Before the Hearings Commissioners at Wellington City Council

under:	the Resource Management Act 1991
in the matter of:	an application by Ryman Healthcare Limited for resource consent to construct, operate and maintain a comprehensive care retirement village at 26 Donald Street and 37 Campbell Street, Karori, Wellington
between:	**Ryman Healthcare Limited** *Applicant*
and:	**Wellington City Council** *Consent Authority*

Statement of evidence of **Leo Donald Hills** on behalf of Ryman Healthcare Limited

Dated: 29 August 2022

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STATEMENT OF EVIDENCE OF LEO DONALD HILLS ON BEHALF OF RYMAN HEALTHCARE LIMITED

INTRODUCTION

1 My full name is Leo Donald Hills.

2 I am a Director at the firm Commute Transportation Consultants Ltd (*Commute*). I hold a Masters of Civil Engineering from the University of Auckland and a Bachelor of Engineering with Honours, also from the University of Auckland.

3 I have over 23 years' experience as a specialist traffic and transportation engineer. During this time, I have been engaged by local authorities and private companies and individuals to advise on traffic and development issues covering safety, management and planning matters of many kinds.

4 I am a member of the Institute of Professional Engineers New Zealand and a Chartered Professional Engineer.

5 Particularly relevant projects with which I have been associated in my capacity as a traffic expert include Ryman Healthcare Limited's (*Ryman)* retirement villages in Hamilton, Riccarton, Narrowneck, Hillsborough, Greenlane, Pukekohe, Birkenhead, Howick, Ellerslie, Orewa, Scott Point, Lincoln Road, Tauranga, New Plymouth, St Heliers, Whangarei, Kohimarama, Northwood and central Christchurch.

6 I am familiar with Ryman's resource consent application to construct and operate a comprehensive care retirement village (*Proposed Village*) at 26 Donald Street and 37 Campbell Street, Karori, Wellington (*Site*).

7 My firm prepared the Transportation Assessment Report dated 20 July March 2020 (*Transport Report*) for the Proposed Village, which I peer-reviewed.

8 I have visited the Site and its surroundings on a number of occasions in both peak and off peak times (including school peak), including most recently on 4 April 2022.

CODE OF CONDUCT

9 Although these proceedings are not before the Environment Court, I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note (2014), and I agree to comply with it as if these proceedings were before the Court. My qualifications as an expert are set out above. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material

facts known to me that might alter or detract from the opinions expressed.

SCOPE OF EVIDENCE

10 My evidence sets out the following:

10.1 A summary of the Transport Report;

10.2 My response to the transportation matters raised in submissions;

10.3 My response to the transportation matters addressed in the Council Officer's Report (*Officer's Report*), and particularly the Transport Assessment prepared by Mr Soon Teck Kong dated July 2022[1];

10.4 My comments on the draft conditions; and

10.5 My conclusions.

SUMMARY OF EVIDENCE

11 My evidence is summarised as follows:

11.1 The Proposed Village satisfies most of the Operative Wellington City District Plan (*Operative Plan*) transport permitted activity standards, except for the width of the access point on Donald Street and the total number of access points.

11.2 Although I understand the standards are not yet operative, I note that the Proposed Village satisfies most of the Proposed Wellington City District Plan (*Proposed Plan*) transport permitted activity standards, except for provision for electrified vehicles and the use of ramps to connect parking areas.

11.3 I consider the number, and design, of vehicles accesses at the Site to be appropriate.

11.4 As noted above, the width of the access point on Donald Street does not comply with the Operative Plan (6.0m maximum width). Wellington City Council's (*Council*) traffic specialist considers justification for the larger crossing width has not been provided in the application. As such, I have further reviewed the crossing width and consider that it can be reduced to 7.5m based on vehicle tracking by removing the central entry "island". This width is still 1.5m greater the

[1] Council Officer's Report – Appendix 7 – Transport – Soon Teck Kong.

complying width, however the additional width is required to ensure service vehicles / fire appliances can negotiate the driveway at the same time as resident cars. I consider this revised access provision to be appropriate.

11.5 As regards to the Proposed Plan, I am comfortable that the ramps to connect parking areas are appropriately designed for the Proposed Village's use. I am not qualified to comment on the provision of electric vehicles.

11.6 In my opinion, the traffic that will be generated by the Proposed Village (as estimated in the Transport Report) will have minimal effects on the surrounding road environment. Council's traffic specialist reviewed the information relating to trip generation and distribution, overall intersection modelling and alternatives and agrees with the overall analysis / findings. I also note that the Proposed Village will generate less traffic in the peak periods than both the previous education use and an alternate residential development.

11.7 In my opinion, the number of parking spaces proposed on the Site is acceptable and I note the Operative Plan now has no minimum parking requirements. The parking provision meets industry standards and Ryman's internal expectations.

11.8 I consider that the construction traffic effects of the Proposed Village can be appropriately managed through a Construction Traffic Management Plan (*CTMP*). I understand a condition of consent will require a CTMP to be prepared, certified and implemented (addressed in the Statement of Evidence of Mr Richard Turner). The CTMP will specifically address truck movements, truck routes, contractor parking, pedestrian provisions, construction hours and time restrictions on vehicle movements to and from the site. A draft CTMP is provided at **Appendix 1** to provide an indication of how construction traffic effects will be managed through a CTMP.

11.9 I consider that the majority of submitters' concerns are unfounded or are to be addressed through the proposed conditions of consent. These are summarised as:

(a) *Construction traffic effects.* The production of a CTMP, as required through consent conditions, is the appropriate and industry standard practice method of addressing temporary construction effects for developments such as the Proposed Village.

(b) *Traffic generated by the operation of the Proposed Village.* My analysis has shown that the generated traffic can be accommodated in the surrounding road network. Further, the Proposed Village will also generate less peak hour traffic than that generated by

the previous educational use and an alternate residential scenario.

(c) *Parking provision.* The proposed parking provision of 229 is in my opinion appropriate and fully complies with industry standards (for a retirement village) and the parking ratio used at other recent Ryman Villages. There is also now no minimum parking contained in the Operative or Proposed District Plan. Conditions relating to a staff travel plan and a parking management strategy plan are to be included.

(d) *Pedestrian safety.* The Proposed Village will provide only one vehicle crossing on each frontage thereby minimising conflict points. The driveways are appropriately positioned and will be designed in accordance with Council standards with the exception of width of the access on Donald Street which has been designed to accommodate the vehicles expected. Overall, in my opinion I do not consider the Proposed Village will result in any new safety issues.

(e) *Emergency vehicle access.* In my experience from other developments, the details of fire access including fire appliance access is covered in future stages, especially Building Consent sign off. I am often involved at that stage for Ryman to assist with calculating road dimensions, turning circle details and the like. I note that the detailed design phase will further refine the access and parking strategy to address fire safety requirements.

(f) *Traffic Data used.* I consider the traffic data used in the analysis is appropriate and reflects the current environment. This data has been verified by the most recent Council traffic data.

(g) *Use of Campbell Street access.* In my opinion Donald Street is the most appropriate main access location given it connects back to Karori Road at a signalised intersection. I note that residents of Buildings B02-B06 will have direct access to Campbell Street as well as indirect access (through the Site) to Donald Street.

11.10 I agree with the conclusions of Council's reporting planner that "*subject to his assessment and recommended conditions*

of consent, the proposal is acceptable from a traffic perspective".[2]

11.11 I do however consider a small number of the Council's proposed conditions are not required (or require minor edits). These include:

(a) The CTMP Condition 19 should have some allowance for concrete pours to occur through school peaks as they cannot be stopped until complete. This allowance would include additional provisions such as additional traffic spotters / controllers;

(b) The condition relating to parking monitoring and surveys (Draft Condition 26) should be removed as parking minimums no longer apply in the Operative Plan and this condition would remove rights for the Site to use on-street parking; and

(c) For similar reasons, Condition 27 should be replaced with a more typical Parking Management Plan condition to ensure residents, staff and visitors to the Site are directed to appropriate parking areas, including during shift change overs. It should not have any requirement to ensure all parking demand is contained on-site.

12 I understand the conditions will be addressed in further detail in the Statement of Evidence of Mr Turner.

TRANSPORT ASSESSMENT

Existing environment

Transport Environment

13 Figure 1 is an aerial photograph showing the Site in relation to the surrounding road network. The Site previously accommodated the Victoria University Teachers' College (*former Teachers' College).* The existing access points are shown on Figure 1.

[2] Council Officer's Report, Recommendation Report – Laura Brownlie, paragraph 444.

Figure 1: Site location

14 As shown above, the Site has road frontage onto Donald Street to the east and Campbell Street to the west.

15 Karori Road is classified as a 'Principal Road' in the Operative Plan. Campbell Street is classified as a 'Collector Road' and Donald Street a 'Local Road' in the Operative Plan. The speed limit on Karori Road, Campbell Street and Donald Street is 50 km/hr. In the Proposed Plan, Karori Road is classified as 'Urban Connector' while Donald Street and Campbell Street are classified 'Local Road'.

16 Donald Street extends in a general north-south alignment. It connects to Karori Road to the north via a signalised intersection. It extends approximately 900 m to the south of the Site with a number of intersecting streets and ends in a cul-de-sac. The Donald Street / Karori Road intersection provides dedicated pedestrian crossings along the western and southern approaches. Donald Street has a 9.0 m carriageway width providing for one lane in each

direction and allowing on street parking on both sides over most of its length.

17 Campbell Street also extends in a general north-south alignment. It connects to Karori Road to the north via a priority controlled (give-way) intersection, and continues onto Croyden Street to the south. Campbell Street provides a single lane in each direction with on street parking provided for much of its length. Two lanes including a separate right turn (short) lane are provided on Campbell Street at the Campbell Street / Karori Road intersection. To the south of the Site (near Ben Burn Park), on-street angle parking is provided on the western side of Campbell Road. The carriageway immediately south of the existing Site access is 12 m in width. To the north of the Site, the road narrows to approximately 9 m in width with intermittent on street parking on either side of the road.

18 The Site is located in close proximity to the Karori Normal School and Karori Pool to the north (via Donald Street) and Ben Burn Park to the south (via Campbell Street). Immediately north of the Site is the Karori Town Centre providing retail and business activities. The development south of the Site is predominantly housing.

Public Transport

19 The Site is located within walking distance to public transport services. A pair of bus stops are located within 350 m (4–5-minute walk) of the Site on Karori Road and Verviers Street (via Campbell Street) respectively.

20 Two services operate at the Verviers Street bus stops, including Services 21 (Karori (Wrights Hill) – Kelburn – Courtney Place) and 37 (Brandon Street – Kelburn – Karori (Wrights Hill)) respectively. Services 2, 18, 33 and 34 operate at the Karori Road bus stops and connect the Site with Karori, Wellington Hospital, Hataitai and Seatoun.

21 While I do not expect the Proposed Village residents to be big generators of public transport demand, especially as Ryman have their own shuttle vans for residents, I consider the Site to be well located in relation to public transport offering good alternatives to private vehicles for staff and visitors and providing highly accessible connections for residents to the surrounding areas.

Traffic volumes

22 Traffic data from the Wellington City Council indicates that Donald Street had an estimated annual daily traffic (*ADT*) of 1,500 vehicles per day (*vpd*), while Campbell Street carried 1,900 vpd and Karori Road (west of Campbell Street) carried 13,300 vpd (all 2015 data). The data was recorded in 2015 while the former Teachers' College was in operation.

23 Commute commissioned traffic surveys in February 2019 to collect data on volumes of traffic on Campbell Street, Donald Street and

Karori Road respectively. Table 1 outlines the surveyed counts and compares these against the historic volumes to highlight any changes in traffic patterns between 2015 and 2019. Karori Road saw an increase in peak hour volumes particularly during the PM peak. Campbell Road saw a drop in volumes during the AM peak, perhaps as a result of reduced activity from the closure of the Teachers' College. During the PM peak, no such reduction is evident

Site	2015 (September / November)		2019 (February)		AM % change	PM % change
	AM peak	PM peak	AM peak	PM peak		
Campbell Road	133	187	93	193	70%	103%
Karori Road (west of Campbell)	986	1104	1094	1486	111%	135%
Donald Street	n/a	n/a	92	210	n/a	n/a
Karori Road (east of Donald)	n/a	n/a	1293	1574	n/a	n/a

Table 1: Peak hour[3] volumes (extracted from Transport Report)

24 I note that since 2019 when the traffic surveys were undertaken, the impact of Covid-19 has generally resulted in a reduced traffic volumes in New Zealand (with more people working from home etc). This trend can be seen in Figure 2 below taken from Infometrics which shows traffic volume in Wellington City in early 2019 (when the Commute surveys were undertaken) represented peak traffic volume in the Wellington region.

[3] AM peak hour is one peak hour between 7-9am while PM peak is one peak hour between 4-6pm and varies depending on the road and survey year. No peak hour surveys were undertaken on Donald Street in 2015.

Figure 2: Wellington City traffic volume (Infometrics)

Road Safety

25 The Transport Report contains an assessment of the crash history around the Site using the New Zealand Transport Agency's (*NZTA*) Crash Analysis System (*CAS*) for all reported crashes during the five-year period 2015-2019 inclusive of any available 2020 data. I have carried out a further assessment for the period 2017 to 2021 including any available data for 2022. The study area included all crashes reported along Donald Street, Campbell Street, within 50 m of their intersections with Karori Road as well as Karori Road (between Campbell Road and Donald Street). A total of 18 crashes were recorded within the study area. The crash history can be summarised as follows:

25.1 The intersection of Campbell Street and Karori Road has three recorded crashes. All three crashes involved a collision between two vehicles travelling in the same direction (involving vehicles overtaking, merging or sideswiped by another vehicle turning). No injuries were recorded.

