BEFORE THE INDEPENDENT HEARING PANEL APPOINTED BY UPPER HUTT CITY COUNCIL

IN THE MATTER of the Resource Management

Act 1991 (RMA)

AND

IN THE MATTER of a request by MAYMORN

DEVELOPMENTS LIMITED for

Private Plan Change 55 (Gabites Block) to the Upper Hutt District Plan under Part 2 of Schedule 1 to the RMA

STATEMENT OF EVIDENCE OF JAMES WHITTAKER

TRAFFIC AND TRANSPORTATION

30 SEPTEMBER 2022

Counsel acting:

JAMES WINCHESTER BARRISTER

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INTRODUCTION

1. My full name is James Whittaker.

Qualifications and experience

- I hold a Bachelor of Arts degree with Honours in Geography from the University of Leicester (United Kingdom). I have more than 18 years' experience in the field of transportation planning and traffic engineering, in both the United Kingdom and New Zealand, and am a member of Engineering New Zealand.
- I am a Principal Transportation Planner at Stantec NZ, where I have worked for the past 17 years practising as a traffic planning/engineering specialist. I have been involved in a considerable variety of traffic and transportation planning projects throughout New Zealand covering matters relating to road design, traffic safety and traffic management. I have also undertaken many transportation assessments and provided traffic engineering advice for a large number of activities, including commercial, retail and residential developments and plan change applications throughout New Zealand.
- 4. This evidence is given in support of the Private Plan Change 55 ("PC55") application by Maymorn Developments Ltd ("MDL") to rezone approximately 75-hectares of land known as the Gabites Block ("Site") in Maymorn, from its current Rural Hill/Valley classification to one that enables rural and rural residential subdivision.
- **5.** I am authorised to give this evidence on behalf of MDL.

Code of Conduct

6. I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and confirm that I have complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise, except where I have indicated that I am relying on others' opinions. I have not omitted material facts known to me that might alter or detract from my evidence.

INVOLVEMENT IN PC55

- 7. By way of background, I first became involved with PC55 in 2021, when my company was approached by MDL to provide traffic engineering and transport planning inputs into how the land might be developed for rural residential purposes, subject to appropriate re-zoning. I was then responsible for working alongside the wider project team to prepare a Development Area 'Structure Plan' for the Site, and for preparing the associated 'Integrated Transport Assessment' ("ITA Report") dated 15 October 2021.
- **8.** During the course of the project I have been involved in engagement with planning representatives at Upper Hutt City Council as well as the Waka Kotahi NZ Transport Agency ("Waka Kotahi"), in relation to the traffic and transport matters associated with the proposed Site development.
- 9. Having lived in the Wellington region for more than 15 years (prior to moving to Christchurch early in 2022), I am familiar with the Site location and have visited it during my involvement with the project.
- 10. I note that at the time of preparing the ITA in mid to late 2021, Covid-19 alert level restrictions were impacting on travel patterns. I have therefore arranged for fresh traffic count data to be collected on Maymorn Road in the vicinity of the Site in July 2022, to capture up-to-date traffic volumes.

PURPOSE AND SCOPE OF EVIDENCE

- 11. In this matter, I have been asked by MDL to present my views and findings in respect of the transportation related needs and effects of the proposal to rezone land within the Site, that would enable low density residential and rural residential subdivision to occur. My findings draw from the work undertaken by myself and my company since our involvement began.
- 12. I confirm that I have read the submissions received in response to notification of the Application insofar as they relate to my area of expertise, as well as the

Council's Section 42A Report ("s42A Report") and Council's consultant Traffic Engineers Peer Review of my ITA Report¹ and subsequent Transport Statement prepared to inform the s42A Report.

- **13.** I have structured my evidence as follows:
 - (a) to summarise the key points and conclusions from the ITA Report, including:
 - (i) Site location and transport environment;
 - (ii) Overview of the proposed low density and rural residential activity;
 - (iii) Site access;
 - (iv) Traffic generation;
 - (v) Impacts on the surrounding transport network
 - (vi) Provision for active mode transport
 - (b) to respond to matters raised by submitters; and
 - (c) to respond to the Council Officer's s42A Report and the Council's consultant traffic engineer's evidence (as required).
- 14. I then present my final conclusions and, by way of summary here in my evidence, confirm the conclusions of the ITA Report that development enabled by the Proposed Plan Change can be achieved in an efficient and safe manner from a transportation perspective, with the controls enabled through the Proposed PC55 provisions.

