BEFORE THE HEARING PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the Proposed Waikato District Plan

STATEMENT OF EVIDENCE OF RHULANI MATSHEPO BALOYI (TRANSPORT)

Dated 17 FEBRUARY 2021

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INTRODUCTION

1. My full name is Rhulani Matshepo Baloyi. I am a senior traffic and transportation engineer at Bloxam Burnett & Olliver Ltd (**BBO**), a firm of consulting engineers, planners and surveyors based in Hamilton. I have held this position since July 2019.

2. I hold a Bachelor of Engineering degree in Civil Engineering (2012) and a Bachelor of Engineering (Honours) degree in Transportation Engineering (2014) from the University of Pretoria in South Africa. I am registered as a Professional Engineer (PrEng) with the Engineering Council of South Africa (ECSA) and I am a Member of Engineering New Zealand (MEngNZ).

3. I have nine years' experience in the field of traffic and transportation engineering gained through over seven years of employment in South Africa and almost two years of employment in New Zealand. I have experience in traffic and transportation engineering matters associated with resource management, including effects assessments for resource consents, plan changes and structure plans. I also have experience in traffic modelling and have provided input in the design of traffic infrastructure and facilities.

4. I have been engaged by Shand Properties Limited (**Shand**) to provide expert advice on traffic and transportation matters in relation to its submission to the Proposed Waikato District Plan (**PDP**) for the rezoning of approximately 30.5 ha of land located in Huntly North. I have prepared an Integrated Transport Assessment (**ITA**) report dated 9 December 2020 which supports the rezoning submission and is **Attachment 1** to my evidence.

5. I have visited the two sites that are subject to the rezoning submission and inspected the surrounding road network on several occasions, most recently on 8 September 2020.

CODE OF CONDUCT

6. I have read the Environment Court Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2014 and agree to comply with it. I confirm that the opinions expressed in this statement are within my area of expertise except where I state that I have relied on the evidence of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

PURPOSE AND SCOPE OF EVIDENCE

7. The purpose of my evidence is to provide an overview of:

   a) The transport characteristics of the rezoning proposal;

   b) The potential effects of the proposal on the transport environment;

   c) The mitigation measures that I recommend to address the potential adverse effects; and

   d) Any other measures proposed to ensure a safe and efficient transport network for pedestrians, cyclists, motorists and public transport commuters.

8. My evidence provides a summary of the ITA report and the conclusions reached.

SUMMARY OF EVIDENCE

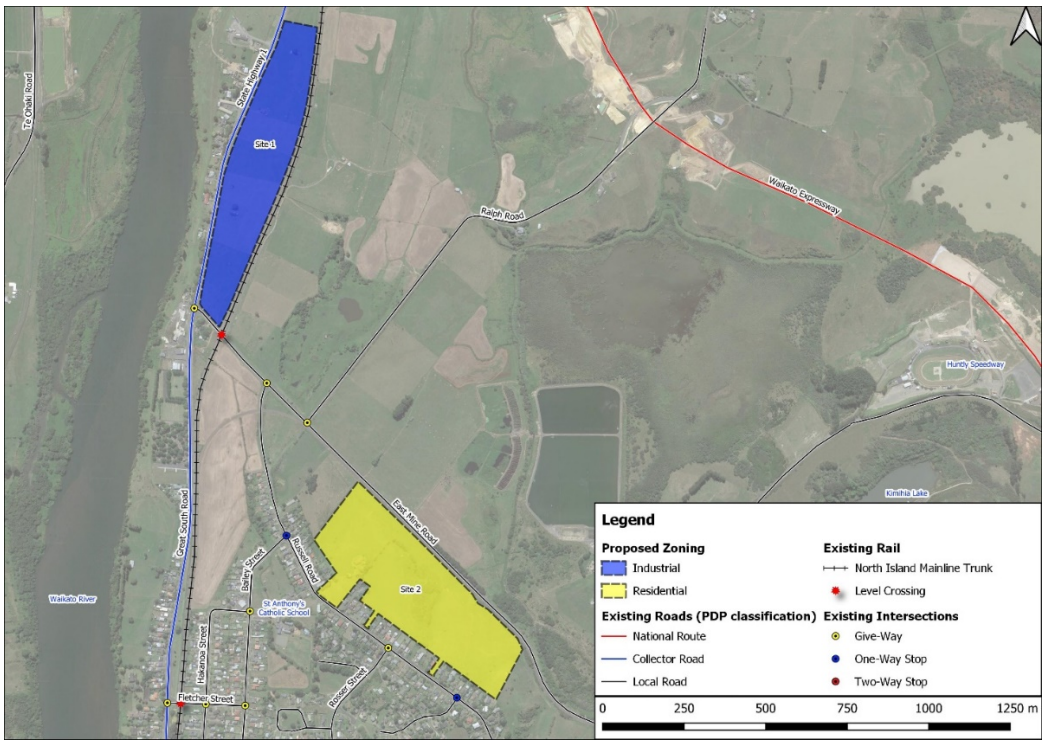
Proposal overview

9. Shand seeks to change the zoning of two parcels of land located in Huntly North from the current rural zoning to industrial and residential zoning to

enable the development of 13.07 ha of industrial land and approximately 17.46 ha of residential development. The two sites are located to the north of the current urban boundary of Huntly township. Figure 1 below illustrates the locality and extent of the two rezoning sites.