25.2 Two crashes were reported at the Karori Road / Donald Street intersection. Of these, one minor injury resulted from a crash involving a vehicle turning right hitting an oncoming cyclist (car did not check / failed to give way turning to non-turning traffic). The remaining crash (no recorded injuries) involved a rear end crash of a car stopping / slowing for signals (failed to notice car slowing / stopping was listed as a contributing factor).

25.3 Four crashes were recorded on Campbell Street (all south of the Site) including one serious injury and minor injury related crash. Both injury related crashes involved a vehicle travelling northbound on Campbell Street hitting a parked vehicle (fatigue and wrong pedal / foot slipped were listed as crash factors for one crash, and driver dazzled / swung wide

on bend for the other crash). The other two non-injury crashes were loss of control crashes relating to vehicle speed.

25.4 Two crashes were recorded on Donald Street (all to the south of the Site at the Donald Street / Firth Terrace intersection), being a loss of control (on straight) crash and rear end crash (motorcycle following too closely) respectively. The rear end crash resulted in one minor injury.

25.5 The other seven crashes occurred on Karori Road. All these crashes were non-injury crashes with no noticeable commonality of cause (with causes including hitting parked car, turning right and manoeuvring into parking spaces).

25.6 The collision diagram for the surrounding area is provided in Figure 3 below.

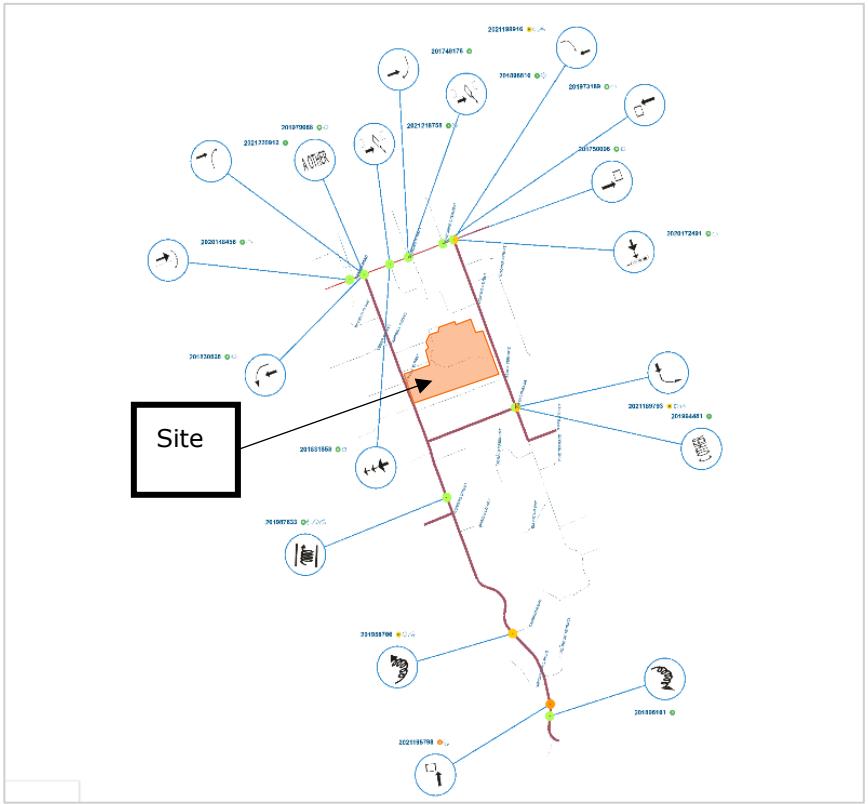

Figure 3: Collision diagram

26 Based on the assessments in the Transport Report and above, I consider there is no history of accidents occurring that relate specifically to movements near the existing accesses serving the Site on Campbell Street or Donald Street respectively.

27 I consider there are no noticeable patterns in the reported crashes at the Donald Street / Karori Road or Campbell Street / Karori Road intersection and therefore do not consider there are any issues with the form of the intersections in the area.

Access

Vehicular access

28 The primary vehicular access to the Site will be provided via Donald Street in the same position as the existing access to the Site (shown by a red arrow in Figure 1 above).

29 The proposed secondary vehicular access to the Site will be located on the southern end of the Site frontage to Campbell Street. The existing access on Campbell Street (located at the northern end of the frontage) will be disestablished.

30 The Donald Street access as lodged, was 9 m in width (see paragraph 34 of my evidence for proposed changes) and the Campbell Street access (serving only Buildings B02-B06) will be 6.0 m wide.

31 Pedestrian access to the Site will be via five separate access points, with three on Donald Street (adjacent the main vehicular access and either side of Building B01A) and two on Campbell Street (northern edge of Site and directly into Building B02). These accesses are shown by blue arrows in Figure 4 below.

Figure 4: Proposed access points (vehicular in red, pedestrian in blue)

Number of Vehicular Access Points

32 Section 5.6.1.4 of the Operative Plan sets out the rules regarding the number of access points. A Site with road frontages to both a Collector Road (Campbell Street) and local road (Donald Street) is permitted to have one vehicle access to the local road. As such restricted discretionary consent is required under Rule 5.3.1, with

discretion limited to the effects generated by the standard(s) not being met.

33 The Site currently has two access points including one on Campbell Street and Donald Street respectively. Given the Site has historically been serviced by two access points and has over 240 m (1 per 80 m) of actual frontage, the proposed access arrangement equates to 1 access point per 120 m of site frontage and I consider this arrangement is appropriate for access to a site of this size.

Width of Vehicular Access Points

34 Section 5.6.1.4 of the Operative Plan outlines rules relating to access width. Given the zoning of the Site, the permitted access width is 6.0 m. As such, the Donald Street access exceeds the permitted width standard (9 m as lodged) within this zone and the Campbell Street access complies with the permitted width standard. Following a review of Submitters and the Officer's Report, I have reviewed the overall width of the Donald Street access (with a view to reducing its width). From this review, I conclude that the width can be reduced to 7.5 m providing the previously provided central island is removed from the design. This design is shown in **Appendix 2**. As such restricted discretionary consent is still required under Rule 5.3.1 (greater than 6.0 m in width), with discretion limited to the effects generated by the standard(s) not being met.

35 Accordingly, I have undertaken an assessment of the sight distance and pedestrian provision (covered in a separate section below) for each access point.

Sight Distance

36 I have assessed each of the proposed vehicle access points against the Land Transport Safety Authority "Guidelines for visibility at driveways" (*RTS-6 Guide*) with regard to sight distance. The Operative District Plan does not provide standards for sight distance.

37 The RTS-6 Guide recommends:

37.1 90 m sight distance for high volume driveways accessing a Collector Road (Campbell Street) with a 50 km/h operating speed;

37.2 40 m sight distance for high volume driveways accessing a local road (Donald Street).

38 Over 90 m of clear sight distance is provided from the Campbell Street access point (Collector Road).

39 The access on Donald Street has unrestricted sight distance to the south. However, to the north, sight distance is restricted to approximately 65 m due to a vertical curve in the road to the north

of the access point. Given Donald Street is a local road, this distance meets the RTS-6 guidelines. Further, as noted above, the Donald Street access complies with the permitted width standard.

40 As such, I consider both the proposed access points comply with the sight distance requirements set out in the RTS-6 Guide. I consider the width of the proposed accesses to be appropriate, especially considering the Campbell Street access needs to cater for a large waste management truck.

Internal Road Layout

41 The proposed internal road network has been designed to provide a central roading link with access from Donald Street to the parking areas within the Site, the loading area and to the key buildings. The internal road network will also provide access for emergency vehicles including fire appliances. The main access road through the Site will have a minimum width of 5.5 m providing for two-way access while also moderating vehicle speeds.

42 Overall, I consider that the internal road network will provide a safe and efficient environment for both residents, staff and visitors.

Ramps

43 Due to the topography of the Site, the presence of basement and undercroft parking under B01-B06 and an elevated parking area in Building B07, a number of ramps will be provided.

44 The vehicle ramp proposed for Building B01A pick up and drop off area (the Village Centre entry) presents a 1:5 grade with a 2 m 1:8 (12.5%) transition at both ends of the ramp.

45 The ramp into the Building B01B car park will have a gradient of 1:8 (12.5%).

46 The access into the parking area in Buildings B02-B07 from Campbell Road has been reviewed following lodgement. The plans provided in the original application (Woods drawing 042-RCT_401_C3-908) showed an 18% downgrade from the road and no flat platform before the footpath. Following a review of these gradients I have recommended a slightly revised layout which is included as Appendix 2 of my evidence. This ramp now has been designed in accordance with AS/NZS2890 and in particular has a flat platform to wait / observe pedestrians when exiting the carpark.

47 Accordingly, I consider all ramps comply with maximum gradients standards outlined in AS/NZS 2890 and provide appropriate grade transitions. I note that the Operative Plan has no specific ramp gradient requirements, but rather refers to AS/NZS 2890. The Proposed Plan includes gradient requirements based on the volume of traffic expected at each access. The requirements are very similar to AS/NZS2890 with the same platform requirements. In my

opinion the requirements of AS/NZS2890 are appropriate and will be met.

Pedestrian provision

48 Footpaths are provided on both sides of Campbell Street and Donald Street. A zebra pedestrian crossing is provided north of the Site on Donald Street. Further crossing facilities are provided at the Donald Street / Karori Road signalised intersection.

49 I note that an existing public footpath is located on the northern boundary of the Site, with the parts of the public footpath located within the Site. This will be corrected via a boundary adjustment in favour of the Council once resource consents are granted for the Proposed Village.

50 Pedestrian footpaths will be provided throughout the Proposed Village, with pedestrian crossings provided at regular intervals ensuring a safe pedestrian environment. The internal pedestrian paths are proposed to connect to the public footpath on Campbell Street and Donald Street respectively. There is also a pedestrian link to Building B01A from Karori Pool. The width of these pedestrian accesses / paths are typically 1.5 m and are considered appropriate for pedestrian movement.

51 The proposed pedestrian access / provision over the Site is shown in blue in Figure 5 below. As well as the main pedestrian access points I have described above, the ground floor apartments on Campbell Street will have direct pedestrian access.

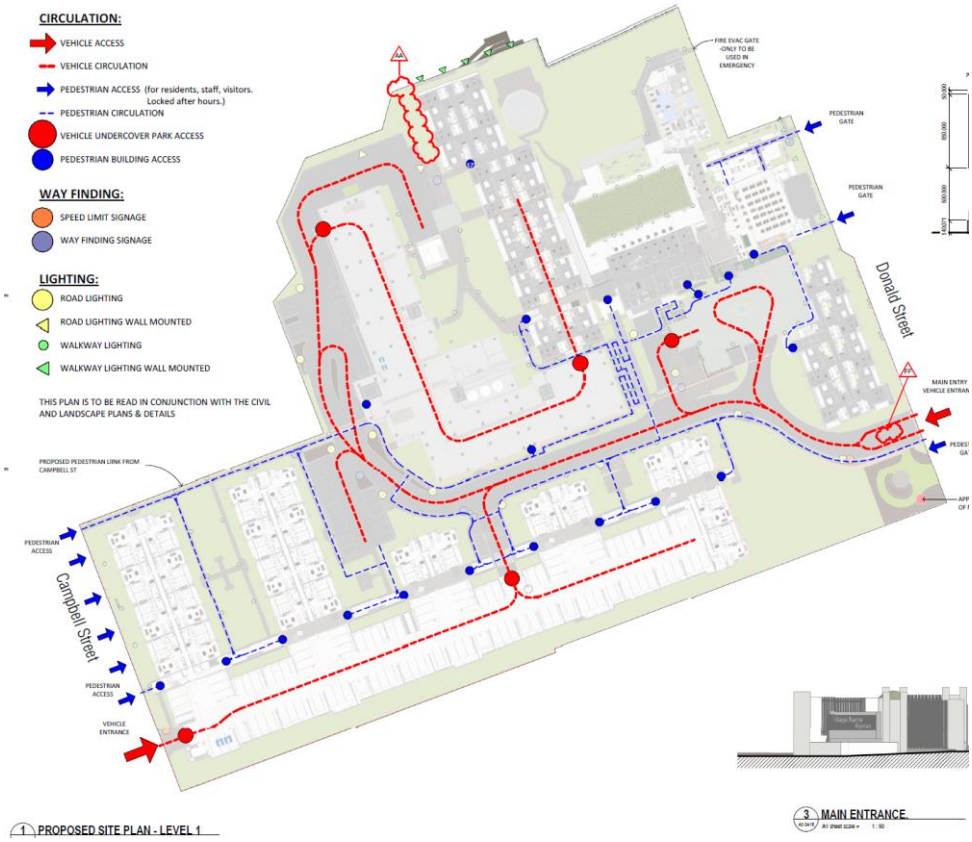

Figure 5: Proposed pedestrian connections (in blue)

52 Overall, I consider the pedestrian provision for the Proposed Village is well designed and appropriate.

Cycling

53 While limited formal cycling infrastructure is provided on the surrounding street network, Karori Road (between Chamberlain Road and Old Karori Road is classified as a primary cycling route within the Wellington Strategic Bike Network (Paneke Pōneke -Bike Network Plan).

