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Integrated Transport Assessment
Prepared for

**TIGA MINERALS &
METALS LTD**

Barrytown
Grey District

March 2023



Integrated Transport Assessment
Prepared for

TiGa Minerals & Metals Ltd

Barrytown
Grey District

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Introduction

1. TiGa Minerals & Metals Ltd has commissioned Novo Group to prepare an Integrated Transport Assessment (ITA) for the development of a mine south of Burke Road in Barrytown.
2. This report provides an assessment of the transport aspects of the proposed development. It also describes the transport environment in the vicinity of the site, describes the transport related components of the proposal and identifies compliance issues with the transport provisions in the District Plan. It has been prepared broadly in accordance with the Integrated Transportation Assessment Guidelines specified in New Zealand Transport Agency Research report 422, November 2010.
3. It is proposed to develop the site as a mine, which will take access to State Highway 6. The site location is illustrated in **Figure 1**.

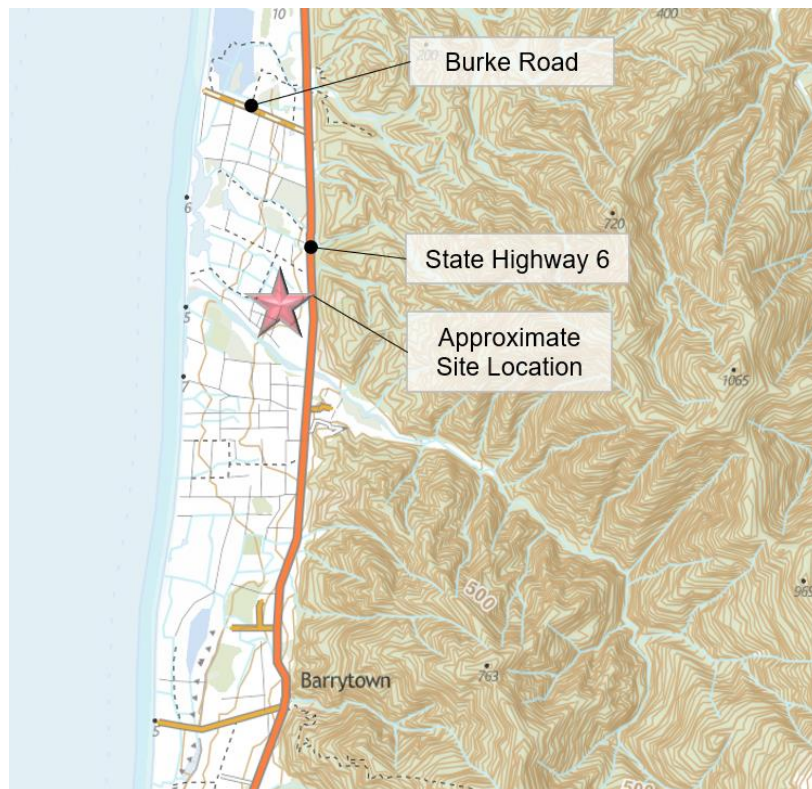


Figure 1: Site Location

4. The proposed activity will generate approximately 50 truck and trailer movements per day. Light vehicle generation has been estimated at 19 vehicles per hour in the peaks and 160 vehicles per day. Overall, the site will generate 390 Equivalent Car Movements per day¹.

¹ See paragraph 14 for further detail.



Transport Environment

Road Network

State Highway 6

5. **Table 1** sets out the transport details of State Highway 6 (SH6) in the vicinity of the application site.

Table 1: State Highway 6 Details

Key Feature or Characteristic	Comment
Road Classification	State Highway / Strategic Route
Cross-Section Description	7.0m sealed carriageway with grass berms. Localised widening occurs around the Burke Road intersection.
Traffic Volumes	1,156 vehicles per day (2018 traffic count, which is the highest count available). The busiest hour is 16:00 to 17:00, with 96 vehicles per hour (see Figure 2).
Speed	Posted Speed limit: 100km/h
Cycling / Pedestrian Infrastructure	None available.
Road Safety	No crashes have been reported within a 100m radius of the proposed access location in the most recent five-year period available in the NZ Transport Agency CAS database.