10. Given the close proximity of Site 1 to the North Island Main Trunk Line (**NIMT**), there is potential for a rail siding access to the NIMT to be provided within the proposed industrial precinct. However, as a conservative approach, the effects assessment was undertaken on the basis that no rail siding would be provided and therefore all freight trips are by road.

Figure 1: Proposed Rezoning



Predicted trip generation

11. On the basis of conservative trip generation rates provided in industry recognised trip generation databases and publications, the proposed rezoning sites are anticipated to generate up to 3,830 trips per day and 675 trips during the peak hour.

12. Based on the existing mode share for public transport, walking and cycling trips in Huntly East, approximately 45 commuter and 60 walking and cycling trips per day are anticipated to be generated by the land use activities allowed for within the proposed rezoning sites.

Transportation effects assessment and proposed mitigation measures

13. The overall transportation effects of the rezoning proposals on the adjoining network are expected to be no more than minor, particularly given the significantly reduced traffic volume on Great South Road since the opening of the Huntly section of the Waikato Expressway (**WEX**) in early 2020 moved State Highway 1 (**SH1**) traffic out of Huntly. Additionally, the close proximity of the rezoning sites to existing public transport services and walking and cycling facilities provide some choice of travel mode rather than reliance on private car travel for every trip.

14. Capacity assessments for existing road corridors and intersections within the vicinity of the rezoning sites show that the future traffic associated with this proposal is unlikely to adversely affect the performance and safety of the local road network. Sensitivity testing using varying trip distribution figures confirms that safety and capacity improvement works on the existing network are unlikely to be triggered by the additional traffic from the rezoned sites.

15. The anticipated public transport demand will be serviced by the existing public transport services within Huntly. Both sites are ideally located in close proximity to the regional bus services operated by the Waikato Regional Council, as well as the future Huntly passenger rail station for connection to and from Auckland.

16. A network of footpaths (with cyclists sharing the traffic lane) have been recommended as part of future road cross-sections within the rezoning sites to service the anticipated walking and cycling trips. The proposed

footpaths will connect the sites to the existing on-road walking and cycling facilities along the surrounding road network.

17. While it is anticipated that the rezoning traffic will not adversely affect the safe operation of the NIMT level crossings on East Mine Road and Fletcher Street, KiwiRail have requested that a Level Crossing Safety Impact Assessment (**LCSIA**) be conducted as part of the future subdivision consents to assess any potential safety effects of the additional traffic and walking and cycling trips on the existing level crossings.

18. Separate resource consents will be required for each earthworks/ construction phase to determine and mitigate the associated construction traffic effects, if any. The construction traffic effects are likely to be manageable for the duration of works through conditions of consent as is standard practice, including the requirement for a specific Construction Traffic Management Plan. There are no unique construction transport related issues anticipated.

SITE DESCRIPTION AND LOCATION

19. Site 1 is bordered by SH1/ Great South Road to the west, the NIMT railway to the east and East Mine Road to the south. Site 2 is located to the south of East Mine Road and adjoins the existing northern urban boundary of Huntly.

20. Both sites presently contain one dwelling and are used for agricultural activities with the majority of the land comprising pasture. Access to the dwellings and the existing paddocks are provided via several accesses along Great South Road, East Mine Road and Russell Road.

EXISTING TRANSPORT ENVIRONMENT

SH1/Great South Road

21. SH1/Great South Road previously formed part of the nationally strategic state highway network maintained by Waka Kotahi New Zealand Transport Agency (**Waka Kotahi**). Now that the Huntly section of the WEX is open to traffic and identified as SH1, the road will be put through a revocation process on 1 July 2021. It will then become a district road managed by Waikato District Council (**WDC**). Accordingly, the section of Great South Road between the SH1 Expressway and Rayner Road is classified in the PDP as a collector road.

22. Automatic tube counters were used in October 2020 to collect classified vehicle count data over a seven-day period that was then compared against the last recorded Average Daily Traffic (**ADT**) volume on the road[1]. At the time of our data collection, Great South Road had an ADT of 4,760 vpd (five-day average) with 6% heavy commercial vehicles (**HCV**). This confirms that the ADT on the road has reduced significantly (by over 18,500 vpd) since to the opening of the Huntly Bypass, but remains more than double the current estimates by WDC.

23. The section of the road fronting Site 1 has a posted speed limit of 70 km/h. Gated 70/100 km/h speed threshold treatment signs are provided approximately 240 m and 900 m north of the East Mine intersection. An 85th percentile vehicle operating speed of 83.9 km/h was recorded along the section of the road fronting Site 1, showing that the environment is still largely rural.

[1] Based on traffic data sourced from Mobile Road, Great South Road previously had an Average Daily Traffic (ADT) volume of approximately 23,300 vehicles per day (vpd) with approximately 15.6% being heavy commercial vehicles (HCV). This ADT was estimated based on data that was collected in late 2019 when the road carried SH1 traffic, prior to the completion and opening of the Huntly section of the WEX. Traffic volume estimates on the WDC website show Great South Road is now considered to carry an ADT volume of approximately 2,000 vpd.

WDC roads

24. East Mine Road, Russell Road, Bailey Street, and Fletcher Street provide access to the existing residential area in Huntly East via the intersections of Great South Road/East Mine Road and Great South Road/Fletcher Street.

