Private Acce	ess - Section 4.10		
Section 4.10.2.1	Private access must: a) Be designed in accordance with the minimum specifications in Table 4-13.	There is no access standard for a retirement village and care facility. The site access has been specifically designed to meet the needs of the proposed activity.	N/A See assessment of effects.
	b) Only serve up to six units.	The development will provide access for a 192 unit retirement complex with a 36 bed care facility. The NTLDM has no standard for this type of development.	Does not comply See assessment of effects.
	f) Be located at least one metre from any side boundary.	The access is more than one metre from the adjacent boundary to the east of the development site.	Complies
Section 4.10.2.3	Not more than one crossing is provided per site	The development will have 17 vehicle crossings.	Does not comply
Section 4.10.2.5	Passing Bays - any passing bay will be constructed to a minimum width of 5.5m (includes carriageway) and have a minimum length of 6.0m with a 4.0m long taper at each end.	The driveways are wide enough for two vehicles to pass for its full length. The internal access roads are at least 5.5 metres wide.	Complies Access has been designed to AS/NZS2890.1
Section 4.10.2.9	The berm or shoulder adjacent to a private access with more than one user will be designed to incorporate collection areas for waste and recycling wheelie bins without blocking the footpath.	Rubbish collection areas will be provided on the site.	Complies
Section 4.10.3.	Critical aspects of private access design and crossings in relation to gradient are set out in Table 4-13 with details on transitions shown in SD406 to SD409 and Figure 4- 119.	The gradient for the access easily meets these requirements.	Complies
Section 4.10.4	The minimum sight distance that must be available from any vehicle access point along the frontage road is shown in Table 4-14.	The site accesses for the development have more than 100 metres of sight distance in each direction.	Complies
	The fronting road has an operating speed of around		

	40km/h which requires a sight distance of 40 metres.		
Section 4.10.5	For all vehicle access points, a minimum visibility splay with the dimensions shown in Figure 4-10 must be provided. Items may be located within the visibility splay provided they do not obstruct visibility to pedestrians. Generally, this means avoiding objects and vegetation with a height of more than 0.9m.	The visibility splays are provided for proposed vehicle access. The proposed layout can meet these requirements.	Complies
4.10.6	Section 4.10.6.2 Tracking paths and turning circles on private land will be provided in accordance with AS/NZS 2890.1 "off-street carparking" 2004.	The car park design meets AS/NZS 2890 <b>.1.</b>	Complies
	Section 4.10.6.3 Vehicle access points must be located so that no part of the access, nor tracking path crosses any part of another site except where there is a right of way or other similar legal easement over those parts of the other site see Figure 4-12.	The vehicle access is located in front of the site and does not cross the adjacent properties.	Complies
4.10.7	The minimum distance of a vehicle crossing from an intersection on a Sub Collector with a speed limit of 50 km/h is 10 metres.	The site access is onto a sub collector and the separation distances are more than 10 metres. The main access will form one of the approaches for the proposed roundabout.	Complies

Table 9: Nelson Tasman Land Development Manual Compliance Table

As shown, there are two areas of non-compliance which relates to the number of vehicle crossings and the number of units served by a private access.

The next section of this report considers the areas of non-compliance, along with other transportation matters that require further consideration. The next section also provides an assessment of effects.

#### 11.5 Commercial Hub - Koāta House

The proposed commercial hub is located within the Commercial Zone.

The development is expected to meet the parking, loading and access requirements contained in Chapter 9 – Suburban Commercial Zone provisions of the Plan as well as any

other Rules or Standards that have come from Schedule X. It should be noted that the Nelson Land Development Manual also applies.

**Table 10** provides an assessment of the commercial hub part of the proposed developmentagainst the relevant Standards from the NRMP (Appendix 10 and 11).

Standard	Requirement	Proposal	Compliance						
Appendix 10	Standards and terms for parking and l Note all parking requirements were re National Policy Statement for Urban D 17 December 2020. On-street parking	Standards and terms for parking and loading Note all parking requirements were removed from the NRMP as required by the National Policy Statement for Urban Development. This was a resolution of Council on 17 December 2020. On-street parking requirements still apply.							
AP10.4 - Parking Spaces for People with disabilities.	The Building Act 2004 includes requirements for the provision of parking for people with disabilities. The Building Act 2004 provisions must be complied with.	At least two accessible car parks are being provided.	Complies						
AP10.5.i - dimensions –	Every parking space must be of a useab following requirements:	ble shape and condition and mu	st meet the						
parking spaces and set down areas	c. An individual parking space must have the minimum dimensions of 3m wide and 5m long which provides sufficient space for the doors of a 85 percentile design car to be opened to allow a person to enter or exit the design car, and	The car parks for the commercial hub have been designed to be useable and meet the AS/NZS parking standards.	<b>Complies</b> Note: Complies with accepted AS/NZS 2890.1 standard.						
	<ul> <li>d. For two or more parking spaces (side by side) carparking spaces and access thereto must comply with one of the two methods described below. Applicants must state which of the two methods below has been used to achieve compliance:</li> <li>i) Table 10.5.1 Method: Compliance with the parking layout provisions of Table 10.5.1 below, or</li> <li>ii) 85 Percentile Car Method: Compliance with the \$5 percentile car tracking curve</li> </ul>	The car parks for the commercial hub have been designed to be useable and meet the AS/NZS parking standards. The car parks will meet the NRMP standards.	Complies Note: Complies with accepted AS/NZS 2890.1 standard.						

