

Notice is given that an ordinary meeting of the Engineering Services Committee will be held on:

Date: Thursday 14 February 2013
Time: 9.30 am
Meeting Room: Tasman Council Chamber
Venue: 189 Queen Street
Richmond

Engineering Services Committee

AGENDA

MEMBERSHIP

Chairperson	Cr T E Norriss	
Deputy Chairperson	Cr B F Dowler	
Members	Mayor R G Kempthorne	Cr T B King
	Cr J L Edgar	Cr B W Ensor
	Cr E J Wilkins	Cr P F Sangster
	Cr C M Maling	Cr M L Bouillir
	Cr Z S Mirfin	Cr J L Inglis
	Cr S G Bryant	Cr G A Glover

(Quorum 2 members)

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AGENDA

1 OPENING, WELCOME

2 APOLOGIES AND LEAVE OF ABSENCE

Recommendation

That apologies be accepted.

3 PUBLIC FORUM

4 DECLARATIONS OF INTEREST

5 CONFIRMATION OF MINUTES

That the minutes of the Engineering Services Committee meeting held on Thursday, 22 November 2012, be confirmed as a true and correct record of the meeting.

6 REPORTS OF COMMITTEE

Nil

7 PRESENTATIONS

Nil

8 REPORTS

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8 REPORTS

8.1 PORT MOTUEKA GROUYNE REMOVAL

Decision Required

Report To:	Engineering Services Committee
Meeting Date:	14 February 2013
Report Author:	Sarah Downs, Transportation Planning Officer
Report Number:	RESC13-02-01
File Reference:	

1 Summary

- 1.1 The removal of the Port Motueka Groyne was completed on 12 October 2012. The cost for completing this project is \$711,056.
- 1.2 A report presented at the Corporate Services meeting on 8 November 2012 outlined how the Council intends to pay for the shortfall in funding for this project.
- 1.3 Corporate Services will be reporting back to Council on more detail on how the shortfall in funding is to be managed across Council activities.

2 Draft Resolution

That the Engineering Services Committee

- 2.1 receives the Port Motueka Groyne Removal Report; and
- 2.2 Notes that the total project cost was \$711,056 to remove the Port Motueka Groyne; and
- 2.3 Notes that the Corporate Services Committee approved \$393,000 to fund the removal of the groyne to be drawn from the Motueka Harbour and Coastal Works Account; and
- 2.4 Requests that Corporate Services staff report on the breakdown on how the remaining \$318,056 has been allocated and funded across council.

3 Purpose of the Report

- 3.1 The purpose of this report is to provide the final financial information on the Port Motueka groyne removal and notes the project's completion.

4 Background and Discussion

- 4.1 This project resulted from the Environment Court decision (ENV-2010-WLG-00080&81). The Court considered that the placement of the Port Motueka geotextile groyne on the Motueka sand spit by the Council in 1996 led to the formation of the spit in its present form. It was deemed to have led to the erosion on Jakkett Island.
- 4.2 The groyne required a new consent as the previous consent had expired. In reviewing the Court decision and the effectiveness of the groyne, staff decided to seek consent to remove the structure. Staff also considered that the community was likely to object to it remaining in the coastal environment.
- 4.3 The Committee was provided with regular updates on the removal of the Port Motueka groyne since work commenced in June 2012.

5 Present Situation

- 5.1 The groyne was completely removed on 12 October 2012. Council and Stakeholders were informed that this had taken place.
- 5.2 Monitoring of the effects relating to the removal of the groyne is programmed to continue for a further eighteen months which is a requirement of the resource consent. Surveys are required every three months during the first year after removal of the groyne is completed. In the second year the surveys are required every six months.
- 5.3 Surveys carried out in December 2012 were extended to include the tip of the spit. This is beyond the requirements of the resource consent. The additional survey information will enable better analysis of the effects at the end of the spit as a result of the groyne removal. This will continue with the further scheduled surveys.
- 5.4 The surveys to date have indicated that the changes around the spit are consistent with the expectations of the experts providing advice on this matter. The surveys have shown that the spit is continuing to grow. The spit is also wider south of where the groyne had been removed.
- 5.5 It should be noted that the landward side of the spit has had no significant change to its profile since surveys have been undertaken.

6 Project Costs

- 6.1 The work on the removal of the groyne commenced on 25 June 2012 and was completed on 12 October 2012.
- 6.2 The total cost for the removal of the Port Motueka groyne was \$711,056.
- 6.3 The cost of removing the groyne was a significant cost and highlights the complexity of installing and removing structures in the marine environment.

7 Financial/Budgetary Considerations

- 7.1 Funding of the groyne removal was reported to the Corporate Services Committee meeting on 8 November 2012.
- 7.2 The Committee resolved the following in respect to funding the groyne removal:
- Agrees that the sum of \$393,000 to be drawn from the Motueka Harbour and Coastal Works Account to part fund the removal of the Motueka Groyne.*
- Agrees that the sum of \$204,171 to part fund the removal of the Motueka Groyne to be sourced from a reduction in cross departmental work.*
- 7.3 The final cost of the groyne removal is \$711,056 which results in a shortfall to be funded across the departments of \$318,056. Corporate Services staff will need to report back on how this shortfall is funded.

8 Next Steps / Timeline

- 8.1 Corporate Services staff will report back to the Council about how the shortfall will be accounted for across the Council budgets.
- 8.2 Monitoring will continue of the Motueka Spit as required in the resource consent dated 12 March 2012. This will continue until October 2014.

9 Appendices

Nil

8.2 JACKETT ISLAND LONG TERM SOLUTION

Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Sarah Downs, Transportation Planning Officer
Report Number: RESC13-02-02
File Reference:

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1 Summary

- 1.1 On 22 November 2012, the Engineering Services Committee resolved not to carry out any additional coastal modelling of a northern cut through the Motueka spit, as part of its investigations into a Long Term Solution to the erosion issues encountered on Jackett Island.
- 1.2 The Committee also resolved that staff report back to this meeting with further information on the selected option.
- 1.3 The Selected Option is to put a cut through the spit at a point across from the harbour entrance. This is shown in the Preferred Practicable Options Report (Appendix 1) and provided for information.
- 1.4 This report also considers the other options outlined in the Preliminary Practicable Options Report (Appendix 2) provided for information.
- 1.5 This report seeks approval from the Engineering Services Committee to not continue with any further investigations on any physical works options to remedy the erosion problem on Jackett Island.
- 1.6 The investigations to date have shown that any physical solution comes at significant cost and is unsustainable with regard to the dynamic coastal environment where Jackett Island is situated. Any solution would also require resource consent and there is no certainty of success around this process.
- 1.7 The report recommends going back to the Environment Court to seek further direction, with an associated decision not to carry out with any further investigations on physical works options to address the Long Term erosion problem on Jackett Island.

2 Draft Resolution

That the Engineering Services Committee

2.1 receives the Jackett Island Long Term Solution RESC RESC13-02-02; and

2.2 Notes that the practicable option selected as part of the expert caucusing was the

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most appropriate physical solution to address the directions of the court.

- 2.3 Agrees that the selected option present to the November 2012 Engineering Services Committee meeting is not sustainable in the long term with respect to ongoing initial capital costs, maintenance costs, and the long term effects; and**
- 2.4 Agrees that no further work be undertaken by staff on options to provide a physical Long Term Solution to address the erosion problem on Jackett Island and seek direction from the Environment Court; and**
- 2.5 Agrees that staff report back to the Environment Court advising that there are no practicable physical options for addressing the Jackett Island erosion issue; and**
- 2.6 Notes that this report has been provided to the key stakeholders for their information; and**
- 2.7 Recommends that the Environment and Planning Committee ensure appropriate planning processes are developed as part of a Coastal Hazard Management Plan to address structures being constructed in the close proximity to the coast.**

3 Purpose of the Report

- 3.1 The purpose of this report is to provide information on the Selected Option that has been further developed from the Preferred Practicable Options. The project to date considered the Selected Option and has included extensive investigations that have been robustly challenged by the expert panel. This report looks at the Selected Option with respect to practicability, sustainability and cost.
- 3.2 Some information will also be provided on all the other practicable options which were presented to the Council in December 2011. It will consider aspects of sustainability and affordability.
- 3.3 The report will also provide a financial update and other matters on the project to date.

4 Background and Discussion

- 4.1 At the Engineering Services Committee meeting on 22 November 2012 a detailed report of the modelling process along with the views of the various experts involved in the development of a robust model and selected option were presented.
- 4.2 Details were also provided on the strategic risks and challenges, as well as the financial implications of putting a cut through the Motueka spit.
- 4.3 As approved by the Engineering Services Committee at the November 2012 meeting, no further modelling work on a more northern cut has been undertaken. However, it should be noted that further work has been carried out on the Selected Option to provide more robust model outputs. These outputs have assisted in the assessment of the Selected Option's sustainability and practicability. Staff and experts have made minor adjustments to the Selected Option to ensure that the coastal model is appropriate in assessing its sustainability and practicability.
- 4.4 Various technical reports around the modelling work, project estimates and other matters have been provided to the Council at other Committee meetings. Included in this report are a set of key reports supporting the staff recommendation to not proceed any further with investigations for a long term physical works solution to the erosion of the Jakkett Island foreshore.

5 Options

- 5.1 This section outlines the main details of the Selected Option. It also considers the benefits and risks associated with the Selected Option. The report also outlines the other options that were presented to the Council in December 2011. The costs and sustainability of these options is also considered.
- 5.2 In reviewing these options, it is prudent to focus on the fact that the options were developed to investigate the issue of erosion on Jakkett Island as directed by the Environment Court. The options formed part of the documentation presented to the Court at other times during this process.

Selected Option –Channel through Motueka Spit and beach nourishment

- 5.3 The objective of this option is to dredge a channel across the spit to reduce the velocity of the flows across the foreshore of Jackett Island. This option provides improved access to the port. This option also includes identifying an area of beach nourishment adjacent to Jackett Island to restore the shoreline to around the year 2000 position.
- 5.4 The location of this channel is shown in Figure 20 in the Practicable Options Report.
- Numerical modelling was used to evaluate the velocity and flows through this channel. Evaluation was also done through the expert panel. Their main considerations focused around the stability of the channel, velocities of water passing the foreshore and the ability for sediment to be transferred to the Jackett Island foreshore from other sand sources.
- 5.5 The modelling shows that the cut channel would widen naturally and that it would migrate southwards over time. It also shows that an ebb delta would form on the seaward side of the spit. An ebb tidal delta is a bulge of sand formed at the seaward mouth of a tidal inlet as a result of interaction between tidal currents and waves.
- 5.6 Beach nourishment would have to take place as the outputs from the coastal model show that the slower velocities would not allow for this to happen naturally and replenish the Jackett Island foreshore to its year 2000 position.
- 5.7 A summary of the modelling for the Selected Option is provided in the table below. More detail is provided in the attached Appendix 3.

Benefits of this option	Risks associated with this option
The channel flow velocities parallel to Jackett Island would be reduced, lessening the impact of erosion.	The southern tip of the spit would continue to migrate southwards, so the existing channel may require maintenance as well as the new cut.
Sediment transfer to the Jackett Island foreshore would occur but to a lesser degree than necessary to allow replenishment.	The new navigable channel through the spit would require maintenance at a large cost to Council or owner of the consent as indicated above. This makes this option expensive and unsustainable when looking at the value of the assets being protected.
The channel would be navigable for the Port Users – this would have a wider benefit to the whole community.	The channel is not the option selected by the landowner and his coastal expert. This may result in Court action to stop the selected location of the cut. Other stakeholders are also opposed to a cut being made in the spit.
Port Motueka Users Group have indicated that they would be willing to share some of the costs of this option.	Resource consents would be required for this option. This is likely to be expensive and contentious within the community.
	Modelling to date, while accurate is very limited in how far into the future it can predict what might occur.

	As has been pointed out by all the experts that this coastal zone is complex and dynamic. It has also been suggested that it has never been in equilibrium.
	Beach nourishment would still be required to restore the Jackett Island foreshore to its year 2000 position.

- 5.7 The channel would require ongoing maintenance to enable it to continue to be navigable. A report provided in Appendix 4 was put together by Tonkin and Taylor providing the cost estimates to restore and maintain the Jackett Island shoreline to the year 2000 position. These costs were developed for a 35 year period which would coincide with the expected period of consent. This report also considered the cost estimate for the more northern channel which was preferred by the landowner and his coastal expert.
- 5.8 The table below summarises the capital and maintenance costs, plus the beach nourishment cost for the Selected Option. For comparison, the costs for more northerly channel preferred by the landowner have also been provided.

Capital Costs	Selected Option	More northerly option as preferred by the landowner
Capital cost of the cut and beach nourishment	\$7,265,700	\$9,389,151
Maintenance Costs (over 35 years)		
Foreshore Maintenance	\$22,000,000	\$28,800,000
Channel Maintenance	\$26,700,000	\$39,200,000
Foreshore and Channel maintenance for only 10 years.	\$10,300,000	\$15,500,000

- 5.9 The results show that the costs for the more northerly option are significantly higher than for the Selected Option. This is due to the channel being considerably longer and will be more problematic to maintain due to the difference in hydraulic gradients. Taking these costs into consideration along with the modelling which highlighted there was little difference between the benefits on Jackett Island from each channel, it was decided not to proceed with further investigations on the more northerly cut.
- 5.10 More importantly the estimated costs for both options are very high and difficult to justify in terms of the value of the assets the options are intending to protect.

Existing channel maintenance and beach nourishment option

- 5.11 This option involves transferring sand from the distal end of the spit to the foreshore of Jackett Island. This could manually replicate the natural process that occurred when the spit was shorter and the sand was able to migrate to the Jackett Island foreshore without being affected by the outgoing ebb tides.
- 5.12 The sand would come from the landward side of the spit and would amount to approximately 150,000m³, to restore the Jackett Island foreshore to its year 2000 position.
- 5.13 Ongoing maintenance of the channel would be necessary, so that it remains away from Jackett Island and allows the beach position to be maintained.
- 5.14 Preliminary estimates for costs for this option were estimated to be approximately \$3.8 million. Annual maintenance costs would be approximately \$200,000 initially and higher over time due to inflation.

Benefits of this option	Risks associated with this option
This option is more affordable than the Selected Option.	Natural processes would not be restored. Annual maintenance costs are high and targeted rates may be required on a community already stretched by other targeted rates.
The existing channel remains navigable for the Port Users. This channel would also be in a less sensitive ecological location.	Since annual maintenance is required, this option becomes unsustainable as well as unaffordable
There is less risk associated with this option with regard to applying for resource consent to carry out the work.	The spit is still growing as shown from the surveys undertaken as part of the resource consent for the removal of the groyne. The navigable channel out of the port will need to change with spit growth and ongoing maintenance costs again are an issue.
Erosion on Jackett Island would be reduced with active management but would not disappear completely.	Gaining resource consent may prove expensive and problematic with no guarantees of a consent being granted.

- 5.15 While this option provides some relief with regards to the erosion of the foreshore, there are still ongoing costs to maintain the channel and possibly unknown risks around effects and longer term costs.

Asset Relocation Option

- 5.15 This option involves moving the assets at risk from erosion further landward on the island. They would have to be moved to build up platforms as many parts of the island are low lying and barely above Mean High Water Springs. The affected landowners would need to be in agreement.
- 5.16 Alternatively, property purchase with relocation and resale could be a viable consideration.

Benefits of this option	Risks associated with this option
No expensive capital works will need to be carried out with ongoing maintenance costs not required. It would be a one off cost to Council.	This option does not address the issue of erosion on Jackett Island as directed by the Court.
Council could potentially recoup some of the expenditure by selling the land on (with coastal planning responses firmly in place).	Building platforms would be required for the properties affected and covenants detailing restrictions and liabilities in the future.
	Consent from all the affected landowners would be required.
	The one-off cost for the purchase of property or properties could be significant. Five properties may need to be considered as part of this option. Rateable values for these properties range from \$485,000 to \$640,000 each. This would amount to a minimum of \$2,735,000 for all the properties.
	The requirements of the Environment Court decision will not be met with this option alone.

5.17 This option provides some certainty in terms of dealing with the long term erosion effects on land owners by removing them from the areas at most risk, or property purchase. This option is considered feasible but requires land owner agreement which may not be forthcoming.

Planning Responses Option

5.18 This option involves the establishment of coastal hazard lines and the development of planning policies within the TRMP. These plans should aim to reduce the likelihood of assets being constructed in high risk areas. This option has already been implemented in other areas of New Zealand.

5.19 This option has been highly recommended by Council's coastal expert and planning staff regardless of whether this project proceeds. This process has already commenced and is deemed important for future development and growth in the region.

Benefits of this option	Risks associated with this option
This option has merit for future developments.	This option does not address the existing properties that have status and existing use rights.
This option will bring a level of consistency around Tasman's coastline.	These policies generally take a reasonable length of time to develop, notify and have potential hearings on.
This option will satisfy one of the requirements of the Environment Court	Engineering or structural solutions may be required in the short or medium term to deal with

decision.	the erosion issue on Jakkett Island.
	It does not address the loss of private land on Jakkett Island.

5.20 This option as noted above is already in progress.

Reset of channel position option

5.21 This option would involve the dredging of a cut channel through the Motueka spit.

5.22 It differs from the Selected Option as it would not require further maintenance works. It would allow the spit dynamics to naturally occur without any further human interference. Nature would dictate the ongoing development and movement of the channel, as well as the spit and other bars. It is expected that such a channel would drift southwards over time, as a result of the existing southerly longshore drift system. The breach and channel reset mechanism will operate as and when nature dictates.

5.23 Historic evidence has shown that the breaches occur naturally on Motueka spit. These have generally coincided with flooding from the Moutere River. There has been a lack of flooding in the Moutere River for over 30 years. Additionally, there has been a lack of fresh sediments coming out of the Motueka River. The last significant flood in the Motueka River was in 1990 (where water lapped at the SH60 Bridge).

5.24 This option has significant costs, as the dredging could have a capital cost of \$7.3 million.

Benefits of this option	Risks associated with this option
This is a one off cost to Council as there would be no ongoing maintenance.	There would be a reduced benefit to the Port Users from this option unless they were willing to accept the dredging regime and ongoing maintenance as their responsibility.
The dredged sand would be used for restoring the Jakkett Island foreshore to its year 2000 position.	The costs of this option are still expensive for the community as the sand will need to be double handled.
The velocities along the Jakkett Island foreshore would be reduced and therefore raise the potential for sediment to be deposited on the island. Also, the rate of erosion on Jakkett Island would be reduced but not completely mitigated. Modelling carried out has shown that this would occur.	The spit could breach naturally.
	There would be consenting issues that would need to be worked through.
	Nature would be allowed to take its own course and with the environment being a complex and dynamic one, there is no long term sustainability attached to this option.

5.25 This option provides a one off solution to the erosion on the foreshore of Jackett Island, however it is expected that the spit will continue to grow in a manner similar to it has in the past.

Training groynes with nourishment from existing channel maintenance option

5.26 This is an extension of the existing channel maintenance option. Channel training groynes would be built in order to stabilise the newly placed sediment on Jackett Island. The groynes would be placed on the seaward edge of Jackett Island, to move the tidal currents away from the existing shoreline.

5.27 Groyne construction would be similar to the existing training groyne (concrete panels and steel) or use rock armour. The indicative costs for each rock groyne are \$3,350 (linear metre cost). Each groyne would be approximately 250 metres long and would need to be located every 500 metres and potentially extend on to the Kina Peninsula to mitigate the possible effects of erosion further south. The estimated total length of groynes would equal 1,680 metres which would equate to a total cost of approximately \$5,628,000. This groyne capital cost does not include beach nourishment costs.

Benefits of this option	Risks associated with this option
Placed material on Jackett Island would be stabilised and would not require further nourishment of the beach as it would with other options.	This option has risks to both the southern and northern coastline adjacent to Jackett Island.
Erosion on Jackett Island foreshore would be reduced as the tidal currents would be further away.	Extensive studies and assessments would be required which would be expensive.
The indicative cost may not be as great if cheaper materials were used (costs were calculated on rock armour being used).	This option would have to be calculated with the existing channel maintenance option. Together the cost would amount to approximately a maximum of \$12 million.
	There would be significant visual impacts and gaining resource consent could be problematic.
	There would be ongoing maintenance costs of approximately \$50,000 to \$100,000 per annum.

5.28 The option has significant environmental effects as well as having a high cost for construction.

Seawall (land protection) option

5.29 This option would involve the construction of a substantial rock wall, similar to the one in Ruby Bay. It would encompass the perimeter of Jackett Island along the upper beach area.

Based on costs of the Ruby Bay seawall, a rock revetment at Jakkett Island it is estimated that this option would cost more than \$6 million dollars.

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Benefits of this option	Risks associated with this option
The Jakkett Island properties would be protected from the effects of erosion on the island.	There would be an issue of access to all the landowners on Jakkett Island, as they presently use the beach for access.
	There would be a reduction in material travelling south of Jakkett Island, therefore increasing the problem of erosion on the Kina peninsula. It may also cause problems further north of the island.
	It will be visually unattractive.
	Further studies on this option would be expensive and gaining resource consent is likely to be difficult.

5.30 The option has significant environmental effects as well as having a high cost for construction.

Do Nothing

5.31 This option assumes no additional work will be carried out apart from removal of the groyne.

5.32 It is expected that the spit over the short term will continue to extend at its present rate. In turn, erosion will continue on Jakkett Island albeit in a different location along the foreshore. As the spit extends further south, the erosion problem will also migrate southwards along the seaward side of the island. The erosion is likely at some future point to extend to the Kina Peninsula. However, the spit does provide shelter from storms (and therefore storm erosion) to those properties further north of the Van Dyke Family Trust property.

5.33 There is the possibility of the spit breaching naturally as it gets thinner at the northern end because of a lack of sediment supply from the Motueka River. This breach is likely to again alter the dynamics of the present system.

5.34 This option is only viable if the other options are considered not to be practicable, sustainable or affordable.

Benefits of this option	Risks associated with this option
There is little relative cost to the community.	It would involve the Council reporting to the Environment Court on the basis that the options are costly, unsustainable and/or impractical. As a result the Council is unable to address the findings of the interim decision.
In the medium term, the spit will provide some Jakkett Island landowners protection	The future behaviour of the spit is difficult to determine. Erosion problems are likely to

from storm events.	migrate to the south of Jackett Island and then possibly on the Kina Peninsula.
	There would be no benefits to the wider community.

5.35 This option can also only be pursued by Council if the risks of the Selected Option and other physical work options far outweigh the benefits.

Other Options

5.36 This includes importing sand to the Jackett Island foreshore. This does not solve the problem of erosion so it would be an ongoing and costly exercise. As a standalone option it is not viable as it is not sustainable, practical or affordable.

6 Strategic Challenges/Risks/Other Considerations
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- 6.1 All the long term physical work options have a significant cost attached to them and have an impact on the physical environment.
- 6.2 All the hard protection works also have a high risk in terms of gaining resource consent. Potentially, there are a number of landowners on Jackett Island who would object to any resource consent application for physical works. This process could prove to be expensive and protracted and without a consent being granted.
- 6.3 Many of the options have associated ongoing high maintenance costs which have an impact on the rates. The sustainability and affordability of the physical works options is difficult to justify.
- 6.4 The funding of any of the physical work options needs to be considered and approved by the Council. There would also be a need to consult with the wider community as well as the stakeholders. Any physical works will also likely require resource consent.
- 6.5 Some of the options, such as sand transfer and small scale channel improvements have a risk of failure unless significant ongoing maintenance is provided.
- 6.6 The provision of a navigable channel through the Motueka Spit could provide wider benefits for the whole community, as it improves access to the Port. This needs to be considered by the Council in their decision making.
- 6.7 Asset relocation and planning responses should be considered as part of any future planning for the area.
- 6.8 The numerical modelling has been calibrated and validated. The model provides a robust indication of the coastal dynamics; however, it is not able to predict what might happen into the future, beyond a short timeframe. The processes in this area are complex, dynamic and have been changing since records began.
- 6.9 The physical works options are likely to have a significant impact on adjacent coastal areas, such as the Kina Peninsula which could expose Council to further risk and needs to be carefully considered in the decision making process.

7 Policy / Legal Requirements / Plan

- 7.1 Under the Environment Court decision (ENV-2010-WLG 00080&81) the Council were required to investigate a long term solution to the erosion problem on Jackett Island.

8 Consideration of Financial or Budgetary Implications

- 8.1 The costs that have been estimated for the Selected Option as well as the indicative costs for the other options are significant, in terms of both construction cost and ongoing maintenance.
- 8.2 Any project to address the problem will require funding, further work and consultation.

9 Project Update

- 9.1 The cost to date for the investigation work into a Long Term Solution to the erosion problem on Jackett Island is \$281,260.51. Funding is available for this work under a budget of \$650,000 in the Long Term Plan. The Interim Works costs this financial year are \$30,501.21. This totals \$311,761.72. This leaves \$338,238.28 in the budget for 2012-2013.
- 9.2 The Environment Court hearing for both the application to cancel the interim court order and to deal with the Van Dyke reimbursement order should occur before June 2013. A decision is expected soon after the completion of the court date.
If the Environment Court agrees to the application to cancel the interim order, it is likely that no further work will be required on investigating a long term solution for the erosion problem on Jackett Island.
- 9.3 It will be necessary to get the Court's direction regarding this project.

10 Significance

- 10.1 Given the estimated costs of the capital works for the long term solution and the level of community interest in this project, if the Council were to resolve to proceed with this expenditure then this would have a high level of significance. It would also require an amendment to the Long Term Plan 2012-2022. A resolution to proceed would therefore require consultation with both stakeholders and the general public.
- 10.2 If the Council resolves that the Selected Option is not practical in terms of cost and sustainability, the level of significance is high. The Council will be accepting that this decision will result in Council returning to the Environment Court to report that investigations into a long term solution to erosion problems on Jackett Island have proved unaffordable and not sustainable. The stakeholders will need to be informed of this decision.

11 Consultation

- 11.1 If the Council resolve to continue with the Selected Option, consultation with stakeholders and the wider community will be required.

- 11.2 However, if Council resolve to return to the Environment Court to report that there is no affordable or sustainable solution to erosion on Jackett Island no consultation will be required. The stakeholders would be advised of this outcome.
- 11.3 Any planning policy changes that may result from this project will be subject to a public consultation process under the Resource Management Act.

12 Conclusion

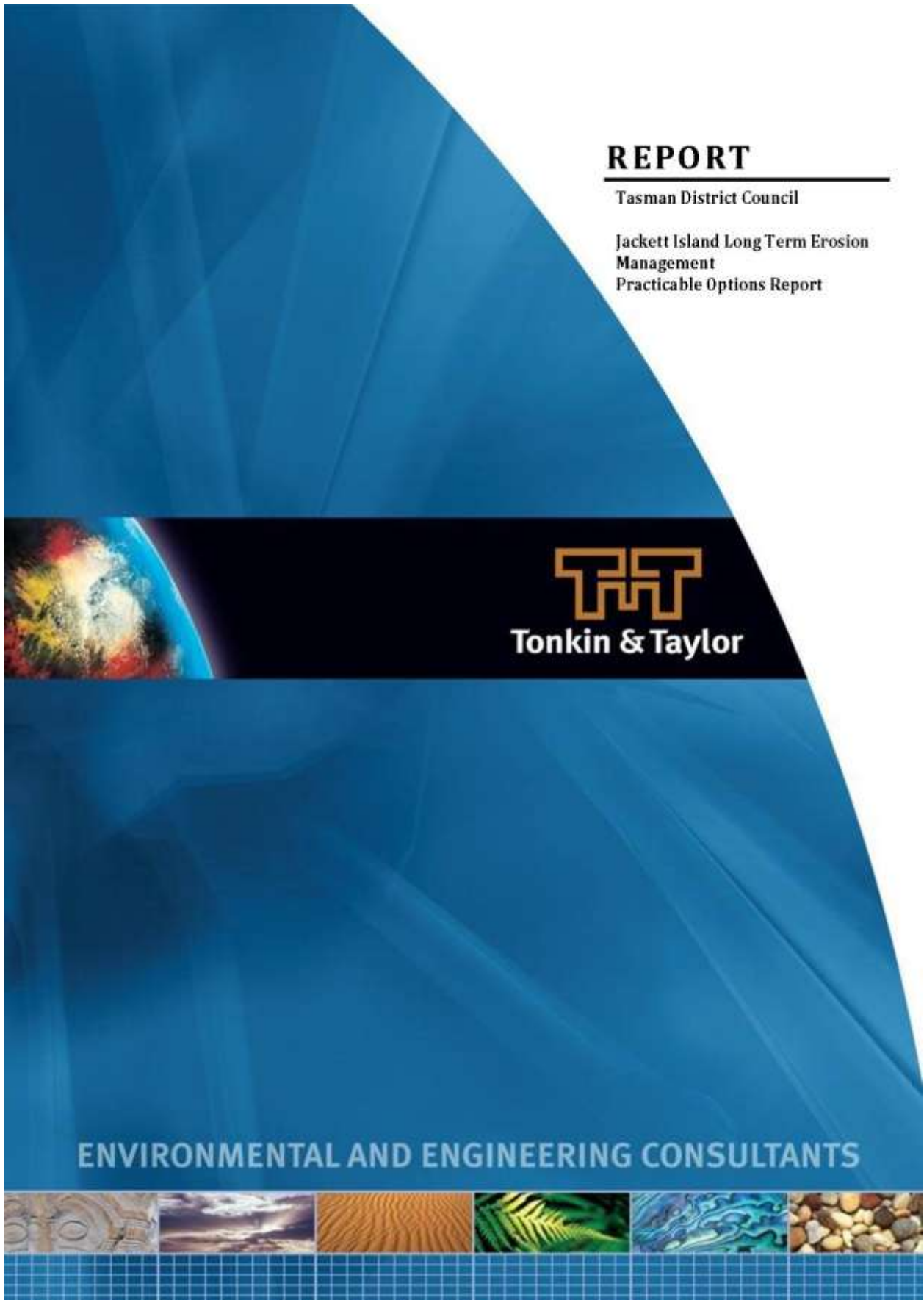
- 12.1 In conclusion, staff believe that there are no sustainable or affordable long term solutions to the erosion problem on Jackett Island.
- 12.2 Considerable work has been carried out in investigating a long term solution. It is considered that the risks associated with any physical works including the Selected (capital works) Option are far greater than the potential benefits.
- 12.3 Staff recommend that the Council pursue, in a timely manner, the TRMP plan changes required to establish a robust Coastal Hazard Management Plan.
- 12.4 Staff also recommend that the Council report back to the Environment Court to advise them that we have investigated a long term solution to erosion issues on Jackett Island and none have proved to be sustainable or affordable to the community.

13 Next Steps / Timeline

- 13.1 Report back to the Environment Court.
- 13.2 Plan changes to the Tasman Resource Management Plan and the necessary consultation.

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Item 8.2

Attachment 1

Item 8.2

Attachment 1



REPORT

Tasman District Council

Jackett Island Long Term Erosion
Management
Practicable Options Report

Report prepared for:
Tasman District Council

Report prepared by:
Tonkin & Taylor Ltd

Distribution:
Tasman District Council
Tonkin & Taylor Ltd (FILE)

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March 2012

T&T Ref: 27882-PO-R2



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Executive summary

This report sets out the assessment of practicable options to manage the erosion experienced along the seaward edge of Jakkett Island to achieve the following objectives:

1. Reduce risk of erosion hazard affecting human life and physical assets
2. Restore the shoreline position to approximate the year 2000 shoreline
3. Provide a solution that considers the seaward edge of the Jakkett Island shoreline for a period of 35 years (i.e. long term = 35 years), the maximum duration possible for a coastal permit.
4. Legitimise or remove existing groyne from the Coastal Marine Area.

It extends the discussion included in the preliminary practicable options report (T&T, 2011).

It has generally been agreed by Professor Kirk, Gary Teear, Ron Heath and Richard Reinen-Hamill that the system at this location is complex and is constantly evolving, rather than in a state of equilibrium. There are also significant fluctuations and changes to the system from year to year.

It has been identified that numerical modelling is not able to fully evaluate existing processes and the likely change of the system over years to decades in the future, but should provide a means of comparative assessment of options, which together with other assessments can give a degree of confidence on the possible outcomes of the various options being considered and assist in the identification of areas of risk and uncertainty.

Preliminary modelling and analysis of bathymetric data confirm the strong impact the ebb tide flows have along Jakkett Island and the key erosion processes of:

- The southern end of the spit has been accumulating at a rate of around 61,000 m³/yr
- Due to the relatively close proximity of the distal tip of the spit to Jakkett Island, the strong tidal currents of the main channel are forced closer to Jakkett Island further exacerbating the erosion in this area
- Sand eroded from the beach (across-shore due to the short-period waves) is then removed from the site by the tidal current that run parallel to the beach (both to the north and south)
- Reduced sediment supply to Jakkett Island due to the presence of the main tidal channel between the spit and the island. The sediment supply to Jakkett Island was previously from the spit, with the biggest influxes occurring following breaching of the spit, with the remnant spit south of the new channel formed by the breach migrating shoreward to Jakkett Island.

The developed practical physical work options are associated either with a new accessible navigation channel or modifications to the distal end of the spit and transfer of sand to rebuild the Jakkett Island shoreline.

Both options require ongoing monitoring and maintenance, with the navigation channel providing additional benefit to the port users but a higher cost.

Numerical modelling will be used to compare the effects of the preferred approaches and will assist in identifying potential effects and maintenance requirements.

1 Introduction

This report sets out the assessment of practicable options to manage the erosion experienced along the seaward edge of Jakkett Island, progressing options identified in our practicable option report.

2

2 Current progress

Consents are currently being sought for the removal of the full removal of the existing groyne. Ongoing monitoring would be required and exposed areas of groyne removed as it becomes exposed.

A workshop was held in Nelson with Port representatives including Gary Teear (Ocell) and Ron Heath and on 3rd February 2012 and a meeting of local residents/stakeholders on 8th February 2012.

A report from Professor Bob Kirk (2011) regarding coastal issues at Jackett Island, Moutere Inlet Motueka (December, 2011).

Ron Heath (2012) draft report on Motueka Sand Spit, Jackett Island erosion and the entrance to Motueka Harbour

Numerical model studies are in progress and currently field investigations are currently being carried out in order to calibrate the model and update understanding of the existing physical system and drivers.

3 The current understanding of coastal processes

3.1 General context

It has generally been agreed by Professor Kirk, Gary Teear, Ron Heath and Richard Reinen-Hamill that the system at this location is complex and is constantly evolving, rather than in a state of equilibrium. There are also significant fluctuations and changes to the system from year to year.

It has been identified that numerical modelling is not able to fully evaluate existing processes and the likely change of the system over years to decades in the future, but should provide a means of comparative assessment of options, which together with other assessments can give a degree of confidence on the possible outcomes of the various options being considered and assist in the identification of areas of risk and uncertainty.

3.2 Analysis of hydrographic survey results

An assessment of volume stored in the spit was made by comparing the November 2011 survey with the 1997 survey (refer Appendix A). Some 860,500 m³ of accretion has occurred to south of the 1997 spit over this 14 year period, equating to an average accretion rate of around 61,000 m³/yr. This is in the same order of magnitude as Kirk's (1990) upper bound assessment of alongshore drift of 47,500 m³/yr.

3.3 Preliminary numerical model results

MetOcean Ltd is currently engaged in the numerical model study. The following figures show initial velocity plots for incoming and outgoing tides through the Moutere Inlet. These plots were used to establish the location of current measurement devices to enable calibration of the model.

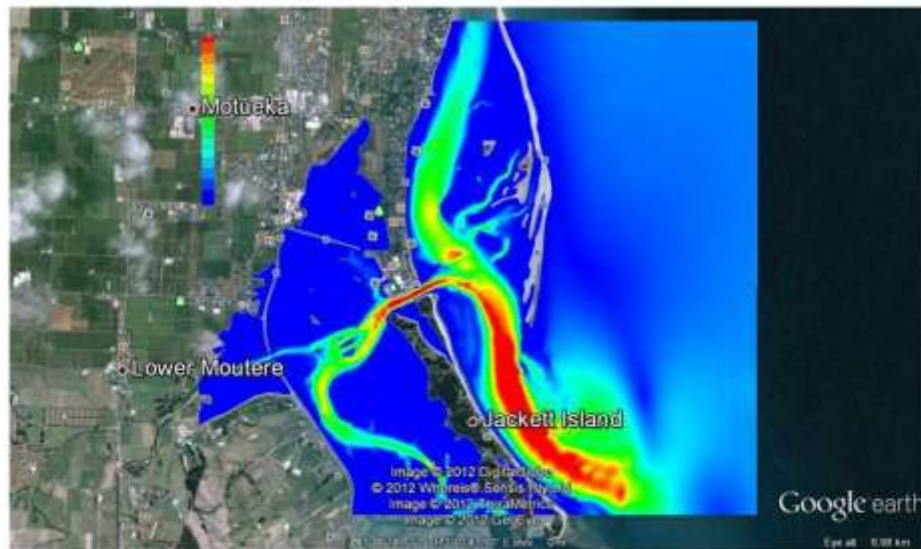


Figure 3-1 Preliminary model results of peak outgoing (ebb) tidal velocity (Source: MetOcean, 2012)

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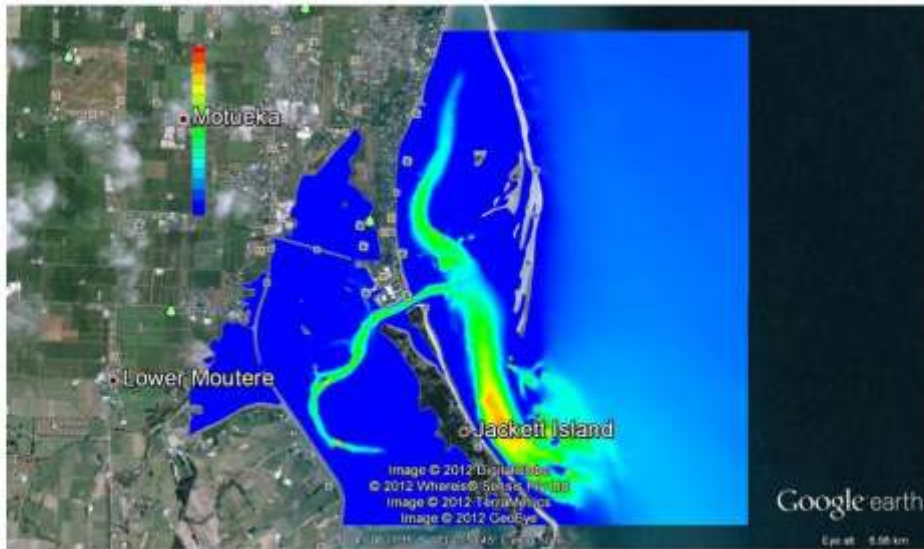


Figure 3-2 Preliminary model results of peak incoming (flood) tidal velocity (Source: MetOcean, 2012)

These figures confirm the strong impact the ebb tide flows have along Jackett Island and the key erosion processes of:

- Due to the relatively close proximity of the distal tip of the spit to Jackett Island, the strong tidal currents of the main channel are forced closer to Jackett Island further exacerbating the erosion in this area, and;
- Sand eroded from the beach (across-shore due to the short-period waves) is then removed from the site by the tidal current that run parallel to the beach (both to the north and south);
- Reduced sediment supply to Jackett Island due to the extended length of the spit and the relative close proximity of the distal tip. The sediment supply to Jackett Island is from the spit, with the biggest influxes occurring following breaching of the spit, with the remnant spit south of the new channel formed by the breach migrating shoreward to Jackett Island.

4 Practicable options

The practicable options developed below were based on the preliminary practicable options and the initial feedback from Professor Bob Kirk (December 2011) and considerations included in Heath's draft report (2012).

The aim of the practicable option development is to refine potential physical works options to model and to identify opportunities and constraints of the options. Other non-physical works options such as planning responses, etc identified in the preliminary practical options report are not included in this assessment, but should remain possible options to evaluate against any developed physical works option.

We note the comment of Professor Kirk that possible solutions should not be put forward ahead of a technically credible understanding of the causes or outcomes.

4.1 Existing channel maintenance and beach nourishment

No further development of this option has been made from the preliminary practical options report, but the text is included for completeness and the volume of sand required to nourish the Jakkett Island foreshore has been confirmed based on the hydrographic and LIDAR survey data which is discussed in more detail in Section 4.2 below and included in Figure 20 in Appendix A.

This option involves regular mechanical bypassing of sand from the distal end of the spit to Jakkett Island, replicating the natural process when the spit was shorter and sand bars are more able to migrate shoreward without being affected by the ebb tide outflow. A conceptual sketch of this option is shown on Figure 6 of the preliminary practical options report. The works would involve an initial capital dredge of the landward side of the spit and transfer of this sand along the seaward edge of Jakkett Island to realign the existing channel further seaward from its current position.

It is estimated that around 150,000 m³ of sand would need to be placed along the foreshore of Jakkett Island to restore the shoreline to the 2000 shoreline position. This was based on protection of up to 1000 m of shoreline with a beach slope of 20(H):1(V) extending from around RL 5 m to RL 3 m and a 40(H):1(V) slope from RL3 to intersect with the existing seabed. The extent of shoreline was taken from an assessment of the most recent aerial photograph with the aerial photograph from 2000 and consideration of the local bathymetry. The sediment grain size of the spit (Kirk, 1990) shows medium fine sand that should be stable at 20(H):1(V) at this location which could reduce the volume to around 100,000 m³. However, we recommend the upper volume being used at this stage as additional material may be require due to the erosion process being ongoing.

After the initial placement, regular transfer of sand would be required to maintain the channel position away from Jakkett Island and to maintain the beach position. The rate of sand loss along Jakkett Island is estimated to be around 10,000 m³/yr (lower and upper bound range is 7,400 m³/yr and 12,800 m³/yr respectively) which is less than the longshore drift rate of 47,500 m³/yr estimated to occur along the spit.

This work could be done by a cutter suction dredge with a slurry pump discharging the dredged sand to the Jakkett Island shoreline. Initial costing of dredging is based on indicative costs of sand dredging of \$10/m³ presented by OCEL for the Motueka Port Users Ltd¹ that included mobilization

¹ OCEL (2011). Establishing and maintaining a new navigation channel for Port Motueka (Draft). Unpublished report for Motueka Port Users Ltd. May 2011.

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costs, but not for contingencies, engineering and environmental costs (design/contract supervision/monitoring etc) and also not for the costs of placement and shaping of sand along the Jakkett Island shoreline. We have included additional cost for P&G (10%), sand shaping and management along Jakkett Island of \$6/m³, 20% contingency and 30% for engineering and environmental management. Based on this approach the preliminary estimates of initial cost for this option is in the order of \$3.8M.

Annual maintenance costs assuming a similar distribution of costs but with a smaller volume could range between \$200,000 and \$330,000 per annum.

This option would effectively maintain the existing situation in terms of channel orientation and improve the erosion situation along Jakkett Island through active management. It also has the benefit of limiting dredging within the more sensitive ecological areas of the spit. However, it would not result in the potential for the natural system to be restored and would need ongoing maintenance and monitoring costs unless alternative land management options were brought in over time that reduced the need for ongoing maintenance works, or a natural breach occurs increasing sediment supply to Jakkett Island.

4.2 New access channel dredging and beach nourishment

This option is discussed in the draft report prepared by OCEL for the Port Motueka User Group (PMUG). The objective is to dredge a channel across the spit, based on the recommendation by Kirk (1991) to provide improved access to the port. This option has been extended to identify the area of beach nourishment adjacent to Jakkett Island to restore the shoreline to around the 2000 position.

This option has been revised from the preliminary practical options report and included as Figure 20 to 22 in Appendix A. The proposal as illustrated in Figure 20 and involves a channel 50 m wide set at 3 m below Nelson Vertical Datum (or approximately Mean Sea Level). Two locations are indicated on the plan, one more perpendicular to the incident wave energy (but note, not fully perpendicular to the main incident wave energy) and one more aligned to the adjacent seabed contours. Numerical modelling would be used to evaluate the velocity and flows through this channel and the shear stress acting on the formed channel to evaluate the stability of the channel dimensions.

Preliminary numerical modelling work included in Section 3 shows the alignment perpendicular to the seabed contours may be more aligned to the combined flows from the Moutere inlet and the area between the Spit and Motueka compared to the more wave aligned channel. Optimising the channel alignment would be done using the calibrated numerical model.

Based on the channel cross section the sand volume is around 194,000 m³ for the wave perpendicular option and around 147,000 m³ for the seabed perpendicular channel option. The long section through the dredged channel and the cross sections are shown on Figure 21 for the wave perpendicular option.

There may be the need to enhance or extend the existing training groyne on the right side of the Moutere outlet to train the flows from both the Moutere Inlet and the flows from the area between Motueka Spit and Motueka (refer Figure 3-2). OCEL proposed an extension of the gravel berm to the end of the existing training wall would be sufficient in combination with the flows from the inlet through the new opening being sufficient to reinforce the new channel position and that full closure of the existing channel would not be required. Based on the preliminary modelling discussed in Section 3, this may not be sufficient to train the flow and a longer structure

may be required. Numerical modelling of would be used to confirm the requirement for training works.

Sedimentation rates within the dredged channel of between 14,250 and 23,750 m³/yr were estimated by OCEL based on work done by Kirk (1990). Heath (2012) estimated sediment transport capacity over an outgoing tide is in excess of 115,000 m³ based on 30% of the tidal flows being directed through the channel, suggesting that ebb flows could maintain the channel and that sand periodically trapped in the channel would be transported seaward and be able to be transported along shore by wave energy.

The construction process would need to include stockpiling sand in an area relatively protected from tidal flows and wave energy until the channel was formed and flows (or a proportion of flows) diverted from the existing channel. The most likely location for this temporary stockpile would be immediately to the south of the training groyne. This would also improve the flow concentration during ebb tides through the newly formed channel. Sand from this stockpile would need to be transported along to the central Jakkett Island foreshore and placed along the shoreline to restore the shoreline to 2000 levels. The lower bound sand dredge volume for the perpendicular to bathymetry option of 147,000 m³ is similar to the estimated upper bound nourishment volume of 150,000 m³. If the wave aligned channel was chosen, not all the sand would need to be transported to Jakkett Island and some could be returned to the coastal environment to the south of the channel.

Initial costing of dredging is based on indicative costs of sand dredging of \$10/m³ presented by OCEL (2011) for the Motueka Port Users Ltd included mobilization costs, but not any allowance for contingencies, engineering and environmental costs (design/contract supervision/monitoring etc) and also not for the costs of placement and shaping of sand along the Jakkett Island shoreline. Therefore, OCEL's cost estimate of \$1.4M is unlikely to cover the actual costs of the proposed activities required to maintain the coastal edge along Jakkett Island.

To provide a comparative costing assessment with our channel maintenance option we have included additional cost for P&G (10%), sand shaping and management along Jakkett Island of \$8/m³, 20% contingency and 30% for engineering and environmental management. The sand transfer is higher than the previous option as there is a longer haul required to move sand in this option. We have assumed 194,000 m³ is dredged and 150,000 m³ is transferred to the shoreline along Jakkett Island. Based on this approach the preliminary estimates of initial cost of the PMUG option is in the order of \$5.0 M.

Annual maintenance costs including the transfer of a portion of the sand to Jakkett Island could range between \$200,000 and \$330,000 per annum. However, if the new channel functioned as desired, then there may be less need to transfer sand to Jakkett Island and the by-passing would involve transfer of sand to a location down drift (south) of the new channel.

This option would work towards restoring the situation at the spit that existed prior to the geotextile groyne being constructed and would also provide a mechanism to manage erosion along Jakkett Island. It has a wider benefit than just for the management of erosion to Jakkett Island residents.

Maintaining the flows through this channel location would result in the southern spit migrating towards land as the hydraulic control from the existing channel flow would not be present. This is likely to result in the southerly migration of the channel unless maintenance works were carried out to maintain the channel position in the original location. Alternatively an envelope of acceptable movement could be agreed where dredging to restore the channel would only be contemplated once the channel migrated outside the envelope.

8

There are risks associated with the training groyne extension which require further assessment. This option also needs ongoing maintenance and monitoring both for the channel opening and the erosion along Jakkett Island.

4.3 Summary

Work is ongoing to characterise the existing environment with the numerical model study likely to provide a good tool for analysis. However, the existing system is complex and may be in a state of evolution rather than dynamic equilibrium so numerical modelling is unlikely to be able forecasting the likely changes and effects over years to decades.

The developed practical physical work options are associated either with a new accessible navigation channel or modifications to the distal end of the spit and transfer of sand to rebuild the Jakkett Island shoreline.

Both options require ongoing monitoring and maintenance, with the navigation channel providing additional benefit to the port users but a higher cost.

Numerical modelling will be used to compare the effects of the preferred approaches and will assist in identifying potential effects and maintenance requirements.

5 Applicability

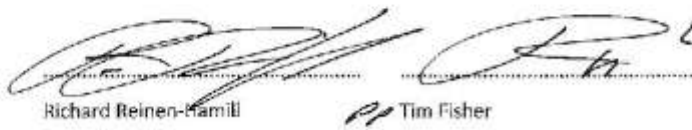
This report has been prepared for the benefit of Tasman District Council with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

Tonkin & Taylor Ltd

Environmental and Engineering Consultants

Report prepared by:

Authorised for Tonkin & Taylor Ltd by:



Richard Reinen-Hamill
Senior Coastal Engineer

pp Tim Fisher
Project Director

RRH

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References

Heath, R., 2012, Motueka Sand Spit, Jacket Island erosion and the entrance to Motueka Harbour – a working document (DRAFT).

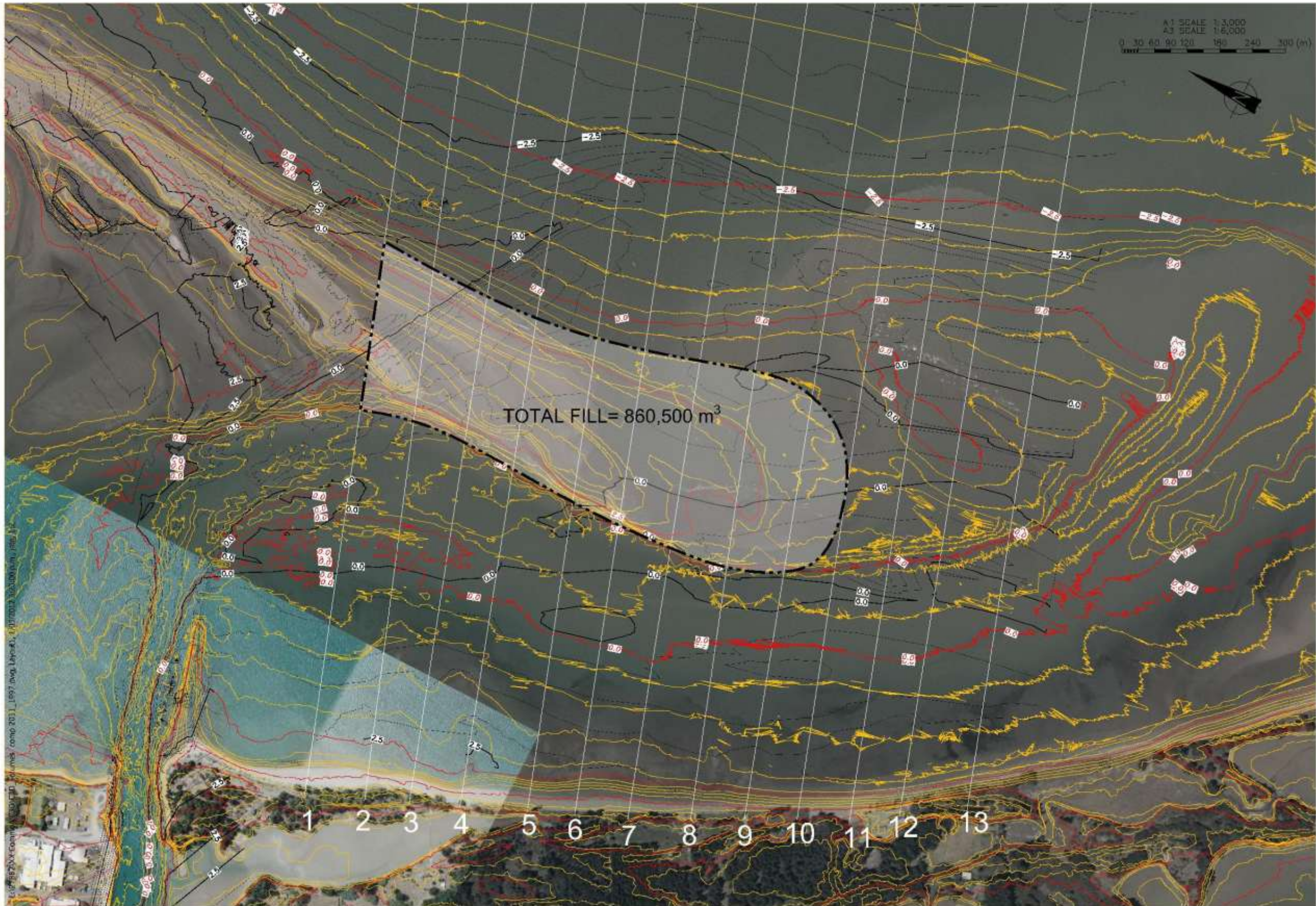
Kirk, R.M., 1990, Coastal sedimentation and navigability at Port Motueka, Moutere Inlet. Unpublished report to Tasman District Council, July 1990.

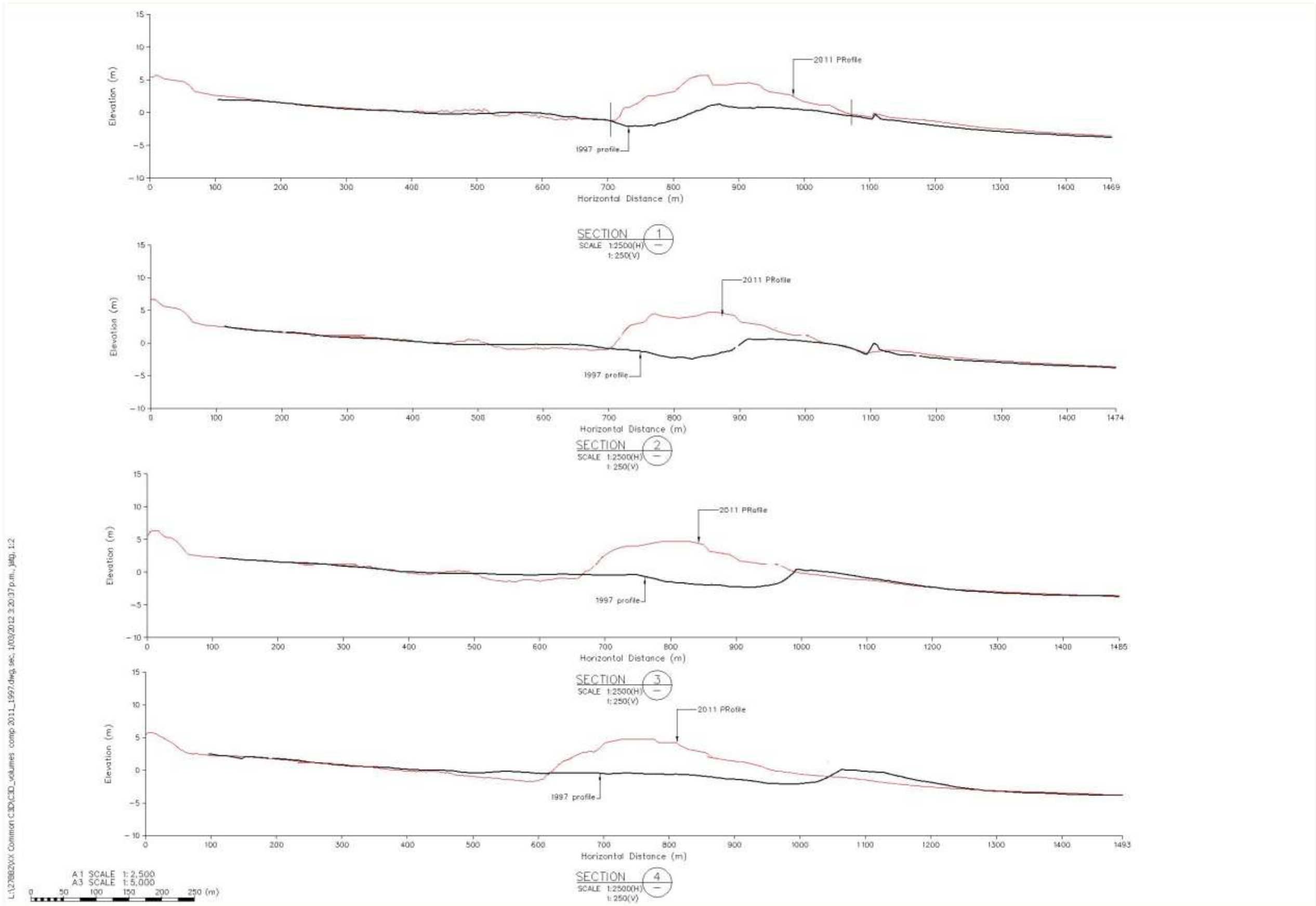
Ocel, 2011, Establishing and maintaining a new navigation channel for Port Motueka [Draft]. Unpublished report for Motueka Port Users Ltd, May 2011.