25. These roads are all classified as local roads in the Operative District Plan (**ODP**) and PDP and have an ADT of less than 1,500 vpd. The urban sections of these roads have posted speed limits of 50 km/h to 70 km/h.

26. The NIMT railway line crosses East Mine Road and Fletcher Street at-grade. The level crossings are currently active control with flashing lights, bells, and barrier arms.

Proposed rezoning and anticipated development yield

27. Preliminary concept subdivision plans were developed to show a feasible subdivision layout that could be achieved within the two sites. (Refer to Drawings 144370-02-001 and 144370-02-002 in Appendix A of the **Attachment 1**).

28. Based on the preliminary subdivision plans, a net developable area of 11.47 ha is achievable within Site 1. This assumes that the existing overhead powerlines on the south-western corner of the site would be rerouted underground, and thus opening this land up for development. Adopting a conservative figure of 50% site coverage as Gross Floor Area (**GFA**), Site 1 could realistically yield approximately 57,350 m^2 GFA of industrial activity.

29. For Site 2, while Shand proposes rezoning the entire 17.46 ha site to residential, a significant portion of the site is low lying and resultantly lies within a floodplain. Due to these constraints, the low-lying areas within Site 2 are not feasible to develop and have been identified instead as wetland. The resulting net developable area is 9.79 ha. On the basis that

lot sizes[2] would range between 500 m^2 and 1,500 m^2, approximately 85 dwelling units could potentially be provided within the rezoned site.

Internal transport network

30. A network of internal local roads has been designed at a concept level to demonstrate how the two sites could be serviced. The street hierarchy, which is illustrated in **Figure 2** on the following page, has been guided by the minimum access and road performance standards set out in Table 14.12.5.14 of the PDP, as well as Table 3.2 of the New Zealand Standard (**NZS**) 4404:2010.

31. Road Type 1 and 2 (both industrial local roads) and Road Type 4 (residential local road) have adopted and comply with the PDP standard for local roads.

32. **Figure 3** on the following page illustrates the locality and configuration of Road Type 3, while **Figure 4** shows the proposed cross-section through the road typology. As shown in both figures, a road reserve width of 15 m is proposed because the area within which the road typology is located is constrained as there are residential lots located on both sides of the road reserve boundary. In order to provide the minimum required 20 m road reserve width, additional land would need to be purchased from the adjacent private residential lots. In my opinion, the narrower width is acceptable and workable for this specific area due to the relatively short (60 m) road sections.

[2] The average lot sizes have been generally guided by the PDP Residential Zone Subdivision rules (Rule 16.4.1 of the PDP specified that proposed lots should have a minimum net site area of 450 m^2) as well as the lot sizes of the surrounding residential dwellings (which are in the range of 650 m^2 to 1,800 m^2).

Figure 2: Proposed Internal Transport Network and Site Accesses

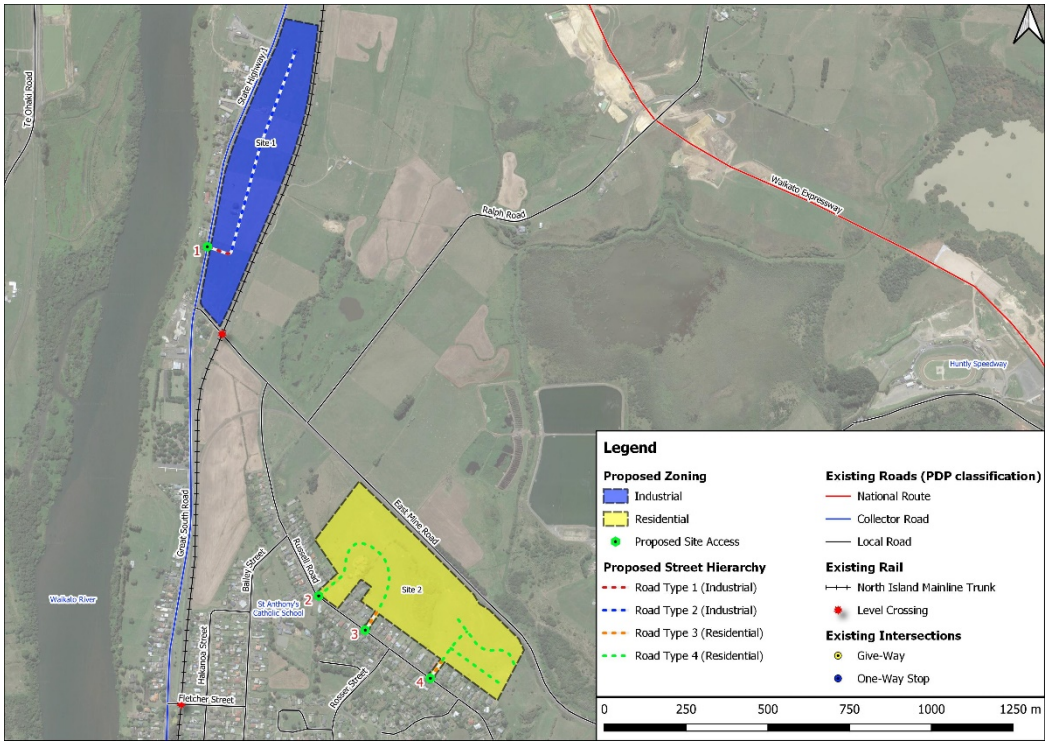
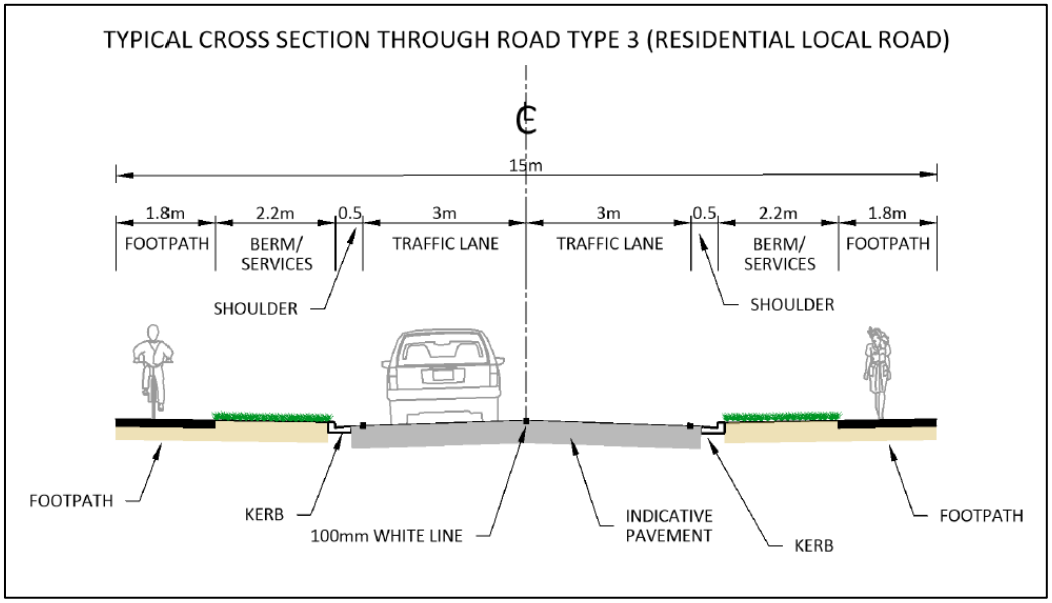


