

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the proposed Avenue Industrial Private Plan Change (“PC 58”) in Morrinsville

Evidence in Response (Traffic)

Naomi McMinn

26 February 2024

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INTRODUCTION

1. My name is Naomi Claire McMinn. I hold a Bachelor of Engineering degree (Civil, 2002) from the University of Canterbury. I am a Member of Engineering New Zealand. I have worked in the civil and transportation field since 2002.
2. I am based in Hamilton and have worked for Gray Matter Ltd as a civil/transportation engineer since 2011. I have also worked for the London Borough of Richmond upon Thames and for the City of Melville, Western Australia. Prior to this, I was a civil engineer with Opus International Consultants Ltd in Hamilton and Whakatane for six years.
3. I am familiar with the transport issues arising in and around the Waikato, having provided advice to Matamata-Piako District Council ("Council") and other local authorities, Waka Kotahi NZ Transport Agency ("Waka Kotahi") and developers on a range of transport related projects in the area. I have the following specific experience relevant to the matters within the scope and purpose of this statement of evidence:
 - (a) Consultant civil/transportation engineer for Road Controlling Authorities ("RCA"), including the Council and Hamilton City Council, assisting in the review of consent applications including industrial, commercial and residential developments within the wider Waikato region;
 - (b) Consultant civil/transportation engineer for developers, landowners and local authorities preparing and reviewing integrated transport assessments for development proposals including quarries, rest homes, and industrial and commercial developments;
 - (c) Consultant transportation engineer for Waikato District Council for the Ohinewai Rezoning ("Sleepyhead") of the Proposed Waikato District Plan;
 - (d) Consultant transportation engineer for the Builtsmart Property Partnership Private Plan Change (PPC 22) to the Waikato District Plan; and
 - (e) I have completed Safe System Assessments and Safe System Audits training and attended the Waka Kotahi Road Safety Engineering Workshop. I have been team leader and team member for safety audits

on urban and rural improvement projects for local roads and state highways.

EXPERT CODE OF CONDUCT

4. I confirm that I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court, Practice Note (2023), and agree to comply with that Code of Conduct. I state where I have relied on the statements of evidence of others for my assessment. I have not omitted to consider material facts known to me that might alter or detract from my opinions.

BACKGROUND AND SUMMARY OF ADVICE PROVIDED

5. I have been retained by Matamata-Piako District Council (“Council”) to provide traffic engineering and transportation planning advice relating to the proposed Avenue Industrial Private Plan Change in Morrinsville.
6. I previously provided advice to Matamata-Piako District Council in 2022-2024 for the Plan Change Application, and prepared the following documents:
 - (a) Proposed Private Plan Change 58 Avenue Road Industrial: Initial Transportation Review (9 December 2022).
 - (b) Proposed Private Plan Change 58 Avenue Road Industrial: Review of Further Information (16 March 2023).
 - (c) Proposed Private Plan Change 58 Avenue Road industrial: Transportation Review Update – Draft for Comment (10 May 2023). *Note that this was a draft only.*
 - (d) Plan Change 58: Technical Memorandum – Transportation (31 January 2024).
7. The purpose of this statement of evidence is to confirm the conclusions of my Transportation Review and address matters raised by the Applicant’s expert where we are not in agreement.
8. My statement of evidence focuses on the aspects of the Applicant’s Evidence relating to traffic that I consider need to be clarified.
9. In preparing this statement, I have reviewed:

- (a) The statement of evidence of Tara Hills on behalf of Warwick and Marion Steffert (the Applicant), 14 February 2024.
- (b) Supplementary statement of Tara Hills on behalf of Warwick and Marion Steffert (the Applicant), 20 February 2024.

SUMMARY

- 10. The conclusion of my Technical Memorandum – Transportation is summarised:
 - (a) From a transport planning perspective, the proposed industrial zone plan change area is located appropriately contiguous with existing industrial land use and provides connections to the wider arterial transport network.
 - (b) With the planning provisions proposed at that time, I did not consider the potential safety effects to be acceptable. I considered that the planning provisions needed to be amended to adequately provide for pedestrians and cyclists and to ensure safety for all users at the intersection with Avenue Road North.
- 11. The Applicant has accepted the need to upgrade the intersection and the updated proposed planning provisions cover that. The matters that are outstanding relate to the provision of a continuous shared path link between Avenue Road North and the Plan Change area and the appropriate width of paths.