INTEGRATED TRANSPORT ASSESSMENT REPORT

- 15. I was responsible for the 15 October 2021 ITA Report submitted as part of the Proposed Plan Change Request to Upper Hutt City Council.
- 16. I do not intend to repeat the detail of the ITA Report here, but will summarise key points as relevant to my response on the submissions and s42A Report. My ITA Report concludes that:

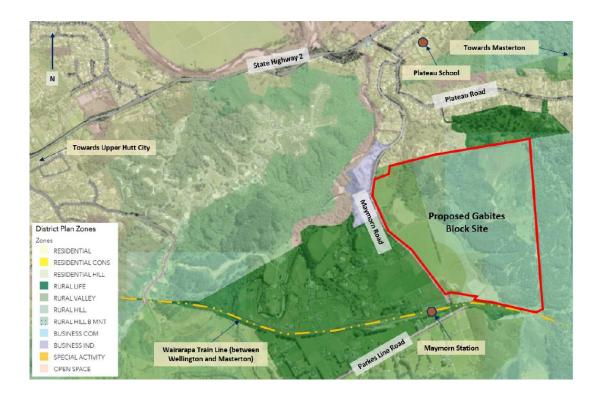
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¹ Dated 10 November 2021

- (a) The proposed low density residential and rural residential land use can be established in a manner that aligns with the relevant best practice industry standards for subdivision development, from a traffic and transportation perspective;
- (b) the proposed new subdivision access arrangements can be designed in general accordance with the District Plan provisions in a manner that will ensure they operate safely and efficiently;
- (c) assessment of the likely traffic generated by the new low density and rural residential activity indicates the addition of approximately 120-140 vehicles during the peak hours, once the Site is fully developed. I assess these additional volumes as being able to be accommodated on the local road network without causing safety or capacity issues; and
- (d) good quality pedestrian and cycle connections both within the Site and along Maymorn Road (which includes an improved alternative section of the Remutaka Rail Trail enabled by the proposed contribution of additional land to the Maymorn Road reserve), are included as purposeful components of the Proposed Structure Plan.
- 17. The matters raised by submitters, the s42A Report and by Council's consultant Traffic Engineer, do not give me cause to amend my findings or conclusions. That said, some of the matters raised require my further comment, as described through the evidence.
- **18.** Before doing so, it is relevant for me to briefly describe the key matters of my ITA Report.

Site Location and Road Environment

19. The PC55 application Site has frontage to Maymorn Road, which forms its western boundary. The aerial photograph below shows the location of the Site in the context of the local transport network and land use.



- 20. Maymorn Road is classified as a 'Local Distributor Route (Rural)' within the District Plan's roading hierarchy, serving to distribute traffic between local areas and providing a link between 'Collector' and 'Local' roads. The carriageway comprises an approximately 6.5m sealed width, accommodating a single traffic lane in either direction with marked edge lines, a centre line, and grass berms on either side of the road.
- 21. I note that the ITA incorrectly described the existing posted speed limit on Maymorn Road as 'open road' (100kph), which it has historically operated at but is now subject to an 80kph posted speed limit across the Site frontage. Importantly, the ITA's assessment in relation to Site access considered the measured 'operating speeds' (85th percentile) along Maymorn Road, which range between 80kph along the straighter carriageway alignment reducing to <70kph towards the northern end of the Site, where the road curves prior to a change to a 50kph posted speed limit approximately 100m north of the Site.
- 22. Approximately 900m north of the Site, Maymorn Road intersects with and continues as Plateau Road, in turn connecting with State Highway 2 ("SH2") at a priority controlled give-way T-intersection further north. The intersection arrangement with SH2 provides for separate left and right turns from Plateau Road,

with a dedicated right turn lane included on SH2 for vehicles entering Plateau Road. SH2 at this point has a posted speed limit of 80kph.

- 23. To the south of the Site, Maymorn Road passes beneath the Wellington-Wairarapa Rail Line, before turning west and continuing as Parkes Line Road, which is also classified as a Local Distributor Route (Rural). Parkes Line Road in turn connects with the Collector Routes of Mangaroa Hill Road and Wallaceville Road, providing alternative connection to SH2 and the Upper Hutt CBD.
- 24. To understand the existing traffic patterns on the road network in the vicinity of the Site, I have summarised available daily traffic count data in the table below, alongside fresh traffic counts undertaken on Maymorn Road in July of this year (outside of school holidays) to provide an up-to-date capture of daily volumes on the Site's road frontage.

Road	Location	2021 'IT <i>A</i>	Report'	2022		
		Count	Date	Count	Date	
Maymorn Road	(btwn Parkes Line Road and Plateau road)	930	2008	670	July	
Plateau Road	(btwn SH2 and Molloys Road)	2,700	2021			
Parkes Line Road	(btwn Maymorn Road and Mangaroa Hill Road)	500	2020			
Mangaroa Hill Road	(btwn Mangaroa Hill Road and Fergusson Drive)	1,500	2018			
Mangaroa Valley Road	(btwn Flux Road and Wallaceville Road)	600	2020			

- **25.** These traffic volumes are, in my opinion, entirely in keeping with the form and function of the respective roads.
- I note the more recent traffic count undertaken on Maymorn Road adjacent to the Site in July of this year indicates a decrease in daily flows in the order of 25-30%, as compared to the historic 2008 count data. There may be a number of reasons for these traffic volume changes, including changes in surrounding land uses and their associated traffic volumes, the change in speed limit whereby motorists have taken to using alternate routes, and the influences that Covid has had on work and travel related behaviours.