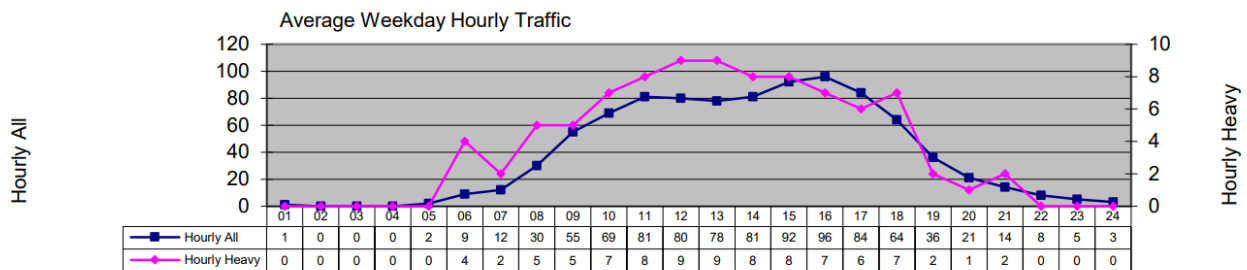


Figure 2: SH6 Punakaiki (Canoe Creek) Telemetry Data

The Proposal

6. It is proposed to develop the Site as a mine, with extraction of material anticipated to take five to seven years, although a twelve-year consent term is sought to allow for contingencies. The total gross floor area (GFA) of buildings and structures anticipated for the Processing Plant area is approximately 3,721m², although allowance is sought for up to 3,800m² GFA to enable small additional portable buildings should the operational need arise.
7. The following sets out the transport details of the proposed development.

Heavy Vehicle Movements

8. The exact export route for the mined material has not yet been confirmed, and the trucks may travel either to Westport (north of the Site) or towards Greymouth (south of the Site).



9. The mining of material is proposed to occur seven days per week between 07:00 and 22:00, although the processing will occur 24 hours a day, seven days per week. The following limitations are proposed with regards to the timing of truck movements associated with the Site:
 - i. Truck movements associated with both routes (northbound and southbound) shall be limited to no more than three movements per hour between 05:00 and 07:00;
 - ii. Truck movements on the southbound route will occur between 05:00 and 22:00; and
 - iii. Truck movements on the northbound route will occur between the period starting 30 minutes before sunrise and ending 30 minutes after sunset each day.
10. It is proposed to truck out 250,000 tonnes of material per year from the Site. This equates to an average of 25 truckloads of material per day². This in turn equates to 50 truck and trailer movements per day (i.e. 25 arrivals plus 25 departures). The shortest day for trucking material on the northbound route is ten hours, which leads to five truck and trailer movements per hour on average at that time.

Light Vehicle Movements & Parking

11. It is understood that approximately 57 full time equivalent jobs will be created by the Mine. That said, not all staff would be on-site all of the time and the operation would have staff on shifts. **Table 2** sets out details of the staff numbers at the Site by shift, as well as an estimate of the light vehicle traffic generation associated with this.

Table 2: Staff Shifts & Traffic Generation

Activity	Shift Times	Staff No.s	Vehicle Trips
Mining Contractor	07:00 to 17:00	18	36
	14:00 to 22:00	12	24
Processing Plant	06:00 to 18:00	19 ³	38
	18:00 to 06:00	8	16
Total	-	57	114
Include Allowance for Additional Trips (Such as office staff and maintenance)	-	-	140 light vehicles per day

12. The information in **Table 2** indicates:
 - i. A peak hour traffic generation of 19 vehicles per hour occurring at 06:00 to 07:00 and 18:00 to 19:00. This represents the arrivals and departures for the day shift at the processing plant; and
 - ii. A peak parking demand for 49 light vehicles between approximately 14:00 to 17:00. This occurs when the two mining contractor shifts overlap and the 19 processing plant staff are on-site.

² Based on 48 working weeks per year, a seven day working week plus 30 tonnes being removed per truck.

³ This includes an allowance for staff that are not based at the Site, but who may periodically visit the Site.



13. This is on the basis that each staff member drives to work, although this may be reduced through providing a mini-bus service to / from the Site and/or car-pooling. This is likely, but exact numbers of staff taking up this mode of travel are not certain. As such, the above is considered to be a worst-case assumption with regards to traffic generation and car parking demands.

Equivalent Car Movements

14. Equivalent Car Movements (ECMs) are a measurement often used to determine vehicle loads on road carriageways to better understand the formation and maintenance requirements of roads. The NZ Transport Agency *Planning Policy Manual* identifies that one truck and trailer to and from the site is ten ECMs. The proposal will therefore generate 250 ECMs per day associated with the truck movements⁴. The estimate of light vehicle movements was 140 light vehicle movements per day, where one light vehicle movement is one ECM.
15. The above suggests that the Site will generate approximately 390 ECMs per day.

Car Parking & Loading

16. The site will not include formal car parking and loading areas. However, there will be sufficient informal gravelled surface at the site to accommodate the 49 staff cars and loading of trucks. As such, all parking and loading will be contained on-site.

Site Access

17. The layout of the proposed access to SH6 is illustrated on the plan in **Appendix 1**. This illustrates a change in the alignment of the State highway to accommodate a right turn bay into the site. This right turn bay has been designed in accordance with the requirements of MOTSAM and the Traffic Control Devices Manual for a rural right turn.
18. SH6 will be altered to accommodate the realignment of the northbound lane. This includes a radius of 1,000m to smooth the transition between the existing alignment and the proposed alignment through the bend to the south of the access. Further works will be required to ensure that the crown of the road plus cross-fall / super-elevation are to the satisfaction of Waka Kotahi (NZ Transport Agency).
19. A left turn entry treatment is also proposed, which is consistent with the requirements of Waka Kotahi Diagram E (from the Planning Policy Manual). The left turn exit has also been designed to be consistent with the requirements of Diagram E.
20. The visibility along SH6 will be 282m, including for trimming of vegetation to the south of the access. This vegetation is illustrated in **Figure 3**.