54 The Proposed Village will not provide any formal cycling or micromobility infrastructure. Given the low speed and thus safe nature of the internal road network, I consider no formal cycling or micromobility infrastructure is required.

Traffic effects

55 This section of my evidence sets out the Proposed Village trip generation, the distribution of those vehicle trips, and the intersection modelling results. It then discusses the traffic effects of the Proposed Village in light of that information.

Proposed Village trip generation

56 I have determined the number of vehicular trips that will be generated by the Proposed Village through consideration of NZTA

Report 453[4] and the results of surveys undertaken by Commute at two operational Ryman Villages (*Survey Results*) as follows:

56.1 To estimate the daily traffic generation from the Proposed Village, I adopted the NZTA Report 453 rate of 2.6 trips per unit as it aligns with the Survey Results. I applied this rate to both independent units and assisted living suites/care beds, which is a conservative approach given NZTA Report 453 suggests a rate of 2.4 trips per assisted living suite/care bed.

56.2 To estimate the peak hour traffic generation from the Proposed Village, I adopted the Survey Results, as I consider the Survey Results provide a more accurate indication of the likely peak hour traffic generation from the Proposed Village because the surveys are of actual Ryman villages and provide more up to date data. Accordingly, I adopted a peak hour rate of 0.14 trips per unit in the AM peak, 0.23 trips in the interpeak period and 0.17 trips in the PM peak hour for the purposes of this assessment (the average of the Survey Results).

57 Overall, I expect the Proposed Village will generate approximately 43 trips in the AM peak hour, 70 trips in the interpeak hour and 53 trips in the PM peak hour. The total number of trips generated from the Proposed Village per day is expected to be 801 trips.

Traffic Distribution

58 As discussed above, the Proposed Village will be served by two vehicular access points. I consider the approximate distribution of traffic across the access points will be as follows:

58.1 Due to the nature of the internal Site layout (main access via Donald Street) and the traffic signals at Donald Street / Karori Road, the access on Donald Street is expected to cater for the majority of traffic, around 85% of Proposed Village traffic movements; and

58.2 The access onto Campbell Street will only serve residents (not staff or visitors) and therefore is expected to cater for around 15% of Proposed Village traffic movements.

59 I expect movements into and out of the Site to be equal in all peak periods (as staff movements and resident movements to and from the Site tend to be in different directions to each other). Further, as access in and out of Karori is primarily to the east, I have assumed that 90% of trips entering and exiting the Site will come from / go towards the east (i.e. to locations beyond Karori).

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[4] NZTA Research Report 453: trips and parking related to land use.

60 I have assumed the remaining 10% of trips will come from / go towards local destinations in the wider Karori area (i.e. the west). Given the close proximity of the Proposed Village to the local shops (some 4–5 minute walk), I consider that some residents are also likely to use alternative, non-vehicular modes of travel (such as walking) when travelling to / from these facilities.

61 The anticipated traffic distribution for the Site is outlined in **Error! Reference source not found.**6 below.

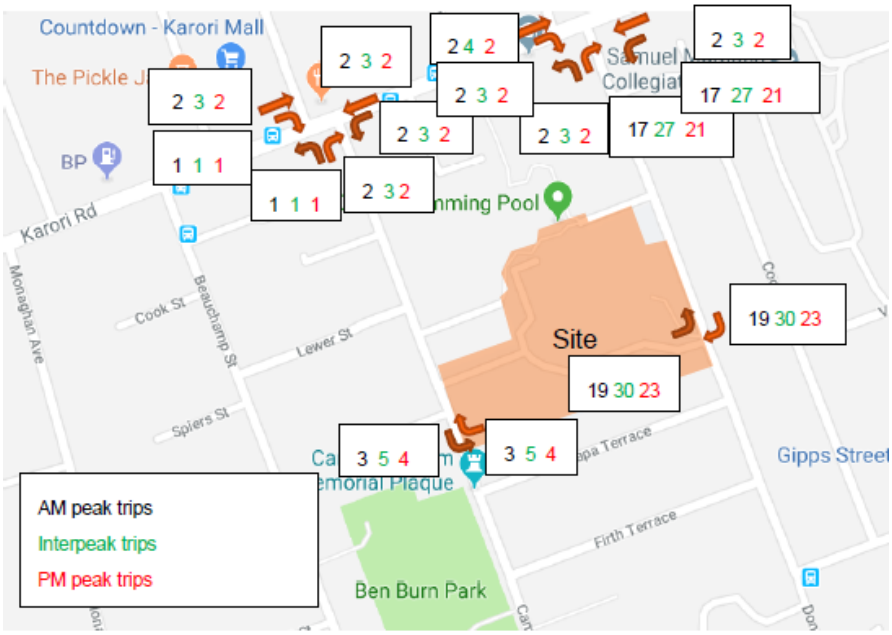

Figure 6: Distribution of vehicle movements

Intersection Modelling

62 The majority of trips from the Proposed Village pass through the Campbell Street / Karori Road intersection and the Donald Street / Karori Road intersection. As such, I have undertaken traffic modelling to provide information on the effects of the additional traffic from the Proposed Village on the intersection performance using Sidra Intersection 8.1 (*Sidra*).

63 Traffic surveys were undertaken to establish the current turning movements at the Donald Street / Karori Road intersection and Campbell Street / Karori Road intersection. The surveys were undertaken over two days, 19-20th February 2019, between 7-9am and 2:30-6pm.

64 The Base scenario uses the surveyed turning movements (based on an average of the two surveyed days) for the AM peak (7:15-8:15am), interpeak (2:45-3:45pm) and PM peak (5-6pm).

65 The Proposed scenario includes the additional traffic from the Proposed Village (outlined in Figure 6 above) as well as the Base scenario traffic.

66 The modelling compares the Base and Proposed scenarios in order to provide information on the performance of both intersections.

67 In addition to the above, I also undertook a sensitivity test, which includes a 20% increase in through movement along Karori Road, to take into account potential background traffic growth within the area. The sensitivity test modelling compares the 'Base scenario + 20% increase on Kaori Road' and the 'Proposed Scenario + 20% increase on Karori Road'. It is important to note that the 20% increase on Karori Road is not related in any way to the Proposed Village, but rather is intended to represent potential increases in traffic resulting from development occurring within the wider area.

68 The following paragraphs briefly summarise the results of the modelling at each intersection. The full results are presented in Table 5-5 and Table 5-6 of the Transport Report. The results presented include the Degree of Saturation, which is a measure of available capacity, the Level of Service (*LOS*), which is a generalised function of delay and 95%ile queue length, which is a measure of the distance to the back of the queue for 95% of the time. A Degree of Saturation of less than 0.90-0.95 is considered to be acceptable. LOS A and B are considered to be very good and indicative of free-flow conditions, LOS C is good, LOS D is acceptable and LOS E and F are indicative of congestion and unstable conditions.

Donald Street / Karori Road intersection

68.1 The additional traffic to the Donald Street / Karori Road signalised intersection results in small increases in the level of delay and vehicle queues expected.

68.2 During the morning peak hour, this intersection will have a maximum 95%ile back of queue on the western approach (Karori Road) and this distance increases from 122 m to 124 m with the Proposed Village. The Degree of Saturation with the Proposed Village is 0.82 and the intersection operates at overall LOS B.

68.3 During the interpeak peak hour (assessed as the 'worst case' afternoon school period), this intersection will have a maximum 95th percentile back of queue on the western approach (Karori Road) and this distance increases from 124 m to 145 m with the Proposed Village. The Degree of Saturation with the Proposed Village is 0.80 and the intersection operates at overall LOS B.

68.4 During the evening peak hour, the maximum 95th percentile back of queue occurs on the eastern approach (Karori Road)

and this distance increases from 218 m (or 30-31 vehicles) to 257 m (or 36 vehicles) with the Proposed Village. The Degree of Saturation with the Proposed Village is 0.86 and the intersection operates at overall LOS B.

68.5 In terms of the additional 20% sensitivity testing, I note that without the Proposed Village, the maximum LOS is B and maximum back of queue is 324 m (45-46 vehicles). As a result of the Proposed Village, the maximum back of queue is expected to increase by 7 vehicles (to 372 m) and the maximum LOS is on the border of B/C.

68.6 Based on the above results, I expect the Donald Street / Karori Street intersection to operate below capacity with the Proposed Village in place.

Campbell Street / Karori Road intersection

68.7 Vehicles from the Proposed Village will increase traffic at the intersection by only a small amount, as outlined in Figure 6 above (1-3 vehicles per hour on each movement). The operation of the intersection in the AM peak and interpeak periods remains similar to the existing situation. In the PM peak, the critical right turn movement out of Campbell Street is forecast to increase in average delay by seven seconds with the Degree of Saturation intersection changing from 0.238 to 0.261 and the LOS remaining at E. The 95th percentile queue remains at a 1-2 vehicle queue.

68.8 The sensitivity test results indicate that in the PM peak (Potential Base scenario), the Campbell Street approach right turn movement operates at a LOS F with 113 seconds of delay. A vehicle queue of 1-2 vehicles is likely to occur.

68.9 Based on the above results, I expect the Campbell Street / Karori Street intersection to generally operate with minimal delay and an acceptable LOS with the Proposed Village in place. The one possible exception is the right turn movement from Campbell Street which is expected decline to LOS F during the PM peak hour in the sensitivity test – although this decline is not caused by the Proposed Village, but by the additional background growth. I note that the maximum queue length for this approach is 1-2 vehicles (regardless of the Proposed Village being established) and I therefore consider this movement operates below capacity.

Traffic effects discussion

69 The Proposed Village will add between 40-73 vph to the surrounding road network depending on the time of day.

70 Overall, the additional Proposed Village traffic that will use the Donald Street/Karori Road signalised intersection and the Campbell Street/Karori Road priority-controlled intersection will result in small

increases in the level of delay and vehicle queues expected. Critically, I consider both intersections will continue to operate within capacity and with insignificant changes from their current operation.

71 I note that the surrounding network provides good facilities for both bus transit and walking, allowing staff, visitors and residents to use public and active transport options.

72 Overall, I consider the Proposed Village will cause minimal traffic and transportation effects on the surrounding road network.

73 In order to support the assessment above, I consider it is useful to compare the vehicle trips that will be generated by the Proposed Village to the vehicle trips previously generated by the educational use of the Site and the vehicle trips that would be generated by an alternate residential development on the Site.

74 The previous educational use and alternate residential scenario are outlined in Table 5-4 of the Transport Report. I determined peak hour and daily traffic generation for these scenarios using the NZTA Report 453 and RTA Guide respectively.

75 In summary, the previous educational use is expected to have generated significantly more traffic movements in the peak period (133 peak hour trips) and slightly more daily traffic movements (825 daily trips) when compared to the Proposed Village. Further, the alternate residential scenario would generate more traffic movements in the peak period (60 peak hour trips) and less daily traffic movements (689 daily trips) when compared to the Proposed Village.

76 As such, the Proposed Village is expected to generate less vehicular trips in the commuter peak hours than the previous educational use or the alternate residential scenario. The Proposed Village is expected to generate less daily trips than the previous educational use, but more than the alternate residential scenario. In relation to traffic effects, peak hour movements are considered more relevant than daily trips as it is the peak interactions between vehicles (especially in the morning and evening commuter peaks) that determines the capacity of any roading link on intersection movement. Accordingly, I consider this analysis supports my conclusion at paragraph 71 above.

Parking

Parking provision and compliance with relevant standards

77 The parking requirements outlined within the Operative Plan at the time the application was lodged (Section 5.6.1.3) have now been removed to give effect to Policy 11 of the NPS Urban Development 2020. As such, there are now no minimum parking requirements for the Proposed Village.

78 Nevertheless, the parking provision for the Proposed Village is based on the RTA Guide. As set out in Table 6-2 of the Transport Report, the following parking provision is required under the RTA Guide to serve the Proposed Village:

78.1 133 car park spaces for residents;

78.2 25 car park spaces for staff;

78.3 36 car park spaces for visitors; and

78.4 Total of 194 car park spaces.

79 The Proposed Village will provide a total of 229 car park spaces to support the Site (including resident, visitor and staff parking). As such, the proposed parking provision exceeds the RTA Guide guidelines.

80 Moreover, based on the parking ratio used at other recently constructed Ryman Villages, I consider the proposed 229 onsite parking spaces will meet the parking demand of residents, staff, and visitors at the Proposed Village.

81 The assignment of specific parking spaces to residents, staff and visitors is typically undertaken by Ryman's Village Operations Manager prior to the opening of a new village and has not been undertaken at this time.

Parking dimensions

82 Section 6.4 of the Transport Report provides an assessment of the proposed parking dimensions. In summary:

82.1 Car parking dimensions and manoeuvrability have been designed in accordance with AS/NZS 2890.1:2004.

82.2 All carparks are a minimum of 2.5 m wide and 5.4 m deep and therefore have at least 5.8 m manoeuvring space as recommended in AS/NZS 2890.1:2004.

82.3 The basement / undercroft parking space dimensions are suitable for retirement village purposes as residents and staff are medium / long term users.

82.4 The on-grade parking space dimensions cater for short term visitor parking. The parking dimensions meet AS/NZS 2890 requirements for short term use.

82.5 The position of columns located within parking areas has been checked and the columns are located outside space required for the tracking of vehicles.

82.6 Vehicle tracking for spaces at the end of blind aisles has been checked in those locations where spaces have less than the recommended 1m clearance as specified in AS/NZS 2890 and are considered sufficient. This tracking can be seen in Appendix A of the Transport Report.