STATEMENT OF EVIDENCE OF THE APPLICANT'S TRAFFIC EXPERT

- 12. I have reviewed Ms Hills' evidence and generally agree, with the exception of the following statements:
 - (a) *“safe and efficient access for pedestrians and cyclists can still be achieved along Magistrate Avenue and Avenue Road North. Pedestrians can use the recently constructed footpaths and cyclists will have the option to either use the road or the footpath. The 1.5m wide footpath along the northern side of Magistrate Avenue is compliant with the Matamata-Piako Development Manual.” (Paragraph 27, Statement of Evidence, Tara Hills, 14 February 2024)*
 - (b) *“The proposed 1.8m width for paths on new roads within the PC58 site will safely allow a pedestrian to pass a cyclist. On the rare occasion that two cyclists have to pass each other the 1.8m width will allow them to do so at a controlled speed or by using road berms and vehicle entrances.*

The recently constructed 1.5m width path on Magistrate Avenue will require cyclists passing pedestrians to use the berm and vehicle entrances. I consider this to be acceptable given the existing nature of this path and the relatively low numbers of cyclists and pedestrians predicted at the site.” (Paragraph 9, Supplementary Traffic Evidence, Tara Hills, 21 February 2024).

13. I have addressed the above in this statement of evidence.

Walking / Cycling Provision

14. I recommend that the existing footpath on Magistrates Avenue be widened to be a shared path, for use by both pedestrians, cyclists and micro-mobility users. This will provide a safe way for pedestrians and cyclists to access the PC58 area, minimising potential conflict with vehicles.
15. Magistrates Avenue is the only transport connection between the transport network and the plan change area. The plan change will add traffic to Magistrates Avenue. At the time of the industrial subdivision application, I understand that the proposed plan change was expected in the future but was not able to be considered as part of the assessment. I understand that Council and the Applicant agreed that upgrades to infrastructure may be required as a result of the proposed plan change.
16. Waka Kotahi and MPDC do not support protecting a transport connection directly to State Highway 26 as previously proposed. This means that Magistrates Avenue will be the only transport connection to the PC58 area including for walking / cycling.
17. While the existing footpath width of 1.5m on Magistrates Avenue is compliant with Table 3.1 of the Matamata-Piako Development Manual¹, it does not meet current Waka Kotahi Pedestrian Network Guidance². I discuss this further in paragraph 29 below.

¹

<https://www.mpd.govt.nz/pdf/CouncilDocuments/Plans/DistrictPlan/DevelopmentManual/DevelopmentManual2015.pdf>

²<https://nzta.govt.nz/walking-cycling-and-public-transport/walking/walking-standards-and-guidelines/pedestrian-network-guidance/design/paths/footpath-design-geometry/footpath-width/>

18. In the following sections I comment on transportation policy, walkability / cyclability, and infrastructure provision and safety.

Transport Planning Policy

National

19. The Government Policy Statement on Land Transport (GPS) 2021-2024 has four strategic priorities:
- (a) A transport system where no-one is killed or seriously injured;
 - (b) Improving freight connections for economic development;
 - (c) Providing people with better transport options; and
 - (d) Developing a low carbon transport system that support emissions reductions while improving safety and inclusive access.
20. Although the PC58 proposal is generally consistent with the GPS, widening the existing 1.5m footpath to a shared path width would better support (a), (c) and (d), by making walking and cycling more attractive, thereby encouraging mode shift. Separating cyclists and vehicular traffic through the provision of a shared path better would support (a) – (d) by reducing the potential conflict between cyclists and vehicular traffic sharing the carriageway, particularly heavy vehicles associated with industrial activity.