⁴ There will be 40 truck movements, which is 20 trucks to and from the site. This 20 is multiplied by 10 to obtain Equivalent Car Movements.

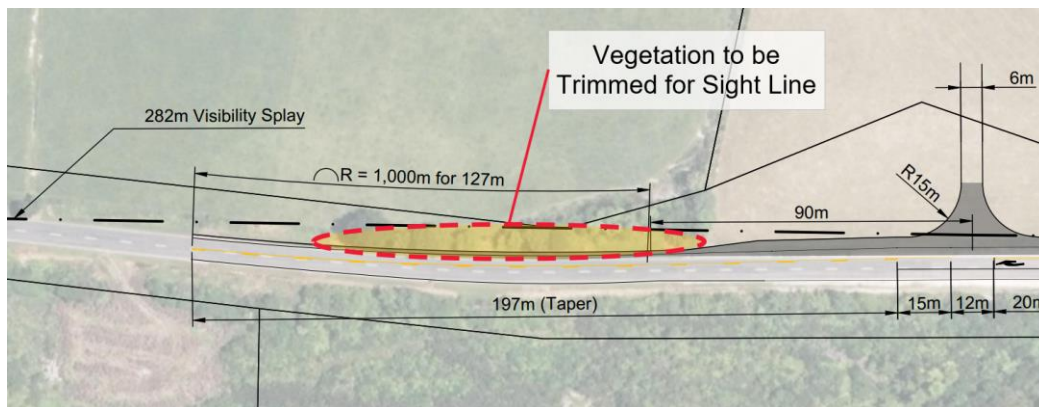


Figure 3: Vegetation to be Trimmed

District Plan Compliance Assessment

21. The Site is zoned *Rural* in the District Plan and the proposed activity is understood to be Discretionary in the zone. An assessment of compliance against the transport rules of the District Plan has been undertaken and is contained in **Appendix 2. Table 3** summarises the non-compliances identified.

Table 3: Operative District Plan Transport Non-Compliances

Rule	Nature of Non-Compliance
<p>24.2.1 MINIMUM PARKING SPACE REQUIREMENTS</p> <p>The following shall be the minimum number of parking spaces to be provided at all times for its particular use, in respect of any activity. If any activity is not listed below the activity closest in nature to the activity should be used, or where there are two or more similar activities, the activity with the higher parking rate shall apply.</p>	<p>The Application allows for up to 3,800m² GFA. The District Plan requires 2 spaces per 100m² GFA for industrial activities, which leads to a requirement for 76 car parking spaces. This number of spaces is not proposed.</p>
<p>24.2.3 SIZE OF PARKING SPACES</p> <p>All required parking spaces other than for residential units, and associated manoeuvring areas are to be designed to accommodate a 90 percentile design motor car and shall be laid out in accordance with the parking space dimensions in the Table below.</p>	<p>Sufficient space will be provided to accommodate car parking, although this will not be formally laid out.</p>
<p>24.3.1 STANDARDS OF VEHICLE CROSSING</p> <p>Vehicle crossing to any site shall be by way of a vehicle crossing constructed pursuant to Council standards as set in Schedule 3 (Figures 6 – 8 and 24.8.3 - Diagrams A-E).</p>	<p>The access will not be designed as a vehicle crossing, as it is not in an urban area.</p> <p>The layout does not comply with the requirements of Diagram E.</p>
<p>24.3.4 ACCESS TO STRATEGIC ROUTES</p> <p>An access to a Strategic Route shall comply with the following:</p>	<p>The site generated traffic is greater than 100ecm per day.</p>

22. The Site is zoned Mineral Extract Zone in the proposed Te Tai o Poutini Plan, which is the proposed replacement District Plan that includes this Site. Although this Proposed District Plan carries minimal weight, a review of compliance with the Transport requirements is included in **Appendix 3. Table 4** summarises the identified non-compliances. There are no transport related rules with immediate legal effect.



Table 4: Proposed District Plan Transport Compliance

Rule	Nature of Non-Compliance
<p>TRN - R12: High Trip generating transport activities</p> <p>Where:</p> <p>1. This is the establishment of a new activity or the expansion of an existing activity listed in Table TRN 6 that complies with Standard TRN S14.</p> <p>Discretion is restricted to:</p> <p>a. Effects on the transport network; and</p> <p>b. Effects and recommendations to minimise effects from the transport assessment.</p>	<p>Table TRN 6 (High Trip Generating Activities) permits less than 30 heavy vehicle movements per day from a mining activity. The proposal is of 50 heavy vehicle movements per day and therefore does not comply.</p>

23. In addition to the above, MINZ-R3 (point 4) of the Proposed District Plan also requires a maximum of 30 heavy vehicle movements per day for a proposal to be permitted. Non-compliance requires an assessment of the management of access, parking and trip generation.