Mobility spaces

83 Section 6.6 of the Transport Report provides an assessment of the mobility spaces. In summary:

83.1 NZS 4121 outlines requirements for the provision of mobility parking spaces. As there is to be a total of 230 parking spaces on-site, the NZS 4121 requirement is to provide seven mobility parking spaces.

83.2 A total of 11 mobility spaces are proposed, therefore exceeding the NZS 4121 requirement. All the mobility parks will be designed as per NZS 4121.

Loading and servicing

84 The Proposed Village includes one main loading bay outside Building B01 on the same side of the building as the main village entrance.

85 One loading space has proved more than sufficient at other retirement villages operated by Ryman, as they are largely residential in nature.

86 This loading area can accommodate the turning of a 9.2 m rigid truck (as specified by the waste management contractor).

Construction traffic

87 The construction methodology for the Proposed Village has not been finalised as it will depend on a range of factors, including any resource consent requirements.

88 As for all Ryman villages in New Zealand, I recommend that a Construction Traffic Management Plan (*CTMP*) be prepared to address potential construction traffic effects. I consider the CTMP should include:

88.1 Construction dates and hours of operation including any specific non-working hours for traffic congestion/noise etc. Due to the proximity of the Site to a school, I consider construction truck movements should be restricted during school pick up and drop off times during school terms of 8:15-9:15am and 2:30-3:30pm which matches Council's suggested proposal. I do however note that based on my previous experience, during continuous concrete pours, trucks will need to access the site and additional traffic safety measures will need to be in place during these times (eg additional traffic controllers / spotters).

88.2 Truck route diagrams both internal to the Site and external to the local road network;

88.3 Temporary traffic management signage/details for both pedestrians and vehicles to appropriately manage the interaction of these road users with heavy construction traffic; and

88.4 Details of Site access/egress over the entire construction period. Noting that all egress points are to be positioned so that they achieve appropriate sight distance as per the Land Transport Safety Authority "Guidelines for visibility at driveways" RTS6 document.

89 Based on my observations during the construction of similar retirement villages and in light of the capacity within the existing roading network, I consider the preparation and implementation of a *CTMP* will appropriately manage construction traffic effects for the Site.

90 Appendix 1 includes a Draft CTMP for the construction of the Proposed Village.

RESPONSE TO SUBMISSIONS

91 I have reviewed all of the submissions, and consider the transport related issues raised by submitters can be grouped into the following themes:

91.1 Construction traffic effects (including parking and pedestrian safety);

91.2 Traffic generated by the operation of the Proposed Village;

91.3 Parking provision;

91.4 Pedestrian safety;

91.5 Emergency vehicle access;

91.6 Traffic Data used; and

91.7 Campbell Street access.

Construction traffic

Construction times

92 A number of submitters[5] have outlined concerns relating to the timing of construction traffic, including requests to:

92.1 Restrict construction times to between 8am – 5pm during weekdays. Several submitters consider construction during Saturdays is acceptable, whereas all submitters that comment on this point consider no construction should occur on Sundays; and

92.2 Restrict construction times to be outside of school pick up and drop off hours.

93 I agree that heavy construction traffic should be restricted to avoid peak school pick up and drop off hours during school terms of 8:15-9:15am and 2:30-3:30pm (with the exception of continuous concrete pours which will require additional traffic safety measures). This recommendation was included in the Transport Report and is reflected in the Draft CTMP in Appendix 1.

94 In terms of general construction hours, from a transport point of view, I consider the more typical construction hours from 7:00am to 6:00pm Monday to Saturday (as is generally the case with other Ryman construction sites) to be appropriate. The earlier start and later finish time (as compared to that sought in the submissions) allows for trucks to enter and leave the Site before and after commuter peak periods, rather than right in the middle of them, thus reducing network delays.

Construction access

95 One submitter[6] seeks that *"All construction traffic should use only the Donald Street entrance ... No construction traffic should be allowed to access the site from Campbell Street..."*.

96 I do not consider the requested access restrictions on Campbell Street to be necessary as Campbell Street has sufficient visibility and form to cater for construction traffic. I do however note that Donald Street is the likely construction access as using Donald Street is the most efficient route to motorway / Wellington. Accordingly, Campbell Street is likely to be minimally used for construction access.

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[5] Submission 16 (Tyler), 22 (Powell), 25 (Waldrom), 36 (Finny), 40 (Minson), 50 (van Amelsfort), 55 (Eyles), 56 (Cooper), 62 (Dunstan), 65 (Responsible Development Karori Inc) and 73 (King).

[6] Submission 36 (Finny).

Construction parking

97 A number of submitters[7] are concerned with construction vehicles parking on the surrounding streets.

98 I consider that adequate space can be provided on-site to cater for the majority of construction vehicles thereby mitigating the need to utilise on-street parking. There are also other options to reduce on-street parking which Ryman have (and are) using on other sites including off-site parking in a designated area and using vans to transport workers to the site. These can be covered in the final CTMP when these details are available.

Pedestrian safety

99 A few submitters[8] are concerned with pedestrian safety at the driveways (especially children) during construction.

100 As noted above, the CTMP will restrict truck construction traffic hours in place to ensure truck movements will not occur during peak school pick up / drop off times.

101 Further, typically Ryman employ a Traffic Controller (*TC*) at any construction access point to aid in pedestrian safety when any truck is entering or exiting the driveway. This measure has been included in the draft CTMP.

Parking provision

On-street parking demand

102 A number of submitters[9] have concerns that the Proposed Village will increase on-street parking demand on the adjacent road network, including Campbell Street, Donald Street and Scapa Terrace. I also note two submissions[10] consider the number of parking spaces proposed to be too high and the number should be significantly reduced.

103 I note that these submissions have generally suggested that the on-site parking provision is inadequate to cater for visitor and/or staff demand thus resulting in an overspill of parking demand. The

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7 Submission 22 (Powell), 36 (Finny) and 55 (Eyles).

8 Submission 22 (Powell), 36 (Finny) and 55 (Eyles).

9 Submission 16 (Tyler), 22 (Powell), 25 (Waldrom), 28 (Elliot), 31 (Hercus), 36 (Finny), 40 (Minson), 41 (Fraser), 43 (Wallace), 45 (Hamilton), 46 (Mattlin), 48 (Carpenter), 49 (Gestro), 50 (van Amelsfort), 52 (Blair), 53 (MacLaren), 54 (Brandon), 56 (Cooper), 57 (Leikis & Porter), 58 (Moran), 60 (Sprott), 62 (Dunstan), 65 (Responsible Development Karori Inc), 66 (Jupp), 69 (Hallagan), 72 (Ingham), 73 (King), 74 (Major) and 75 (King and McKinnon-King).

10 Submission 4 (Hessom-Williams) and 44 (Ross).

submitters have calculated the visitor and staff car parks based on the following:[11]

> Of the 39 carparks available to staff and visitors, 3 are set aside for accessible parking and 2 for the village's vans, leaving a total of 34 available for staff and visitors.
>
> The Assessment of Environmental Effects states that 25 carparks are allocated for staff use. This leaves just nine (9) carparks available for visitors to the site.

104 The above calculation assumes that all apartments are assigned a parking space in the basement and thus staff cannot utilise the basement and undercroft car parks, which have been designed for regular users. However, I understand that not all apartment residents require a parking space. Staff at the Proposed Village are considered to be regular users as outlined in the Transport Report and therefore can utilise these spaces (subject to Ryman's discretion on parking allocation). Accordingly, this would result in more at-grade car parks being available for visitors.

105 As such the assumption that only the at-grade spaces (39) are available to staff and visitors is incorrect.

106 Moreover, the Proposed Village is located in close proximity to a number of amenities within Karori (as also highlighted by a number of submitters). Bus stops are available within 350 m of the Site (4-minute walking distance) therefore all users of the Proposed Village (including staff, visitors and capable residents) have easy access to public transport if they chose to use it when travelling to and from the Site.

107 A number of submitters[12] have indicated that the increased stress on on-street parking (during and after construction) could create *"dangers for children attending childcare and schools in the area"*[13] and have "*concerns on the effect that this will have on their property as well as the impacts on users of the Karori swimming pool and parents and staff of Karori Norman School and Donald Street pre-school".*[14] As I have outlined above, the Proposed Village will provide 229 car park spaces which fully complies with the RTA Guide requirement (for a Retirement Village) and the parking ratio used at other recent Ryman Villages. There is also now no minimum parking contained in the Operative Plan. Because the

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[11] Submission 43 (Wallace), 49 (Gestro), 54 (Brandon), 56 (Cooper), 60 (Sprott), 65 (Responsible Development Karori Inc) and 72 (Ingham).

[12] Submission 22 (Powell), 36 (Finny), 43 (Wallace), 45 (Hamilton), 50 (van Amelsfort), 54 (Brandon), 56 (Cooper), 60 (Sprott) and 74 (Major).

[13] Submission 22 (Powell).

[14] Submission 74 (Major).

Proposed Village will provide an appropriate number of on-site parking spaces, I do not consider the safety and usability concerns raised by the submitters will arise.

108 I note one submitter[15] is concerned that the widening of Donald Street entrance will remove on-street parks. I acknowledge the changes to this driveway will require some minor widening and reduce the length of on-street parking (by 2-3 m). In my opinion, as the individual parking spaces are not marked, this reduction is likely to have a minimal effect on parking supply with a maximum of one on-street parking space removed (depending on how users park in the area).

109 One submitter[16] has requested a staff travel plan, traffic management plan and expanded parking plan. In this regard:

109.1 A staff travel plan is now to be included in suggested conditions of consent.

109.2 It is slightly unclear what the submitter is requesting regarding a "traffic management plan" however I note the "Construction Traffic Management Plan" is to be included as a condition of consent as well as a parking management strategy.

109.3 As I have noted previously, the proposed parking provision of 229 is in my opinion appropriate and fully complies with industry standards (for a retirement village) and the parking ratio used at other recent Ryman villages. There is also now no minimum parking contained in the Operative Plan.

Allocation of on-street parking

110 Several submitters[17] outlined one of the following points regarding allocation of on-street parking:

> "Staff residents and visitors should be prevented from parking on Campbell Street"
>
> "Allocation of resident zones"
>
> "Dedicated resident's only parking spaces for neighbours immediately adjoining the site to ensure priority access to spaces by dwellings"
>
> "The proposed development introduces a potential for high trip generating activities during the day and during the weekends. This additional traffic that may interact with existing high trip activities such

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15 Submission 74 (Major) and 75 (King & McKinnon-King).

16 Submission 69 (Hallagan).

17 Submission 36 (Finny), 45 (Hamilton), 50 (van Amelsfort) and 52 (Blair).

> as the after-school rush and weekend recreational events (Ben Burn Park, Marsden). In particular, kerb-side parking is at a premium near the school at drop-off and pickup times, any increase in congestion at these times creates a significant safety risk. Some consideration should be given to residents only parking, limited time parking zones, or loading zones should be considered as a method to constrain and control traffic in the local area. Traffic calming measures may help. Lights at the intersection of Campbell Street Karori Road may be required."

111 I consider the above matters relate to the allocation (or restriction) of parking spaces within public roads and therefore are subject to Council's discretion only and cannot be provided by Ryman.

112 In any event, as I have outlined previously, the Proposed Village will provide sufficient parking on-site to cater for resident, staff and visitor demand.

Traffic generated by the Proposed Village

Distribution of traffic in the Transport Report

113 Two submitters[18] have concerns on the directional split of the proposed traffic set out in the Transport Report. One submitter outlines that "*With the majority of traffic movements for the elderly generally for essential travel to shops and medical facilities, it is difficult to understand how this assumption has been derived"*.

114 From a traffic perspective, a 90/10 split of the proposed trips with 90% travelling to/from the east is essentially a worst-case scenario as this results in a higher number of right turn movements out of Campbell Street onto Karori Road (critical movement). I note that the Site is located in close proximity to the local shops (located to the west of the Site). As a result, while 10% of traffic has been estimated to travel in this direction, private vehicles are not considered the only viable mode of travel for staff, residents and visitors to access this area (as shops are within a 4–5-minute walking distance for a capable person). I therefore consider the trip distribution assumptions to be appropriate.

Increased traffic volumes

115 A number of submitters have raised concerns about the increase in traffic on the surrounding road network, including Donald Street, Campbell Street, Scapa Terrace and Firth Terrace.

116 While I acknowledge that there is potential for some residents to reroute through Scapa Terrace to access Campbell Street (or Donald Street), I consider this is likely to be minimal (less than 10 vehicles per hour). In my opinion Scapa Terrace can easily cater for such a small increase in traffic.

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[18] Submission 65 (Responsible Development Karori Inc) and 75 (King & McKinnon-King).

117 Given Firth Street is parallel and south of Scapa Terrace (ie further away from the Site), in my opinion it is highly unlikely any additional traffic will be generated on Firth Terrace.

118 Furthermore, both Firth Terrace and Scapa Terrace include speed calming devices thereby encouraging low vehicle speeds along these corridors and discouraging the use of these roads. I further note that a search of the NZTA CAS database indicates that no crashes have occurred along this corridor over the past five years (2017-2021 including all available data in 2022) and therefore consider there are no apparent existing safety issues.

119 I have assessed the performance of the Donald Street and Campbell Street intersections with Karori Road in the sections above (with and without the Proposed Village). Based on that assessment, I expect the traffic volumes produced by the Proposed Village will cause minimal traffic / transportation effects on the surrounding road network.