Regional

21. The Waikato Regional Policy Statement has a strong focus on integrated management, including the integrated relationship between land use and development, and the transport infrastructure network.
22. Anticipated environmental results include UFD-AER 2 “There is greater use of walking, cycling and public transport in urban areas”, UFD-AER 3 “Vehicle kilometres travelled per capita are reduced”, UFD-AER 9 “New development does not impact on the efficiency and effectiveness of existing infrastructure”.
23. There is a clear desire for mode shift and an increase in walking and cycling. Widening the existing 1.5m footpath would make walking and cycling more attractive, thereby encouraging mode shift.

24. In my view, the Plan Change provisions need to accommodate safe walking and cycling on shared paths and footpaths, as well as crossing facilities and connections to the wider network.

Local

25. Local transport planning policy also seeks to provide a safe and environmentally sustainable transport network, with the following examples from the District Plan:
- (a) Transport Objective. Outcome 2: A safe, efficient, integrated, and environmentally sustainable transport network that ensures our social, economic, and cultural wellbeing.
 - (b) Transport Policy 21: To encourage alternative transport modes by making provision for cycleways and walkways.

Walkability / Cyclability

26. The PC58 area is located on the western boundary of Morrinsville. Figure 1 and Figure 2 show the area around the site that is within a five-, 10-, 15- or 20-minute walking and cycling distance³. This shows that there is the high possibility of walking and cycling to the PC58 area by employees or visitors who do not need a car.
27. As development occurs there is likely to be an increase in people walking and cycling in the area, such as between residential areas and employment in the PC58. This is supported by national, regional and local government strategic direction, discussed above.
28. In my view, connections to the wider network and pedestrian crossing facilities on the north-south road and the east-west road should be provided to encourage trips by walking and cycling by providing safe and direct connections.