	detailed in Appendix 12 (tracking curves). Provided these minimum parking space dimensions must apply: Side by Side Carparks: 5m long and 2.5m wide each, or Parallel Carparks: 6m long and 2m wide each.		
AP10.6 - Loading Spaces	Loading spaces must be provided within the net area of every site in accordance with Table 10.6.1.	The complex is a commercial facility with a floor area of around 1320 m <sup>2</sup> . Specific loading areas are provided within the development that meet the NRMP requirements.	Complies
AP10.7 - loading spaces - special provisions for sites with more than one activity or tenant	<b>AP10.7.i.</b> Where more than one tenancy or separate use is contained on a site then each individual tenancy or activity shall be provided with direct access to the loading space on that site.	The commercial hub is one activity.	N/A
AP10.8 - surfacing of parking spaces and loading spaces	<b>AP10.8.ii</b> In the Commercial Zone the following areas shall be permanently surfaced.	The main parking areas will be sealed. Overflow parking will be grass with gobi blocks. Main access will be sealed.	Complies
AP10.9 location of parking and loading areas	<b>AP10.9.i</b> All parking and loading spaces required by these rules must be located on the site of the activity they are intended to serve.	On-site parking is not required (NPS – UD). The car parking and loading are for the activities on the site.	Complies
AP10.10 availability of parking and loading areas	<b>AP10.10.i</b> All required parking and loading spaces, manoeuvring areas, access drives and aisles must be kept clear at all times for the purpose of motor vehicle use and may not be used for any other purpose.	Parking areas and circulation aisles will be kept clear for motor vehicle use.	Complies

AP10.11 - manoeuvring/non -reversing streets	<b>AP10.11.i</b> Every off street parking, loading and queuing space must be provided with such access drives and aisles as are necessary for the access of vehicles to and from the vehicular entrance to the road and for any required manoeuvring of vehicles within the site.	On-site manoeuvring is provided within the commercial hub. All vehicles can enter and exit the site in a forward direction.	Complies	
	<b>AP10.11.ii</b> The design of all required parking spaces and loading spaces must be such that manoeuvring is provided for the design vehicle of the vehicles in Appendix 12 (tracking curves).	All car parking easily meets the NRMP standards. Note: Complies with accepted AS/NZS 2890.1.	Complies	
	<ul> <li>AP10.11.iii No reverse manoeuvring onto or off a road is permitted where:</li> <li>a) the site has vehicular access to a Classified Road, or</li> <li>b) where any vehicle entrance serves more than 3 required car parking and/or loading spaces, or</li> <li>c) a rear site has access provided by a mutual right of way, or</li> <li>d) vehicular access to the site is from a road with a legal speed greater than 50kmh.</li> </ul>	All vehicles can enter and exit in a forward direction.	Complies	
AP10.11.1. tracking curves for carparking	<b>AP10.11.1.i</b> Carpark manoeuvring must comply with the 85-percentile car tracking curve shown in AP12.1. Compliance with Table 10.5.1 (parking layout) of this appendix, will be deemed to be compliance with the 85 percentile car tracking curve.	The on-site parking layout has been designed to meet the NRMP standards. Note: Complies with accepted AS/NZS 2890.1.	Complies	
AP10.11.2 - tracking curves for loading:	<b>AP10.11.2.i</b> Where loading spaces are required or voluntarily provided they must comply with the particular tracking curve identified in Ap10.8 (surfacing of parking and loading spaces), Table 10.6.1 (loading space, size, and design vehicle specification)	The loading areas have been designed to provide turning that enables these vehicles to enter and exit the complex in a forward direction.	Complies	

	-		
	and that tracking curve specification in Appendix 12 (tracking curves).		
AP10.12. gradient of parking spaces	<b>AP10.12.i</b> Parking spaces must have a gradient of no more than 1 in 16 in any one direction except in the Residential Zone where the maximum gradient is 1 in 8.	The parking spaces will comply and gradients are less than 1 in 16.	Will Comply
AP10.13. Access Design	<b>AP10.13.i</b> Refer to Appendix 11 (access standards) for access design, location, gradients, and break over angles.	The accesses will be designed to meet Appendix 11.	Will comply See Assessment below.
Appendix 11 -	Access Standards		
AP11.1 minimum distance of vehicle crossing from intersections	<b>AP11.1.1</b> Vehicle crossing spacing from intersections shall be in accordance with Section 4.10 Private Access and Crossings Nelson Tasman Land Development Manual 2020. The requirement is ten metres.	Access to the commercial hub is via a single double vehicle crossing. The crossing is more than 10 metres from the proposed roundabout on Road 1.	Complies
AP11.2 maximum number and minimum spacing of vehicle crossings	<b>AP11.2</b> The maximum number of vehicle crossings permitted for each site shall be in accordance with Section 4.10 Private Access and crossings of the Nelson Tasman Land Development Manual 2019.	The commercial hub will have one vehicle crossing.	Complies
AP11.3 design of vehicle access	<b>AP11.3.1</b> Any access must comply with the relevant design and construction standards specified in Chapter 4, Section 4.10 Private Access and Crossings of the Nelson Tasman Land Development Manual 2019.	The development will be able to meet the requirements of Section 4 of the NTLDM.	Will comply See assessment below.

Table 10: Nelson Resource Management Plan Standards Compliance Table

As shown, there are no non-compliances with the NRMP Rules and standards.

The Nelson Tasman Land Development Manual (NTLDM) is separated into a number of sections dealing with different engineering matters. The relevant section of this assessment is set out in Chapter 4-Transportation.