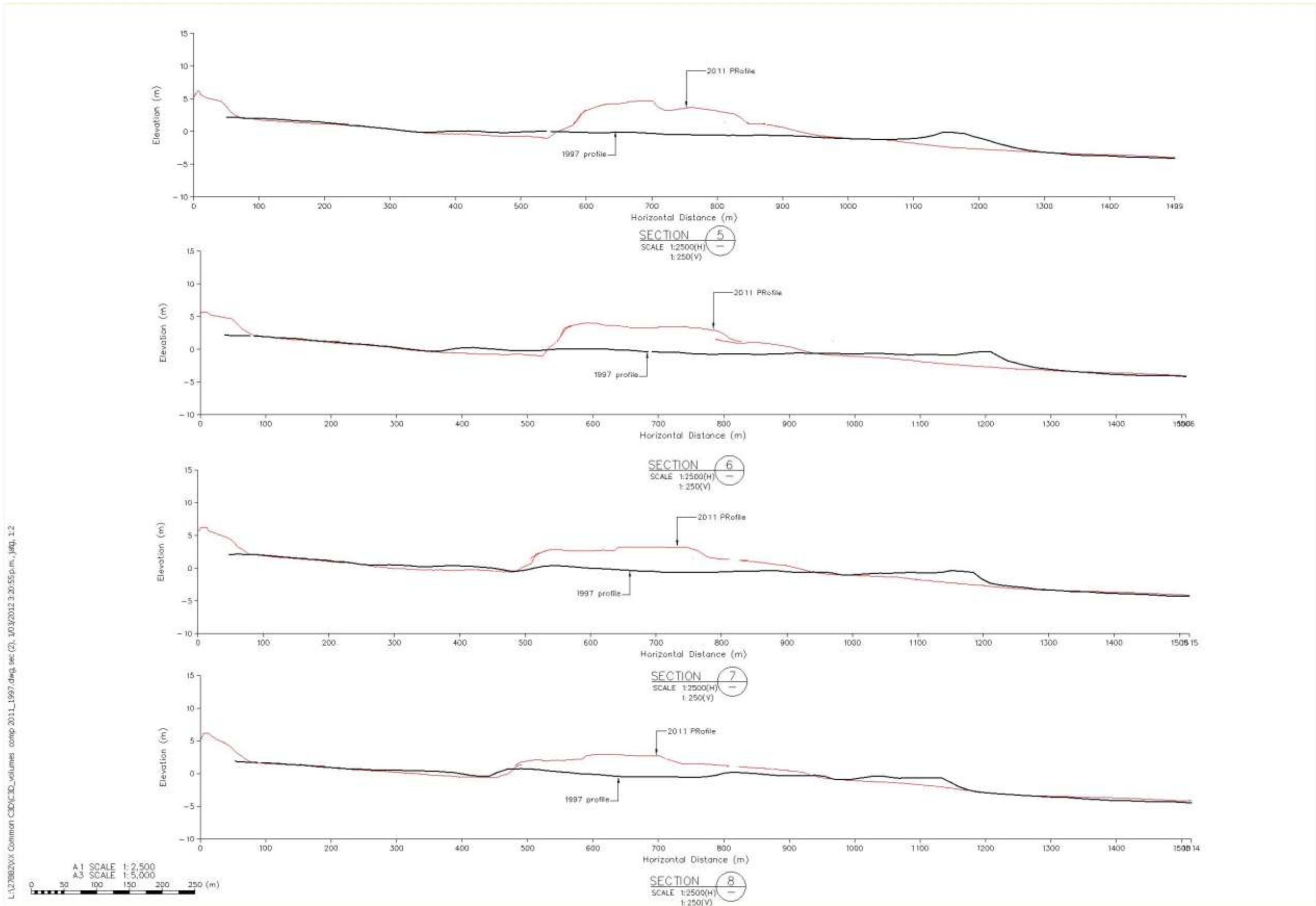
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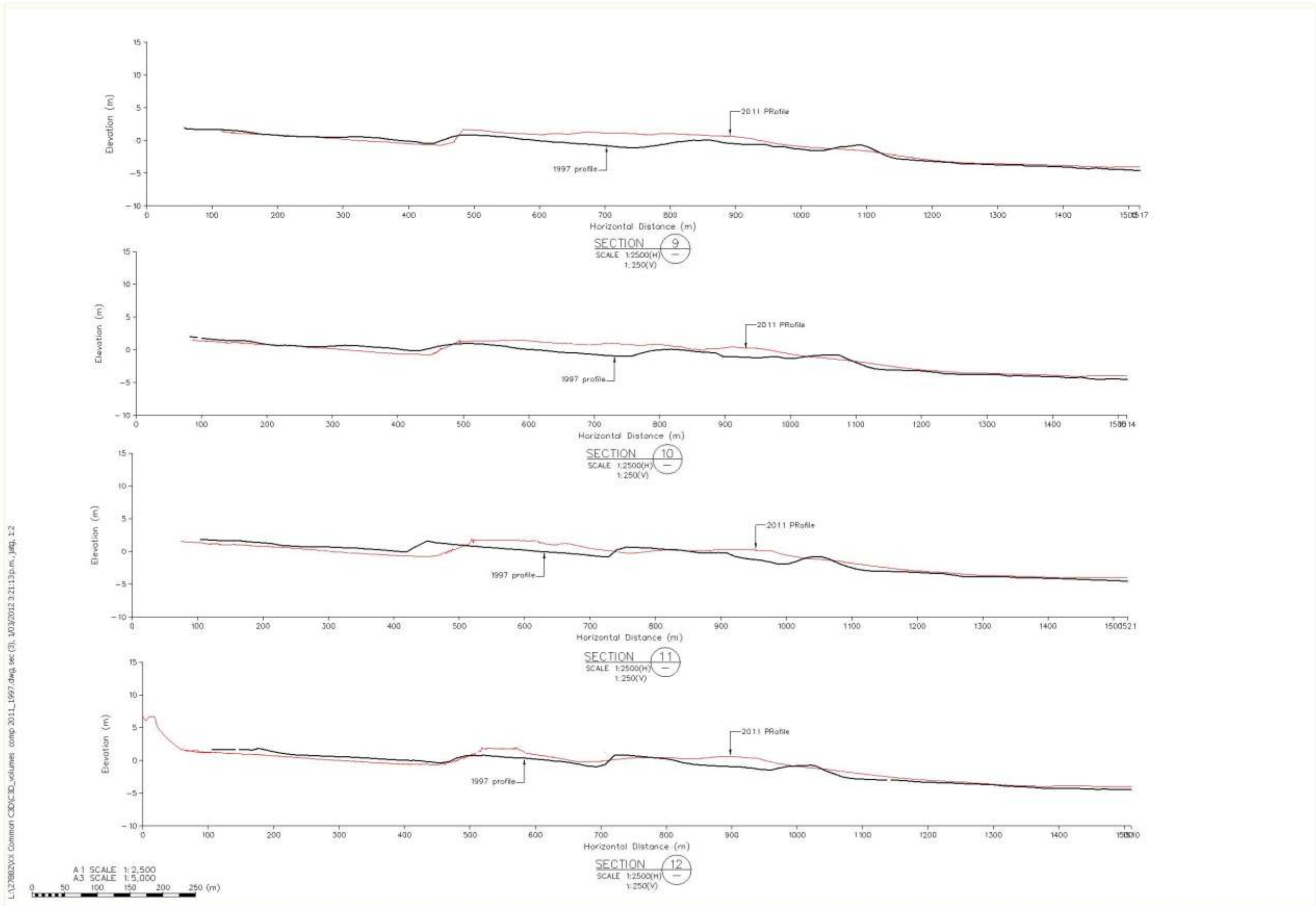
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Appendix A: Change in levels of the Motueka Spit south of the 1997 bathymetry

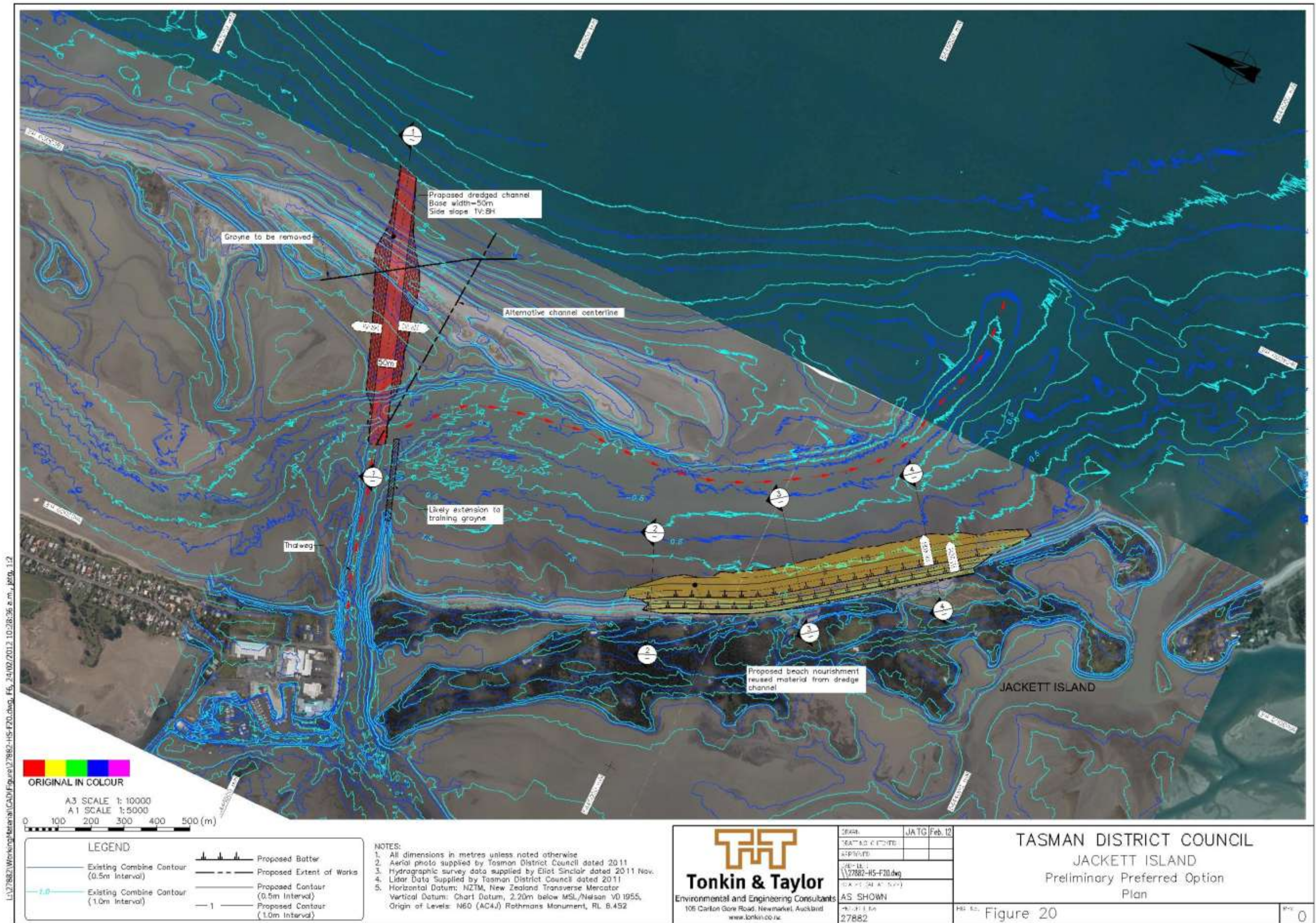




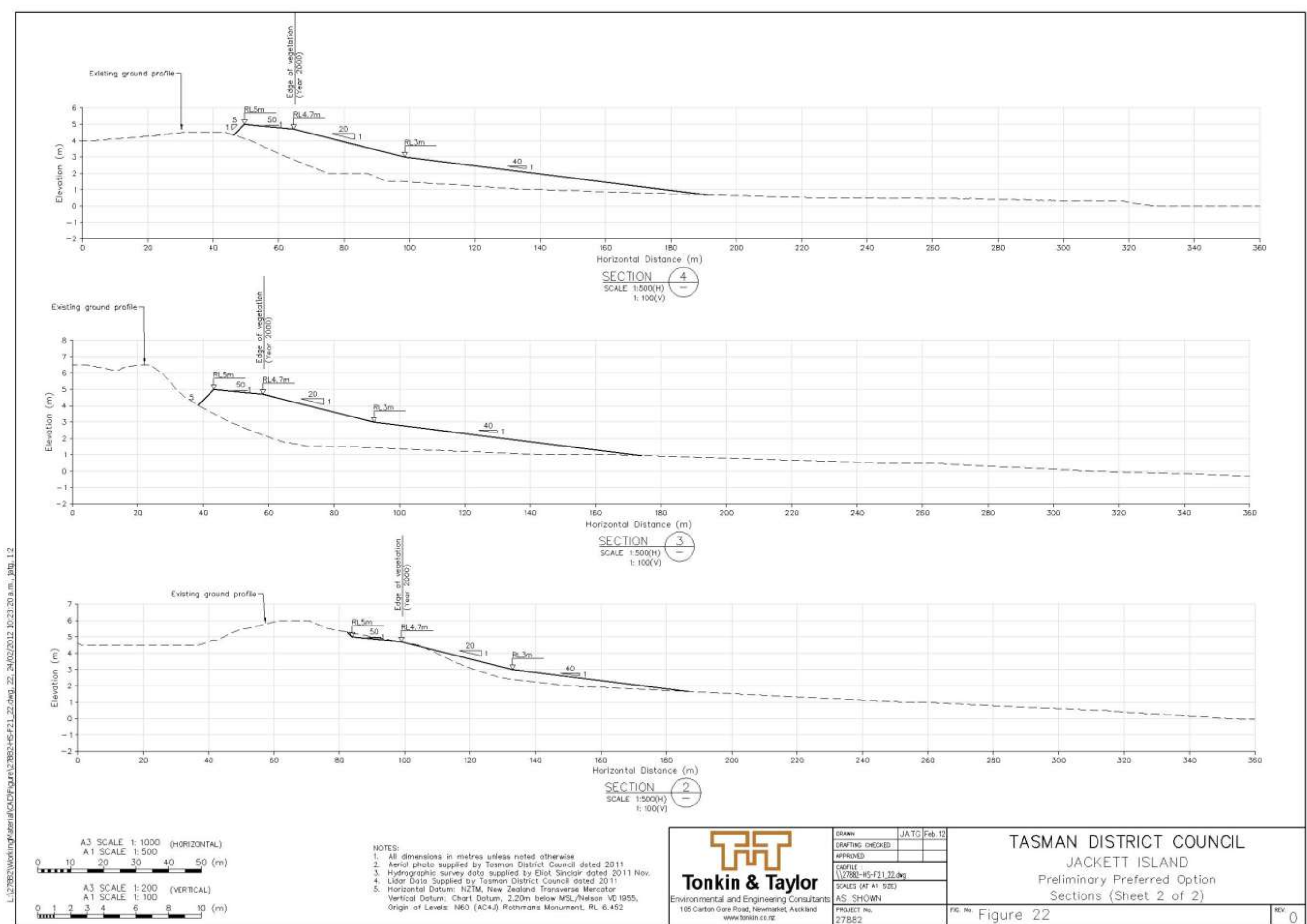




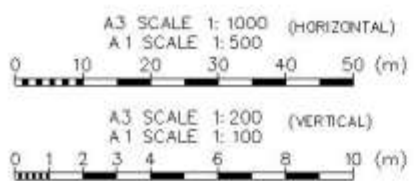
Appendix B: Preliminary preferred option: port navigation channel



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- NOTES:
- All dimensions in metres unless noted otherwise
 - Aerial photo supplied by Tasman District Council dated 2011
 - Hydrographic survey data supplied by Eliot Sinclair dated 2011 Nov.
 - Lidar Data Supplied by Tasman District Council dated 2011
 - Horizontal Datum: NZTM, New Zealand Transverse Mercator
Vertical Datum: Chart Datum, 2.20m below MSL/Nelson VD 1955,
Origin of Levels: N60 (AC4J) Rothmans Monument, RL 6.452

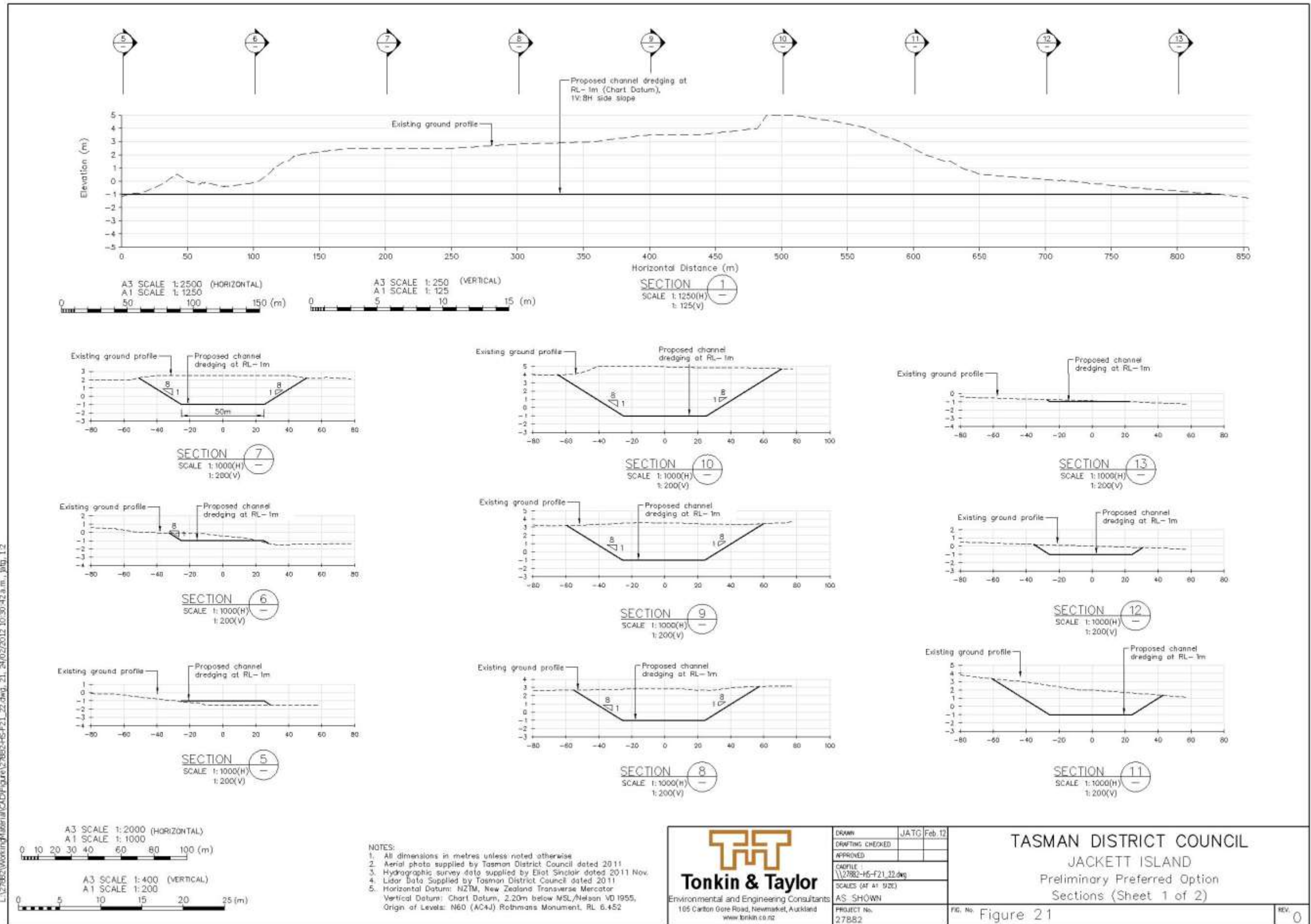
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TASMAN DISTRICT COUNCIL
JACKETT ISLAND
 Preliminary Preferred Option
 Sections (Sheet 2 of 2)

FIG. No. Figure 22

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- NOTES:
- All dimensions in metres unless noted otherwise
 - Aerial photo supplied by Tasman District Council dated 2011
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Origin of Levels: N60 (AC4J) Rothmans Monument, RL 6.452

<p>Tonkin & Taylor Environmental and Engineering Consultants 105 Canton Gore Road, Newmarket, Auckland www.tonkin.co.nz</p>	DRAWN: JATG Feb. 12 DRAFTING CHECKED: <input type="checkbox"/> APPROVED: <input type="checkbox"/> CADFILE: \\27882-H5-F21_22.dwg SCALES (AT A1 SIZE): AS SHOWN PROJECT No: 27882	TASMAN DISTRICT COUNCIL JACKETT ISLAND Preliminary Preferred Option Sections (Sheet 1 of 2)		FIG. No: Figure 21 REV: 0
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REPORT

Tasman District Council

Jackett Island Long Term Erosion
Management
Preliminary Practicable Options
Report


Tonkin & Taylor

ENVIRONMENTAL AND ENGINEERING CONSULTANTS

Item 8.2

Attachment 2

REPORT

Tasman District Council

Jackett Island Long Term Erosion
Management
Preliminary Practicable Options
Report

Report prepared for:
Tasman District Council

Report prepared by:
Tonkin & Taylor Ltd

Distribution:
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Tonkin & Taylor Ltd (FILE)

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November 2011

T&T Ref: 27882-PPO-R2



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Executive summary

This report sets out the preliminary assessment of practicable options to manage the erosion experienced along the seaward edge of Jakkett Island to achieve the following objectives:

1. Reduce risk of erosion hazard affecting human life and physical assets
2. Restore the shoreline position to approximate the year 2000 shoreline
3. Provide a solution that considers the seaward edge of the Jakkett Island shoreline for a period of 35 years (i.e. long term = 35 years), the maximum duration possible for a coastal permit.
4. Legitimise or remove existing groyne from the Coastal Marine Area.

Action is currently being progressed on Item 4.

The key erosion processes affecting Jakkett Island are due to the following processes:

- Focussing of wave energy over the intertidal and sub-tidal terminal lobe of the Motueka Spit, which is presently adjacent to central Jakkett's Island, leading to locally increased wave heights (erosion adjacent to the seaward (distal) tip of the spit has previously been observed and reported as the spit grew southward between breach cycles);
- Sand eroded from the beach (across-shore due to the short-period waves) is then removed from the site by the tidal current that run parallel to the beach;
- Due to the relatively close proximity of the distal tip of the spit to Jakkett Island, the strong tidal currents of the main channel are forced closer to Jakkett Island further exacerbating the erosion in this area, and;
- Loss of sediment supply to Jakkett Island due to the presence of the main tidal channel between the spit and the Island. The sediment supply to Jakkett Island was previously from the spit, with the biggest influxes occurring following breaching of the spit, with the remnant spit south of the new channel formed by the breach migrating shoreward to Jakkett Island.

Considering the general options and approach as set out in Policy 27 of the New Zealand Coastal Policy Statement, the following options to provide erosion protection to Jakkett Island provide a range of approaches consistent with the policy were considered:

- Do nothing
- Asset relocation
- Planning responses
- Channel maintenance
- New small channel dredging
- Channel reset
- Channel maintenance and training groynes
- Seawalls.

All long term physical work options have significant cost and impact on the physical environment. Options that maintain the channel (existing channel maintenance and the new small channel dredging) have increased benefit to the wider community through improving access to the Port. However, sand transfer and small scale channel improvement

options also have the greatest risk of failing to meet the required objectives unless ongoing maintenance is included. Therefore these options have a greater ongoing cost. Hard protection works have a high cost and high risk in terms of gaining consent approval. The reset option has a significant initial effect, but provides an option that could have no ongoing maintenance costs.

Asset relocation and/or planning responses should be considered as part of any long term plan for this area.

1 Introduction

This report sets out the preliminary assessment of practicable options to manage the erosion experienced along the seaward edge of Jackett Island. The following objectives were agreed in mediation between Richard Reinen-Hamill (T&T) and Shaw Mead (ASR) to form the basis of any long term resolution of the erosion issue at Jackett Island:

1. Reduce risk of erosion hazard affecting human life and physical assets
2. Restore the shoreline position to approximate the year 2000 shoreline
3. Provide a solution that considers the seaward edge of the Jackett Island shoreline for a period of 35 years (i.e. long term = 35 years), the maximum duration possible for a coastal permit.
4. Legitimise or remove existing groyne from the Coastal Marine Area.

1.1 Current progress

Consents are currently being sought for the removal of the existing groyne (addressing Item 4 above). The removal of the existing groyne along the Motueka Spit is unlikely to result in the restoration of spit breaching process, as other processes such as sand build up and vegetation are now acting at this location. However, removal of those portions of the groyne that currently extend into the Coastal Marine Area may have localised effects on alongshore sediment transport and sheltering of the southern (distal) end of the spit. This option is proposed rather than full groyne removal or consenting of the existing structure. Ongoing monitoring would be required and exposed areas of groyne removed as it becomes exposed.

2

2 The current understanding of coastal processes

Kirk (1990)¹ provides the most comprehensive description available of the coastal processes of the Motueka Spit/Moutere Inlet/Jackett's Island complex. This report presents the results of a technical investigation into the causes and nature of bar sedimentation, prior to groyne construction (1996) and considers methods of controlling infilling of the navigation channel. In summary:

- An offshore bar that is the submarine extension of Motueka Spit lies 400-500 m offshore and is nourished by sand transported south-eastward along the spit by waves and wave-driven currents;
- Offsetting of the channel (south-easterly propagation) and infilling develops over several years. Periodically the bar was breached nearer the Port by floods from the Moutere Inlet that augment the tidal compartment. An interval of generally improved navigation then ensued before offsetting again occurs. Kirk estimated realignment occurred naturally every 10-15 years.
- The offshore bar is controlled by longshore drifts of sand from the Motueka River under wave action and is periodically relieved by major freshwater flood from the Moutere River.
- Estimated net sand transport occurs from northwest to southeast in the ratio 3.6:1 and the best estimate of transport under dominant northerly waves is 47,500 m³/year.
- Wave action drives alongshore sediment transport southeast down the spit. This amount approximates the average sediment supply from the Motueka River each year (64,000 m³).
- Severe ongoing erosion of the mainland shore northwest of Port Motueka is considered to be due to spit capturing the longshore sand supply that once nourished this shore.
- One of the 5 control options suggested was a groyne or offshore breakwater to deflect southward transported sand and potentially stabilize the channel if located at the northwest distal (seaward) tip of the spit. However, Kirk recommended dredging as the best method of maintenance of the channel entrance.

A 700 m long groyne was constructed in 1996. Environment Court has determined that the consequences of construction of the groyne, which is more accurately described as a breakwater/seawall (depending on the elevation of a particular part of the structure), due to its' orientation largely parallel to wave crest orientation, has contributed to:

- Lengthening, widening and heightening of the spit to dimensions and at a rate not recorded since 1881;
- 'Plugging' of the area that usually breached in the past with a 700 m non-erodible structure;
- Interrupting of the estimated 10-15 year breaching cycle (the spit has not breached since the groyne was constructed 16 years ago and is now considered too wide and high to readily breach at present), and;
- Aggressive erosion of Jackett Island.

¹ Kirk, R. M., 1990. Coastal Sedimentation and Navigability at Port Motueka, Moutere Inlet. Report to Tasman District Council. July 1990

The aggressive erosion of central Jakkett Island is due to the following processes:

- Focussing of wave energy over the intertidal and sub-tidal terminal lobe of the Motueka Spit, which is presently adjacent to central Jakkett's Island, leading to locally increased wave heights (erosion adjacent to the seaward (distal) tip of the spit has previously been observed and reported as the spit grew southward between breach cycles);
- Sand eroded from the beach (across-shore due to the short-period waves) is then removed from the site by the tidal current that run parallel to the beach;
- Due to the relatively close proximity of the distal tip of the spit to Jakkett Island, the strong tidal currents of the main channel are forced closer to Jakkett Island further exacerbating the erosion in this area, and;
- Loss of sediment supply to Jakkett Island due to the presence of the main tidal channel between the spit and the Island. The sediment supply to Jakkett Island was previously from the spit, with the biggest influxes occurring following breaching of the spit, with the remnant spit south of the new channel formed by the breach migrating shoreward to Jakkett Island.

Erosion rates of central Jakkett Island have been up to 4 m/year since 2000.

The recent migration of the spit has been further assessed using a combination of historic bathymetric surveys and more recent LIDAR surveys. Data from 1993, 1997, 2001, 2008 and 2011 were available for analysis. Figures 1 to 5 in Appendix A show the progression of various contours ranging from 2 m above Nelson Vertical Datum datum to 2 m below Nelson Vertical Datum (i.e. the 4.2 m, 3.2 m, 2.2 m (approx Mean Sea Level), 1.2 m and 0.2 m level). LIDAR data was not available for the lower levels (i.e. 0.2 m contour) and we note that 2011 hydrographic survey data is not yet available.

Figures 1 to 5 show that the spit has been extending at around 60 to 80 m/yr since 1993 (some 1200 m) and the focus of erosion along Jakkett Island is also moving to the south, currently affecting some 800 m of shoreline based on the comparison of the 2.2 m and 4.2 m contour lines measured in 2008 and 2011.

Figure 4 shows the low tide line has moved significantly landward in the vicinity of the Van Dyke Property from 1997 to 2008 with as much as 120 m landward movement, although this level has not changed significantly from 2008 to 2011. However, erosion of the upper shoreline has continued to occur along the central beach area, with associated accretion to the north.

4

3 Potential solutions

Considering the general options and approach as set out in Policy 27 of the New Zealand Coastal Policy Statement, the following options to provide erosion protection to Jakkett Island provide a range of approaches consistent with the policy. An outline of each approach and potential issues are identified.

3.1 Do nothing

The do nothing option is assuming no additional works are carried out apart from the progressive removal of the existing groyne. We would expect the spit to continue to extend and shoreline at Jakkett Island to continue to retreat. Based on the changes between 2008 and 2011 the volume of loss along the beach face is estimated at around 6,000 to 8,000 m³/yr along the 800 m of shoreline affected by erosion in this time period.

The future trend and behaviour of the spit is difficult to determine. However, it is likely that the ongoing southerly growth of the spit would continue at least in the short term. If the same rate occurs as recently experienced the spit will reach the southern end of Jakkett Island in 10 to 15 years. This progression is likely to increase erosion pressures at the southern end of the Island as well as to Kina, although the sheltering effect may limit storm induced erosion.

As the northern end of the spit appears to be getting thinner, the source of sand and spit growth appears to be as much from transfer of sand along the spit as well as sand transported from the Motueka River delta. As the spit continues to extend southward it is possible that a breach may occur in the spit and the outlet change position. If this does occur it is likely that this would be within the spit area to the south of the existing groyne.

The implication of spit development on Jakkett Island is that erosion is likely to continue as there is a reduction in sand supply from the spit as the bypass is occurring further to the south and there will be ongoing channel induced erosion as the spit forces the outlet channel closer to the island. Therefore the area of most risk extends from the central area of Jakkett Island to the southern end of the island. It is also possible that Kina peninsula may also be affected by the change in bypassing as some point in the future.

The do nothing option does not meet the requirements of the Environment Court decision and would only be an option should all other options not be practicable.

3.2 Asset relocation

Removing the dwellings further landward to remove assets from risk is a form of risk reduction. The issues associated with landward relocation of private assets on Jakkett Island includes the low lying nature of the land, with some parts of the island being only slightly higher than Mean High Water Springs. So relocation to remove the physical asset at risk from erosion would need to be done in conjunction with raising land levels in the vicinity of the proposed building platform. This option would need the support of those land owners affected, or alternative options (such as property purchase, relocation and then resale or removal) would need to be considered.

Unless this option included private property purchase and removal or relocation, this option in isolation does not address the loss of private land area or meet the requirements of the Environment Court decision and would only be an option should all other options not be practicable.

3.3 Planning responses

This may include establishment of hazard lines and development of planning policies within the District Plan to reduce increasing risk of hazards as done in many parts of New Zealand (e.g. Canterbury, Hawke's Bay and Bay of Plenty). Such policies have included prohibition of new development within extreme hazard areas and preventing inter-generational passing on of land. The planning responses need to recognise the timing needed to achieve this which may require the implementation of engineering or structural solutions in the short to medium term. This option may have merit for future development but does not address the existing properties that have status and existing use rights.

This option is recommended as a parallel process with other physical works options to provide a consistent approach in managing coastal hazards. However, this option does not address the loss of private land area or meet the requirements of the Environment Court decision.

3.4 Existing channel maintenance

This option involves regular mechanical bypassing of sand from the distal end of the spit to Jakkett Island, replicating the natural process affected by the original groyne. A conceptual sketch of this option is shown on Figure 6 (Appendix B). The works would involve an initial capital dredge of the landward side of the spit and transfer of this sand along the seaward edge of Jakkett Island to realign the existing channel further seaward from its current position. It is estimated that around 110,000 m³ of sand (possible range from 80,000 m³ to 140,000 m³) would need to be placed along the foreshore of Jakkett Island to restore the shoreline to the 2000 shoreline position. The lower bound assessment of volume was based on an 800 m length of shoreline affected with a profile height of 4 m and an average shoreline retreat of 2.3 m per year for the last 11 years with the potential upper bound based on 4 m/year erosion, that was the upper rate of annual shoreline change recorded along the Van Dyke property in the centre of the island.

After the initial placement, regular transfer of sand would be required to maintain the channel position away from Jakkett Island and to maintain the beach position. The rate of sand loss along Jakkett Island is estimated to be around 10,000 m³/yr (lower and upper bound range is 7,400 m³/yr and 12,800 m³/yr respectively) which is less than the longshore drift rate of 47,500 m³/yr estimated to occur along the spit.

This work could be done by a cutter suction dredge with a slurry pump discharging the dredged sand to the Jakkett Island shoreline. Initial costing of dredging is based on indicative costs of sand dredging of \$10/m³ presented by OCEL for the Motueka Port Users Ltd² that included mobilization costs, but not for contingencies, engineering and environmental costs (design/contract supervision/monitoring etc) and also not for the costs of placement and shaping of sand along the Jakkett Island shoreline. We have included additional cost for P&G (10%), sand shaping and management along Jakkett Island of \$6/m³, 20% contingency and 30% for engineering and environmental management. Based on this approach the preliminary estimates of initial cost for this option is in the order of \$2.0M to \$3.0M.

Annual maintenance costs assuming a similar distribution of costs but with a smaller volume could range between \$200,000 and \$330,000 per annum.

² OCEL (2011). Establishing and maintaining a new navigation channel for Port Motueka (Draft). Unpublished report for Motueka Port Users Ltd. May 2011.

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This option would effectively maintain the existing situation in terms of channel orientation and improve the erosion situation along Jakkett Island through active management. It also has the benefit of limiting dredging within the more sensitive ecological areas of the spit. However, it would not result in the potential for the natural system to be restored and would need ongoing maintenance and monitoring costs unless alternative land management options were brought in over time that reduced the need for ongoing maintenance works.

3.5 New small channel dredging (PMUG Option)

This option is discussed in the draft report prepared by OCEL for the Port Motueka User Group (PMUG). The objective is to dredge a channel across the spit, based on the recommendation by Kirk (1991) to provide improved access to the port. The proposal as illustrated in Figure 7 and involves a channel 50 m wide set at 3 m below Nelson Vertical Datum (or approximately Mean Sea Level). They estimated some 132,500 m³ of sand would need to be moved to form this channel and they identified that the existing channel would need to be closed off. OCEL proposed an extension of the gravel berm to the end of the existing training wall would be sufficient in combination with the flows from the inlet through the new opening being sufficient to reinforce the new channel position and that full closure of the existing channel would not be required. Sedimentation rates of between 14,250 and 23,750 m³/yr were estimated by OCEL based on work done by Kirk (1991).

While not identified in the OCEL plan, their draft report identified that the material dredged for formation of the channel and ongoing maintenance could be used to replenish the foreshore of Jakkett Island. This would be done by a cutter suction dredge with a slurry pump discharging to an area in the lee of the existing training groyne and then the sand transferred by truck to place along the Jakkett Island shoreline.

We note the proposal does not cut off the existing channel and there is a risk that flows both from the inlet and the area to the north between the mainland and the spit may divert back into the existing channel should the new channel block or be less hydraulically efficient than the existing channel. The likelihood of this occurring would require additional assessment and modelling.

Initial costing of dredging is based on indicative costs of sand dredging of \$10/m³ presented by OCEL for the Motueka Port Users Ltd included mobilization costs, but not any allowance for contingencies, engineering and environmental costs (design/contract supervision/monitoring etc) and also not for the costs of placement and shaping of sand along the Jakkett Island shoreline. Therefore, OCEL's cost estimate of \$1.4M is unlikely to cover the actual costs of the proposed activities required to maintain the coastal edge along Jakkett Island.

To provide a comparative costing assessment with our channel maintenance option we have included additional cost for P&G (10%), sand shaping and management along Jakkett Island of \$8/m³, 20% contingency and 30% for engineering and environmental management. The sand transfer is higher than the previous option as there is a longer haul required to move sand in this option. We have assumed 120,000 m³ is transferred to the shoreline along Jakkett Island. Based on this approach the preliminary estimates of initial cost of the PMUG option is in the order of \$3.7M.

Annual maintenance costs including the transfer of a portion of the sand to Jakkett Island could range between \$200,000 and \$330,000 per annum. However, if the new channel functioned as desired, then there may be less need to transfer sand to Jakkett Island and the by-passing would involve transfer of sand to a location down drift (south) of the new channel.

This option would work towards restoring the situation at the spit that existed prior to the geotextile groyne being constructed and would also provide a mechanism to manage erosion

along Jakkett Island. It has a wider benefit than just for the management of erosion to Jakkett Island residents.

Maintaining the flows through this channel location would result in the southern spit migrating towards land as the hydraulic control from the existing channel flow would not be present. This is likely to result in the southerly migration of the channel unless maintenance works were carried out to maintain the channel position in the original location.

There are risks associated with not addressing the closure of the existing channel that would need to be further assessed. This option also needs ongoing maintenance and monitoring both for the channel opening and the erosion along Jakkett Island.

3.6 Reset of channel position

This option has the principle objective in setting up the system to a position where the spit dynamics could operate with no further human interference. This differs from the PMUG option in that there is no further maintenance works proposed. The reset option requires forming a major dredged channel through the Motueka Spit with the volume sufficient to provide a closure bund to the existing channel and to restore the Jakkett Island shoreline to the 2000 position. The channel would need to be hydraulically efficient and the bund of sufficient volume to minimise the risk of the flows breaching and returning to the existing channel. This concept is shown in Figure 8. With this option, there is no ongoing maintenance proposed as the natural system would be replicated as far as possible, with nature dictating the ongoing development and movement of the channel, spit and bars. It is expected that over time the channel will drift to the south, moved by the southerly longshore drift and that the breach-and-channel-reset mechanism will operate as-and-when nature dictates.

There are currently no accurate estimates of volumes of this option as there is no hydrographic survey data available or studies done to assess the volume of material required to form the bund. However, assuming a similar order of sand is required as is to be placed along Jakkett Island (say 110,000 m³), the total volume required to be dredged is around 220,000 m³. Assuming a 50 m wide bund with 8:1 side slopes and a crest level of 2 m above MSL and the average base around Chart Datum, the volumes required to form the bund could be up to 200,000 m³. Therefore the upper bound of material required to be dredged could be in the order of 310,000 m³. It is noted that this bund could be seen as a reclamation, even though the intention would be to allow nature to take its course and over time the bund could erode or its position be modified by natural processes.

The sand to form the bund and to use for restoring Jakkett Island would need to be double handled, similar to the PMUG option. A rate of \$10/m³ has been assumed for the initial dredging and an additional \$10/m³ for the formation of the bund and transfer to Jakkett Island, reflecting the potentially greater costs required to form the bund. Contingencies for this option have also increased to 50% for the lower bound and 30% for the upper bound volumes reflecting the lack of current lack of certainty on this option. Indicative costs for the reset option range from \$8.3M to \$10.5M.

This is a significant option, with both dredging and forming of a reclamation (the bund). The works extend through the existing spit, affecting the existing values and attributes of the spit. This would create extensive consenting issues that would need to be worked through. However, as a one off "reset" with no further works/maintenance proposed, might reduce effects that ongoing maintenance works would create. There may be less direct benefit to the port community for this option, unless they continue with the maintenance dredging regime.

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3.7 Training Groynes with nourishment from existing channel maintenance

This option is an extension of the existing channel maintenance option. In this instance the placed sediment would be stabilized by the construction of channel training groynes. These groynes would extend along the seaward edge of Jakkett Island to move the tidal currents away from the existing shoreline. The issue with these type of structures is that they can transfer erosion effects down drift as sediment is locked up by the structures. This means that they will need to extend along the seaward edge of Jakkett Island and most likely extend along Kina Peninsula. Figure 9 shows an indication of the typical configuration, with 250 m long groynes along the majority of the Jakkett Island shoreline at 500 m centres, with the length reducing towards the southern end and Kina to enable a transition to natural shores. We note that these are indicative only and would need further analysis and testing.

The groynes could be constructed using a similar construction methodology to the existing training groyne (concrete panels and steel) or from rock armour. Costing of these structures has been done assuming a rock armour structure 4 m high with 1.5:1 side slopes and a crest width of 2.5 m and a rock armour costing of \$90/m³ based on recent rock revetment works at Ruby Bay. An additional allowance of 10% of the rock costs has been included for geotextile and associated works. This equates to a linear metre cost of around \$3,350 for a rock groyne. We note alternative structures may be lower cost, but have used this rate to provide an initial estimate of costs. The total length of groynes shown on Figure 9 is around 1,680 m.

The costs for these works using a similar allowance for P&G, contingency and engineering and environmental design as the channel maintenance option results in a cost of around \$12M for this option. It is anticipated that ongoing maintenance costs would be low, but may still be in the order of \$50,000 to \$100,000 per annum.

There are significant issues that will need to be addressed with this option, including the potential risks to the down drift (northern) coastline. Extensive studies and assessments would be required. The structures would also create significant visual impacts and be problematic with regard to gaining consent.

3.8 Seawall (land protection)

This would be a substantial structure, occupying the existing upper beach extending around the majority of the island's perimeter. The structure would have a similar appearance to the seawalls recently constructed at Ruby Bay. They would create issues of access and visual amenity and may also result in down drift erosion effects as they would reduce the volume of sand transferred to the south.

Based on the Ruby Bay seawall rock costs and taking into account the more challenging access location, a rock revetment would cost in the order of \$2,000 to \$3,000 per linear metres and would need to extend along some 2000 m of shoreline. Costs for this option, excluding access ways, etc would be in the order of \$6M to \$10M.

There are significant issues that will need to be addressed with this option, including the potential risks to the down drift (northern) coastline. Extensive studies and assessments would be required. The structures would also create significant visual impacts and be problematic with regard to gaining consent.

3.9 Alternative options

It is possible to place sand from another source along the Jakkett Island shoreline. However, this option does not adequately address the causes of erosion. Without modifying the channel

location the rates of erosion that could occur would be significant and would create a larger requirement for ongoing maintenance. The cost of imported sand and transportation would also be significant. Sand haulage for the recently constructed sand bag wall along the Van Dyke property was around \$28/m³. This did not include the cost for the sand. The processed sand used for the Oriental Bay beach nourishment that was brought to site by barge cost the order of \$90/m³. Therefore costs in range of \$60/m³ to \$100/m³ for imported sand is possible. This is a 6 to 10 fold increase in the local sand source rate.

There are alternative locations for a dredged channel through the spit than those shown for the options presented in this report. However, the success of a successful channel breach is that it provides a preferable alternative for the flows leaving and entering the inlet and that it provides sufficient sand volume to restore the seaward edge of Jakkett Island. Without some form of bund to prevent flows re-establishing along the existing channel there is a risk that these options will not be successful in the long term.

3.10 Summary

All long term physical work options have significant cost and impact on the physical environment. Options that maintain the channel (existing channel maintenance and the new small channel dredging) have increased benefit to the wider community through improving access to the Port. However, sand transfer and small scale channel improvement options also have the greatest risk of failing to meet the required objectives unless ongoing maintenance is included. Therefore these options have a greater ongoing cost. Hard protection works have a high cost and high risk in terms of gaining consent approval. The reset option has a significant initial effect, but provides an option that could have no ongoing maintenance costs.

Asset relocation and/or planning responses should be considered as part of any long term plan for this area.

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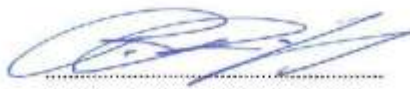
4 Applicability

This report has been prepared for the benefit of Tasman District Council with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

Tonkin & Taylor Ltd
Environmental and Engineering Consultants

Report prepared by:

Authorised for Tonkin & Taylor Ltd by:



Richard Reinen-Hamill
Senior Coastal Engineer

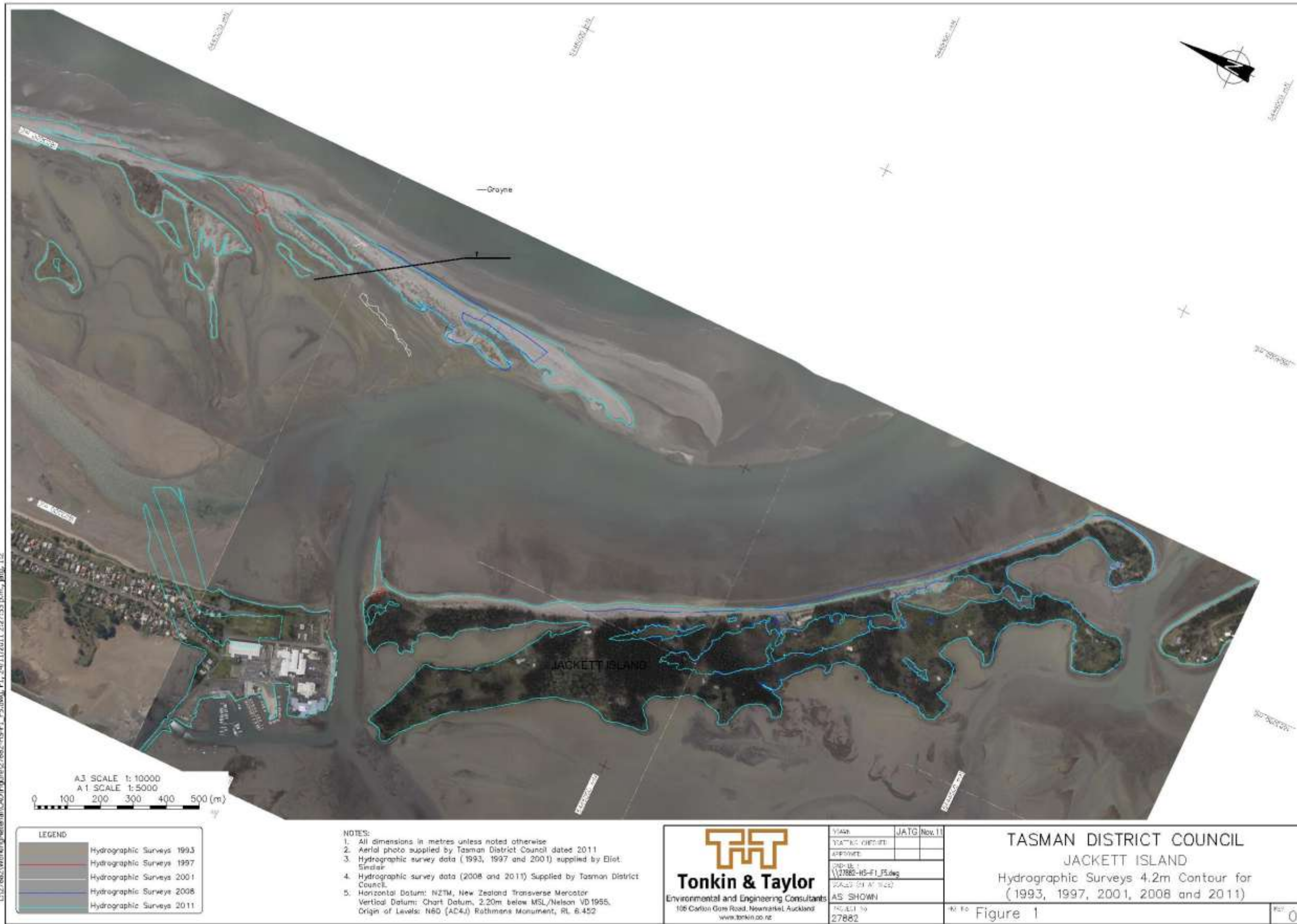


Tim Fisher
Project Director

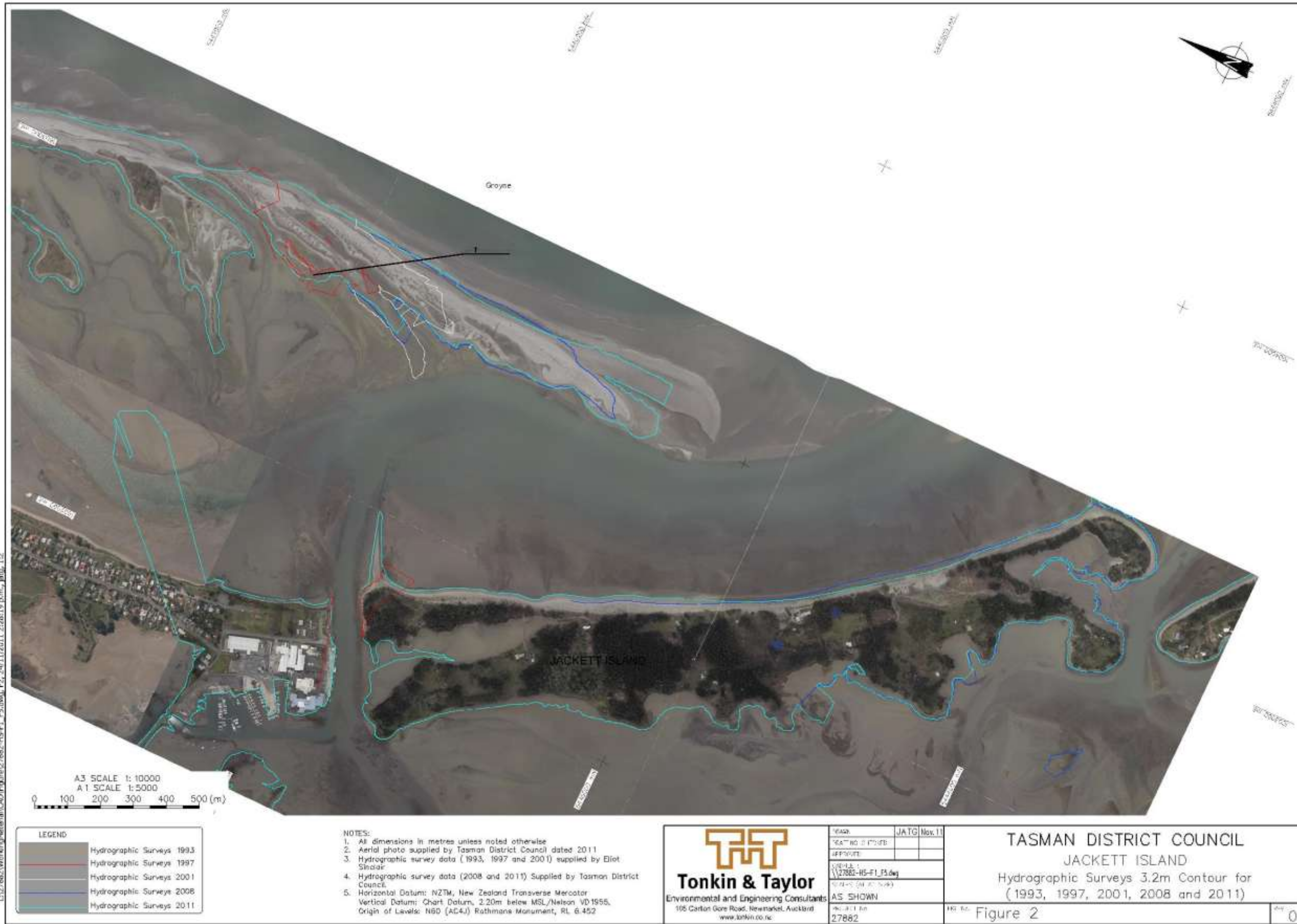
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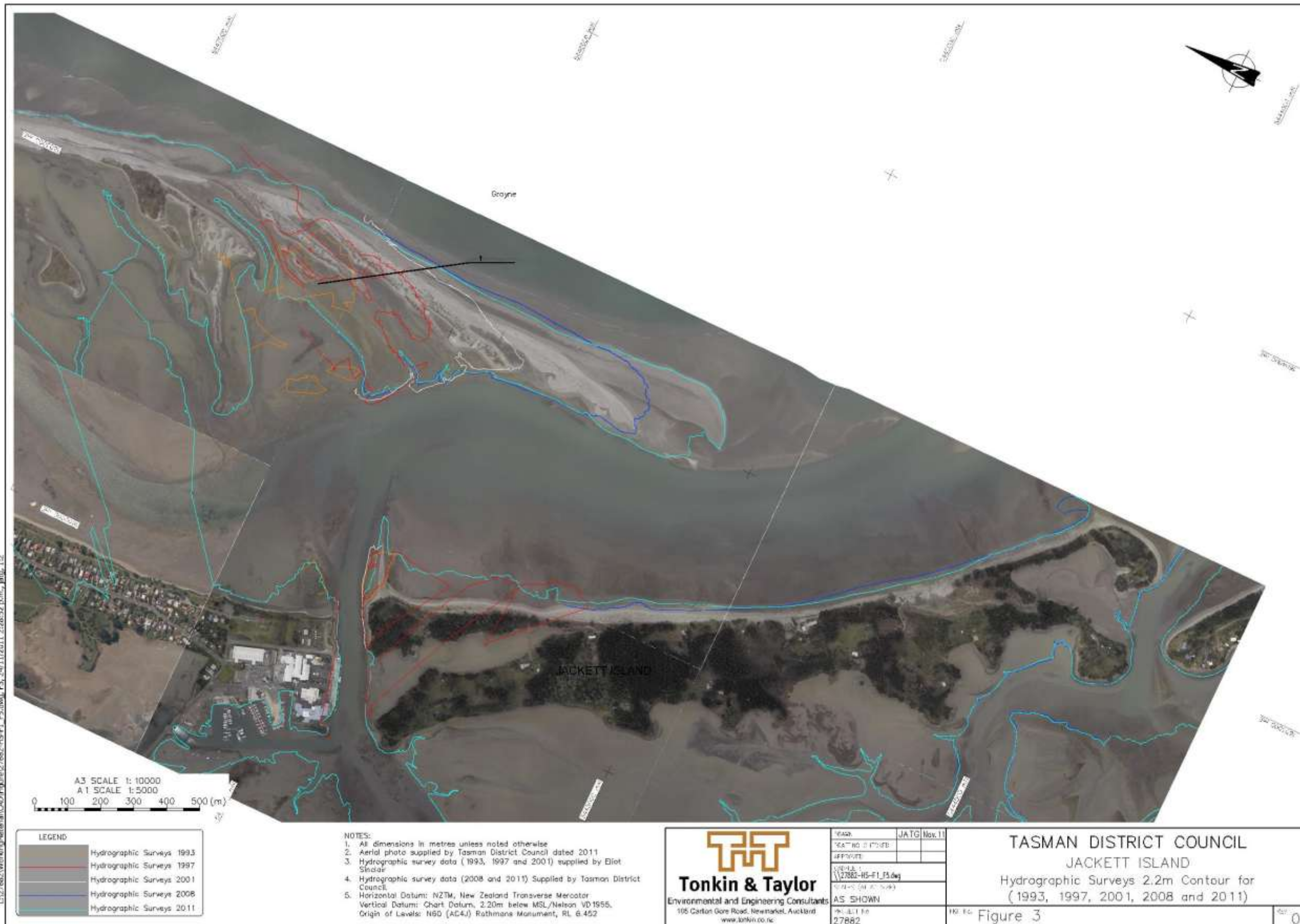
Appendix A: Changes to the Spit from 1993 to 2011

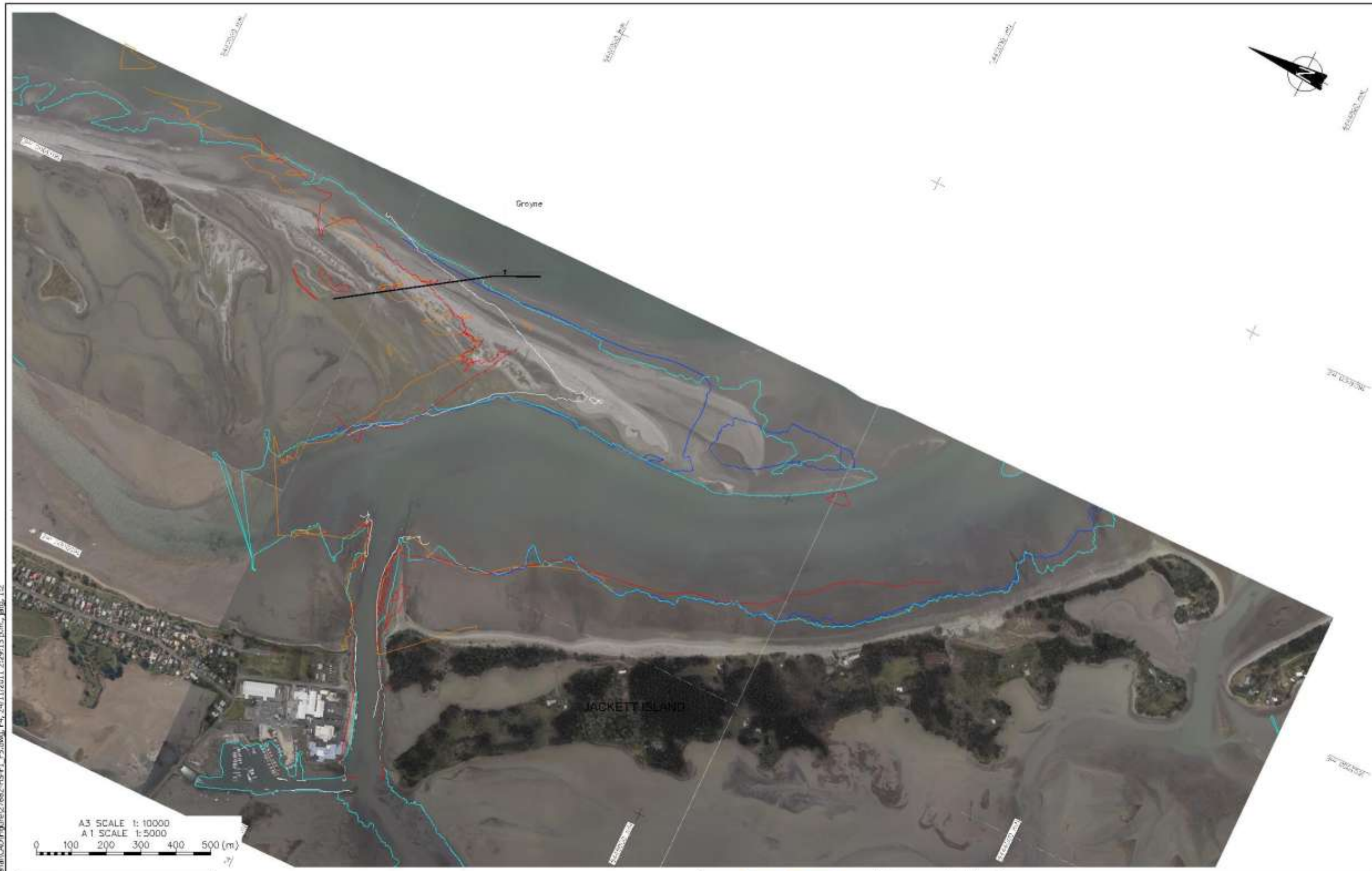


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	Hydrographic Surveys 2011

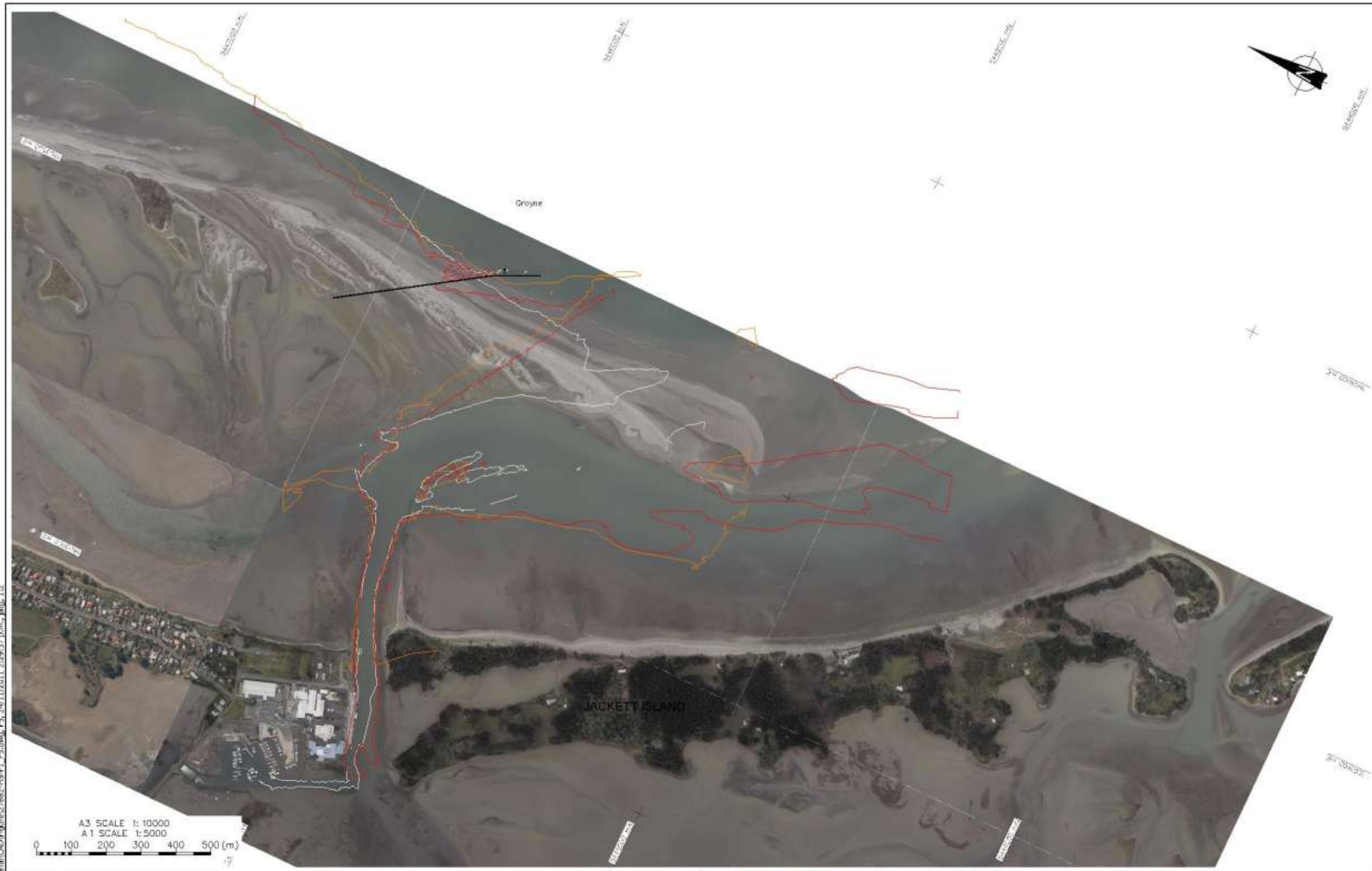
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- All dimensions in metres unless noted otherwise
 - Aerial photo supplied by Tasman District Council dated 2011
 - Hydrographic survey data (1993, 1997 and 2001) supplied by Eliot Sinclair
 - Hydrographic survey data (2008 and 2011) Supplied by Tasman District Council
 - Horizontal Datum: NZTM, New Zealand Transverse Mercator
 Vertical Datum: Chart Datum, 2.20m below MSL/Nelson VD 1955,
 Origin of Levels: NGD (AC4.) Rathmans Monument, RL 6.452

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YEAR:	JATG Nov. 11
DESIGNED BY:	
APPROVED:	
SCALE:	AS SHOWN
PROJECT NO.:	27862

TASMAN DISTRICT COUNCIL
JACKETT ISLAND
 Hydrographic Surveys 1.2m Contour for
 (1993, 1997, 2001, 2008 and 2011)

FIG. No. Figure 4



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	Hydrographic Surveys 1997
	Hydrographic Surveys 2001
	Hydrographic Surveys 2008
	Hydrographic Surveys 2011

- NOTES:
- All dimensions in metres unless noted otherwise
 - Aerial photo supplied by Tasman District Council dated 2011
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 - Horizontal Datum: NZTM, New Zealand Transverse Mercator
 Vertical Datum: Chart Datum, 2.20m below MSL/Nelson VD 1955,
 Origin of Levels: N50 (AC4.) Rathmans Monument, RL 6.452

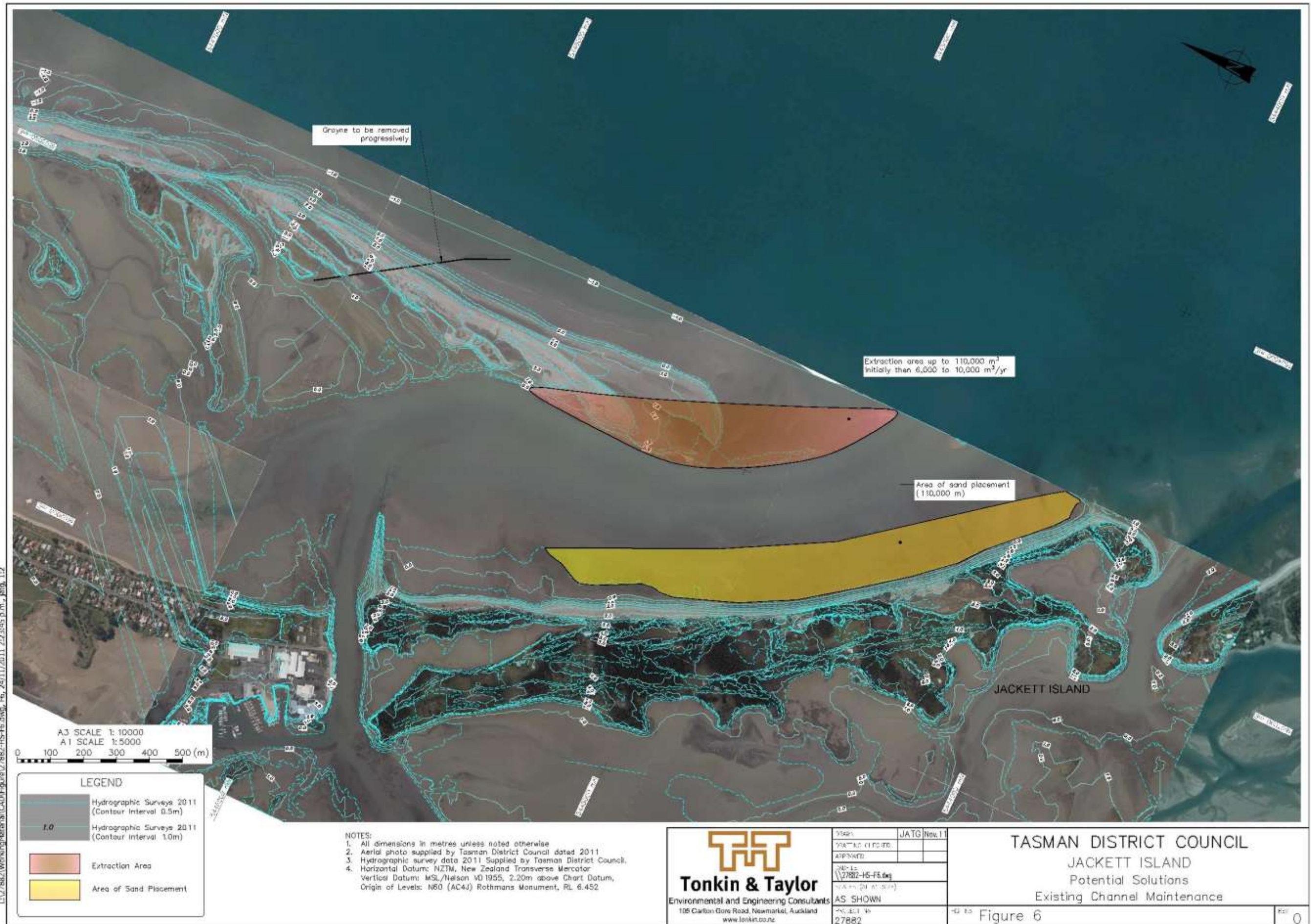
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YEAR:	JATG Nov. 11
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APPROVED:	
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PROJECT NO.:	27862

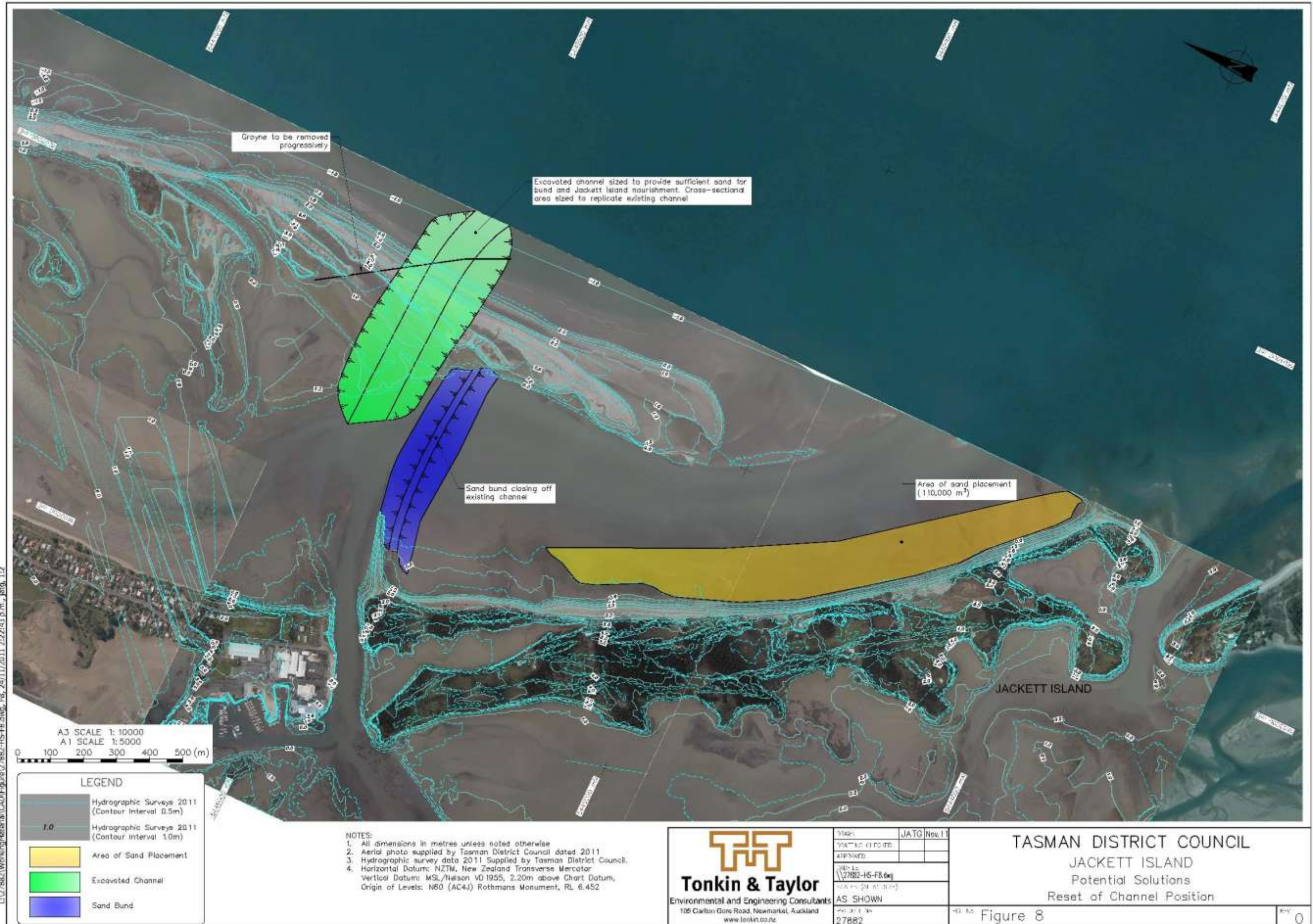
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JACKETT ISLAND
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 (1993, 1997, 2001, 2008 and 2011)

FIG. No. Figure 5

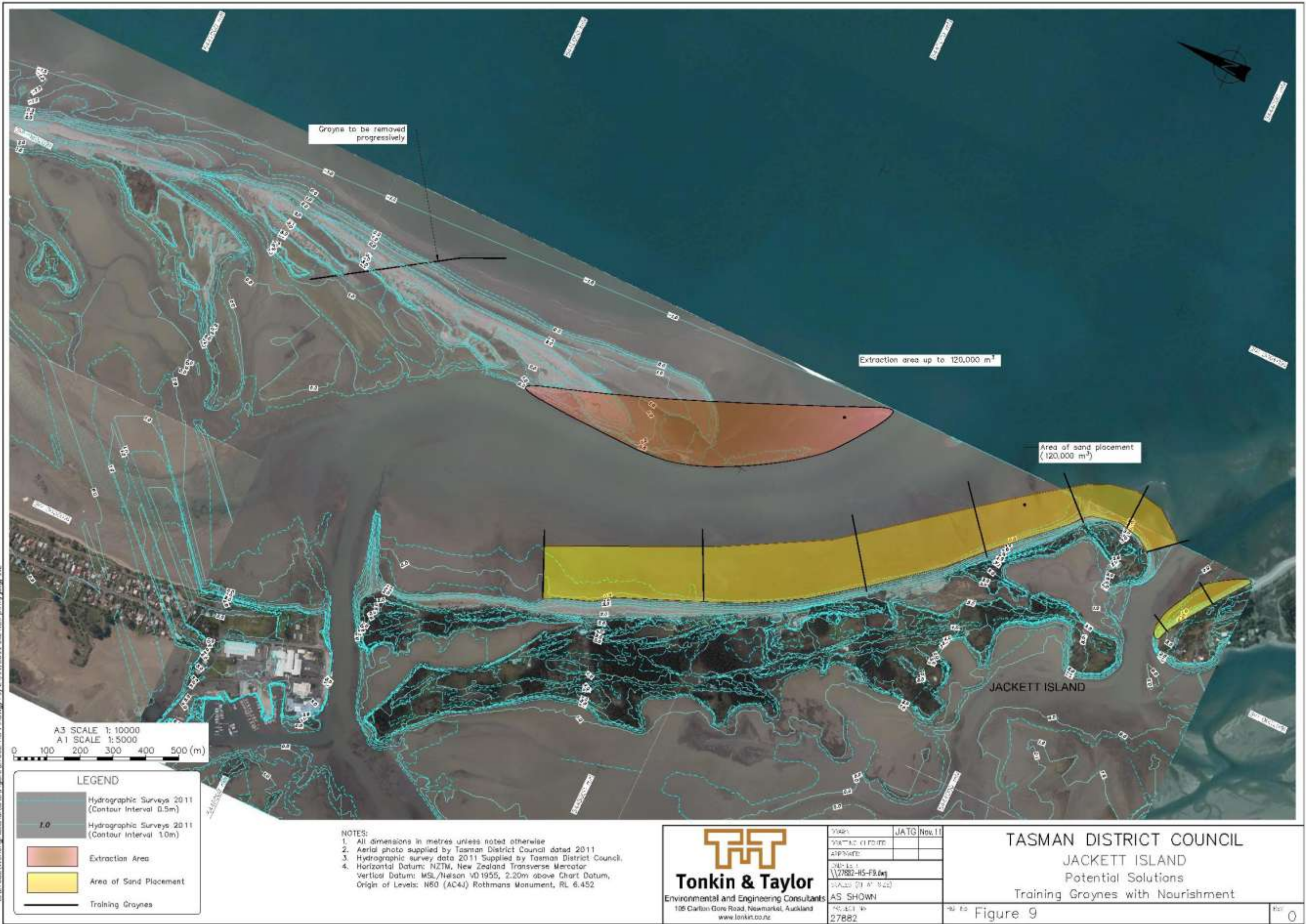
Appendix B: Sketches of potential solutions



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MOUTERE INLET

Summary of Sediment Dynamics Studies

Prepared for Tasman District Council



Item 8.2

MetOcean Solutions Ltd: Report P0089-04

January 2013

Report status

Version	Date	Status	Approved by
RevC	22/12/2012	T&T and TDC initial review	Oldman
RevD	25/01/2013	Draft for internal review	Beamsley
RevE	29/01/2013	Updated draft	McComb
RevF	31/01/2013	Draft for Client Review (uncompressed figures)	Oldman
Rev0	31/01/2013	Draft for Client Review	Oldman

Attachment 3

It is the responsibility of the reader to verify the currency of the version number of this report.