³ targomo.com

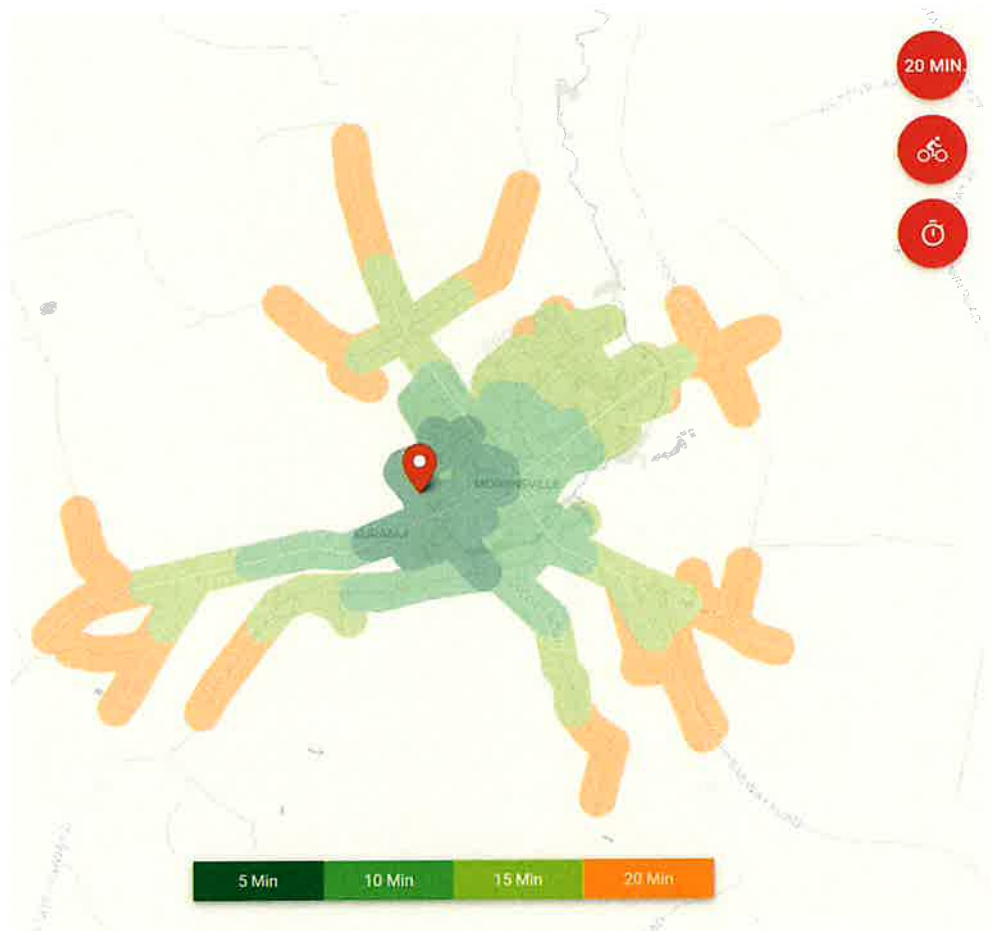


Figure 1 Cycling times from PC58 area – the pointer indicates the new intersection



Figure 2 Walking times from PC58 area – the pointer indicates the new intersection

Footpath and cycle path provision

29. The Waka Kotahi Pedestrian Network Guidance⁴ states that in industrial/commercial areas outside the CBD, 1.8m is the minimum width for a footpath. The proposed 1.5m path does not meet this guidance.
30. Waka Kotahi's submission considers that future opportunities and assessment of emissions reduction and reliance on cars must be priorities and be adopted into the plan change.
31. My recommendation of providing a wider, shared path, that separates cyclists from the carriageway, is consistent with Waka Kotahi's recommendation.

Safety

32. Providing safe facilities is paramount to encouraging walking and cycling.
33. The minimum footpath width recommended in the Waka Kotahi guide is 1.8m. The guide also states: *"Where the existing footpath through zone width is constrained to less than 1.8 m wide, passing places should be provided – but only where it is not possible to widen the footpath over a longer distance, and never as a low-cost alternative to a full-width footpath."*
34. This statement supports the case for providing wider footpaths than what is there at the moment (1.5m with no passing opportunities).
35. The current proposal means that cyclists need to share the carriageway with vehicles, as shown the photo of the Magistrates Avenue below:

⁴ <https://nzta.govt.nz/walking-cycling-and-public-transport/walking/walking-standards-and-guidelines/pedestrian-network-guidance/design/paths/footpath-design-geometry/footpath-width/>



Figure 3 Magistrates Avenue

36. There are no cycle paths or delineation of road space. The risk associated with this approach include:
- (a) Increased risk of conflict between cyclists and vehicles sharing the same space, including with parked vehicles manoeuvring.
 - (b) Industrial areas typically have a higher-than-average proportion of heavy vehicles, increasing severity should there be a crash.
 - (c) Motor vehicles travel at higher speeds than cyclists. This speed differential can lead to conflicts and unsafe passing manoeuvres, increasing the risk of crashes.

Legal Considerations

37. Ms Hills' evidence states that
- (a) *“cyclists travelling along Magistrates Avenue will have the option of using the road or the footpath”* (Paragraph 27, Statement of Evidence, 14 February 2024).
 - (b) *“The proposed 1.8m width for paths on new roads within the PC58 site will safely allow a pedestrian to pass a cyclist. On the rare occasion that two cyclists have to pass each other the 1.8m width will allow them to do so at a controlled speed or by using road berms and vehicle entrances. The recently constructed 1.5m width path on Magistrate Avenue will*

require cyclists passing pedestrians to use the berm and vehicle entrances” (Paragraph 9, Supplementary Evidence 20 February 2024).

38. In most cases it is illegal for a cyclist to use a footpath in New Zealand. The following is an extract from the Land Transport Rule (2004) demonstrating the relevant law:

11.11 Riding cycles on footpaths, etc

- (1) A person must not ride a cycle on a footpath or on a lawn, garden, or other cultivation forming part of a road.
(2) Subclause (1) does not apply to a person who rides a cycle on a footpath in the course of delivering newspapers, mail, or printed material to letterboxes.

Compare: SR 1976/227 r 41

Clause 11.11 heading: amended, on 1 November 2009, by clause 38(1) of the Land Transport (Road User) Amendment Rule 2009 (SR 2009/253).

Clause 11.11(1): amended, on 1 November 2009, by clause 38(2) of the Land Transport (Road User) Amendment Rule 2009 (SR 2009/253).