27. In this manner, I have undertaken a comparison of the daily traffic volumes on SH2 for the month of July in 2018 and 2022, to determine any associated change in volumes that could be attributed to Covid-19. These traffic counts are recorded in the table below for the two closest locations to the Site where data is available.

Road	Location	July 2018 (pre- Covid)	July 2022		
SH2	Pakuratahi River Bridge ²	6,597	6,623		
SH2	Kelson ³	38,154	37,344		

- 28. As shown, Highway volumes recorded in July of this year are comparable with those recorded prior to any Covid influences. Notwithstanding this, I acknowledge that for commuting trips a more generally accepted 'Work from Home' culture has emerged since Covid that may be influencing trip making.
- 29. It is clear to me from the data available that Maymorn Road carries less traffic now than it did in the past. Irrespective of the changes, it is my view that Maymorn Road has capacity to accommodate the additional traffic anticipated from the development enabled by PC55.
- 30. With regard to road safety, Chapter 4 of my ITA Report described the accident record for the road network in the vicinity of the Site, indicating a total of six crashes (including 1 minor injury and 5 non-injury) have been recorded on Maymorn Road or Plateau Road between SH2 (inclusive of this intersection) and Parkes Line Road, for the five year period 2016-2020. I have reviewed the crash record for the equivalent area for any crashes occurring in 2021-2022, which shows no additional accidents have occurred.

Proposed Plan Change Activity

31. The proposed Structure Plan included in the PC55 request sets out a vision for developing the Site to accommodate a mixture of low density residential and rural residential subdivision, providing for approximately 170-200 lots in total.

 ² Site Ref: 00200937 (REMUTAKA – Waka Kotahi Telemetry Site 01- Pakuratahi River Bridge)
 ³ Site Ref: 00210965 (KELSON – Waka Kotahi Telemetry Site 99)

- The Structure Plan shows the proposed residential subdivision will be supported by an internal movement network that will provide an appropriate level of access and internal Site permeability, as well as delivering suitable active mode infrastructure including footpaths and shared paths. A number of proposed internal Site road typologies are proposed, that draw from the industry standard NZS4404:2010

 'Land Development and Subdivision Infrastructure' ("NZS4404"), which in my view provide a legible and connected movement hierarchy to support all mode trips within the Site. The road typologies were intended to be included in PC55 as an attachment to the Structure Plan. I recommend that they are included now.
- As shown within the Structure Plan, the proposed on-site walking and cycling infrastructure will be supplemented by the new shared path to be developed by Council within the Maymorn Road reserve along the Site frontage. Subject to the approval of PC55, the ability to implement the shared path will be realised through vesting portions of the Site to Council at the subsequent subdivision stage, which is required to increase the road reserve width and enable development of the shared path.
- I note that since the application was notified the PC55 provisions have been updated and now require that portion of the shared path between the Site's southern access and the Maymorn rail station to be constructed (at the developer's cost), prior to the Site being occupied. An indicative plan demonstrating the possible alignment of this path between the Site and the rail station is appended to my evidence.
- **35.** This in my opinion will deliver an appropriate mechanism to support safe and convenient active mode access to train services for those residents of the Site, assisting in providing a viable alternative to travel by private car for commuter trips.

Site Access

36. Access to the Site is proposed via three new intersections to Maymorn Road. This is in keeping with good practice wherein:

- (a) allotments fronting Maymorn Road are prevented from having individual vehicle accessways to Maymorn Road;
- (b) vehicles are not required to route long distances in order to access the external road network;
- (c) demand is spread across more than one intersection to assist efficiency for access/egress to and from the Site; and
- (d) vehicles can route via the most convenient intersection, in consideration of their wider network trip.
- 37. Of the three new accesses proposed, the northern access will serve the 'Northwest Area' comprising more traditional suburban density residential subdivision development. No vehicle connection will be provided between this area and the balance of the Site, since the presence of the 'Gabites Block Natural Area' makes this roading link impractical. The remaining two accesses will serve the balance of the Site that will accommodate lower density rural residential subdivision.
- **38.** As proposed, the location for the new Site intersections are, in my opinion logical, and through development of suitable detailed design are capable of providing safe access and egress on Maymorn Road.

Site Traffic Generation and Assessment of Effects

- The expected traffic generation of the completed subdivision is set out in Chapter 7 of the ITA Report, and assuming full development of the maximum expected yield of 200 lots draws from a combination of industry standard and local sources⁴ for residential dwellings to determine additional traffic on the network. The analysis concludes that the Site could be expected to generate total trips of:
 - (a) 140 vehicles per hour ("vph") during the AM and PM weekday commuter peaks; and
 - (b) up to 1,640 vehicles per day ("vpd").

