BEFORE A HEARING PANEL CONSTITUTED BY NELSON CITY COUNCIL

IN THE MATTER of an application by CCKV Maitahi

Development Co LP and **Bayview Nelson Limited** for a change to the Nelson Resource Management Plan (Plan

Change 28)

IN THE MATTER of Part 5 and Schedule 1 of the Resource

Management Act 1991

STATEMENT OF EVIDENCE OF Gary Paul Clark

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Name, qualifications and experience

- [1] My full name is Gary Paul Clark. I hold the position of Director of Traffic Concepts Limited.
- [2] This evidence is given on behalf of CCKV Maitahi Development Co LP and Bayview Nelson Limited (the "Applicant") for a change to the Nelson Resource Management Plan being Private Plan Change Request 28 (PC28).
- [3] I have been involved with PPC28 since August 2019 and have carried out multiple site visits and road inspections over this time. As part of my assessment, I have inspected the adjacent roads and wider road network and I am familiar with the roads in the area.
- [4] I have completed a number of assessments for the PC28 over this period which have included specific analysis for the PC28 as well as other projects on land adjacent to the PC28 area. The assessments that I have been completed as part of my analysis of the proposal and potential effects whether they are positive, or negative includes the following reports:
 - Transportation Impact Report (Impact Report) dated January 2021;
 - Further Information Response dated 30 August 2021;
 - Transportation Infrastructure Report (Infrastructure Report) dated March 2020;
 - Joint Witness Statement 1 (JWS1) dated 4 May 2022
 - Joint Witness Statement 2 (JWS2) dated 10 May 2022
- [5] My assessment of the traffic related effects of PC28 are included in my Transportation Impact Report dated January 2021 that was provided to Nelson City Council ("Council") with the application. Further information was provided to Council in my Further Information Response dated 30 August 2021.

[6] Qualifications and experience

- [7] I am a Chartered Professional Engineer and hold a New Zealand Certificate in Civil Engineering. I meet the standards to be a Registered Engineers Associate (REA) and I am a Member of the Institution of Professional Engineers NZ (MIPENZ) and its specialist Transportation Group. I am a Chartered Professional Engineer that specialises in traffic engineering and transportation planning.
- [8] I have post graduate passes and masters papers for traffic engineering, advanced traffic engineering and accident prevention and reduction. I am also a Certified Road Safety Auditor and was part of the working group that prepared the "Road Safety Audit Procedures for Projects" publication released by Waka Kotahi New Zealand Transport Agency ("NZTA"). I also co-published the NZTA document "The Ins and Outs of Roundabouts". I was a certified Commissioner after completing the Making Good Decisions Commissioners Course. I chose not to be recertified due to other work commitments.
- [9] I have been working in the road and traffic industry since the end of 1981. The knowledge and experience gained over 40 years includes most road and traffic-related matters, and in particular elements around planning, design and safety. I have prepared transportation assessments for both small and large developments throughout New Zealand.
- [10] I have worked for the Ministry of Works, Ministry of Transport, Local Authorities and multi-national consultancies. More recently I was Transportation Manager at Tasman District Council and worked for Traffic Design Group (TDG) where I was a Senior Associate and Branch Manager of the Nelson Office. In July 2018 I decided to return to my own consultancy which has been operating since July 2004. I am the Director of that company.
- [11] As an experienced and recognised road safety auditor I have conducted road safety audits for Waka Kotahi, Councils and developers. For more than 30 years I have been involved in crash investigation studies and

- developing measures to address road safety issues. I have also been engaged in the development of strategies for road and traffic related issues.
- [12] I have designed, reviewed and prepared designs for roads, intersections, developments, road safety schemes and town centre redevelopments. This work has included detailed traffic modelling to assess intersection capacity and levels of service.
- [13] I have presented evidence in resource consent hearings and the Environment Court for applications in my specialist area of traffic engineering, road safety, transportation planning and road design.