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1. INTRODUCTION

The Tasman District Council (TDC) commissioned MetOcean Solution Ltd. to establish numerical models of the wave, hydrodynamic and sedimentary processes in the Moutere Inlet and the adjacent nearshore environment. The purpose of establishing these models was to improve the understanding of the physical environment and to allow proposed management options to be tested and refined. The area of interest extends from the Motueka River through to the Kina entrance of the Moutere Inlet and includes all of the Moutere Inlet (Fig. 1.1). The following Reports and Technical Notes have been produced for this project.

- MetOcean Solutions Ltd (2012). Report No.P0089-01. Moutere Inlet: A hydrodynamic and sediment transport model for evaluation of management options.
- MetOcean Solutions Ltd (2012). Report No.P0089-02. Moutere Inlet: Modelling the effect of the Motueka Spit Groyne on the wave and sediment transport regime.
- MetOcean Solutions Ltd (2012). Report P0089-03. Jackett Island. Comparison of sediment transport capacity for historical and option scenarios.
- MetOcean Solutions Ltd (2012). Technical Note TN-0089-01_03. SELFE Modelling. Comparison of hydrodynamics and tidally driven sediment transport for existing bathymetry and with Motueka Spit Cut.
- MetOcean Solutions Ltd (2012). Technical Note TN-0089-01_04. NCOM modelling of hydrodynamics, waves and sediment transport for existing bathymetry and with Motueka Spit Cut.
- MetOcean Solutions Ltd (2012). Technical Note TN-0089-01_05. SELFE and NCOM modelling of hydrodynamics, waves and sediment transport for extended Cut.

The Technical Notes provide guidance on issues raised during a number of conference calls between MetOcean, Tonkin and Taylor, Tasman District Council staff and various Tasman District residents. The present report provides an overview of the work presented in the earlier Reports and Technical Notes. Section 2 summarises the field measurements and hydrographic survey coverage undertaken for this study. The modelling methodologies are summarised in Section 3, while results for bathymetries representative of the existing (2011), 1997, pre Motueka Spit groyne construction and various management options are presented in Section 4.



Figure 1.1 Location map showing Moutere Inlet, Jakkett Island and Motueka Spit.

2.

Item 8.2

Attachment 3

MEASUREMENTS

2.1. Hydrodynamic data

Water levels, current velocities and wave spectra were measured at several sites within the Moutere Inlet environs (Table 2.1, Fig. 2.1); providing data for the calibration and validation of the hydrodynamic numerical models used in the studies. The instruments were deployed for a 42 day period during February-March 2011. The time-series of significant wave height during this period is given Figure 2.2.

Table 2.1 Location of instruments and recording configuration.

Site	Type	Location	Mean water depth	Recording cycle	Elevation of current data
Site A	ADCP	173.0466E, 41.1467S	6.04 m	Wave at 2 Hz/ 20 min / hourly Current at 5 min mean / 10 min	Every 0.35 m from 2.1 m
Site B	ACM	173.0348E, 41.1484S	2.47 m	5 min mean / 30 min	0.55 m
Site C	ACM	173.0347E, 41.1449S	3.31 m	5 min mean / 30 min	0.49 m
Site D	ADCP	173.0305E, 41.1365S	3.17 m	Wave at 2 Hz/ 20 min / hourly Current at 5 min mean / 10 min	Every 0.35 m from 2.1 m

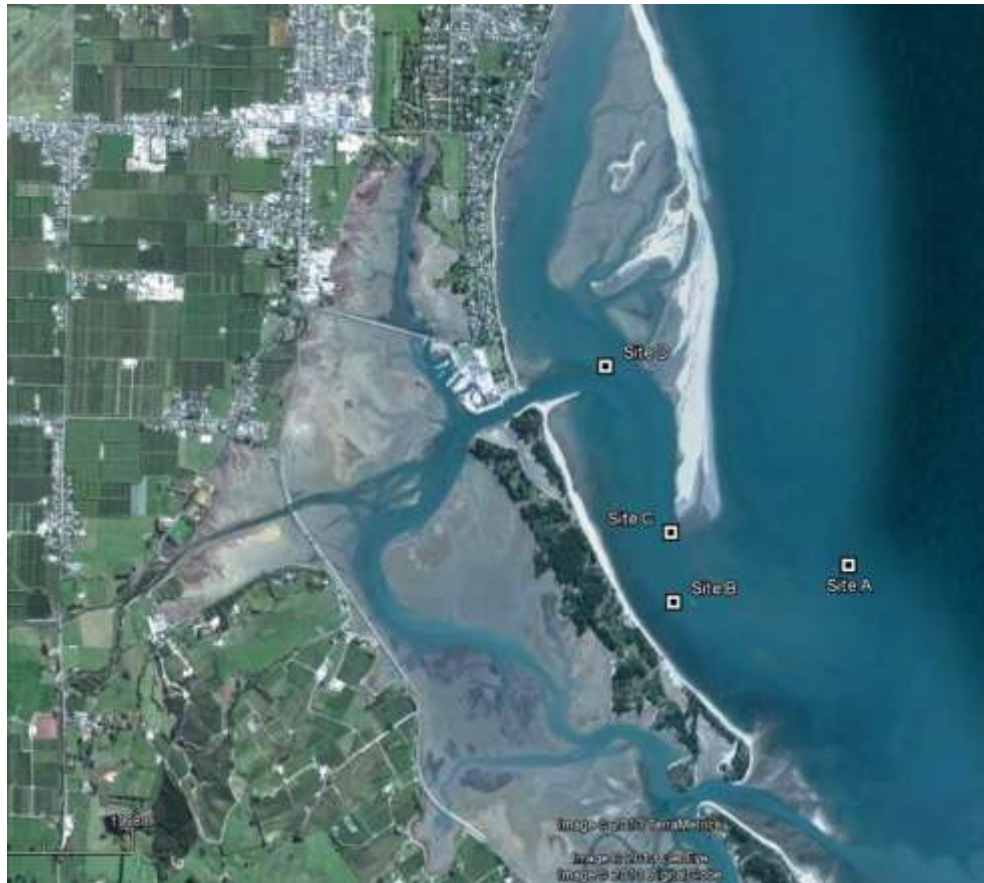


Figure 2.1 Location of instruments.

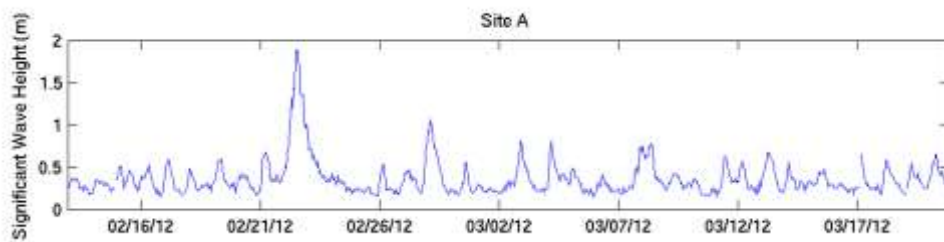


Figure 2.2 Time series plot showing the measured significant wave height at Site A, just offshore of Motueka Spit.

2.2.

Bathymetry and shoreline features

A hydrographic survey inclusive of the Moutere inlet entrance, the sub-tidal section of the Motueka Spit and offshore regions was undertaken in 2011, and the spatial extent of that data is shown on Figure 2.3. Earlier bathymetry data were also available for analysis, along with geo-referenced aerial images dating back to 1940.

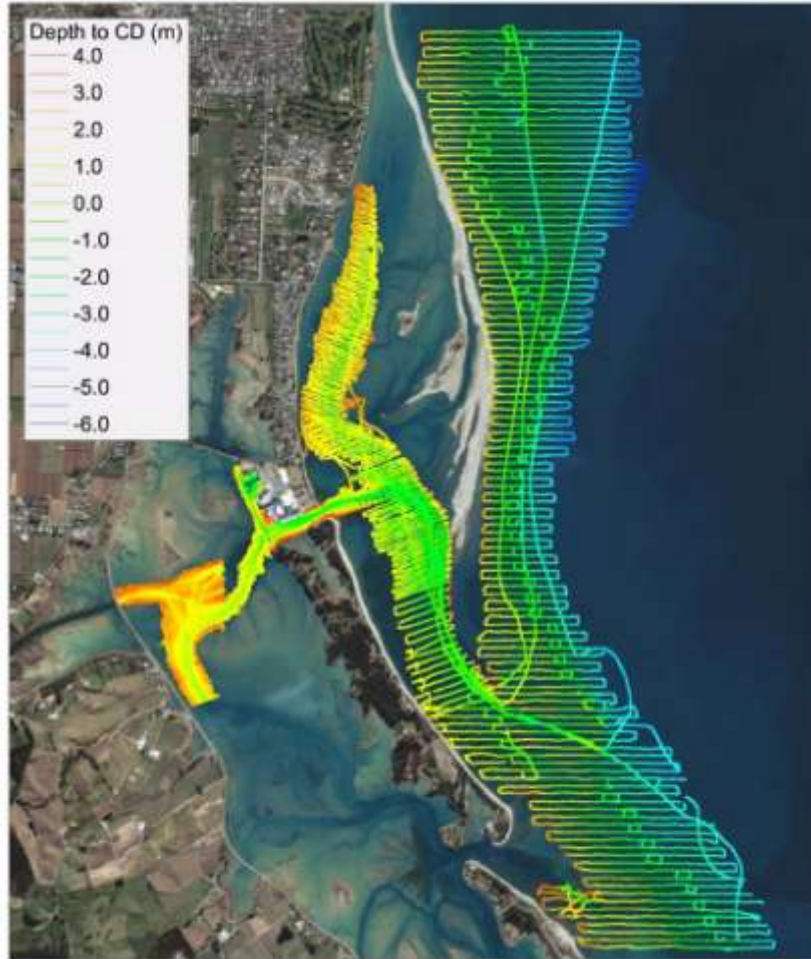


Figure 2.3 Spatial extent of the site specific hydrographic survey data used to develop model grids.

3.

MODELLING METHODOLOGY

A series of different scale and type of numerical models were employed to quantify the hydrodynamic and sediment transport processes within the Moutere Inlet and adjacent environment. An overview of the methodology is given here.

3.1. Atmospherics

Wind velocities for both the wave and current modelling were specified using a spatially varying blended global wind product developed by MetOcean Solutions Ltd. These data are 10 m wind velocity vectors in a 3-hourly gridded format at a resolution of 0.25° of longitude and latitude.

3.2. Waves

The incident wave climate was quantified using a two-stage modelling approach - a regional New Zealand wide grid and a high resolution nested domain that included both Golden Bay and Tasman Bay (Fig. 3.1). The wave climate was hindcast for a 12-year period (1998-2009) at hourly intervals, and these data were used to prescribe the spectral wave boundary conditions for the local scale sediment transport modelling of the Inlet region.

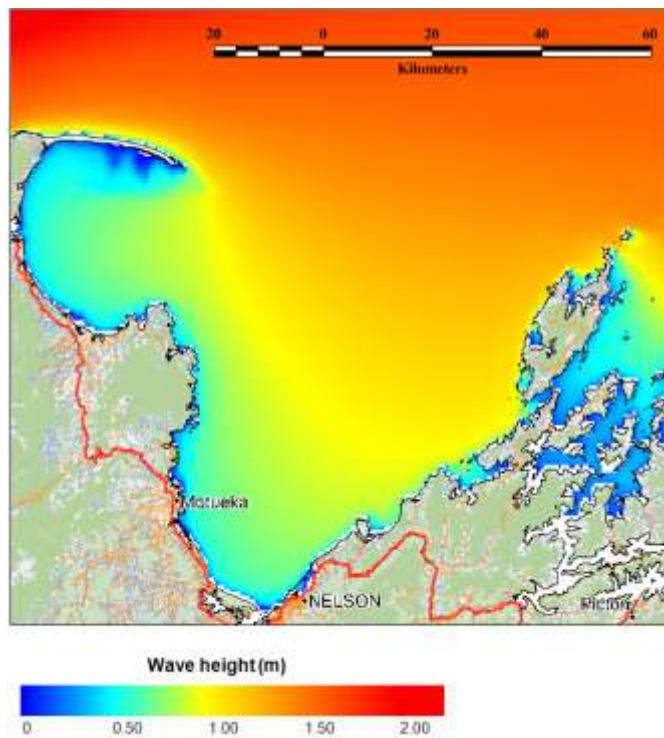


Figure 3.1 Predicted mean significant wave height (1998-2009) from the higher resolution wave model.

3.3.

Currents

The regional current climate was defined using a similar two-stage modelling approach as used for waves, with the current regime recreated for the period 1998-2009. An example showing a snapshot of the regional currents for the Tasman/Golden Bay area is given in Figure 3.2.

Local scale hydrodynamics were simulated using a high-resolution Finite-Element Mesh (FEM) hydrodynamic model of the Moutere Inlet. The local scale domain was developed using a combination of digitised hydrographic charts, LIDAR data and site-specific survey data (Section 2.2). An example of the spatial resolution of the FEM model domain is given in Figure 3.3. Spatially varying water level and current velocity boundary conditions for the high-resolution FEM hydrodynamic model were prescribed from the regional scale Tasman/Golden Bay hydrodynamic solution. The high-resolution FEM hydrodynamic model was calibrated and validated against measured current and water level data (Section 2.1).

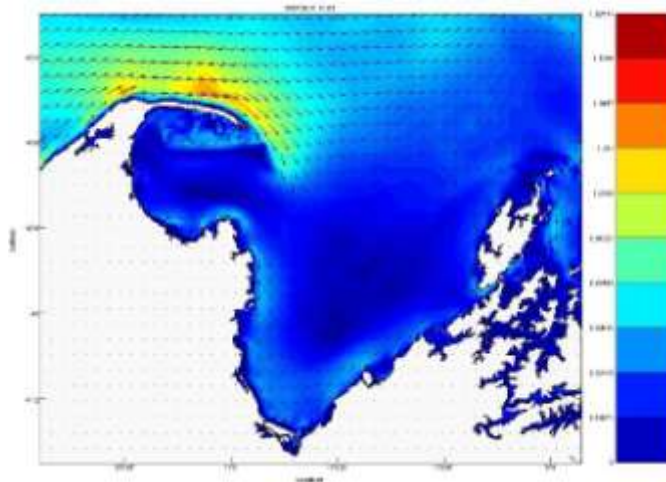


Figure 3.2 Snapshot of the depth-averaged currents from 21/06/2007 at 21:00 (UTC) showing a typical anticlockwise circulation pattern in the southern part of Tasman Bay.

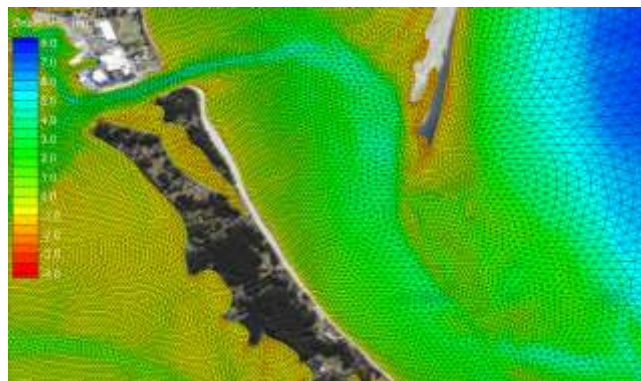


Figure 3.3 The local scale model domain for the area near the Moutere Entrance and Motueka Spit.

3.4. Sediment transport

Sediment transport simulations were undertaken using an integrated suite of wave, current and sediment transport models, with boundaries prescribed from the regional

wave model (Section 3.2) and the FEM hydrodynamic model (Section 3.3). This model suite provides estimates of sediment transport rates, and interpretation of the results can inform the likelihood of areas of erosion or accretion of marine sediments.

Model domains using the bathymetry from 2011, 1997 and various representations of management options were developed and tested. Examples of the 2011 and 1997 model domains are provided in Figure 3.4. Simulations were undertaken using the month of June 2003, which had a monthly mean significant wave height H_s of 0.79 m (slightly higher than the long term average wave climate, e.g. Table 3.1) and a high energy event toward the end of the month (see Fig. 3.5). The predicted spatial distribution of the predicted mean wave heights for the month of June and the high energy wave event are shown on Figure 3.6.

Table 3.1 Wave statistics offshore of Motueka (173.11098° E, 41.10897° S).

Month (all years)	Mean significant wave height (m)	Year (all months)	Mean significant wave height (m)
Jan	0.63	1998	0.77
Feb	0.61	1999	0.74
Mar	0.64	2000	0.72
Apr	0.66	2001	0.67
May	0.75	2002	0.73
Jun	0.79	2003	0.72
Jul	0.80	2004	0.72
Aug	0.75	2005	0.63
Sep	0.71	2006	0.72
Oct	0.77	2007	0.67
Nov	0.71	2008	0.73
Dec	0.66	2009	0.67
Average	0.71	Average	0.71

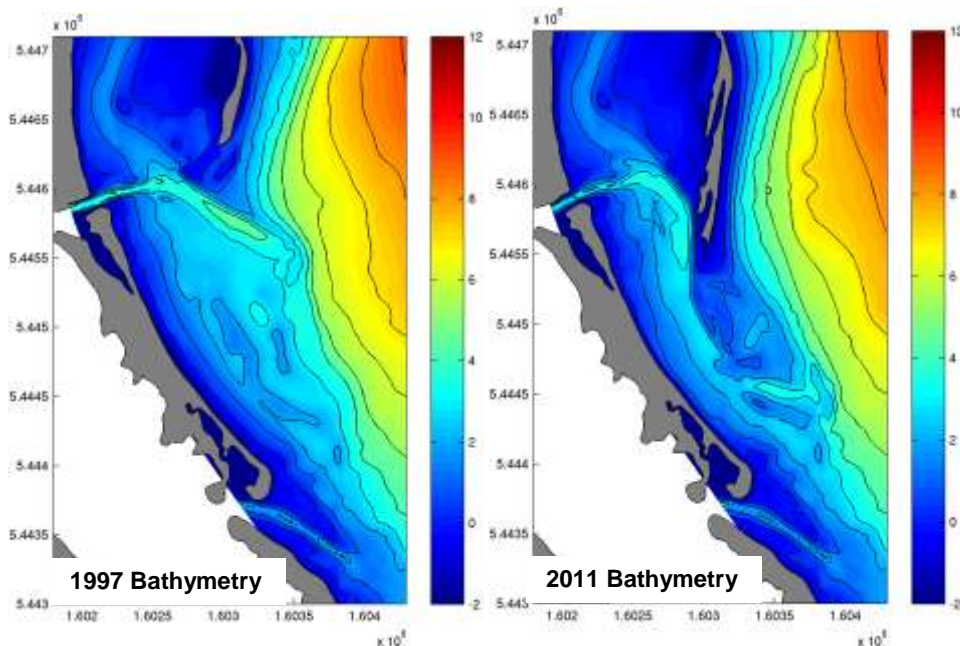


Figure 3.4 Model bathymetry for the 1997 and existing (2011) conditions.

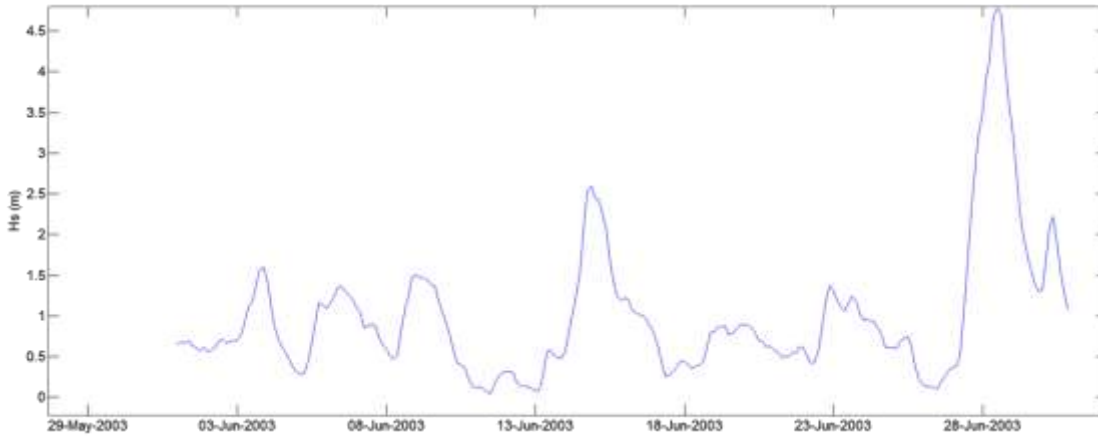


Figure 3.5 Significant wave height time-series for June 2003.

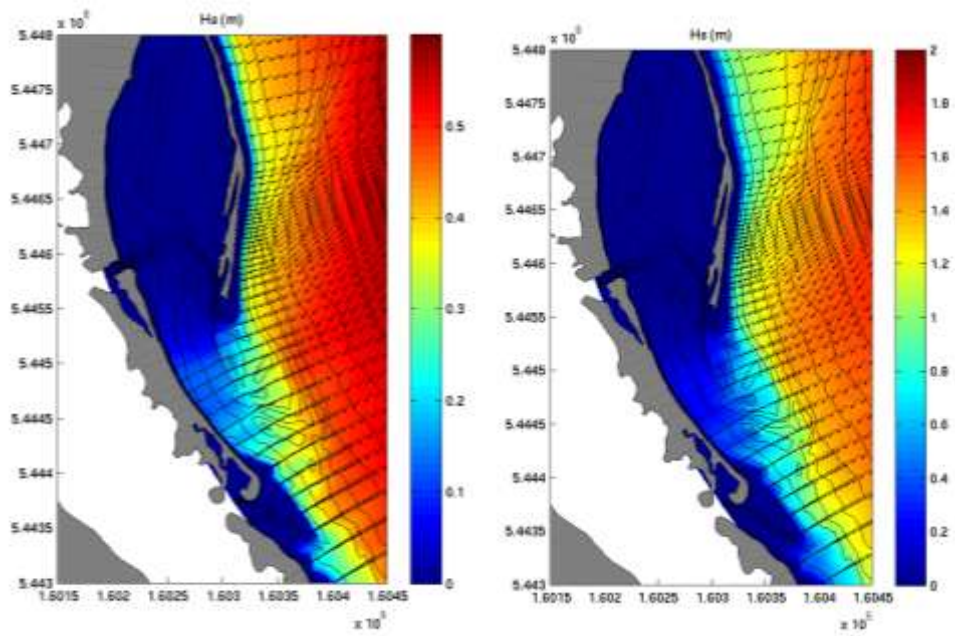


Figure 3.6 Mean significant wave heights over the month of June 2003 (left) and for the high energy event at the end of June 2003 (right). Colour scaling indicates predicted wave height and arrows show wave direction.

4.

SUMMARY OF RESULTS

4.1. Spit growth since 1940

Significant changes in the Spit morphology have been observed over the last century, and these changes have been quantified from geo-rectified aerial images. The recent pattern of steady accretion, observed since 1969, shows a uniform southward migration of the tip position by an average of 57 m per year. As the Spit has grown southward, the northern section has migrated 300-400 m shoreward. Since 1993, offshore progradation of the southern half of the Spit has occurred. This growth commenced some 500-600 m north of a groyne constructed off the end of the location of the 1996 Spit.

The establishment of the groyne in 1996 does not appear to introduce any noticeable change to the sub-aerial growth patterns or Spit tip migration rates. Most of the large scale changes clearly start well north of the groyne position and commenced several years prior to its construction. Interpretation of the historical aerial images and the bathymetric surveys from 1993, 1995, 1997, 2001 and 2011 indicate that the groyne has had little or no influence on the regional scale sediment transport pathways or the inherent stability of the tip region.

4.2. Effect of the Spit groyne construction (1996)

The initial presence of the groyne offshore of the Motueka Spit introduces a localised zone of wave sheltering near the entrance to the Inlet. This region is a highly-dissipative zone for wave energy and the groyne has a very minor overall impact. The mean wave climate on the shoreline of Jakkett Island is not affected by the groyne – the groyne can be considered a relatively modest structure and provides only a partial barrier to wave energy.

The local circulation patterns are altered by the structure. The flow regime on the outside of the Spit is dominated by a southerly-directed wave-driven current and the presence of the groyne gives rise to regions with localised acceleration and flow deviation, with currents being directed more offshore. There is also a net reduction in current speed in the lee of the groyne.

Consistent with the mean flow regime, the sediment dynamics are also dominated by the southerly-directed flux along the outside of the Spit. Without the groyne, sediments are transported directly past the tip of the Spit and into the channel. Initially, the presence of the groyne is shown to interrupt a portion of that flux into the channel, particularly along the inner section in lee of the structure. Some deflection of the southerly sediment flux into deeper water is also indicated by the model.

The strong wave-driven flux past the distal tip of the Spit and into the channel supports the observed gradual reorientation of the channel and incremental extension of the sub-tidal feature. Based on the model results, the construction of the groyne will have reduced the sediment supply to the channel for a relatively short time, providing only a temporary stabilising effect on the channel position.

Growth of the Spit and the associated sub-tidal bar in response to the strongly unidirectional alongshore sediment flux, along with natural fluctuations in sediment supply from the Motueka River, provide compelling mechanisms to explain the reorientation of the Inlet channel and subsequent reduction in the sedimentary connection of the Jakkett Island shoreline within the dominant alongshore flux.

4.3. Effects of Spit morphology - 1997 and 2011

Comparing the sediment transport model results, the 2011 morphology of the Inlet has a significantly higher net alongshore (southerly directed) sediment transport capacity than in 1997. This increase is primarily due to the progressive development of the contiguous Spit / subtidal bar system. A sediment recirculation pattern observed in 1997, featuring a northerly flux near the Jakkett Island shoreline, is not evident in 2011. It may be reasonably inferred that these changes for much of the Island shoreline have had a significant influence on the observed shoreline erosion rates.

4.4. Management options

Two management options involving cuts through the Spit (250 m² and 500 m² cross-sectional areas) have been tested with the model. The introduction of a cut through the Motueka Spit was modelled to determine how much tidal flow could be diverted through the cut. This diversion of flows would result in a reduction in tidal flows between Jakkett Island and the end of the Spit potentially reducing erosion rates. The sand excavated to create the cut would be placed along the Jakkett Island foreshore to restore the eroded shoreline to around 2010 levels. Options to repair and extend the Moutere entrance seawall (see Figure 2.1) were also examined.

For the seawall options considered the models predict localised changes in flows in the area between the Moutere entrance and the Cut. Tidal flows within the existing approach channel become more constricted with both the repair and extension of the seawall. Along the length of the seawall sediment transport capacity is reduced or ceases. Within the existing approach channel potential sediment transport increases. Elsewhere the seawall options have very little effect.

The model results indicate that a 250 m² cut through the spit will result in a diversion of approximately $\frac{1}{3}$ of the existing ebb and flood tidal flows through the cut. This reduction in tidal flows leads to a 20% reduction in tidal velocities directly offshore of Jakkett Island. Along the northern Island shoreline, the existing southerly directed sediment transport capacity is decreased by around 88% with the introduction of the cut. Along the central parts of Island shoreline the existing southerly directed sediment transport capacity is reduced by around 36% while towards the Kina entrance there is only a small decrease in the net nearshore sediment transport capacity. Model results indicate that the cut is not expected to remain a stable feature, with progressive evolution toward the south.

Reduced peak flows through the 500 m² Cut result in a 40% reduction in sediment transport fluxes through the Cut compared to the 250 m² Cut – this implies that the larger Cut configuration would be more stable than the smaller cut.

For the larger cut approximately $\frac{2}{3}$ of the tidal flows are redirected through the cut thereby reducing the tidal velocities offshore from Jakkett Island by approximately 35-50%. Along the northern Island shoreline, the existing southerly directed sediment transport capacity becomes negligible with the introduction of the cut. Along the central parts of Island shoreline the sediment transport capacity is reduced by around 48% while towards the Kina entrance there is only a small decrease in the net nearshore sediment transport capacity.



T&T Ref: 27882
15 October 2012

Tasman District Council

Attention: Gary Clark

Dear Gary

Jackett Island Erosion Study - Costing of two dredging and nourishment options

1 Objective

This letter report sets out the estimated construction costs for two cut alignments and associated nourishment of the Jackett Island shoreline. The two options considered are for an easterly facing cut directly in line with the existing channel and the second is for a more north-easterly aligned cut.

2 Option description

The two cut alignments are shown in the figures attached to this letter (Appendix A: Figure 20 and Figure 20.1). Both options have a 50 m based width at Chart Datum (CD) – 1 m and side slopes of 8(H):1(V). The characteristics of the two options are set out in table 1 below.

Option	Length (m)	Channel floor area (hectare)	Cut volume (m ³)
Easterly (Fig 20)	825	4.1	194,000
North easterly (Fig 20.1)	1545	7.1	305,068

The construction methodology for both alignments is generally as described in our Practical Options report (27882-PO-R2, T&T, 2012). We note that the dredging method will require a shallow draft cutter suction, with the pipes requiring booster pumps to cover the transfer distance. Pipelines will need to be partially lain on the seabed to enable port access to continue.

3 Costings

Costings have been developed for both channel alignment options taking into account the capital cost and a range of possible maintenance scenarios. Net Present Value costing have been developed for a 35 year period covering the extent of likely maximum consent duration.



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At present no rounding has been carried out with the totals for the capital costs. However, the summary table showing the Net Present Values and total costs have been rounded to the nearest \$100,000. Unit rates for capital dredging are based on rates suggested by Heron Contractors Ltd and experienced Auckland based dredging contractor. These rates include mobilization costs. A final dredging volume for the cut was calculated by including a 0.3 m over dredge allowance over the base of the channel floor to ensure the minimum draft is provided for. No allowance is made for planting and dune crest stabilization.

3.1 Capital dredging costs

The cost breakdown for the Easterly (Option 1) and the north easterly channel (Option 2) are shown in Tables 3-1 and 3-2 below. The volume of beach nourishment was based on 150,000 m³ as assessed in the Practical Options report (based on a composite slope of 20(H):1(V) on the upper beach slope and 40(H):1(V) on the lower beach slope extending over some 1230 m of Jackett Island shoreline. To this base volume was added an additional 45,000 m³ which was assessed to represent 3 years of beach sediment loss that is likely to have occurred from the time of the November 2011 survey and the expected nourishment timing of during summer 2014. We note that the proposed over-dredge provides for an expected loss of sand that would occur through the double handling process.

Upper bound rates for the dredging to deposition area are used (\$14/m³) while lower bound rates are used for the transfer of sand from the deposition area to the beach area (\$10/m³). We note there may be alternative methods for the sand transfer (such as motor scrapers), but there would also be additional mobilization costs for this machinery).

For Option 1 a Preliminary and General rate of 10% of the costs is included and a 20% contingency has also been applied. Provision for consenting, tendering and supervision have been included based on 20% of the cost of dredging and transfer. We note that this is based on a typical hearing process and does not include costs that would be incurred if the application was appealed to Environment Court. We note we have maintained the cost of engineering and environmental services at the same cost for Option 2.

Table 3-1 Capital costs for beach nourishment and easterly cut option (Option 1)

Description	Quantity	Unit	Rate	Cost
Dredge sand to temporary area	206,700	cub.m	\$ 14	\$ 2,893,800.00
Transfer and shaping of sand	195,000	cub.m	\$ 10	\$ 1,950,000.00
<i>Subtotal</i>				\$ 4,843,800.00
P&G	10%			\$ 484,380.00
Mobilization				Included in dredge rate
Contingency	20%			\$ 968,760.00
Engineering and environmental	20%			\$ 968,760.00
Total				\$ 7,265,700.00

Table 3-2 Capital costs for beach nourishment and north-easterly cut option (Option 2)

Description	Quantity	Unit	Rate	Cost
Dredge sand to temporary area	323,373	cub.m	\$ 14	\$ 4,527,223.96
Transfer and shaping of sand	195,000	cub.m	\$ 10	\$ 1,950,000.00
Transfer of sand to bypass	128,373	cub.m	\$ -	Included in dredge sand rate
<i>Subtotal</i>				\$ 6,477,223.96
P&G	10%			\$ 647,722.40
Mobilization				Included in dredge rate
Contingency	20%			\$ 1,295,444.79
Engineering and environmental				\$ 968,760.00
Total				\$ 9,389,151.15

3.2 Maintenance costs

The rate of ongoing alongshore transport along the Jakkett Island has been taken from sediment transport capacity calculations included in the NCOM report (rev G) prepared by MetOCean (2012). Results are shown in Table 3-3. Sediment transport capacity was calculated from the shoreline to the centre of the channel for the month of June 2003 and extrapolated to an annual sediment transport capacity by multiplying the month rate by a factor of 2.48.

Table 3-3 Sediment transport capacity along Jakkett Island shoreline

Transect	Distance from shoreline to thalweg (m)	Sediment transport capacity (net for June 2003), m ³		Annual transport capacity (m ³ /yr)	
		Existing	With cut and nourishment	Existing	With cut and nourishment
1	500	100	100	300	300
2	550	200	0	600	0
North	500	600	0	1,400	100
South	350	1,300	300	3,100	700
Kina	400	6,900	6,600	17,000	16,400

The results of this modelling shows the potential sediment transport gradient is relatively small between the north and south transect (a gradient of 600 m³/yr based on 700 m³/yr – 100 m³/yr), but there is a greater transport capacity from the southern end of Jakkett Island adjacent to Kina, with a gradient of 15,700 m³/yr. To maintain beach position this would suggest that ongoing beach nourishment of 15,700 m³/year would be required if a natural sand transport process was restored by transfer from the spit.

There will also be a maintenance requirement if the cut is to be maintained, as there is an alongshore transport gradient along the spit. The Practical Options report suggested sedimentation rates of between 14,250 and 23,750 m³ for the 147,500 m³ capital dredge channel. This equates to around 10% to 16% of the capital dredge volume. An initial assessment of dredging requirement for both channel alignments has been based on 10% of the channel volume. A unit rate of \$19.80/m³ was applied to maintenance work. This was derived from a 20% P&G and 20% contingency added to a \$14/m³ unit rate.

Based on calculations of channel velocity carried out by Heath (2012) the more north-easterly cut will have a lower velocity than the easterly cut and therefore has greater potential for sedimentation. A check on maintenance costs using 16% of the capital dredge volume was also assessed. Due to the significantly greater capital dredge volume, annual sedimentation of Option 2 would need to be less than 5% of the capital dredge volume which is considered unlikely due to the lower velocities.

Net Present Value and total costs were calculated for a range of scenarios for each channel option based on a 5% rate of return. The ongoing maintenance costs were increased by 2% each year to take into account CPI adjustments. Costings were developed for the following scenarios and are summarised in Table 3-4:

- Ongoing beach nourishment to maintain the Jakkett Island shoreline assuming no additional sand bypassing occurred from the end of the spit
- Sand bypassing to maintain the cut channel based on 10% of the capital dredge volume (and 16% in addition for the north-easterly cut)
- Carrying out cut maintenance for 10 years on the assumption that at that time natural bypassing would be occurring
- Only the capital cost (with no cut maintenance dredging or shoreline maintenance).

Table 3-4 NPV and total costs for capital and maintenance costs over 35 year period

Option	NPV	Total
Option 1: beach maintenance	\$12,400,000	\$ 22,000,000
Option 1: cut maintenance (10%)	\$14,300,000	\$ 26,700,000
Option 1: no maintenance	\$6,600,000	\$ 7,300,000
Option 1: no maintenance after 10 yr	\$8,700,000	\$ 10,300,000
Option 2: beach maintenance	\$16,200,000	\$ 28,800,000
Option 2: cut maintenance (10%)	\$20,300,000	\$ 39,200,000
Option 2: cut maintenance (16%)	\$27,400,000	\$ 57,200,000
Option 2: no maintenance	\$8,500,000	\$ 9,400,000
Option 2: no maintenance after 10 yr	\$12,900,000	\$ 15,500,000

The results show there is significant maintenance costs and the longer channel (Option 2) has significantly greater capital and maintenance costs compared to Option 1.

4 Summary

This report provides cost estimates to restore and maintain the Jackett Island shoreline to around the 2000 shoreline position over the period of consent (35 years) with the sand sourced from cuts through the Motueka Spit. Two cut options were considered, with the shorter more easterly facing spit providing the lowest capital cost due to the shorter length and lesser volume.

A range of ongoing maintenance costs were considered and the resulting costs for Option 1 vary from \$7.3M to \$26.7M, with the more likely cost range between \$7.3M and \$10.3M should bypassing from the spit bring sediment back to Jackett Island. This equates to a NPV cost of between \$6.6M and \$8.7M. If the cut maintenance is a key consideration the costs are up to \$26.7M over the duration of the consent, with a NPV of \$14.3M.

The resulting costs for Option 2 vary from \$9.4M to \$39.2M, with the more likely cost range between \$9.4M and \$15.5M should bypassing from the spit bring sediment back to Jackett Island. This equates to a NPV cost of between \$8.5M and \$12.9M. If the cut maintenance is a key consideration the costs are up to \$57.2M over the duration of the consent, with a NPV of \$27.4M.

5 Applicability

This report has been prepared for the benefit of Tasman District Council with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

Tonkin & Taylor Ltd
Environmental and Engineering Consultants
Report prepared by:

Authorised for Tonkin & Taylor Ltd by:

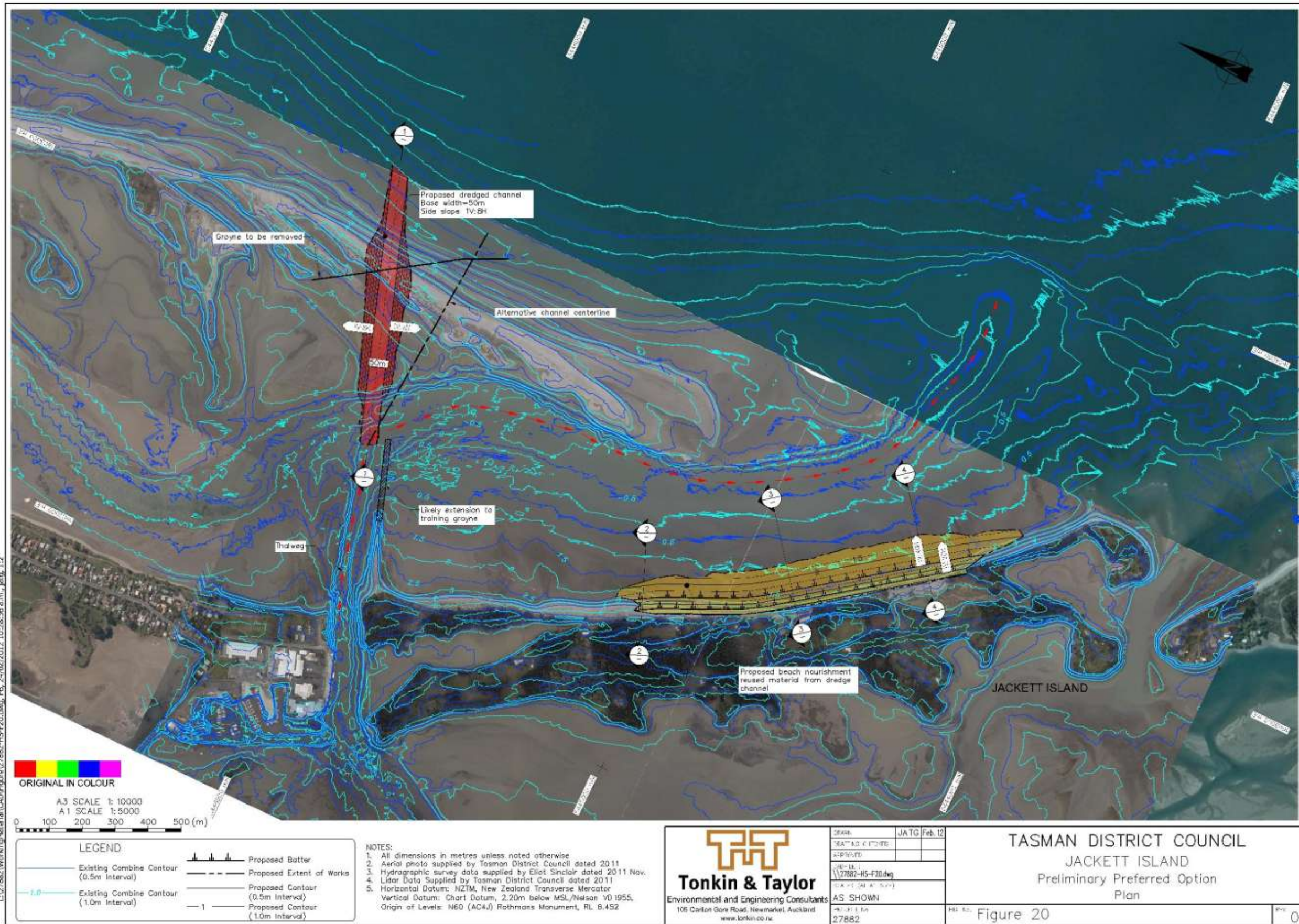
Richard Reinen-Hamill
Senior Coastal Engineer

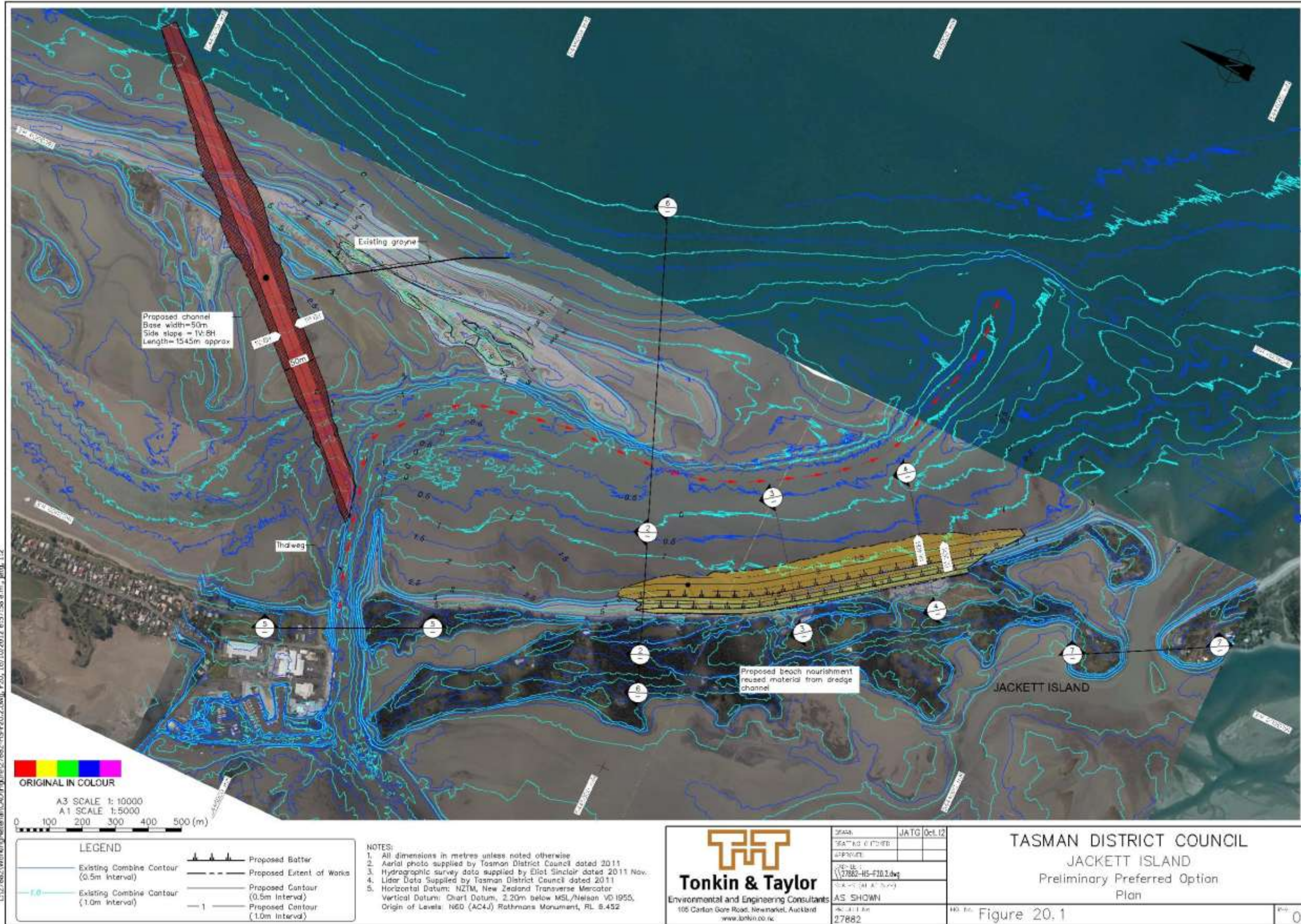
Tim Fisher
Project Director

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Appendix A: Figures

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8.3 SPEED LIMIT BYLAW REVIEW AND PROPOSED CHANGES

Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Steve Elkington, Transportation Projects Engineer
Report Number: RESC13-02-03
File Reference:

Item 8.3

1 Summary

- 1.1 The bylaw covering speed limits across the district needs to be reviewed in accordance with the Local Government Act 2002. This report provides the details around the different speed limits across the district. In particular this report will cover the following:
- Review the Speed Limits Bylaw 2004, including proposed changes to the speed limits on some roads.
 - Approve the Draft Speed Limits Bylaw 2013 and supporting “Statement of Proposal” for public consultation.
 - Approve the “Summary of Information” and the consultation process for the proposed Speed Limits Bylaw.
 - Approve the timetable and consultation process for the proposed Speed Limits Bylaw, including the appointment of a sub-committee to hear submissions.
- 1.2 Speed limits are critical to Council’s ability to provide a safe road network for its residents and visitors. It forms part of the Safe Systems Approach promoted nationally.

2 Draft Resolution

That the Engineering Services Committee

- 2.1 receives this report entitled Speed Limit Bylaw Review and Proposed Changes; and**
- 2.2 agrees that the proposed bylaw is the most appropriate way of addressing the problems that arise from vehicle speeds; and**
- 2.3 notes that the proposed bylaw does not give rise to any implications under the New Zealand Bill of Rights Act 1990; and**
- 2.4 approves the proposed Speed Limit Bylaw, including the proposed changes to speed limits as set out in section 5 of this report; and**
- 2.5 approves the “Statement of Proposal” and “Summary of Information” for public consultation as required under sections 83 and 158 of the Local Government Act 2002; and**
- 2.6 approves that the most appropriate method for distribution of the Summary of**

Information is through Newline; and

- 2.7 Authorises staff to make minor amendments to draft Bylaw as required before it is consulted on.**
- 2.8 Appoints the Chair of the Engineering Committee and Councillors to hear submissions to the bylaw**

Item 8.3

3 Purpose of the Report

- 3.1 The purpose of the report is to request the Committee to approve the proposed changes to the Council's Speed Limit bylaw; and to approve the proposed process of public consultation on these changes. The Committee is asked to note the proposed timelines for the process, which meet the legal requirements under Section 83 and 86 of the Local Government Act 2002.

4 Background and Discussion

Current Bylaw

- 4.1 The current Speed Limit Bylaw was originally approved by Council in 2004 and has been amended over the years, including changes to speed limits for selected roads.
- 4.2 The Local Government Act 2002 requires all bylaws to be regularly reviewed with minor changes and a more significant review every ten years.
- 4.3 As part of this process a special consultative process is required and submissions can be received on the whole bylaw as well as the proposed speed limit changes.
- 4.4 Accordingly the Statement of Proposal for reviewing this bylaw provides for public submission on the whole bylaw, and not just the proposed changes to speed limits.

Land Transport Rule Setting of Speed Limits 2003

- 4.5 The setting of speed limits is governed by the Land Transport Rule – Setting of Speed Limits 2003.
- 4.6 The speed limits a Road Controlling Authority are able to set are 20kph, 30kph, 40kph, 50kph, 60kph, 70kph, 80kph and 100kph.
- 4.7 Speed limits set at 50kph are referred to as an Urban Speed Limit and often cover a settlement area known as an Urban Traffic Area. Where speed limits are set lower than the Urban Speed Limit i.e. 20, 30 or 40kph, then traffic calming devices may need to be installed to manage these lower speeds. Some common examples are speed humps, speed tables, electronic display signs and carriageway narrowing. These lower speeds should represent the speed environment of the road.
- 4.8 The Setting of Speed Limits Rule requires surveys known as a "speed warrant" to be carried out to enable appropriate speeds under the Rule to be set.
- 4.9 Where the existing posted speed limit differs from that new calculated speed limit, the new speed limit must be considered safe and appropriate. It should take into account the function, nature and use of the road, its environment and land use patterns.

Changing Speed Limits

- 4.10 At the Engineering Services Committee meeting on 30 August 2012 an information report "Transportation Bylaws - Review" informed the committee of the proposal to review all transportation bylaws.

- 4.11 Where a speed limit under the Council’s speed limit bylaw is proposed to be changed then this needs the approval of the Engineering Committee prior to consultation with the public on the proposed change.
- 4.12 Under the Special Consultative process, submissions will be received and heard by Council. Any amendments will be reported to Full Council. Full Council then approve the Bylaw once all the changes have been made.

Speed Limit Review

- 4.13 As part of the Bylaw Review staff have carried out desktop evaluations and on site surveys of the existing speed limits.
- 4.14 Included in this Bylaw Review are those changes reported to the Committee in April 2012 for Tasman, Mapua and Ruby Bay. These were consulted on and approved by the Engineering Committee. The process that related to consideration of the speed limit changes was incorrect and accordingly these have been included in this process to review the speed limits to allow any submissions to be considered.
- 4.15 The general thrust of changes is to provide speed limits that better reflect the speeds that motorists travel at. Generally there is a lowering of the current speed limits on some roads with only a few proposed increases. Some of the roads where the current speed limit is 50kph it is proposed to increase these roads to 60kph or 70kph speed limits as they better reflect the speed environment. The details of the speed changes are set out in the table in section 5 with the associated reasons.
- 4.16 Setting speed limits to the speed environment is consistent with the Safe Systems approach which underpins the national focus on reducing fatalities and severe crashes. This is also a Level of Service measure within Tasman District Long Term Plan
- 4.17 Overall the number of 60kph and 80kph speed limits scheduled in the proposed bylaw has increased while the number of 70kph speed limits has decreased. This provides a speed regime for our roads and in particular the rural areas of 20 km/hr gaps. For example 60, 80 and 100 km/hr speed limits.

5 Proposed Speed Limits

- 5.1 Attached to this report are sets of maps, in Appendices 1 through 5, which detail the existing and proposed changes to the speed limits.
- 5.2 Holiday speed limits come into force on the 20th day of December and extend through to the 31st day of January the following year. Holiday speed limits in Tasman District only exist at Pakawau shown on Map 1 in Appendix 1 and at Ligar Bay shown on Map 4 in Appendix 1. Both the holiday and permanent speed limits at Ligar Bay are recommended to be revoked in favour of a lower permanent speed limit.
- 5.3 The following schedule sets out the proposed changes:

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
1	Collingwood Puponga Road Pakawau	To leave the existing holiday 50kph speed limit on Collingwood Puponga Road extending from the start of Pakawau village to the Pakawau Hall near the corner of Pakawau Bush Road in place. It is also proposed to leave the length of the 70kph speed limit through the Pakawau village unchanged.	50 (holiday) 70	50 (permanent) 70
<i>Comment: There were no apparent safety or travel efficiency reasons to change the current speed limits</i>				
2	Haven Road Collingwood	Extend out the Urban Traffic Area for a short distance along Haven Road to Collingwood Quay	100	50
<i>Comment: The change is expected to make little difference but will provide for a slightly more headway before the first house.</i>				
2	Bainham Main Road Collingwood	Put in place a 70kph speed limit extending along Collingwood Quay and Collingwood Bainham Main Road from Haven Road to a point just south of the Collingwood Cemetery entrance.	100	70
<i>Comment: The proposal reflects the request of the community for a lower speed along these sections of road. The operating speeds appear to support a lower speed.</i>				
2	Takaka Collingwood Highway SH60 Collingwood	Takaka Collingwood Highway SH60 extending from the intersection with Collingwood Quay in a southerly direction for 270 metres. This proposal will need to be approved and gazetted by NZTA	100	70
<i>Comment: The proposal would integrate well with the changes proposed for Collingwood Quay and Collingwood Bainham Main Roads referred to above and provide a safer road environment encouraging slower traffic speeds for drivers approaching the "Y" shaped intersection.</i>				
2	Poplar Lane Collingwood	Include Poplar Lane into the Collingwood Urban Traffic Area.	100	50
<i>Comment: The proposal reflects the developed nature of the road and speed expectation.</i>				
3	Patons Rock Road Patons Rock	Extend the existing 50kph speed limit in a southerly direction along Patons Rock Road to a point measured 340 metres from Battery Road	100	50
5.3 <i>Comment: The proposal to extend the Urban Traffic Area reflects the development that has occurred near the start of the village.</i>				

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
4	Abel Tasman Drive Tata Beach/Ligar Bay	Revoke the 70kph permanent speed limit and 50kph holiday speed limit along Abel Tasman Drive at Ligar Bay and introduce a 60kph permanent speed limit with no holiday speed restriction	70 & 50 Holiday Speed Limit	60
5.4 <i>Comment: The proposal will create a consistent approach to the use of 60kph speed limits along Abel Tasman Drive through small settlements where a 50kph speed limit is considered too slow for most of the year.</i>				
4	Nyhane Drive, Nyhane Drive West, Leisure Lane and Matenga Drive Tata Beach/Ligar Bay	Put in place an Urban Traffic Area with a 50kph speed limit enclosing the Ligar Bay settlement and encompassing Nyhane Drive, Nyhane Drive West, Leisure Lane and Matenga Drive.	100	50
<i>Comment: The proposal to extend the Urban Traffic Area reflects the development that has occurred in the village.</i>				
5	Falconer Road, Bay Vista Drive and Richmond Road Pohara	Extend the existing Urban Traffic Area with a 50kph speed limit to include Falconer Road, Bay Vista Drive and Richmond Road.	100	50
<i>Comment: The proposal to extend the Urban Traffic Area reflects the development that has occurred in the village.</i>				
6	Abel Tasman Drive Glenview Road East Takaka	Revoke the existing 70kph speed limit on Abel Tasman Drive and 50kph speed limit on Glenview Road at Motupipi settlement and put in place a 60kph speed limit encompassing the same sections of road.	70 & 50	60
5.5 <i>Comment: The proposal will create a consistent approach to the use of 60kph speed limits along Abel Tasman Drive. The revoking of the short 50kph section along Glenview Road will create one speed limit for the Motupipi village. The current operating speeds along Glenview Road due to the slightly increase speed limit is expected to have little effect. The road has wide berms and a reasonable concentration of dwellings to help justify lower operating speeds.</i>				
7	Abel Tasman Drive Takaka	Revoke the existing 70kph speed limit on Abel Tasman Drive near Sunbelt Crescent and put in place a 60kph speed limit encompassing the same section of road.	70	60
<i>Comment: The proposal will create a consistent approach to the use of 60kph speed limits along Abel Tasman Drive</i>				
7	Rototai Road Arapeta Place Takaka	Revoke the existing 70kph speed limit on Rototai Road from the northern 70/100 speed limit sign extending in a southerly direction for	70	50

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
		670metres. And extend out the Urban Traffic Area with a 50kph speed limit encompassing Arapeta Place.		
<i>Comment: The Urban Traffic Area at Arapeta Place is being extended to encompass the row of northern side dwellings on Rototai Road which form part of this small settlement.</i>				
8	Central Takaka Road Park Ave Takaka South	Leave in place the existing 70kph speed limit along Central Takaka Road and 50kph speed limit on Park Ave	70 & 50	70& 50
<i>Comment: The speed limits are considered appropriate and there is no crash history to suggest a lower speed limit would be safer. There is a school situated on Central Takaka Road but a lower speed past the school would be better achieved through use of other traffic calming/control devices.</i>				
9A & 9B	Riwaka Kaiteriteri Road Kaiteriteri	No change is proposed to the existing speed limits to Riwaka Kaiteriteri Road or Kaiteriteri settlement	80,50 & 30	80, 50 & 30
<i>Comment: There are no apparent safety or travel efficiency reasons to change the current speed limits</i>				
10	Riwaka Brooklyn	No change is proposed to the existing speed limits in this area	80,70 & 50	80,70 & 50
<i>Comment: There are no apparent safety or travel efficiency reasons to change the current speed limits</i>				
11A& 11B	Marchwood Park Road Queen Victoria Street Motueka North & South and Lower Moutere	Diminish the Urban Traffic Area by revoking the 50kph speed limit applying to Marchwood Park Road and Queen Victoria Street extending from a point 50 metres north of College Street in a northerly direction to a point 10metres north of Marchwood Park Road intersection. And put in place a 70kph speed limit enclosing Marchwood Park Road and the said portion of Queen Victoria Street.	50	70
<i>Comment: The proposal is to raise the speed limit on Queen Victoria Street from North of King Edward Street to and including Marchwood Park Road. Both roads have wide berms and suitable carriageway widths with no or few accessways. Marchwood Park Road is relatively short at 300metres long and gives access to the camp ground. The changed speed limit is expected to have little or no effect to the current operating speeds of both roads. All other roads shown on these maps will remain unchanged.</i>				
12A & 12B	Marriages Road Mamaku Road Horton Road Awa Awa Road Permin Road Brookview Heights Williams Road Dee Road	Put in place an 80kph speed limit on the following roads: <ul style="list-style-type: none"> • Aporo Road from a point 300metres south of Williams Road and extending in a northerly direction to point 70metres south of Kina Beach Road; • Kina Beach Road from Aporo Road to the existing 70kph speed limit near Dee Road; • Baldwin Road extending from the existing 50kph speed limit to the road end; • And the entire length of the following roads: 	100	80

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
	Kina Peninsular Road Tasman	Marriages Road, Mamaku Road, Horton Road, Awa Awa Road, Permin Road, Brookview Heights, Williams Road, Dee Road and Kina Peninsular Road.		
12A	Aporo Road Tasman	Revoke the 70kph speed limit on Aporo Road through the Tasman Village and put in place a permanent 60kph speed limit.	70	60
<i>Comment: The proposal to introduce a 60kph speed limit is in line with the use of this speed limit on an arterial route through a settlement and is consistent with that proposed through Ruby Bay. This change was agreed by the committee back in 2012.</i>				
13A	Stafford Drive Mapua Drive Ruby Bay	Revoke the 70kph speed limit on Stafford Drive and Mapua Drive, from the existing speed limit sign near Seaton Valley Road on Mapua Drive extending along Stafford Drive to the existing speed limit sign near Brabant Drive and put in place a 60kph speed limit.	70	60
<i>Comment: The proposal to introduce a 60kph speed limit is in line with the use of this speed limit on an arterial route through a settlement and is consistent with that proposed through Tasman. These changes were agreed by the committee back in 2012.</i>				
13A	Pine Hill Road Ruby Bay	To put in place a 60kph speed limit on the entire length of Pine Hill Road from Stafford Drive to the road end.	100	60
<i>Comment: Pine Hill Road currently has a rural road speed limit of 100kph. While this speed is not representative of the current operating speed which is predicted to be far less it does tidy up this anomaly. It recognises that the road is much less developed than the adjacent Brabant Drive. This change was agreed by the committee back in 2012.</i>				
13A	Pine Hill Road West Pomona Road Foley Road Ruby Bay	To put in place an 80kph speed limit on the entire length of the following roads: Pine Hill Road West, Pomona Road, Foley Road.	100	80
<i>Comment: These roads are semi rural in nature. The 80kph speed limit while it may not be a reasonable operating speed it is considered more appropriate than the rural speed limit of 100kph. These changes were agreed by the committee back in 2012.</i>				
5.6 14	Mapua Drive Mapua	To put in place an 80kph speed limit on Mapua Drive extending from The Coastal Highway SH60 to the existing 100/70 speed limit sign just east of Seaton Valley Road	100	80
<i>Comment: The proposal to introduce an 80kph speed limit is in line with the use of this speed limit on the other roads in the area and on Aporo Road just south of Tasman village. This change was agreed by the committee back in 2012.</i>				
15	Moutere Highway Upper Moutere	No change is proposed to the existing speed limit to the Moutere Highway through Upper Moutere.	50	50
<i>Comment: There were no apparent safety or travel efficiency reasons to change the current speed limit</i>				
16	North & South Queen Street Richmond	To put in place a 30kph speed limit on Queen Street extending from Salisbury Road to Gladstone Road.	50	30

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
<p><i>Comment: The proposed 30kph speed limit is managed now in parts of Queen Street with the raised courtesy crossings otherwise known as speed tables. Traffic calming devices will in time need to be installed at both ends of Queen Street to ensure good compliance. The 85th percentile speed outside the Council offices is 45kph while the Mean is 39kph. In time, side roads such as Cambridge Street and the short section of Wensley Road outside Council offices may also be reduced to 30kph. With the upgrade of Queen Street, traffic management can be included and funded from the subsidised roading Minor Improvements budget. It is proposed to retain the remaining speed limits shown on this map for the Richmond area.</i></p>				
17	Lord Rutherford Road South Brightwater	To put in place an 80kph speed limit on Lord Rutherford Road South extending from the 50/100 speed limit sign to Higgins Road	100	80
<p><i>Comment: The only proposed speed limit change on the Brightwater Map is the lowering of the 100kph rural speed limit on Lord Rutherford Road South to 80kph. Speed surveys undertaken in recent times for this road show the 85th percentile speed to be approximately 90kph. The cycle trust's shared path extending along this road is off road. Unfortunately the carriageway width is wide from its previous state highway status before the new alignment back in the 1980's.</i></p>				
18A	Eighty Eight Valley Road Wakefield	To extend out the Urban Traffic Area with a speed limit of 50kph along Eighty Eight Valley Road to a point 250metres west of Genia Drive intersection.	80	50
<p><i>Comment: This extension to the Urban Traffic Area encompasses a slow speed 45kph corner which while it is appropriate will need careful signage to ensure drivers respect the corner and it doesn't become a crash site.</i></p>				
18A	Eighty Eight Valley Road Wakefield	To revoke the remaining section of 80kph speed limit on Eighty Eight Valley Road extending as far as Totara View Road and put in place a 70kph speed limit.	80	70
<p><i>Comment: There was reasonable evidence from the speed surveys which indicated an 85th percentile speed of 75kph and a Mean and Median speeds of 65kph that there is a large cluster of speeds around that proposed ensuring the speed limit is likely to be complied with.</i></p>				
18A	Totara View Road Kilkenny Place Gossey Drive North Edward Street Wakefield	To revoke the existing Urban Traffic Area with a speed limit of 50kph on Totara View Road, Kilkenny Place, Gossey Drive North and a portion of Edward Street between Gossey Drive North and Gibbs Valley Road. And put in place a 60kph speed limit on the said roads and road sections referred to above.	50	60
<p><i>Comment: From speed surveys undertaken on Edward Street and Totara View Road the 85th percentile speeds were found to be 68kph and 63kph respectively. There are no apparent safety reasons not to consider a higher speed limit which clearly is reflected in the operating speeds. It is recognised that these roads are not of similar urban density as those within Wakefield and hence a 50kph speed limit was considered too slow.</i></p>				
18B	Higgins Road Bird Road Wakefield	To put in place an 80kph speed limit extending along Higgins Road and Bird Road from Lord Rutherford Road South to the intersection of Bird Road at SH6.	100	80

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
<i>Comment: While Higgins Road is narrow in places the speed survey on the wider section indicated an 85th percentile of 89kph and for Bird Road this was 78kph. The cycle path is mostly off road except for where the Pitfure stream runs beside the road. Unfortunately under the Speed Limit Rule the length of the narrow section is much less than that required for a lower speed limit. It is likely the narrow road and single lane bridges through this section act to slow traffic speeds down but surprisingly this wasn't reflected in a speed survey undertaken which showed an 85th percentile of 92kph. One saving grace is that the road is straight so provides good sight lines. This speed limit proposal is consistent with the rest of the route.</i>				
19	Tapawera	No change proposed	50	50
<i>Comment: There were no apparent safety or travel efficiency reasons to change the current speed limit or the Urban Traffic Area.</i>				
20	St Arnaud & Rotoroa	No changes proposed	50 & 30	50 & 30
<i>Comment: There was no apparent safety or travel efficiency reasons to change the current speed limits as both of these settlements have predominantly narrow roads with few footpaths and high recreational pedestrian numbers over summer. There were no other roads in the area that were considered necessary to change the current speed limit. Both Alpine Meadows Drive and Beech Hill Rise were not considered due to the low density of development and alpine nature.</i>				
21	Murchison	No changes proposed	70 & 50	70 & 50
<i>Comment: There were no apparent safety or travel efficiency reasons to change the current speed limits, or include other roads in the nearby district.</i>				
22	Para Para	No changes proposed	50	50
<i>Comment: The Urban Traffic Area covering Para Para was introduced some years ago.</i>				
23	Marahau	No changes proposed	60 & 30	60 & 30
<i>Comment: These speed limits appear to work well for Marahau.</i>				
24	Rabbit Island	No change proposed	70	70
<i>Comment: The speed limit on Ken Beck Drive has not been proposed for change due to the recreational nature of the surrounding area as well as the numbers of forestry access points along the road.</i>				
25	Hope	No change proposed	70	70
<i>Comment: The speed limits in the Hope area appear to work well with no need for change.</i>				

6 Policy / Legal Requirements / Plan

- 6.1 The special consultative procedure in relation to reviewing a bylaw will follow that required under Section 83 and 86 of the Local Government Act 2002.
- 6.2 The consultation period is more than one month from the date of first publication of the public notice.
- 6.3 Section 155 of the Local Government Act 2002 requires Council to determine that a bylaw is the most appropriate way to address the perceived problem and also determine whether the proposed bylaw is the most appropriate form of bylaw and if there are any implications under the New Zealand Bill of Rights Act 1990.
- 6.4 Bylaws are the only means that Councils have to set and control speed limits and therefore a bylaw is considered the best means to address the safety issues that arise from vehicle speed.
- 6.5 There are no implications under the New Zealand Bill of Rights Act 1990 arising from this proposed bylaw. The Bylaw does not place any limits on freedom of movement, expression

or association and does not isolate any particular social group in terms of that Act. In addition any offences against the bylaw require a judicial process which provides alleged offenders with opportunities for defence through Courts.