⁴ Including the Waka Kotahi Research Report 453 'Trips and Parking Related to Land Use' 2011, and recorded household trip rates for established outer suburban catchments in Upper Hutt – giving an adopted peak hour and daily rate of 0.7vph 8.2vpd, respectively

- 40. Of these, it is predicted that around 70-80% of vehicles would route north to and from SH2, with the balance routing to and from the southwest via Parkes Line Road. This trip distribution has been informed using the Council's own District wide traffic model⁵, to appropriately take account of the variety of destinations and associated route choice for those vehicle trips generated to and from the Site.
- 41. I note these additional trips on the network will occur gradually as the Site is developed over time. In my view these traffic additions are not large, and are capable of being accommodated by the roads that serve the Site.
- 42. My detailed analysis of the SH2 Plateau Road intersection's performance⁶ with these additional vehicle trips shows the right turn out of Plateau Road operating at an entirely appropriate Level of Service⁷ ("LoS") 'C' with full development traffic and background growth added to the network, with the balance of turning movements operating at a LoS 'A' or 'B'. Since the PC55 application was lodged, I have liaised directly with Waka Kotahi on the performance of the SH2 intersection and understand they are comfortable with both the analysis undertaken and its future performance with Site traffic added to the network.
- A3. The resultant increases in traffic on the network to the south along Parkes Line Road and its connecting routes are forecast to be in the order of 35vph. These volumes are small, and in my opinion can be adequately accommodated without triggering any adverse capacity or safety issues, or need for mitigation.

Internal Movement Network

44. As described in my ITA Report at Chapter 10, the Site's internal transport network includes a series of specific roading typologies developed to align with the latest best practice industry standard NZS4404, which places emphasis on the function of the road carriageway relative to the land use activity it will serve.

⁵ Upper City Council's 'TRACKS' Transport Model

⁶ using the industry standard SIDRA Intersection Analysis software

⁷ Level of Service (LoS) is a six-level grading system for intersection performance (A to F), where Level A represents totally uncongested operation and minimal delays and queues, and Level F represents highly congested operation with long delays and extensive queuing

- A series of six roading typologies have been developed to deliver a legible roading hierarchy, including main site routes which connect to lower order local roads and cul-de-sacs. The roading cross sections have been developed to be both cognisant of the topographical constraints which exist in some parts of the Site, as well as provide appropriate active mode infrastructure in the form of a footpath or a shared path. Details of the Site's internal intersection separation and appropriate sightline availability will be confirmed through subsequent stages of subdivision consent and detailed design.
- 46. In my view the proposed surface level connections identified in the Structure Plan provide a safe and efficient movement system for all travel modes, being sympathetic to the current landscape environment.

Sustainable Transport Modes

- The proposed Structure Plan includes provision for good pedestrian and cycle connectivity within the Site through means of a network of footpaths, shared paths and shared carriageways, which form part of the proposed PC55 Site specific roading typologies. These dedicated internal walking and cycling routes will in turn connect with the established cycle trails to the east (including the Remutaka Rail Trail), and the Maymorn rail station by means of a shared path along Maymorn Road, that will be delivered at subdivision stage to provide safe active mode access to rail services for those residents of the Site.
- 48. In my view this new shared path within the Maymorn Road reserve presents an opportunity to deliver an important off-road walking and cycling provision, which could be extended approximately 350m north of the Site by Council in the future to connect with the established Maymorn Road footpaths that serve the residential suburban land use at Te Mārua.
- **49.** I consider that active mode connections within the Site, and to/from the nearby public transport node of Maymorn rail station, are appropriately provided for within the Structure Plan.

Planning Context

Council's 'Mahere Pae Tawhiti / Long Term Plan 2021-2031'

- Chapter 11 of my ITA Report sets out the District's broader planning considerations relevant to the PC55 proposal including the Council's Mahere Pae Tawhiti / Long Term Plan ("LTP"), which includes expectations around the future population growth and associated requirement for new residential activity areas to service this demand.
- 51. The 170-200 new dwellings that could be accommodated at the Site over the next few years would deliver new housing stock with minimal requirements for investment into public roading infrastructure, outside of a new shared path along Maymorn Road that would benefit the wider network and established land use to the north of the Site.

Council's Plan Change 50

- 52. The Council's 'Plan Change 50⁸', should it be pursued, seeks to facilitate required increases in housing stock identified in the LTP through potential changes to the existing District Plan provisions related to the 'Residential' and 'Rural' Zone chapters. The proposed amendments provide for intensification in existing residential areas, and an appropriate lower density residential activity in some existing rural zoned land.
- In response to the National Policy Statement for Urban Development 2020 and the Resource Management Amendment Act 2021, the latest information available on the Council website indicates that draft PC50 will now continue as the 'Rural [Zone] Review', with public notification expected in early 2023.
- Notwithstanding, under the draft PC50 provisions, the bulk of the Site was indicated to be zoned 'Settlement' which would allow for lot sizes of 2,000m², whilst the northwest portion of the Site was indicated as 'Low Density Residential,

⁸ Upper Hutt City Council Plan Change 50 'Rural and Rural Residential Chapters Review'

which would allow for lot sizes of 600m² plus a swathe of General Rural'. I note that the proposed Structure Plan therefore aligns with the intent of PC50 in terms of both scale and density of development enabled within the Site, and therefore traffic generated by it.