Figure 3: Location and Configuration of Road Type 3

Figure 4: Proposed Cross-section Through Road Type 3



33. As shown in **Figure 4**, parking facilities have not been proposed on either side of the road for Road Type 3; while this is not in accordance with the provisions in the PDP, I consider this to be appropriate as sufficient alternative parking has been provided along Russell Road and internally within the development.

Site access proposals

34. As shown in **Figure 2**, four new road intersections are likely to be required to service the future developments, including one new T-intersection on Great South Road (i.e. Intersection 1 in **Figure 2**) located approximately 200 m north of the East Mine Road T-intersection to service the Industrial site and three new T-intersections (Intersection 2 to 4 in **Figure 2**) on Russell Road to service the Residential site. Drawings 144370-02-0200, 144370-02-0201, 144370-02-0202 and 144370-02-0203 in Appendix A of **Attachment 1** illustrate the conceptual intersection configurations. The appropriate control (either a Stop or Give-Way) for each intersection will be determined at detail design stage.

35. Proposed Intersection 1 on Great South Road:

(a) While the proposed intersection does not comply with Rule 14.12.1.1(e) of the PDP[3], in my opinion the proposed location is appropriate given that the southern boundary of the site (bordering East Mine Road) is very short (approximately 90 m long) and is constrained at either end by the NIMT level crossing and the intersection of East Mine Road and Great South Road. Positioning a new access along this short 90 m section will not meet the PDP's minimum separation or safe intersection sight distances (**SISD**) requirements. In my opinion, it would also create a more complex traffic environment in close proximity to the rail level crossing.

(b) A right-turn bay treatment is recommended at the intersection on Great South Road, in line with the turning volume warrants provided in the Austroads Guide to Road Design manual Part 4A. The desirable treatment for use in an urban situation[4] is 50 m long including a 20 m long diverge taper, and 30 m right turn bay.

(c) If the new road intersection is approved at the proposed location, the gated 70/100 km/h speed threshold treatment that is currently located approximately 40 m north of the proposed intersection location would have to be removed. In my opinion, no adverse safety effects are likely by its removal because a newer 70/100 km/h threshold treatment exists approximately 700 m north of the proposed access intersection.

(d) To improve night-time visibility and thus the safety of the intersection, it is recommended that street lighting be incorporated into the intersection design and integrated with the existing lighting already provided on Great South Road.

[3] Rule 14.12.1.1(e) of PDP specifies that sites with frontage to two roads should access only from the road with the lower classification.
[4] Refer to Manual of Traffic Signs and Markings Part 2.

36. In my opinion, a right-turn bay treatment is unlikely to be required at the three T-intersections on Russell Road (i.e. Intersection 2 to 4) given the low volume and low speed environment on Russell Road.

37. The proposed road access locations for each site are considered appropriate for the following reasons:

    (a) All four proposed intersections are expected to have good sight lines in all directions, complying with the minimum required SISD for the surrounding speed environment.

    (b) The proposed intersection locations comply with the PDP's minimum intersection separation requirements.