Assessment of Effects

24. The Discretionary activity status of the proposed activity means that all transport matters can be assessed. The key matters for assessment are considered to be:
- i. **Parking & Loading:** The provision of sufficient practical and functional car parking and loading at the application site;
 - ii. **Access Arrangements:** The provision of a safe and efficient site access; and
 - iii. **Wider Transport Effects:** The effects of the proposed activity on the wider transport network.
25. These matters are discussed in the following sections, along with the specific non-compliances identified in **Table 3**. Furthermore, an assessment is also provided of the matters listed as being relevant for a High Trip Generating Activity under the Proposed District Plan.

Parking & Loading

26. The car parking demand at the application site has been estimated as being 49 cars, associated with the staff at the site. There will also be a loading requirement at the site.
27. There is more than sufficient space provided on the site to accommodate car parking and loading associated with the proposed activities. This parking and loading will be accommodated informally on a metalled surface, but it is more than sufficient to accommodate the predicted demand. This is also a common approach to accommodating parking and loading at mine sites.
28. The Applicant may use a mini-bus to transport staff to / from the Site. This would reduce the car parking demand and is therefore considered to be beneficial should this occur.
29. The above confirms that all parking and loading will occur on-site. As such, no adverse effects are anticipated regarding this matter.



Access Arrangements

30. Whilst SH6 is a Limited Access Road, the Site does not have alternate legal access. The site access will be taken to SH6 in a layout that does not comply with the requirements of either the District Plan or the NZTA *Planning Policy Manual*. The non-compliance relates to the way in which the widening occurs to enable southbound traffic to pass a vehicle that is turning right into the site. The proposed arrangement shifts the alignment of the State highway to facilitate a right turn bay.
31. A traditional access arrangement has not been provided because of the proximity of the existing carriageway to the drainage channel on the eastern side of the road, as illustrated in **Figure 4**. Provision of a compliant Diagram E arrangement would require realignment of a greater extent of the State highway, or works to relocate the drainage channel and existing embankment.



Figure 4: Existing Drainage Channel on SH6

Image Source: Google Streetview

32. With regards to the effects of the non-compliant access arrangement, the proposed access will be able to physically accommodate trucks (and their trailers) turning to / from the site. The right turn bay enables southbound vehicles to undertake vehicles that are turning right into the site, so the layout is acceptable.
33. The visibility out of the access is 282m, which is sufficient to identify gaps in traffic on SH6 when exiting the site. This also meets the Waka Kotahi sight distance requirements set out in their *Planning Policy Manual*.
34. The operation of the access has been considered and it is anticipated to operate satisfactorily. **Table 5** is an extract from a previous version Austroads Guide to *Traffic Management, Part 3 – Traffic Studies*, although it is still considered to be a useful guide. It provides guidelines on the levels of traffic flow that can be accommodated by an intersection without requiring detailed analysis.



Table 5: Intersection Volumes below which Capacity Analysis is Unnecessary
(Extract of Austroads, Table 6.1)

Major Road Type	Major Road Traffic Volume (vph) (i.e. SH6)	Minor Road Traffic Volume (vph) (i.e. Access)
Two Lane	400	250
	500	200
	650	100

35. The peak hour traffic volumes on SH6 are set out in **Table 1** and are less than 400 vehicles per hour. Similarly, the peak hour traffic volume on the access will be less than 250 vehicles per hour. As such, the intersection will be able to accommodate this volume of traffic.
36. Overall, the Site access has been designed to a standard that is superior to typical access arrangements and it is considered to be able to accommodate the traffic generated by the proposed activity safely and efficiently, with the effects being less than minor.

Wider Network Effects

37. The effects on the State highway are considered to be acceptable because the traffic generation of the proposed activity is reasonably low (24 vehicles per hour in the peak hours comprising five truck and trailer movements plus 19 light vehicle movements). The traffic on the existing State highway is also low (approximately 96 vehicles per hour at peak times), so there is ample capacity to accommodate the traffic generated by the proposed activity without any noticeable change to the safe or efficient operation of SH6.
38. From a traffic capacity perspective, a road of SH6's characteristics could accommodate in the order of 1,620 vehicles per hour⁵. As such, the 120 vehicles per hour (the combined existing SH6 traffic volumes plus traffic generated by the site) remain well within the capacity of the road network.
39. The majority of traffic generated by the activity will occur at expected times, with the change in shifts being the focus of the vehicle movements. There will be a lower level of traffic generation per hour outside of these times. Overall, the wider transport effects of the proposed activity are considered to be less than minor.

High Trip Generating Activities Transport Assessment Requirements

40. The following sets out the assessment matters for High Trip Generating activities under the Proposed District Plan. These matters are stated and responded to in turn.

Whether the provision of access and on-site manoeuvring areas associated with the activity, including vehicle loading and servicing deliveries, affects the safety, efficiency, accessibility (including for people whose mobility is restricted) of the site, and the land transport network.

⁵ Based on Section 4.1 of Austroads Guide to Traffic Management Part 3 – Traffic Studies and Analysis. This assumes Fw of 0.6, 10.9% heavy vehicles and moderate terrain.