 Table 11 below provides a statement of compliance against the relevant requirements of the

 NTLDM being Section 4.10 – Private Access and Crossings.

Standard	Requirement	Proposal	Compliance
Private Acco	ess - Section 4.10		
Section 4.10.2.1	Private access must: a) Be designed in accordance with the minimum specifications in Table 4-13.	The commercial hub access meets the requirements. There is a single vehicle crossing into a parking and loading area.	Complies
	b) Only serve up to six units.	The access will only serve the commercial hub.	Complies
	f) Be located at least one metre from any side boundary.	The access is more than one metre from the adjacent boundary to the east of the development site.	Complies
Section 4.10.2.3	Not more than one crossing is provided per site	The commercial hub will have one vehicle access.	Complies
Section 4.10.2.5	Passing Bays - any passing bay will be constructed to a minimum width of 5.5m (includes carriageway) and have a minimum length of 6.0m with a 4.0m long taper at each end.	The vehicle crossing is wide enough for two vehicles. There is no access roadway requiring passing bays.	Complies Access has been designed to AS/NZS2890.1
Section 4.10.2.9	The berm or shoulder adjacent to a private access with more than one user will be designed to incorporate collection areas for waste and recycling wheelie bins without blocking the footpath.	Rubbish collection areas will be provided on the site.	Complies
Section 4.10.3.	Critical aspects of private access design and crossings in relation to gradient are set out in Table 4-13 with details on transitions shown in SD406 to SD409 and Figure 4- 119.	The gradient for the access easily meets these requirements.	Complies
Section 4.10.4	The minimum sight distance that must be available from any vehicle access point along the frontage road is shown in Table 4-14. The fronting road has an operating speed of around 30km/h which requires a sight distance of 23 metres.	The site accesses for the development have more than 100 metres of sight distance to the east and around 40 metres to the west and the intersection of Road 2 and Road 3. The intersection will reduce the approach speeds to around 30 km/h. The required sight distance is 23 metres.	Complies

Section 4.10.5	For all vehicle access points, a minimum visibility splay with the dimensions shown in Figure 4-10 must be provided. Items may be located within the visibility splay provided they do not obstruct visibility to pedestrians. Generally, this means avoiding objects and vegetation with a height of more than 0.9m.	The visibility splays are provided for proposed vehicle access. The proposed layout can meet these requirements.	Complies
4.10.6	Section 4.10.6.2 Tracking paths and turning circles on private land will be provided in accordance with AS/NZS 2890.1 "off-street carparking" 2004.	The car park design meets these standards. Note: Complies with accepted AS/NZS 2890.1	Complies
	Section 4.10.6.3 Vehicle access points must be located so that no part of the access, nor tracking path crosses any part of another site except where there is a right of way or other similar legal easement over those parts of the other site see Figure 4-12.	The vehicle access is located in front of the site and does not cross the adjacent properties.	Complies
4.10.7	The minimum distance of a vehicle crossing from an intersection on a Sub Collector with a speed limit of 50 km/h is 10 metres.	The site access is onto a sub collector and the separation distances are more than 10 metres.	Complies

Table 10: Nelson Tasman Land Development Manual Compliance Table

As shown, there are no areas of non-compliance with the rules and standards of the NRMP.

The next section of this report considers the areas of non-compliance, along with other transportation matters that require further consideration. The next section also provides an assessment of effects.

## 12. Assessment of Effects

This section assesses the development and provides an analysis of the effects of the proposal and wider road network effects. The assessment of the potential positive and other effects, shortfalls in the adjacent road network and mitigation measures are provided below.

#### 12.1 General

The key aspects of the development will be the traffic generated from the site, the connections to the wider road network and the cycle and pedestrian linkages.

These were considered as part of the PC28 process. The independent Commissioners that heard the evidence for the private plan change agreed that the transportation effects were less than minor, subject to the provisions provided in the NRMP and Schedule X. The Environment Court upheld the decision of the Commissioners and also accepted that the traffic related effects can be mitigated and were less than minor.

## 12.2 Traffic Generation

The matters relating to traffic generation were canvased as part of PC28 and expert conferencing (dated 4 May 2022) with traffic experts. As noted below the experts agreed to the following.

### Section 3.5 - What are the relevant trip generation rates to use to assess PC28?

**All experts agree** that the analysis provided with the plan change (which uses a rate of 7 vehicle trips per dwelling, per day) is appropriate and adequate for the purposes of deciding on the plan change request. It is noted that subsequent resource consents may include a request for further sensitivity testing of the trip rate.

The calculation of trip generation for the developments are usually based on research undertaken by the New Zealand Transport Agency and is set out in Research Report 453 (RR453). While this document has been updated recently to reflect changes in travel choice that has occurred for a number of reasons, it is still useful as a conservative assessment tool for calculating the trip generation that could occur at the upper limits. The document RR453 provides figures of 10.7 per dwelling per day or around 1.3 trips per home in the peak hour.

More recent traffic count data and surveys for residential development below shows that trip rates have reduced from this high figure of 10.7 per day. Even some of the more recent information from NZ Transport Agency research shows trip rates between six and eight movements per household.

## 12.3 Subdivision Component

Surveys of Bay View Road show trip generation rates from the existing homes in the upper part of Bay View Road being around six trips per dwelling per day. The same traffic count data also showed peak flows of around 0.6 trips per dwelling per hour. This is noticeably less than the research carried out by the New Zealand Transport Agency. This more recent traffic count data is also consistent with other surveys of residential properties across the Top of the South. Interestingly similar rates have been surveyed in Wellington in an area that is not close to public transport.