    (c) While the proposed intersections do not fully comply with the minimum access separation requirements to the nearest vehicle crossing on the basis of the observed/estimated operating speed, the available access separation distance is considered suitable and acceptable because:

        (i) The nearby vehicle crossings are all private property accesses and will likely only generate approximately one vehicle movement per peak hour based on typical generation rates of a residential dwelling. The small amount of traffic is unlikely to cause regular conflict with the traffic from the subject site.

        (ii) There are numerous existing private accesses on Russell Road which are separated by less than 30 m from an existing intersection which have no significant safety issues. Based on assessment of the crash data, there has only been one crash (which did not result in any injuries) in the previous 10 years which was related to a vehicle access (i.e. a vehicle either turning into or out of a private access). The low speed

environment would ensure that the likelihood and severity of crashes are minimised.

38. Based on observations made related to the constraints on site, the following in relation to Intersection 4 will require specific design consideration as part of the future subdivision consents:

(a) As shown in **Figure 5** below, there is a retaining wall structure on the northern side of Russell Road to the immediate west of Intersection 4 due to the significant height difference between Russell Road and the existing properties located to the north of Russell Road. A retailing wall structure or embankment stabilisation works would likely be required on the western side of the proposed intersection and access road to compensate for these level differences.

Figure 5: Existing roading layout in the vicinity of Intersection 4

(b) In my opinion, the available separation distance to the nearest private access to Intersection 4 (i.e. 110 Russell Road) is not sufficient. The driveway for the property is spaced approximately 10 m from the proposed intersection. While there are several driveways off Russell Road that are located less than 15 m from an intersection, I consider that the existing driveway should be relocated and access provided within the new access road (and not off Great South Road).

This would require consultation with and agreement from the affected property owner.

39. Notwithstanding the above, the location and access design of the proposed intersections will be subject to planning and engineering approvals from WDC which will be finalised at the time of development.

PREDICTED TRIP GENERATION

Predicted trip generation

40. Based on trip rates derived for similar proposed land use activities[5] using the Waikato Regional Transportation Model (**WRTM**), the proposed industrial and residential rezoning sites at Huntly could be expected to generate approximately 3,110 trips per day combined, and 300 trips during the peak hour.

41. However, to ensure a conservative effects assessment, I based the trip generation calculations on trip rate data provided in industry standard trip generation publications which are generally higher than the WRTM based trip rates. On this basis, the proposed rezoning sites are predicted to generate approximately 3,830 trips per day and 675 trips during the peak hour. It is the peak hour flow rates that intersection capacity and safety effects are assessed with.

Predicted trip distribution

42. The distribution pattern of new trips on the external network was based on the existing observed travel patterns in Huntly (where a higher number of trips travels to and from the south than north) as well as future growth projections within the Waikato district[6]. On this basis, I assumed that 35%

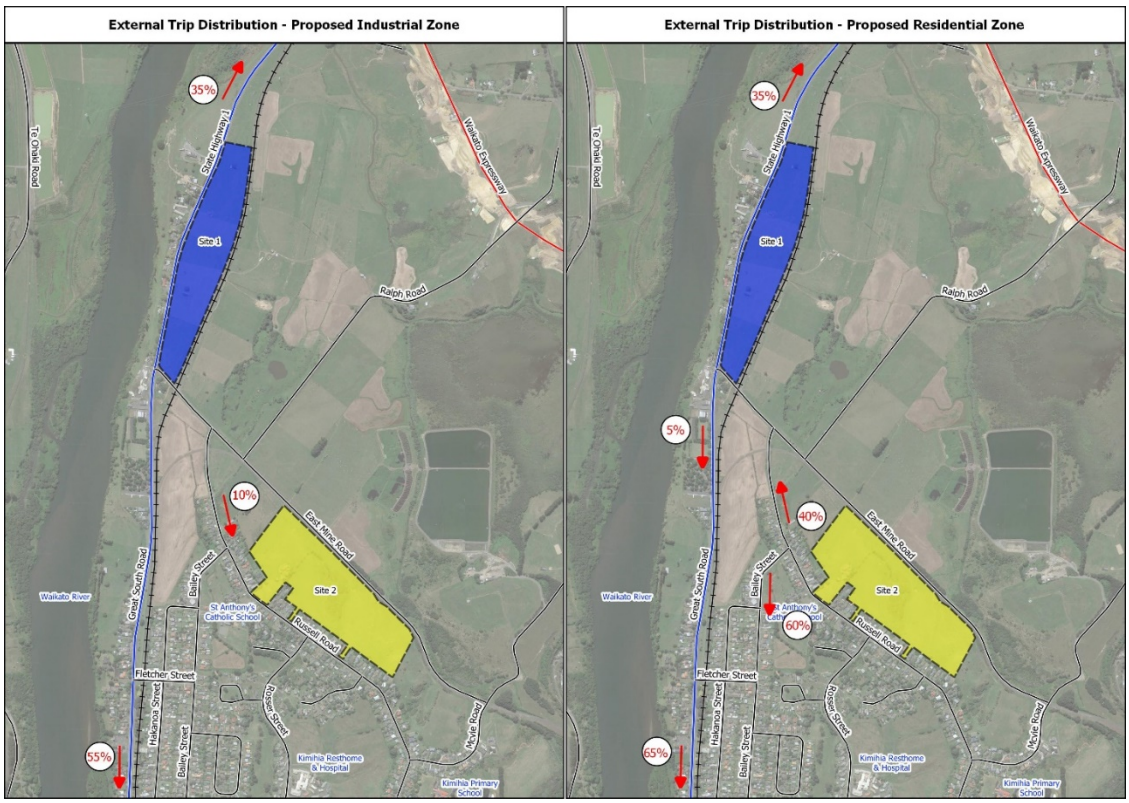
[5] Including the proposed Ohinewai Rezoning and Structure Plan project in Ohinewai, the consented Ruakura Plan Change in Hamilton, and the consented Te Awa Lakes Rezoning in Hamilton.