- 6.6 Although the Committee can approve the proposed bylaw for public consultation and hear submissions, the final bylaw must be approved by Full Council.
The proposed timeline for consultation is included in section 9 of this report.
- 6.7 Land Transport Rule - Setting of Speed Limits 2003 sets out the organisations that will need to be included in the consultation process. These include Police, NZ Automobile Association, NZTA and NZ Road Transport Forum. Copies of the “Statement of Proposal” and “Statement of Information” will be sent to these organisations.

7 Consideration of Financial or Budgetary Implications

- 7.1 The cost of consultation including the statutory process and implementation will be funded from Council’s subsidised roading programme.
- 7.2 The installation of new signs and markings (if appropriate) will be funded from the Traffic Services Renewal account.

8 Significance

- 8.1 Existing and proposed changes to speed limits in the District will be of medium to high importance to some organisations and members of the public. The Special Consultative Procedure therefore provides the most appropriate method of consultation with those who have an interest in the changes to the Bylaw.

9 Consultation

- 9.1 The proposed timeline for consultation is as follows:

14 Feb 2013	Engineering Services Committee approves Draft Bylaw, Statement of Proposal and Summary of Information for public consultation under the Special Consultative Procedure.
16 Feb 2013	Public Notice of proposal published in daily papers and inviting public submissions
1 Mar 2013	Summary Information included in Newsline the Mag
25 March 2013	Submissions close at 4:30pm
TBA	Hearing date for submissions
9 May 2013	Full Council considers outcome of the consultation process, and makes final decisions on the bylaw.

1 June 2013	Public notice in Newsline the Mag, local and daily papers advising of the bylaw adoption and including a schedule of the new speed limits and when they come into effect.
11 June 2013	Bylaw to come into force on a forward date allowing for order and installation of new signs and for Police and NZTA Director to be informed of the changes.

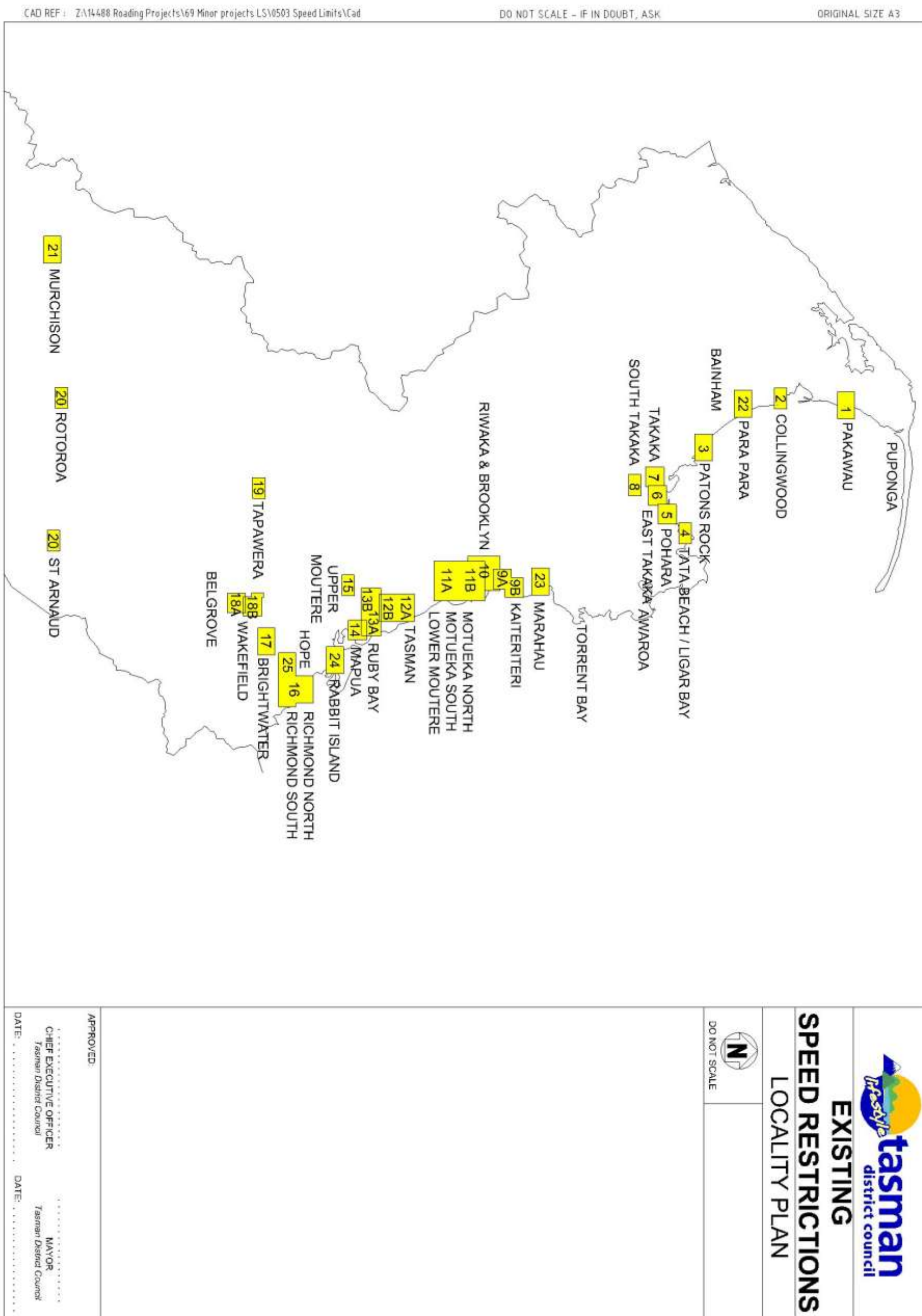
- 9.2 The Statement of Proposal and Summary of Statement of Proposal will be available on Council’s website, at Council offices and libraries. The Summary of the Statement of Proposal will also be published in Newsline the Mag.
- 9.3 It is proposed to set up separate hearing venues and dates to be held in Takaka and Richmond.
- 9.4 The Committee is requested to select a hearing panel to hear submissions.

10 Conclusion

- 10.1 The current Speed Limits Bylaw is now due for formal review under the Local Government Act 2002. Staff recommend that the process outlined in this report provides the most appropriate method to undertake the review of that Bylaw.

11 Appendices

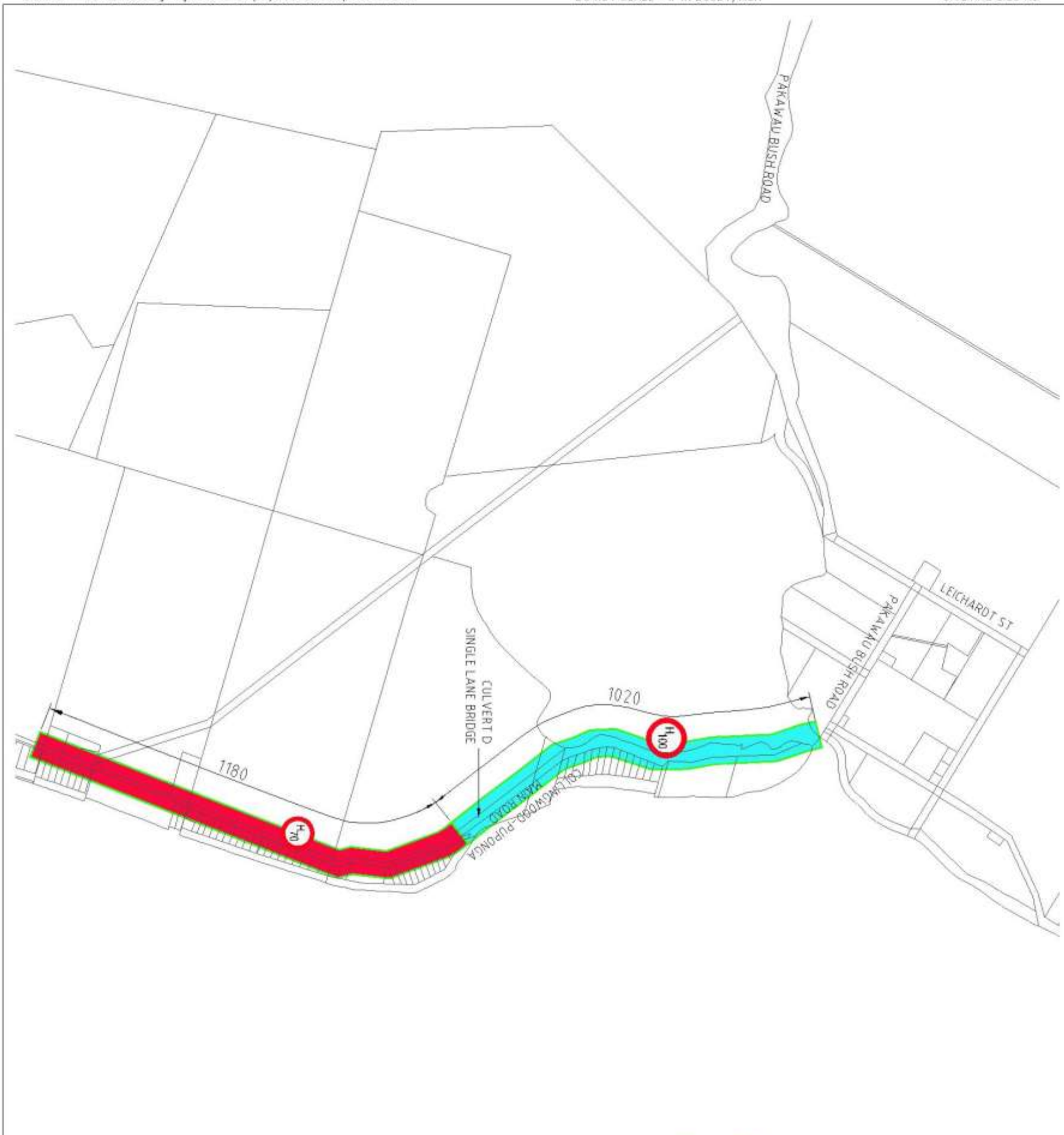
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DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3



EXISTING SPEED RESTRICTIONS

PAKAWAU

MAP NO

1 OF 25



DO NOT SCALE

LEGEND

	BOUNDARY OF AN AREA THAT HAS A HOLIDAY SPEED LIMIT OF 50 km/h FROM 20th DECEMBER TILL 31st JANUARY EACH YEAR AND 70 km/h SPEED LIMIT ALL OTHER TIMES
	BOUNDARY OF AN AREA THAT HAS A HOLIDAY SPEED LIMIT OF 50 km/h FROM 20th DECEMBER TILL 31st JANUARY EACH YEAR AND 100 km/h SPEED LIMIT ALL OTHER TIMES
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

1. SCALES GIVEN ON THIS MAP ARE APPROXIMATE.
2. DIMENSIONS SHOW THE BOUNDARIES OF A SPEED LIMIT FOR THE PURPOSES OF THE BYLAW.
3. SPEED LIMIT BOUNDARIES THAT CROSS A ROAD DO SO AT RIGHT ANGLES FROM ONE SIDE OF THE ROAD TO THE OTHER, BY THE SHORTEST DISTANCE.
4. A SPEED LIMIT BOUNDARY MARKED ALONG A ROAD IS DEEMED TO RUN ALONG THE EDGE OF THE CARRIAGEWAY.
5. THE SPEED LIMIT BOUNDARIES ON ROADS THAT HAVE A 30, 60, 70 OR 80 km/h SPEED LIMIT, ARE DEEMED TO RUN ALONG THE EDGES OF THE CARRIAGEWAY.
6. ALL TASMAN DISTRICT COUNCIL ROADS SHOWN ON THIS MAP OUTSIDE THE URBAN TRAFFIC AREA HAVE A SPEED LIMIT OF 100 km/h (UNLESS MARKED OTHERWISE).
7. SPEED LIMITS ON STATE HIGHWAYS ARE NOT PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMIT BYLAW 2004. THEY ARE SHOWN ON THIS MAP FOR INFORMATION ONLY. REFER TO THE TRANSPORT NEW ZEALAND SPEED LIMITS BYLAW FOR SPEED LIMITS ON STATE HIGHWAYS.
8. THIS MAP IS PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMITS BYLAW 2004.

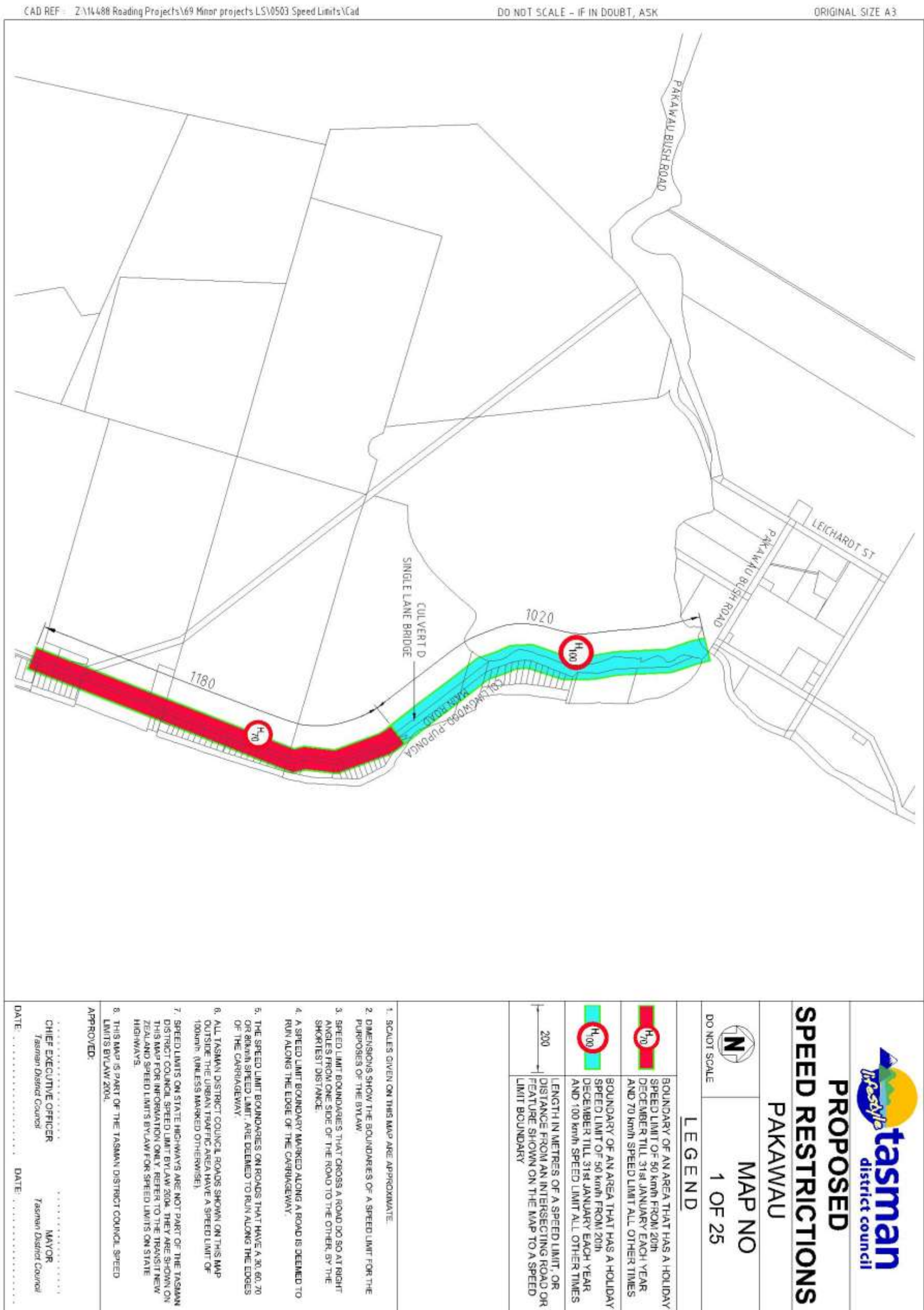
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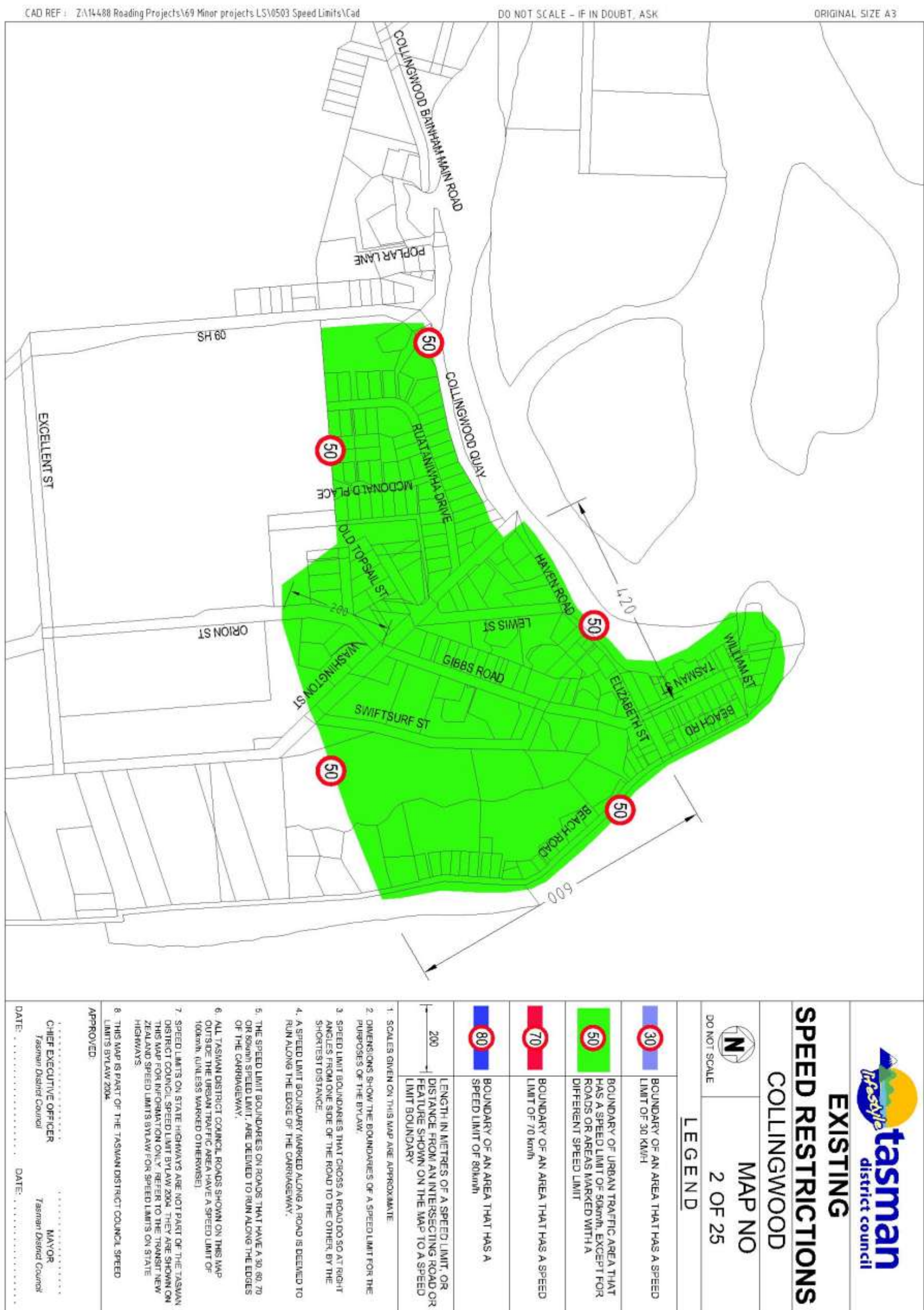
CHIEF EXECUTIVE OFFICER
Tasman District Council

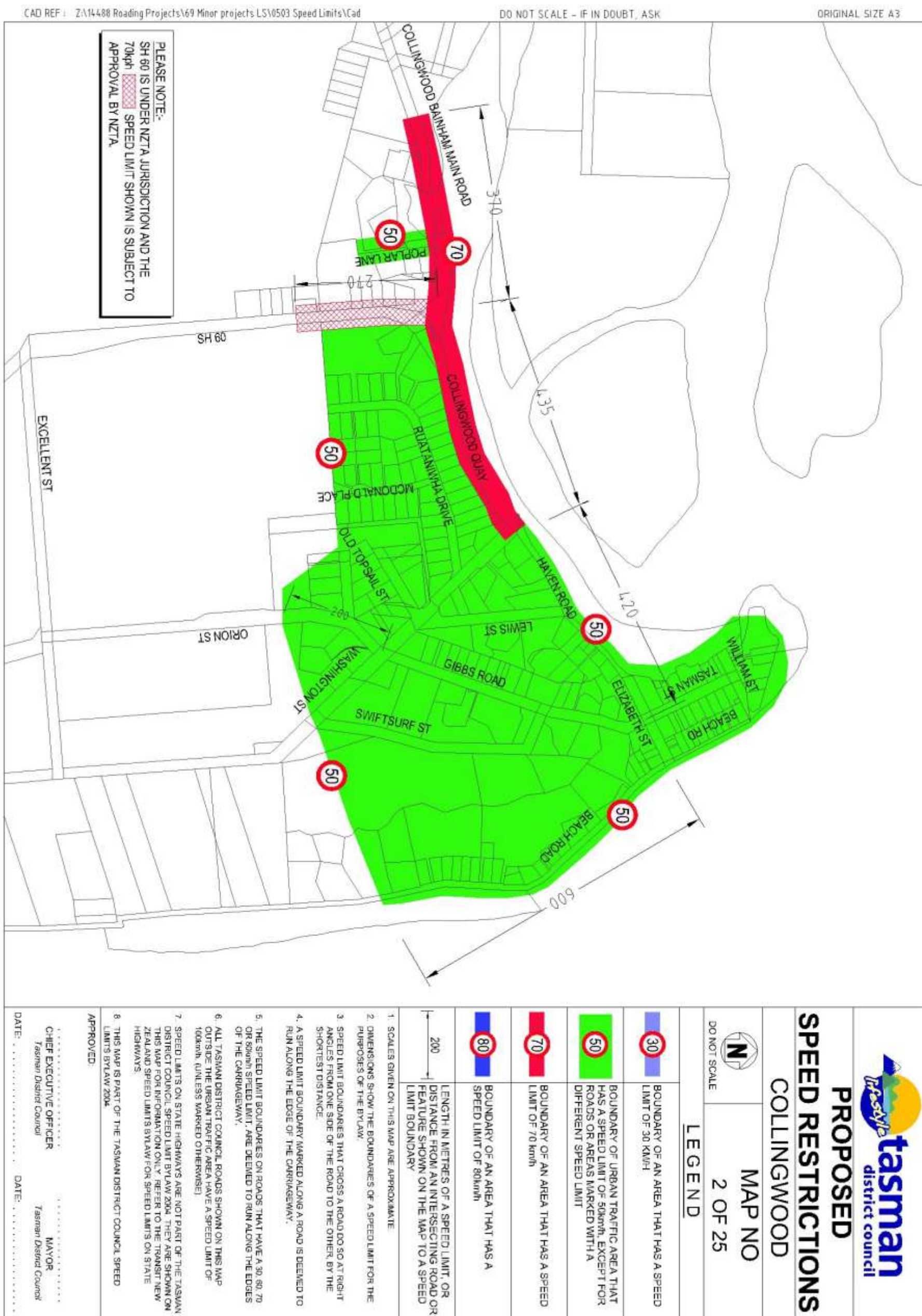
MAYOR
Tasman District Council

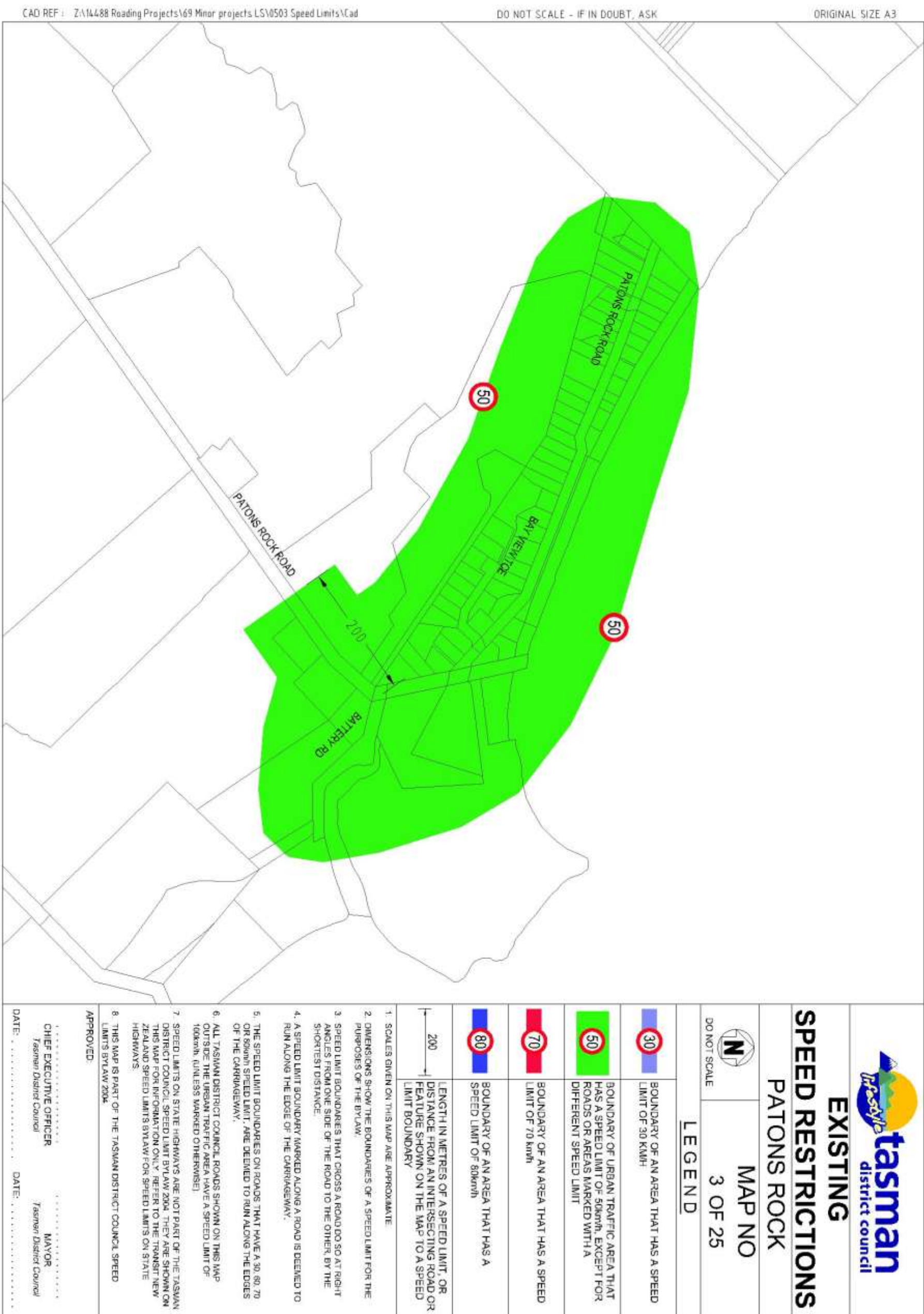
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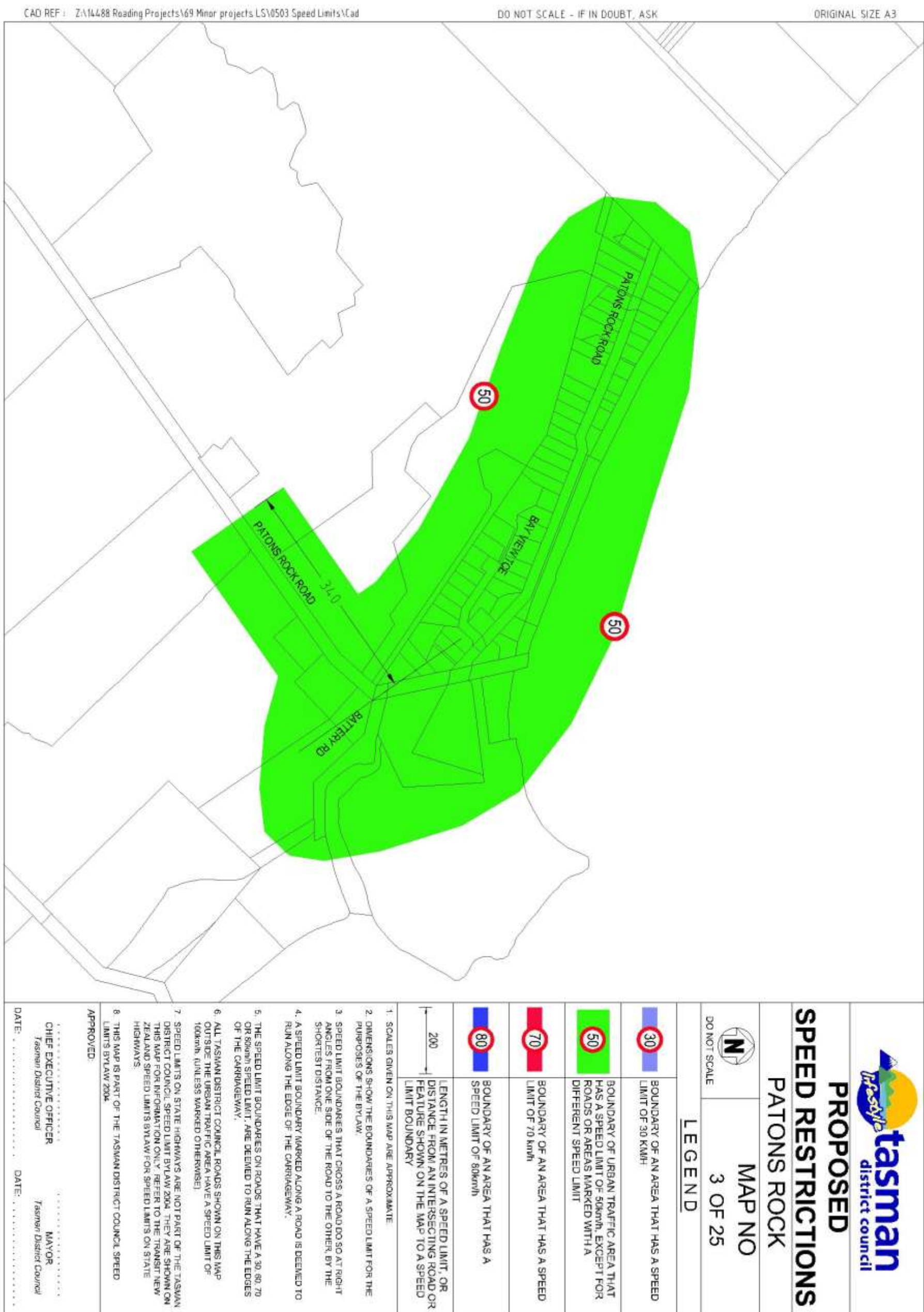
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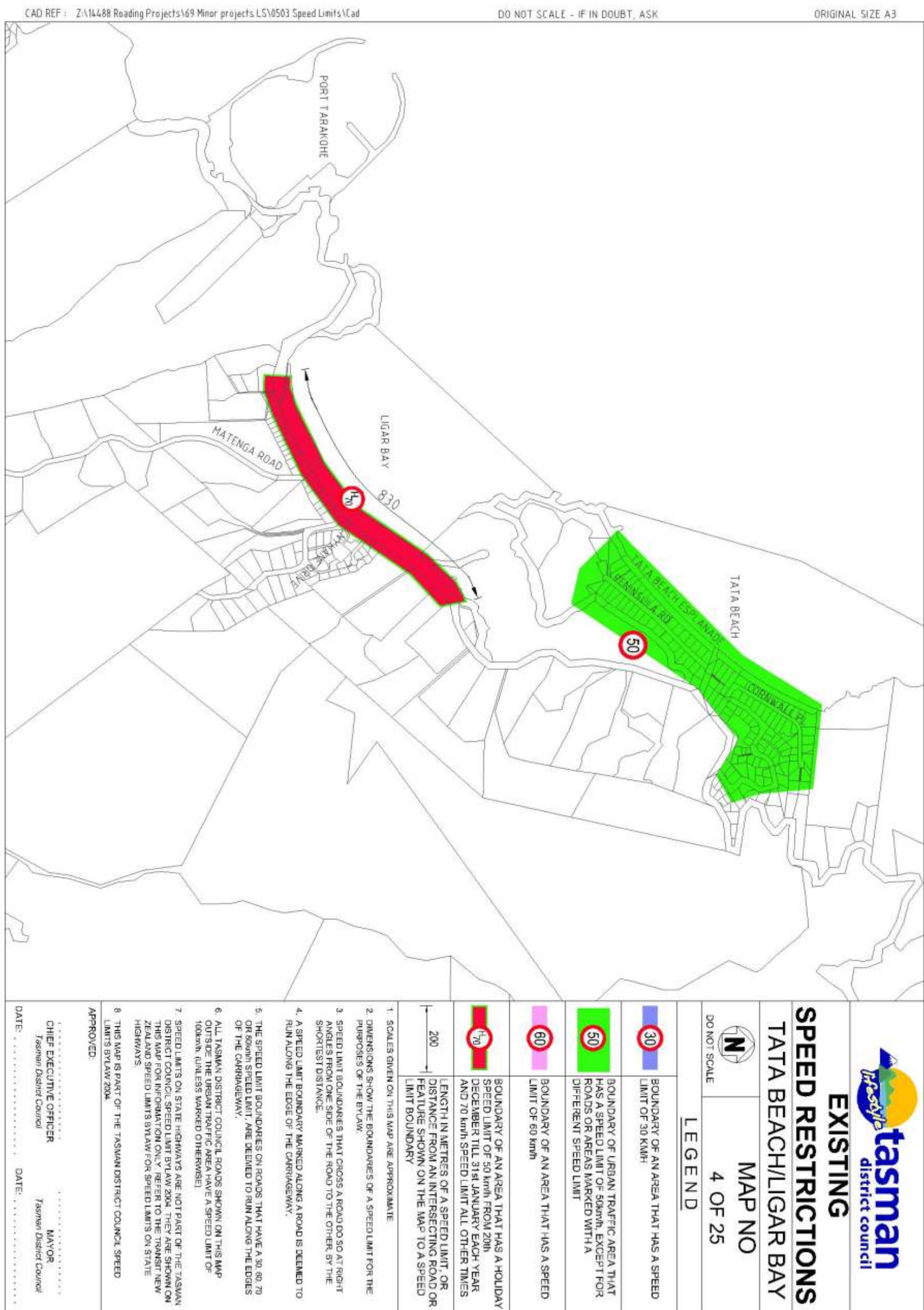


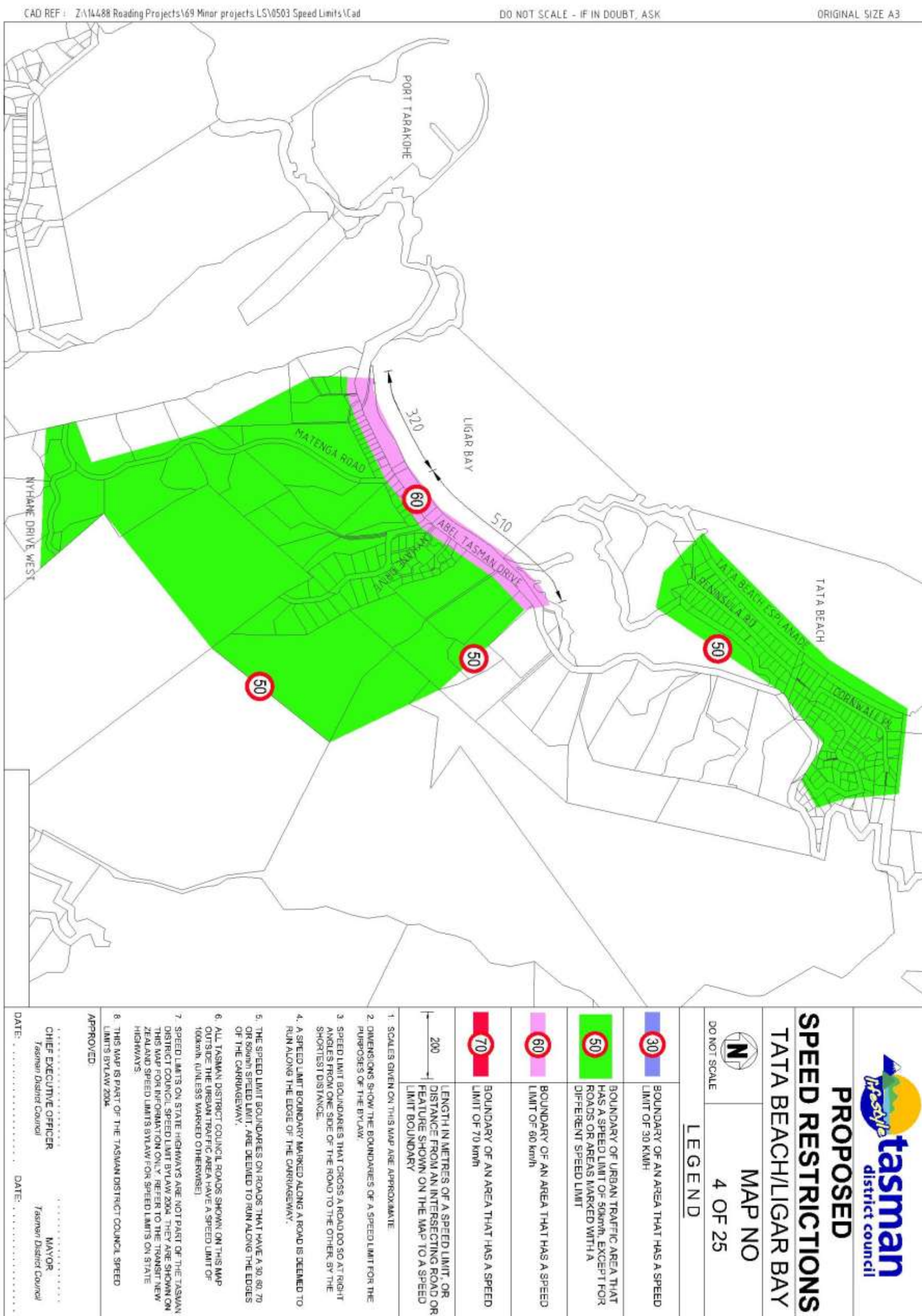


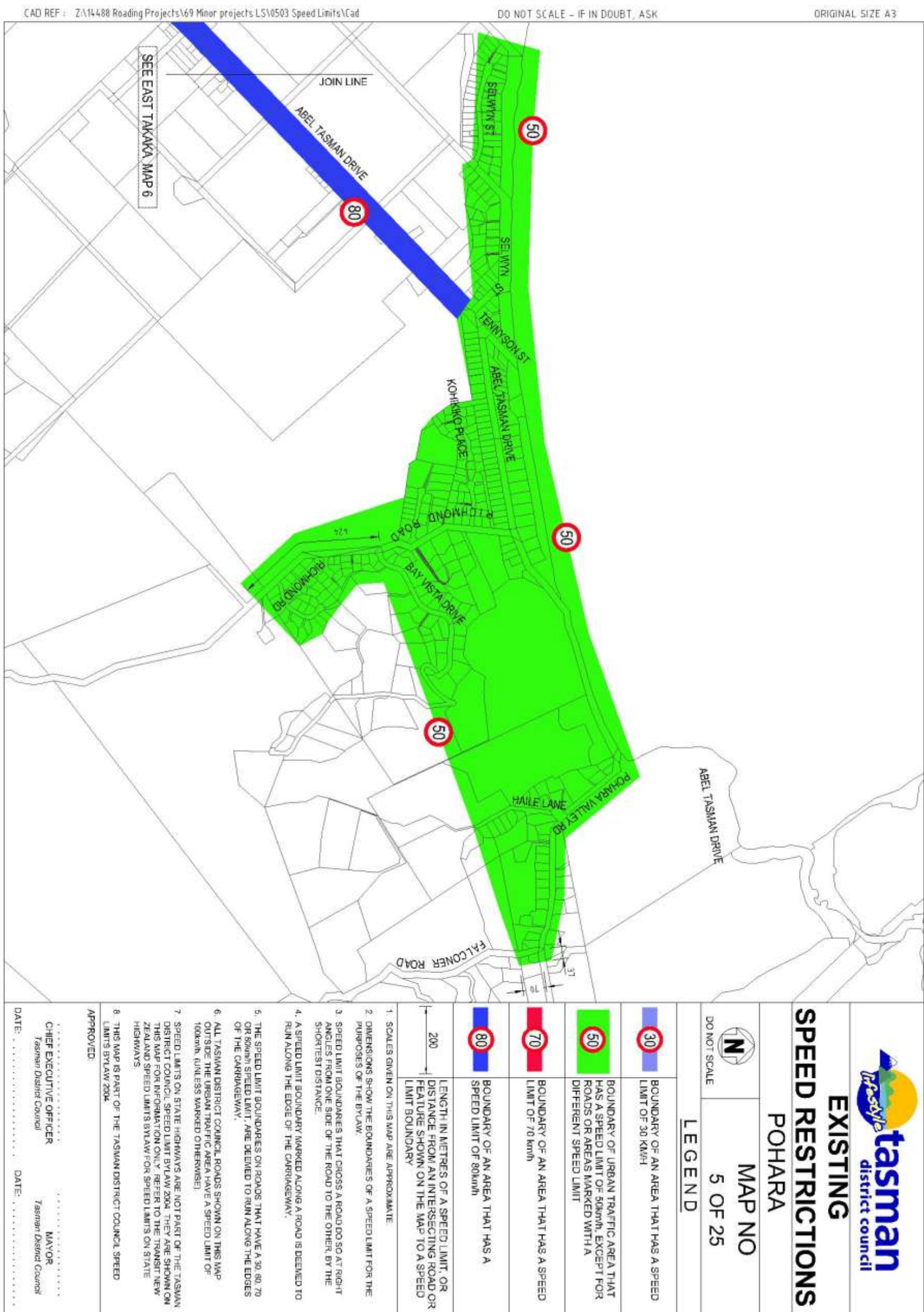


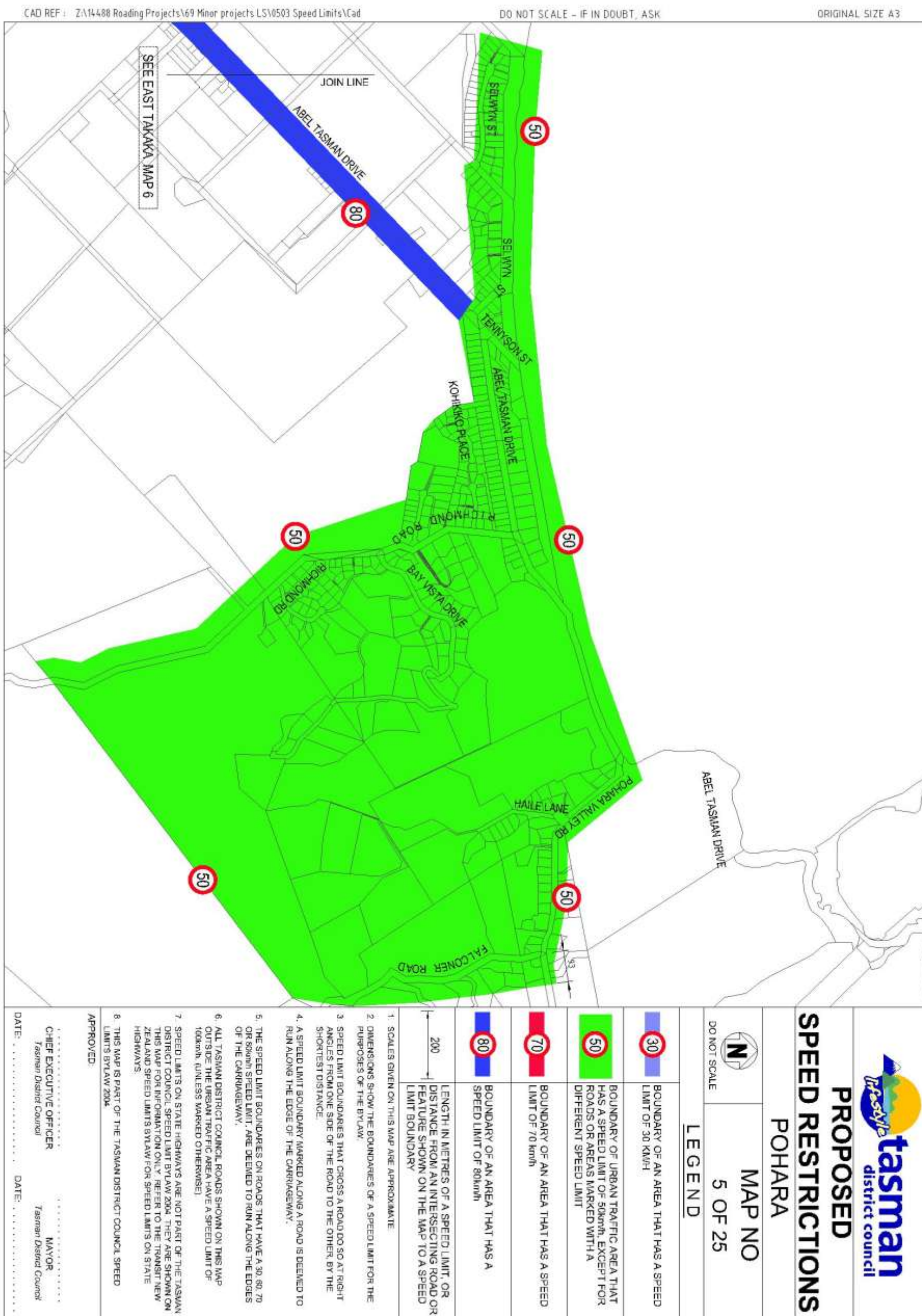


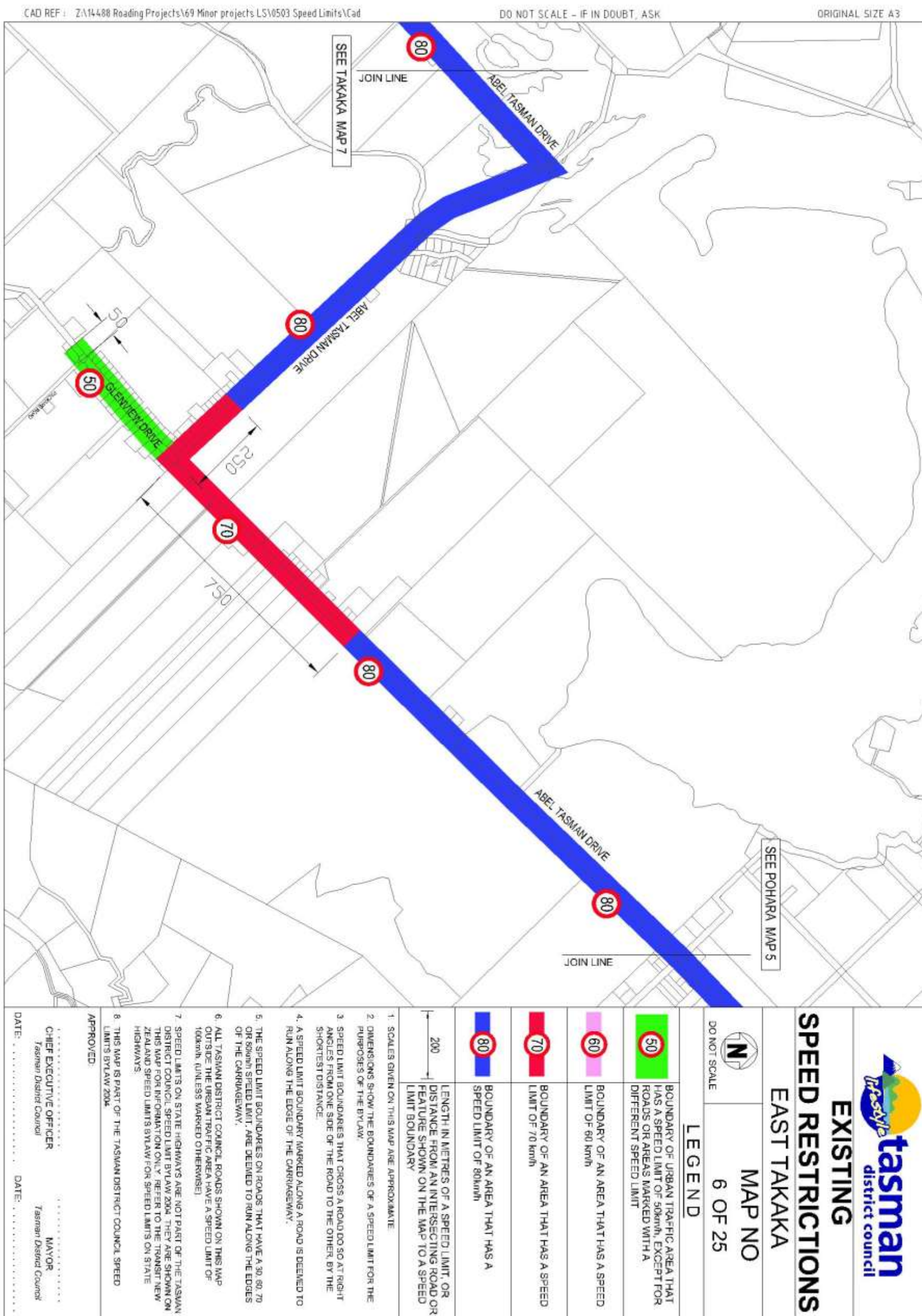


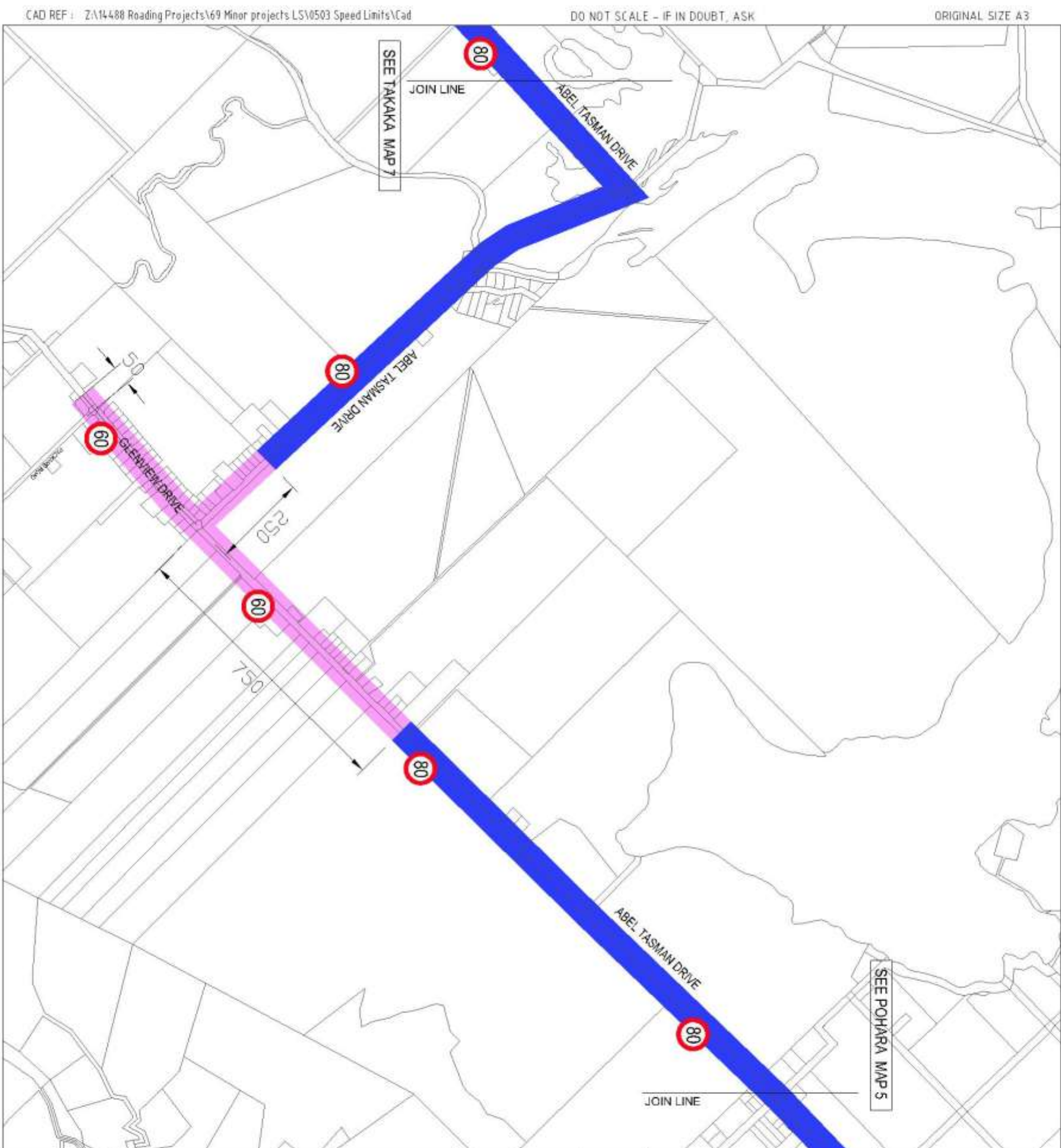




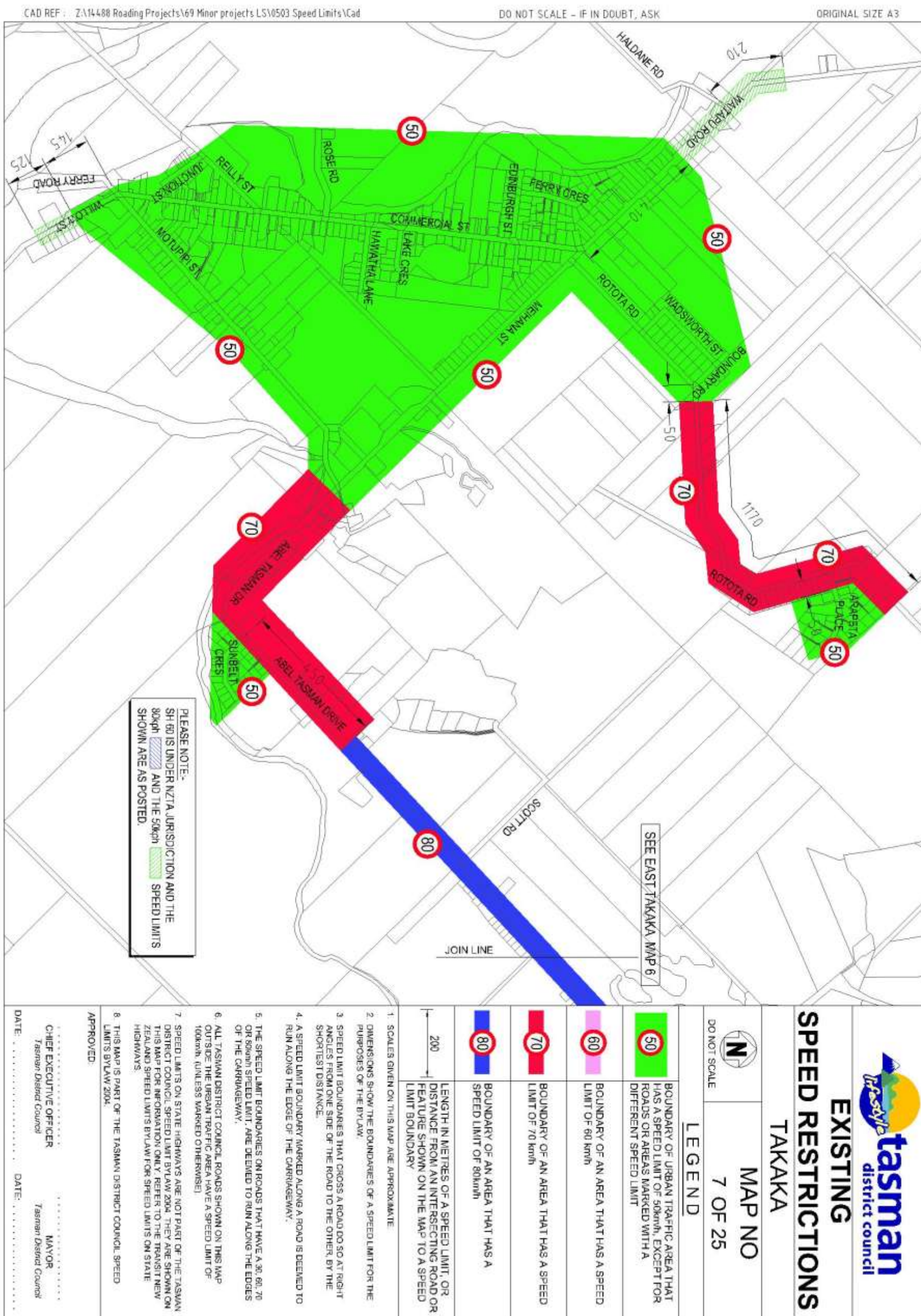


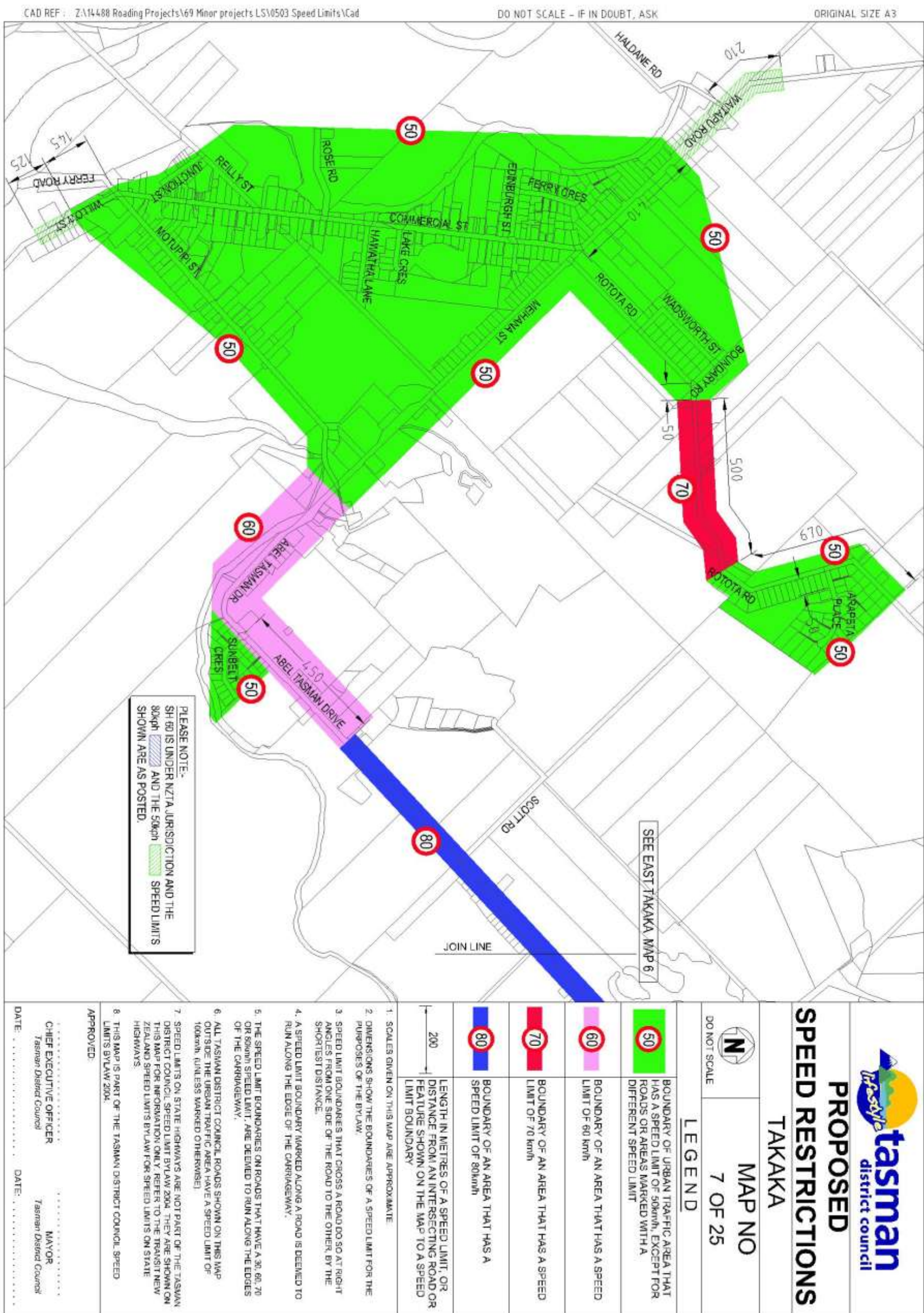


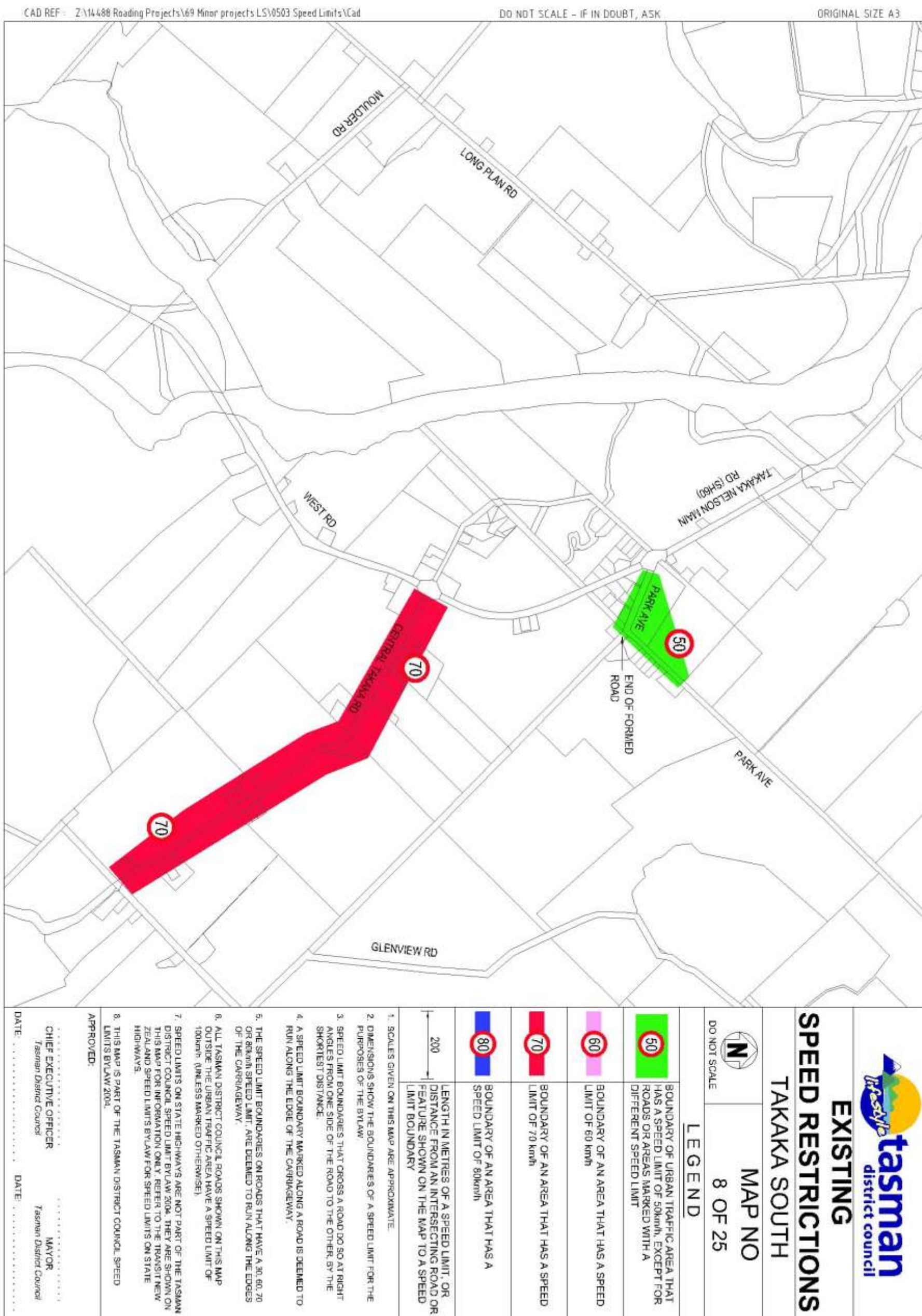


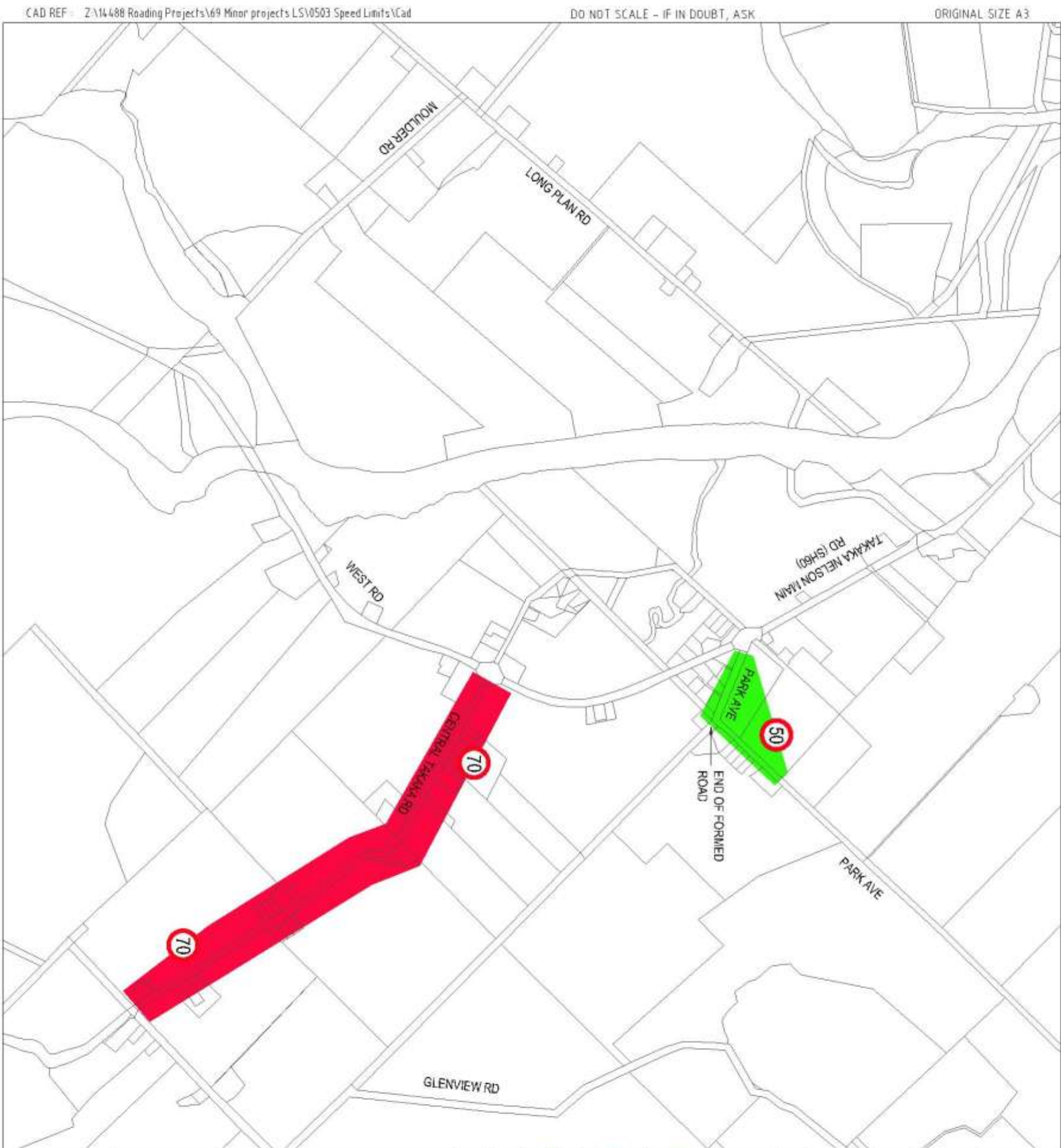


PROPOSED SPEED RESTRICTIONS EAST TAKAKA	
MAP NO 6 OF 25	
LEGEND	
 DO NOT SCALE	
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
1. SCALES GIVEN ON THIS MAP ARE APPROXIMATE 2. DIMENSIONS SHOW THE BOUNDARIES OF A SPEED LIMIT FOR THE PURPOSES OF THE BYLAW. 3. SPEED LIMIT BOUNDARIES THAT CROSS A ROAD DO SO AT RIGHT ANGLES FROM ONE SIDE OF THE ROAD TO THE OTHER, BY THE SHORTEST DISTANCE. 4. A SPEED LIMIT BOUNDARY MARKED ALONG A ROAD IS DEEMED TO RUN ALONG THE EDGE OF THE CARRIAGEWAY. 5. THE SPEED LIMIT BOUNDARIES ON ROADS THAT HAVE A 30, 60, 70 OR 80km/h SPEED LIMIT, ARE DEEMED TO RUN ALONG THE EDGES OF THE CARRIAGEWAY. 6. ALL TASMAN DISTRICT COUNCIL ROADS SHOWN ON THIS MAP OUTSIDE THE URBAN TRAFFIC AREA HAVE A SPEED LIMIT OF 100km/h, UNLESS MARKED OTHERWISE. 7. SPEED LIMITS ON STATE HIGHWAYS ARE NOT PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMIT BYLAW 2004. THEY ARE SHOWN ON THIS MAP FOR INFORMATION ONLY. REFER TO THE TRANSIT NEW ZEALAND SPEED LIMITS BYLAW FOR SPEED LIMITS ON STATE HIGHWAYS. 8. THIS MAP IS PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMITS BYLAW 2004.	
APPROVED:	
CHIEF EXECUTIVE OFFICER Tasman District Council	MAYOR Tasman District Council
DATE:	DATE:







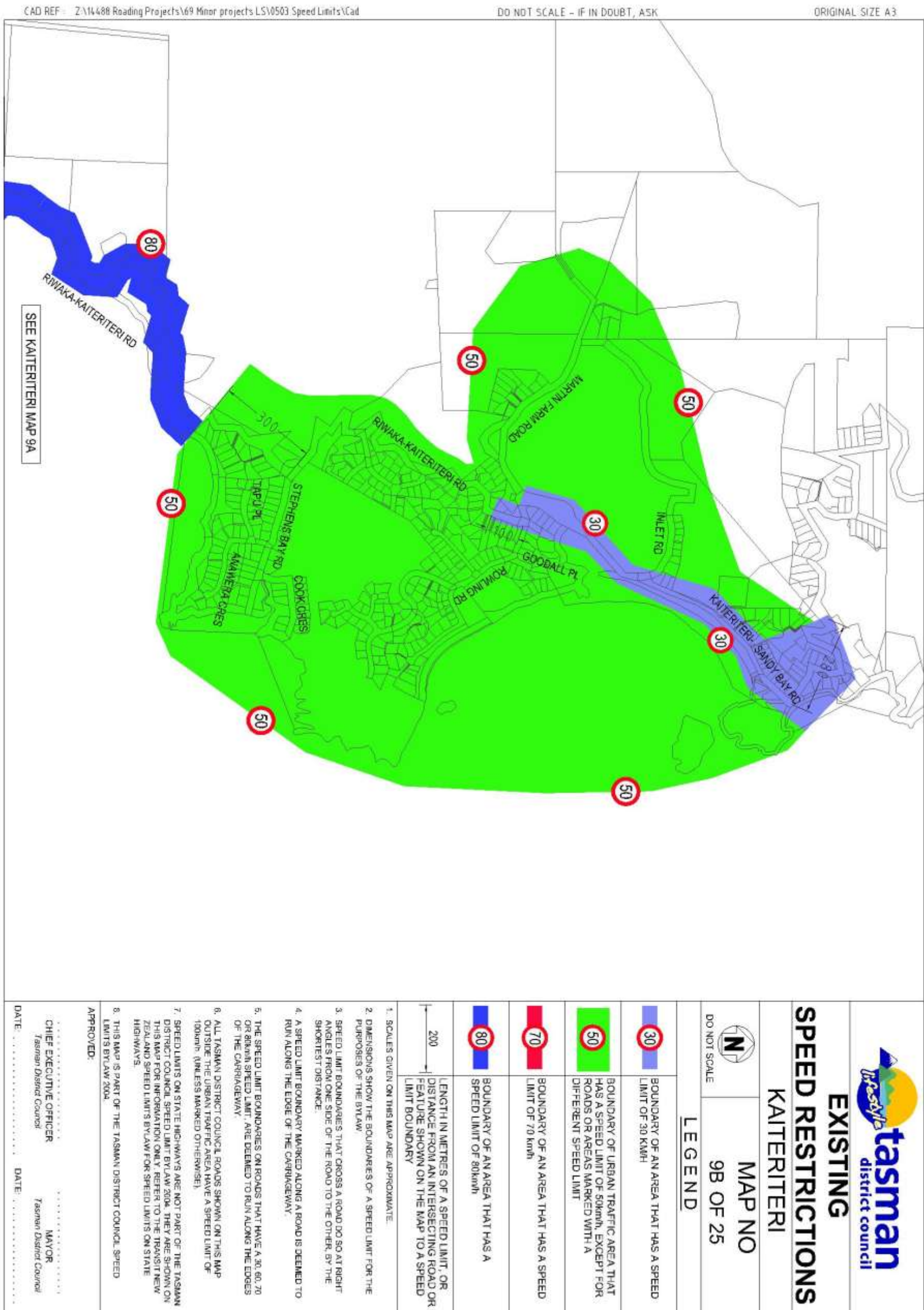


PROPOSED SPEED RESTRICTIONS TAKAKA SOUTH	
MAP NO 8 OF 25	
LEGEND	
	DO NOT SCALE
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
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APPROVED: _____ CHIEF EXECUTIVE OFFICER Tasman District Council	
_____ MAYOR Tasman District Council	
DATE: DATE:	

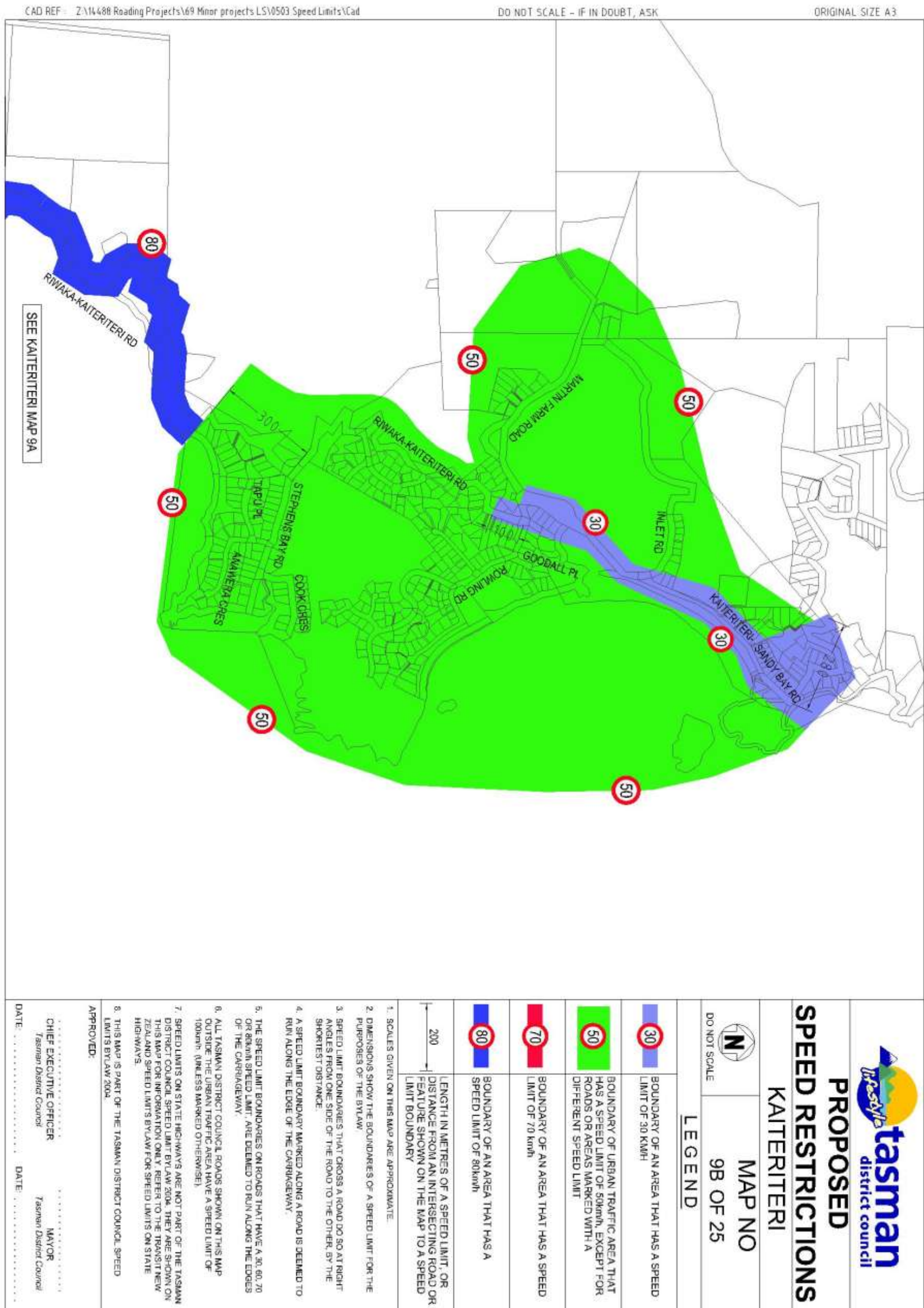
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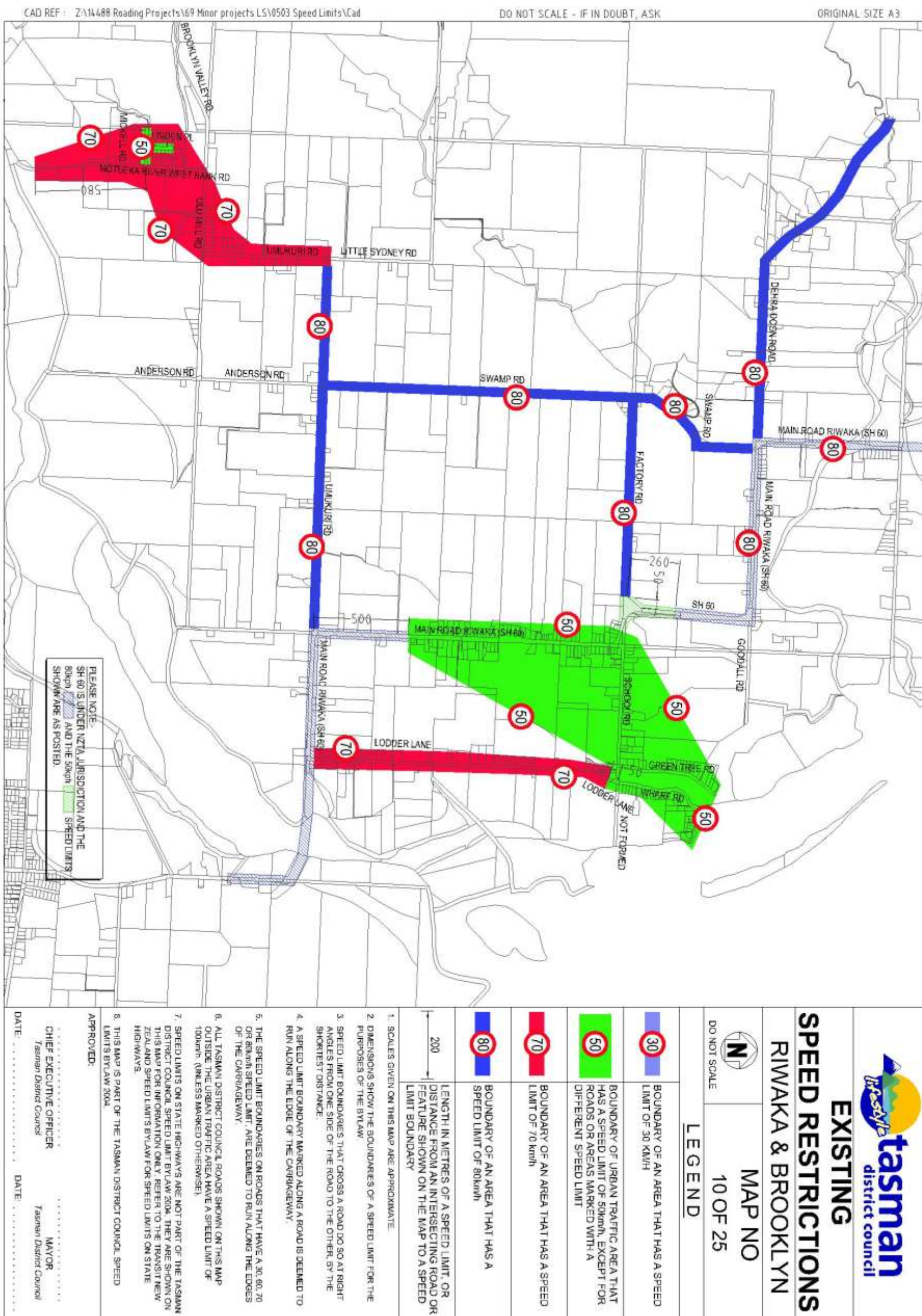
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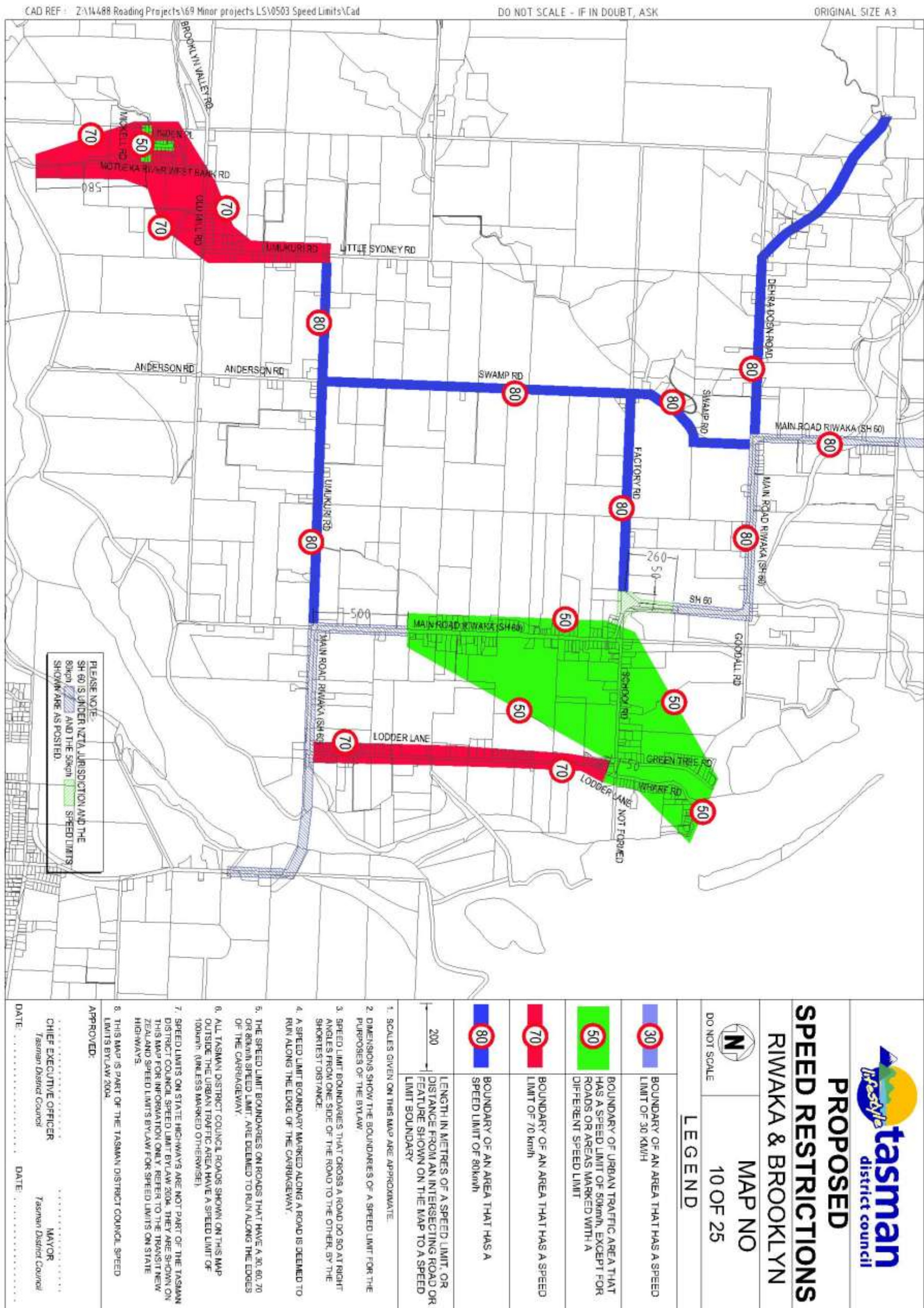
ORIGINAL SIZE A3

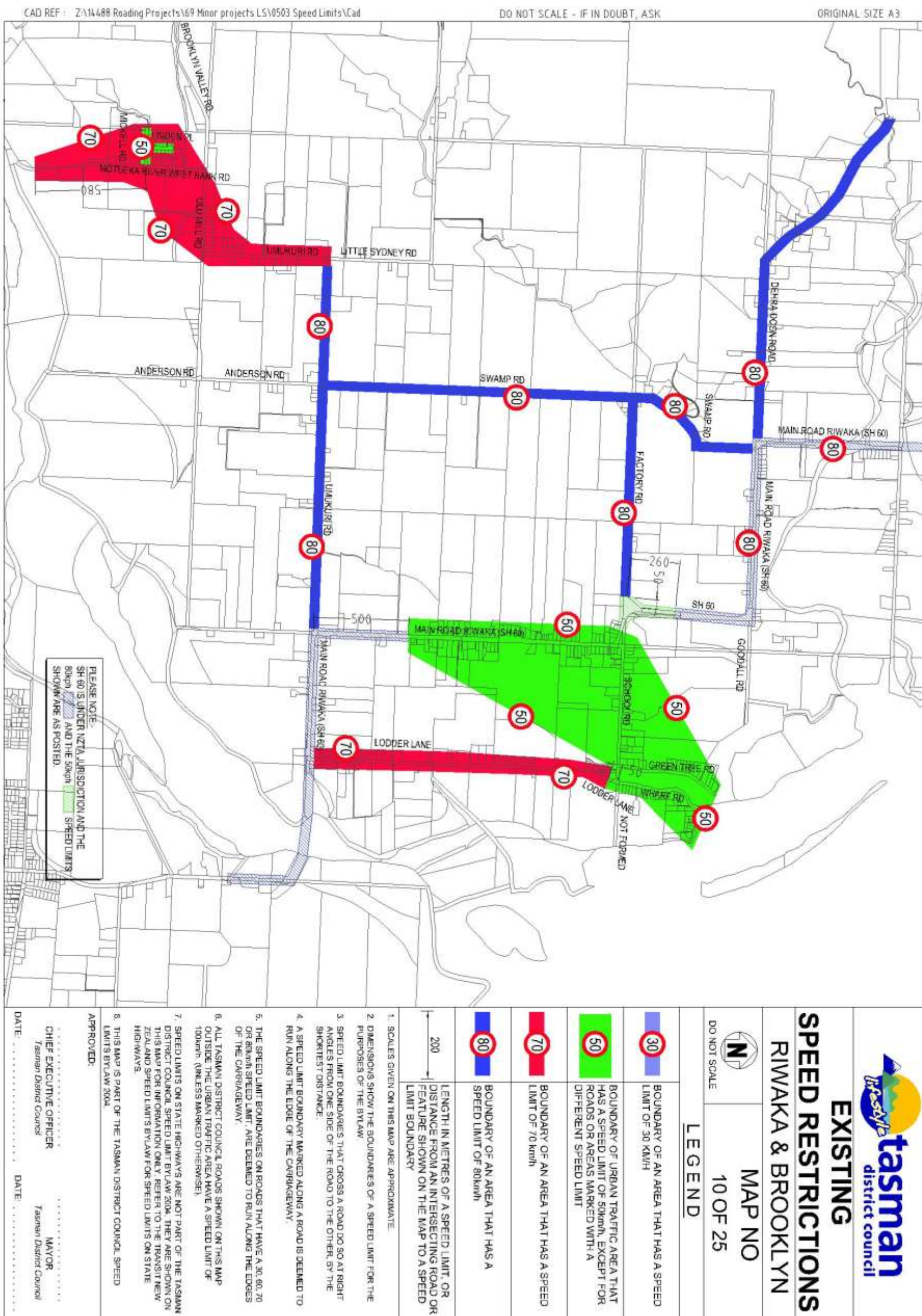


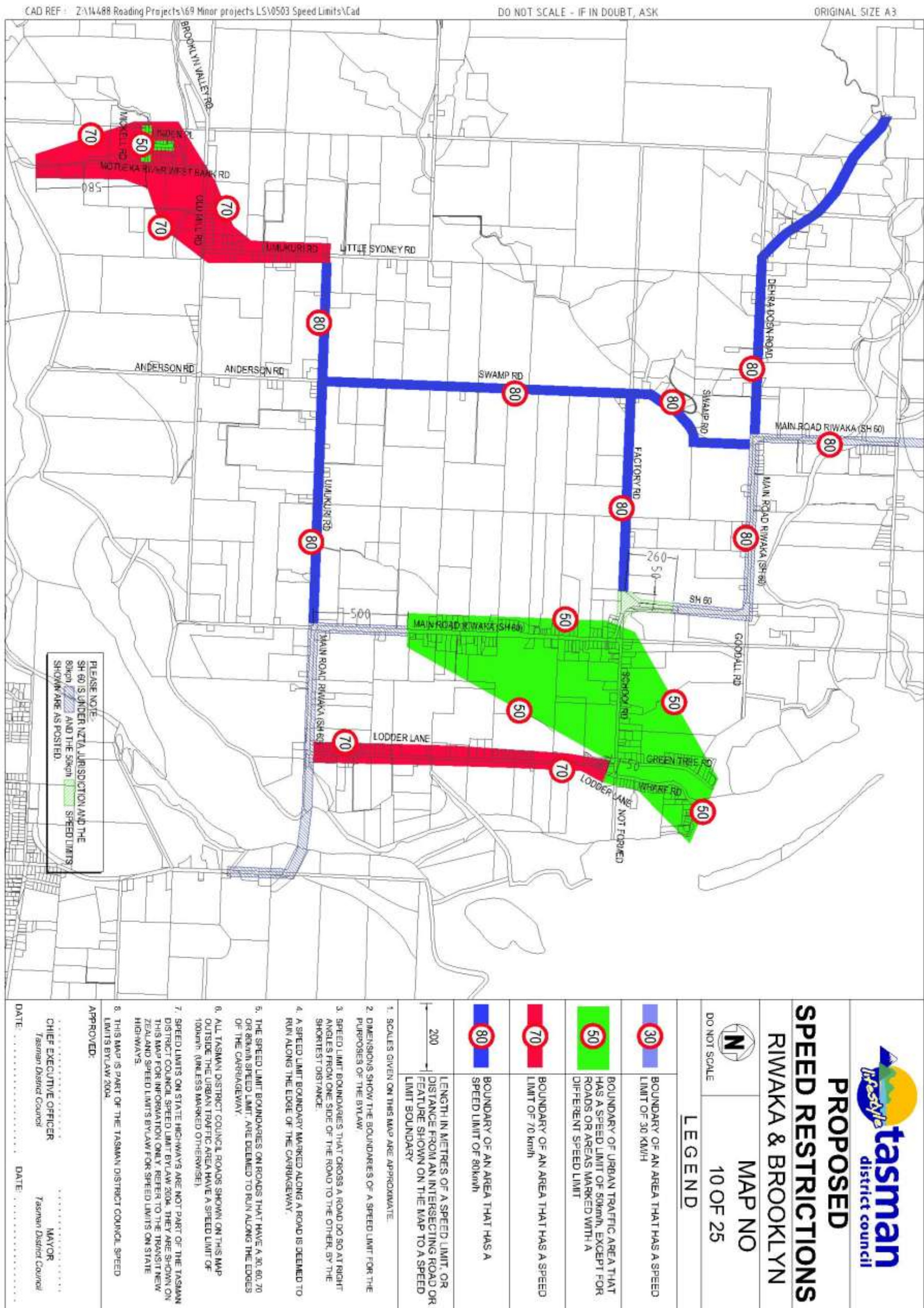


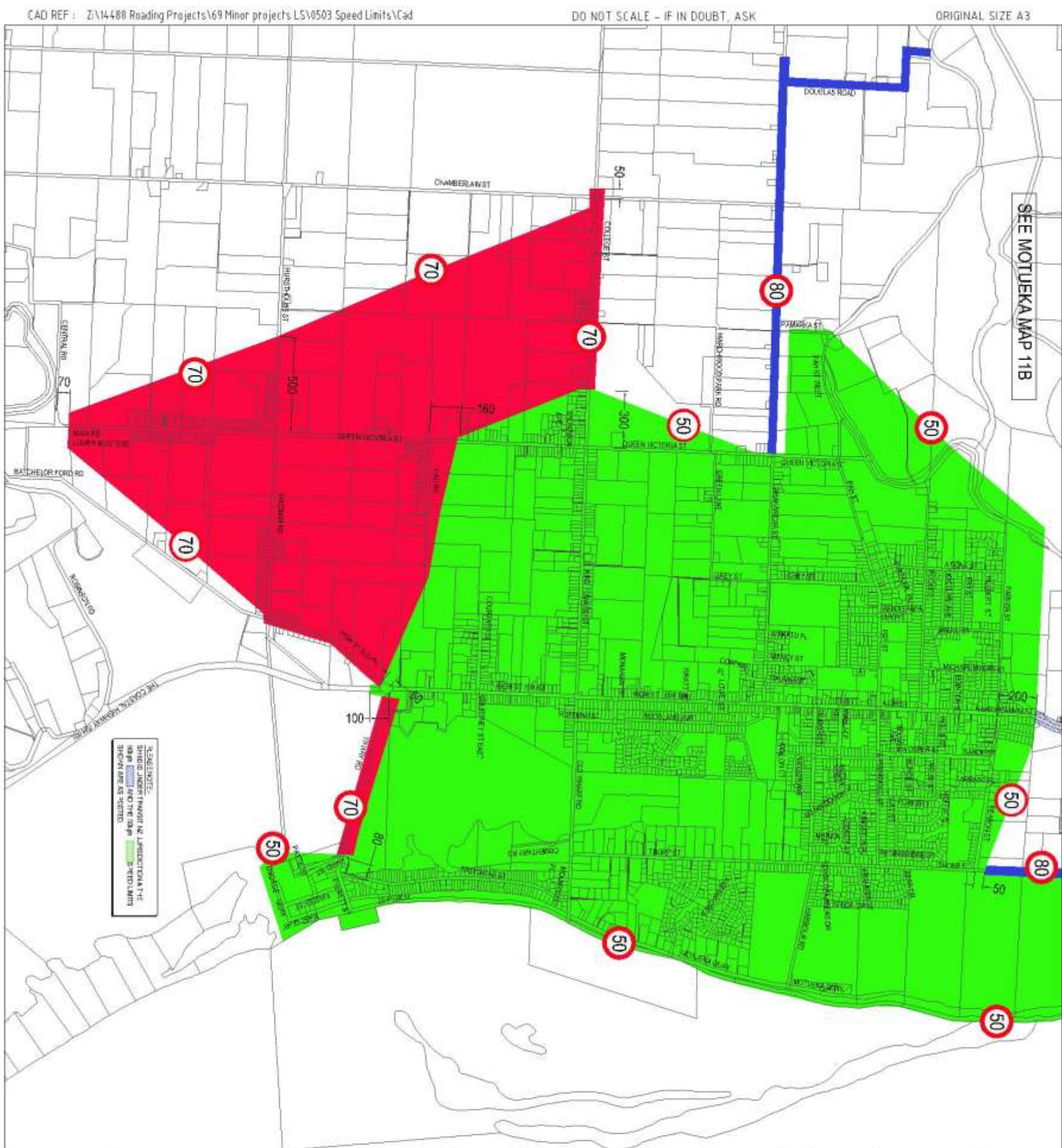












EXISTING
SPEED RESTRICTIONS
MOTUEKA NORTH & SOUTH
AND LOWER MOUTERE
MAP NO
11A OF 25

DO NOT SCALE

LEGEND

	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

1. SCALES GIVEN ON THIS MAP ARE APPROXIMATE
2. DIMENSIONS SHOW THE BOUNDARIES OF A SPEED LIMIT FOR THE PURPOSES OF THE BYLAW.
3. SPEED LIMIT BOUNDARIES THAT CROSS A ROAD DO SO AT RIGHT ANGLES FROM ONE SIDE OF THE ROAD TO THE OTHER, BY THE SHORTEST DISTANCE.
4. A SPEED LIMIT BOUNDARY MARKED ALONG A ROAD IS DEEMED TO RUN ALONG THE EDGE OF THE CARRIAGEWAY.
5. THE SPEED LIMIT BOUNDARIES ON ROADS THAT HAVE A 30, 50, 70 OR 80km/h SPEED LIMIT, ARE DEEMED TO RUN ALONG THE EDGES OF THE CARRIAGEWAY.
6. ALL TASMAN DISTRICT COUNCIL ROADS SHOWN ON THIS MAP OUTSIDE THE URBAN TRAFFIC AREA HAVE A SPEED LIMIT OF 100km/h, (UNLESS MARKED OTHERWISE).
7. SPEED LIMITS ON STATE HIGHWAYS ARE NOT PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMIT BYLAW 2004. THEY ARE SHOWN ON THIS MAP FOR INFORMATION ONLY. REFER TO THE TRANSPORT NEW ZEALAND SPEED LIMITS BYLAW FOR SPEED LIMITS ON STATE HIGHWAYS.
8. THIS MAP IS PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMITS BYLAW 2004.

APPROVED:

CHIEF EXECUTIVE OFFICER
Tasman District Council

MAJOR
Tasman District Council

DATE: DATE:

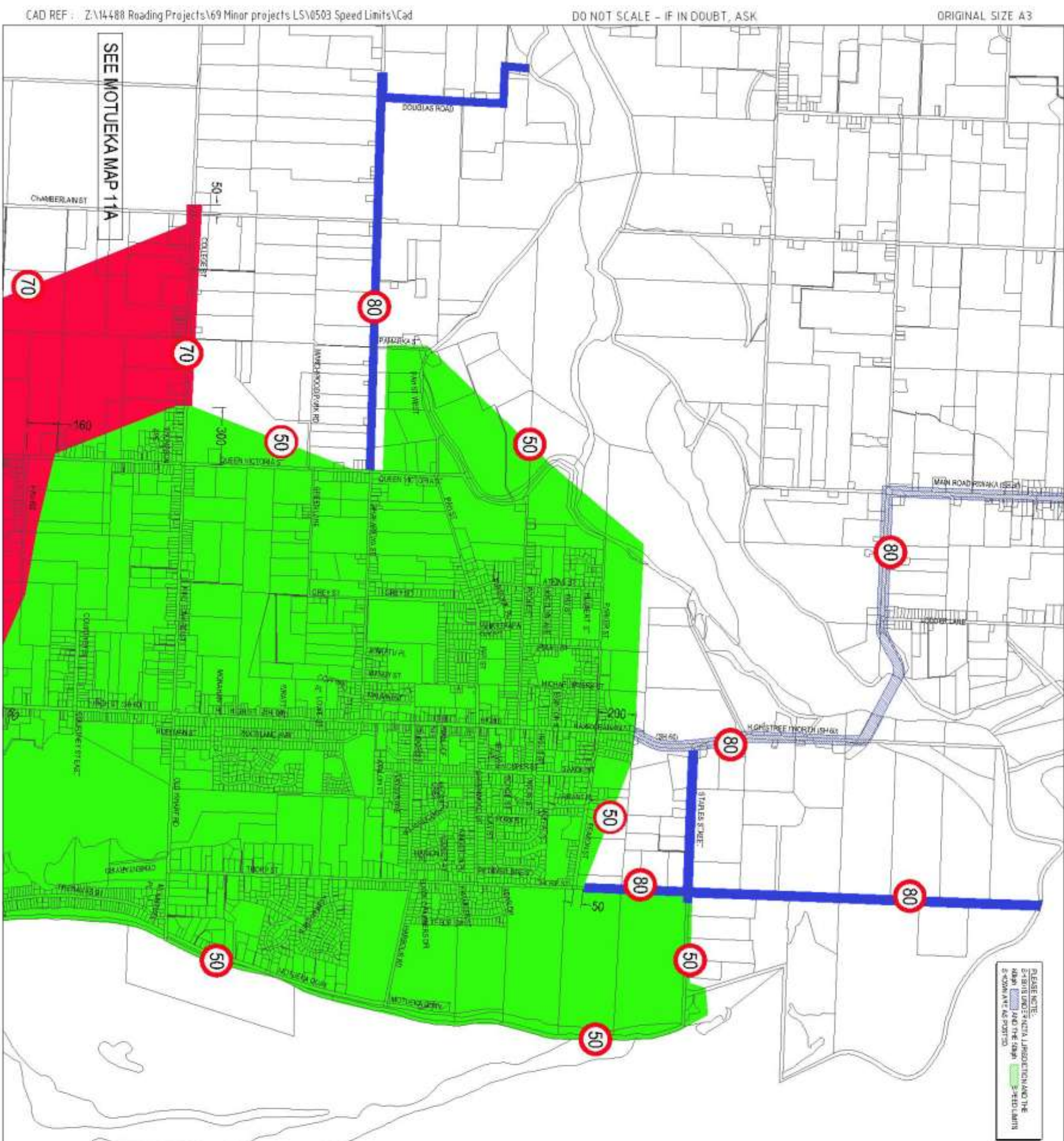
CAD REF : Z:\14488 Roading Projects\69 Minor projects LS\0503 Speed Limits\Cad

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3

SEE MOTUEKA MAP 11B

PLEASE NOTE:
SHADE UNDER TRAFFIC LIGHTS INDICATES THE 30 KM/H AND THE 50 KM/H SPEED LIMITS SHOWN ARE AS NOTED.



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EXISTING
SPEED RESTRICTIONS

MOTUEKA NORTH & SOUTH
AND LOWER MOTUERE

MAP NO
11B OF 25

DO NOT SCALE

LEGEND

PLEASE NOTE:
THE SHOWN JURISDICTION AND THE
MAP AND THE SHOWN SPEED LIMITS
DO NOT APPLY TO ALL ROADS.

	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

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APPROVED:

CHIEF EXECUTIVE OFFICER
Tasman District Council

DATE:

MAYOR
Tasman District Council

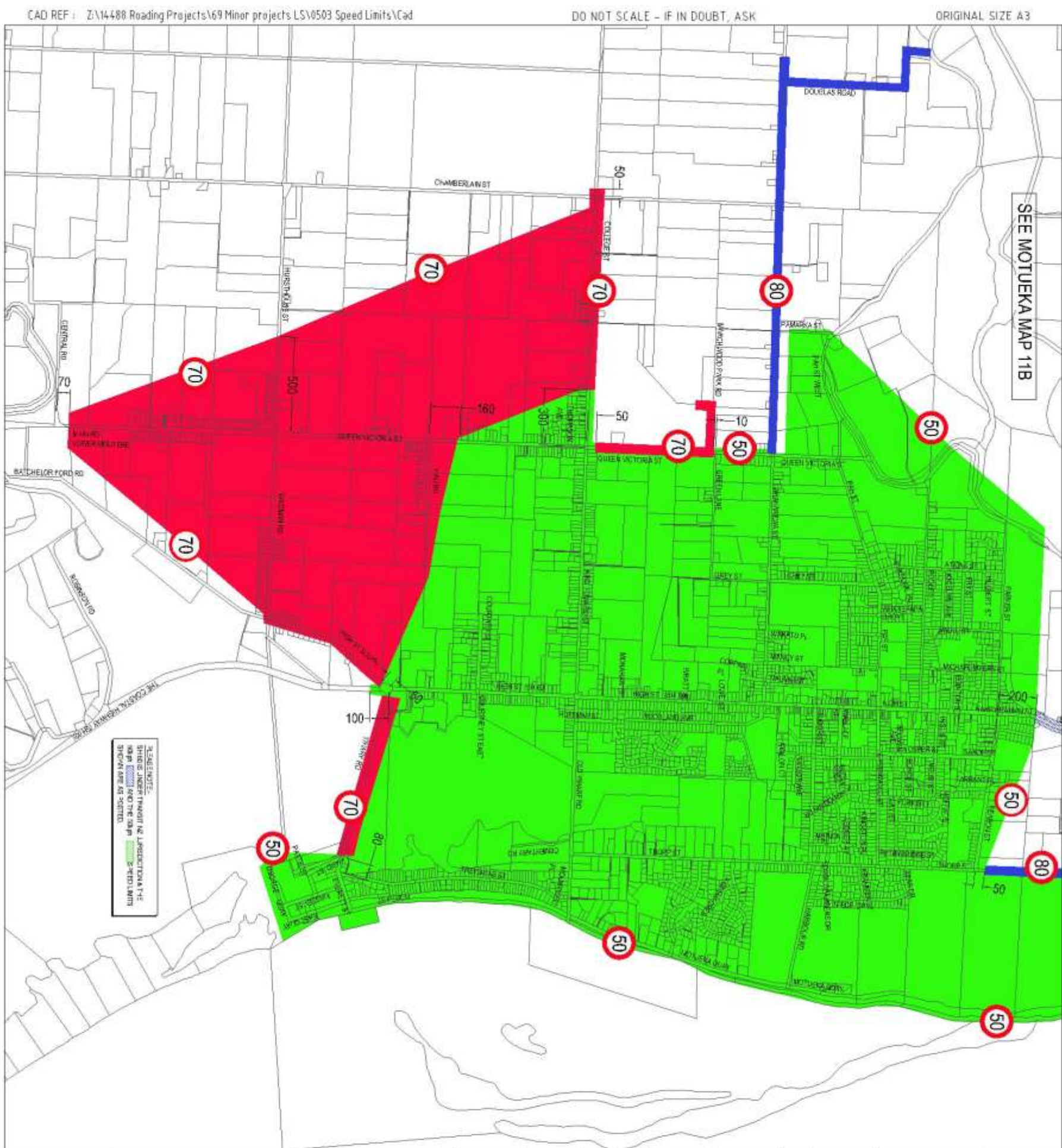
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CAD REF : Z:\14488 Roading Projects\69 Minor projects\LS\0503 Speed Limits\Cad

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3

SEE MOTUEKA MAP 11A



PROPOSED
SPEED RESTRICTIONS
MOTUEKA NORTH & SOUTH
AND LOWER MOUTERE

MAP NO
11A OF 25

DO NOT SCALE

LEGEND

	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h

LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

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8. THIS MAP IS PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMITS BYLAW 2004.

APPROVED:

CHIEF EXECUTIVE OFFICER
Tasman District Council

MAJOR
Tasman District Council

DATE: DATE:

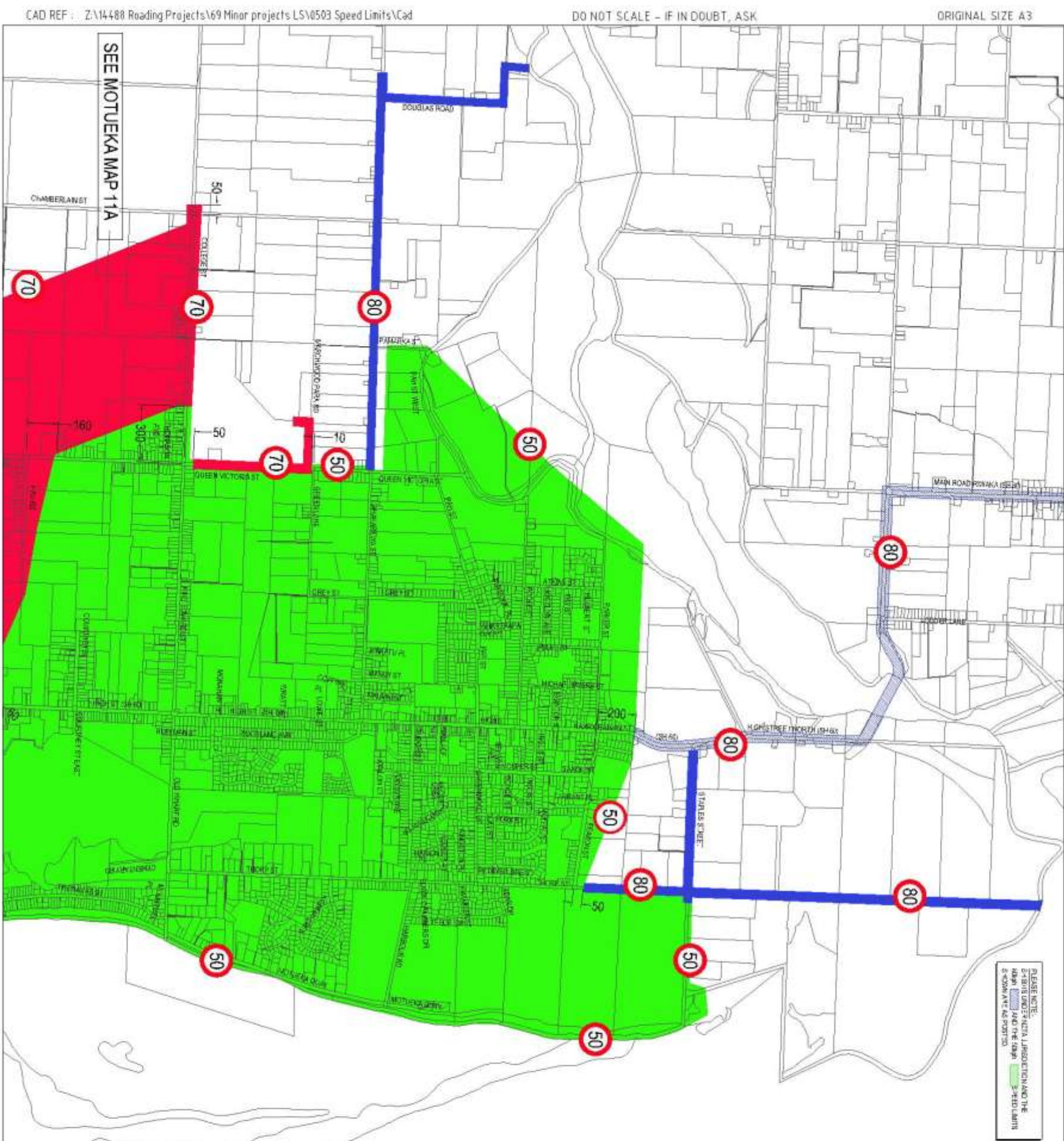
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DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3

SEE MOTUEKA MAP 11B

PLEASE NOTE:
SPEED LIMITS SHOWN IN THIS MAP ARE NOT PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMIT BYLAW 2004. THEY ARE SHOWN ON THIS MAP FOR INFORMATION ONLY. REFER TO THE TRANSPORT NEW ZEALAND SPEED LIMITS BYLAW FOR SPEED LIMITS ON STATE HIGHWAYS.



tasman
district council

PROPOSED
SPEED RESTRICTIONS
MOTUEKA NORTH & SOUTH
AND LOWER MOTUERE

MAP NO
11B OF 25

DO NOT SCALE

LEGEND

	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h

200

LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

PLEASE NOTE:
2-BIT LINES INDICATE THE MAIN ROAD AND THE SHARED 5-KM/H AREAS.

1. SCALES GIVEN ON THIS MAP ARE APPROXIMATE
2. DIMENSIONS SHOW THE BOUNDARIES OF A SPEED LIMIT FOR THE PURPOSES OF THE BYLAW.
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APPROVED:

CHIEF EXECUTIVE OFFICER Tasman District Council	MAYOR Tasman District Council
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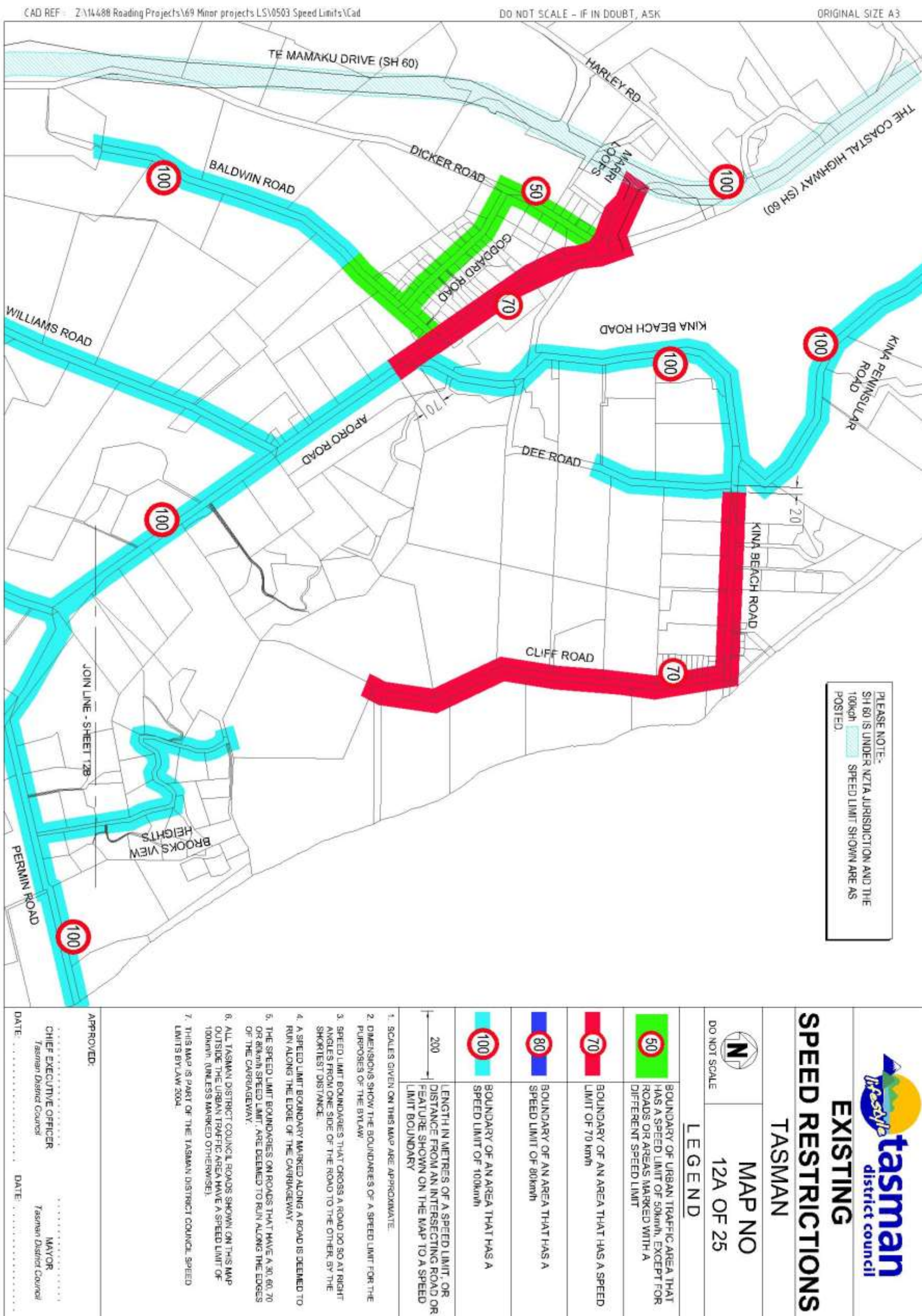
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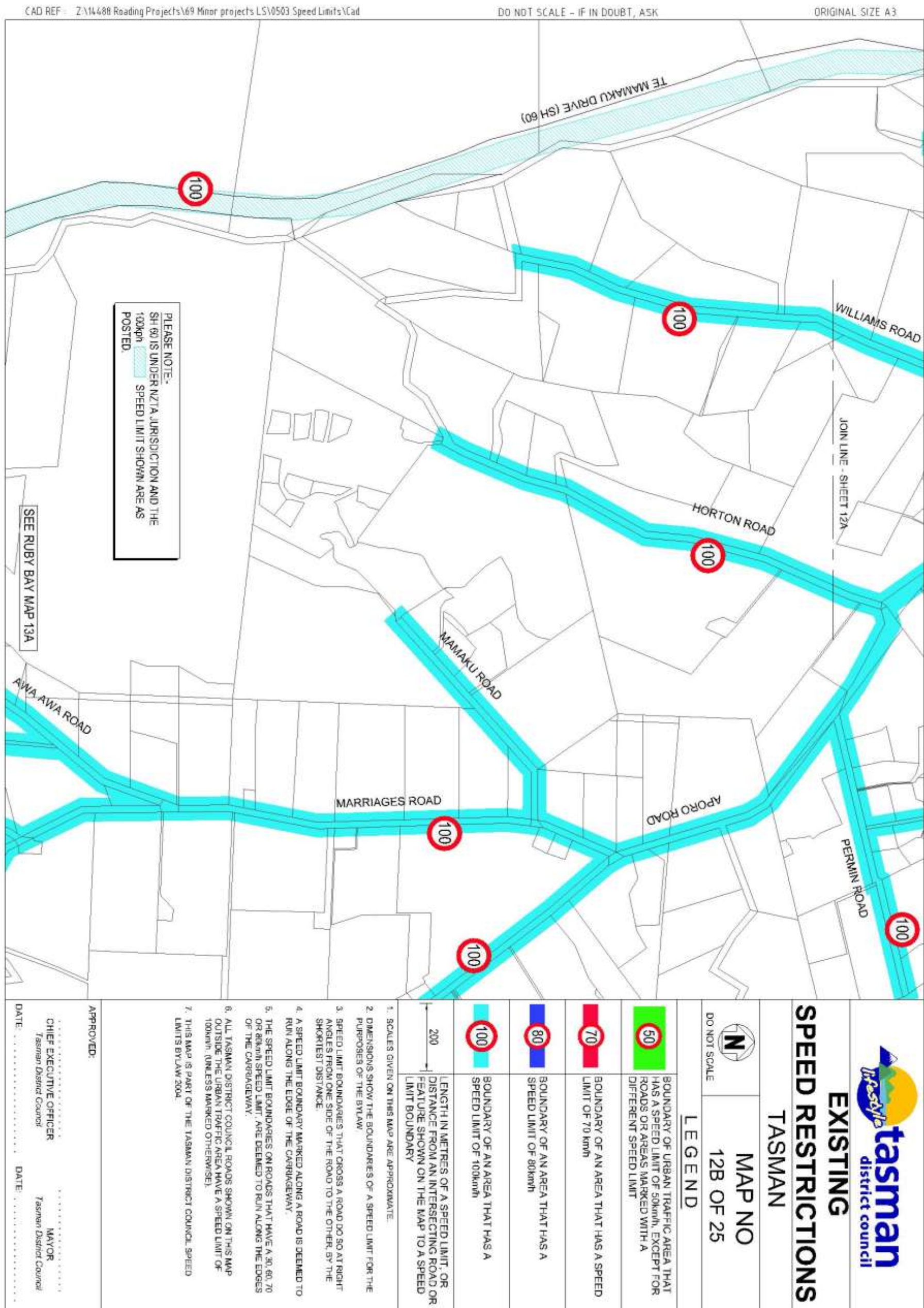
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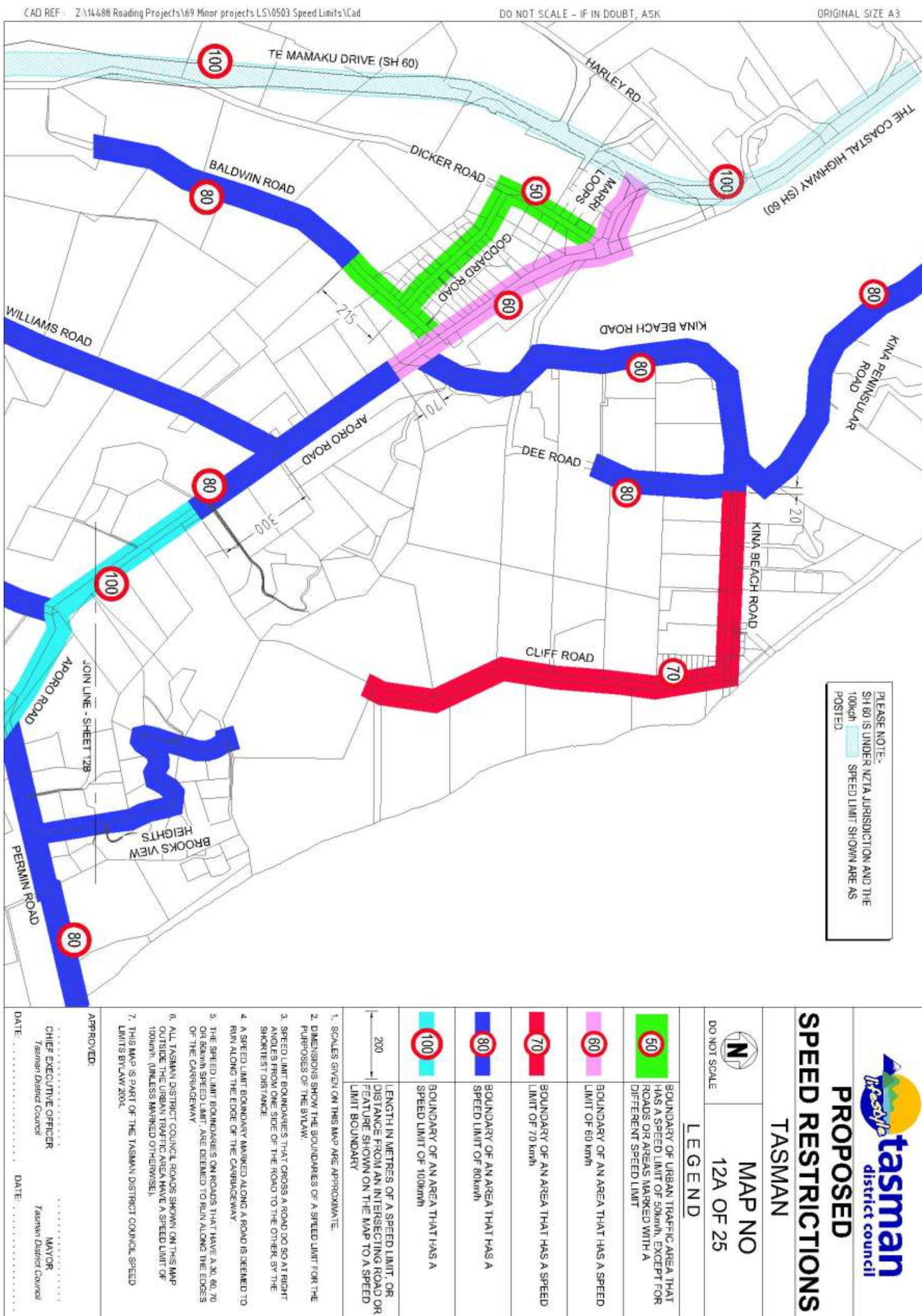
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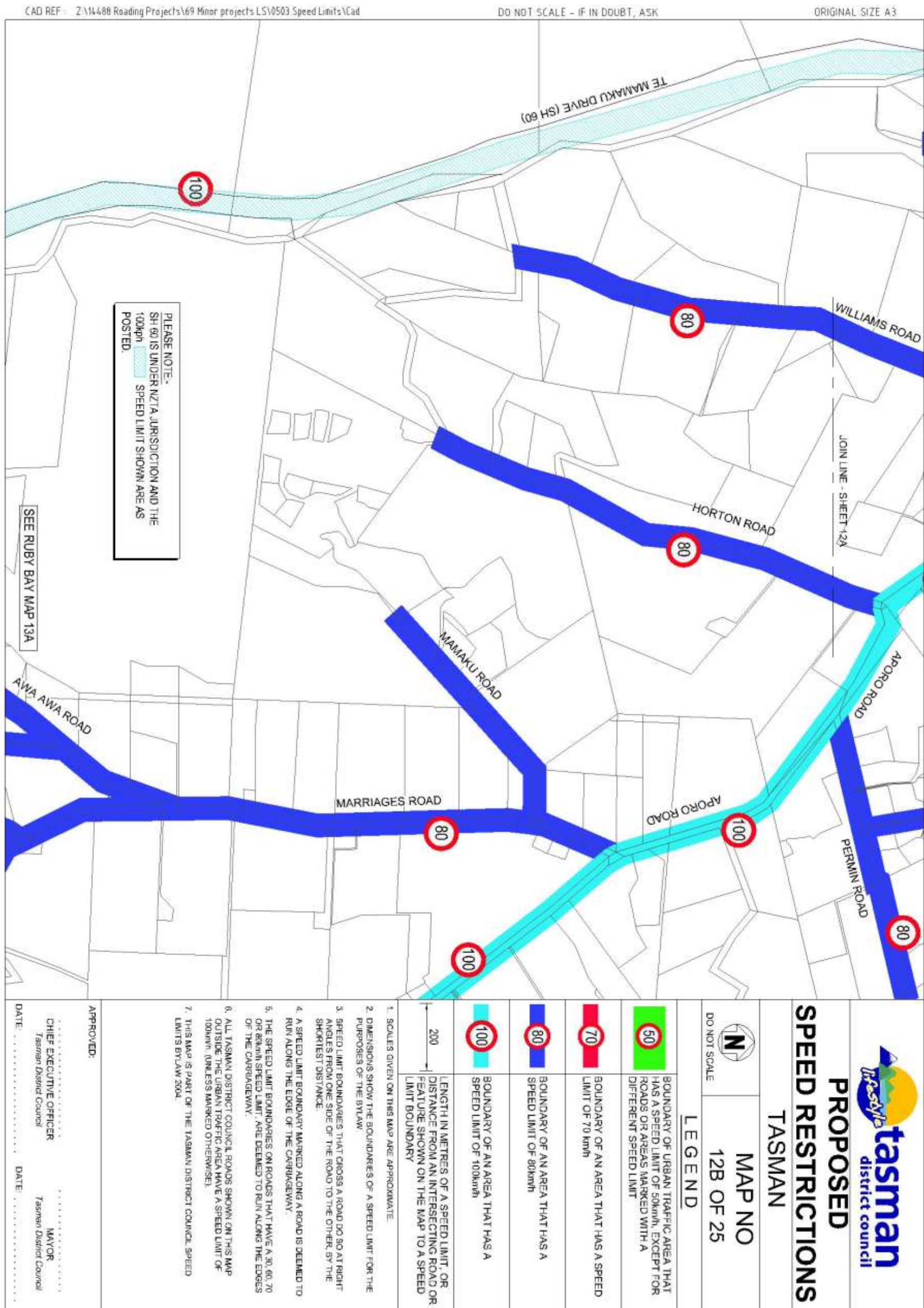
ORIGINAL SIZE A3

SEE MOTUEKA MAP 11A









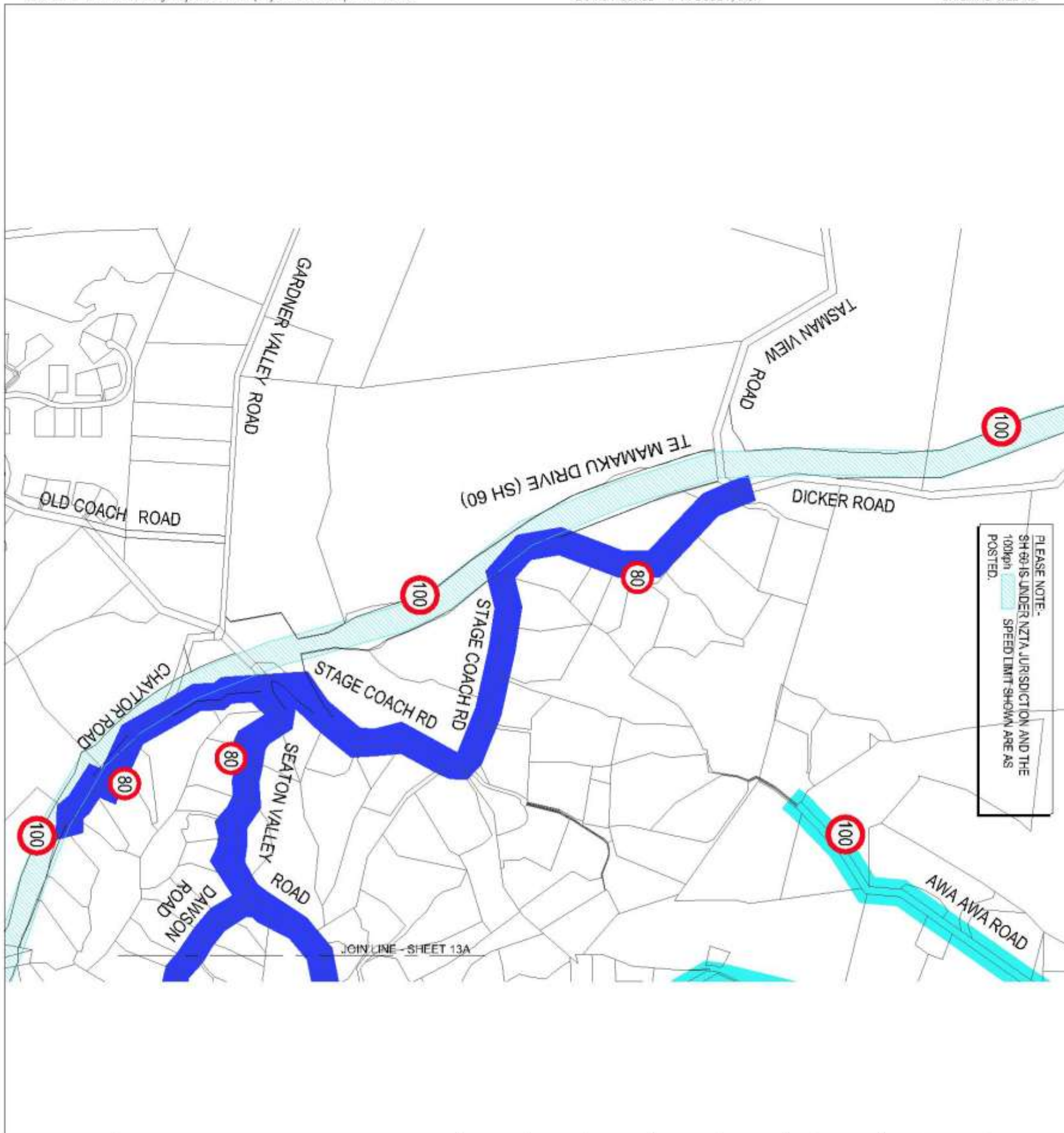


EXISTING SPEED RESTRICTIONS RUBY BAY	
MAP NO 13A OF 25	
LEGEND	
 DO NOT SCALE	
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 100km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
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APPROVED:	CHIEF EXECUTIVE OFFICER Tasman District Council
DATE:	MAYOR Tasman District Council

CAD REF: Z:\14488 Roading Projects\69 Minor projects\LS\0503 Speed Limits\Cad

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3



PLEASE NOTE - SH 60 IS UNDER NZTA JURISDICTION AND THE 100km/h SPEED LIMIT SHOWN ARE AS POSTED.