The location of the development site is close to the urban area, employment zones and services and therefore the trip generation could be lower than these surveys. For the

purpose of the assessment the conservative trip rate of seven per dwelling per day has been used. This is in line with the trip rate that experts agreed with in conferencing.

Based on these assumptions above, a trip generation rate of seven vehicles per day per dwelling has been used. Based on 182 homes the expected traffic movements associated with the completed subdivision component would be around 1,100 vehicles per day or 110 vehicles in the peak hour.

## 12.4 Arvida Village – Retirement complex

There are various research documents that provide information on trip rates for retirement developments including care facilities. For the purpose of calculating the trip demand rates there are a number of reference documents that can be used including The Institute of Transportation Engineers (ITE), Road and Traffic Authority (RTA) and NZTA Research report 453 (RR453).

### Residential Units

ITE has trip generation rates that range from 1.63 to 2.15 trips per unit per day with peak flows of around 0.11 trips per unit in the peak hour. RTA provides data showing trip rates of around 2.0 trips per dwelling per day with flows around 0.15 per unit in the peak hour. RR453 has rates of around 2.5 trips per day per dwelling and around 0.35 trips per dwelling in the peak hour. Accordingly, the use of trip rates of around 2.5 trips per dwelling per day and 0.35 trips per dwelling for the peak hour has been used to assess the traffic generated from the proposed development.

It should be noted that this rate will also be used across all of the units. This will result in an overestimation of the traffic flows from the site but is useful in terms of analysing the effects. The RR453 is also the highest of all the rates.

There will be 192 residential units. Based on the assumptions above (and using RR453) the number of trips generated by the residential units will be around 480 trips per day or around 70 trips in the peak hours.

### Care Facility

The Arvida Village will have 36 beds in its care facility.

The information about trip rates for Care Facility and serviced apartments is less reliable as the type and size of these facilities can affect the overall number of movements. ITE provides daily rates ranging from 1.88 to 4.14 per bed per day and around 0.36 during the peak hour. These rates include the trips generated by staff and the shift change occurring during the peak periods. The ITE calculations show peak flows of around 14 trips per hour for the care facility.

RR453 provides peak trip rates of 1.3 trips per bed which equates to around 47 trips in the peak hour. As with the retirement village the peak flows for the care facility are outside the normal commuter peak periods with staff changeover times typically around 7.00 am, 3.00 pm and 11.00 pm. The analysis of the traffic effects has focused on the commuter peak

periods as this is the likely place where any adverse effects that may occur will be most noticed.

### 12.5 Koāta Commercial Hub

Te Whare o Koāta (Koāta House) will be located in the commercial area of the development site. The building will provide cultural and business activities for local iwi across a total floor area of around 1300m<sup>2</sup>. There a meetings rooms, staff areas, on-site commercial kitchen and auditorium.

The traffic generation for this building will vary significantly depending on what functions are being undertaken on any day and can including normal day to day activities up to a large gathering.

Traffic movements will mostly consist of staff who work on the site each day. There will be times where small meeting will be held on site which are expected to be around three times a week. The larger events will be less frequent.

In regard to trip generation the flows in the morning and evening peak periods will be created be staff travelling to and from work. The other activities will typically occur outside the peak flows on the adjacent road network.

It should be noted that mini vans and buses will be used for the meetings and large events.

The expected trip generation at peak times would be up to 15 movements vehicles based on five of the staff walking or cycling to work. Cycle parking and end of trip facilities are provided for Koāta House.

## 12.6 Trip Distribution

As shown above, the development site will be connected to the wider road network via Ralphine Way. All vehicular traffic will use Ralphine Way for access which conveniently links to Maitai Valley Road and Nile Street East to access Nelson City Centre and beyond.

Most of the traffic will head out of the development site (residential subdivision) in the morning and return in the evening. Typically, residential type developments have an 80/20 split for the outward and inward movements which is reversed in the evening. Accordingly, around 56 vehicles will exit via Ralphine Way with 16 vehicles coming into the development in the morning peak which is reversed in the evening peak. It should be noted that the evening peak is usually spread over a longer period than the morning peak due to the different trips and finishing times when people return from work.

The trips related to the Arvida Village will have a different peak time to the main development with these movements generally having peak periods around 10.00 am and 2.00 pm. The timing of these movements is when there are lower flows on the wider network. The trips associated with the Koāta Commercial Hub are likely to also occur outside the peak periods apart from staff.

With the services and employment areas being to the west of the development site, it is expected that most if not all of the new trips, will head to Nelson.

The trip rate and distribution for the main subdivision has been used for the analysis of the network performance and particularly the potential effects at the intersection of Nile Street East and Maitai Road. The adopted figure is 70 trips in the peak hour.

Due to the uniqueness of the development being so close to the central area of Nelson, it is difficult to provide exact trip distributions for the cycling and walking component of the development site. For the purpose of the SIDRA analysis, any offset from walking and cycling has been ignored. This will lead to an over-estimation of the delays and effects at the intersection of Nile Street East and Maitai Road.

For completeness, an analysis of the potential cycling and walking trips is provided below.

The only data source that can provide some reasonable approximation for the expected number of cycle and walking trips is the census data. The most recent census data had some issues in terms of participation and older census results may not pick up the more recent trends in the use of alternative modes. The data sets used for this analysis were how people travelled to work.