Expert Code

- [14] While this is not an Environment Court hearing I have met the standards in that Court for giving expert evidence.
- [15] I have read the Code of Conduct for expert witnesses issued as part of the Environment Court Practice Note 2014 (Part 7). I agree to comply with the Code of Conduct. I am satisfied that the matters addressed in this statement of evidence are within my expertise. I am not aware of any material facts that have either been omitted or might alter or detract from the opinions expressed in this statement of evidence.
- [16] I have no commercial or other interest in the outcome of this application, nor any conflict of interest of any kind.

Role in Project

- [17] My role for the PC28 was to provide detailed assessments of the road environment and assess the potential effects of the plan change request on the adjacent and wider road network. These assessments included analysis of the road safety elements of the road network, the use of alternative transport modes and identifying any deficiencies on the adjacent road network that may be adversely affected by PC28.
- [18] As part of the PC28 process I was also involved in providing expert assistance in preparing Joint Witness Statement for traffic matters (JWS 1

dated 4 May 2022 and JWS 2 dated 10 May 2022). I am one of the signatories to those Joint Witness Statements.

Scope of Evidence

[19] The purpose of this evidence is not to restate matters that are already contained in reports or that have not been identified as controversial following expert conferencing. Rather it is to address significant matters in contention arising from submissions or any matters of disagreement between experts.

Section B – Executive Summary

- [20] In summary the PPCR area is ideally located to take advantage of space capacity in the adjacent road network and encourage alternative transport modes. The PPCR area is well positioned to provide a well-connected development area that will enable excellent walking and cycling opportunities to work and other services. This aligns well with the policies and objectives of the Nelson Resource Management Plan and Council's focus on reducing vehicle use and alternative transport modes to town. The PPC28 is also consistent with the outcomes provided for in the Government Policy Statement (GPS), National Policy statement on Urban Development (NPS-UD) and the Regional Land Transport Plan (RLTP).
- [21] The issues and gap analysis has identified a small number of specific network deficiencies that currently exist as well as parts of the road network where future works may be needed to manage the growth of the development. The key projects to address existing deficiencies and provide for future growth were identified. These have been included in Schedule X of the PPC28. There were no capacity constraints on the wider road network including Walters Bluff and Bay View Road as agreed inexpert conferencing.
- [22] The key advantages/opportunities of the PPC28 is its proximity to the centre of Nelson City and its location being on the eastern side of the city. The PPC28 area is only three kilometres from the centre of the business district and will enable excellent walking and cycling connections to be developed and used. The PPC28 area is also located on a part of the Nelson roading network that is operating

well below capacity, especially when compared to the southern side of Nelson. Using this spare capacity in the road network will make more efficient use of existing infrastructure and not require significant roading upgrades to accommodate the PPC28.

Section C – Joint Witness Statements

- [23] As the Commissioners will be aware there has been two traffic conferencing sessions with two separate Joint Witness Statements prepared dated 4 May 2022 and 10 May 2022 where a number of matters were agreed to and with only a few areas is disagreement.
- [24] A summary of the areas of agreement by all traffic experts (from both JWS 1 and JWS 2) included the following:
 - There is a feasible connecting route that can meet the NTLDM standards for a sub collector road and the provisions of the PPC28 are adequate to deliver anticipated outcomes. Mr James noted that the gradients for bus routes.
 - The upgrade of the intersection of Bay View Road and SH6 is excluded from PPC28.
 - No area wide traffic modelling is required.
 - The trip rate of seven trips per dwelling per day is appropriate.
 - The Walters Bluff connection will reduce the traffic flows on other PPC28 roads and Maitai Valley Road.
 - Changes to the Structure plan to include road and walk/cycle connections for Walters Bluff.
- [25] There were some areas of disagreement where all traffic experts agreed except for Mr James which are outlined below.
 - That Schedule X (or some other mechanism) identify specific infrastructure constraints and remedies that are required to be addressed at time of subdivision.

 There was also some other commentary which I will address below in my evidence.

Section D – Evidence

- [26] The focus on the main body of my evidence is around the matters that were unresolved as part of the expert conferencing between the traffic experts.