41. The layout of the Site access has been discussed in earlier sections of this report. In brief, the access will safely and efficiently accommodate the predicted traffic volumes. An internal roading / access layout will be provided that includes safe parking and loading arrangements, as well as safe internal circulation.

Whether the design and layout of the proposed activity maximises opportunities for travel other than private cars, including by providing safe and convenient access for travel using more active modes.

42. The Site layout does not include measures to accommodate alternate transport modes, although space can be made available for cycle parking should a demand eventuate. The Applicant is willing to provide a mini-bus service to reduce the reliance on single occupant car travel, although the details of this will not be determined until the Site is operational and staff details (such as shift patterns and home locations) are known. This mini-bus will be a light vehicle and therefore not alter the heavy vehicle traffic generation if the Site, whilst reducing the light vehicle generation.

43. We consider the above to be sufficient, given the Site is located 37km from Greymouth and 67km from Westport where the majority of staff are anticipated to live. This makes commuting by walking and cycling unlikely.

Having particular regard to the level of additional traffic generated by the activity and whether measures are proposed to adequately mitigate the actual or potential effects from the anticipated trip generation (for all transport modes) from the proposed activity, including consideration of cumulative effects with other activities in the vicinity, proposed infrastructure and construction work associated with the activity.

44. The rural location of the Site suggests that vehicle travel will be the predominant means of getting to / from the Site. No adverse transport effects are anticipated on the wider network.

45. We are not aware of any significant developments that warrant inclusion in a cumulative effects assessment. The most recent published traffic volumes on SH6 in the vicinity of the Site are set out in **Table 6**. These indicate there has been negligible growth compared to 2016 volumes and there is ample capacity to accommodate reasonably foreseeable growth and the traffic generated by this proposed activity.

Table 6: SH6 Traffic Volumes (Canoe Creek)

Year	Annual Average Daily Traffic Volume	Growth from 2016
2016	1,082	-
2017	1,151	+6.4%
2018	1,156	+6.8%
2019	1,069	-1.2%
2020 ⁶	886	N/A because of Covid

⁶ Low AADT attributed to Covid border and internal travel restrictions.



Whether there are any effects from the anticipated trip generation and how they are to be mitigated where activities will generate more than 250hvm/d.

46. The proposed activity will not generate greater than 250 heavy vehicle movements per day.

Summary and Conclusion

Summary

47. It is proposed to mine the Site and access will be taken to / from SH6, with a minimum of 15m back from the edge-line also being sealed.
48. The activity is predicted to generate approximately:
- i. Five truck and trailer movements and 19 car movements per hour at peak times;
 - ii. 50 truck and trailer movements and 140 car movements per day; and
 - iii. 390 equivalent car movements per day.
49. The proposed activity is understood to be Discretionary, so all transport matters can be considered. The key outcomes from our assessment are:
- i. The site will be self-sufficient with regards to car parking and loading, such that there will be no on-street parking / loading occurring;
 - ii. The proposed access is anticipated to operate safely and efficiently. The low passing volumes and good visibility mean that vehicles exiting the site will be able to do so safely; and
 - iii. The effects on the wider road network are considered to be acceptable.