Interrogating the census data for 2008, 2103 and 2018 for different statistical areas around the PC 28 provided some interesting information.

The work trips that used a cycle ranged from 5% up to 20% with walking ranging from 3% through to 27% for the Maitai census mesh blocks. It was noticed in this dataset that some statistical areas were more popular than others for walking or cycling.

Ralphine Way is a well-designed intersection and will easily accommodate the expected flows from the existing homes and the completed development.

All of the trips at the Maitai Road and Nile Street East intersection are expected to be a right turn out of Maitai Road or a left turn into Maitai Road.

		AM Peak (8:00 to 9:00)	PM Peak (16:00 to 17:00)	Saturday (10:15 to 11:15)
Nilo Stroot Fast	L	53	182	189
Nile Street Last	т	21	47	26
Nilo Stroot Fast	т	57	36	41
Hile Street Edst	R	3	3	2
Maitai Road	L	1	1	0

 Table 12 shows the expected total flows at the intersection of Nile Street East/Maitai Road

 upon completion of the development.

R	119	110	130

Table 12: Vehicle movements - Nile Street East and Maitai Road.

The calculation of the vehicle movements at this intersection are based on the trip rate assumptions above for the completed subdivision and the traffic surveys that were completed in March 2024.

As shown in the table there is a notable increase in the number of vehicles that make a right out of Maitai Road and a left turn into Maitai Road.

## 12.7 Internal Design

As noted above in the compliance tables the development overall largely complies with provisions of the Nelson Resource Management Plan, Schedule X and the Nelson Tasman Land Development Manual.

Due to compliance with the various planning documents and processes the assessment of any effects has focused on the areas where the design does not comply with those provisions. Specifically, these relate to the following:

- the bus stops that are steeper than 1 in 15
- shared path that is steeper than 1 in 12
- a sight line from Road 11
- intersection separation for Road 8 and Road 9.
- legal width of Road 2, 3 and Road 11

An assessment of each of these non-compliances is provided below.

## 12.8 Bus Stops

The upper section of Road 1 is set at a maximum grade of 1 in 8 as required by Schedule X. This road traverses against steep topography and cannot be designed any flatter without other significant implications. This is within a "Hillside" environment as described in the NTLDM. With the road already set at a maximum to achieve the necessary grades to the top of the ridge, it makes it practically impossible to provide appropriate transitions and a 1 in 15 grade for a bus stop on this section of Road 1.

There are a number of parts in New Zealand where bus stops are located on grades steeper than 1 in 8. They function with passengers able to get on and off the buses. This has improved with new buses with wider doors and the ability to kneel at the kerb. The effects of the isolated stops on Road 1 are considered to be no more than minor.

## 12.9 Shared Path (1 in 8)

Schedule X requires off road cycle paths to have grades no greater than 1 in 12. The path that follows Road 1 will be constructed to 1 in 8 due to the topography for around 450 metres at its western end. It is not possible to construct this off-road path at 1 in 8.

Consideration was given to removing the off-road path and provide for these users within the road carriageway as this would meet the requirements of Schedule X. This would be an on-road path and is not subject to the off standard. However, this would expose these users to asafety risk with moving traffic particularly while climbing the grade. The downhill grade does not pose the same safety issues. Therefore, while the off-road path does not meet the Schedule X provisions, it will provide a safer route than providing a complying on-road facility. The effects of providing an off-road path albeit at 1 in 8 is considered to be positive especially for uphill cyclists. It is expected that most cyclists will use the road when travelling downhill.

### 12.10 Sight Distance

The Safe Intersection Sight Distance (SISD) for the intersection of Road 11 and Road 1 does not meet the NTLDM. The SISD looking up the hill to the right on exit is around 70 metres. Based on 50km/h posted speed limit the required SISD is 115 metres including grade corrections. Due to the geometric layout the operating speeds will be closer to 40 km/h. The NTLDM requires an SISD of 81 metres which is corrected for grade. The available SISD is around 70 metres and therefore a shortfall of around ten metres. These calculations use a reaction time of 2.0 seconds.

SISD is Safe Stopping Distance (SSD) plus decision time (three seconds) to provide additional time to make a decision to the turn. The graded corrected SSD for an operating speed of 40 km/h is 45 metres for a reaction time of 2.0 seconds. For a reaction time of 2.5 seconds and an operating speed of 50 km/h the SSD is 67 metres.

While the SISD is not met, the intersection will operate safely as there is sufficient SSD for any approaching vehicle to be able to stop should a conflict situation arise. Any effects of not meeting the SISD are less than minor.

### 12.11 Intersection separation for Road 8 and Road 9

The NTLDM requires an intersection to be separated by more than 40 metres and the design provides around 12 metres. The reduced separation distance has been forced by the hillside topography and the ability to develop land on either side of Road 1. Road 8 and Road 9 are on opposite sides of Road 1.

The separation distance of Road 8 and Road 9 is similar to a staggered tee intersection. Both roads are cul de sacs with Road 8 having 15 lots and Road 9 having 27 lots. The number of lots served by the two roads is relatively small. Road 8 is expected to have around ten trips in the peak hour with Road 9 having around 20 trips. These flows equate to around one vehicle every two minutes.

Due to the low number of vehicle movements, the staggered tee arrangement and the operating speeds being around 40 km/h, any effects of this non-compliance are

considered to be less than minor, with no safety or efficiency impacts on other road users.