 The main areas of disagreement included the following:
 - Mr James is seeking a grade for the linking road between Maitahi to Bay View that is nearer to 1 in 15. This considered important for the provisions of bus services.
 - The trip distribution split where Mr James considered that potentially all the traffic from PPC28 would use the Maitai Valley Road.
 - Areas of the adjacent road network where there are key deficiencies.
- [27] I will go into each of these in more detail below.
- [28] But firstly, I thought it would be useful to outline the strategic transport context and how it is applicable to the PPC28.

Strategic Context

- [29] There are a number of high-level transportation documents from Central Government's, Waka Kotahi and Council that provide strategic direction and guidance that support PPC28. These documents include the Regional Land Transport Plan (**RLTP**) which I have focused on as this is a joint document with Waka Kotahi and the Top of the South Councils. It sets out the aligned strategic direction of the different parties. This document also sets the framework for other documents for Councils including funding.
- [30] The PPC28 development area and particularly Maitahi is ideally placed to take advantage of active and alternative transport modes due to its

- [31] The existing farmhouse, which is roughly in the middle of the Maitahi area, is around 3 kilometres from Collingwood Street. From the centre of the Bay View hill area (via a future Walters Bluff connection) it is around 2.5 kilometres from Collingwood Street, noting that it is a steeper route but well within e-bike capabilities. These short distances are making alternative transport options a real and practical choice.
- [32] It is likely to be quicker to cycle to the city centre from point to point more conveniently and quicker than using a vehicle. Vehicle users will need to travel their destination but in most cases park away from their place of work and park on-street. From there these commuters would then walk to work. With changes to how parking is managed in and around the city centre, parking will become more difficult, which will further encourage active transport modes.
- [33] The RLTP¹ provides a number of clear statements to guide the future direction of transport choices and how it will be funded which I have included below.

All three Councils have a strategy to increase the uptake of walking and cycling. Whilst each Council has slightly different targets, most share a goal of doubling the number of people walking and cycling within the next 10 years.

In order for active transport rates to double within the next 10 years, additional cycle infrastructure and supporting travel demand measures such as parking and speed control will be needed. In the context of Te Tauihu it means the network will have primary routes that are high quality, direct and separated from motor vehicles. Secondary routes will be shared environments through residential streets with low speed limits. Town centres will cater for more pedestrians. Bus stops will be better

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¹ Regional Land Transport Plan 2021 to 231 Pages 30 through to 33

connected to footpaths. There will be more options to carry cycles on buses or store your cycle at a secure facility.

Walking as a form of transport will be encouraged for trips that are less than 1km. Cycle networks will be designed so that trips between 5km and 15 km will be just as convenient or better by cycling than by driving a car.

Urban areas will be connected together using the existing recreational paths and creating new shared paths that follow roads or through esplanades that follow waterways.

There will be some compromises on the current priority vehicles currently get in our transport system. On some routes pedestrian and cyclists will get right of way and on others, speeds will be dropped to reduce the risk to pedestrians and cyclists. Parking policies will be revised to ensure that vehicles are paying for the space they occupy.

- [34] The high-level framework for PPC28 development and funding of transport infrastructure aligns well and is consistent with both Central and Local government goals and policy direction.
- [35] Other planning and asset management documents prepared by Waka Kotahi and Nelson City Council also provide the same direction to active and alternative transport modes.
- PPC28 is unique in terms of its proximity to an established city centre, the [36] low use of the adjacent existing roads and ability to enable/encourage the use of active and alternative transport modes.

Road Grades - Bus Route

Detailed information was provided at the conferencing session that showed [37] the linking road from the Maitahi Valley floor to the Bay View ridge could be constructed to a grade that is around 1 in 8. The minimum grade is constrained by the relatively steep climb between these two parts of the PPC28 area.