39. To allow cyclists to legally use the footpaths, they must be shared paths.

40. Shared paths are subject to the following legislation⁵:

‘For a shared path used by cycles, a road controlling authority:

(a) must install appropriate signs or markings that comply with Schedule 1 or Schedule 2, defining the class or classes of path user:

(i) at the start of the shared path; and

(ii) after each roadway or any other pathway with which it intersects; and

(b) must install signs or markings advising users that the shared path ends, unless signs or markings are installed to advise who may use any path that continues beyond the end of the shared path; and

(c) may install signs or markings at other intervals along the shared path.’ ([Land Transport Rule: Traffic Control Devices Clause 11.4\(1\)](#))

41. Austroads Guide to Road Design Part 6A, Appendix A.2 provides guidance for shared paths:

⁵ <https://www.nzta.govt.nz/walking-cycling-and-public-transport/cycling/cycling-standards-and-guidance/cycling-network-guidance/designing-a-cycle-facility/between-intersections/shared-paths/>

A.2 Shared Paths

For a shared path (Figure A 2):

- Regional paths should be 4.0 m wide to permit the cyclist groups/couples to pass pedestrian couples or other cyclist groups, or to permit cyclists travelling in opposite directions to pass pedestrians with convenience and safety. However, it should be noted that in some jurisdictions cyclists may be prohibited from riding side-by-side on shared paths.
- 2.5 m and 3.0 m are the absolute minimum widths for paths having a predominant purpose of commuting and recreation respectively, during periods of peak use.
- 2.0 m is an acceptable path width where the path has a very low use at all times and on all days, where significant constraints exist limiting the construction of a wider path.
- 3.0 m is the minimum path width for a path where high speeds occur.

42. Ms Hills' evidence states: *"While shared path widths are typically wider than that proposed (2.0 to 3.0m width), these facilities typically accommodate large numbers of trips, with minimum widths accommodating up to 50 pedestrians or 550 cyclists per hour (Austroads AGRD Part 6A). For the relatively low number of pedestrian and cyclist trips expected at the PC58 site a first principles approach of actual width required is considered to be appropriate."* (Paragraph 10, Supplementary evidence, 20 February 2024).

43. I agree that a first principles approach is appropriate. However, in my view:

- (a) Relying on cyclists to ride on the footpath illegally is not acceptable.
- (b) Relying on cyclists to ride on the footpath is not a safe way to accommodate cyclists.
- (c) New walking and cycling infrastructure should be safe and constructed to current standards.

44. The existing 1.5m path does not meet the width requirements to be used as a shared path and, therefore in my opinion is not acceptable for cycle use.

45. Providing a shared path for cyclists will reduce the risk of conflict with vehicles, improving safety and making cycling a more attractive transport option, consistent with transport policy.

Path Width and Provision

46. I would prefer a 2.5m wide shared path for a local path and 3.0m wide path for a regional path as per Austroads guidance⁶. However, in this specific case I consider the absolute minimum of 2.0m to be acceptable given the local

⁶ Austroads Guide to Road Design Part 6A, Table 5.3

catchment, commuter use and existing constraints from power poles on Magistrate Avenue.

47. Ms Hills' evidence states: *"The provision of paths on both sides of the road is generally required in residential and commercial areas. In these areas there are significant safety benefits obtained through reducing the number of road crossing pedestrians (in particular children/elderly/disabled pedestrians) have to undertake. Residential and commercial areas also have a much greater number of pedestrians and cyclists using these facilities to appreciate these safety benefits. In the PC58 area the number of pedestrians and cyclists will be much less than in a residential or commercial area, with significantly less disadvantaged path users such as children or elderly. For these reasons the provision of a path on one side of the road only is considered to be appropriate."* (Paragraph 11, Supplementary evidence, 20 February 2024).
48. Table 3.1 of the Matamata Piako District Development Manual sets out the formation requirements. For roads within industrial/business zones with indicative traffic volume of >1,000vpd, footpaths are required on both sides. Traffic volumes on the north-south and east-west (Magistrate Avenue) roads are expected to exceed 1,000vpd⁷.
49. I consider that the proposed north-south road within the plan change area should provide paths on both sides. While I would prefer a 2.5m wide shared path, as above, I consider the provision of a minimum of 2.0m wide shared path on one side and a 1.8m wide footpath on the other to be acceptable for the north-south road.
50. I consider it appropriate for the extension of Magistrate Ave (east-west) to match the current formation standards, so long as a 2.0m wide shared path is provided as a continuous link between Avenue Road north and the plan change area.