[6] Significant growth in the district is expected along the southern population centres such as Hamilton.

of the traffic associated with the rezoning proposals would travel north, and the remaining 65% will travel south (to Huntly CBD or further south) and/or east to the existing Huntly East residential area. The predicted trip distribution is illustrated in **Figure 6** below.

43. Sensitivity testing of what I considered the worst-case trip distribution scenario was conducted to analyse the effect of alternative external traffic distributions on the performance and safety of the surrounding road network. The sensitivity scenario tested the assumption that 10-20% of the traffic associated with the rezoning proposals would travel north, and the remaining 90-80% will travel south and/or east.

Figure 6: Predicted Trip Distribution



Transportation effects assessment and proposed mitigation measures

44. The effects assessment was conducted on the basis of a 10-year assessment period (i.e. 2030/2031), in line with the anticipated medium to long term development period. The 2030/31 traffic demand projections

were estimated based on the medium to long term population, household, and labour force projections by WRC[7] for Huntly Township.

45. On the basis of the population growth projections, an annual traffic growth rate figure of 1.5% was applied to road links and intersections within the surrounding road network. The historic growth in traffic along the surrounding road corridors was not factored into the horizon year traffic demand given the recent opening of the Huntly WEX and the resulting "watershed" change in travel patterns through Huntly. In my opinion, the historic traffic growth on Great South Road would not appropriately reflect future traffic growth and travel purpose.

46. While this assessment has not included the likely resulting growth in traffic on Great South Road as a result of the proposed Ohinewai Structure Plan (**OSP**) and rezoning[8], sensitivity testing was conducted to assess the impact of including the OSP rezoning traffic onto Great South Road.

Effects assessment – road corridors

47. Traffic volumes on the existing roads are expected to increase by the following if development of these two sites occurs:

    (a) Great South Road from approximately 5,300 vpd to between 6,500 and 7,500 vpd;

    (b) East Mine Road from approximately 1,000 vpd to 1,650 vpd;

    (c) Russell Road from approximately 1,000 vpd to 2,500 vpd;

[7] According to the Waikato Regional Council Technical Report 2016/03 titled "*Land use, demographic and economic projections for the Waikato region, 2013 to 2063*", the population of Huntly East and Huntly West is estimated to grow by approximately 1% per annum over the next 30 years. The report projected a similar growth rate (i.e. 1% per annum) for households and the labour force.

[8] At the time of writing this statement of evidence, a decision from the independent hearings panel related to a rezoning proposal and Structure Plan for land located in Ohinewai was pending. Based on the WRTM based assessment for the OSP area, the proposed rezoning is projected to add approximately 4,500 vpd and 700 trips during the peak hour on Great South Road.

(d) Bailey Street from approximately 1,200 vpd to 1,800 vpd; and

(e) Fletcher Street from approximately 1,700 vpd to 2,200 vpd.

48. The effects of the rezoning proposal on the capacity, efficiency and safety of the surrounding road corridors is likely to be negligible based on the following:

(a) There is ample spare capacity[9] available to accommodate the increased daily traffic volumes associated with the proposed rezoning, especially given the low volumes that presently exist since the opening of the Huntly WEX.

(b) Even with the inclusion of the proposed OSP traffic to the road network, Great South Road will continue to operate at better levels of service than when it was carrying over 23,000 vpd.

(c) An assessment of crash data for the previous five-year period showed that while a number of crashes were recorded along Great South Road and Russell Road:

(i) The road safety risks along Great South Road will have been significantly reduced with the reduced volume of traffic on this road.

(ii) The road safety risks along Russell Road are considered low given the low speed environment and that the observed crashes did not result in any deaths or serious injuries.

[9] According to Table 4.3 of the RTA's Guide to Traffic Generating Developments, the typical mid-block capacity of a two-way urban road with adjacent parking bays is 1,800 vehicles per hour.

Effects assessment – existing intersections

49. I consider that the effects of the rezoning proposal on the capacity and safety of the surrounding intersections[10] is likely to be negligible to no more than minor in scale based on the following:

    (a) Performance assessments indicate that the surrounding intersections will continue operating at acceptable levels of service with the rezoning traffic added to the network.