- [38] This grade is able to meet the requirements of a sub collector road which has a minimum requirement of 1 in 7. Mr James correctly noted that bus routes should be no steeper than 1 in 15 as noted in the NTLDM Table 4.8.
- [39] Mr James considers that the road grade should be closer to 1 in 15. In putting this view into context, to achieve a 1 in 15 grade would effectively require a road twice as long as proposed. This would require extensive earthworks to achieve this grade.
- [40] The NTLDM provides guidance around the construction of roads in a "Hillside Environment" which states a balance between complying with design standards and minimising the adverse effect that can arise from excessive earthworks.
- [41] Importantly, the grade of the connecting road is not an impediment to the provision of a bus route for PPC28. There are existing bus routes in New Zealand on steeper grades than 1 in 8 that are used on a daily basis with much larger buses than Nelson City Council have indicated will use this route for public transport services.
- [42] Nelson City Council staff are also aware of the grade constraints for the sub collector route for PPC28 and accept that practically the route is workable as a future public transport corridor.
- [43] I also note that there are roads on the existing road network that the bus would need to traverse which are steeper than the desired 1 in 15. Bay View Road has a grade of 1 in 8 and the Walters Bluff connection is 1 in 7. The existing roads will have a similar grade profile to the proposed connecting road.
- [44] In summary the proposed road alignment and grade for the connecting road is appropriate in the context of the PPC28 topography and does not create an impediment for the provisions of bus services.

Trip Distribution

[45] The traffic experts (apart from Mr James) accepted that for the purposes of assessing PPC28 a 30/70 was appropriate, noting that this may be

- reconsidered at subdivision stage as more information around the location of the individual lots was more certain.
- [46] I note this would change with the linking of Walters Bluff to PPC28. An indicative road linking Bay View ridge to Walters Bluff has been included in the Structure Plan for PPC28. The main change in the trip distribution would be a reduction of vehicle trips using Maitai Valley Road.
- [47] My analysis shows that around 70% of the new trips will use Maitai Valley Road and 30% will use Bay View Road.
- [48] Mr James has the view that all traffic from PPC28 would potentially use Maitai Valley Road to access the city.
- [49] In assessing the direction split for vehicle trips a number of factors need to be considered. These include travel distance, travel time, ease of the route, downstream constraints such as congestion and the driver's perception of safety. All of these factors have been used in my assessment of the trip distribution.
- [50] The key determinant of route choice is distance and time. These elements make up the base parameters used in computer-based traffic modelling. The route choice for drivers is simple to determine when to the closer destination and origin nodes. It becomes more difficult to determine as the trip origin moves further from the destination and alternative route choices become available. This is the case for PPC28 in the area on the Bay View hill.
- [51] In my assessment I have taken a screen line at a point where I expect drivers to use Bay View Road rather than travel via Maitai Valley Road. Based on the topography and potential lots I determined this was around 30% of the PPC28.
- [52] The final destination of these trips will also determine the trip route choice. Mr James's view of the trip distribution would appear to suggest that all vehicle movements from PPC28 will use Maitai Valley Road to heading to the centre of Nelson, which will not be the case. Other services and

employment areas such as the Port of Nelson, Tahunanui and a lesser degree Stoke, are more accessible using State Highway 6 than travelling through the city centre and along Waimea Road which is a severely congested arterial route.

[53] In summary, I consider the trip distribution split for PPC28 appropriate for PPC28. I note that as the subdivision progresses and with the potential for the construction of a further link (Walters Bluff), the trip distribution will see less traffic on Maitai Valley Road.

Network Constraints

- [54] A significant amount of analysis and assessment has been completed as part of preparing the PPC28 documentation which I have noted above. The key documents include the Transportation Impact Report (January 2021) and the Transportation Infrastructure Report (March 2020). The Transportation Impact Report considered the effects of the Plan Change request. The Transportation Infrastructure Report formed part of a Long Term Plan process from Nelson City Council which identified existing and future network constraints. It is important to note that the latter report included existing network constraints that were not directly related to PPC28 and were already an issue that Council needed to review and address.
- [55] I have identified three key constraints which were not disputed by the experts for the Traffic Conferencing and are noted in the Joint Witness Statements dated 4 May 2022. The three constraints are as follows:
 - The existing intersection of Nile Street and Maitai Road (sic);
 - An active mode connection from PPC28 to City Centre; and
 - Provisions for walking and cycling at Gibbs Bridge.
- [56] Mr Georgeson added the safety of Bay View Road which related to the management of the existing road corridor.
- [57] Mr James identified a further five constraints as follows:

- Gibbs Bridge vehicle capacity and delays;
- The intersection of Ralphine Way and Maitai Valley Road; and
- Maitai Valley Road between Ralphine Way and Gibbs Bridge;
- The assessment of the active mode connection from the PPC 28 Plan Change area to the city centre (Collingwood Street) needs to consider linkages to the schools;
- Shortfall of parking along Maitai Valley Road associated with events at the cricket ground and Branford Park.
- [58] It was my view along with Mr Lile's that there are appropriate mechanisms in the NRMP and PPC28 that will allow these constraints to be addressed through the future subdivisions process. Other experts were not so sure and reserved their position on this matter.
- [59] Following the conferencing it was decided to develop a structure where more certainty of the outcomes and in particular how to deal with the identified constraints. I will discuss these later in my evidence.
- [60] With regard to the safety of Bay View Road, this has been assessed as part of other subdivisions already consented or being processed. Council is looking at addressing this constraint as part of the existing concerns raised by residents on this road.
- [61] Most recently Council has considered the safety of Bay View Road as part of a subdivision applicant (RM215399). The Section 92 and 95 Decision Report noted the following and what will be done to manage the road corridor by Council.

Road Safety - Bay View Road

Room to pass – The further information provided confirmed that there is adequate room within Bay View Road for two cars to pass each other when another car is parked on the curve. This is accepted but it is noted that one car needs to cross the centreline. It is also noted that larger vehicles, including buses, refuse trucks, removal trucks, cars with trailers,

and construction vehicles are also unlikely to be able to negotiate these curves without crossing the centreline.

Sight distances – The available site distances within some sections of Bay View Road are below those referred to in the application and less than the distances required if there is no centreline. However, it is acknowledged that these are current issues and that there have been no reported crashes with these current issues.

These are existing situations. Council implemented parking restrictions in early 2022 which will be reviewed in mid-2022. This review will include an assessment of traffic volumes and conflicts and may result in further parking restrictions. Council will also work with property owners to trim vegetation on road reserve to improve sight distances along Bay View Road. These measures are likely to mitigate the adverse vehiclebased safety effects associated with the cumulative development on Bay View Road.

- [62] Council is actively considering the existing constraints for Bay View Road to address the issues from already consented developments. These changes are expected to provide for the future users that may use Bay View Road as part of the development of PPC28.
- [63] Any constraints relating to Bay View Road will be addressed before any development will occur on PPC28.
- [64] Now turning to the suggested constraints identified by Mr James which I make the following comments and observations.
- [65] An assessment of the vehicle delays and capacity of Gibbs Bridge were provided in the further information response to Council dated 30 August 2021 (page 15 and 16).
- The conclusion of the assessment is that as more vehicles use the one lane [66] bridge there will be more inconvenience in terms of the likelihood of needing to wait for opposing traffic. Safety was not an issue as the sight lines are good and vehicles have suitable waiting areas.
- [67] The level of inconvenience was considered to be minor and not unusual for one lane bridges. The bridge is relatively short and within a posted speed

limit of 50 km/h. There are many one lane bridges within the New Zealand roading network including state highways that operate efficiently with more traffic, longer bridges and higher speeds.