### 12.12 Legal width of Road 2, 3 and Road 11

As noted in Table 3 above Roads 2, 3 and 11 are able to meet the NTLDM provisions except for the legal road width.

Residential roads with more than 20 homes are required to have a legal width of 19 metres whereas roads with 20 or less homes are only required to have a legal width of 13 metres.

The different elements of the road corridor are the same for both residential roads except for roads with less than 20 homes can have one footpath. The NTLDM also allows the provision of a one footpath on roads that are located in hillside environment. Roads 2, 3 and 11 are in hillside environments and there only required to provide one footpath. Therefore, the different elements for the two road types are exactly the same due to Roads 2, 3 and 11 being in a hillside environment. Road 3 will provide footpaths on both side of the road due to the expected higher pedestrian demands.

It should be noted that Roads 2, 3 and 11 are only required to have a carriageway width of 5.5 metres. The carriageway width is 7.5 metres with some services in the road and others in the berm and under the footpath.

However, the NTLDM does not have any reduction in the legal width for roads in a hillside environment even through functionally there is need to have the wider road corridor.

The reduced legal width for Roads 2, 3 and 11 will have no functional or operational effects as the available carriageway width of 7.5 metres and footpaths will accommodate the expected demands and they comply with NTLDM.

## 12.13 Off Site Mitigation

As required by the NRMP and Schedule X a number of external mitigation measures are required to address potential effects arising from the development. These measures include the following:

- The installation/construction of a 3.0 metre wide shared path on Maitai Road and Maitai Valley Road from the development along Ralphine Way to Nile Street East.
- Construction of two cycle/pedestrian bridges across the river.
- The installation of traffic signals at the intersection of Maitai Road and Nile Street East for safety reasons.
- Installation of an off-road separated path on the eastern side of Ralphine Way.

 Installation of a crossing refuge over Maitai Valley Road on the eastern side of Ralphine Way.

These works are covered separately by a resource consent that is currently being processed by Nelson City Council. This consent (RM245337-340) was lodged on December 2024.

The provision of a shared path from the development to Nile Street East will enable and encourage sustainable transport choices for future residents. With the development site located relatively close to the centre of Nelson, the likelihood of residents using the new facility is high. The changes to Ralphine Way will also improve cycle safety and convenience. The impact of providing the shared path is a positive effect.

The installation of traffic signals at the intersection of Maitai Road and Nile Street East will address an existing sight line deficiency and safety issue. With the increased vehicular use of the intersection that will be generated by the development, there is a need to address this safety issue. The change will lead to some inconvenience with traffic needing to wait at the signals. This is balanced against the safety risk being reduced and making the intersection safe. Overall, the changes to the intersection are less than minor.

These measures address the potential adverse effects of the development as required by Schedule X and will be completed before any titles are issued for the development. Any residual impacts are considered to be less than minor.

## 12.14 Nile Street East/Maitai Road Intersection

The transportation analysis completed as part of developing Schedule X identified an existing safety deficiency with the intersection of Nile Street East and Maitai Road. As noted above, the sight lines for drivers exiting out of Maitai Road are obstructed by the guardrail and fence on the one lane bridge. Council has identified this safety issue as part of its day-to-day management of the road network.

The proposed development will increase the number of vehicles using this intersection and therefore increase the safety risk for the right turn out of Maitai Road. In response to the existing safety issue and the increased traffic arising from the development, there is a requirement that this intersection be made safe as identified in Schedule X.

The high-level assessment of the intersection included an analysis of possible different intersection controls for this junction. The different solutions that were considered included improvements to the approach of Maitai Road, stop control, a roundabout (was preferred), two lane bridge and traffic signals.

The changes needed to the Maitai Road approach would require the lifting of the road significantly from its current level to see over the guardrail. This would require a retaining wall and create a higher road that would be above the adjacent properties.

There were also grade issues to the intersections and vehicle access to adjacent properties. Options that relied on the lifting of Maitai Road were not considered any further due to these difficulties and adverse effects.

Changing the intersection control to a stop did not solve the sight line issue and was not considered satisfactory as a mitigation measure.

The roundabout was initially the preferred option but became uneconomic as it required the two-laning of the adjacent bridge to meet the necessary circulation needs of this type of intersection layout. Vehicles would block the intersection as they waited for the one lane bridge to clear. There were also issues around the sight lines for the approaches to the roundabout which required the lifting of Maitai Road. The grades for the construction of a roundabout were also complex. This option was not considered any further.

The installation of traffic signals was relatively simple to introduce as the approaches were able to be controlled with the minimum of civil works and provided the best solution in dealing with the limited sight lines. It also better controls the vehicle interactions over the one lane bridge.

Accordingly, the conclusion from the analysis showed that the installation of traffic signals was the most economic and effective treatment of the safety issue. This has been adopted as the preferred option for the SIDRA analysis.

Figure 18 shows the proposed layout of the new signalised intersection.



Figure 18: Typical Road Cross sections. (Source: Traffic Concepts)

For the purpose of evaluating the performance of the intersection and understanding the timing or need for any changes at the Nile Street East/Maitai Road intersection, specific turning counts were carried out and have been provided above in this assessment.

These manual surveys were conducted at 7.00 am to 9.00 am and 4.00 pm to 6.00 pm on 15 March 2024 as well as a Saturday survey on 9 March 2024. The surveys were carried out by recording the movements of vehicles through the intersection. All vehicle types were recorded in fifteen-minute time periods.