District Plan

- **55.** The transport policies of the District Plan seek to:
 - (a) ensure safe and efficient use of the transport network;
 - (b) promote accessibility between the City and outlying areas;
 - (c) ensure development of land is served by safe and adequate access;
 - (d) promote a safe and efficient roading network; and
 - (e) have regard to walking, cycling, public transport and transportation networks.
- 56. In my view the proposed Structure Plan and supporting PC55 provisions will ensure that the residential subdivision development will align with these overarching transport policies, through means of an appropriate site access strategy, provision of an appropriate internal movement network serving all modes, and safe active mode access to the nearby Maymorn rail station that provides an important link to the Upper Hutt CBD, Wellington City and wider region.
- Overall, I am satisfied that PC55 is consistent with the outcomes sought by the Council's LTP strategy for growth, the associated Council PC50 vision for enabling lower density residential activity across the Site, and the intent of the District Plan's transport related policies.

ISSUES RAISED IN SUBMISSIONS

- **58.** I have reviewed those submissions received in response to the PC55 application that raise specific transport matters.
- **59.** I note that a number of submissions raise essentially the same matters, which can be broadly grouped under topics (a) to (f) below. The Fire and Emergency New

Zealand, Waka Kotahi and Greater Wellington Regional Council submissions raise the specific matters I summarise at points (g) to (i) below.

- (a) road safety;
- (b) effects of additional traffic on the capacity and performance of the road network;
- (c) provision for active modes;
- (d) inadequate public transport links;
- (e) proposed Site access strategy: specifically the number of accesses, available sightlines, and prohibiting direct lot access off Maymorn Road;
- (f) headlight nuisance / glare from vehicles exiting the PC55 new intersection(s) on existing properties on the opposite side of Maymorn Road;
- (g) <u>Fire and Emergency New Zealand</u> access for firefighting appliances;
- (h) Waka Kotahi
 - request more certainty around multi-modal links and require an active mode connection to the rail station in advance of Site development; and
 - (ii) internal roads should include a sealed footpath on at least one side of the road.
- (i) Greater Wellington Regional Council
 - (i) provide additional parking for Rail Trail users;
 - reassess the appropriate speed limit on Maymorn Road and consider revising this down to 50kph as Site development progresses;
 - (iii) assess the traffic impacts on Mangaroa School; and
 - (iv) include EV charging within the Site.
- **60.** I address these matters in turn below.

Road Safety

61. Several submitters have raised concerns that the carriageway alignment and speed environment on roads around the Site including Maymorn Road, and in particular

at the intersection with Plateau Road, make them unsuitable for additional vehicle trips.

- As I have described earlier at Paragraph 30, a review of the safety record shows only six crashes in the last six years, with all of these being non-injury (i.e. vehicle damage only) except for one, which was recorded as a minor injury. A review of the only crash recorded on Maymorn Road shows it occurred at 9pm at night involving a vehicle evading police, where the driver intentionally collided with a police car. As such, there is no indication that the current rural roading environment in the immediate vicinity of the Site is inherently unsafe, or presents difficulties to the existing users.
- 63. The intersection of Maymorn Road and Plateau Road is located within the 50kph posted speed limit and is formed as a stop controlled T-intersection. Sightlines available at the intersection approximately 60m in each direction, noting the horizontal alignment of the Maymorn Road and Plateau Road approaches for priority traffic serve to reduce operating speeds to <50kph. Taking account of this, an associated 'Stopping Sight Distance⁹' requirement of 40m is recommended for a 40kph speed environment, and a 55m distance for a 50kph speed environment, which the intersection satisfies.
- Further, a search of the crash record for the last 10-years shows no accidents for traffic turning at the intersection, and only one incident recorded back in 2012 on Plateau Road to the north involving a southbound vehicle losing control on the right-hand bend and colliding with the kerb. The accident was recorded as a non-injury (i.e. damage only).
- With only one crash recorded in the vicinity in the last 10-years, which was unrelated to traffic turning at the T-intersection, this in my view demonstrates the intersection in its current form is operating satisfactorily.
- **66.** Further to concerns around the Plateau Road intersection, several submitters have raised concerns around PC55 traffic additions on the safety and operation of the

⁹ Austroads Guide to Road Design Part 3: Geometric Design

Plateau Road / Molloys Road intersection in relation to Plateau School, which is accessed off Molloys Road.