- [68] The intersection of Ralphine Way and Maitai Valley Road will need to be improved to accommodate the additional traffic and would be carried out as part of the subdivision process and traffic recommendations for those applications.
- [69] The next constraint (Maitai Valley Road between Ralphine Way and Gibbs Bridge) noted by Mr James is linked to the intersection of Ralphine Way and Maitai Valley Road and could be treated as one issue. Both of these constraints raised by Mr James were discussed in conferencing and there was no disagreement that it would be useful to include this location in a scope of works associated with PPC28.
- [70] Mr James suggested that there was the need of an assessment of the active mode connection from PPC 28 to the city centre (Collingwood Street) and needs to consider linkages to the schools.
- [71] As noted in the Joint Witness Statement 4 May 2022, a constraint around the active linkages has been identified and will be assessed as part of future subdivisions. In order to put more certainty in that process I have made some recommendations to assist the Commissioners in addressing these constraints which I discuss later.
- [72] The final constraint identified by Mr James relates to the shortfall of parking along Maitai Valley Road associated with events at the cricket ground and Branford Park.
- [73] It is unclear why this is considered to be a constraint with regard to PPC28. The shortfall in parking has no impact on the vehicle movements from PPC28 as the road corridor is well defined and illegal parking would be controlled by enforcement, especially if it affected traffic flows.
- [74] If this issue related to the impacts on cycling and walking, then this is addressed by the provision of separated facilities and control of parking.

[75] I do not agree that this is a constraint that needs addressing by PPC28.

Section 42A Report

- [76] Contained in the Section 42A report is Attachment N with a Memo from Mr Georgeson dated 20 May 2022.
- [77] The summary conclusion of Mr Georgeson is that the transport effects can be adequately controlled through further assessments at subdivision stage. He also notes "further provisions" to be incorporated to mitigate off-site constraints will be included in PPC28. I will discuss provisions later in my evidence.
- [78] Mr Georgeson comments in Section 4.1 about Bay View Road (bottom of Page 4) and traffic flows associated with a 163-lot development already consented within the Bay View Road catchment. The analysis provided for that subdivision was assessed in two parts with flows added for development in the analysis. There was some confusion on how this was interpretated and the further information request clarified these numbers.
- [79] Section 4.2 of Mr Georgeson's statement identifies the constraints and provides some suggested measures to address the issues. I will comment on these individually below.
- [80] Bay View Road I agree with Mr Georgeson's consideration of this constraint which I have also commented on above in my evidence. This is a matter which Council as currently addressing with better management of this road corridor.
- [81] Bay View Road/SH6 I agree with this statement and this constraint will be addressed before land is available for homes within the PPC28 area.
- [82] Gibbs Bridge I agree with Mr Georgeson's conclusion. I note that as part of the development there will be a need to provide a service corridor (for the water and wastewater infrastructure) to the PPC28 area. This service corridor will include the construction of separated cycle and walk facilities. These new facilities (walk and cycle) will address the increased vehicular use on Gibbs Bridge for these vulnerable road users. A number

- [83] Niles Street East and Maitai Road I agree with Mr Georgeson and the suggested mitigation measures was included in my Transportation Infrastructure Report for the LTP process for Council.
- [84] Walters Bluff Connection I agree with Mr Georgeson's summary of this link road. If constructed the Walters Bluff link will provide an important connection for the hill section of PPC28 and reduce flows onto Bay View and Maitai Valley Road. It will also provide an excellent cycle/pedestrian link from the city centre to Bay View hill.
- [85] Safe Active Modes I agree with the comments of Mr Georgeson. The constraints noted above include the lack of a complete safe cycle/pedestrian connection from PPC28 to the city centre. I note that this is an existing constraint which will need to be addressed as part of other projects currently being constructed by Council and regardless of the PPC28 development.
- [86] The applicant understands the importance of providing strong high-quality cycle and pedestrian connections from PPC28 and the city edge. There has already been a number of investigations and concept designs developed to understand the best route for these vulnerable road users. These considerations to date have included new bridges, new connecting paths and the reallocation of road spaces to provide dedicated facilities.
- [87] There are a number of different options that can achieve the desired outcomes of encouraging active transport modes which are being explored and included in future subdivision applications.
- [88] Section 5 of Mr Georgeson's statement explains the mechanisms within the NRMP that enable transport impacts to be considered. I agree with this summary of the mechanisms.