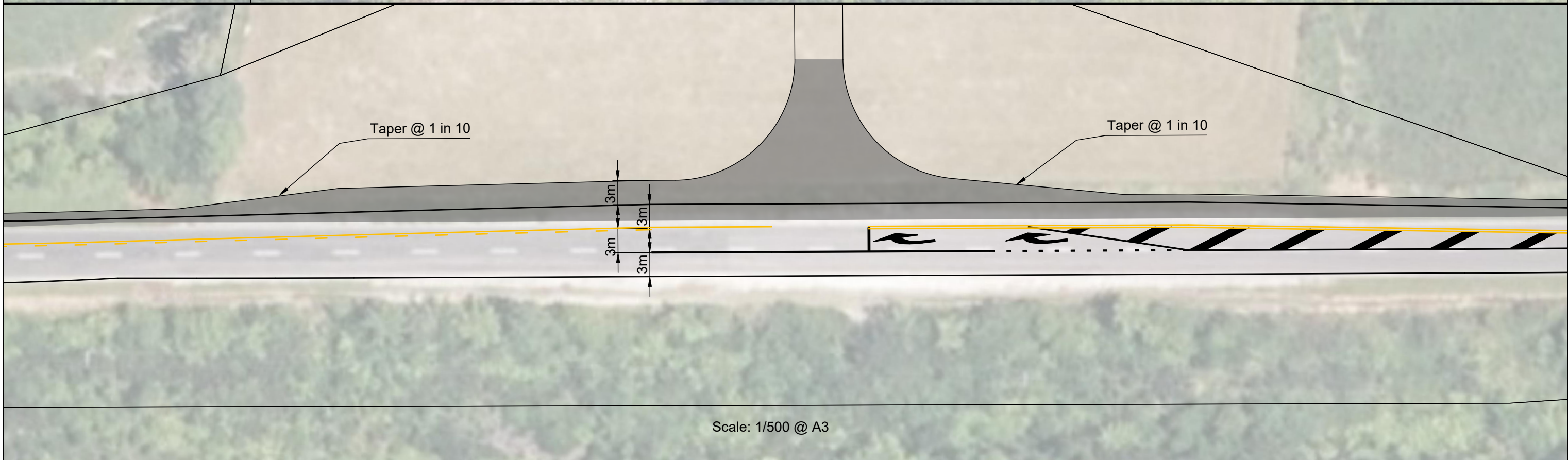
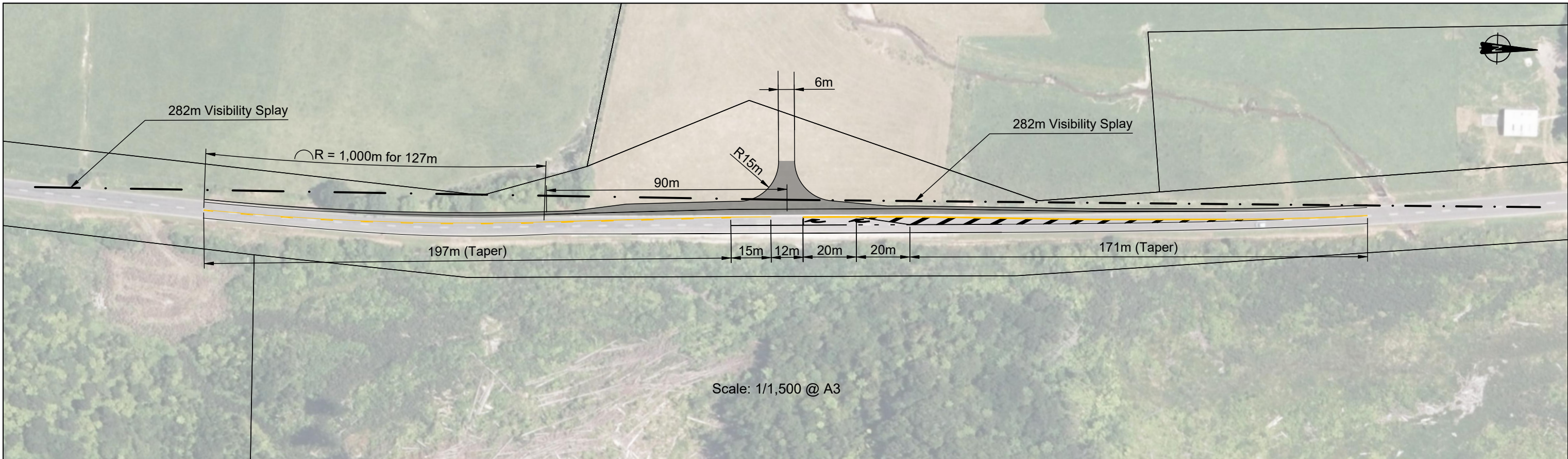
Conclusion

50. Overall, the proposal can be supported from a traffic perspective and the effects on the traffic environment can be considered as being **less than minor**.



Appendix 1

Proposed Site Access Arrangements



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Barrytown Mine
TiGa Minerals & Metals Ltd

Indicative Access Arrangement
For Resource Consent

Drawing: 746-001-TR-G

Sheet
T1001

Scale @A3 As Shown
 Date 09/03/2023
 By N Fuller
 Project # 746-001



Appendix 2

Operative District Plan Transport Compliance Assessment



Rule	Assessment	Complies?
<p>24.2.1 MINIMUM PARKING SPACE REQUIREMENTS</p> <p>The following shall be the minimum number of parking spaces to be provided at all times for its particular use, in respect of any activity. If any activity is not listed below the activity closest in nature to the activity should be used, or where there are two or more similar activities, the activity with the higher parking rate shall apply.</p>	<p>The Application allows for up to 3,800m² GFA. The District Plan requires 2 spaces per 100m² GFA for industrial activities, which leads to a requirement for 76 car parking spaces. This number of spaces is not proposed because the peak parking demand is less than this.</p>	No
<p>24.2.3 SIZE OF PARKING SPACES</p> <p>All required parking spaces other than for residential units, and associated manoeuvring areas are to be designed to accommodate a 90 percentile design motor car (refer Section APPENDIX 4 - TRANSPORT GREY DISTRICT PLAN 172 24.6 - Schedule 1) and shall be laid out in accordance with the parking space dimensions in the Table below.</p>	<p>Sufficient space will be provided to accommodate car parking, although this will not be formally laid out.</p>	No
<p>24.2.4 GRADIENT OF CAR PARKS</p> <p>Car parking areas shall have a gradient of no more than 1 in 20 in any one direction</p>	<p>The gradient of car parking will comply</p>	Yes
<p>24.2.5 REVERSE MANOEUVRING On-site manoeuvring for a 90 percentile car (refer Section 24.7 - Schedule 2) shall be provided to ensure that no vehicle is required to reverse either onto or off a site where:</p> <ol style="list-style-type: none"> 1. Any development has access to a district arterial or strategic route; 2. Any development is required to provide 4 or more car spaces having access onto a collector route; 3. Any development is required to provide 10 or more parking spaces; 4. Two or more residential units share a common driveway where any driveway exceeds 15m in length; 5. There is a right-of-way of over 15m serving the site. <p>On-site manoeuvring for a 90 percentile truck shall be provided to ensure that no truck is required to reverse onto or off a site where any development requires loading areas or trade vehicle storage having access onto an arterial or a collector road.</p>	<p>All vehicles enter and exit the site forward.</p>	Yes
<p>24.2.6 QUEUING</p> <p>To permit free flow of traffic into the car parking area without adversely affecting traffic flows in surrounding streets, the queuing space shall be no less than that given in Table 24.3:</p>	<p>Complies</p>	Yes
<p>24.2.7 ACCESS TO SITE</p> <p>Where the storage capacity of a carpark is greater than 50 vehicles the adjoining road onto which egress and ingress is obtained shall be capable of accommodating a turning lane in a manner that does not disrupt traffic flow.</p>	<p>The access includes left and right turn lanes that comply with this requirement.</p>	Yes