- A search of the accident history of Molloys Road and its intersection with Plateau Road for the last 10-years shows no recorded crashes, indicating this part of the network is operating without any existing safety issues. In an equivalent manner to the other intersections along Maymorn Road and Plateau Road, my assessment is that the network can continue to function safely with the additional PC55 traffic added.
- 68. In addition, submitters have raised a particular safety concern around the existing levels of heavy vehicles operating on Maymorn Road, associated with a number of commercial activities on the western side of the road.
- A review of the most recent traffic count data on Maymorn Road undertaken in July 2022 shows approximately 60-65 trucks per day currently operate along this route during a typical weekday. Of these, around 90% are classified as 'medium commercial vehicles'. These truck movements are generally concentrated around the late morning and early afternoon, outside of the usual commuter peaks. Again, the existing accident record does not indicate there are current safety issues with these established truck movements operating on the roads in the vicinity of the Site. With development of safe and appropriate new intersections serving the PC55 area, I do not consider this will change with the introduction of the forecast additional Site traffic volumes on the network.

Effects of additional traffic on the capacity and performance of the road network

- **70.** Submitters have raised capacity concerns regarding the additional traffic that will be generated by the development proposal in relation to congestion on the rural roads to the southwest of the Site, as well as at the SH2 / Plateau Road intersection.
- 71. As I have described earlier at paragraphs 39-43, Site traffic that is expected to route via Parkes Line Road and its connecting routes to the southwest of the Site is forecast at approximately 35vph during the peaks. Such volumes are not large, and in my view can be readily absorbed on the various roads within this catchment

- including Mangaroa Valley Road and Mangaroa Hill Road, without giving rise to any adverse capacity issues.
- **72.** With respect to the SH2 / Plateau Road intersection to the north of the Site, some submitters have suggested it will be more difficult for vehicles to turn to and from the Highway, given the additional development traffic from PC55.
- 73. I do not disagree that some drivers may experience longer delays in making turns, much in the same way as occurs now where a range of delays are experienced by drivers depending on the time of day and traffic conditions. I have therefore used an intersection analysis tool (SIDRA) to inform the anticipated future intersection operation.
- 74. My ITA Report, at section 8.2, sets out the detailed analysis undertaken of the SH2 / Plateau Road intersection performance with the additional PC55 traffic added, to quantify any change in delay. The analysis summary from my ITA Report is included for reference below, and shows the intersection will operate at a good Level of Service 'A' to 'C' with full PC55 development traffic added and future background traffic growth, during the critical weekday AM and PM peaks.

Approach	Movement	Base 2021		Base + 170 HH		Base + 200 HH		Future 2028		Future + 170 HH		Future + 200 HH	
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ
SH2 (South)	Through	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
	Right	Α	Α	Α	Α	Α	Α	В	Α	В	Α	В	Α
Plateau Rd (East)	Left	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
	Right	В	В	В	С	В	С	С	С	С	С	С	С
SH2 (North)	Left	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α
	Through	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α	Α

75. Waka Kotahi has reviewed the analysis, methodology and forecast performance of the intersection described in the ITA Report, and accept that the associated effects arising from PC55 development can be adequately accommodated at this location, without mitigation.

Overall, I consider that establishment of the proposed residential subdivision envisaged by PC55 within the Site would have no significant effects on non-Site related traffic using the surrounding roads including Maymorn Road, or those vehicles at the SH2 / Plateau Road intersection.

Provision for active modes

- 77. A number of submitters note concerns around the lack of active mode connections between the Site and the established Te Mārua amenities to the north, and Maymorn rail station to the south.
- As I described earlier at paragraphs 47-49, the proposed Structure Plan will facilitate the creation of a new shared path along Maymorn Road, which in turn could be extended approximately 350m north of the Site to link with the established footpath network at Te Mārua. This would provide a continuous connection between Te Mārua, the PC55 Site, Maymorn rail station, and Remutaka Rail Trail, for both new and existing users alike. I consider this to be an important outcome for the area, which is currently lacking safe off-road provision for active mode users.
- 79. In response to the Waka Kotahi submission, I recommend that an active mode connection between the Site and Maymorn rail station is required to be provided as part of the first subdivision of the Valley Flats Area. This would take the form of a new shared path between the Site and the rail station, including safe provision for pedestrians and cyclists to cross the carriageway. I have provided an indicative plan of the path and recommend that it be included in PC55 as an attachment to the Structure Plan. In my view the path is an appropriate measure to encourage and support the use of active mode trips for accessing this important and proximate public transport node.
- **80.** Submitters have also noted the current demand for horse riding within this part of Upper Hutt, and request that in addition to the new Maymorn Road shared path a separate bridleway be provided to accommodate horses, including a connection to the Rail Trail.

- 81. The provision of a new 2.5m wide shared path and separate berm along the Site frontage enabled by PC55 could also accommodate horse riders. The expected demands from pedestrians, cyclists and occasional horses are not of a quantum that would in my opinion create issues of regular conflict between these different user groups. Further, the path surface finish is able to be designed to be cognisant of the varied users it will accommodate, including horses.
- **82.** Within the Site, the shared path would link Maymorn Road to Pākuratahi Forest as an improved alternative route linking to the Remutaka Rail Trail. I understand from Mr Cumming that the Parks Department of the Greater Wellington Regional Council has indicated its approval in principle to this Forest connection.
- 83. In my opinion then, the proposed PC55 shared path connection to the rail station that will be developed as part of the Site establishment, and creation of space along the balance of the Site frontage to Maymorn Road for Council to extend the shared path north and ultimately connect with the active mode network at Te Mārua, along with provision of a link to Pākuratahi Forest, will accommodate a range of both existing and new active mode demands safely, including horses.