- [89] Furthermore, it is recommended that some specific provisions for identified constraints is included in the PPC28 to mitigate, or at least manage the timing of improvements to address potential effects. I will discuss these later in my evidence.
- [90] Section 6 provides a useful summary of the key themes from submitters. The comments and responses to those submissions are consistent with my view of the issues and how they are addressed.
- [91] In concluding, I agree with Council's traffic consultant who draws the same conclusion of the potential effects of PPC28 and that they can be appropriately managed as part of the consent process for subdivision.
- [92] The remaining matter in Mr Georgeson's conclusion relates to the specific provision for the identified constraints and how this will be managed through the provisions of this Plan Change. Following the expert conferencing and other discussions Schedule X and the Structure Plan have been modified to address the remaining matters.

Submissions

[93] The general themes of the submissions are well covered by Ms Sweetman and Mr Georgeson in the Section 42A Report. These responses align with my view of the issues and responses with any outstanding effects addressed through the changes provided in Schedule X and the amended Structure Plan.

Schedule X

- [94] The PPC28 process, conferencing, consideration of submissions and review of the application documentation has led to changes which I believe provide more certainty of outcomes for the development area.
- [95] While I considered the provisions within the PPC28 and NRMP sufficient to manage outcomes, the inclusion of specified triggers in Schedule X will ensure the impacts of PPC28 are appropriately managed.

- The existing intersection of Nile Street and Maitai Road (sic);
- An active mode connection from PPC28 to city centre; and
- Provisions for walking and cycling at Gibbs Bridge.
- [97] Mr James considered that there were five other constraints which related to the Gibbs Bridge capacity, the area around Ralphine Way, active modes and the shortfall of parking for the cricket ground.
- [98] In reviewing Mr James's extended list I can agree that the matters in the vicinity of Ralphine Way should be included in the improvements needed to the network prior to occupation in the PPC28 area.
- [99] The constraints relating to active modes is already accounted for in the agreed constraints list and is also addressed below.
- [100] The Gibbs Bridge constraint is an issue that does not need to be addressed as part of PPC28. This is because there are a number of changes to the road network, land uses and the road environment that will occur over the life of PPC28 that are within the development area and external. Any future improvements to Gibbs Bridge will need to take into account all changes and can be dealt with later through the normal Council processes under the RMA or LGA (LTP).
- [101] The remaining matter relating to the shortfall in parking for the reserve ground. This issue does not create the need for mitigation works to address effects from PPC28.
- [102] In considering the need for network improvements I note that the PPC28 area will take many years to be completed and the timing of the infrastructure should take some recognition of this. The critical aspect is

- that when the effects of the development start impacting on the network that improvements have been completed.
- [103] The current planning in terms of the future subdivision of the PPC28 area should PPC28 be approved is in 2027, some five years from now. This time offset for the future subdivisions will enable assessments, improvements to planned and completed before any occupation in the PPC28 area.
- [104] To provide an extra level of certainty, it is recommended a number of thresholds (triggers) are included in the PPC28 zone to allow for the potential effects to be mitigated.
- [105] Restrictions or thresholds will allow development to occur in a managed and staged way with improvements being completed on the network as required to manage impacts. Such mechanisms are commonly used and are considered appropriate for PPC28. I also note that development (or occupation) cannot occur and can be refused at subdivision stage unless the identified constraint is addressed or mitigated.
- [106] I note that some of the constraints identified are existing issues that are likely to be addressed regardless of the outcome of PPC28, such as the intersection of Nile Street East and Maitai Road.
- [107] In regard to the process to date, I have prepared detailed assessments to assist Council in their Long Term Plan (LTP) processes. These assessments identified both deficiencies relating to the PPC28 as well as other network constraints that exist on this part of the road network. The information relating to these assessments is provided in my Transportation Infrastructure Report dated March 2020.
- [108] The LTP process provides the appropriate mechanism to fund improvement works that can be attributed to development and growth. The LTP process is reviewed annually with the next full three-year review due to be completed in 2024 (to start in 2023) which is well before the first lots would be available to the market within PPC28. This will allow improvement works to be programmed and constructed ahead of any development with funding coming from development contributions.