120 In relation to the increase in volumes along Campbell Street and Donald Street, based on traffic surveys, both these roads currently cater for approximately 200 vehicles per hour in the worst-case PM peak hour. Donald Street is expected to cater for the majority of the Site traffic and, based on Figure 6 above, this traffic is up to an additional 46 vehicle per hour. In my opinion, this level of increase (one vehicle approximately every 1.5 minutes) can easily be accommodate by Donald Street and is well within the capacity of a local / collector road.

121 Finally, I note that the Proposed Village will also generate less peak hour traffic than that generated by the previous educational use and alternate residential scenario. This analysis supports my conclusions set out above.

Pedestrian safety

122 A number of submitters[19] have outlined concerns in relation to the increase in traffic and its effect on pedestrian safety and vehicle crossings.

123 One submitter[20] has outlined concerns regarding a number of localised points within the surrounding road network. These locations were identified as where *"there are high volumes of children in these areas, and significant speed areas for cars, children on scooters, as well as pedestrian visibility".*

124 I note that it is uncertain whether these concerns are existing or relate to the Proposed Village. In any event, I consider the safety

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[19] Submission 57 (Leikis & Porter) and 74 (Major).

[20] Submitter 57 (Leikis & Porter).

record does not identify any existing safety issues in the vicinity of the Site.

125 The Proposed Village will provide only one vehicle crossing on each frontage thereby minimising conflict points. The driveways are appropriately positioned and will be designed in accordance with Council standards with the exception of width which has been designed to accommodate the vehicles expected. Overall, in my opinion I do not consider the Proposed Village will result in any new safety issues.

126 A submitter[21] suggests that a judder bar be placed on the Donald Street driveway (on exit) to slow down vehicles exiting the driveway and assist with pedestrian safety. I agree with the notion of slowing vehicles before the footpath (and generally within the site). The provision of a standard vehicle crossing (giving pedestrians priority) together with the proposed treatments of the internal road layout relating to speed humps and pedestrian crossing platforms to ensure a slow speed environment of 10km/h, in my opinion is appropriate and safe form of access for the Site.

Emergency vehicle access

127 There are a number of comments in the Fire and Emergency New Zealand submission regarding access for fire appliances. In my experience in other developments, the details of fire access including fire appliance access is covered in future stages, especially Building Consent sign off.

128 The Operative Plan does not contain any specific provisions regarding access for fire safety. There are also no specific standards regarding manoeuvring for fire appliances. Both the vehicle parking standards and site access standards refer to parking and site accesses complying with the Australian and New Zealand Standard 2890.1 – 2004, Parking Facilities, Part I: Off-Street Car Parking, which I have assessed previously.

129 In regard to the Proposed Plan, Policy TR-P3 seeks to only allow on-site transport facilities and driveways that do not meet standards where safe and effective access for firefighting is provided (among other things). The relevant standards relating to this policy are in TR-S7. In this regard Table 2 below outlines my views on compliance with RT-S7 and their relevance to fire safety.

Table 2: Proposed District Plan (TR-S7 review)

TR-S7 standard	Comment
Where provided on a site, car parking spaces and associated circulation and manoeuvring areas must	Complies – The carpark and manoeuvring has

[21] Submission 74 (Major).

be designed to accommodate a 4.91m x 1.87m vehicle (85th percentile vehicle) as the minimum design vehicle, with 300mm clearance per side to obstructions and a minimum outside turning radius of 5.8m;	been designed to this vehicle (same as ASNZS2890 vehicle)
Car parking spaces must: • Comply with the minimum dimensions of Figure 5 – TR: Parking and Table 10 – TR: Parking Space Dimensions; • Have a maximum gradient of 5% in any direction; and • Have a minimum height clearance of 2.3m; and • For residential on-site car parking spaces, be electric vehicle-charging-ready by being serviced with an electrical cable conduit from the electricity supply to the edge of the carpark;	Complies with dimensional requirement, gradient and height. The design is not sufficiently progressed regarding electrical cable ducting but can comply.
Blind aisles must extend at least 1m beyond the last parking space they provide access to;	Complies – This is the same requirement as ASNZS2890
On-site circulation and manoeuvring areas must have a maximum gradient of 12.5%;	Complies
On-site circulation and manoeuvring areas must be provided so that vehicles can enter and exit the site in a forward direction, except where: • The site has no more than three parking spaces; • Any reversing would be for a distance no more than 30m; and • The road is a Local Street;	Complies - all vehicles are forwards in and out
On-site circulation and manoeuvring areas must not be located on: • The public road reserve; or • Areas provided for parking, loading or storage; and	Complies

On-site parking, circulation and manoeuvring must not include ramps, turntables, lifts or stackers.	Does not comply. The Site includes ramps between parking areas. In this regard however: • All ramps meet ASNZS2890 • The ramps are not for areas of fire truck circulation

130 As such, except for the ramps, the Proposed Village meets the relevant standards for transport facilities and driveway. In terms of the ramps, they have been designed to meet appropriate requirements and are not in areas where I understand fire appliances need to traverse.

Traffic Data

131 A few submitters have raised concerns regarding the traffic data used in the Transport Report. These concerns include:

131.1 A submitter is concerned about the lack of traffic volume data for Firth Terrace and Scapa Terrace;[22]

131.2 A submitter considers the Proposed Village traffic volumes cannot be compared to the Teachers' College traffic volumes, given it is a decade since the Teachers' College was at peak occupancy;[23] and

131.3 A submitter[24] considers the traffic data to be out of date, due to an increase in traffic since 2019, and suggests there is a need to consider weekend traffic and take into account the absence of Teachers' College congestion.

132 In this regard:

132.1 The increase in traffic associated with the Site on both Firth Terrace and Scapa Terrace will be minimal and based on my observation existing traffic volumes on these two roads are low.

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22 Submission 66 (Jupp).

23 Submission 65 (Responsible Karori Development Inc).

24 Submission 68 (Taylor).

132.2 The analysis I have undertaken does not rely on the comparison of the Site to its previous use as a Teachers' College. While my assessment does compare the Proposed Village to the previous use to supplement the primary analysis, the primary analysis uses well recognised industry standard tools.

132.3 As I have noted previously, since 2019 there has been a general reduction in traffic due to Covid-19. As such, I consider the 2019 traffic surveys remain relevant. I have obtained 2022 data (February) for Karori Road east of Donald Street. This recorded an AM peak of 1217 vph and a PM of 1460 vph. This compares to the 2019 recordings (Table 1 of my evidence) of 1293 vph and 1574 vph indicating the more recent 2022 peak volumes are similar / slightly lower than 2019 volumes used in the analysis.

132.4 The surveys were also undertaken in times when Karori School was operating (7-9am and 2:30-6pm) with the peak hour chosen for analysis. In terms of weekend traffic, I note that Karori School will not be operating in the weekend and weekend peaks tend to be lower than peak commute or school afternoon interpeak peak times which have been assessed. As an example, in this location, the 2015 data on Campbell Road had a weekday peak volume of 187 vehicles per hour while the Saturday peak is 174 vehicles per hour and the Sunday peak is 140 vehicles per hour.

Campbell Street Access

133 One submitter[25] is concerned that no access is provided on Campbell Street for all residents. I note that residents of Buildings B02-B06 will have direct access to Campbell Street as well as indirect access (through the Site) to Donald Street. In my opinion Donald Street is the most appropriate main access location given it connects back to Karori Road at a signalised intersection.

RESPONSE TO OFFICER'S REPORT

134 Mr Soon Teck Kong of Wellington City Council has peer reviewed the traffic and transportation implications of the Proposal. The review concluded *"Subject to my above assessment and suggested consent conditions, I am able to support the proposal in terms of its transport related effects".*[26]

135 I generally agree with the peer review conclusions, however I have a small number of clarifications and comments on the draft

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[25] Submission 45 (Hamilton).

[26] Council Officer's Report – Appendix 7 – Transport – Soon Teck Kong, paragraph 13.1.

conditions proposed by Council. My primary concern relates to the recommendation for further parking monitoring.

COMMENTS ON DRAFT CONDITIONS

136 I have reviewed the proposed conditions in the Officer's Report and consider them generally to be appropriate with the exception of the following.

137 In terms of Draft Condition 19 (CTMP), I generally agree with the wording however I consider there needs to be some clarification regarding the second bullet point to account for continuous concrete pours and school holidays.

138 In terms of proposed Condition 21, I do not consider it is necessary to refer to the Designers' guide to firefighting operations – Emergency vehicle access F5-02 GD, as access for firefighting will be considered at the Building Consent stage. I also note my understanding that this document is only intended to be a guide rather than a legal requirement and that there can be multiple options available to meet the Building Code. It is also not necessary to refer to AS/NZS 2890.1:2004, which will also be addressed at the Building Consent stage in my experience. And, as I have noted, the Proposed Village already complies with the relevant aspects of that standard.

139 Draft Conditions 24 and 25 require the production and monitoring of a staff travel plan. In my opinion, the limited number of staff and shift patterns will mean such a plan will have limited benefit (which is noted in the condition). However, I consider there to be some benefit in developing a staff travel plan. The Statement of Evidence of Mr Turner will outline an alternative wording for a condition relating to a staff travel plan which I support.

140 Draft Conditions 26 and 27 relate to parking surveys, monitoring and parking management within the site. From a review of both the proposed condition and Mr Kong's assessment, these appears to relate to the allocation of parking spaces and the potential of off-site parking overspill onto the local streets. Essentially, while Mr Kong appears satisfied that the total parking provision of 229 spaces is acceptable to meet the combined parking demands, he considers this conclusion to be subject to Ryman actively managing the on-site parking on a shared use basis for the residents, staff and visitors to maximise the use and occupancy.

141 I agree with Mr Kong that the allocation of parking would potentially change the ability of the Site to cater for expected demand. As an extreme example, should no parking be assigned to staff or visitors on-site then all staff / visitors who drive to the Site will park on-street.

142 In my opinion, the issue with this condition comes down to what effect the condition is trying to mitigate. The National Policy Statement on Urban Development 2020 (*NPS-UD*) required the removal of minimum car parking rates from district plans of tier 1, 2 and 3 territorial authorities. This requirement included the removal of district plan rules, assessment criteria, policies and objectives that had the effect of setting minimum car parking rates. This removal has subsequent been done in the Operative and Proposed Plans. Essentially removing car parking minimums from district plans (as the NPS-UP did) permitted new developments to be built without providing any car parks, allowing developers to determine the amount of parking necessary.

143 The NPS-UD does in Policy 11(b) state that "*tier 1, 2, and 3 local authorities are strongly encouraged to manage effects associated with the supply and demand of car parking through comprehensive parking management plans*".

144 As such, while I consider a Travel Plan for the Site to be appropriate, requiring parking surveys and the consent holder to actively contain any parking demand within the Site is in my opinion inappropriate.

145 In my opinion Draft Condition 26 should be removed and Draft Condition 27 should be replaced with a similar condition which provides for an on-site parking management strategy. The aim should be to ensure residents, staff and visitors to the Site are directed to appropriate parking areas, including during shift change overs. The strategy should identify parking areas and include signs and markings.

CONCLUSION

146 I conclude that there is no traffic engineering or transport planning issue that would preclude the granting of consent for the Proposed Village on the basis of the conditions discussed in this evidence.

Leo Donald Hills
29 August 2022

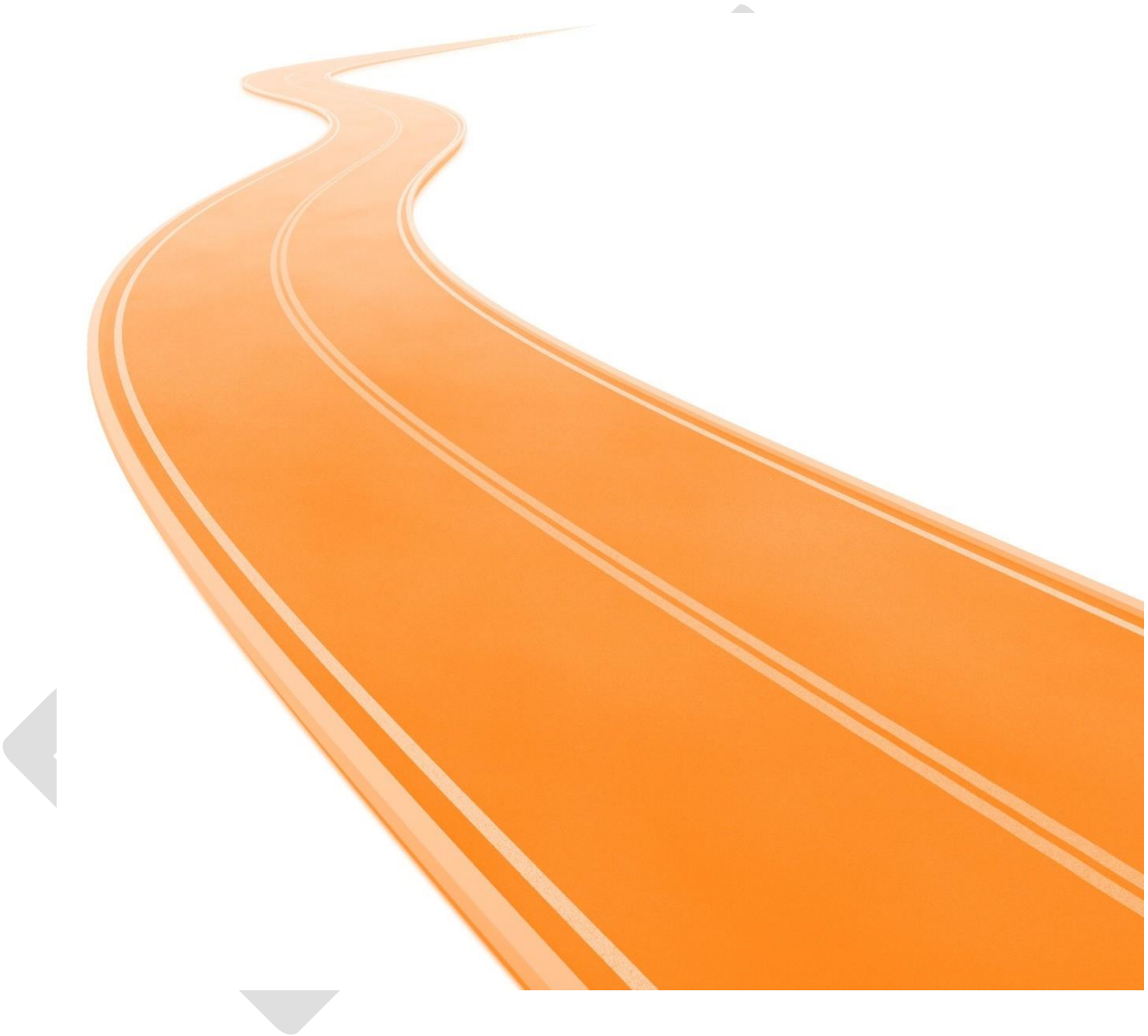
APPENDIX 1: DRAFT CTMP

Ryman Healthcare Retirement Village

26 Donald Street and 37 Campbell Street, Karori, Wellington

DRAFT Construction Traffic Management Plan (CTMP)