Rule	Assessment	Complies?
<p>24.2.8.1 Loading General Requirements</p> <p>Provision shall be made in respect of all buildings, and land uses for loading and unloading of goods, and for the use of land and buildings. All such activity shall take place on the site and access shall be such that visibility of traffic entering and leaving the site shall not be impaired. Vehicles shall be able to enter and leave the site in a forward direction.</p>	Complies	Yes
<p>24.2.8.2 Counting of Parking Spaces</p> <p>A loading space shall be counted as a parking space according to the number of vehicles the bay is capable of accommodating conveniently when in use as a loading bay.</p>	Noted	Noted
<p>24.2.8.3 Surface of Parking and Loading Areas</p> <p>The surface of all parking, loading and trade vehicle storage areas (except parking areas for residential units requiring less than three spaces) shall be formed, sealed or otherwise maintained so as not to create a dust or noise nuisance.</p> <p>The first 5.5m of such areas (as measured from the road boundary) shall be formed and surfaced to ensure that material such as mud, stone chips or gravel is not carried onto any footpath, road or service lane.</p> <p>All stormwater from parking areas shall be collected on site and piped or channelled to an approved stormwater disposal system.</p>	The access is proposed to be sealed for the first 15m. The surface of the car park and loading arrangements will be maintained such that they will not cause dust or noise nuisance.	Yes
<p>24.2.8.4 Landscaping</p> <p>Landscaping shall not adversely affect the visibility of motorists leaving a site or create an unsafe environment for persons using the car park or the adjacent footpath. Where parking areas for five or more vehicles are provided within or adjoining residential areas, such parking shall be effectively screened on all sides.</p>	Complies	Yes
<p>24.3.1 STANDARDS OF VEHICLE CROSSING</p> <p>Vehicle crossing to any site shall be by way of a vehicle crossing constructed pursuant to Council standards as set in Schedule 3 (Figures 6 – 8 and 24.8.3 - Diagrams A-E).</p>	<p>The access will not be designed as a vehicle crossing, as it is not in an urban area.</p> <p>The sight lines comply.</p> <p>The layout does not comply with the requirements of Diagram E.</p>	No
<p>24.3.2 VEHICULAR ACCESS TO CORNER SITES</p> <p>Access to, or outlet from a corner site shall not be located nearer to the corner of a strategic route, district arterial or collector route than 8 metres. Council may refuse approval absolutely if access or an outlet more distant from the corner could be provided.</p>	Not applicable, as the Site it not a corner site.	N/A



Rule	Assessment	Complies?
24.3.3 ACCESS SIGHT DISTANCES Any access constructed shall be able to provide the following minimum sight distances:	The sight distance requirements comply, as 250m is required and 282m is proposed.	Yes
24.3.4 ACCESS TO STRATEGIC ROUTES An access to a Strategic Route shall comply with the following:	The site has no access to other legal roads. The site generated traffic is greater than 100ecm per day. The access complies with the requirements of Table 24.5. There will not be greater than 5 accesses within 5km	No