EXISTING SPEED RESTRICTIONS

RUBY BAY

MAP NO

13B OF 25

LEGEND

DO NOT SCALE



50
BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT

70
BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h

80
BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h

100
BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 100km/h

200
LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

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8. THIS MAP IS PART OF THE TASMAN DISTRICT COUNCIL SPEED LIMITS BYLAW 2004.

APPROVED:
 CHIEF EXECUTIVE OFFICER
 Tasman District Council
 MAYOR
 Tasman District Council

DATE: DATE:

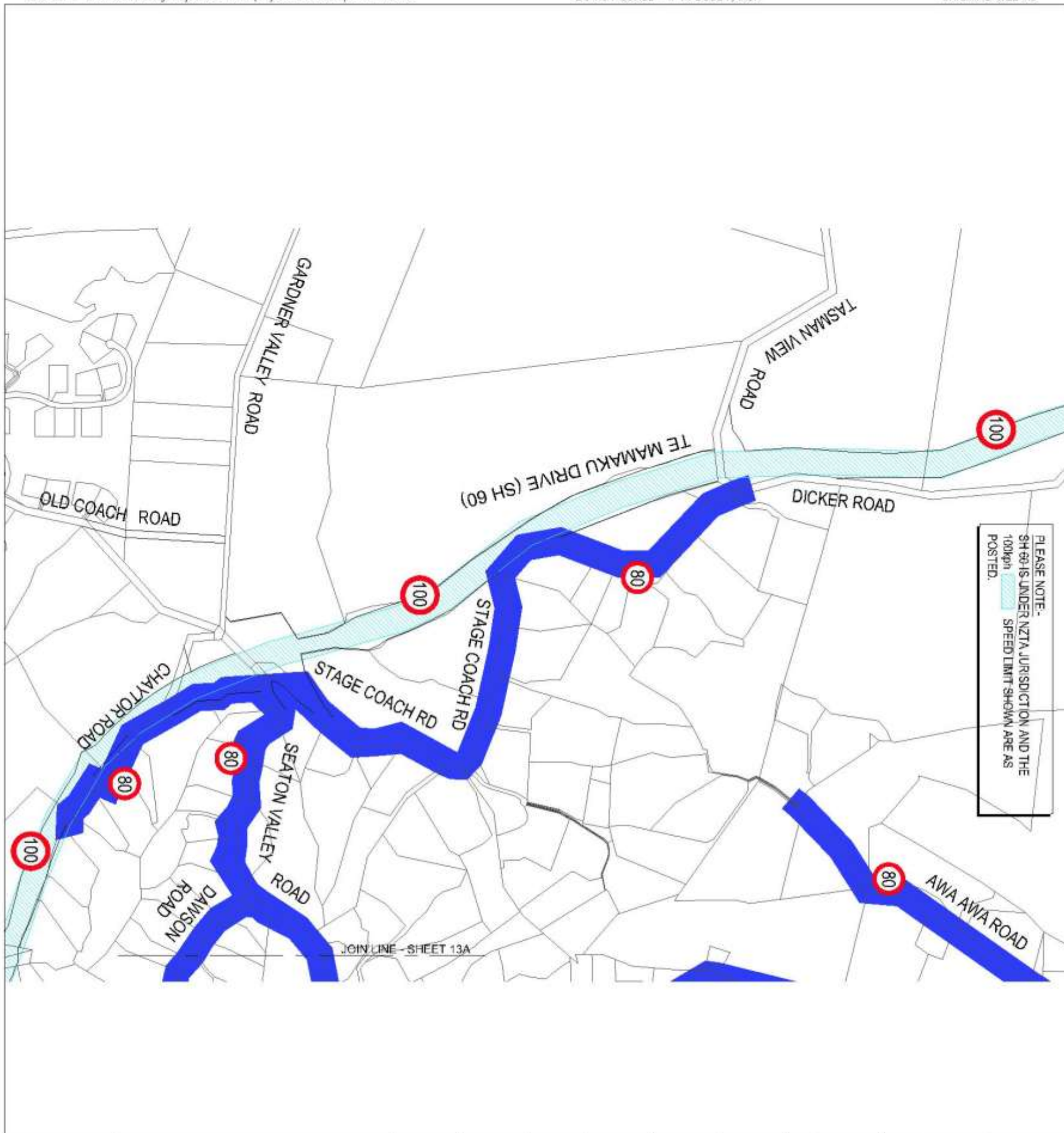


PROPOSED SPEED RESTRICTIONS RUBY BAY	
MAP NO 13A OF 25	
 DO NOT SCALE	
LEGEND	
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 100km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
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APPROVED:	CHIEF EXECUTIVE OFFICER Tasman District Council
DATE:	MAYOR Tasman District Council

CAD REF: Z:\14488 Rooding Projects\69 Minor projects\LS\0503 Speed Limits\Cad

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3



PLEASE NOTE - SH 60 IS UNDER NZTA JURISDICTION AND THE 100km/h SPEED LIMIT SHOWN ARE AS POSTED.



PROPOSED SPEED RESTRICTIONS

RUBY BAY

MAP NO

13B OF 25



DO NOT SCALE


LEGEND


 BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT

 BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h

 BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h

 BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h

 BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 100km/h

 LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY

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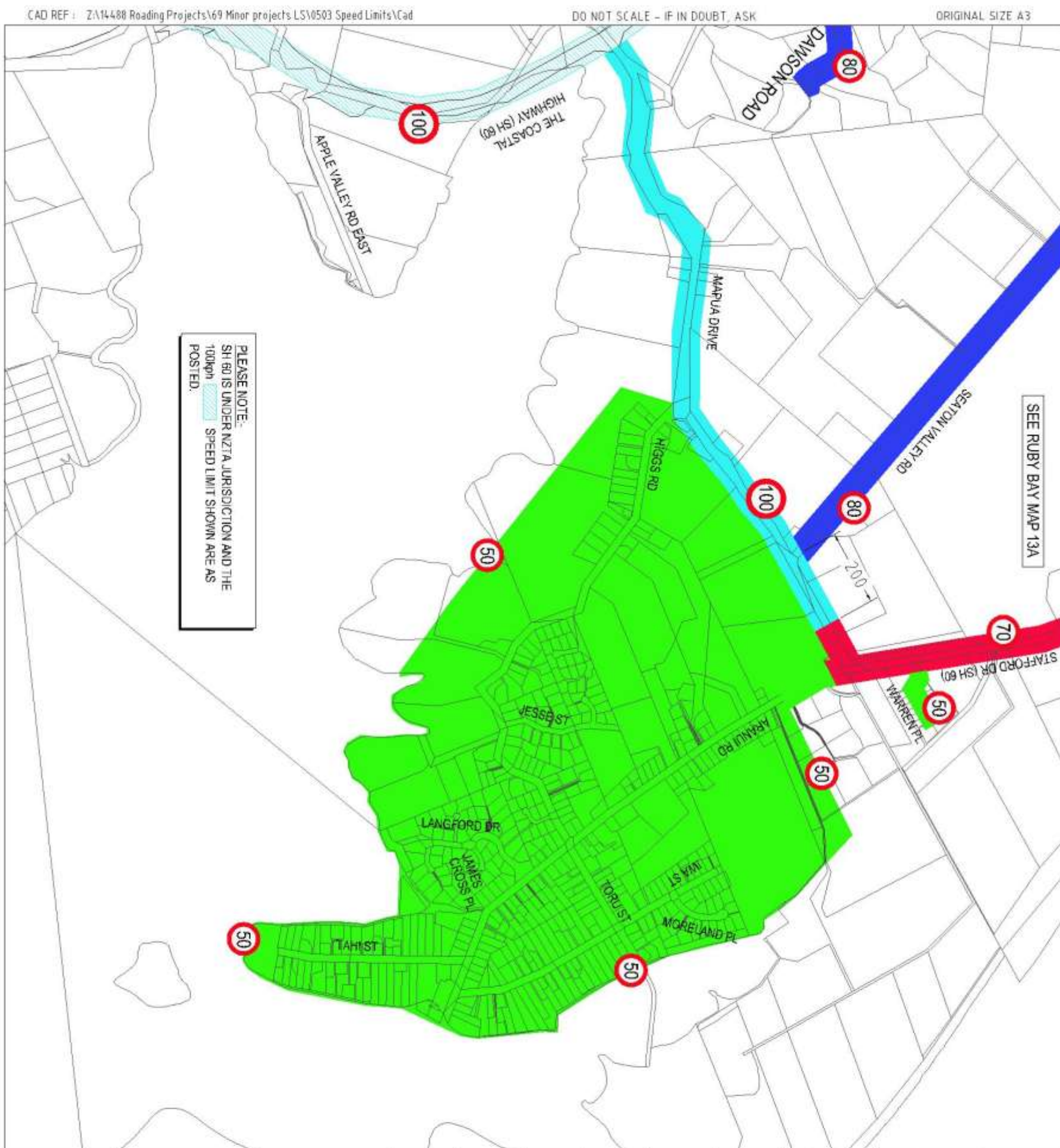
APPROVED:

CHIEF EXECUTIVE OFFICER
Tasman District Council

DATE:

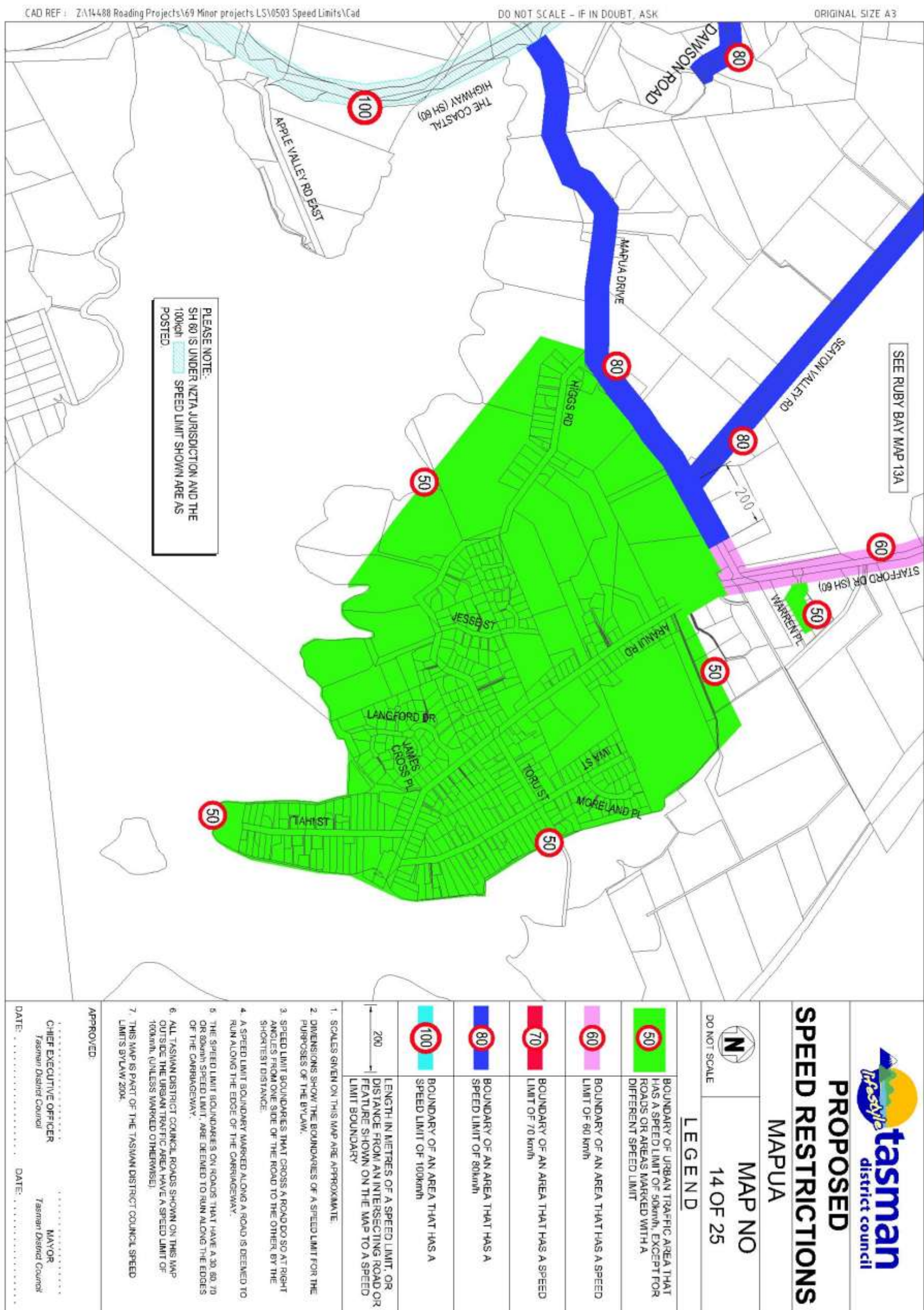
MAYOR
Tasman District Council

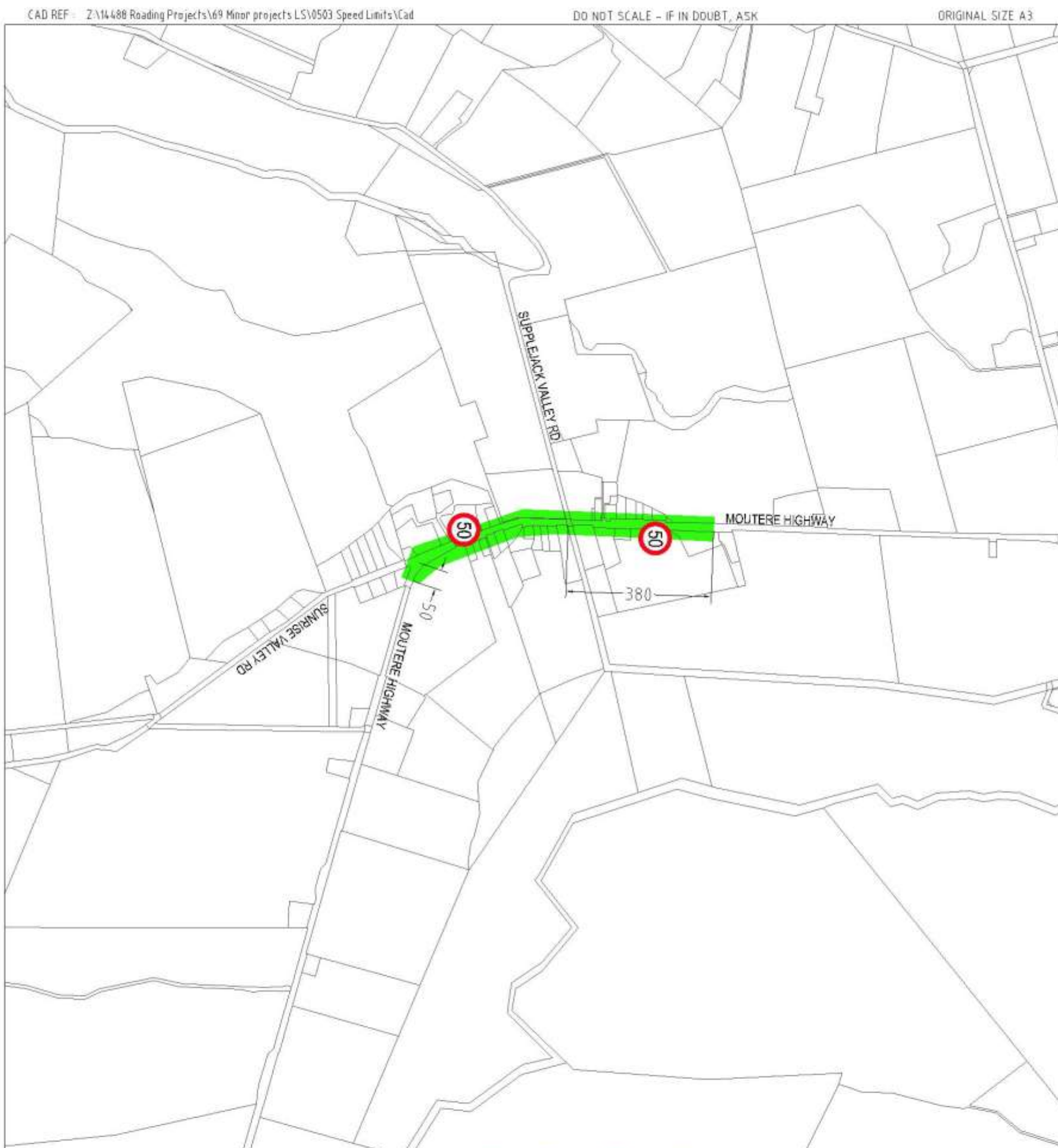
DATE:



PLEASE NOTE:
SH 60 IS UNDER NZTA JURISDICTION AND THE 100km/h SPEED LIMIT SHOWN ARE AS POSTED.

<p>EXISTING SPEED RESTRICTIONS MAPUA</p>	
<p>MAP NO 14 OF 25</p>	
<p>DO NOT SCALE</p>	
<p>LEGEND</p>	
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 100km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
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<p>APPROVED:</p> <p>CHIEF EXECUTIVE OFFICER Tasman District Council</p> <p>DATE:</p>	<p>MAJOR Tasman District Council</p> <p>DATE:</p>



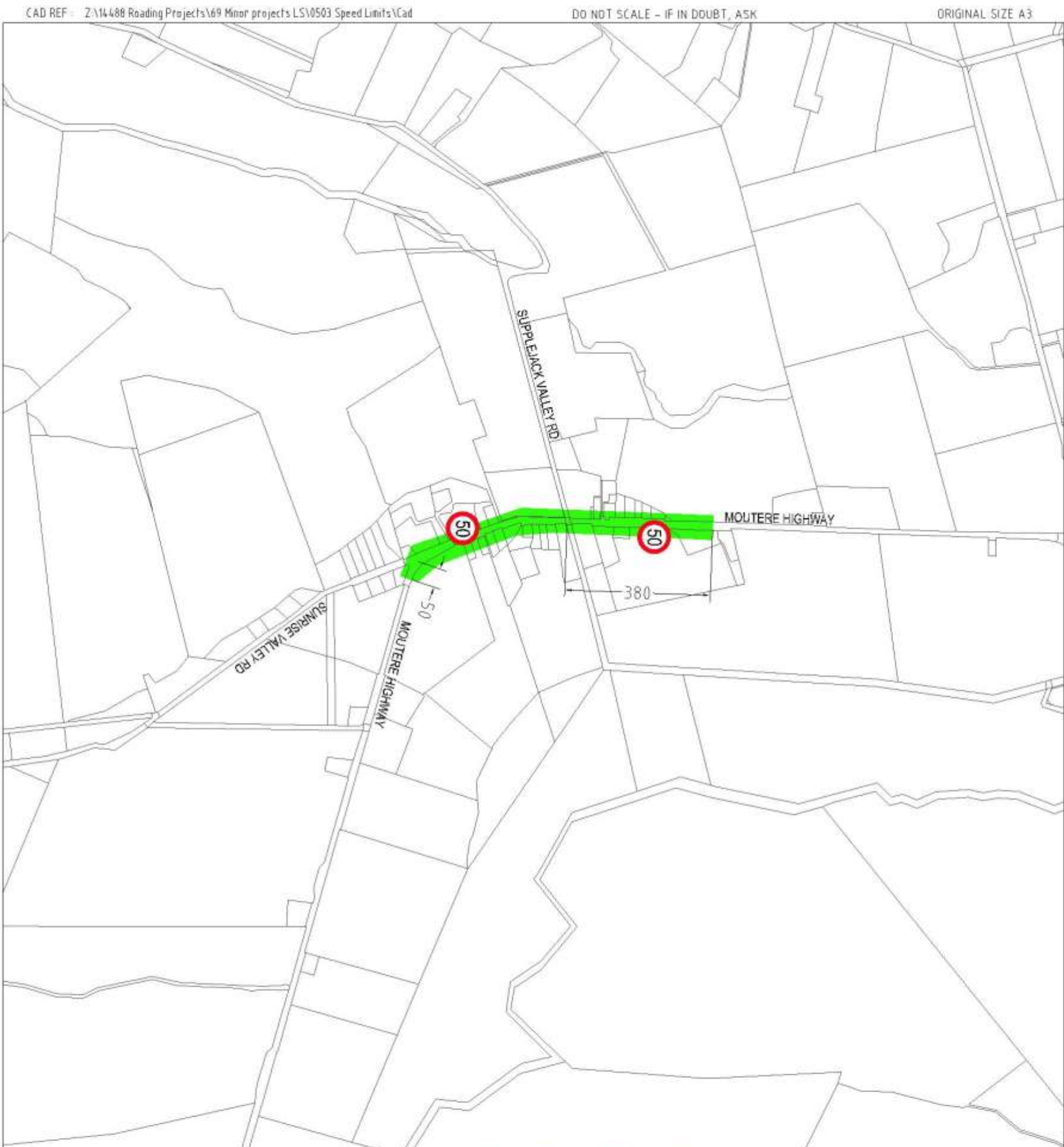


EXISTING SPEED RESTRICTIONS UPPER MOUTERE	
 DO NOT SCALE	MAP NO 15 OF 25
LEGEND	
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h. EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
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APPROVED:	CHIEF EXECUTIVE OFFICER Tasman District Council
DATE:	MAYOR Tasman District Council

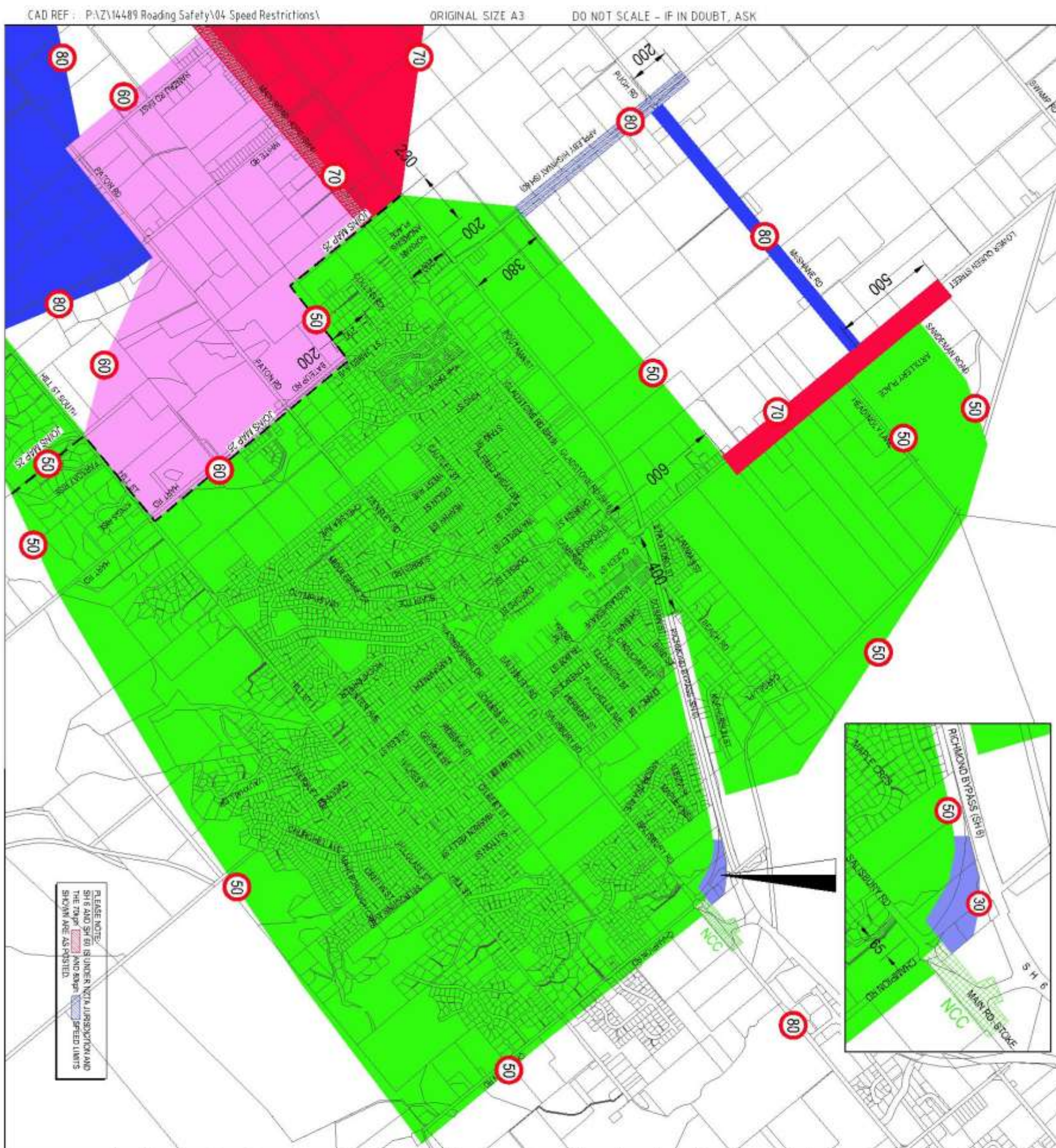
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DO NOT SCALE - IF IN DOUBT, ASK

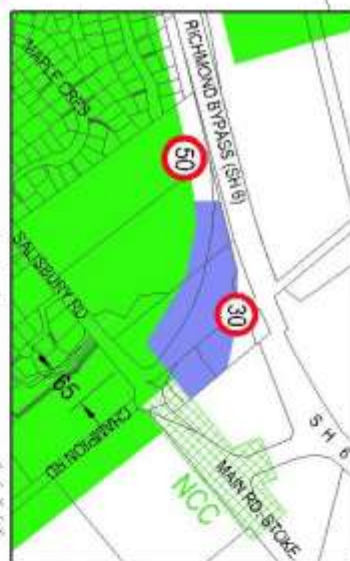
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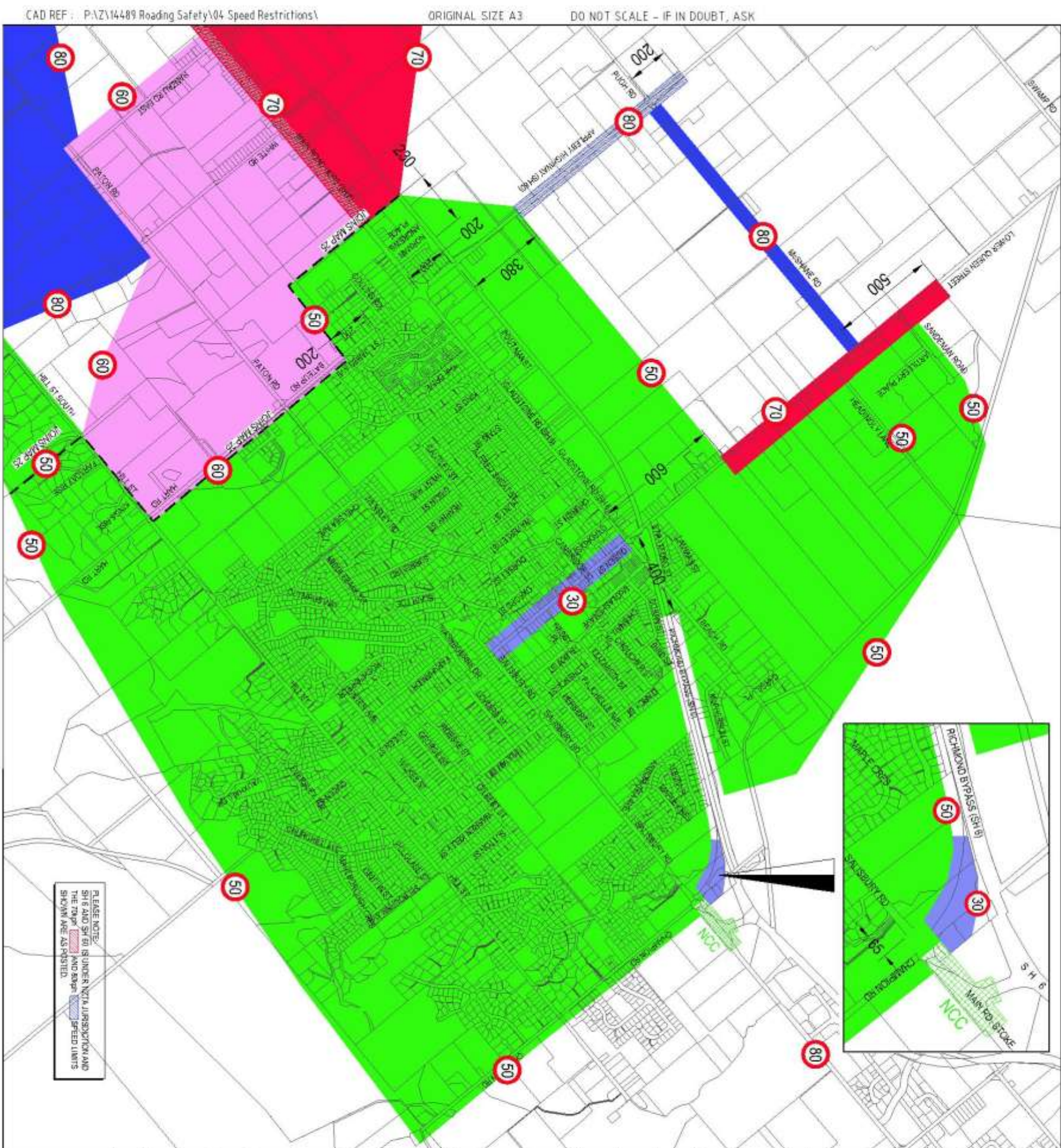
PROPOSED SPEED RESTRICTIONS UPPER MOUTERE	
MAP NO 15 OF 25	
DO NOT SCALE 	
LEGEND	
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	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
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APPROVED:	
CHIEF EXECUTIVE OFFICER <i>Tasman District Council</i>	MAYOR <i>Tasman District Council</i>
DATE:	DATE:



PLEASE NOTE:
SH 6 AND SH 60 IS UNDER NZTA JURISDICTION AND THE TRIP, 80 AND 50km/h SPEED LIMITS SHOWN ARE AS POSTED.

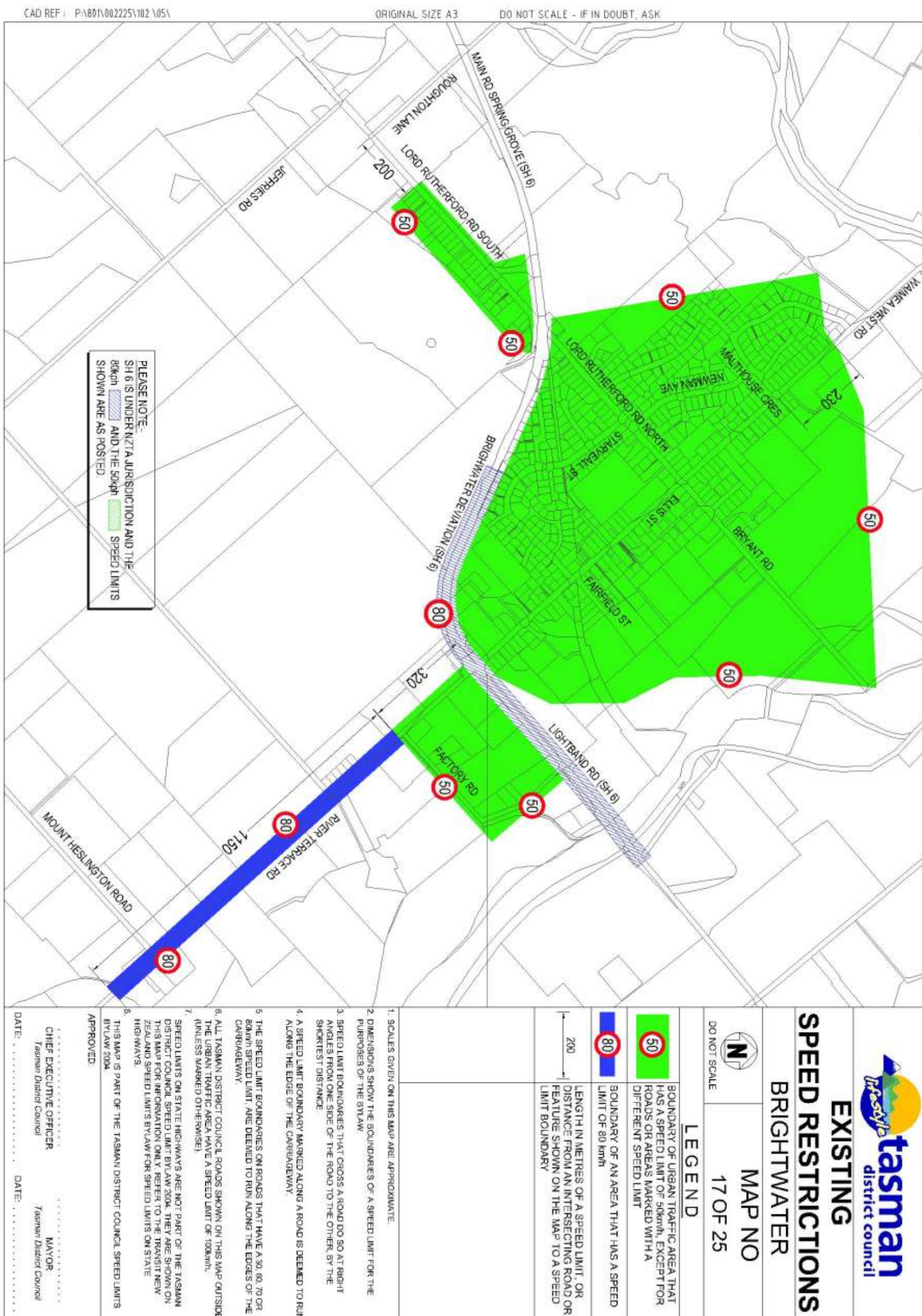


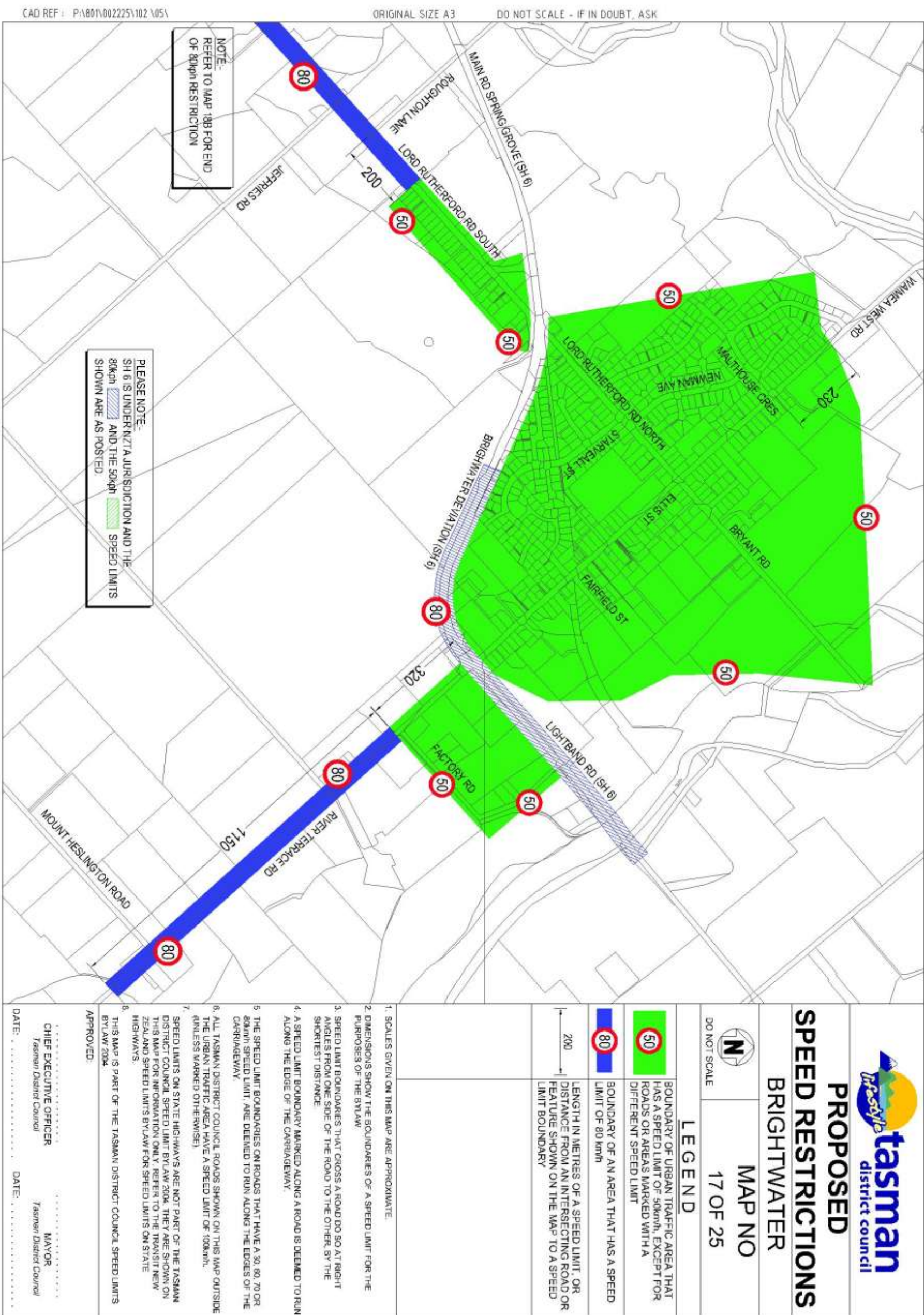
EXISTING SPEED RESTRICTIONS RICHMOND NORTH & SOUTH	
MAP NO 16 OF 25	
 DO NOT SCALE	
LEGEND	
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 50km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 km/h
	LENGTH IN METRES OF A SPEED LIMIT, OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
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APPROVED:	CHIEF EXECUTIVE OFFICER Tasman District Council
DATE:	MAYOR Tasman District Council

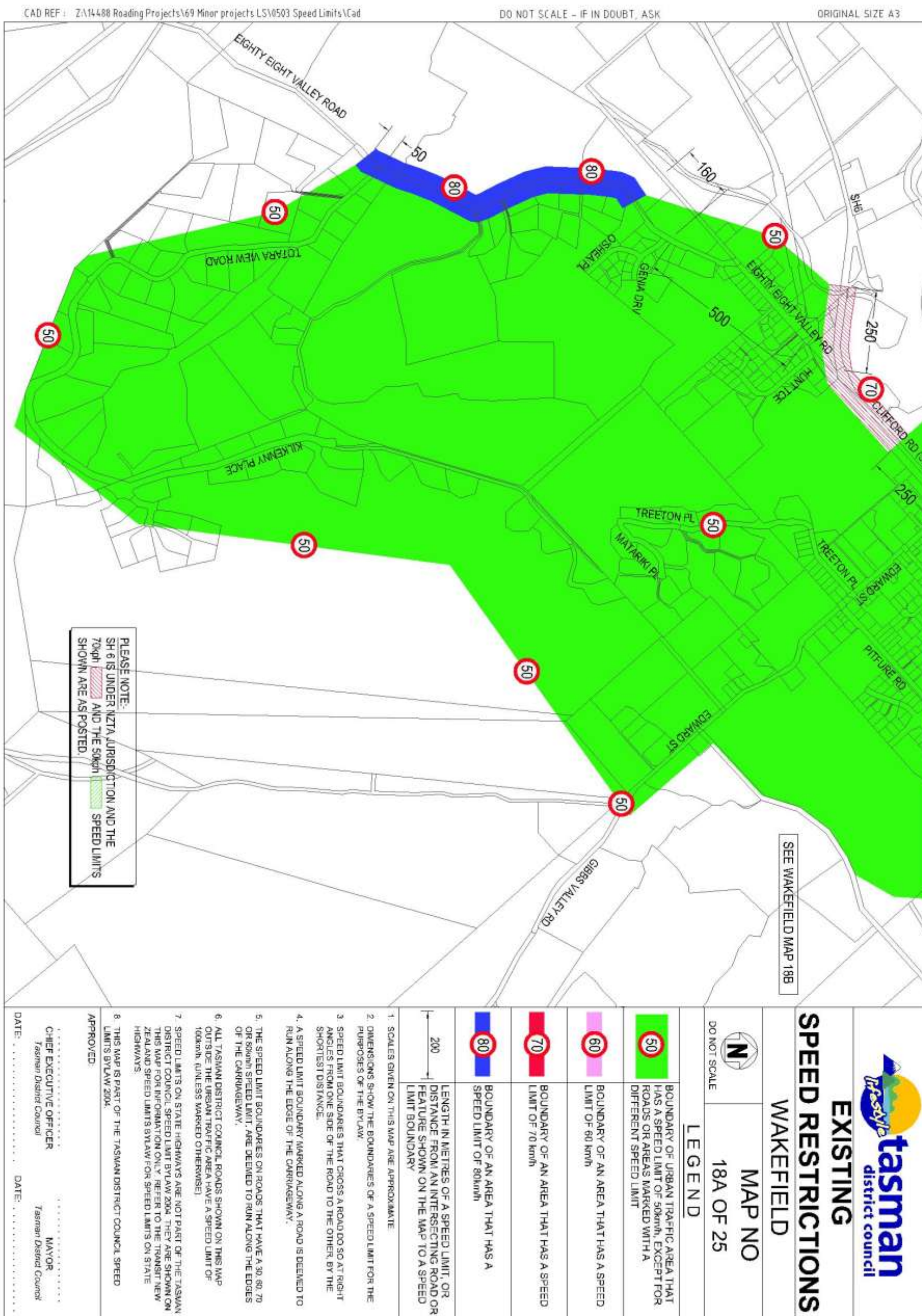


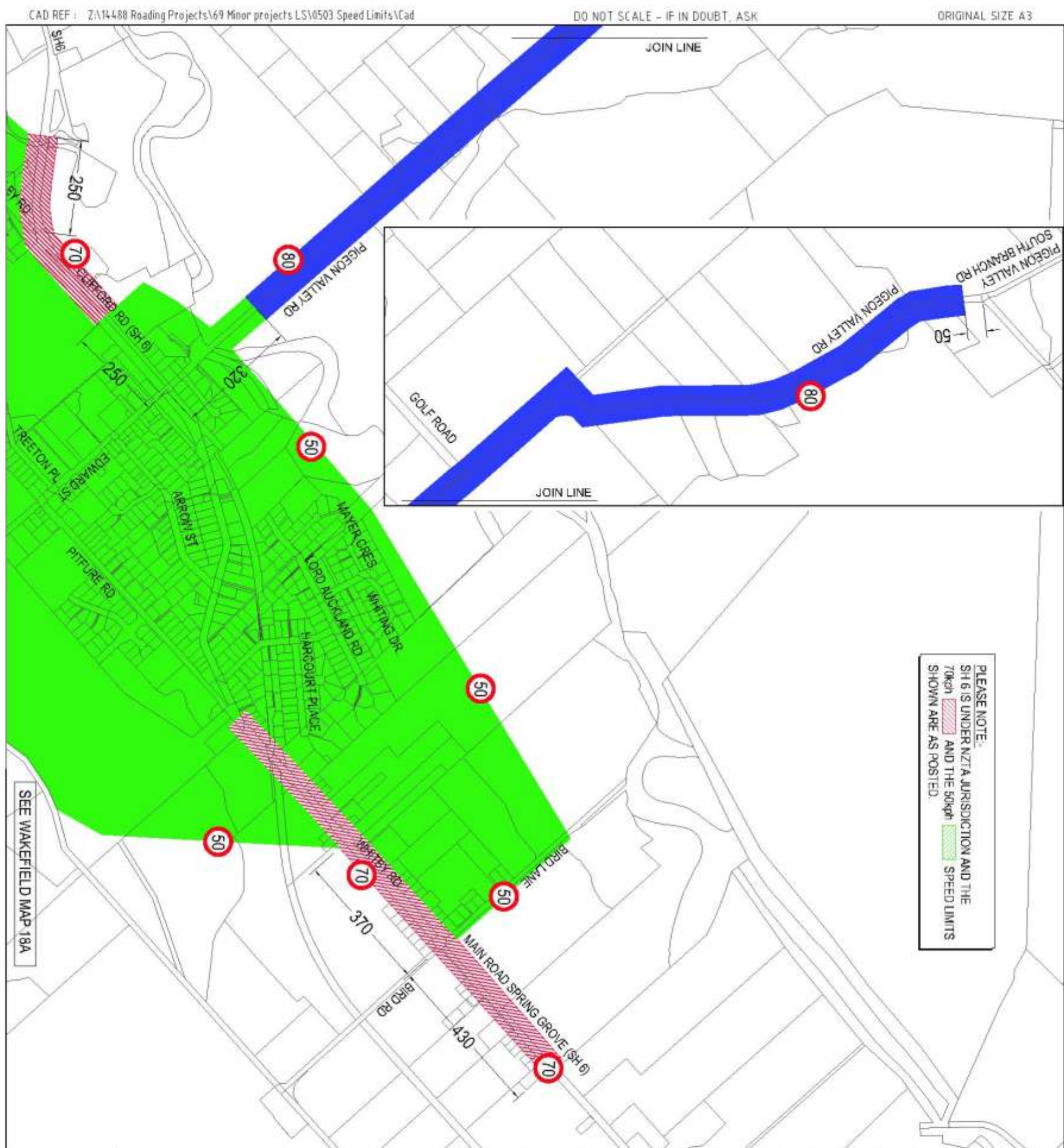
PLEASE NOTE:
SPEED LIMITS SHOWN ON THIS MAP ARE APPROXIMATE AND SHOULD BE VERIFIED ON THE GROUND. SPEED LIMITS SHOWN ARE AS POSTED.

<p>PROPOSED SPEED RESTRICTIONS</p>	
<p>RICHMOND NORTH & SOUTH</p>	
<p>MAP NO 16 OF 25</p>	
<p>DO NOT SCALE</p>	
<p>LEGEND</p>	
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 60 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 50km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 km/h
	LENGTH IN METRES OF A SPEED LIMIT OR DISTANCE FROM AN INTERSECTING ROAD OR FEATURE SHOWN ON THE MAP TO A SPEED LIMIT BOUNDARY
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<p>APPROVED:</p>	
<p>CHIEF EXECUTIVE OFFICER Tasman District Council</p>	<p>MAYOR Tasman District Council</p>
<p>DATE:</p>	<p>DATE:</p>









PLEASE NOTE:
 SH 6 IS UNDER NZTA JURISDICTION AND THE
 TOKEN AND THE 50km/h SPEED LIMITS
 SHOWN ARE AS POSTED.



**EXISTING
 SPEED RESTRICTIONS**

WAKEFIELD

MAP NO

18B OF 25



DO NOT SCALE

LEGEND

50
 BOUNDARY OF URBAN TRAFFIC AREA THAT
 HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR
 ROADS OR AREAS MARKED WITH A
 DIFFERENT SPEED LIMIT

60
 BOUNDARY OF AN AREA THAT HAS A SPEED
 LIMIT OF 60 km/h

70
 BOUNDARY OF AN AREA THAT HAS A SPEED
 LIMIT OF 70 km/h

80
 BOUNDARY OF AN AREA THAT HAS A
 SPEED LIMIT OF 80km/h

200
 LENGTH IN METRES OF A SPEED LIMIT, OR
 DISTANCE FROM AN INTERSECTING ROAD OR
 FEATURE SHOWN ON THE MAP TO A SPEED
 LIMIT BOUNDARY

1. SCALES GIVEN ON THIS MAP ARE APPROXIMATE
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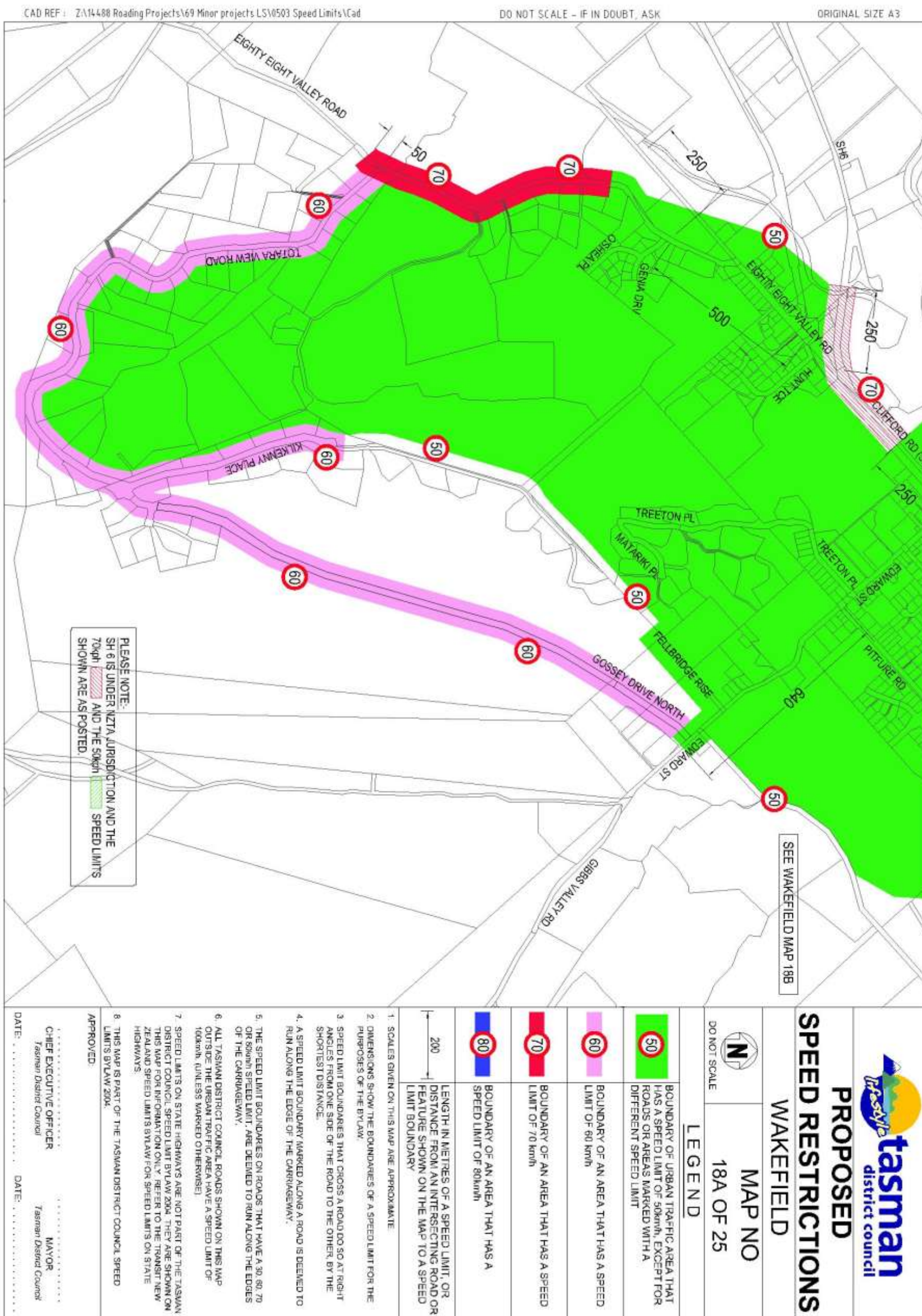
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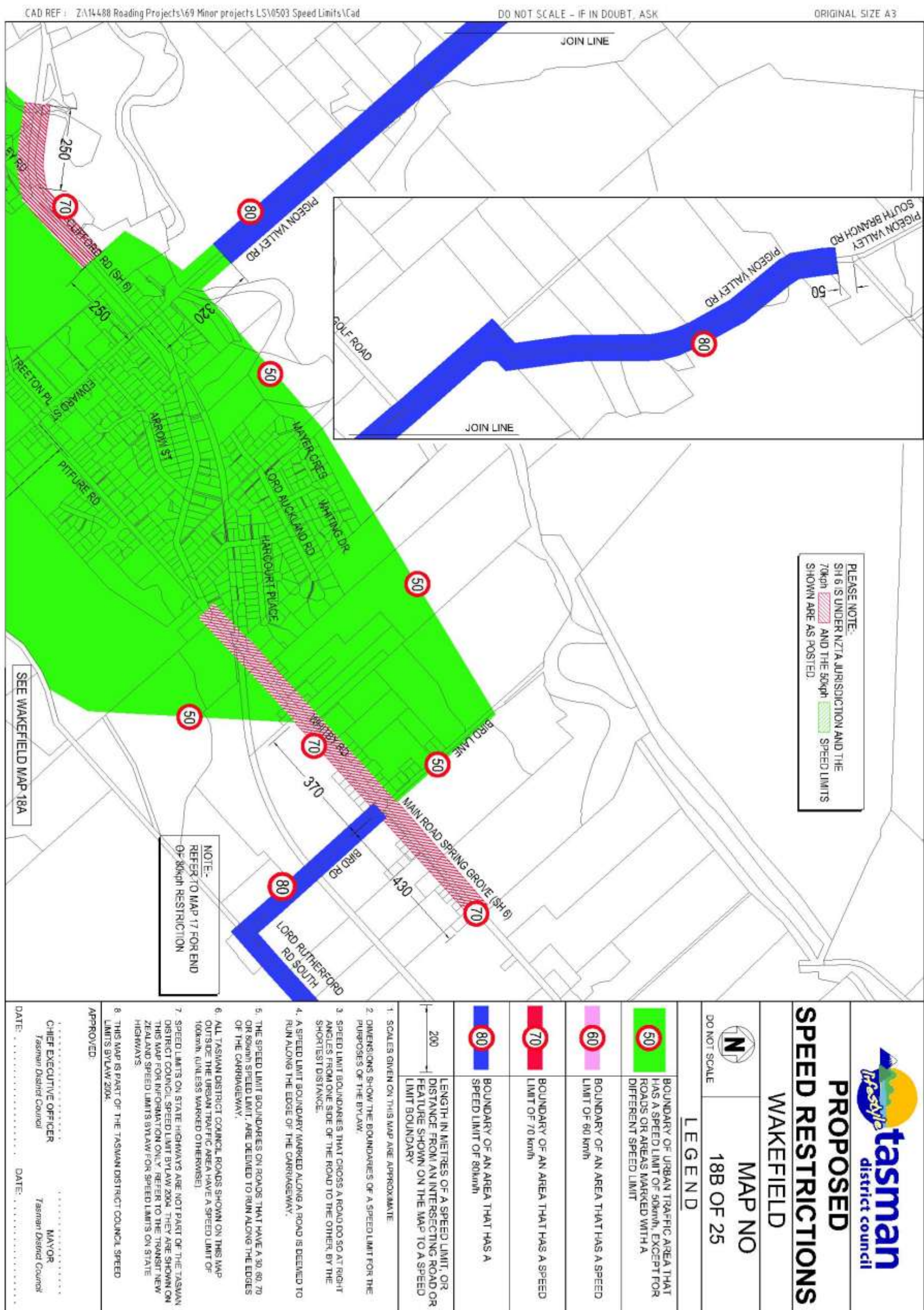
CHIEF EXECUTIVE OFFICER
 Tasman District Council

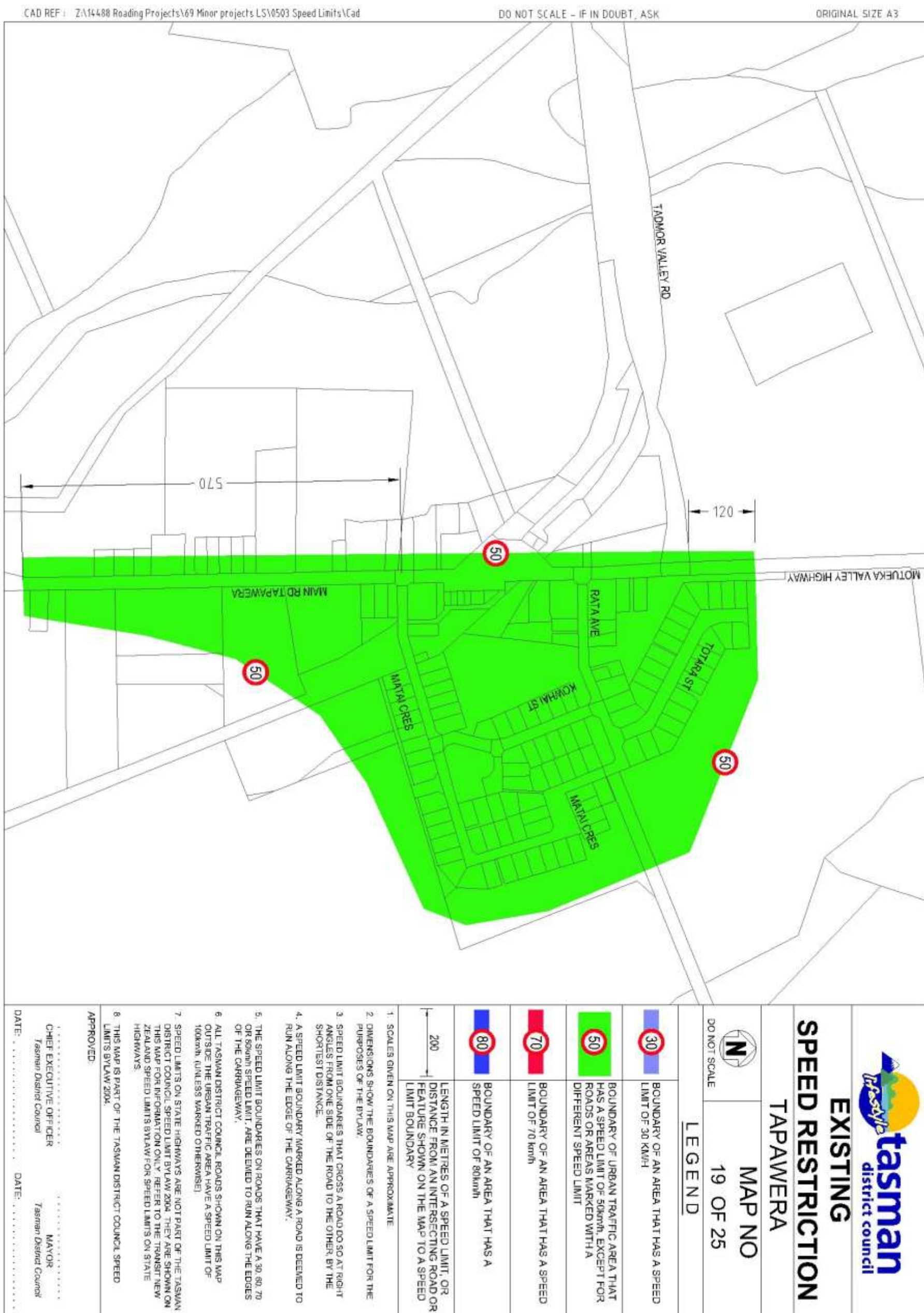
MAYOR
 Tasman District Council

DATE: DATE:

SEE WAKEFIELD MAP 18A







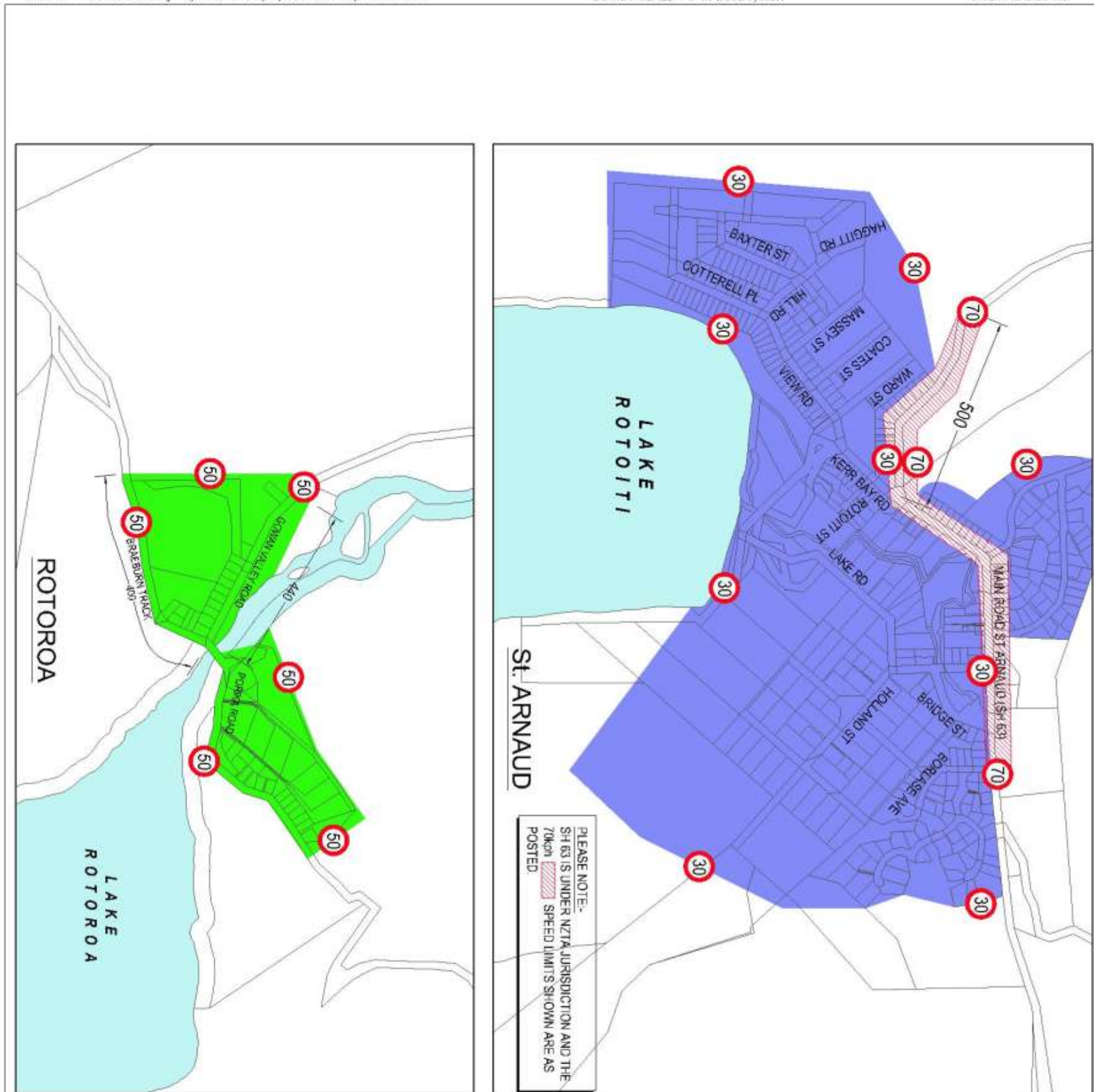


PROPOSED SPEED RESTRICTION TAPAWERA	
MAP NO 19 OF 25	
LEGEND	
 DO NOT SCALE	
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
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APPROVED:	
CHIEF EXECUTIVE OFFICER <i>Tasman District Council</i>	MAYOR <i>Tasman District Council</i>
DATE:	DATE:

CAD REF: Z:\14488 Roading Projects\69 Minor projects LS\0503 Speed Limits\Cad

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3



**EXISTING
SPEED RESTRICTIONS
St. ARNAUD AND ROTORUA**

MAP NO

20 OF 25



DO NOT SCALE

LEGEND

	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
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APPROVED:

CHIEF EXECUTIVE OFFICER
Tasman District Council

DATE:

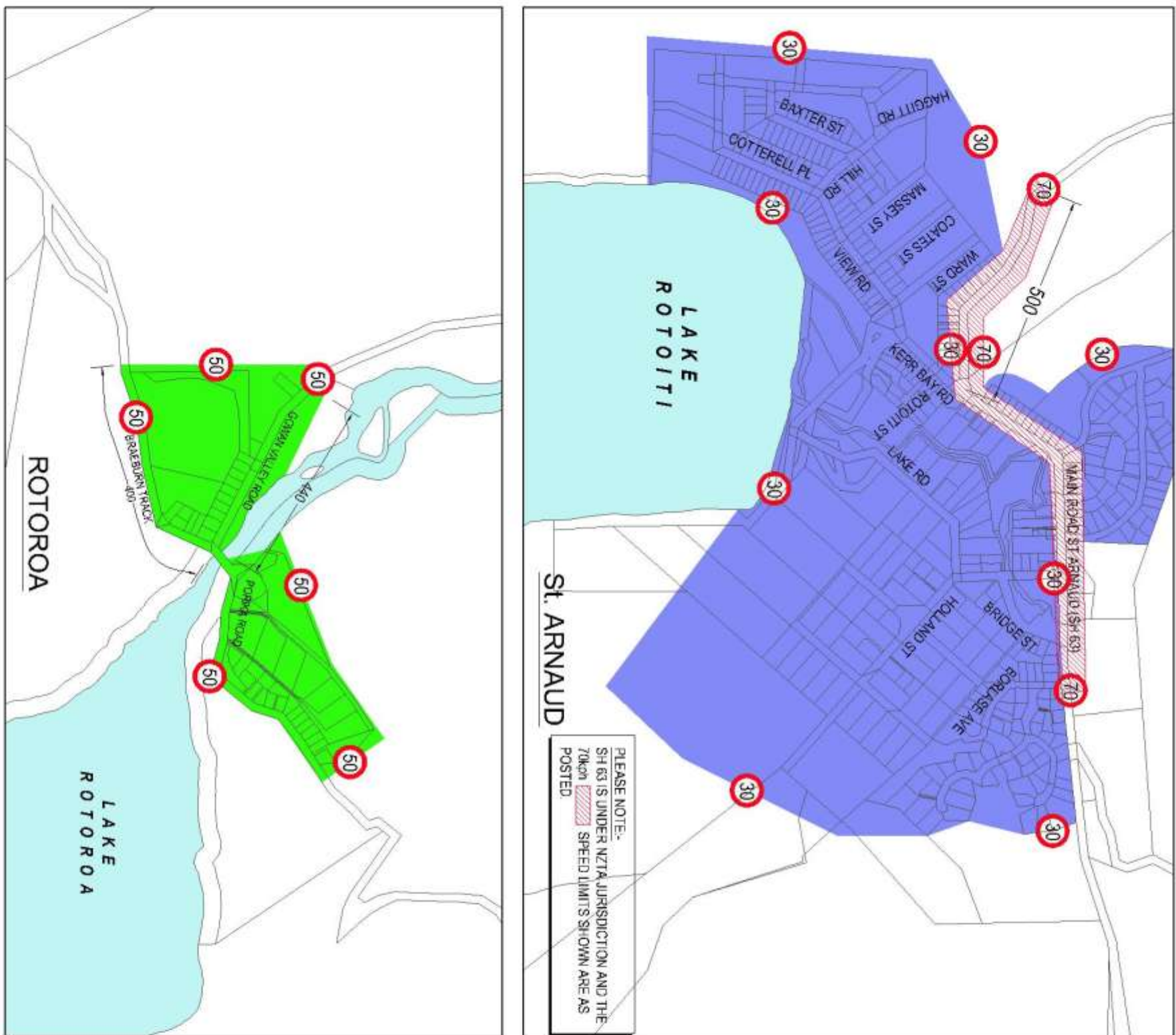
MAYOR
Tasman District Council

DATE:

CAD REF: Z:\14488 Roading Projects\69 Minor projects LSV0503 Speed Limits\Cad

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A3



PROPOSED SPEED RESTRICTIONS
St. ARNAUD AND ROTOROA

MAP NO 20 OF 25

DO NOT SCALE

LEGEND	
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 30 KM/H
	BOUNDARY OF URBAN TRAFFIC AREA THAT HAS A SPEED LIMIT OF 50km/h, EXCEPT FOR ROADS OR AREAS MARKED WITH A DIFFERENT SPEED LIMIT
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 70 km/h
	BOUNDARY OF AN AREA THAT HAS A SPEED LIMIT OF 80km/h
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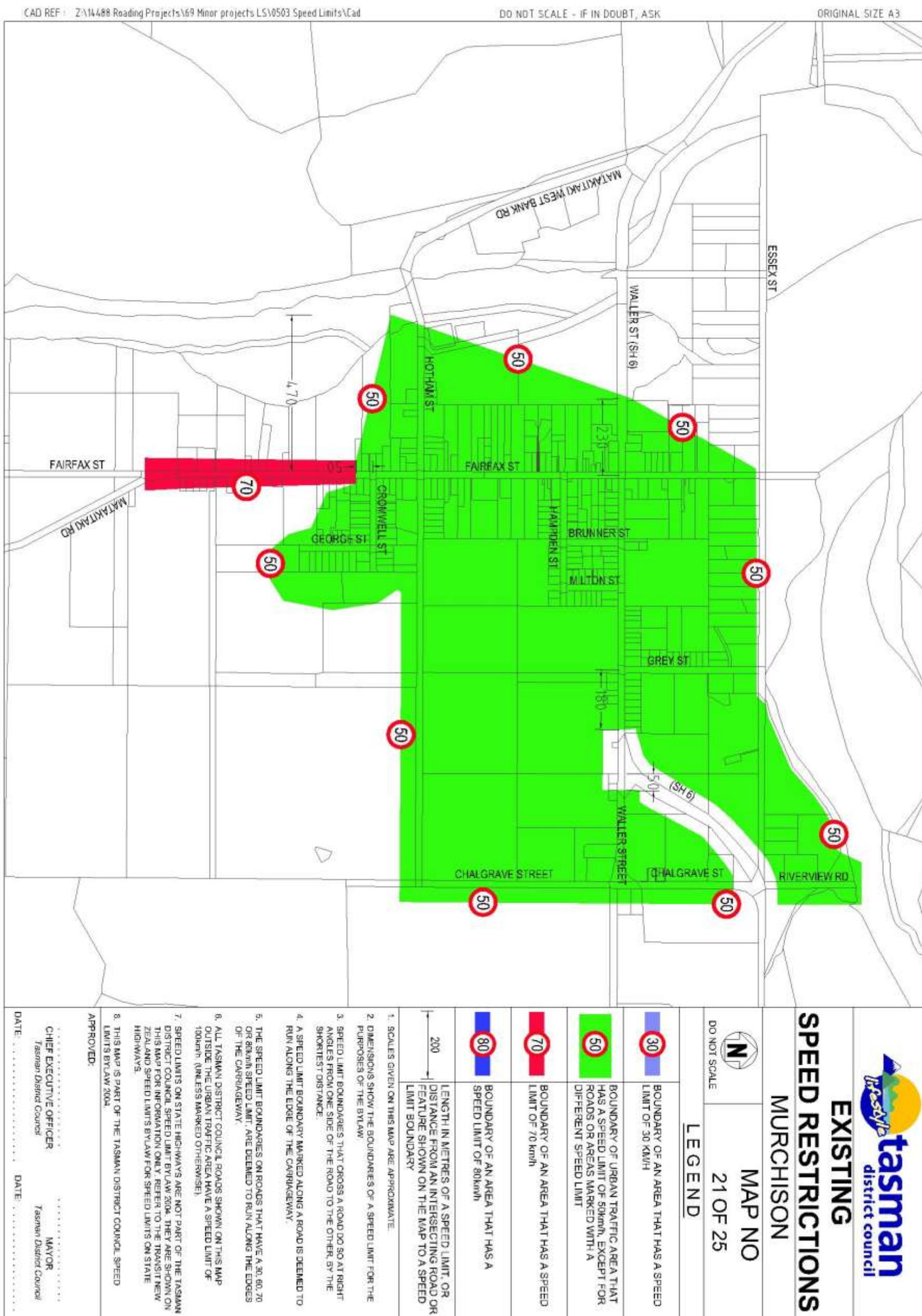
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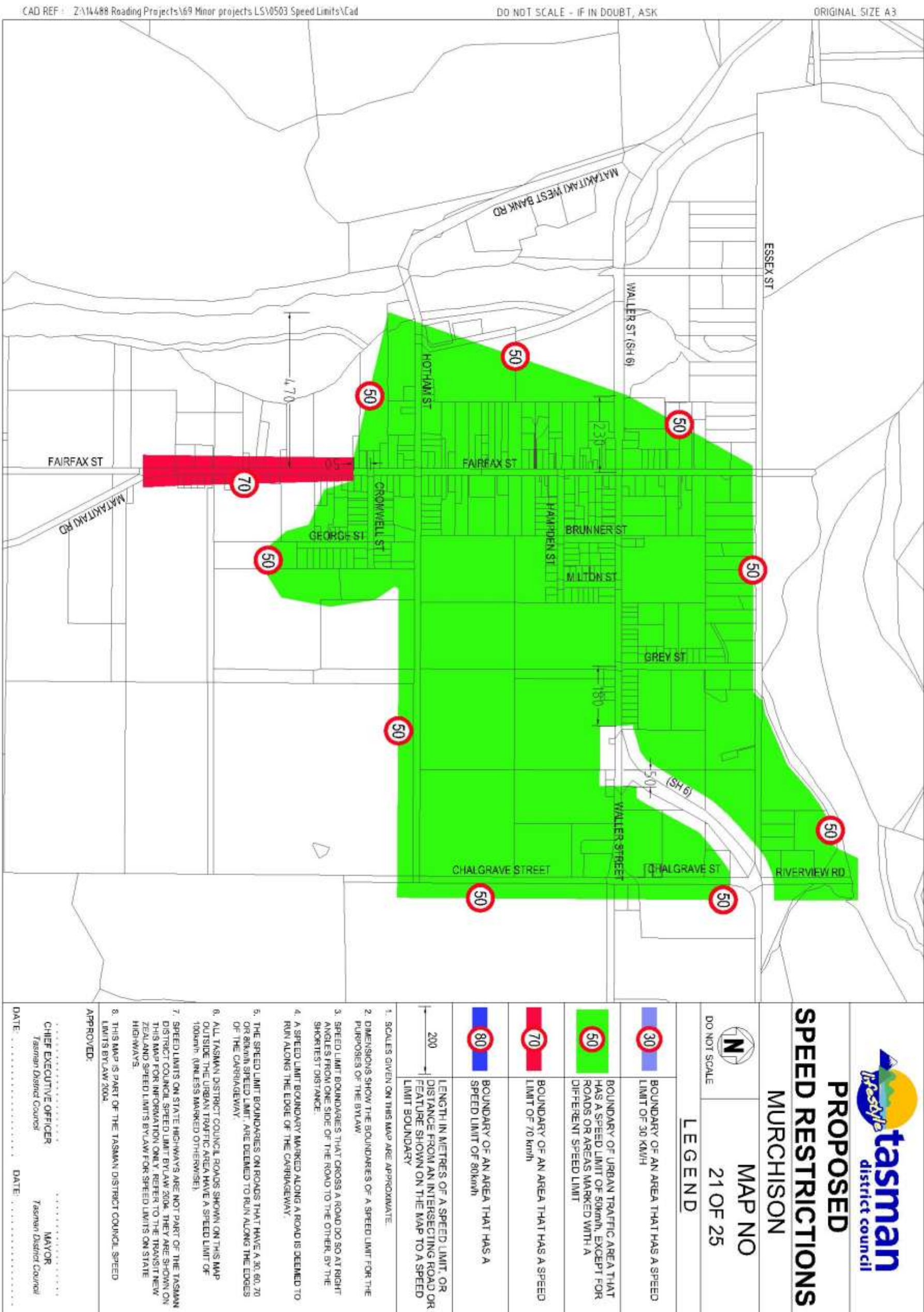
CHIEF EXECUTIVE OFFICER
Tasman District Council

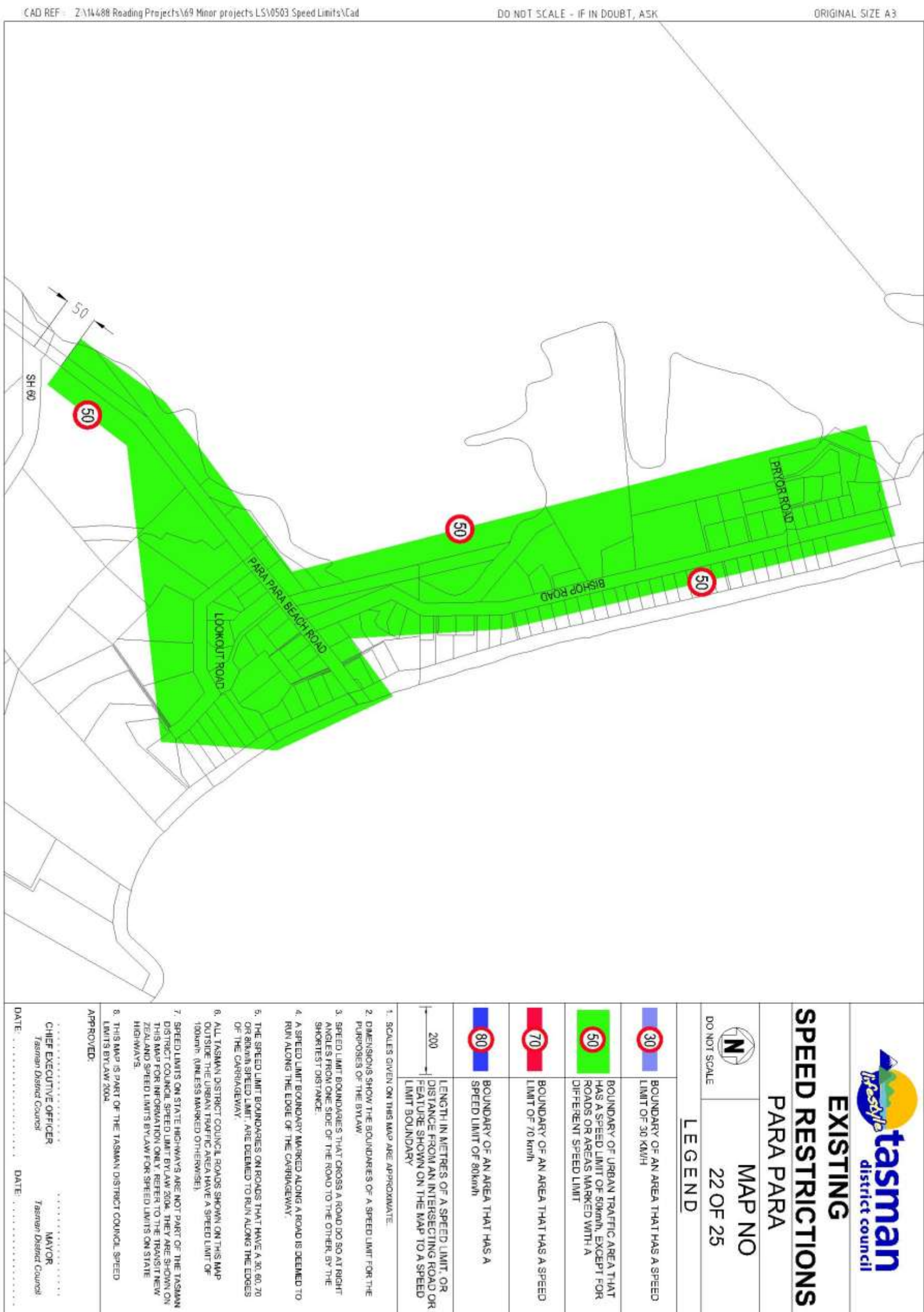
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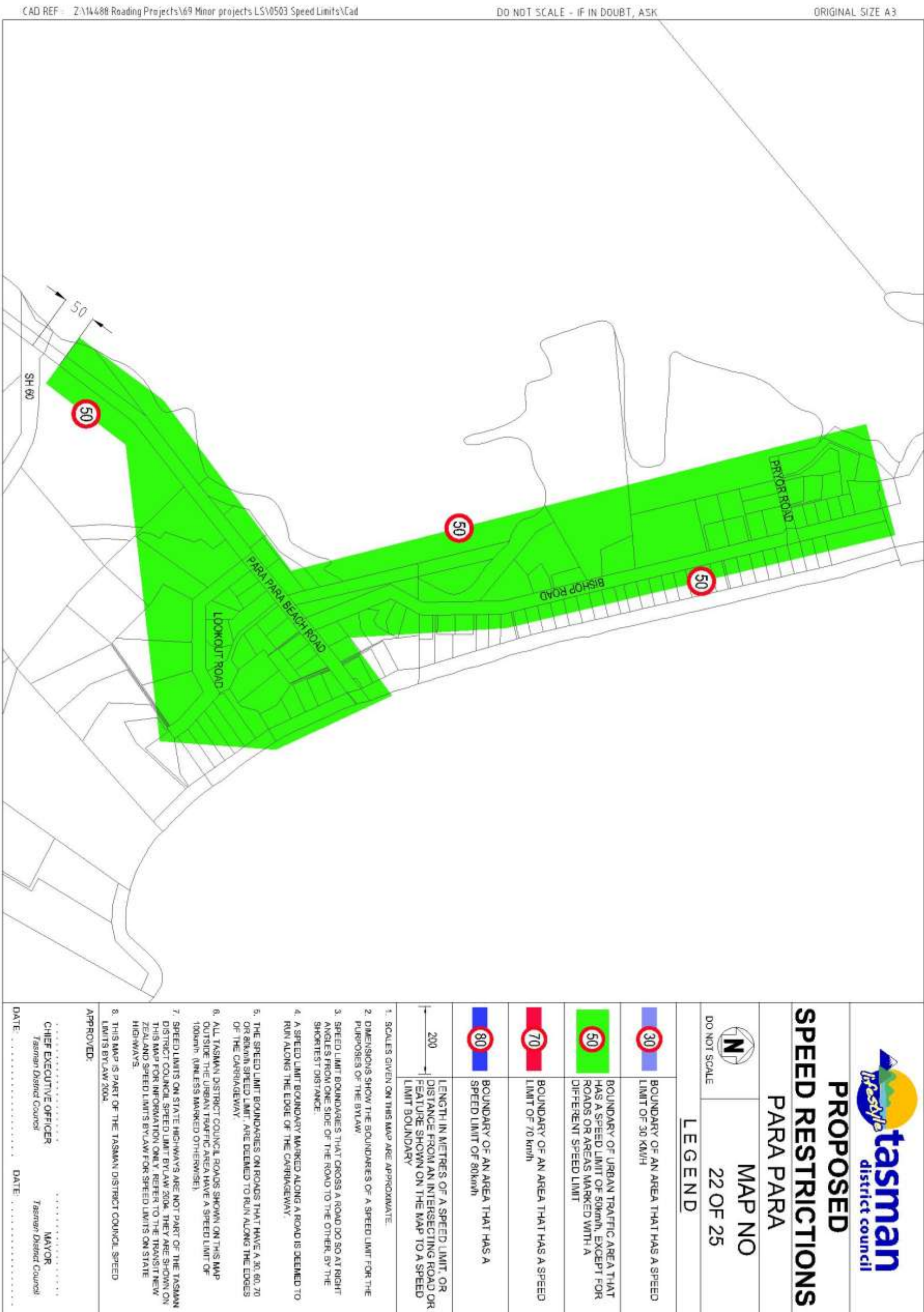
MAJOR
Tasman District Council

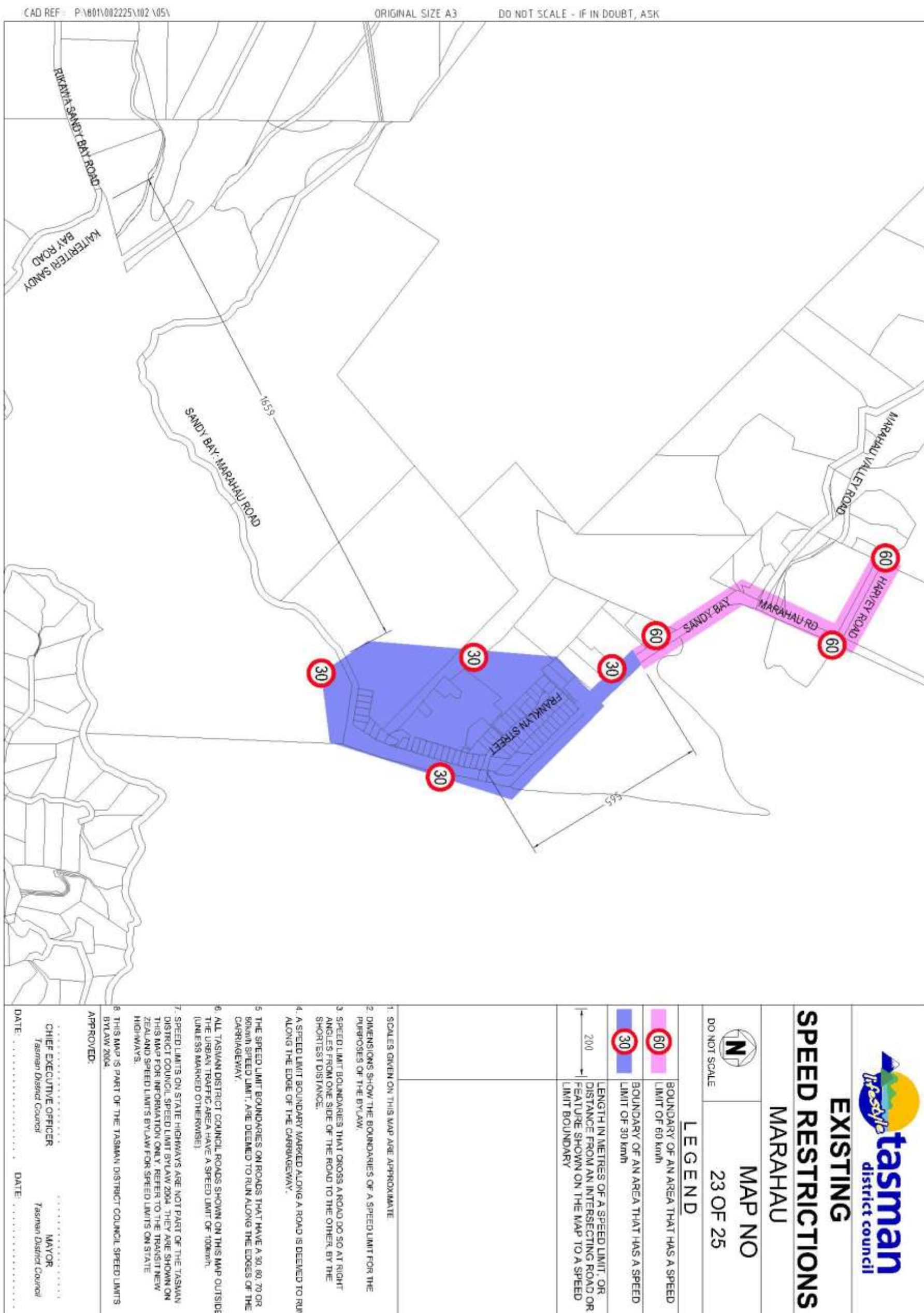
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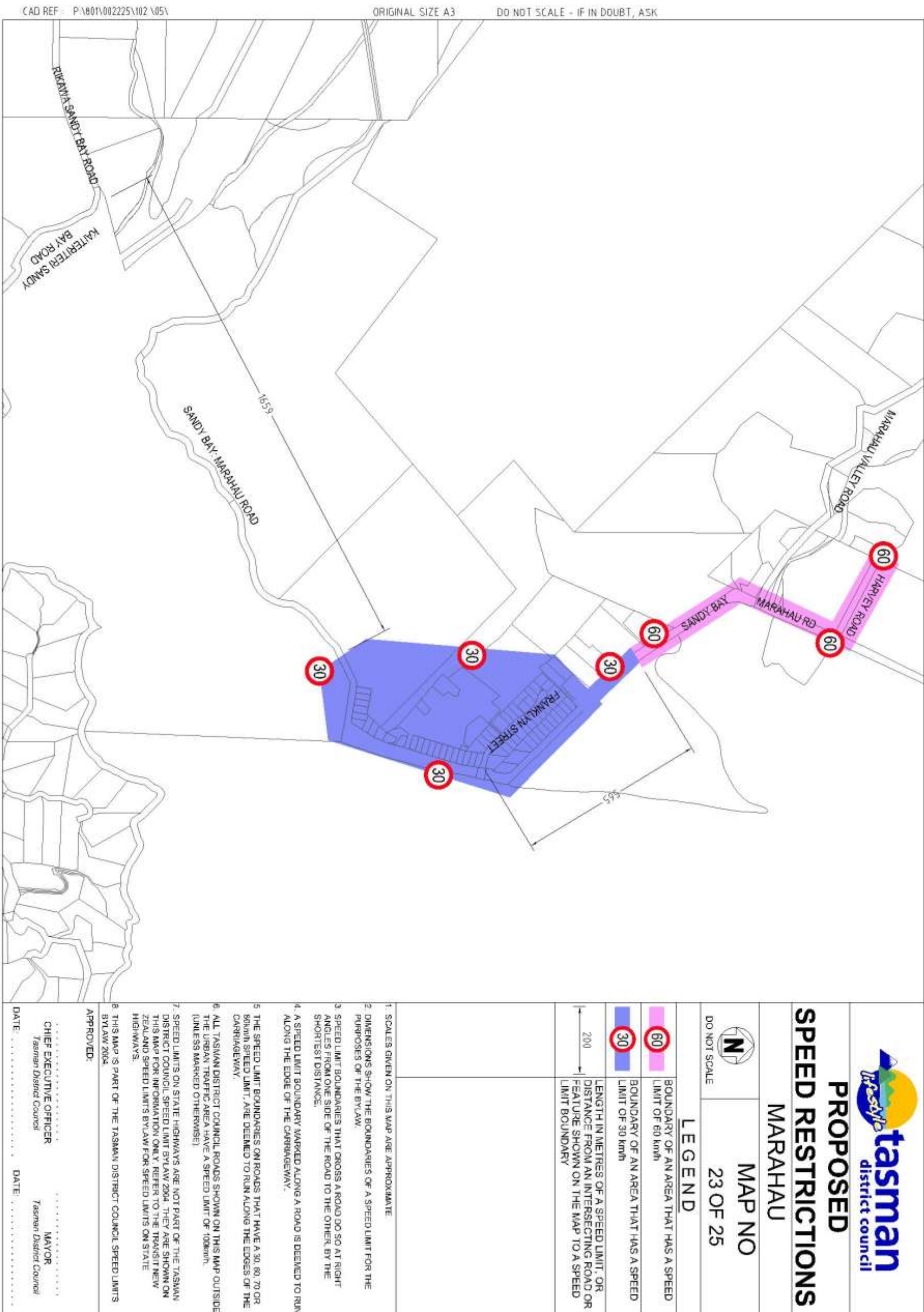


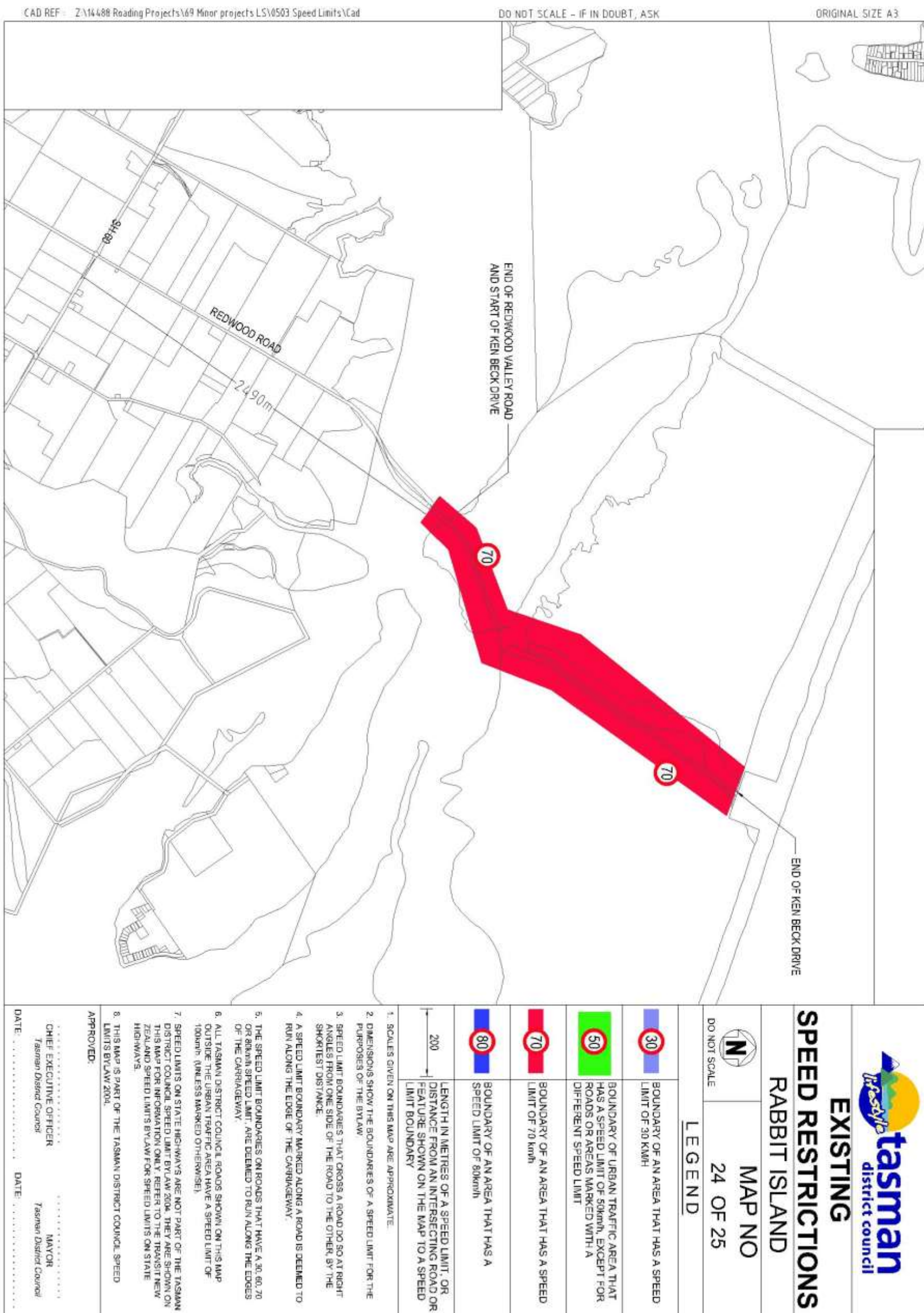


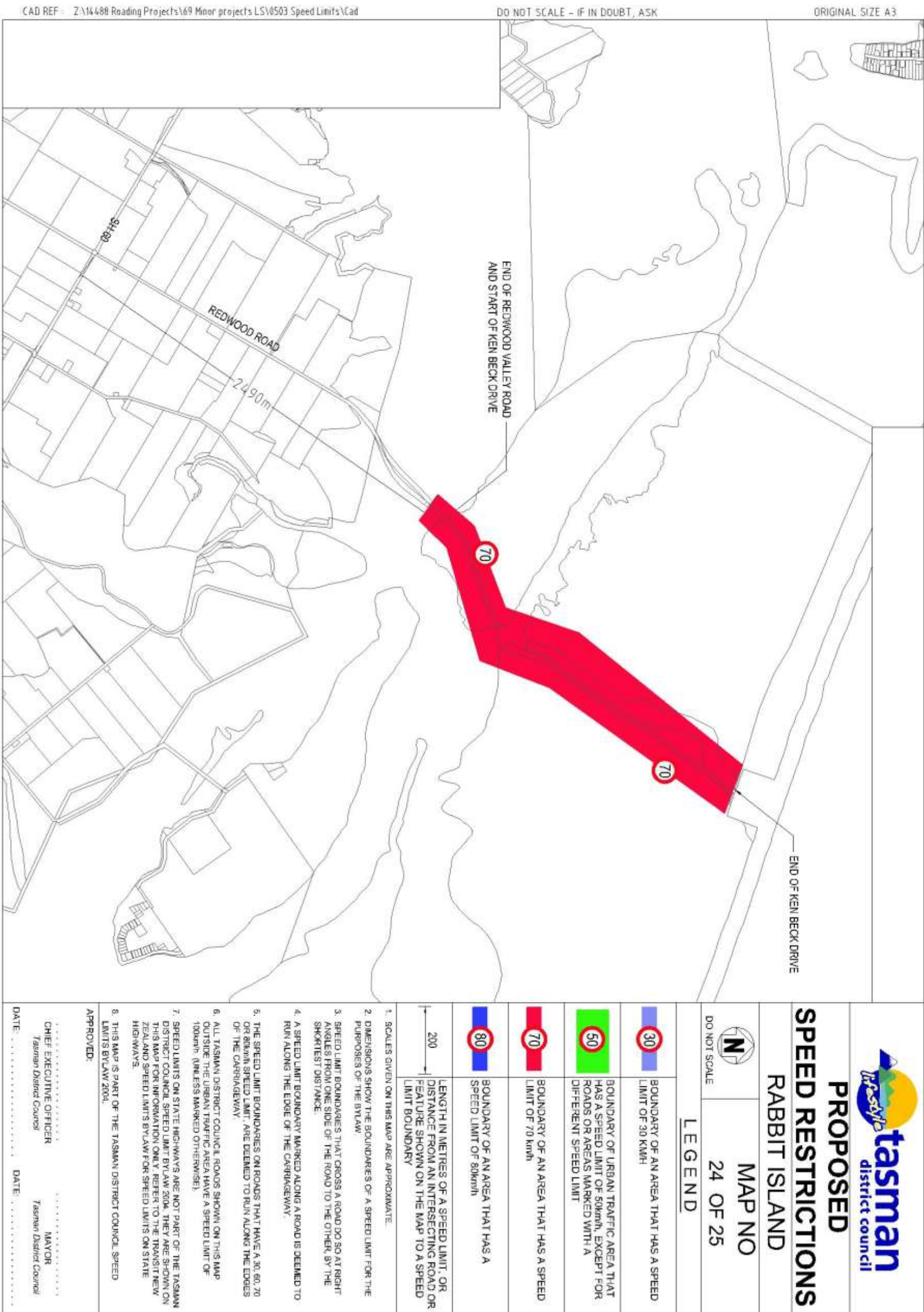


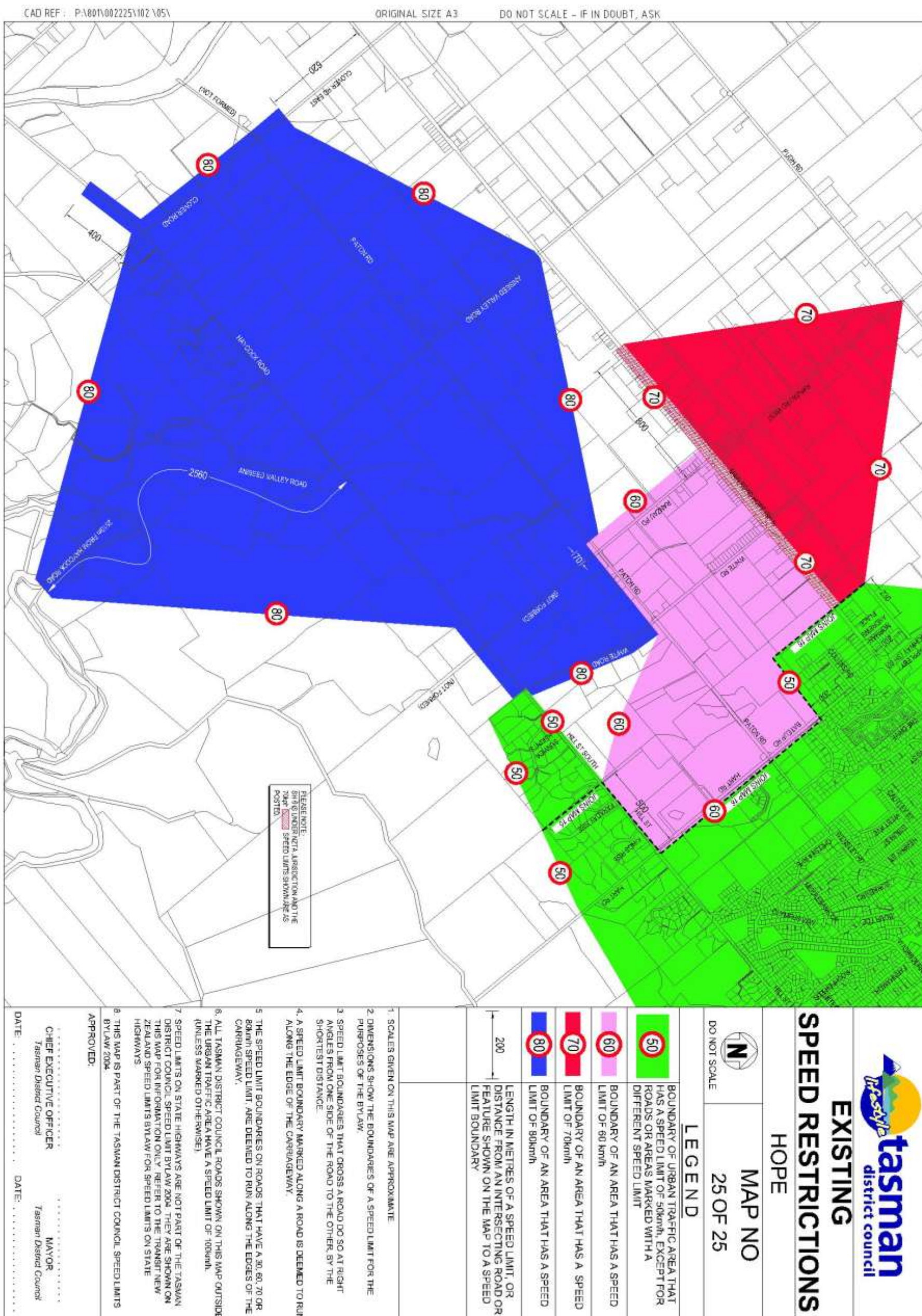


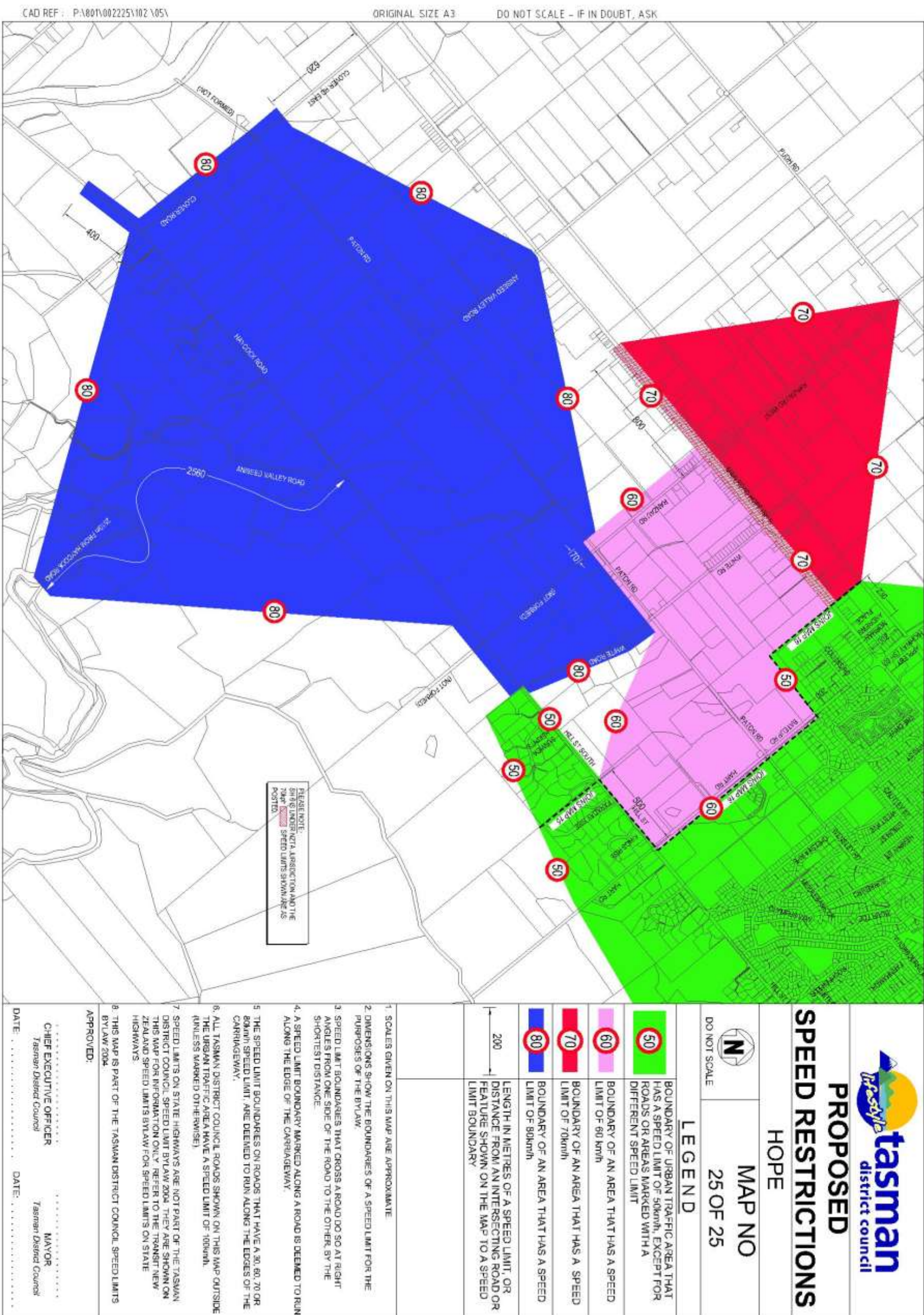














DRAFT

**Tasman District Council
Consolidated Bylaw**

Chapter 4

SPEED LIMITS BYLAW 2013

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Item 8.3

9	DATE BYLAW MADE	03
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12	DATE AMENDMENT MADE	06
13	DATE AMENDMENT MADE	07
14	DATE AMENDMENT MADE	08

Attachment 6

1 INTRODUCTION

Pursuant to Section 684(1)(13) of the Local Government Act 1974, the Local Government Act 2002 and Land Transport Rule: Setting of Speed Limits 2003, the Tasman District Council makes this bylaw to set speed limits as specified on the maps.

2 TITLE

The title of this bylaw is the Tasman District Council Consolidated Bylaw, Chapter 4, Speed Limits Bylaw 2013.

3 DATE THE SPEED LIMITS COME INTO FORCE

The speed limits described on the maps come into force on the date specified on the maps.

4 REVOCATION

The Tasman District Council Bylaw Chapter 4 Speed Limits Bylaw 2004 is revoked with effect from the day this bylaw comes into force.

5 INTERPRETATION

Road means the same as in the Land Transport Rule: Setting of Speed Limits 2003.

Speed Limit means the same as in Land Transport Rule: Setting of Speed Limits 2003.

Urban traffic area means the same as in Land Transport Rule: Setting of Speed Limits 2003.

6 SPEED LIMITS

The roads or areas as shown and referenced on the maps are declared to have the speed limits specified on the maps, which are part of this bylaw.

7 SCHEDULES

Schedule 1 Roads that have a speed limit of 20km/h (Schedule 1 is not used in this bylaw).

Schedule 2 Roads that have a speed limit of 30km/h.

Schedule 3 Roads that have a speed limit of 40km/h (Schedule 3 is not used in this bylaw).

Schedule 4 Urban traffic areas – roads that have a speed limit of 50 km/h.

- Schedule 5 Roads that have a speed limit of 60 km/h.
- Schedule 6 Roads that have a speed limit of 70 km/h.
- Schedule 7 Roads that have a speed limit of 80 km/h.
- Schedule 8 Rural areas – roads that have a speed limit of 100 km/h.
- Schedule 9 Roads that have a holiday speed limit
- Schedule 10 Roads that have a variable speed limit (Schedule 10 is not used in this bylaw).
- Schedule 11 Roads that have a minimum speed limit (Schedule 11 is not used in this bylaw).

8 MAPS

	Map #
Pakawau	01
Collingwood	02
Patons Rock	03
Tata Beach/Ligar Bay	04
Pohara	05
East Takaka	06
Takaka	07
Takaka South	08
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9 DATE BYLAW MADE

This bylaw was made by the Tasman District Council at a meeting of the Council on 2013.

The common seal of the Tasman District Council is attached in the presence of:

_____ Mayor

_____ Chief Executive Officer



DRAFT

**Tasman District Council
Consolidated Bylaw**

Chapter 4

SPEED LIMITS BYLAW 2013

Schedule One – 30km/h

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 30 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
9B/25	30kph	<p>Situated At Kaiteriteri:</p> <p>All the roads marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013 at Kaiteriteri", numbered 9B and identified below as having a speed limit of 30km/h:</p> <ul style="list-style-type: none"> Riwaka Kaiteriteri Road – From a point measured approximately 100metres south of Martin Farm Road intersection and extending generally in a northerly direction along the said road to Inlet Road intersection; Kaiteriteri Sandy Bay Road – Extending from Inlet Road generally in a northerly direction along the said road to a point measured approximately 280metres west of the hairpin bend at Breakers Bay 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
20/25	30km/h	<p>Situated at St Arnaud Township:</p> <p>All the roads marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013 at St Arnaud Township", numbered 20 and identified in the legend as having a speed limit of 30km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

23/25	30kph	<p>Situated at Marahau: All the roads marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013 at Marahau", numbered 23 and identified as below:</p> <ul style="list-style-type: none"> Sandy Bay Marahau Road – Extending from a point approximately 1.659km generally north east of the intersection with Kattereri Sandy Bay Road and extending along the said road to a point measured approximately 565metres north of Franklyn Street; Franklyn Street – Extending from the intersection with Sandy Bay Marahau Road to its terminus. 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
16/25	30kph	<p>Situated at Richmond: All the roads marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013 at Richmond North & South", numbered 16 and identified as below:</p> <ul style="list-style-type: none"> Queen Street – Extending from the intersection with Salisbury Road to Gladstone Road. 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

Schedule Two – 40kph

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 40 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument

Schedule Three – Urban Traffic Areas – 50kph

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 50 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
2/25	50km/h	Situated at Collingwood: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Collingwood", numbered 2 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
3/25	50km/h	Situated at Paton's Rock: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Paton's Rock", numbered 3 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

4/25	50km/h	Situated at Tata Beach/Ligar Bay: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Tata Beach/Ligar Bay", numbered 4 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
5/25	50km/h	Situated at Pohara: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Pohara", numbered 5 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
7/25	50km/h	Situated at Takaka: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Takaka", numbered 7 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
8/25	50km/h	Situated at Takaka South: Park Avenue from the intersection with SH60 to its terminus and marked on the map entitled "Tasman	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed	Tasman District Council Consolidated Bylaw Chapter 4 – Speed

9A & 9B/25	50km/h	District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, "Takaka South", numbered 8 and identified in the legend as an urban traffic area having a speed limit of 50km/h.	Limits 2013	Limit Bylaw 2004
		<p>Situated at Kaiteriteri:</p> <p>All the roads shown or enclosed in an area/s marked on the maps entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Kaiteriteri", numbered 9A & 9B and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.</p>	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
10/25	50km/h	<p>Situated at Riwaka & Brooklyn:</p> <p>All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Riwaka & Brooklyn", numbered 10 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.</p>	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
11A & 11B/25	50km/h	<p>Situated at Motueka North & South And Lower Moutere:</p> <p>All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Motueka North & South And Lower Moutere", numbered 11A & 11B and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a</p>	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		different speed limit, as referenced in the appropriate schedule of this bylaw.			
12A/25	50km/h	Situated at Tasman: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Tasman", numbered 12A and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
13A/25	50km/h	Situated at Ruby Bay: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Ruby Bay", numbered 13A and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
14/25	50km/h	Situated at Mapua: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Mapua", numbered 14 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
15/25	50km/h	Situated at Upper Moutere: Moutere Highway - from a point measured	11 June 2013	Tasman District Council	Tasman District Council

		approximately 50metres south east of Sunrise Valley Road and extending generally in a northerly direction to a point approximately 380metres north of Supplejack Valley Road intersection and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Upper Mouere", numbered 15 and identified in the legend as an urban traffic area having a speed limit of 50km/h.			Consolidated Bylaw Chapter 4 – Speed Limits 2013	Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
16/25	50km/h	Situated at Richmond North & South: All the roads shown or enclosed in an areals marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Richmond North & South", numbered 16 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004	
17/25	50km/h	Situated at Brightwater: All the roads shown or enclosed in an areals marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Brightwater", numbered 17 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004	
18A & 18B/25	50km/h	Situated at Wakefield: All the roads shown or enclosed in an areals marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013,	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed	Tasman District Council Consolidated Bylaw Chapter 4 – Speed	

		Wakefield", numbered 18A & 18B and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.			Limits 2013	Limit Bylaw 2004
19/25	50km/h	Situated at Tapawera: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Tapawera", numbered 19 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004	
20/25	50km/h	Situated at St Arnaud & Rotoroa: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, St Arnaud & Rotoroa", numbered 20 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004	
21/25	50km/h	Situated at Murchison: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Murchison", numbered 21 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004	

	50km/h	<p>as having a different speed limit, as referenced in the appropriate schedule of this bylaw.</p> <p>Situated at Para Para: All the roads shown or enclosed in an area/s marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Para Para", numbered 22 and identified in the legend as an urban traffic area having a speed limit of 50km/h, except for those roads or areas that are marked on the said map and identified in the legend as having a different speed limit, as referenced in the appropriate schedule of this bylaw.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
22/25					

Schedule Four – 60kph

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 60 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
4/25	60kph	<p>Situated at Tata Beach/Ligar Bay:</p> <p>Abel Tasman Drive – extending from a point measured approximately 320metres west of Matenga Road in generally a north easterly direction for a distance of approximately 830metres , and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Tata Beach/Ligar Bay", numbered 4 and identified in the legend as having a speed limit of 60km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
6/25	60kph	<p>Situated At East Takaka:</p> <p>The roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, East Takaka", numbered 6 and identified in the legend as having a speed limit of 60km/h:</p> <ul style="list-style-type: none"> Glenview Drive – extending from Abel Tasman Drive in generally a south westerly direction to a point measured approximately 50metres south of Packard Road intersection; 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		<ul style="list-style-type: none"> Abel Tasman Drive – extending from the existing 80kph speed limit change point in a south easterly direction for a distance of approximately 250metres to Glenview Road and then extending in a north easterly direction for a further 750metres. 			
23/25	60kph	<p>Situated at Takaka:</p> <p>Abel Tasman Drive - extending from the existing Urban Traffic Area in generally a north easterly direction to a point measured approximately 450metres north of Sunbelt Crescent, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Takaka", numbered 7 and identified in the legend as having a speed limit of 60km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
12A/25	60kph	<p>Situated at Tasman:</p> <p>Aporo Road - extending generally in a south easterly direction from The Coastal Highway (SH60) to a point measured approximately 70metres south of Kina Beach Road, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Tasman", numbered 12A and identified in the legend as having a speed limit of 60km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
13A/25	60kph	<p>Situated At Ruby Bay:</p> <p>Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Ruby Bay", numbered 13A and identified in the legend as having a speed limit of 60km/h:</p> <ul style="list-style-type: none"> Mapua Drive – extending from Aranui Road intersection in generally a south westerly 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		<p>direction for a distance of approximately 100metres;</p> <ul style="list-style-type: none"> Stafford Drive – extending from Aranui Road intersection in generally a north westerly direction to a point measured approximately 100metres north of Brabant Drive; Pine Hill Road – from Stafford Drive to its terminus. 			
18A/25	60kph	<p>Situated at Wakefield: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Wakefield", numbered 18A and identified in the legend as having a speed limit of 60km/h:</p> <ul style="list-style-type: none"> Totara View Road – extending from Eighty Eight Valley Road to Kilkenny Place; Kilkenny Place – from Eighty Eight Valley Road to its terminus; Gossey Drive North – extending in generally a south westerly direction from Edward Street to Kilkenny Place. 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
23/25	60kph	<p>Situated at Marahau: The following roads marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Marahau", numbered 23 and identified in the legend as having a speed limit of 60km/h:</p> <ul style="list-style-type: none"> Sandy Bay Marahau Road – extending from a 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

	<p>point measured approximately 565metres north west of Franklyn Street to Harvey Road;</p> <ul style="list-style-type: none"> Harvey Road - from Sandy Bay Marahau Road to its terminus. 			
25/25	<p>60kph</p> <p>Situated At Hope: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Hope", numbered 25 and identified in the legend as having a speed limit of 60km/h:</p> <ul style="list-style-type: none"> Bateup Road – extending in a north easterly direction from the Urban Traffic Area to Paton Road; White Road – from Main Road Hope (SH60) to Paton Road; Ranzau Road – from Main Road Hope (SH60) to Paton Road; Paton Road – from Bateup Road extending generally in a south westerly direction to a point measured approximately 70metres south of Ranzau Road; Hart Road – from Paton Road to Hill Street; Hill Street – from Hart Road extending in generally a south westerly direction to its terminus. 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

Schedule Five – 70kph

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 70 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
1/25	70km/h	<p>Situated at Pakawau:</p> <p>Collingwood- Puponga Main Road – extending from a point measured approximately 1.02km generally south east of Pakawau Bush Road for a length of 1180metres in a southerly direction along the said road, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Pakawau", numbered 1 and identified in the legend as having a speed limit of 70km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
2/25	70km/h	<p>Situated at Collingwood:</p> <p>Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Collingwood", numbered 2 and identified in the legend as having a speed limit of 70km/h:</p> <ul style="list-style-type: none"> • Collingwood Quay – extending in an easterly direction from the Takaka Collingwood Highway (SH60) for a distance of approximately 435metres; • Collingwood Bainham Main Road - extending in an westerly direction from the Takaka Collingwood Highway (SH60) for a distance of approximately 370metres 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

7/25	70kph	<p>Situated at Takaka: Abel Tasman Drive - extending from Motupipi Street intersection in generally an easterly direction along the said road to a point measured approximately 450metres north east of Sunbelt Crescent, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Takaka", numbered 7 and identified in the legend as having a speed limit of 70km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
8/25	70kph	<p>Situated at Takaka South: Central Takaka Road – extending in generally a south easterly direction from the Takaka Nelson Main Road (SH60) to Glenview Road, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Takaka South", numbered 8 and identified in the legend as having a speed limit of 70km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
10/25	70km/h	<p>Situated at Riwaka & Brooklyn: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Riwaka & Brooklyn", numbered 10 and identified in the legend as having a speed limit of 70km/h:</p> <ul style="list-style-type: none"> • Loder Lane – extending in a northerly direction from the intersection with Main Road Riwaka (SH60) along the said road to a point measured approximately 50metres south of School Road; • Urukuri Road – extending in a southerly direction from the intersection with Little Sydney Road along the said road to Old Mill Road; 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		<ul style="list-style-type: none"> • Old Mill Road – extending in a westerly direction from the intersection with Umukuri Road along the said road to Motueka River West Bank Road; • Motueka River West Bank Road - extending in a southerly direction from the intersection with Old Mill Road along the said road to a point measured approximately 580metres south of Mickell Road. 			
11A & 11B/25	70km/h	<p>Situated at Motueka North & South and Lower Moutere: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Motueka North & South And Lower Moutere", numbered 11A & 11B and identified in the legend as having a speed limit of 70km/h:</p> <ul style="list-style-type: none"> • Queen Victoria Street – extending in a northerly direction from a point measured approximately 50metres north of College Street intersection to a point 10metres north of Marchwood Park Road; • Marchwood Park Road – extending from Queen Victoria Street in a westerly direction to its terminus; • College Street – extending in a westerly direction from the Urban Traffic Area to a point measured approximately 50metres west of Chamberlain Street intersection; 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

12A/25	70km/h	<p>Situated at Tasman: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Tasman", numbered 12A and identified in the legend as having a speed limit of 70km/h:</p> <ul style="list-style-type: none"> • Queen Victoria Street – extending from a point measured approximately 160metres north of Hau Road in a southerly direction to Hursthouse Street; • Main Road Lower Moutere – extending from Hursthouse Street in a southerly direction to a point 70metres north of Central Road; • Hursthouse Street – extending from Queen Victoria Street in a westerly direction for a distance of 500metres; • Wildman Road – extending from Queen Victoria Street in an easterly direction to High Street South; • High Street South – extending from Wildman Road in generally a north easterly direction to a point 50metres south west of High Street (SH60); • Wharf Road – extending from High Street (SH60) in generally a south easterly direction to a point approximately 80metres west of Trewavas Street 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
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		<ul style="list-style-type: none"> • Kina Beach Road – extending from Dee Road along the said road in an easterly direction to Cliff Road; • Cliff Road - extending from Kina Beach Road along the said road in generally a southerly direction to its terminus. 			
16/25	70km/h	<p>Situated at Richmond North & South: Lower Queen Street – extending from the Urban Traffic Area for Richmond and extending along the said road in a north westerly direction to a point measured approximately 500metres north west of McShane Road, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Richmond North & South", numbered 16 and identified in the legend as having a speed limit of 70km/h.</p>		Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
18A/25	70km/h	<p>Situated at Wakefield: Eighty Eight Valley Road – extending from a point measured approximately 250metres south west of Genia Drive and extending generally in a south westerly direction to a point measured approximately 50metres west of Totara View Road intersection, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Wakefield", numbered 18A and identified in the legend as having a speed limit of 70km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
21/25	70km/h	<p>Situated at Murchison: Matakataki Road – extending in generally a north easterly direction from a point measured approximately 50metres south of Cromwell Street to Fairfax Street, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		4 - Speed Limits 2013, Murchison", numbered 21 and identified in the legend as having a speed limit of 70km/h.			
24/25	70km/h	Situated at Rabbit Island: Ken Beck Drive – extending in generally a north easterly direction from a point measured approximately 2.49kilometres north of The Coastal Highway (SH60) to Rabbit Island Reserve, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Rabbit Island", numbered 24 and identified in the legend as having a speed limit of 70km/h.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
25/25	70km/h	Situated at Hope: Ranzau Road West – extending in generally a north westerly direction from the intersection with Main Road Hope to Pugh Road, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Hope", numbered 25 and identified in the legend as having a speed limit of 70km/h.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

Schedule Six – 80kph

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 80 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
5/25	80kph	<p>Situated at Pohara:</p> <p>Abel Tasman Drive - from a point measured approximately 30metres south west of Selwyn Street and extending generally in a southerly direction along the said road to a point measured approximately 750metres north east of Glenview Drive, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Pohara", numbered 5 and identified in the legend as having a speed limit of 80km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
6/25	80kph	<p>Situated at East Takaka:</p> <p>Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, East Takaka", numbered 6 and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> Abel Tasman Drive - from a point measured approximately 30metres south west of Selwyn Street and extending generally in a southerly direction along the said road to a point measured approximately 750metres north east of Glenview Drive; 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		<ul style="list-style-type: none"> Abel Tasman Drive - from a point measured approximately 250metres west of Glenview Drive intersection and extending generally in a south westerly direction along the said road to a point measured approximately 450metres north east of Sunbelt Crescent. 			
7/25	80kph	<p>Situated at Takaka: Abel Tasman Drive - from a point measured approximately 250metres west of Glenview Drive intersection and extending generally in a south westerly direction along the said road to a point measured approximately 450metres north east of Sunbelt Crescent, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Takaka", numbered 7 and identified in the legend as having a speed limit of 80km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
9A & 9B/25	80kph	<p>Situated at Kaiteriti: Riwaka Kaiteriti Road – Extending generally in a north easterly direction from the intersection of Main Road Riwaka (SH 60) to a point measured approximately 300metres south of Stephens Bay Road, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Kaiteriti", numbered 9A & 9B and identified in the legend as having a speed limit of 80km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
10/25	80kph	<p>Situated at Riwaka & Brooklyn: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed	Tasman District Council Consolidated Bylaw Chapter 4 – Speed

	<p>2013, Riwaka & Brooklyn", numbered 10 and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> • Umukuri Road – extending in a westerly direction from Main Road Riwaka (SH60) to the intersection of Little Sydney Road; • Swamp Road – extending in a northerly direction from Umukuri Road to the intersection of Main Road Riwaka (SH60); • Factory Road - extending in an easterly direction from Swamp Road to the intersection of Main Road Riwaka (SH60); • Dehra Doon Road - extending in a westerly direction from Main Road Riwaka (SH60) to its terminus. 		Limits 2013	Limit Bylaw 2004
<p>11A & 11B/25 80kph</p>	<p>Situated at Motueka North & South And Lower Moutere: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Motueka North & South", numbered 11A & 11B and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> • Whakarewa Street – extending in an westerly direction from Queen Victoria Street to its terminus; • Douglas Road - extending in an northerly direction from Queen Victoria Street to its terminus; • Staple Street - extending in an easterly 	<p>11 June 2013</p>	<p>Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013</p>	<p>Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004</p>

	<p>direction from High Street North (SH60) to the intersection of Thorp Street;</p> <ul style="list-style-type: none"> • Thorp street - from a point measured approximately 50metres north of Fearon Street and extending in a northerly direction to its terminus. 		Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
12A & 12B/25	<p>80kph/h</p> <p>Situated at Tasman: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013; "Tasman", numbered 12A & 12B and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> • Kina Peninsular Road – extending in a northerly direction from Kina Beach Road to its terminus; • Dee Road – extending in a southerly direction from Kina Beach Road to its terminus; • Kina Beach Road – extending from Aporo Road in generally a north westerly direction to a point measured approximately 20metres on the eastern side of Dee Road intersection; • Baldwin Road – from a point measured approximately xx metres south of Goddard Road intersection and extending in generally a south westerly direction to the roads terminus; • Aporo Road – from a point measured approximately 70 metres south east of Kina Beach Road intersection and extending in generally a south easterly direction along the said road to a point 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

<p>13A & 13B/25</p> <p>80kph</p>	<p>Situated at Ruby Bay: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Ruby Bay", numbered 13A & 13B and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> • Foley Road – from Pomona Road to Awa Awa Road; • Pomona Road – extending generally in a south easterly direction from Awa Awa Road to the 50kph speed limit sign located approximately 2.06kilometres north west of Stafford Drive intersection with Pomona Road; • Pine Hill Road West - from Pomona 	<p>11 June 2013</p>	<p>Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013</p>	<p>Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004</p>
	<p>measured approximately 300metres south east of Williams Road;</p> <ul style="list-style-type: none"> • Williams Road – extending from Aporo Road to its terminus; • Horton Road – extending from Aporo Road to its terminus; • Perrin Road – extending from Aporo Road to its terminus • Brookview Heights – extending from Perrin Road to its terminus • Marriages Road – extending from Aporo Road in a southerly direction to Awa Awa Road intersection; • Awa Awa Road - extending from Marriages Road to its terminus; • Marnuka Road - extending from Marriages Road to its terminus. 			