28 August 2022



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Project: Ryman Healthcare Retirement Village

Report title: DRAFT Construction Traffic Management Plan (CTMP)

Document reference: J00980 Ryman Karori DRAFT CTMP 280812

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Report Status	Prepared By	Reviewed By	Approved By
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1 INTRODUCTION

This DRAFT Construction Traffic Management Plan ("CTMP") has been produced to provide an indication of the proposed temporary traffic management measures to be employed during the construction of a retirement village to be located at 37 Campbell Street and 26 Donald Street in Wellington. The construction process is generally confined on-site, with works in the road corridor occurring for the site access points on Donald Street and Campbell Street respectively and for the construction of the fence along the site boundary. It will not be necessary to limit vehicles or pedestrian access along any roads during the general operations.

The following report outlines the indicative approach proposed for temporary traffic management measures during construction at the site. Following resource consent, the temporary traffic management measures will be confirmed and finalised and the CTMP will be prepared. This approach has been accepted by various councils around New Zealand in relation to recent Ryman proposals (including Ryman villages in Christchurch, Hamilton, Petone, Birkenhead, Greenlane, Narrowneck, Hillsborough and Kohimarama in Auckland).

The Construction Traffic Management Plan provides details on the following aspects [subject to any other/different matters included in the final resource consent]:

(i) Construction dates and hours of operation including any specific non-working hours for traffic congestion/noise etc.
(ii) Truck route diagrams both internal to the Site and external to the local road network.
(iii) Temporary traffic management signage/details for both pedestrians and vehicles to appropriately manage the interaction of these road users with heavy construction traffic.
(iv) Details of site access/egress over the entire construction period.
(v) Details of contact names and numbers.
(vi) Details of construction worker parking demands and provisions
(vii) Fencing around the perimeter, and within the site between operational areas (once established) and construction areas, to protect pedestrians.

The primary traffic effects relate to the traffic generation associated with the removal of excavated material and the transport of materials and staff to and from the site. By way of summary, it is noted that these effects can be managed with minimal effect to the road network.

This DRAFT CTMP has been based on the best available information regarding the earthworks and construction for the proposed development at this time. However, it cannot be guaranteed that the methodology described herein will be that employed at the time of construction. The CTMP will be prepared once more details regarding the construction methodology are known.

2 EXISTING ENVIRONMENT

2.1 SITE LOCATION

The site is located at 37 Campbell Street and 26 Donald Street in Karori, Wellington. The site has vehicular access via both Donald Street and Campbell Street.

The site is surrounded by a number of key activities, including:

- Karori Normal School (Primary School);

- Karori Swimming Pool;
- Karori Kids Inc; and
- Campbell Kindergarten.

The location of the site in relation to the surrounding activities and road network is shown in Figure 1 below.

Figure 1: Site location

The site is zoned as "Outer Residential" in the District Plan. As can be seen, the site has frontage onto Campbell Street to the west and Donald Street to the east. Both these roads connect to Karori Road to the north.

Karori Road is classified as a 'Principal Road' while Campbell Street is classified as a 'Collector Road' in the District Plan. All other roads are 'Local Roads'. In the Proposed Plan, Karori Road is classified as 'Urban Connector' while Donald Street and Campbell Street are classified 'Local Road'.

Donald Street extends in a general north-south alignment. It connects to Karori Road to the north via a signalised intersection. It extends approximately 900 m to the south of the site with a number of intersecting streets and ends in a cul-de-sac. The Donald Street / Karori

Road intersection provides dedicated pedestrian crossings along the western and southern approaches. Donald Street has a 9.0 m carriageway width providing for one lane in each direction and allowing on street parking on both sides over most of its length.

Campbell Street also extends in a general north-south alignment. It connects to Karori Road to the north via a priority controlled (give-way) intersection, and continues onto Croyden Street to the south. Campbell Street provides a single lane in each direction with on street parking provided for much of its length. Two lanes including a separate right turn (short) lane are provided on Campbell Street at the Campbell Street / Karori Road intersection. To the south of the site (near Ben Burn Park), on-street angle parking is provided on the western side of Campbell Street. The carriageway immediately south of the existing site access is 12 m in width. To the north of the site, the road narrows to approximately 9 m in width with intermittent on street parking on either side of the road.

Photograph 1 shows the Donald Street site frontage.

Photograph 1: Donald Street Site Frontage

Photograph 2 shows the Campbell Street site frontage.

Photograph 2: Campbell Street Site Frontage

The Karori Normal Primary School is situated on the south-western corner of the Donald Street / Karori Road intersection, north of the site. During school peak periods (8:00am-9:00am and 2:30-4:00pm), traffic and pedestrian volumes around the school increase. The majority of pick up and drop off movements occur on Donald Street.

2.2 EXISTING TRAFFIC VOLUMES

Traffic Data from Wellington City Council indicates that Donald Street had an estimated ADT of 1,500 vehicles per day (vpd) while Campbell Street carries 1,900 vpd.

Commute commissioned traffic surveys in February 2019 to collect data on volumes of traffic on Campbell Street, Donald Street and Karori Road respectively. Table 1 outlines the surveyed counts and compares these against the historic volumes to highlight any changes in traffic patterns between 2015 and 2019. Karori Road saw an increase in peak hour volumes particularly during the PM peak. Campbell Street saw a drop in volumes during the AM peak, perhaps as a result of reduced activity from the closure of the Teachers' College. During the PM peak, no such reduction is evident.

Table 1: Peak hour volumes (extracted from Transport Report)

Site	2015 (September / November)		2019 (February)		AM % change	PM % change
	AM peak	PM peak	AM peak	PM peak		
Campbell Road	133	187	93	193	70%	103%
Karori Road (west of Campbell)	986	1104	1094	1486	111%	135%
Donald Street	n/a	n/a	92	210	n/a	n/a
Karori Road (east of Donald)	n/a	n/a	1293	1574	n/a	n/a

2.3 ROAD SAFETY

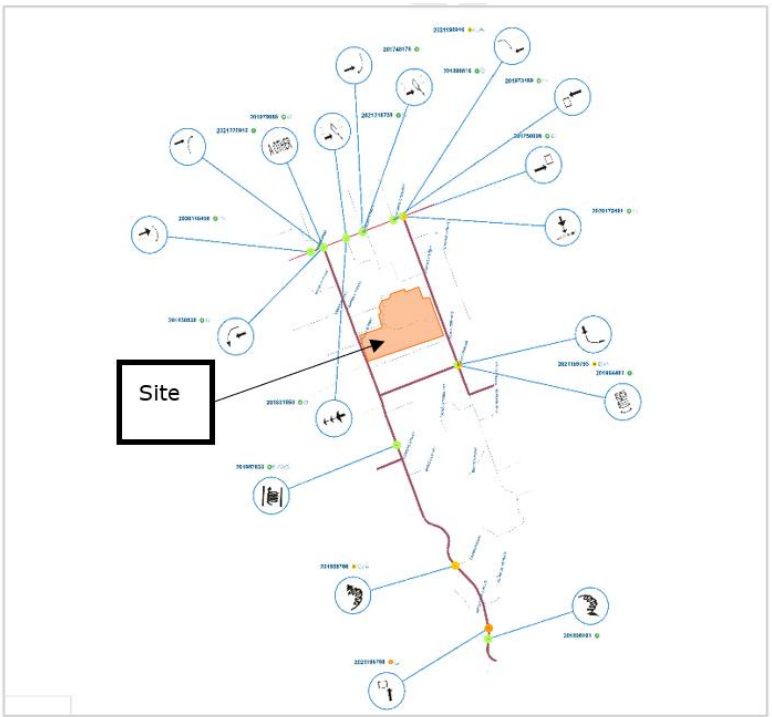
A search of the New Zealand Transport Agency's ("NZTA") Crash Analysis System ("CAS") has been carried out to identify all reported crashes in the vicinity of the Site during the five-year period 2017 to 2021 including any available data for 2022. The study area included all crashes reported along Donald Street, Campbell Street, within 50 m of their intersections with Karori Road as well as Karori Road (between Campbell Street and Donald Street).

A total of 18 crashes were recorded within the study area and are summarised as follows:

- Two crashes were reported at the Karori Road / Donald Street intersection. Of these, one minor injury resulted from a crash involving a vehicle turning right hitting an oncoming cyclist (car did not check / failed to give way turning to non-turning traffic). The remaining crash (no recorded injuries) involved a rear end crash of a car stopping / slowing for signals (failed to notice car slowing / stopping was listed as a contributing factor).
- Four crashes were recorded on Campbell Street (all south of the Site) including one serious injury and minor injury related crash. Both injury related crashes involved a vehicle travelling northbound on Campbell Street hitting a parked vehicle (fatigue and wrong pedal / foot slipped were listed as crash factors for one crash, and driver dazzled / swung wide on bend for the other crash). The other two non-injury crashes were loss of control crashes relating to vehicle speed.
- The intersection of Campbell Street and Karori Road has three recorded crashes. All three crashes involved a collision between two vehicles travelling in the same direction (involving vehicles overtaking, merging or sideswiped by another vehicle turning). No injuries were recorded.
- The other seven crashes occurred on Karori Road. All these crashes were non-injury crashes with no noticeable commonality of cause (with causes including hitting parked car, turning right and manoeuvring into parking spaces).

The collision diagram for the surrounding area is provided in Figure 2 below.

Figure 2: Collision diagram



Based on the assessments in the Transport Report[1] and above, the existing crash history indicates that there is no history of accidents occurring that relate specifically to movements near the existing accesses serving the Site on Campbell Street or Donald Street respectively.

3 THE PROPOSAL

3.1 PROPOSED DEVELOPMENT

Ryman proposes to construct and operate a comprehensive care retirement village at the Site, consisting of the following:

- 180 independent apartments;
- 68 assisted living suites;
- 60 care beds; and
- 229 carparks.

Two access points are proposed to serve the site (once operational) including one via Donald Street and Campbell Street respectively. A priority control intersection between Campbell Street and Karori Road and signalised intersection between Donald Street and Karori Road connects the Site to the wider road network.

An internal road network will provide access to all buildings within the Proposed Village.

Figure 3 shows the proposed layout of the site.

[1] Ryman Healthcare Retirement Village Transportation Assessment Report dated 20 July March 2020

Figure 3: Proposed Village Layout

3.2 OCCUPATION OF ROAD AND ROAD RESERVE REQUIREMENTS

It is not intended to occupy any part of the public road reserve for the duration of the construction operations at the site. In the unlikely event that works are required to occur in the road reserve, Wellington City Council would be advised 48 hours prior to such work occurring.

4 CONSTRUCTION OPERATIONS

4.1 GENERAL

The construction of the Proposed Village is proposed to be divided into three main stages, although this approach may change as the construction methodology is developed and finalised. It is also likely that Stage 1 will overlap with Stages 2 and 3 as the earthworks will be undertaken over two earthworks seasons (meaning that Stages 2 and 3 will start on a portion of the site, while the remaining earthworks are still being completed on the remainder of the site).

It is expected that the majority of vehicles will utilise the existing crossing on Donald Street with little access expected to occur via Campbell Street (especially as Building B02 fronts the entire frontage).

The hours of operation will be restricted by the Construction Conditions of Consent. Further restrictions to truck movements, times of trucks and truck sizes are recommended as will be discussed further in Section 5 to follow.

The general location of location of loading / working areas will be developed in a later date in Figure 4 below.

Figure 4: General site management

TBA

4.2 SITE ACCESS

It is intended to have construction access via both Campbell Street and Donald Street. The use of these access points will depend on details relating to staging that will be determined at a later date.