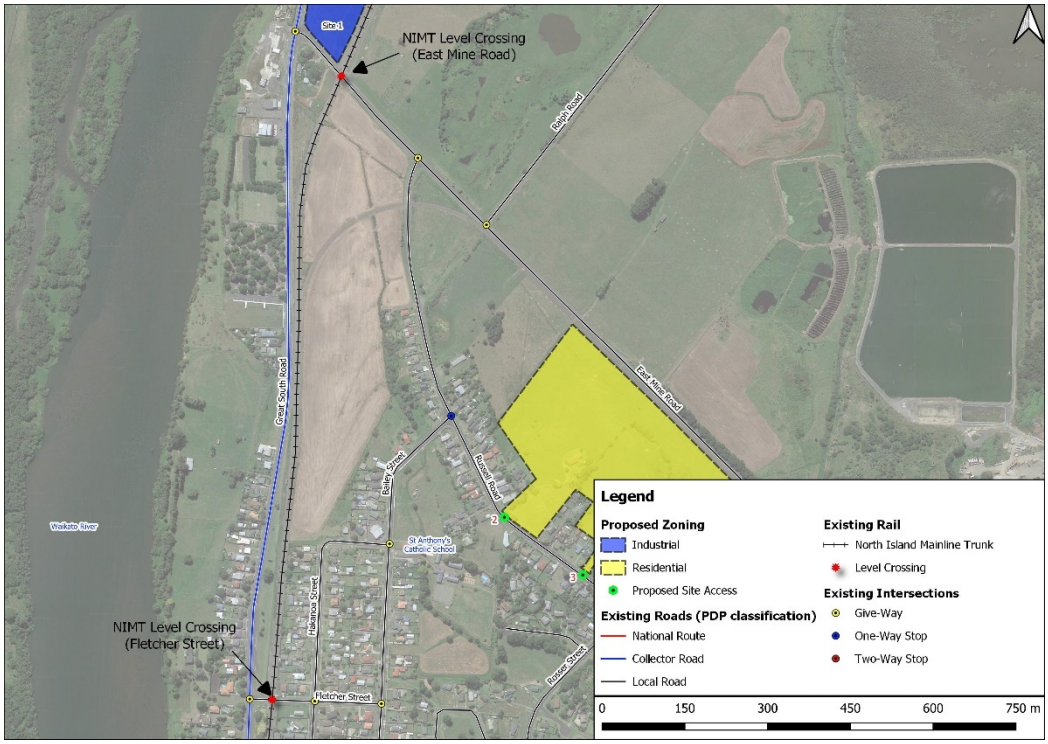
    (b) An assessment of the crash history shows that a total of seven crashes were recorded at three[11] of the surrounding intersections in the previous five-year period, all of which were caused by driver negligence[12]. I considered that the road safety risk at these three intersections is low given that the risk ratings for the intersections are "Low" personal risk, and "Low" collective risk on the basis of Waka Kotahi's High-Risk Intersection Guide (**HRIG**) assessment, and that the crashes did not result in any in any deaths or serious injuries.

NIMT level crossing assessment

50. **Figure 7** below illustrates the locality of the existing NIMT level crossings on East Mine Road and Fletcher Street. Based on the trip distribution assumptions, the rezoning traffic is anticipated to result in a 68% (i.e. an additional 660 vpd) and 33% (i.e. an additional 555 vpd) increase in the ADT on East Mine Road and Fletcher Street, respectively.

[10] Intersections assessed included the intersections of Great South Road and East Mine Road, East Mine Road and Russell Road, Russell Road and Bailey Street, Russell and Rosser Street and Great South Road and Fletcher Street.
[11] Including the intersections of Russell Road and Bailey Street (two crashes), Russell and Rosser Street (one crash) and Great South Road and Fletcher Street (four crashes).
[12] A driver either falling asleep behind the wheel or failing to stop and colliding with a vehicle.

Figure 7: Locality of the existing NIMT level crossings on East Mine Road and Fletcher Street



51. While I anticipate that the rezoning traffic will not adversely affect the safe operation of the level crossing on East Mine Road or Fletcher Street, KiwiRail has been consulted (refer to the meeting notes attached in Appendix E of **Attachment 1**) and they require that a LCSIA be conducted as part of the future subdivision consents to assess the safety effects of the rezoning traffic on the existing level crossings, and determine whether any safety improvements for traffic or active modes area required to bring the crossings down to "Low" or "Low/Medium" risk scores.

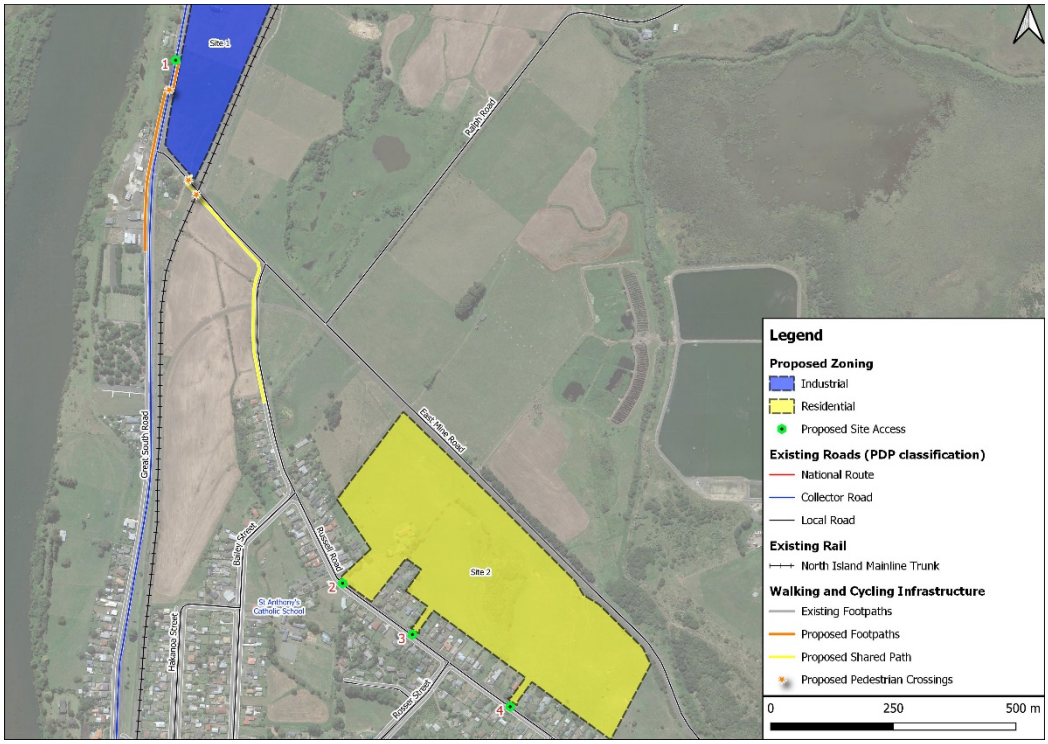
52. On this basis, I recommend that the undertaking of an LCSIA be required through a rule in the PDP that is triggered at the time of the first subdivision consent in either the Residential or Industrial site.