Inadequate public transport links

- **84.** Submitters have raised concerns that the current public transport services that serve the Site are inadequate.
- 85. Safe and convenient access for PC55 residents to the current closest bus stops on Plateau Road approximately 1km to the north would be realised upon completion and extension of the Maymorn Road shared path. Even then, there may be opportunity in the future for this bus route to divert to or past the PC55 Site, providing better access for the Site residents to make use of it for connecting through to the Upper Hutt CBD and destinations in between.
- **86.** Notwithstanding, with rail travel offering a generally quicker journey time to Upper Hutt CBD, Waterloo station in Lower Hutt, and Wellington CBD, I consider that most commuters would favour the train services over bus. In this regard, the convenient and proximate access to the Maymorn station from the PC55 area, as enabled by

the required new shared path connection, will in my opinion serve the new residents of the Site well.

Proposed Site access strategy off Maymorn Road

- **87.** Submitters have raised concerns around the number of proposed new intersections included on the Structure Plan to serve the Site.
- As I described earlier at Paragraphs 36-38, access into the 'Northwest Area' of the Site needs to be achieved via a separate intersection, since a vehicle connection into the balance of the PC55 land is precluded by the presence of the 'Gabites Block Natural Area'. The remaining two accesses to the south that serve the wider PC55 Site in my view provide an appropriate level of route choice and permeability for the level of development proposed. I note the proposed site-specific PC55 District Plan provisions¹⁰ include the wording 'provide no more than three road intersections to Maymorn Road', which would not preclude the development of fewer accesses.
- **89.** Concerns have also been raised around the available sightlines for traffic exiting the Site onto Maymorn Road, given the road carriageway alignment along the PC55 frontage includes some curves.
- 90. The indicative locations for each of the three Site intersections have been determined based on achieving safe sightlines for turning traffic, taking account of the recorded operating speeds on Maymorn Road in the vicinity of the proposed new accessways. Removal of vegetation within the road reserve will be required to ensure unobstructed views can be achieved to the north and south of these intersections, noting the creation of sufficient width for a shared path along the Maymorn Road frontage to the Site within the 'road reserve' will assist in significantly opening up sightlines.
- **91.** Further, the detailed design arrangements for these future Site intersections at Maymorn Road will be subject to a full review and certification from Council, prior

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¹⁰ Amendment 11 Sub-Dev3-P2 #2

to construction. This detailed design will also need to be cognisant of any localised widening that may be required to safely accommodate turning traffic at the Site interface, from through vehicle movements on Maymorn Road.

92. I consider therefore that the requirement for review and certification by the Council of any proposed new Site intersection design at Maymorn Road at subsequent subdivision consent stage, is an appropriate mechanism for ensuring a safe and efficient intersection arrangement can be achieved, including in respect of demonstrating adequate sightlines.

off Maymorn Road to the Site could give rise to safety issues. I note the PC55 Site provisions include a proposed new Policy¹¹ to 'avoid providing direct property access onto Maymorn Road'. In my opinion, this is an appropriate measure to manage individual lot access to the frontage street, noting the PC55 on-site movement network will provide for all individual lot access to be achieved internally.

<u>Headlight nuisance / glare from vehicles exiting the PC55 new intersection on</u> existing property on the opposite side of Maymorn Road

- One submitter has raised concerns about the proposed indicative location for a Site intersection being immediately opposite their driveway, which would give rise to light nuisance from vehicle headlights exiting the PC55 Site.
- 95. I note that the final design for the intersections is yet to be developed, such that determination of the final location can take such issues into account. Notwithstanding, I consider that some form of fencing or planting could be employed to mitigate such effects of light nuisance on affected properties, if required.

¹¹ Amendment 11 – SUB-DEV3-P2 (3) 'Transport Network'

Fire and Emergency New Zealand ("FENZ")

- **96.** FENZ has requested a number of specific firefighting appliance access requirements be added to the PC55 District Plan amendments, since the large portion of the Site will not have a reticulated water supply.
- 97. Under the site specific PC55 proposed provisions¹², those properties outside of the 'Northwest Area' that are not served by reticulated water will be required to provide domestic fire sprinkler systems and related on-site firefighting water supply in accordance with the New Zealand Fire Service Firefighting Water Supplies

 Code of Practice SNZ PAS 4509:2008 ("FENZ Code"), which includes specific site access requirements at Section 6.5 and Appendix B¹³. In my view, this will provide the proper guidance for what provision must be made to ensure adequate firefighting access for each lot not served by reticulated water supply, and removes the need for any bespoke or standalone provisions needing to be incorporated in the PC55 District Plan amendments.
- **98.** By way of providing clarity, I recommend adding a new access standard to refer to the appropriate requirements of the FENZ Code for fire appliance access. The standard SUB-RUR-S3 would apply to the Gabites Block Development Area and would state:

Access within allotments must meet the requirements of Appendix B of the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008.