4.3 EXPECTED TRUCK VOLUMES

The construction of the Proposed Village is proposed to be divided into three main stages, although this approach may change as the construction methodology is developed and finalised. It is also likely that Stage 1 will overlap with Stages 2 and 3 as the earthworks will be undertaken over two earthworks seasons (meaning that Stages 2 and 3 will start on a portion of the Site, while the remaining earthworks are still being completed on the remainder of the Site).

Surveys of the truck volumes from the recent construction at the Ryman Narrowneck site (September 2018 – September 2019) have been used to estimate peak hour volumes during various phases of construction. Over the course of a year, peak daily truck movements were recorded at 75 trucks (or 150 movements). Peak hour volumes generally occur around 10am and can reach around 16% of daily volumes equating to a peak of 24 truck movements. Construction traffic for the Narrowneck site is considered roughly comparable to the Karori site.

Table 2 below identifies the proposed stages, estimated duration and estimated truck movements per day.

Table 2: Proposed construction programme

Stage	Activity	Hours of Operation	Approximate Duration (weeks)	Estimated No. of Truck Movements Per Hour
1	Initial site works / Earthworks	7:00am – 6:00pm	16 weeks	10-15
2	Construction and Fitting out	7:00am – 6:00pm	Staged over 156 weeks	10-24
3	Vehicle Crossings (permanent)	7:00am – 6:00pm	2 weeks	5-10

Given the presence of a number of schools in the area, a restriction on heavy vehicles is recommended during the school drop off and pick up periods. For all general operations, construction trucks should avoid peak school pick up and drop off hours during school terms of 8:15-9:15am and 2:30-3.30pm on school days. For concrete pours it is recognised that,

trucks will need to access the site during these times and additional traffic safety measures (additional truck spotters) will be in place during these times.

Given the presence of a signalised intersection at Donald Street / Karori Road, no heavy vehicle restrictions are considered necessary outside the school drop off and pick up periods. The traffic modelling of the intersection in the Transport Assessment Report demonstrates that there is adequate capacity for traffic from the operation of the Proposed Village during peak periods. Construction traffic is expected to be less intensive than the typical operation and will at most result in one additional truck movement every 1-2 phases at the Donald Street / Karori Road intersection.

5 TRAFFIC CONTROLS DURING SITE WORKS

5.1 SITE ACCESS CONTROLS

The Advanced Warning T2A sign with supplementary “Trucks Crossing” T217 sign are generally used where a large number of heavy commercial vehicles are required to turn into and out of a site. However, the Code of Practice for Temporary Traffic Management (CoPTTM) specifies that this Trucks Crossing sign (along with the Advanced Warning sign) are not used in urban areas.

Given these are new vehicle access points to surrounding school children, it is recommended that TZ2 “Site Access” signs are installed at each site access point together with full time TCs between 7am and 6pm on school days as detailed in the sections to follow.

5.1.1 DONALD STREET ACCESS

Access to the site will largely be via the existing vehicle crossing on Donald Street.

Figure 5 shows the proposed location of the access point on Donald Street. This is in the general location of the existing (and permanent) access point serving the development, however the temporary construction vehicle access (and permanent access point) is expected to be wider than that existing. This is subject to the type of vehicle expected to access the site.

Figure 5: Site Access location on Donald Street

Given Donald Street is a cul-de-sac Road, trucks and other construction vehicles will turn right into the access and left from the access.

Due to the proximity of the access to the schools and neighbouring property and likelihood of pedestrians in the area, this Donald Street access is recommended to be controlled by a Traffic Controller ("TC"). The TC spotter will assist in avoiding conflict between construction vehicles, pedestrians and vehicles on Donald Street. This will include stopping or slowing pedestrians when a truck is turning into the site and stopping trucks exiting when pedestrians are approaching to enable them to safely cross the access point. Trucks will need to be instructed to wait within the site some 10m back from the boundary should another truck need to enter the site. During concrete pours (when concrete trucks will need to access and egress the site during school peak hours), a second TC will be required to manage trucks and pedestrians.

Figure 6 summarises the proposed traffic controls of this access point.

Figure 6: Traffic Controls / Parking restrictions at Donald Street access point

5.1.2 CAMPBELL STREET ACCESS

Figure 7 shows the proposed location of the access point on Campbell Street.

Figure 7: Site Access location on Campbell Street (prior to Block B02 being constructed) only

This is in the general location of the existing access point (permanent access is proposed at the southern end of the site and connects to a basement parking lot).

Due to the proximity of the access to the schools and likelihood of pedestrians in the area, this Campbell Street access is recommended to be controlled by an STMS or delegated TC. The STMS/TC will assist in avoiding conflict between construction vehicles, pedestrians and vehicles on Campbell Street. This will include stopping or slowing pedestrians when a truck is turning into the site and stopping trucks exiting when pedestrians are approaching to enable them to safely cross the access point. Trucks will need to be instructed to wait within the site some 10m back from the boundary should another truck need to enter the site. During concrete pours (when concrete trucks will need to access and egress the site during school peak hours), a second TC will be required to manage trucks and pedestrians.

Figure 8 summarises the proposed traffic controls of this access point.

Figure 8: Traffic Controls at Campbell Street access point

5.2 ROADING CORRIDOR WORKS

The works in the roading corridor includes:

- the construction and widening of the site access point/ reinstatement of non-permanent vehicle crossings; and
- the construction of the front fence along the site frontages.

Both vehicle crossing works will require a short-term shoulder or lane closure to complete the works. In terms of CoPTTM, Donald Street and Campbell Street has a road carriageway level of Level 1 (<10,000vpd).

A specific excavation CAR, together with the necessary vehicle crossing permits and TMPs will need to be prepared and approved by Wellington City Council prior to the works. All traffic management plans will be in compliance with the latest edition of the NZ Transport Agency (Waka Kotahi) "*Code of Practice for Temporary Traffic Management*".

Similarly, for the front fence works, should it be necessary to utilise a portion of the road reserve to enable the fence construction, a specific TMP will be prepared and approved prior to commencement of the works.

5.3 HOURS OF OPERATION

The hours of operation will be set out in the resource consent.

Given the location of the site surrounded by school activities such as the movement patterns of children and parents, it is recommended that for general operations truck movements are

scheduled to occur outside of pick up and drop off hours on school days including between 8:00-9:00am and 2:30-4:00pm. However, it is noted that during concrete pours, trucks must be able to access and egress the site at all times to complete the concrete works. At this time, additional safety measures to ensure the safety of pedestrians and other vehicles will be implemented during these times (additional TC/STMS at each site access point).

5.4 SIZE OF TRUCKS

During the initial site works and earthworks stages, truck and trailer units will be utilised with low loaders transporting plant & temporary office buildings to the site. During the Construction and Fit out stage 3, typically 8m trucks will be used, however semi-trailer trucks will be needed to deliver pre-cast material and other large construction items to the site.

The transportation and parking of oversize vehicles, such as cranes will be undertaken with a separate TMP and will need to be prepared and approved by the Wellington City Council prior to the works. All traffic management plans will be in compliance with the latest edition of the NZ Transport Agency (Waka Kotahi) “Code of Practice for Temporary Traffic Management”.

5.5 WAITING AREAS FOR TRUCKS

The contractors will need to manage truck movements to and from the site so that trucks do not need to wait on local roads to enter the loading area. The contractor should manage the scheduling of trucks appropriately to ensure adequate onsite waiting area.

Cleaning facilities should be provided within the site to thoroughly clean all vehicles prior to exit to prevent mud or other excavated material from being dropped on the public road. Wheel washes will thus be installed at any site access point. In the event that material is dropped on the public road, resources should be on hand to clean-up as soon as possible.

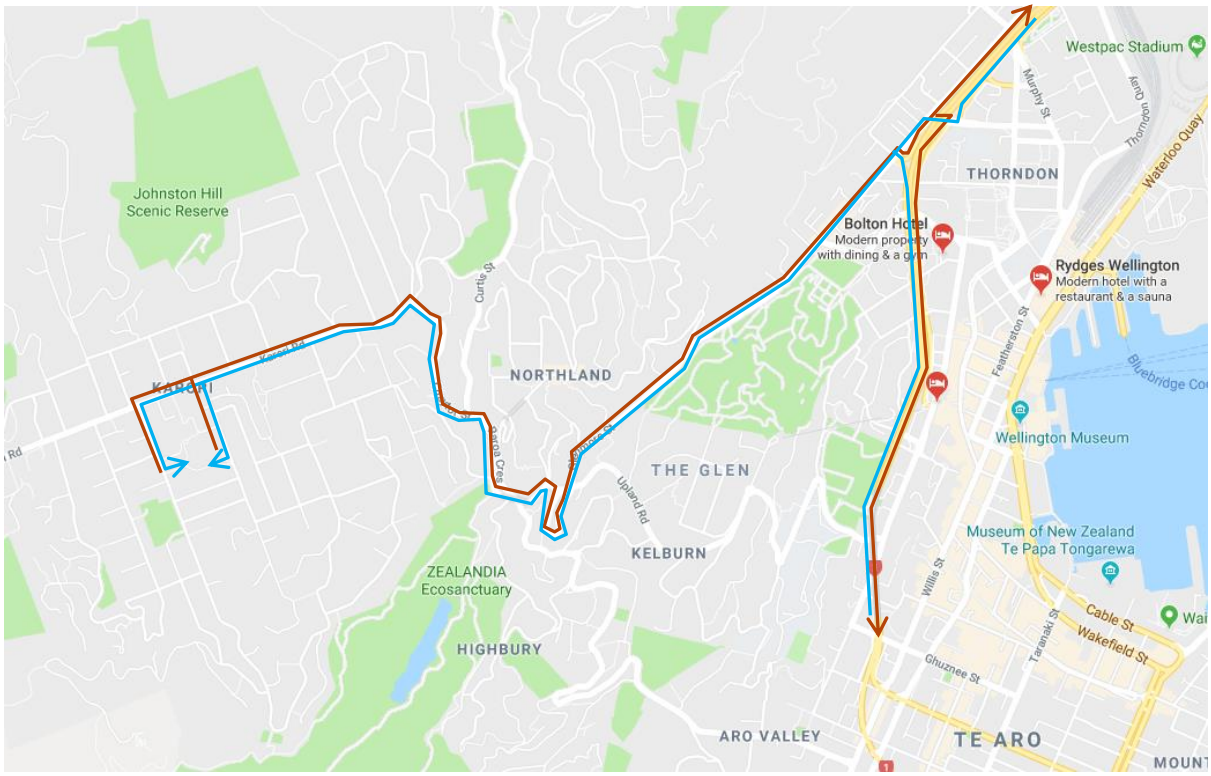
5.6 TRUCK ROUTES TO AND FROM THE SITE

Truck routes to and from the site are expected to be focused to and from the east via Karori Road.

The key is that all trucks will need to approach the site from the north on Donald Street to access the wider arterial network via the Donald Street / Karori Road signalised intersection, unless approved by Council.

Figure 9 shows the recommended truck routes approaching the site and the arterial network.

Figure 9: Recommended Truck Route to /from Site



All vehicles departing the site with demolition rubbish must have their loads fully covered prior to entering the road network. In the unlikely event that any material spillage does occur, the material will be immediately removed from the road.

5.7 ROAD SIGNS

The proposed signs to be used as part of the traffic management of the site access points are detailed in Figure 6 and Figure 8.

As noted, CoPTTM outlines signs that can be used for construction works and does not permit the T2A “Hazard Warning” sign with the T217 “Trucks Crossing” supplementary plate to be used in urban areas. In any event, with the spotter to be on-site ensuring vehicle and pedestrian safety every time a truck enters the site, signs are not considered necessary.

“Site Access” sites are recommended at both the Donald Street and Campbell Street access points in accordance with CoPTTM. Additional signage includes:

- “Entry only” facing the street and “No Exit” sign facing the site at the Campbell Street access for vehicles utilising this access;
- “No right turn” sign onto Donald Street; and
- Specific sign at the Donald Street access to advise semi-trailer trucks that they will be unable to turn left at the nearby signals.

5.8 MATERIALS STORAGE

Materials are to be stored on-site. No berms or roads will be used for material storage at any time.

6 GENERAL

6.1 PARKING OF VEHICLES OF WORKERS AND SUBCONTRACTORS

There is room within the site for contractors to park on-site. Contractors and any infrequent workers will park on-site. Alternatively, similar to other Ryman projects, the construction team will potentially arrange parking at an off-site facility with contractors to be transported to site (e.g. by van).

It is understood that there will be a secure lock up facility provided on-site for the contractors to store their tools each night and as such contractors do not need to visit the site before parking.

No temporary parking restrictions required at the construction access points apart from that detailed in Figure 6 and Figure 8 which shows Parking restrictions (NSAAT) at the Donald Street access point.