The widely accepted modelling software SIDRA was used to calculate the existing performance of the intersection for the AM, PM and Saturday peak periods. The model was set up with a standard tee junction and the option of traffic signals. The SIDRA Model could not be coded exactly to a one lane two-way approach, so the outputs are likely to be better than the existing situation as the model assumes two-way flows across the bridge.

No changes were made to the default values in the SIDRA Model. The delays shown in the output tables included geometric delay.

The assumptions noted above including trip generation and trip distribution were used in the analysis of the intersection performance upon completion of the subdivision and other activities. **Table 13** shows the outputs from the SIDRA software for the existing intersection. Notethat NSE represents Nile Street East.

		АМ		РМ			SAT			
Approach		Delay (Secs)	Queue (Vehs)	LoS	Delay (Secs)	Queue (Vehs)	LoS	Delay (Secs)	Queue (Vehs)	LoS
NSE	L	4.4	0.0	А	4.4	0.0	А	4.4	0.0	А
(Valley bound)	R	0.0	0.0	A	0.0	0.0	А	0.0	0.0	А
NSE	Т	0.0	0.0	А	0.1	0.2	А	0.0	0.0	А
(City Bound)	L	5.4	0.0	А	5.7	0.2	А	5.7	0.0	А
Maitai Poad	L	5.5	0.0	А	5.5	0.4	А	5.5	0.2	А
Martar Noad	R	4.3	0.0	А	4.6	0.4	А	4.5	0.2	А
Intersection		2.2	0.1	А	4.6	0.4		3.1	0.0	А

Table 13: Existing Intersection Performance

As shown, the existing intersection is performing well with a LoS of A and very little delays on all approaches. This aligns with observations during the turning count survey noting that the SIDRA Outputs are likely to be better than that at the intersection. Due to the existing low flows at the intersection the differences between the site observations and the SIDRA Outputs are immaterial to the overall performance which is LoS A.

As noted above assumptions have been made using typical trip generation rates for the different land activities associated with the proposed subdivision which include residential lots, retirement village and the commercial hub.

**Table 14** shows the expected turning movements on the different approaches for theintersection upon completion of the development.

		AM Peak (8.00 to 9.00)	PM Peak (4.00 to 5:00)	Saturday (10.15 to 11.15)	
Nile Street Fast	L	53	182	189	
Mile Street Last	Т	21	47	26	

Nile Street Fast	Т	57	36	41	
Nie Street Last	R	3	3	2	
Maitai Boad	L	1	1	0	
Maltarhoad	R	119	110	130	

Table 14: Future Turning Counts

As shown, most of the new movements are distributed to and from the west and the city centre of Nelson. It should be noted that this is a copy of Table 11 from above.

Using these assumed flows for the completed subdivision, the SIDRA Model has calculated the future intersection performance.

Approach		АМ			РМ			SAT		
		Delay (Secs)	Queue (Vehs)	LoS	Delay (Secs)	Queue (Vehs)	LoS	Delay (Secs)	Queue (Vehs)	LoS
NSE	L	4.4	0.0	А	4.4	0.0	А	4.4	0.0	А
(Valley bound)	R	0.0	0.0	A	0.0	0.0	A	0.0	0.0	A
NSE	Т	0.0	0.0	А	0.1	0.0	А	0.1	0.0	А
(City Bound)	L	5.5	0.0	А	6.1	0.0	А	6.1	0.0	A
Maitai Road	L	5.5	0.5	А	5.5	0.5	А	5.5	0.6	А
	R	4.4	0.5	А	4.9	0.5	А	4.8	0.6	А
Intersection		3.1	0.5	А	3.6	0.5		3.8	0.6	A

Table 15 shows the outputs for the existing intersection with the future flows.

Table 15: Future Intersection Performance (Existing Layout)

As shown, the individual approaches perform well as does the overall intersection. The LoS for each of the approaches is operating at A.

As noted above it is suggested that the intersection of Nile Street East and Maitai Road be formed as a signalised junction. This is proposed to safely service the expected flows from the new development.

The SIDRA outputs above the development does not generate the need for improvements on its own, with the expected levels of service well within a LoS C which is the target performance level for this urban road intersection.

As noted above the SIDRA software is unable to easily code in a one lane two-way approach. Accordingly, the intersection performance results are likely to be better than what would occur.

While improvements are not required to address the intersection performance, it is understood that the applicant is prepared to contribute to some improvement to the intersection. The main reason is that this will improve the level of safety for future owners of the lots within the development. There is also a benefit to the users from the wider transport network.

Approach		АМ			РМ			SAT		
		Delay (Secs)	Queue (Vehs)	LoS	Delay (Secs)	Queue (Vehs)	LoS	Delay (Secs)	Queue (Vehs)	LoS
NSE	L	8.9	0.5	А	<mark>9</mark> .4	1.9	А	<mark>9</mark> .4	2.0	А
(Valley bound)	R	16.7	0.4	В	17.1	0.9	В	16.8	0.5	В
NSE	Т	17.3	1.2	В	10.0	0.7	В	17.1	0.8	В
(City Bound)	L	22.5	1.2	C	22.2	0.7	С	22.2	0.8	С
Maitai Road	L	19.0	2.1	В	19.0	1.9	В	19.1	16.0	В
Martal Road	R	17.4	2.1	В	17.4	1.9	В	17.6	16.0	В
Intersection		15.1	2.1	В	13.5	1.9	В	13.5	16.0	В

 Table 16 shows the outputs for the signalised intersection.