Walking and cycling

53. 1.8 m wide footpaths are proposed on both sides of the proposed local road network within both rezoning sites consistent with the PDP standards.

Similar to the surrounding local road network, cyclists are proposed to share the carriageway space with vehicles. **Figure 8** illustrates the proposed connection of the proposed walking infrastructure within the rezoning sites to the existing walking and cycling facilities.

Figure 8: Proposed Walking and Cycling Infrastructure



54. As shown in **Figure 8**, while no formal pedestrian and cyclist facilities are presently available along the section of Great South Road that fronts Site 1, there is an existing footpath located approximately 400 m south of the proposed new intersection on Great South Road (i.e. Intersection 1) on the western side of Great South Road. The proposed walking infrastructure within the site are proposed to be extended to Great South Road and connect to the existing footpath as follows:

    (a) A new 1.8 m wide pedestrian footpath is proposed on the eastern side of Great South Road which extends from Intersection 1 to approximately 140 m north of the East Mine Road T-intersection, with a new pedestrian crossing facility (a new pedestrian refuge

island within the central flush median – refer to Figure 9 below) at this location.

Figure 9: Proposed new pedestrian crossing facility on Great South Road

(b) It is proposed that the existing pedestrian footpath on the western side of Great South Road be extended to the proposed pedestrian crossing facility.

(c) It is also proposed that, as part of any future urbanisation upgrade works along Great South Road[13], painted cycle lanes to and from Huntly CBD be provided within the existing sealed shoulder.

55. The internal walking network within Site 2 is proposed to connect to the existing footpath on the southern side of Russell Road via kerb crossings on either side of the proposed intersections.

[13] Once SH1/ Great South Road is revocated to WDC as a district road, it is probable that Council will in future revise the existing road cross-section to better reflect the collector road function (a mix of property access and mobility) including provision for active transport modes (walking and cycling) in line with the provisions in Table 14.12.5.14 of the PDP.

56. For walking and cycling connections between the two sites, a 2.5 wide shared path is proposed to be provided on the southern side of East Mine Road and western side of Russell Road extending from the southern boundary of Site 1 to the existing footpath on Russell Road. The new shared path is approximately 485 m in length. Two new pedestrian and cyclists crossing facilities would be required: one crossing over the NIMT and another over East Mine Road (approximately 30 m east of the existing level crossing).

Public transport

57. While Site 1 is located adjacent to the Northern Connector bus route, the nearest bus stop is located approximately 1.5 km walking distance from the site. Given the close proximity of the regional bus service to Site 1, a bus stop facility could potentially be provided on both sides of Great South Road near Intersection 1, with a suitable pedestrian crossing and refuge facility in the centre of the road for added safety should the Huntly North area be urbanised in future. The provision of these facilities would ensure that public transport becomes an integral part of the travel options for workers within the site.

58. Site 2 is considered to be well served by the existing public transport services within Huntly. The closest bus stop to the site (at 115 Russell Road) is located within the generally accepted maximum comfortable walking distance of 600 m.

Construction traffic management

59. Development of the rezoning sites is likely to occur in stages over a 10-year period, subject to market conditions. Separate resource consents will be required for each earthworks/construction phase to determine and mitigate the associated transport related effects (including safety effects), if any.

60. The construction traffic effects should be managed for the duration of works through conditions of consent, including the requirement for a specific Construction Traffic Management Plan.

CONCLUSION

61. On the basis of the assessments carried out, I consider that the overall transportation effects of the Huntly North rezoning proposal on the adjoining road network are likely to be negligible to no more than minor in scale given the low volumes of traffic that presently exists in the area and the close proximity of the rezoning sites to existing public transport services, and walking and cycling facilities.

62. In my opinion, the transport infrastructure and further assessments recommended in this statement of evidence relating to safety, connectivity and accessibility for all anticipated vehicle and active travel modes ensure a safe and efficient transport network for pedestrians, cyclists, motorists and public transport commuters.

Rhulani Matshepo Baloyi

17 February 2021

Attachment 1

Integrated Transport Assessment