6.2 PEDESTRIAN SAFETY

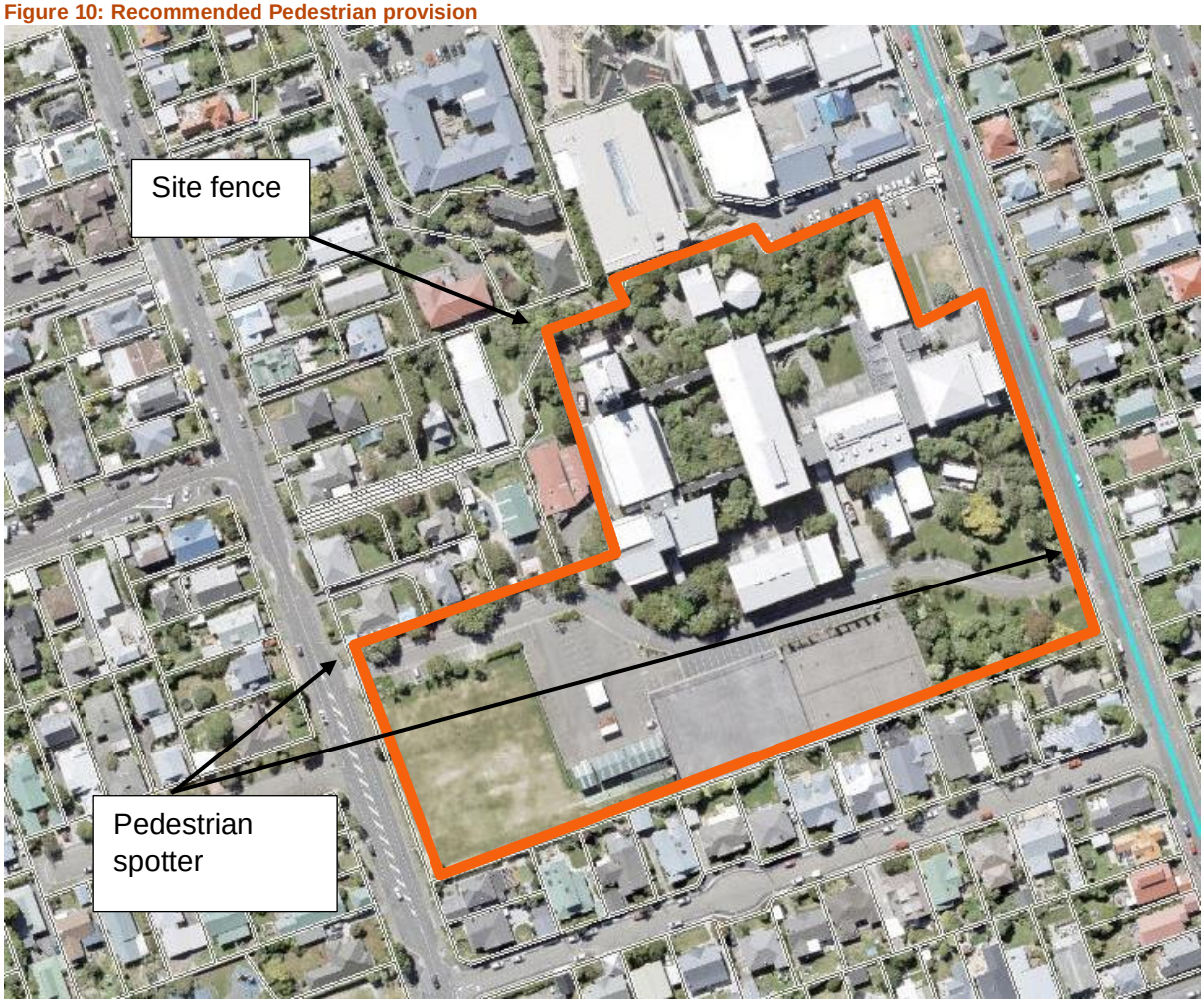
All movements by heavy vehicles to the site will be in a forwards direction with a worker / traffic controller assisting to ensure pedestrians are safe during the manoeuvre.

A TC or STMS will be placed on both the Donald Street and Campbell Street access to aid in pedestrian safety when any truck is entering or exiting the driveway. During concrete pours, when concrete trucks need to enter and exit the site during school hours, an additional TC or STMS will be provided at each site access so that both approaches from the footpath can be appropriately managed.

It is also suggested that a pedestrian hoarding / fence be located on the footpath surrounding the site providing necessary protection.

Figure 10 shows the recommended pedestrian safety measures around the site.

Figure 10: Recommended Pedestrian provision



With these measures in place, the truck being positioned clear of the footpath and no work within the road reserve, it is not considered necessary to close any footpaths in the area.

6.3 PROJECT MANAGER FOR THE PROJECT

The construction contractor / project manager for this project and their details are:

TBA

6.4 COMMMUNCIATION

It is not anticipated that access to the adjoining properties will be impeded during construction process, nor is it considered that there will be notable disruption to the users of the adjacent road network or pedestrians on the footpath.

A letter drop to neighbouring properties is recommended prior to the start of the construction programme advising of the proposed site works schedule. In particular the following people/ groups should be advised of the process:

- Karori Kids
- Karori Normal School
- Campbell Kindergarten
- Residents of Donald Road; up to Firth Terrace
- Residents of Campbell Road; up to Firth Terrace
- Residents of Scapa Terrace

6.5 UTILITY SERVICES

Power, telephones and data services within the site are to be isolated prior to the demolition, water should be disconnected at the metered supply and drainage is to be capped off by a registered drain-layer. As such, no utility services around the site are expected to be affected by the proposal.

7 CONCLUSIONS

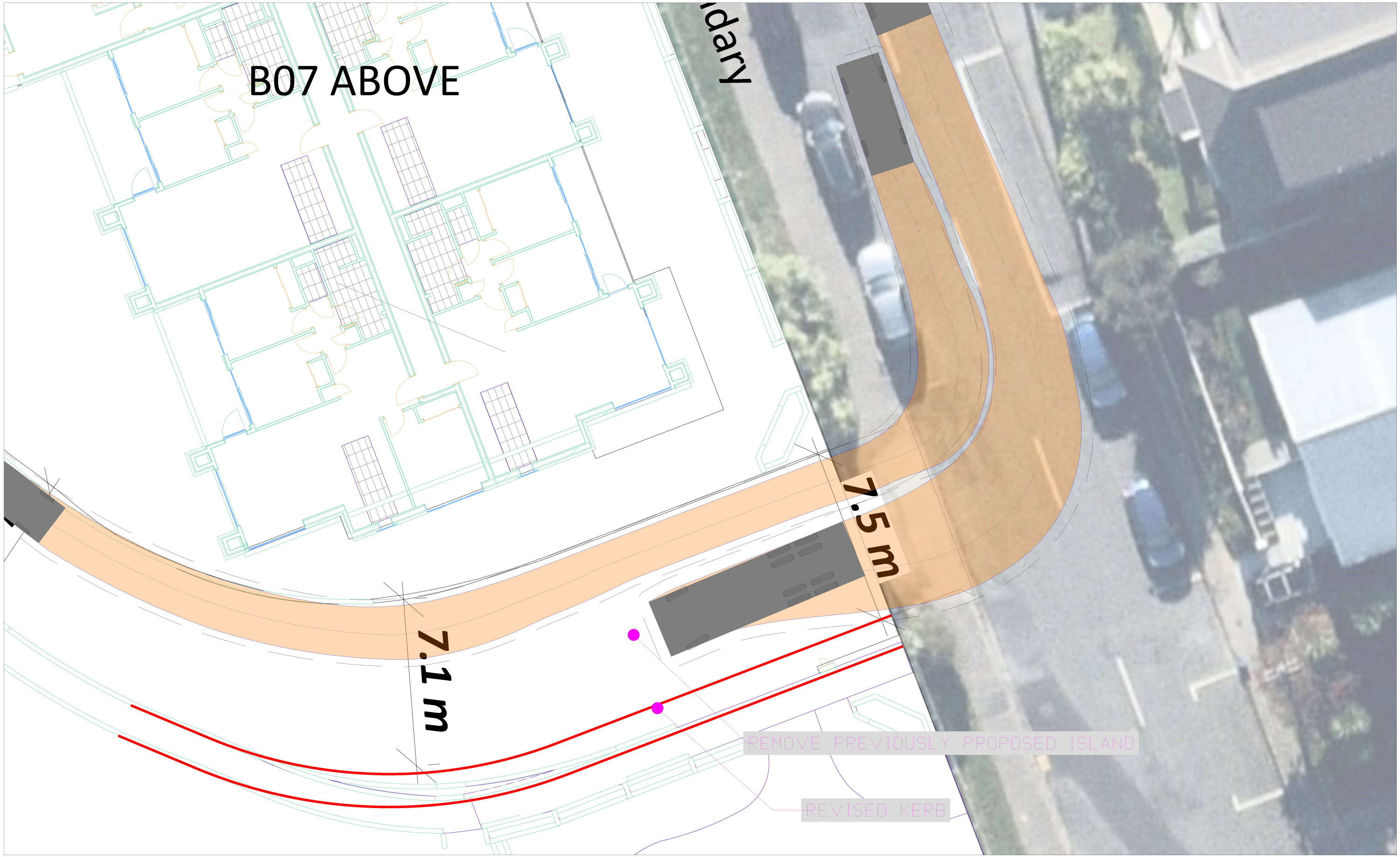
The traffic management measures detailed in this CTMP will ensure that any adverse effects on both the operating traffic environment and the local residents, due to the proposed construction operations, will be minimised. In particular:

- access will be via two proposed access points, with one access on Donald Street (main access) and one access on Campbell Street (likely to be used on a more limited basis).
- Pedestrian and vehicle safety is to be maximised with a TC or STMS at each site entry to aid in pedestrian safety (especially children). For concrete pours, both sides of the access will be managed with two TCs or STMS on-site at each access point;
- Trucks will need to be managed by each TC/ STMS to ensure that an entering truck is not delayed by a truck exiting;
- Pedestrian fencing should be installed around the site for pedestrian safety;
- General truck movements to the site should be minimised / avoid in school peaks of 8:15-9:15am and 2:30-3.30pm (with the exception of continuous concrete pours). Pick up and drop off of machinery or movements of Truck and trailers or semi-trailer vehicles shall not occur during this period. Additional TC/STMS should be provided at each site access for pedestrian safety;
- Truck routes as detailed in this report should be followed to ensure arterial roads are used wherever possible; and
- Detailed Traffic Management Plans (TMPs) will need to be submitted to Wellington City Council for approval of any works within the roading corridor including vehicle crossing works and front fence works.

It is therefore concluded that the traffic management measures identified in this report will ensure that the site works necessary for the construction of the proposed comprehensive retirement village to be located at 26 Donald Street and 37 Campbell Street can occur with minimum disruption to neighbouring residents and school children and the road network and the safety of the road network will be maintained.

Commute Transportation Consultants Ltd

APPENDIX 2: REVISED RAMP / ACCESS



Revision notes:

Rev:	Date:	Notes:

Drawn by:
LH
J00980 - Ryman Karori

Client:
Ryman

Project:
Ryman Karori
changes

Drawing Title:
Access (7.5m)
9.1m long truck vs car

Date:
23 August 2022

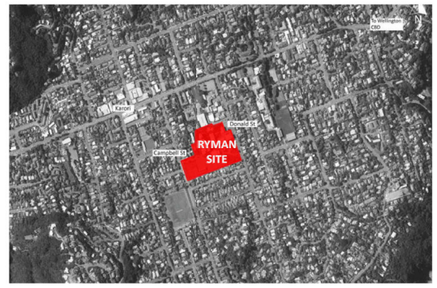
Scale @ A3:
1:100 @A3

Revision:
A

commute
TRANSPORTATION CONSULTANTS

Figure:
A

NORTH



LOCATION PLAN NOT TO SCALE

Buildings/Terraces Above

Existing buildings
Refer to RC06 for further information

LEGAL BOUNDARIES

FIRE EXIT

AREA ALLOCATION :

- DEMENTIA, CARE, REST HOME
- ASSISTED LIVING SUITES
- APARTMENTS
- VILLAGE CENTRE
- PARKING
- CIRCULATION, SERVICES

NOTE:
TREES REFER TO LANDSCAPE PLAN

NOTES:

- OVERALL VILLAGE WASTE MANAGEMENT STRATEGY TO BE DEVELOPED IN LATER STAGES BUT GENERALLY OPERATES AS FOLLOWS:
- **VILLAGE CENTRE -** ALL WASTE TO BE TRANSPORTED TO THE WASTE STORE BY STAFF
- **APARTMENTS -** RESIDENTS DISPOSE OF WASTE IN BINS LOCATED IN DEDICATED BIN ROOMS WITHIN UNDERCROFT PARKING AREA. STAFF TO TRANSFER BINS TO WASTE STORE OR TO REFUSE COLLECTION ZONES
- **ALS & CARE** - STAFF TO TRANSFER WASTE TO WASTE STORE

200mm
100mm
ORIGINAL SCALE
0mm

19/08/2022 11:31:16 AM
BIM 360://042 - Karori/042-RCT_401_S01_SITE PLAN.rvt

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COMPREHENSIVE CARE RETIREMENT VILLAGE - DONALD STREET, KARORI, WELLINGTON

PROPOSED SITE PLAN - LEVEL 0

A1 sheet scale = 1 : 500
A3 sheet scale is twice scale shown above

AMENDMENTS:

A	18 JUNE 2021	RC UPDATES (POST LODGEMENT SET)
B	AUGUST 2022	PRE RC HEARING UPDATES (REFER TO DRAWING LIST SHEET FOR DETAILS)

LOCATION:
DONALD STREET, KARORI, WELLINGTON

DRAWING TITLE:
PROPOSED SITE PLAN - LEVEL 0

BLOCK NO.:	S01	AMENDMENT:	B
PROJECT NO.:	042	STAGE NO.:	RCT
PDF NAME:	042 - RCT _ S01 _ .A0-030 _ B		
SCALE:	As indicated	DRAWING NO.:	
DRAWING STATUS: RC05			.A0-030