Provisions

51. I have reviewed the proposed planning provisions and consider the following amendments are required. I recommend changes to the following provisions

⁷ Letter from Tara Hill (Direction Traffic Design) to Ben Inger (Monocle Consulting Ltd), dated 1 May 2023 "Plan Change 58: Avenue Business Park, Further Traffic Information"

below. (Note ~~strike through~~ indicates deletions and underline indicates additional text).

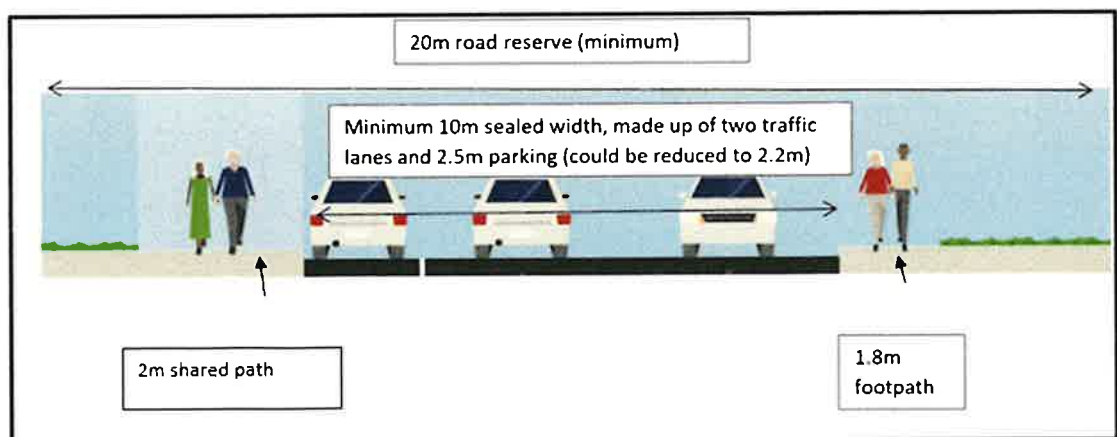
9.6.1 Transportation Works

Subdivision and development within the Avenue Business Park Development area (ADAP) shall provide:

(a) A public road connection to Avenue Road North via Magistrate Avenue, as indicatively shown on the ADAP, and the following improvements to the Avenue Road North/Magistrate Avenue intersection. Detailed design drawings of the intersection upgrade should be subject to detailed design approval by MPDC and include:

- (i) A 3m wide right turn bay, 3.5m wide lanes and 1.5m shoulders on Avenue Road North;
- (ii) A 2m wide pedestrian refuge in accordance with RITS D3.6.4 on Magistrate Avenue; and
- (iii) Vehicle swept paths to confirm the layout is adequate to accommodate heavy vehicles.

(c) All public roads within the ADAP shall be constructed to local road standard with a minimum 20m wide road reserve width, a minimum of 10m wide carriageway made up of two traffic lanes and parking on one side and a minimum 1.8m wide footpath on one side. The north-south road shall include a minimum 2.0m wide shared path on one side and a minimum 1.8m footpath on the other side as indicated on the cross section below. The public roads shall include stormwater provision which may need additional space. Where the landscape buffer is proposed within the road reserve, additional road reserve width shall also be required.