- [109] Due to the nature and location of PPC28 the upgrades needed to mitigate the impacts of the development area will be required before the occupation of the new lots. Therefore, the need for improvements will be required before a 224(c) certificate can be issued for the first lot within the PPC28 area.
- [110] The table below provides the constraints and potential mitigation measures that have been included in Schedule X for PPC28 to provide certainty that the identified impacts will be addressed before any development creates an effect.

Transport Upgrade	Construction or improvement	Development Threshold
The existing intersection of Nile Street and Maitai Road;	Upgrade intersection to address safety deficiency. These improvement works are likely to be Traffic Signals, but other options can be considered.	Prior to the first new dwelling/lot with access onto Ralphine Way.
The active mode connections from the PPC 28 Plan Change area to the city centre (Collingwood Street). There may be separate routes to provide for recreational users and commuters (includes work and education);	Construct a separated shared path from PPC 28 to Nile Street and/or Hardy Street. The shared path will be at least 2500mm wide. There are a number of design options that will be considered as part of Stage 1 of the subdivision.	Prior to the first new dwelling/lot with access onto Raphine Way.
Gibbs Bridge walk / cycle provision;	Construct a shared cycle/walk bridge across Maitai River. Note that this upgrade may be replaced with alternative shared path access from PPCR 28 that removes the need for this project.	Prior to the first new dwelling/lot with access onto Raphine Way.

The intersection of Ralphine Way and Maitai Valley Road.	Improve sight lines, install intersection control and provide right turn bay for Ralphine Way.	Prior to the first new dwelling/lot with access onto Raphine Way.
Bay View Road requires the management of the road for vehicles, parking and active modes.	Implement parking restrictions and improve forward sight lines through vegetation removal. This does not include the intersection of Bay View Road and State Highway 6.	Prior to the first new dwelling/lot with access onto Bay View Road from PPCR 28 area.

Table 1: Transport Upgrade Table

- [111] As shown in the table the upgrades are all required before a section 224(c) certificate can be issued for the first lot. With the timing of the any development on the site some years away, any future subdivisions from PPC28 will have the ability to have the necessary upgrades implemented and can be programme appropriately.
- [112] These measures will address both the existing deficiencies of the adjacent network and provide for the future PPC28 development.

Conclusion

- [113] PPC28 is located very close to the city centre and will see the subdivision and construction of new homes that will be added to the city housing stock.
- [114] The location of PPC28 will encourage the use of alternative transport modes and particularly cycling and walking to work and other activities. This is a positive effect by reducing vehicle use and aligns with Nelson City

Council's focus on transport choice, the direction of the Government's GPS as well as the National Policy Statement on Urban Development.

- [115]This also aligns well with Nelson City Council's future vision of reducing the use of vehicles providing opportunities for the use of more sustainable transport options.
- PPC28 area is able to meet the policies and objectives, as well as the Rules [116] of the NRMP. The effects of the development are managed through the "Services Overlay" provisions and so comprehensively considered as part of the subdivision application process.
- [117] The assessment and conclusions from the expert conferencing shows that there are no capacity constraints on the road network to be used by the future traffic of the PPC28. This is largely due to the existing road network operating well below its practical capacity.
- The analysis shows that there are some existing deficiencies in the road [118] network from a safety perspective that may be exasperated by the increased traffic from PPC28. These deficiencies have been identified with some being existing and other as a result of the PPC28.
- [119] The additional layer of control provided by the triggers included in Schedule X will enable any impacts of the development of the land within PPC28 to be managed appropriately.
- [120] Overall, the analysis and assessment of the adjacent road network shows that it will support the future traffic from PPC28. PPC28 is considered to have a mostly positive transportation effect due to its location, using roads and connections that are operating well below their operational capacity and its ability to provide attractive and convenient alternative transport modes.

Dated 13 June 2022 Gary Paul Clark