Appendix 3

Proposed District Plan Transport Compliance Assessment



Rule	Assessment	Complies?
TRN - R1: Establishment of accessways, vehicle crossings, parking spaces, loading spaces, queuing and standing spaces		
<p>Activity Status Permitted</p> <p>Where:</p> <ol style="list-style-type: none"> 1. Vehicle crossings and access way standards - TRN Tables 1 - 3, Standards TRN S1 - S3, and TRN Figure 1 are complied with; 2. Parking, loading, queuing and standing standards - TRN Tables 4 - 5, Standards TRN S4 - S6 and TRN Figures 2 and 3 are complied with; 3. Manoeuvring standards TRN S7 - S11 are complied with; 4. Where an impermeable carparking area greater than 1000m² in area is provided, stormwater treatment is provided; and 5. Formation standards TRN S12 and TRN S13 are complied with. 	<p>TRN Table 1 requires: 280m sight distance – achieved. 200m separation to intersection – complies. 200m separation of adjacent accesses – complies.</p> <p>TRN Tables 2 & 3 are not applicable to accesses to State highways.</p> <p>TRN S1 requires a minimum of 30m separation to railway level crossings – complies.</p> <p>TRN S2 requires the access to accommodate at least an 85th percentile car – complies.</p> <p>TRN S3 requires a minimum width of 3m, maximum gradient of 50m and passing points plus turning areas every 50m (minimum) – complies.</p>	Complies
TRN - R2: Land transport operation, removal, repairs and maintenance within a road reserve / transport corridor or an area subject to designation.		
<p>Activity Status Permitted</p> <p>Where:</p> <ol style="list-style-type: none"> 1. All performance standards in Rule TRN - R1 are complied with; and 2. The works are undertaken: <ol style="list-style-type: none"> a. By, or on behalf of, a road controlling authority; or b. In accordance with a subdivision consent; or c. By a requiring authority in accordance with a designation listing in this Plan. 	Not applicable to this proposal.	N/A
TRN - R3: Formation of an unformed legal road		
<p>Activity Status Permitted</p> <p>Where:</p> <ol style="list-style-type: none"> 1. All performance standards in Rule TRN - R1 are complied with; 2. The works are undertaken: <ol style="list-style-type: none"> a. By, or on behalf of, a road controlling authority; or b. In accordance with an approved subdivision consent; or c. By a requiring authority in accordance with a designation listed in this Plan. 	Not applicable to this proposal.	N/A



Rule	Assessment	Complies?
TRN - R4: Formation of a new transport corridor		
Activity Status Permitted Where: 1. This is undertaken by a requiring authority in accordance with a designation listed in this Plan.	Not applicable to this proposal.	N/A
TRN - R5: Establishment of shared pathways including cycleways and bridleways on public land		
Activity Status Permitted Where: 1. The activity is below 1000m above sea level.	Not applicable to this proposal.	N/A
TRN - R6: Establishment of e-bike and e-vehicle charging stations in the transport corridor		
Activity Status Permitted Where: 1. All performance standards in Rule TRN - R1 are complied with; and 2. These are not more than 2m in height and 10m ² in area.	Not applicable to this proposal.	N/A
TRN - R7: Establishment of accessways, vehicle crossings, parking spaces, loading spaces, queuing and standing spaces not meeting Permitted Activity standards		
Activity Status Restricted Discretionary Discretion is restricted to: a. The impact on other road users including pedestrians; b. Effects on the safety and efficiency of the transport system; c. The ability to safely and effectively park, load, queue; and d. Any requirements for flood hazard mitigation; and e. Stormwater treatment and control.	Not applicable to this proposal.	N/A



Rule	Assessment	Complies?
TRN - R8 Land transport operation, removal, repairs and maintenance within a road reserve / transport corridor or an area subject to a designation not meeting Permitted Activity standards		
Activity Status Restricted Discretionary Discretion is restricted to: <ul style="list-style-type: none"> a. Impacts during construction; b. Any requirements for flood hazard mitigation; c. Stormwater treatment and control. 	Not applicable to this proposal.	N/A
TRN - R9: Formation of unformed legal road not meeting Permitted Activity standards		
Activity Status Restricted Discretionary Discretion is restricted to: <ul style="list-style-type: none"> a. Effects on the safety and efficiency of the transport system; b. The ability for accessibility park users to safely and effectively park, enter and exit a vehicle; c. The impact on other road users including pedestrians; d. Any requirements for flood hazard mitigation; and e. Stormwater treatment and control. 	Not applicable to this proposal.	N/A
TRN - R10: Establishing shared paths including cycleways and bridleways on public land not meeting Permitted Activity standards		
Activity Status Restricted Discretionary Discretion is restricted to: <ul style="list-style-type: none"> a. Visual impacts on landscapes over 1000m above sea level; b. Effects on public access; and c. Effects on the transport network. 	Not applicable to this proposal.	N/A
TRN - R11: Establishing e-bike and e-vehicle charging stations in the transport corridor not meeting Permitted Activity standards		
Activity Status Restricted Discretionary Discretion is restricted to: <ul style="list-style-type: none"> a. Effects on the transport network; and b. Outcome of consultation with the relevant transport agency. 	Not applicable to this proposal.	N/A



Rule	Assessment	Complies?
TRN - R12: High Trip generating transport activities		
<p>Activity Status Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none">1. This is the establishment of a new activity or the expansion of an existing activity listed in Table TRN 6 that complies with Standard TRN S14. <p>Discretion is restricted to:</p> <ol style="list-style-type: none">a. Effects on the transport network; andb. Effects and recommendations to minimise effects from the transport assessment.	<p>Table TRN 6 (High Trip Generating Activities) permits less than 30 heavy vehicle movements per day from a mining activity. The proposal is of 50 heavy vehicle movements per day and therefore does not comply.</p>	<p>Does not comply</p>