Table 16: Future Intersection Performance (Traffic Signals)

As expected, the level of service reduces with an increase in average vehicle delays. Traffic signals will add delay at the intersection which is already operating well below its practical capacity. As noted above the main reason for the introduction of traffic signals is to mitigate an existing safety concern relating to sight lines. With increased use of this intersection by not only the proposed development but also changes to activities and improvements on other land further up the Maitai Valley, there is a need to address this existing issue of sight lines.

While there is an increase in delays these are still within the usual levels of service for an urban intersection being LoS C or better. The effects of the traffic signals in terms of Level of Service are minor which is balanced against the noticeable improvement in the safety of the intersection.

### 12.15 Bridge Capacity

The material provided for the PC28 included an analysis of the effects associated with the one lane Gibbs Bridge. As noted in the material for PC28, as the traffic volumes increase the level of inconvenience increases. This is a direct result of more traffic and the need to wait more often. This was accepted through the hearing process and expert conferencing with the effects being no more than minor.

As part of evidence provided in the Hearing the extract below has been provided:

In attempting to provide more information, I have used an old National Road Board Document "Delays and Conflicts at One Lane Bridges" – November 1988. Table 1 within this document provides a table of bridge length over AADT for a 50 km/h operating speed. Gibbs Bridge are similar in length which is around 50 metres long.

By using the table and assuming a traffic flow of 1,000 vehicles per day (existing) we get a total delay per day of six minutes. The new flows upon completion of the PC28 area are expected to increase to around 3,750 vehicles per day leading to a total delay per day of 195 minutes. This is an average delay of three seconds per vehicle. In practice not all vehicles will be delayed, but when a vehicle must wait for opposing traffic, it will be more than three seconds, but less than 15 seconds.

From a safety perspective this is not expected to change as the bridge is well sign posted with one lane bridge signs and priority controls. There is excellent visibility across and to the approaches to the bridge.

The proposed development will have around 40% of the number of dwellings that the above calculation was carried out for. Notably also is that around half of the proposed development has a trip generation that occurs outside the normal peak periods as a result of the retirement village.

Any inconvenience (delays) created by the proposed development will be noticeably less than those considered acceptable by the independent Commissioners.

### 12.16 Cyclists and Pedestrians

The proposed development is well located to take advantage of providing opportunities for future residents to use more sustainable transport modes such as walking and cycling. While not critical to the development, the use of more sustainable transport options is one of the objectives of the applicant.

The internal roads are designed to the NTLDM and provide footpaths and off cycle paths on the main spine road and low speed environments on other roads.

This led to commitments to provide significant improvements to the cycle and walking infrastructure along the lower section of Maitai Valley. These improvements include a new

3.0 metre wide shared path along Maitai Valley Road and Maitai Road from Ralphine Way to Nile Street East. These works will also include two new separate cycle bridges.

Plans of the proposed off-site works are provided within the consent application.

# 13. Conclusion

The Maitahi Village (Project) is a fully integrated and comprehensive subdivision and development that will provide for a range of housing needs, within an enhanced cultural, ecological, landscape and recreational setting in close proximity to Nelson City.

This project has been planned and seeks to achieve the objectives and outcomes that were carefully planned within Schedule X of the Nelson Resource Management Plan (NRMP), in accordance with the Maitahi Bayview Structure Plan. These bespoke provisions were part of Plan Change 28, recommended for approval by an Independent Hearing Panel, adopted by Council in September 2022, and then approved by the Environment Court in November 2024.

The Project includes the following components:

- 1. The proposed subdivision involves the creation of 182 residential allotments, one allotment for commercial use, along with roads to vest, reserve to vest, and also allotments to vest for utility / infrastructure purposes. The balance land (zoned rural) containing Kaka Hill will remain in one large title at the end of the subdivision and development process.
- 2. Two of the allotments to be created are to be sold to Arvida for the development of a retirement village containing 192 residential units, a care facility containing 36 beds, and the full range of communal facilities such as a Residents Clubhouse and Pavillion.
- 3. Development of the commercial site for the cultural base for Ngati Koata (Te Whare or Koata), containing offices, meeting rooms, function and event spaces, and a commercial kitchen.

There are a total of 11 subdivision stages (stages 1-11), with one additional stage (Stage o) proposed as a part of undertaking an initial boundary adjustment between the applicant's title (NL11A/1012) and that adjoining title owned by Bayview Nelson Limited (RT 1039028). The planned ecological, cultural and recreational outcomes will be developed progressively at each stage. A comprehensive description of these fully integrated components of the development are provided in the Application and supporting technical reports and plans.

The assessment show there are some non-compliances with the NRMP and NTLDM. These relate to the following:

- Road widths (Roads 2, 3 and 11)
- Off road shared path grade
- Intersection separation distance (Roads 8 and 9)

- SISD for Road 11 and number of cul de sac's
- Number of vehicle crossings

The assessment of these non-compliances shows the overall effects are less than minor.

The off-site effects that need to be managed are contained within Schedule X of the NRMP. These improvements form part of a separate consent that was lodged in December 2024 apart from the proposed traffic signals at the intersection of Nile Street East and Maitai Road. The analysis of the performance of the proposed traffic signals shows that while there is a slight reduction in the Level of Service, the intersection still operates well within the capacity of an urban intersection. The proposed signals significantly improve the safety of the intersection.

Overall, the analysis and assessment of the adjacent road network shows that it will support the future traffic from the proposed subdivision area. Any effects are no more than minor.

We are happy to provide any further clarification if required.

Regards

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