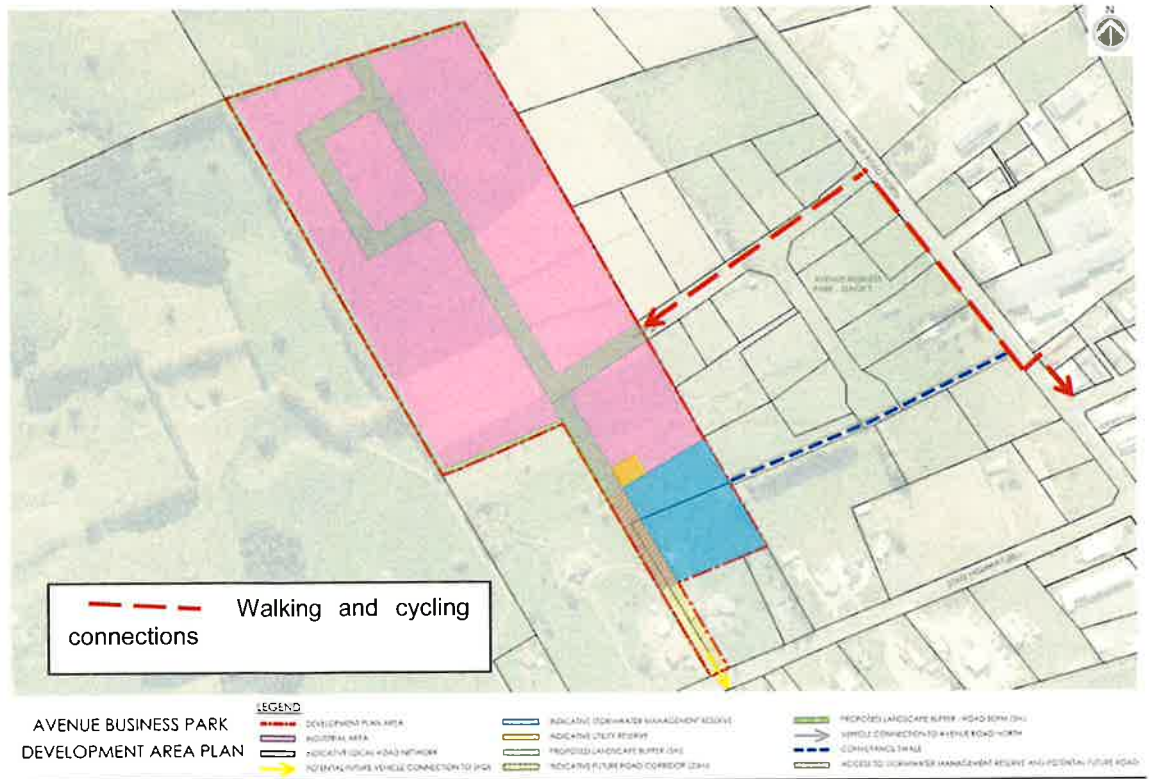


New clause:

(e) The east-west road is to be constructed to match the cross section of the existing Magistrate Avenue within the Avenue Business Park Subdivision with a minimum 20m wide road reserve width, a minimum of 10m wide carriageway made up of two traffic lanes and parking on one side and a shared path (2.0m absolute minimum) on the northern side. The existing footpath along the northern side of the existing Magistrate Avenue within the Avenue Business Park Subdivision is to be upgraded and widened to provide a continuous 2.0m (absolute minimum) wide shared path between Avenue Road North and the PC58 area.

9.6.2 Walking and Cycling

(a) Subdivision and development within the ADAP shall provide a continuous footpath connection between the ADAP and the existing footpath network on Anderson Street including a pedestrian crossing facility on Avenue Road North in general accordance with the ADAP. The pedestrian crossing facility shall be subject to detailed design approval by MPDC. ~~access for pedestrians and cyclists to Avenue Road North via public roads. The requirement for pedestrian crossing places (such as a refuge) on Avenue Road North which are connected to public footpaths shall be investigated and provided if required and feasible.~~



CONCLUSION

52. From a transport planning perspective the proposed industrial zone plan change is located appropriately contiguous with existing industrial land use and to the wider arterial transport network.
53. With provision for shared paths within the Plan Change area and to the surrounding area, that I have included for in my recommended changes to the planning provisions, I consider the potential safety effects to be acceptable.



Naomi McMinn

Dated 26 February 2024