Waka Kotahi

99. Waka Kotahi has sought more certainty around the Site's multi-modal connections, and specifically that a shared path connection between PC55 and the Maymorn rail station be established, prior to the Site being developed.

¹² Amendment 13 – SUB-DEV3-S2 'Water Supply'

¹³ FENZ Code – Section 6.5 and Appendix B (diagram B4)

- 100. In response, and as I confirmed earlier, the proposed PC55 site specific District Plan amendments have been updated to include a new provision requiring a shared path connection between the Site and the rail station and associated safe crossing point on Maymorn Road be established, before development of the Site occurs.
- **101.** Waka Kotahi has also requested that all PC55 road typologies include a footpath on at least one side of the street.
- As described in my ITA Report at Section 10, the Site's internal movement network includes a total of six road typologies which draw from the national standard NZS4404. Of these, five typologies include either a footpath or shared path on one side of the carriageway, to serve pedestrian and cycle demands. The '5.5m Road with swales & No Path', which is designed as a low volume 'access road' serving a small number of lots, has been designed to provide a slow speed environment within the narrower 5.5m carriageway width, with grass berms on either side. In this manner, pedestrians would either share the carriageway or use the berms provided, which is consistent with the intent of NZS4404 for roads of this type and function.
- **103.** In my view, this road typology will be able to safely accommodate the combination of vehicular and active mode demands.
- These Site specific roading typologies effectively form indicative road construction standards and were referred to in the PC55 application provisions at SUB-DEV3-P2 and SUB-DEV3-S6, but omitted in error from DEV3-APPENDIX 1 Gabites block development Areas Structure Plan. I therefore recommend these be added to DEV3-APPENDIX 1.

Greater Wellington Regional Council ("GWRC")

105. In respect to the proposed PC55 amendment SUB-DEV3-P5, which provides for adjustments to the Maymorn Road 'road reserve' boundary to allow adequate width for creation of the shared path along the Site frontage, GWRC has requested that parking be provided for within the road reserve for visitors to the Rail Trail and Pākuratahi Forest.

- 106. I note that Upper Hutt City Council will be responsible for determining the use of space within the road reserve, and ultimately for providing any roadside parking to support the nearby amenities such as the Rail Trail and Pākuratahi Forest. These matters in my view sit outside of the PC55 Site, although I note that the Structure Plan beneficially provides for off-road access to these adjacent Council and GWRC facilities.
- **107.** GWRC has also recommended that the speed limit on Maymorn Road be reduced, in response to the residential activity development that would be enabled by PC55.
- 108. Any change to the existing speed limit is subject to a separate process which sits outside of the Plan Change request, and would need to be advanced by Council. In my view, for the reasons I have expressed, development of the land in the manner envisaged by PC55 is not reliant on speed limit changes on Maymorn Road.
- **109.** GWRC has also raised concerns around the potential impacts of PC55 traffic on Mangaroa School.
- As I describe in Section 7 of my ITA Report, and summarised earlier at paragraph 43, my assessment of PC55 traffic generation and distribution indicates additions of approximately 35vph are expected to route south to and from the Site via Parkes Line Road, during the weekday peaks. These volumes are small, and with trips further distributing via Mangaroa Hill Road, actual additions on Flux Road adjacent to the school will be even smaller. In my opinion then, associated impacts on the safety and operation of Flux Road, and Mangaroa School, will not be material and nor will any specific action or response be necessary.
- **111.** GWRC has requested that PC55 include provision for Electric Vehicle ("EV") charging.
- 112. In my view, specific Plan rules for EV charging are not necessary and dwelling occupiers will be able to provide their own EV charging arrangements via domestic hook-up, as is typical of subdivision developments elsewhere.

SECTION 42A REPORT

113. I have read the conclusions reached in both the Traffic Evidence prepared by Mr Wignall¹⁴ (Council's traffic engineer advisor), as well as the Council Officer's s42A Report.

114. I note that Mr Wignall's analysis raises no material issues or differences of opinion to the evidence and analysis that I have provided, and does not recommend any modifications to PC55 that are relevant to our respective areas of expertise. Accordingly, there is no additional evidence or response that I need to make in respect of the Council's section 42A report.

SUMMARY AND CONCLUSIONS REGARDING PC55

115. My evidence has assessed the transport matters that I am aware of in relation to the Application and I can safely conclude that:

- (a) As I have set out and described, a number of further provision changes and additions have been made since the application was lodged, which confirm a practical and safe transport outcome can be achieved for all vehicle and non-vehicle users;
- (b) I conclude from a traffic and transportation perspective that the development enabled by the proposed PC55 request can be established appropriately and safely in the manner contemplated by the Structure Plan and proposed Site zoning provisions.

DATED this 30th day of September 2022

James Whittaker

¹⁴ Appendix 5 to the Council's s42A report