		<ul style="list-style-type: none"> • Road to its terminus; • Seaton Valley Road – from Mapua Drive extending in generally a north westerly direction along the said road to Stage Coach Road; • Dawson Road – from Seaton Valley Road to its terminus; • Chaytor Road – from Seaton Valley Road to its terminus; • Stage Coach Road – extending from Te Maramaku Drive (SH60) along the said road in generally a northerly direction to its terminus. 			
14/25	80kph	<p>Situated at Mapua: Mapua Drive – extending from The Coastal Highway (SH 60) in generally an easterly direction to a point 200metres east of Seaton Valley Road at the speed limit change point, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Mapua", numbered 14 and identified in the legend as having a speed limit of 80km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
16/25	80kph	<p>Situated at Richmond North & South: McShane Road – extending from Appleby Highway (SH 60) in an easterly direction to Lower Queen Street, and shown on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Mapua", numbered 14 and identified in the legend as having a speed limit of 80km/h.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

17/25	80kph	<p>Situated at Brightwater:</p> <p>Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Brightwater ", numbered 17 and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> • River Terrace Road – from a point measured approximately 320metres south east of Lightband Road (SH 6) intersection and extending in generally an south easterly direction for a distance of 1.15kilometres; • Lord Rutherford Road South – from the existing 50kph Urban Traffic Area measured approximately 200metres generally north east of Roughton Lane, and extending in a south westerly direction to the intersection of Bird Road. 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
18B/25	80kph	<p>Situated at Wakefield:</p> <p>Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Wakefield", numbered 18B and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> • Bird Road – from Lord Rutherford Road South and extending in a north westerly direction to Main Road Spring Grove (SH6); 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

	<ul style="list-style-type: none"> Pigeon Valley Road – from the existing 50kph Wakefield Urban Traffic Area measured approximately 320metres generally north west of Clifford Road (SH6), and extending in a north westerly direction to a point measured approximately 50metres east of the Pigeon Valley South Branch Road intersection. 			
25/25	<p>80kph/h</p> <p>Situated at Hope: Those roads identified below and marked on the map entitled "Tasman District Council Consolidated Bylaw Chapter 4 - Speed Limits 2013, Hope", numbered 25 and identified in the legend as having a speed limit of 80km/h:</p> <ul style="list-style-type: none"> Paton Road – from the speed limit change point measured approximately 70metres south west of Ranzau Road East, and extending generally in a south westerly direction to the intersection of Clover Road East; White Road – from Paton Road extending in a south easterly direction to Hill Street South; Hill Street South – extending from White Road intersection in generally a south westerly direction to its terminus; Aniseed Valley Road – extending from Main Road Hope (SH6) generally in a south easterly direction along the said 	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

		<ul style="list-style-type: none"> • Haycock Road – from Aniseed Valley Road extending generally in a south westerly direction to a point measured approximately 400metres south west of Clover Road East intersection; • Clover Road East – from a point measured approximately 620metres south east of Main Road Hope (SH6) and extending to Haycock Road. 			
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Schedule Seven – Rural Areas 100km/h

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a speed limit of 100 km/h.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
1/25	100km/h	All Tasman District Council roads outside an urban traffic area listed in Schedule 4 have a speed limit of 100km/h, except for roads or areas that are: (a) described as having a different speed limit in the appropriate schedule of this bylaw, or (b) shown on a map as having a different speed limit, as referenced in the appropriate schedule of this bylaw.	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
2/25	100km/h	Collingwood	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
3/25	100km/h	Paton's Rock	11 June 2013	Tasman District Council	Tasman District Council

4/25	100km/h	Tata Beach/Ligar Bay	11 June 2013	Consolidated Bylaw Chapter 4 – Speed Limits 2013	Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
5/25	100km/h	Pohara	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
6/25	100km/h	East Takaka	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
7/25	100km/h	Takaka	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
8/25	100km/h	Takaka South	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
9A & 9B/25	100km/h	Kaiteriteri	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

10/25	100km/h	Riwaka & Brooklyn	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
11A & 11B/25	100km/h	Motueka North & South And Lower Moutere	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
12A & 12B/25	100km/h	Tasman	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
13A & 13B/25	100km/h	Ruby Bay	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
14/25	100km/h	Mapua	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
15/25	100km/h	Upper Moutere	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
16/25	100km/h	Richmond North & South	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed	Tasman District Council Consolidated Bylaw Chapter 4 – Speed

17/25	100km/h	Brighthwater	11 June 2013	Limits 2013 Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Limit Bylaw 2004 Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
18A & 18B/25	100km/h	Wakefield	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
19/25	100km/h	Tapawera	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
20/25	100km/h	St Arnaud & Rotoroa	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
21/25	100km/h	Murchison	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
22/25	100km/h	Parapara	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
23/25	100km/h	Marahau	11 June 2013	Tasman District Council Consolidated Bylaw	Tasman District Council Consolidated Bylaw

				Chapter 4 – Speed Limits 2013	Chapter 4 – Speed Limit Bylaw 2004
24/25	100km/h	Rabbit Island	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004
25/25	100km/h	Hope	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004

Schedule Eight – Holiday Speed Limits

The roads or areas described in this schedule or as shown on the map referenced in this schedule are declared to have a Holiday Speed Limit as specified in the schedule.

Map Number	Speed Limit	Description	Date Speed Limit Comes into Force	Legal Instrument	Previous Legal Instrument
1/25	50kph holiday speed limit	<p>Situated at Pakawau: The roads described in this entry of this schedule have a holiday speed limit of 50km/h beginning on 20 December each year and ending on 31 January the following year (both dates included)</p> <p>Collingwood Puponga Main Road - Extending for a length of 2200metres in a southerly direction from McClure Street, otherwise known as Pakawau Bush Road.</p>	11 June 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limits 2013	Tasman District Council Consolidated Bylaw Chapter 4 – Speed Limit Bylaw 2004



Statement of Proposal

Tasman District Council Consolidated Bylaw

Chapter 4 – Speed Limits Bylaw 2013

Statement of Proposal for Review of Tasman District Council Consolidated Bylaw – Chapter 4 – Speed Limits 2013

Introduction

This statement of proposal is to seek public input on the review of Tasman District Council Consolidated Bylaw – Chapter 4 – Speed Limits 2013.

This Bylaw was revised in 2004, as a chapter of the Consolidated Bylaw and has since had amendments added.

The review is a legislative requirement of the Local Government Act 2002 (LGA). Once reviewed, the bylaw will stay in force for another 10 years, or unless reviewed earlier.

The review involves publicly notifying of all speed limits scheduled in the existing bylaw which are to be retained as well as any new or changes to existing speed limits.

This document contains:

- Background information;
- An outline of the review process required under the Local Government Act 2002;
- The draft bylaw.

Background

This Bylaw sets out the speed limit for various local public roads (Not State Highways) with in Tasman District. Only the NZ Police can enforce speed limits but to be enforceable they must be legal and hence the purpose of this Bylaw.

The setting of speed limits is governed by the Land Transport Rule Setting of Speed Limits 2003.

Review Process under the Local Government Act 2002

- 1.1 Section 158 of the LGA requires all bylaws made under this Act to be reviewed within five years of the bylaw coming into force. Once reviewed for the first time, the bylaw needs to be reviewed every 10 years.
- 1.2 Section 159 of the LGA requires any bylaw review to reconsider the matters required to be taken into account under Section 155 when first considering the bylaw. For all intents and purposes the review therefore becomes a proposal for a new bylaw, even if the old one remains unchanged. This then ensures that the bylaw retains its relevancy.
- 1.3 The matters to consider are listed in Section 155 and are:

- (i) *whether a bylaw is the most appropriate way to address the perceived problem*

The perceived problem is ensuring appropriate speed limits are set for local roads and these can be legally enforced.

- (ii) *the specific form of bylaw required if a bylaw is found to be the most appropriate mechanism;*

The proposed Bylaw is the most appropriate and only means in which to apply a speed limit.

The Bylaw defines the roads and areas in which specific speed limits will apply, these are:

- 20kph
- 30kph
- 40kph
- 50kph
- 60kph
- 70kph
- 80kph
- 100kph
- Holiday Speed Limits
- Minimum Speed Limits
- Variable Speed Limits

Descriptions of these speed limits can be found in the Land Transport Rule Setting of Speed Limits 2003.

The proposed bylaw includes both existing speed limits as well as altered and new speed limits.

- (iii) *that the bylaw is consistent with the New Zealand Bill of Rights Act 1990.*

The proposed Bylaw is neither inconsistent with nor raises any implications with the New Zealand Bill of Rights Act 1990. The Bylaw does not place any limits on freedom of movement, expression or association and does not isolate any particular social group in terms of that Act. Any offences against the bylaw require a judicial process which provides alleged offenders with opportunities for defence through Courts.

- 1.4 Once reviewed, Council must use the Special Consultative Procedure as outlined in Section 86 and 83 of the LGA. This Procedure includes:

- Giving public notice of proposal and consultation being undertaken;
- Include in that notice where persons interested may obtain a copy of the Summary of Information and may inspect the full proposal;
- Also includes the period within which submissions on the proposal may be made;

Timetable for Consultation

Thursday 14 th Feb 2013	Engineering Services Committee approves Draft Bylaw, Statement of Proposal and Summary of Information for public consultation under the Special Consultative Procedures.
Saturday 23 rd Feb 2013	Public Notice of proposal published in Newsline the Mag, including other local tabloid and daily papers and inviting public submissions

Monday 25 th March 2013	Submissions close at 4:30pm
Thursday 4 th April 2013	Draft report prepared for Full Council summarising submissions and requesting a hearing committee to be established, if this is required
TBA	Hearing date for submissions
Thursday 9 th May 2013	Full Council considers outcome of consultation process, and adopts Bylaw
Saturday 1 st June 2013	Public notice in Newline the Mag, local tabloid and daily papers advising of the bylaw adoption and including a schedule of the new speed limits and when they come into effect
Tuesday 11 th June 2013	Bylaw to come into force on a forward date allowing for order and installation of new signs and for Police and NZTA Director to be informed of changes.

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3 The full Statement of Proposal including the draft Bylaw may be inspected during ordinary office hours at the following places:

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|----------------------------|----------------------------|
| 6 Tasman District Council | 9 Tasman District Council |
| 7 189 Queen Street | 10 7 Hickmott Place |
| 8 Richmond | 11 Motueka |
| 12 Tasman District Council | 15 Tasman District Council |
| 13 92 Fairfax Street | 16 78 Commercial Street |
| 14 Murchison | 17 Takaka |
| 18 District Library | 21 Motueka Library |
| 19 Queen Street | 22 Pah Street |
| 20 Richmond | 23 Motueka |
| | 24 |
| 25 Takaka Memorial Library | 28 |
| 26 Commercial Street, | |
| 27 Takaka | |
| 29 | |

31 A copy of the full Statement of Proposal may be viewed or copied from the Tasman District Council web site at: www.tasman.govt.nz

Submissions

Submissions to this bylaw review can be:

Made Online: www.tasman.govt.nz

Posted to: Executive Officer – Strategic Development, Tasman District Council, Private Bag 4, Richmond

Delivered to: Executive Officer – Strategic Development, Tasman District Council, 189 Queen Street, Richmond

Faxed to: 03 543 9524

Emailed to: info@tdc.govt.nz

Submissions should include your name, address, telephone number and email address, and should state if you wish to speak to the Council in support of your submission.

Submissions must be received by 4.30pm on Monday 25 March 2013.

Appendix 1 - Tasman District Council Consolidated Bylaw – Draft – Chapter 4 Speed Limits 2013

Appendix 2 - Summary of Information

SUMMARY OF INFORMATION TO REVIEW THE TASMAN DISTRICT COUNCIL CONSOLIDATED BYLAW CHAPTER 4 – SPEED LIMITS 2013

The Tasman District Council hereby gives notice that it has resolved pursuant to Section 158 of the Local Government Act 2002 to review the Consolidated Bylaw Chapter 4 – Speed Limits Bylaw 2004.

In accordance with the Special Consultative Procedure provisions of Section 83 of the Act, the following Summary of Information is provided:

Summary of Information

The Tasman District Council Consolidated Bylaw – Chapter 4 – Speed Limits Bylaw 2004 came into force on 30th September 2004. Since this date the bylaw has been amended a number of times but never a full review undertaken. Council has resolved to undertake a full review of the Bylaw.

This Bylaw sets out the speed limit for various local public roads (Not State Highways) with in Tasman District. Only the NZ Police can enforce speed limits.

The setting of speed limits is governed by the Land Transport Rule Setting of Speed Limits 2003 and requires a number of factors to be considered when setting speed limits.

The main changes from the 2004 Bylaw are:

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
1	Collingwood Puponga Road Pakawau	To leave the existing holiday 50kph speed limit on Collingwood Puponga Road extending from the start of Pakawau village to the Pakawau Hall near the corner of Pakawau Bush Road in place. It is also proposed to leave the length of the 70kph speed limit through the Pakawau village unchanged.	50 (holiday) 70	50 (permanent) 70
2	Haven Road Collingwood	Extend out the Urban Traffic Area for a short distance along Haven Road to Collingwood Quay	100	50
2	Bainham Main Road Collingwood	Put in place a 70kph speed limit extending along Collingwood Quay and Collingwood Bainham Main Road from Haven Road to a point just south of the Collingwood Cemetery entrance.	100	70
2	Takaka Collingwood Highway SH60 Collingwood	Takaka Collingwood Highway SH60 extending from the intersection with Collingwood Quay in a southerly direction for 270 metres. This proposal will need to be approved and gazetted by NZTA	100	70

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
2	Poplar Lane Collingwood	Include Poplar Lane into the Collingwood Urban Traffic Area.	100	50
3	Patons Rock Road Patons Rock	Extend the existing 50kph speed limit in a southerly direction along Patons Rock Road to a point measured 340 metres from Battery Road	100	50
4	Abel Tasman Drive Tata Beach/Ligar Bay	Revoke the 70kph permanent speed limit and 50kph holiday speed limit along Abel Tasman Drive at Ligar Bay and introduce a 60kph permanent speed limit with no holiday speed restriction	70 & 50 Holiday Speed Limit	60
4	Nyhane Drive, Nyhane Drive West, Leisure Lane and Matenga Drive Tata Beach/Ligar Bay	Put in place an Urban Traffic Area with a 50kph speed limit enclosing the Ligar Bay settlement and encompassing Nyhane Drive, Nyhane Drive West, Leisure Lane and Matenga Drive.	100	50
5	Falconer Road, Bay Vista Drive and Richmond Road Pohara	Extend the existing Urban Traffic Area with a 50kph speed limit to include Falconer Road, Bay Vista Drive and Richmond Road.	100	50
6	Abel Tasman Drive Glenview Road East Takaka	Revoke the existing 70kph speed limit on Abel Tasman Drive and 50kph speed limit on Glenview Road at Motupipi settlement and put in place a 60kph speed limit encompassing the same sections of road.	70 & 50	60
7	Abel Tasman Drive Takaka	Revoke the existing 70kph speed limit on Abel Tasman Drive near Sunbelt Crescent and put in place a 60kph speed limit encompassing the same section of road.	70	60
7	Rototai Road Arapeta Place Takaka	Revoke the existing 70kph speed limit on Rototai Road from the northern 70/100 speed limit sign extending in a southerly direction for 670metres. And extend out the Urban Traffic Area with a 50kph speed limit encompassing Arapeta Place.	70	50
8	Central Takaka Road Park Ave	Leave in place the existing 70kph speed limit along Central Takaka Road and 50kph speed limit on Park Ave	70 & 50	70& 50

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
	Takaka South			
9A & 9B	Riwaka Kaiteriteri Road Kaiteriteri	No change is proposed to the existing speed limits to Riwaka Kaiteriteri Road or Kaiteriteri settlement	80,50 & 30	80, 50 & 30
10	Riwaka Brooklyn	No change is proposed to the existing speed limits in this area	80,70 & 50	80,70 & 50
11A& 11B	Marchwood Park Road Queen Victoria Street Motueka North & South and Lower Moutere	Diminish the Urban Traffic Area by revoking the 50kph speed limit applying to Marchwood Park Road and Queen Victoria Street extending from a point 50 metres north of College Street in a northerly direction to a point 10metres north of Marchwood Park Road intersection. And put in place a 70kph speed limit enclosing Marchwood Park Road and the said portion of Queen Victoria Street.	50	70
12A & 12B	Marriages Road Mamaku Road Horton Road Awa Awa Road Permin Road Brookview Heights Williams Road Dee Road Kina Peninsular Road Tasman	Put in place an 80kph speed limit on the following roads: <ul style="list-style-type: none"> • Aporo Road from a point 300metres south of Williams Road and extending in a northerly direction to point 70metres south of Kina Beach Road; • Kina Beach Road from Aporo Road to the existing 70kph speed limit near Dee Road; • Baldwin Road extending from the existing 50kph speed limit to the road end; • And the entire length of the following roads: Marriages Road, Mamaku Road, Horton Road, Awa Awa Road, Permin Road, Brookview Heights, Williams Road, Dee Road and Kina Peninsular Road. 	100	80
12A	Aporo Road Tasman	Revoke the 70kph speed limit on Aporo Road through the Tasman Village and put in place a permanent 60kph speed limit.	70	60
13A	Stafford Drive Mapua Drive Ruby Bay	Revoke the 70kph speed limit on Stafford Drive and Mapua Drive, from the existing speed limit sign near Seaton Valley Road on Mapua Drive extending along Stafford Drive to the existing speed limit sign near Brabant Drive and put in place a 60kph speed limit.	70	60
13A	Pine Hill Road Ruby Bay	To put in place a 60kph speed limit on the entire length of Pine Hill Road from Stafford Drive to the road end.	100	60

Map No.	Location & Road Name	Proposal	Existing Speed Limit Kph	Proposed Speed Limit kph
13A	Pine Hill Road West Pomona Road Foley Road Ruby Bay	To put in place an 80kph speed limit on the entire length of the following roads: Pine Hill Road West, Pomona Road, Foley Road.	100	80
1.1 14	Mapua Drive Mapua	To put in place an 80kph speed limit on Mapua Drive extending from The Coastal Highway SH60 to the existing 100/70 speed limit sign just east of Seaton Valley Road	100	80
15	Moutere Highway Upper Moutere	No change is proposed to the existing speed limit to the Moutere Highway through Upper Moutere.	50	50
16	North & South Queen Street Richmond	To put in place a 30kph speed limit on Queen Street extending from Salisbury Road to Gladstone Road.	50	30
17	Lord Rutherford Road South Brightwater	To put in place an 80kph speed limit on Lord Rutherford Road South extending from the 50/100 speed limit sign to Higgins Road	100	80
18A	Eighty Eight Valley Road Wakefield	To extend out the Urban Traffic Area with a speed limit of 50kph along Eighty Eight Valley Road to a point 250metres west of Genia Drive intersection.	80	50
18A	Eighty Eight Valley Road Wakefield	To revoke the remaining section of 80kph speed limit on Eighty Eight Valley Road extending as far as Totara View Road and put in place a 70kph speed limit.	80	70
18A	Totara View Road Kilkenny Place Gossey Drive North Edward Street Wakefield	To revoke the existing Urban Traffic Area with a speed limit of 50kph on Totara View Road, Kilkenny Place, Gossey Drive North and a portion of Edward Street between Gossey Drive North and Gibbs Valley Road. And put in place a 60kph speed limit on the said roads and road sections referred to above.	50	60
18B	Higgins Road Bird Road Wakefield	To put in place an 80kph speed limit extending along Higgins Road and Bird Road from Lord Rutherford Road South to the intersection of Bird Road at SH6.	100	80
19	Tapawera	No change proposed	50	50
20	St Arnaud & Rotoroa	No changes proposed	50 & 30	50 & 30
21	Murchison	No changes proposed	70 & 50	70 & 50
22	Para Para	No changes proposed	50	50
23	Marahau	No changes proposed	60 & 30	60 & 30
24	Rabbit Island	No change proposed	70	70
25	Hope	No change proposed	70	70

The full Statement of Proposal is available for viewing during normal Council hours at the following Council offices:

Main Office, 189 Queen Street, Richmond
Motueka Service Centre, 7 Hickmott Place, Motueka
Golden Bay Service Centre, 78 Commercial Street, Takaka
Murchison Service Centre, 92 Fairfax Street, Takaka

And libraries:

District Library, Queen Street, Richmond
Motueka Library, Pah Street, Motueka
Takaka Memorial Library, Commercial Street, Takaka

The Statement of Proposal is also available on the Council website at www.tasman.govt.nz

Submissions to this bylaw review are invited from Saturday 23rd February 2013, and can be:

Online Submission:

Posted to: Executive Officer – Strategic Development, Tasman District Council,
Private Bag 4, Richmond

Delivered to: Executive Officer – Strategic Development, Tasman District Council, 189
Queen Street, Richmond

Faxed to: 03 543 9524

Emailed to: info@tdc.govt.nz

Submissions should include your name, address, telephone number and email address, and should state if you wish to speak to the Council in support of your submission.

Submissions must be received by 4.30pm on Monday 25th March 2013.

8.4 WAKEFIELD WATER SUPPLY - NEW SOURCE AND WATER TREATMENT PLANT

Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Kim Arnold, Utilities Asset Engineer
Report Number: RESC13-02-04
File Reference:

Item 8.4

1 Summary

1.1 This report provides an update of the current status of the Wakefield Water Supply – New Source and Water Treatment Plant Project, and seeks nomination of one or more representative(s) from the Engineering Services Committee to be part of a working group for this project.

2 Draft Resolution

That the Engineering Services Committee

- 2.1 receives the Wakefield Water Supply - New Source and Water Treatment Plant report; and**
- 2.2 nominates Councillor(s) to be part of a working group for the project.**

3 Purpose of the Report

- 3.1 The purpose of this report is to provide a brief update on the status of the Wakefield Water Supply – New Source and Water Treatment Plant Project, as well as providing an opportunity for one or more representatives from the Committee to be part of a project working group.

4 Background and Discussion

- 4.1 The population of the Wakefield area is expected to grow significantly over the next 35 years. Similarly significant growth is expected in the Brightwater area and it is unlikely the additional water supply demand for these two areas will be met by the existing borefields.
- 4.2 Significant investigation and testing has proven a suitable source and location of a new borefield to supply water for the Wakefield community in Spring Grove. The proposed abstraction from the borefield utilises the allocation purchased by Council from the Wai-iti Dam Service Zone. Resource consent has been granted for the abstraction.
- 4.3 In the next financial year budget is available to progress the Wakefield Water Supply – New Source and Water Treatment Plant Project, to the next stage of preliminary design. There are a number of wider community considerations that will impact the scope and design of the Treatment Plant and associated infrastructure.
- 4.4 When the upgrade is complete, it is proposed to use the augmented Wakefield supply to supplement the Brightwater supply and relieve the over-allocated 88 Valley Water Scheme by transferring some of its members on to the Wakefield supply.
- 4.5 It is proposed that a project working group be established to provide a forum for community discussion and consultation.

5 Council Representation

- 5.1 It is intended the working group will include Councillor(s), Council project staff, Wakefield and 88 Valley Water scheme representatives and other affected parties. It is requested that the Engineering Services Committee nominate one or more Councillors to join the working group for the project.
- 5.2 It is envisaged that the working group will meet six-weekly.

6 Funding /Budgetary Considerations

- 6.1 No funding has been allowed for the consultation phase of this project.
- 6.2 Funding to the value of \$108,898 has been allowed to undertake hydraulic modelling of the reticulation networks. This budget was allowed for in Year 2 of the 2012-2022 Long Term Plan but is proposed to be moved to Year 3 of the 2013/14 Annual Plan.

7 Significance

- 7.1 This recommendation has a low level of significance under the Council's Policy on Significance as members of the working group will be drawn represent all areas of the water supply areas for the purpose of a consultation forum.
- 7.2 Any recommendations from the working group will be subject to future consideration for issues of significance.

8 Consultation

- 8.1 Given that the final decision might have a moderate degree of significance to all water users in the Wakefield and Eighty Eight Valley Rural Water Supply Areas, it is proposed that the working group undertake consultation and provide regular newsletters to enable the public to provide feedback on the proposed changes.
- 8.2 The primary purpose of the working group is to provide a link for consultation with the wider Wakefield and 88 Valley water scheme members and various other stakeholders potentially affected by the project.

9 Conclusion

- 9.1 The Wakefield Water Supply – New Source and Water Treatment Plant project is at a stage where preliminary design can commence and community-wide decisions are required to determine the scope of key aspects of the project. A project working group is proposed as a forum for consultation and discussion on those aspects and is seen as key to progressing the project to the next stage. A representative(s) from the Engineering Services Committee is sought to join the project working group.

10 Next Steps / Timeline

- 10.1 It is intended that the members of the project working group be confirmed by end of March 2013 and an initial group meeting is held by end of April 2013.

11 Appendices

Nil

8.5 ENGINEERING SERVICES REORGANISATION - UPDATE

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Peter Thomson, Engineering Manager
Report Number: RESC13-02-05
File Reference:

1 Summary

- 1.1 The Council approved the restructuring of the Engineering Services department at its meeting on 29 November 2012. The November report included a business case which identified a list of key performance indicators covering the first year of implementation.
- 1.2 This report provides the first update on achievements against the list of key performance indicators. Future reports will be provided to successive Engineering Services Committee meetings.

2 Draft Resolution

That the Engineering Services Committee receives the Engineering Services Reorganisation - Update Report.

3 Purpose of the Report

- 3.1 On 29 November 2012 Council approved the restructuring of the Engineering Services department in order to:
- Bring strategic and operational professional services in-house
 - Increase the engineering Services department from 21 to 39 full time equivalent staff
 - Increase associated staff resources in the Corporate Services department by two full time equivalents
 - Develop new outsourced professional services contracts primarily for capital project works
- 3.2 This report provides the first update on achievements against the list of key performance indicators included in the business case for change. The KPIs cover the first year of implementation of the approved changes.

4 Discussion

- 4.1 The progress report on KPIs is included in Appendix 1. Comments have been provided as at the end of January 2012.
- 4.2 A further verbal update may be provided for some items at the meeting.

5 Next Steps / Timeline

- 5.1 A report on progress against the key performance indicators will be presented to each successive meeting of the Engineering Services Committee, recording the measured achievements for each KPI.

6 Appendices

1. Key Performance Indicators - Progress Report 257

Key Performance Indicators – Progress Report to Engineering Services Committee Meeting 14 February 2013

Activity	Key Performance Indicators	Measure Achieved	Comments to end of January 2013
1 Recruitment	<p>a. Existing staff commenced work in 'mapped positions' by end December 2012</p> <p>b. Successful candidates for 'internally and externally advertised' positions commenced work in new roles as follows:</p> <ul style="list-style-type: none"> i. Tier 3 by mid March 2013 ii. Tier 4 by end May 2013 iii. Other roles by end July 2013 <p>c. No Personal Grievance claims made by existing staff as a result of recruitment process are successful.</p>	<p>% positions filled</p> <p>% positions filled</p> <p>% positions filled</p> <p>% positions filled</p> <p># of successful claims</p>	<p>Revised Target date is mid February 2013. All staff have been mapped into new positions and were offered jobs at end of January. Six of the 39 positions (15%) are now confirmed mapped.</p> <p>50% filled and confirmed.</p> <p>NA - due to flattening of structure</p> <p>9% filled and confirmed.</p> <p>Nil claims to date</p>
2 Internal Work Processes	All internal work processes mapped by 12 April 2013	% complete	Project agreement and scope completed. Discovery phase begins in February and documentation phase is planned for March/April.
3 Financial Information	Service Level Agreement for provision of financial information in place by end March 2013	Y/N	<p>Sub-project team with Corporate and Engineering Services staff is preparing financial task/work requirements and full budgets estimates for the final 2013/14 Annual Plan.</p> <p>A new Management Accountant is currently being recruited by Corporate Services to assist with delivery of financial services.</p>

Activity	Key Performance Indicators	Measure Achieved	Comments to end of January 2013
	New financial information processes, including revised reporting, fully operational from 1 July 2013	% complete	Sub-project team will also develop new KPIs against which the ongoing financial performance of the in-house delivery of services can be measured against the existing contracted delivery service.
4 NZTA	<p>a. NZTA approval of procurement strategy and SLA by end March 2013</p> <p>b. NZTA requirements incorporated into financial reporting structure and processes by end May 2013</p> <p>c. NZTA claims made successfully under new structure from July 2013</p> <p>d. Interim contract approval by NZTA</p>	<p>Y/N</p> <p>Y/N</p> <p>Y/N</p> <p>Y - achieved</p>	<p>A revised Council Procurement Strategy will be presented to the Engineering Services Committee meeting for adoption on 28 March 2013.</p> <p>Managers are working with NZTA to define all financial reporting requirements, including claims.</p> <p>Y – NZTA approval received in December 2012 for extension of existing professional services contract to 30 June 2014.</p>
5 Transition	<p>a. Migration planning complete by end December 2012</p> <p>b. Transition of data complete by mid August 2013</p>	<p>Y - achieved</p> <p>Y/N</p>	<p>93 individual datasets have been identified for migration.</p> <p>22 datasets have been moved/migrated.</p>
6 MWH Interim Contract	<p>a. Final scope of interim contract agreed by mid December 2012</p> <p>b. Interim contract commenced by 1 April 2013</p>	<p>Y - achieved</p> <p>Y/N</p>	<p>Y – extension of professional services contract was formally agreed 31 January 2013.</p> <p>Formal extension period is from 1 April 2013 to 30 June 2014.</p>
7 New PS Contract	a. New contract tender documents complete by end July 2013	Y/N	New contract tender documents will start to be compiled from mid-March 2013.

Activity	Key Performance Indicators	Measure Achieved	Comments to end of January 2013
	b. New contract awarded/panel determined by 1 April 2014 c. New contract/panel commenced by 1 July 2014	Y/N Y/N	
8 Financial Forecasts	Costs within the following categories are in line with the financial forecasts approved by Council for 2012/13 and 2013/14 years: a. Staff Costs b. Operating and Overheads Costs c. External Professional Services Costs (Operational) d. One-Off Costs	% budget YTD % budget YTD % budget YTD \$ actual vs budget	Sub-project finance team will develop new KPIs against which the ongoing financial performance of the in-house delivery of services can be measured against the existing contracted delivery service. KPIs will be first reported to Council meeting in April 2013.
9 Infrastructure Activity Management Planning	Transfer of infrastructure activity planning responsibilities to Engineering Services completed by end August 2013	Y/N	
10 Transportation	Transfer of network management responsibilities to Engineering Services completed by end October 2013	Y/N	A full schedule of responsibilities and tasks is being compiled by the relevant section manager.
11 Utilities	Transfer of network management responsibilities to Engineering Services completed by end October 2013	Y/N	A full schedule of responsibilities and tasks is being compiled by the relevant section manager.

Activity	Key Performance Indicators	Measure Achieved	Comments to end of January 2013
12 Infrastructure Programme Delivery	Transfer of capital project and contract management responsibilities to Engineering Services completed by end October 2013	Y/N	A complete schedule of current project agreements is being compiled. A transition programme of new project work is being developed for the period April to November 2013.
13 Customer Service	<p>a. Establishment of CSR function within ES by October 2013</p> <p>b. Number of CSR's: Utilities vs Transportation</p> <p>i. Received at Council – total # of ES related requests into Council Call Centre</p> <p>ii. Received in ES (by department) and handled (.ie. to contractor, to consultant, to staff, to other department, etc)</p> <p>iii. Resolved successfully and within required timeframes</p>	<p>Y/N</p> <p>#</p> <p>Measure compared to existing #s from Customer Services</p> <p>Measure compared to existing #s from Customer Services</p>	<p>CSR functions, responsibilities and tasks have been included in the new job descriptions. A CSR sub-project team has been established assist the transition of these tasks back in-house.</p> <p>Data collection systems are in place to record the information that will be required for reporting below.</p>

Notes: # = number, Y/N measures have been used for critical items where possible

8.6 UTILITIES REPORT

Information Only - No Decision Required

Report To:	Engineering Services Committee
Meeting Date:	14 February 2013
Report Author:	Kim Arnold, Utilities Asset Engineer; Jeff Cuthbertson, Utilities Asset Manager; David Stephenson, Utilities Asset Engineer
Report Number:	RESC13-02-06
File Reference:	

Item 8.6

1 Summary

- 1.1 This report summarises the Utilities activities for the November 2012 to January 2013 operational period.
- 1.2 Downer have maintained their level of performance with all proactive, routine and non-routine maintenance on the water and wastewater treatment plants, pump stations, reservoir sites and stormwater assets as scheduled including during the Christmas-New Year period.
- 1.3 In solid waste operations contractors are performing very well. Volumes to landfill and are tracking on budget and income slightly below budget.

2 Draft Resolution

That the Engineering Services Committee receives the Utilities Report RESC13-02-06

3 Purpose of this report

- 3.1 This report summarises the Utilities activities for the November 2012 to January 2013 operational period.

4 Utilities General

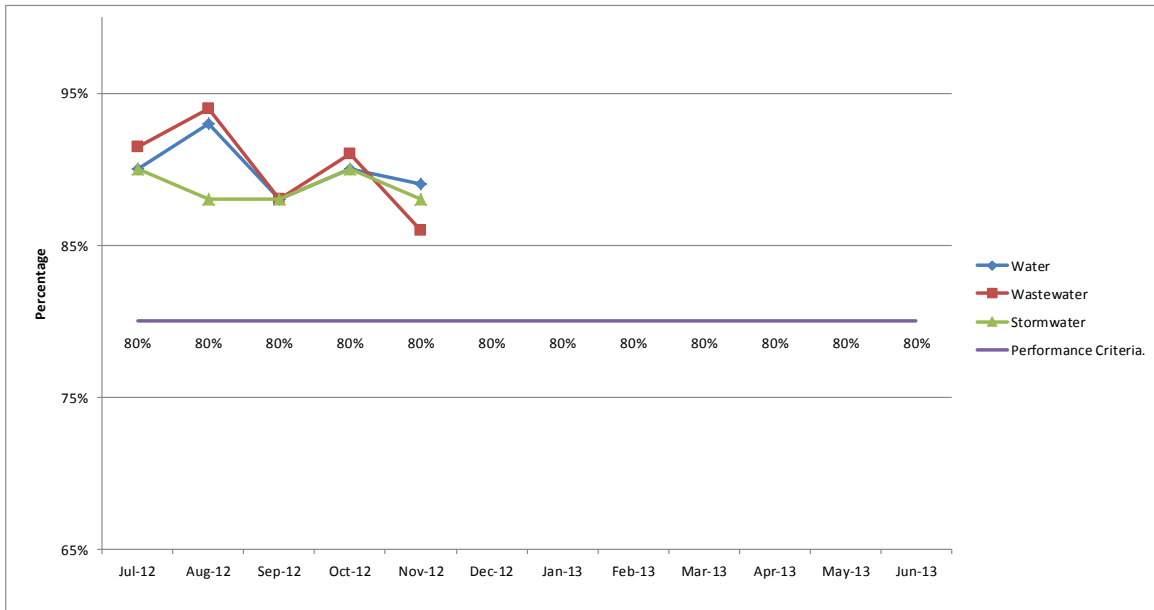
- 4.1 Utilities maintenance contractor Downer undertook all proactive, routine and non-routine network maintenance on the water and wastewater treatment plants, pump stations, reservoir sites and stormwater assets as scheduled and required within their programme during the most recent operational period.
- 4.2 In addition to this Downer have also been involved in project work undertaken via Contract 688 and some of this includes:
- Richmond - decommissioning of an abandoned bore adjacent to the existing Bore #3;
 - Kaiteriteri/Riwaka - testing of wastewater pressure across Tapu Bay
 - Extensive pre-Christmas inspections and pro-active works on the three waters networks.
- 4.3 The water supply networks have, in general, been placed under very high demand due to warm, dry weather in November and December 2012 and the typical seasonal population increases across the region. The rural networks in particular have been stretched and the contractor has been required to provide significant additional resources to attend to issues and ensure continuity of supply to rural scheme users.
- 4.4 Wastewater networks have also been placed under increased demand and treatment plants in Takaka, Collingwood and Motueka have all had some issues with high loadings and associated odour issues resulting from dry weather and population increases.
- 4.5 In November Council staff and the contractor planned and implemented an extensive programme of proactive maintenance work in preparation for the peak holiday period. All inspections and proactive works were successfully completed prior to 21 December
- 4.6 The peak demand period between Christmas and New Year, was managed well, with relatively few major incidents. Some of the issues that did occur include:
- Wakefield Water Supply – a significant watermain burst occurred below the main reservoirs,
 - Richmond Water Supply – detection of E.coli in upper Richmond water supply. Follow up testing showed results to be all clear.
 - Motueka WWTP – odour complaints were received. Temporary fixing of inlet covers was required.
- 4.7 The information below shows the contractor performance, a summary of the completed Customer Services jobs and the overall financial performance of Contract 688.
- 4.8 Contract 688 Performance Standard Measurements Monitoring Audits**
- As required by Contract 688, a random selection of audits on various portions of the Utility Networks were undertaken. The Contractor has again performed consistently well over the November period and therefore achieved audit scores above the minimum performance

criteria required over the three water networks. At the time of writing this report the December 2012 audits have not been fully completed therefore are not included.

Contract 688 Performance Measurement Audit scores July 2012 to June 2013

	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
Water	90%	93%	88%	90%	89%							
Wastewater	91%	94%	88%	91%	86%							
Stormwater	90%	88%	88%	90%	88%							
Performance Criteria	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%

Contract performance standard measurement target requirement is to achieve a minimum score of 80% in any one discipline.



4.9 Overall Performance Standard Summary

	Performance Standards - Contract 688 – 2012 – 2013											
	July 2012	Aug 2012	Sept 2012	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	April 2013	May 2013	June 2013
Contract Management	■	■	■	■	■							
Water Supply Network	■	■	■	■	■							
Wastewater Network	■	■	■	■	■							
Stormwater Network	■	■	■	■	■							

Key: ■ Passed appropriate Performance Standard in accordance with C688
 ■ Not achieved appropriate Performance Standard in accordance with C688

4.10 Customer Services - Job Completion

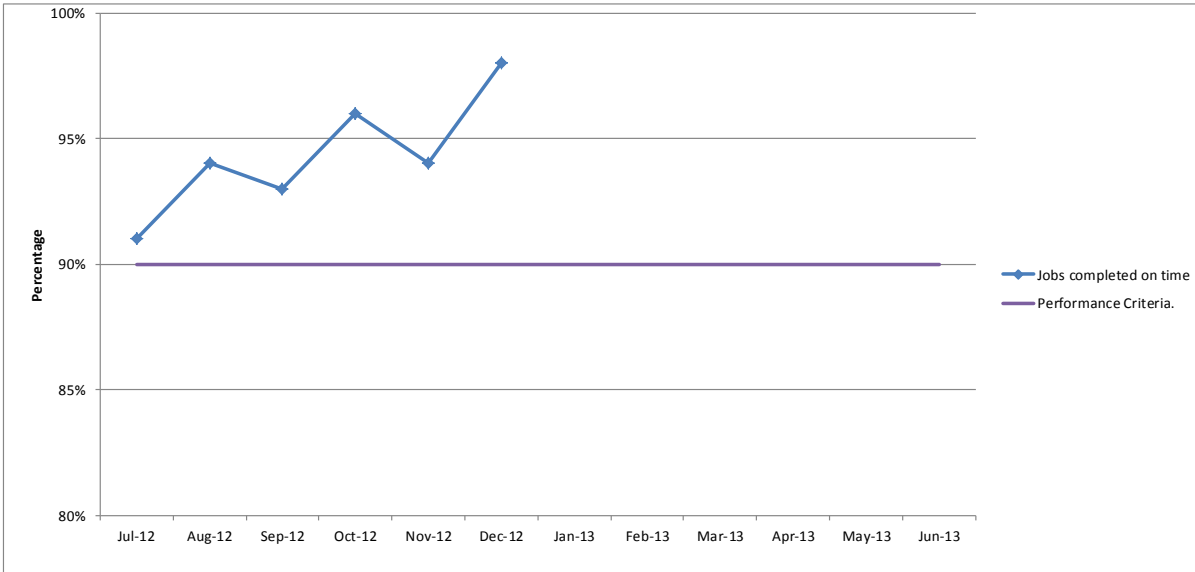
Targets for Tasman District Council customer services and requirements under Contract 688 are for the Operations and Maintenance Contractor to achieve 90% or above for completion on time. Downer achieved 94% in November and 98% in December 2012.

4.11 Contract 688 Performance Measurement

Scores achieved from July 2012 to June 2013 – Jobs completed on time.

Contract 688 Performance Measurement scores achieved July 2012 to June 2013 - Percentage of Jobs completed on time												
Month	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
Jobs completed on time	91%	94%	93%	96%	94%	98%						
Performance Criteria	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%

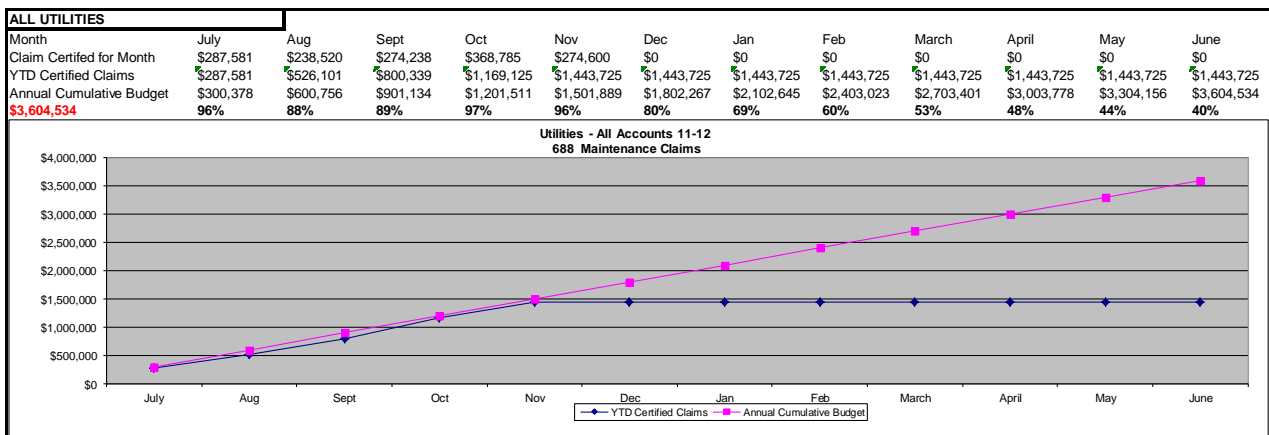
Tasman District Councils' customer service job completion on time target = minimum of 90%



Contract 688 July 2012 to June 2013 - On time / late job numbers												
Month	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13
On Time	251	196	221	257	282	302						
Late	16	13	17	12	17	7						
Total	267	209	238	269	299	309						

5 Financial Performance

5.1 The combined Stormwater, Water and Wastewater Utilities budgets and expenditure to date for the 2012/2013 financial year are shown below up to the end of November 2012 as an "All Utilities" to provide an overall view on the financial status. At the time of writing this report the December 2012 financial information has not been fully completed therefore has not been included.



6 Wastewater networks

6.1 During the November to December period the environmental performance monitoring was routinely undertaken at the Collingwood, Motueka, Murchison, St Arnaud and Takaka Wastewater Treatment Plants (WWTPs). An additional five week sampling programme also commenced at these sites on 17 December 2012. Not all results of the monitoring have been received to date. Preliminary results indicate that, apart from Takaka, other sites have mostly complied with resource consent requirements.

6.2 The table below shows the blockages/overflows for the period 14 November to the 30 December 2012.

Location	Date	Job Number	What	Overflow	Why	Remedial Action
Hill Street South	14/11/12	N/A	Power Outage	Yes	Blown Fuses	Repaired
Motueka Massey Street	14/11/12	52606	Blocked Pipe	No	Build up	Attend site with Sepclean and removed blockage
Murchison WWTP	20/11/12	N/A	Bag Pump Fault	No	Faulty Electrical Equipment	Replaced Faulty Wiring
Motueka Kingston Place 19a	28/11/12	52877	Blocked Pipe	Yes	Fat build up, suspicion of line sagging	Unblock, clean up and CCTV as it was second event within a few months
Sanderlane WWPS	7/12/12	N/A	High Level	No	High Float Faulty	Replaced Float
108 Aranui Road	8/12/12	N/A	High Level	No	Pump Blocked	Cleared
Hill Street South	9/12/12	N/A	High Level	No	Station ok again	Suspect Swimming Pool Empty
Motueka 145 High Street	27/12/12	53390	leak	Yes	Grease trap issues	Clean up
Pohara 618 Abel Tasman Drive	30/12/12	53404	Odour	No	Could not be confirmed when on site	Project being advanced to avoid odour and overflow issues that are re-curring in Clifton.

6.3 Wastewater Treatment Plant Compliance

This report covers from 15 November to 12 December 2012. During this period environmental and performance monitoring was routinely undertaken at Collingwood, Motueka, Murchison, St Arnaud and Takaka Wastewater Treatment Plants (WWTPs).

6.4 Five weeks of additional sampling began on 17 December 2012 at the WWTPs that are impacted by holiday makers. Not all monitoring results have been received for this period.

6.5 The table below indicates whether compliance with resource consent conditions was achieved at each WWTP. Where compliance was not achieved, the likely factors contributing to the non-compliance are discussed below.

WWTP	Compliance	If "no", What?	Why	Remedial Action
Collingwood	Yes			

Motueka	Yes			
Murchison	Yes			
St Arnaud	Yes			
Takaka	No	<p>12-December-2012 – wetland cells: faecal coliform median over one year exceeds limit of 5,000 cfu/100mL (8,100 cfu/100mL)</p> <p>12-December-2012 – surface water: faecal coliform median over one year exceeds limit of 1,000 cfu/100mL (1,100 cfu/100mL)</p> <p>12-December-2012 – groundwater: faecal coliform concentration in the plume exceeds 1.5 times the median of concentration of bores outside the plume.</p>	<p>Compliance has not been achieved since 22 June 2011</p> <p>Will be related to elevated wetland cell concentrations</p> <p>Due to historical high concentrations, 12 Dec 2012 sample returned <1 cfu/100mL</p>	Upgrade of WWTP proceeding, new consent lodged.

6.6 Submissions to the consent application for the proposed Takaka WWTP upgrade works closed on Friday 30 November 2012. Further consultation with submitters is in progress with a hearing date planned for late February 2013.

6.7 Hydrogeological investigations for determining groundwater disposal options were undertaken at the Motueka WWTP during November 2012. A treatment and discharge options report has been drafted. Details of the hydrogeological testing and treatment plant upgrade options will be presented to the Motueka WWTP working party on 19 February 2013.

7 Water networks

- 7.1 Ongoing issues in maintaining a constant supply on rural water schemes has continued to require extra effort and resources from the contractor. In particular in the Martin Road-Kelling Road area of the Dovedale scheme, leak investigations continue. Additional valves and in-line meters have helped to pinpoint issues and provide better control throughout the scheme.
- 7.2 In the Redwood scheme reduction in line pressure is evident as houses are built in new developments. A new link between Maisey's Reservoir and the Galeo Estate development is proposed and will partly help to remedy the issue.
- 7.3 Work to decommission an abandoned bore and potential source of contamination adjacent to the Richmond bore #3 has been completed. Monitoring of the water quality from the bore continues.
- 7.4 The completed work to improve the Pohara Valley water supply, including the new storage tanks, has meant that the boil water requirement was able to be lifted prior to the Christmas break. In spite of a short period of heavy rain affecting the source water quality, the additional storage allowed for the supply intake at the source to be closed off for a number of days and clean water to continue to be supplied from the new reservoirs.

- 7.5 Adcock and Donaldson have completed the Richmond Rezone water main upgrade project. The installation of replacement water mains in Beach Road, Stratford Street and Lower Queen Street and trenchless installation in McGlashen Avenue were all successfully completed within budget and on time.
- 7.6 A second bore at the Motueka Recreation Centre has been installed. The new bore will provide improved fire fighting flow requirements in Motueka. Pump design is in progress and it is expected to be installed and operational by April 2013.
- 7.7 The water exceptions for the November-December period are outlined in the table below.

Water Supply Exceptions

Date	Location	Job Number	What	Why	Remedial Action
22/11/12	Upper Queen Street pump station.	N/A	VSD overheated	High temperature inside pump station	VSD repaired. Pump station ventilation to be upgraded.
01/12/12	Stafford Drive, Mapua	52987	150mm PVC main break	Fragile pipe	New section of pipe installed.
03/12/12	Best Island – Barnett Avenue corner	N/A	200mm PVC main leak	Fragile pipe	New section of pipe installed.
06/12/12	Stafford Drive, Mapua	53073	150mm PVC main break	Fragile pipe	New section of pipe installed

8 Stormwater networks

- 8.1 Downer carried out three pre-storm checks during December 2012 which meant the systems were well prepared in anticipation of any rain events. Operation of the Motueka floodgates was not required.
- 8.2 Some additional proactive stormwater channel vegetation trimming work was also completed prior to the Christmas period to prevent potential blockage of intakes during a significant rainfall event.
- 8.3 A relatively short duration, high-intensity rain event on 15 January 2013 caused significant flooding of private property near Washbourn Gardens in Richmond. Staff inspected the site and are investigating options of improving the capacity of existing piped network as well as what is required to improve secondary flowpaths.
- 8.4 Ching Contracting completed the construction of an open channel and dual 1050mm culvert from Baldwin Road to the Tasman Stream prior to the expected 24 December 2012 completion date. Final planting of the site will occur in the autumn.
- 8.5 Initial modelling work has been completed of Ned's Creek, near Hampden Street in Murchison. Staff will evaluate options to reduce flooding in this area before recommencing discussions with affected landowners.
- 8.6 **Flood Recovery Projects**
Staff are continuing to on prioritising remaining flood repair works from the December 2011 event, while continuing with essential works. A contract to replace culverts on Ellis Creek

was awarded in mid-January. Prior to Christmas some additional maintenance was undertaken in Ligar Bay and Pohara.

- 8.7 The Chief Executive and Council staff met with representatives of Richmond Pohara Holdings Ltd to discuss a collaborative approach to assess flooding in the Pohara village area. Staff will be working with Richmond Pohara Holdings to develop a jointly funded computer modelling study of Ellis Creek and Pohara village.
- 8.8 The modelling study will be used by Council to assess the effectiveness of physical works to reduce flooding in the area and by Richmond Pohara Holdings to support their current resource consent application to subdivide.
- 8.9 As indicated in previous reports, there are various watercourses adjacent to urban areas in the District (such as Ned's Creek, Pohara Valley and Ellis Creek) which are not maintained by the Council. It is expected that a paper will be brought to the Committee in the near future considering whether Council should undertake to maintain some of these watercourses.

9 Telemetry and Electrical

- 9.1 Power supply issues on 6 December 2012 caused electrical faults at a number of sites in the Richmond-Waimea area. These included Richmond bores, Redwoods Reservoir, Brightwater bores, Waimea bores and Eves Valley. All issues were of short duration and promptly resolved.
- 9.2 The analogue telemetry network has generally performed well during the last period.
- 9.3 Two isolated radio faults occurred along with a temporary lock up of the Scada system in December 2012.

10 Solid Waste

10.1 Kerbside collections

The kerbside collections contractor has performed to a high standard over the summer holiday period although staff were busy in early January with some late collections. Collection quantities were down for December 2012 but appear to have risen again in early January 2013 with the contractor working through a backlog of recyclables processing at present.

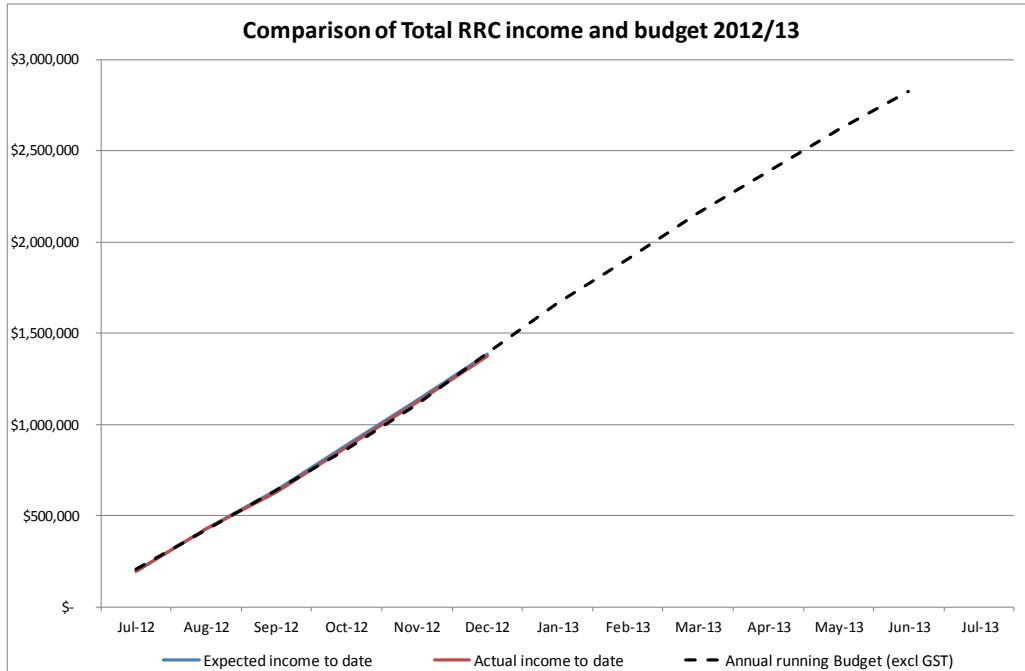
10.2 Resource Recovery Centres

The site contractors are continuing to operate the Resource Recovery Centres to a high standard although the Collingwood site is scheduled for a general clean up in the upper area. The older road pavement at the Richmond RRC is showing signs of deterioration. Staff will be meeting with the contractor to prioritise repair areas and then consider funding options.

- 10.3 A customer satisfaction survey was conducted over December 2012 and January 2013 at the five Resource Recovery Centres. Preliminary results indicate increasing satisfaction. Final results will be included in level of service reporting in the Annual Report.

- 10.4 Waste tonnages at most sites in December 2012 dropped when compared with previous years, with total tonnages for the six months to December on budget. Tonnages for the six months are up at Richmond and below estimates at other sites. Income is 1.5% below

budget for the period; this is less than would be expected due largely to a delay in price increases in August 2012 and reduced recovery at the Takaka site. Over the summer period staff are auditing income at selected sites to ensure appropriate income recovery.



- 10.5 New hazardous material bins for paint, oil and batteries have been delivered to the Richmond and Mariri sites. Recent improvements to the bin loading area at Takaka have reduced the damage to waste transport bins.
- 10.6 Other work to be considered in the 2012/13 year includes improvements to security at remote sites, improvements to the refuse cover at Murchison, improvements to drainage at Takaka and renewal of pavement areas at the Richmond site.
- 10.7 **Eves Valley landfill**
Landfilling operations at Eves Valley continued over the period with a high level of performance by the contractor. Special waste for November and December 2012 dropped to normal budgeted levels.
- 10.8 Three quarters of the earthworks to extend the capacity of the current operational area have been completed and are due to be finished by the end of January 2013. Ongoing problems with windblown litter (in strong south-westerly winds) have led to consideration of an additional litter fence on the northern boundary of the working face. A quote for this work is currently being assessed.
- 10.9 As reported last year it is proposed to seek consent to extend the existing Stage 2 of the landfill, rather than to construct Stage 3. Work on this consent is expected to start later in the year.
- 10.10 New monitoring equipment installed at the landfill has indicated high leachate flows in heavy rainfall events. In some events the leachate line to Brightwater is unable to take all flows and leachate must be managed on site. Investigations have commenced to identify the source of the high flows and to assess options to manage these. In the interim, Council staff have applied to vary some conditions of the existing consent and to seek consent for emergency discharges of contaminated stormwater in exceptional events.

10.11 An investigation of pavement failures on the access road to the landfill has identified a 100 metre section of road that requires rehabilitation. Prices are being sought to complete this work. The work will be funded by unspent capital budgets for the Stage 3 consent.

10.12 Zero Waste Grants

In December 2012 staff considered seven applications for Zero Waste Grants and provided a recommendation to the Engineering Manager and the deputy chair of the Engineering Services Committee. The following applications were granted funding under delegated authority.

Organisation	Project	Funds Sought (excl GST)	Funding granted
Tapawera Area School	Storage crates for recycling cans	\$1000	\$1000
St Paul's Catholic School	Reusable lunch wraps	\$1000	\$1000
Henley Kindergarten	Purchase of two compost bins	\$600	\$600
Waverly Street Kindergarten	Purchase paper recycling equipment	\$467	\$467
Nelson Environment Centre – Nelson Art Box	Feasibility study for the expansion of a pilot art materials exchange	\$1000	\$1000*
Nelson Environment Centre - Pare Kore project	Part funding to develop a comprehensive waste minimisation programme at Te Awhina Marae	\$2000	\$1000*

* subject to approval of other funding applications

10.13 A further funding round of Zero Waste Grants will close in March 2013. The joint waste management and minimisation plan provides for a joint fund for applications with Nelson City Council and staff will be working to progress this.

10.14 Regional Waste Management and Minimisation

The second round of waste surveys at York Valley landfill and Richmond and Mariri Resource Recovery Centres was completed in December 2012 and results of the survey will be available for consideration in February 2013. The results will be used to determine waste minimisation priorities in coming years, in particular the consideration of facilities to divert organic waste from landfill.

10.15 During October 2012 the Council advertised a tender (on behalf of Nelson City and Tasman District Council) for community engagement for waste minimisation. Two tenders were submitted and in December Council awarded the contract to the Nelson Environment Centre. The contract period is for 1 February 2013 to 30 June 2016. Staff from the two councils will be meeting with the contractor in February 2013 to refine the engagement strategy for the contract and to consider the results of recent waste surveys.

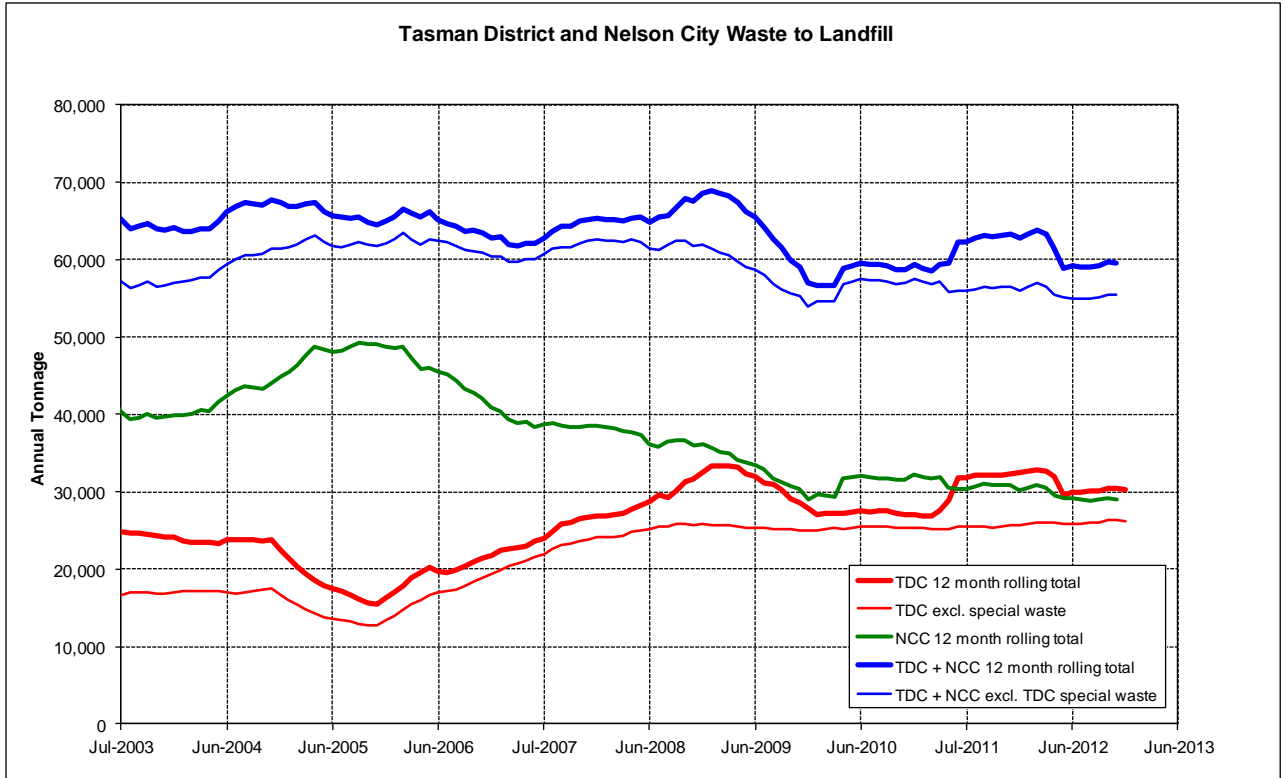
10.16 Staff from the two councils have recently received preliminary information on a business case for the joint operation of landfills in the region. Staff will be working to further refine the analysis and prepare a report with findings for consideration. It is expected that the report will be considered by the joint waste working party in the first instance.

10.17 The Ministry for the Environment will be supporting a "TV takeback" programme over the entire South Island from March 2013, in conjunction with the digital switch over from 28 April 2013. The ministry will be providing capped funding for each region for the takeback of

televisions over this period. Retailers and television manufacturers will also commence a nationally funded takeback programme from 1 March 2013.

10.18 Staff are working with Nelson City Council to develop a consistent programme across the region. The programme will likely be established at transfer stations and resource recovery centres and involve a small fee for disposal of televisions. The programme may also involve restrictions on disposal of televisions to landfill.

10.19 Regional waste trends for Nelson and Tasman are shown below. Special waste trends for Tasman District have been separated out to identify long term trends.



11 Tenders

11.1 The following tenders were awarded:

No.	Contract name	No. of tenders	Successful tenderer	Amount	Highest amount	Council estimate	Budget	Comment
888	Ellis Creek Bridge	3	Fulton Hogan	\$87,754	\$102,370	\$92,605	\$120,000	Tender Accepted
889	Supply of Mobile Generators for Murchison & GB	2	Powergen Group Limited	\$84,737	\$100,195	\$86,000	\$103,800	Tender Accepted
897	Tasman Community Engagement for Waste Minimisation	2	Nelson Environment Centre	\$270,000	\$270,000	\$270,000	\$295,245	Client Nominated Price Tender.

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12 Appendices

Nil

8.7 TRANSPORTATION REPORT

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Gary Clark, Transportation Manager
Report Number: RESC13-02-07
File Reference:

1 Summary

1.1 This report summarises Transportation activities during December 2012 and January 2013.

2 Draft Resolution

That the Engineering Services Committee receives the Transportation Report.

3 Maintenance Contracts

3.1 Urban Maintenance works completed in November and December include:

- New sump grates properly secured in concrete on Vosper Street, Wilkie Street and Cook Crescent. Previously unsecured and hazardous to the public.
- Seven new rubbish bins installed in Richmond CBD.
- Various pavement repairs.
- Repair and secure wooden rails at entry to Mapua Wharf damaged by traffic.
- Changed wording of car park signs to include Harkness and Petrie car parks (previously only Petrie).
- Replace and repair more vandalised signs throughout the network.
- Spraying throughout the network.
- Routine network suction sweep.
- Sixty pothole repairs.
- Cleared culverts and swale on Angelus Way.

3.2 Key programmed items for January and February include:

- Starting the 2013/14 pre-reseal repairs.

3.3 Rural maintenance works completed during November and December include:

- Completion of 2012/13 pre-reseal repairs.
- Paton Road drainage improvements.
- Culvert installations at Maisey Road and Moutere Highway.
- Additional roadside mowing of tourist and arterial routes prior to Christmas.
- Edgebreak repairs – 187 metres.
- High shoulder removal – 680 metres
- Pavement repairs - 1700m²
- Grading of 30 km of unsealed roads.
- Watertable cleaning – 895 metres.
- Flanking – 260 metres.
- New culvert installation – 28 metres.
- Verge spraying – 261 kms
- Cleaned/straightened signs – 401

3.4 Key programmed items for January and February include:

- 2013/14 Pre-reseal repairs.
- Continue drainage inspections.
- Network sign cleaning and painting.

3.5 **Golden Bay maintenance** works completed during November and December include:

- Remarking of Collingwood-Puoponga Road.
- 2012/13 pre-reseal repairs completed with the exception of the cattle crossing upgrade on Collingwood-Puoponga.
- Cobb Dam Road redundant catch fences removed and the watertables cleared.
- Rototai Walkway was successfully resealed with positive feedback from local residents – see photo below.
- High shoulder removed – 2500 metres.
- Mowing – 96 km.
- Spraying – 66 km
- Grading of unsealed roads – 29 km



3.6 Key programmed items for January and February include:

- Completion of remaining pre-reseal repairs.

Item 8.7

- Rocklands Road bunding and sight rail.
- Junction Street drainage improvements.
- Packard Road flood damaged seal.
- Nyhane Drive and Collingwood Puhonga Road concrete shoulder repair.

3.7 **Murchison maintenance** works completed during November and December include:

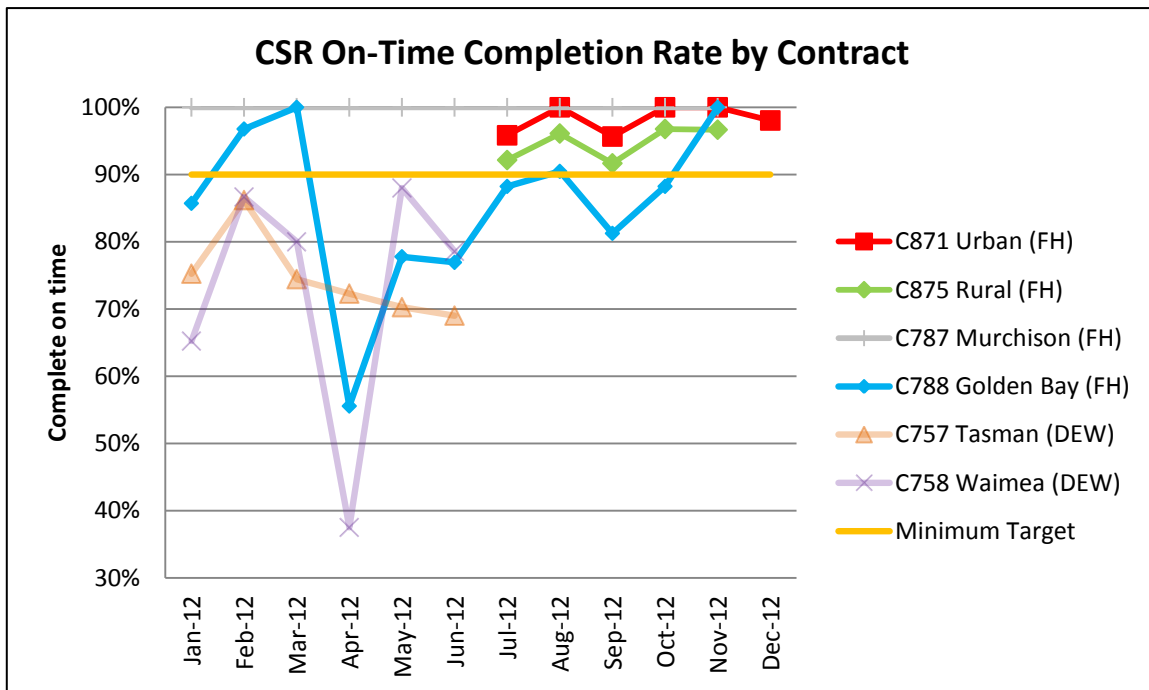
- Glenroy Road earthworks (flood repairs from July 2012 event).
- Grading of unsealed roads – 146 km.
- Maintenance metalling – 1768m³.
- Spraying – 205km.
- Watertable cleaning – 7.2km

3.8 Key programmed items for January and February include:

- Roadmarking where required.
- Glenroy Road flood reinstatement works (road widening).

4 Customer Service Requests

4.1 Customer Service Request (CSR) completion rates over the four contracts are summarised in the following graph.



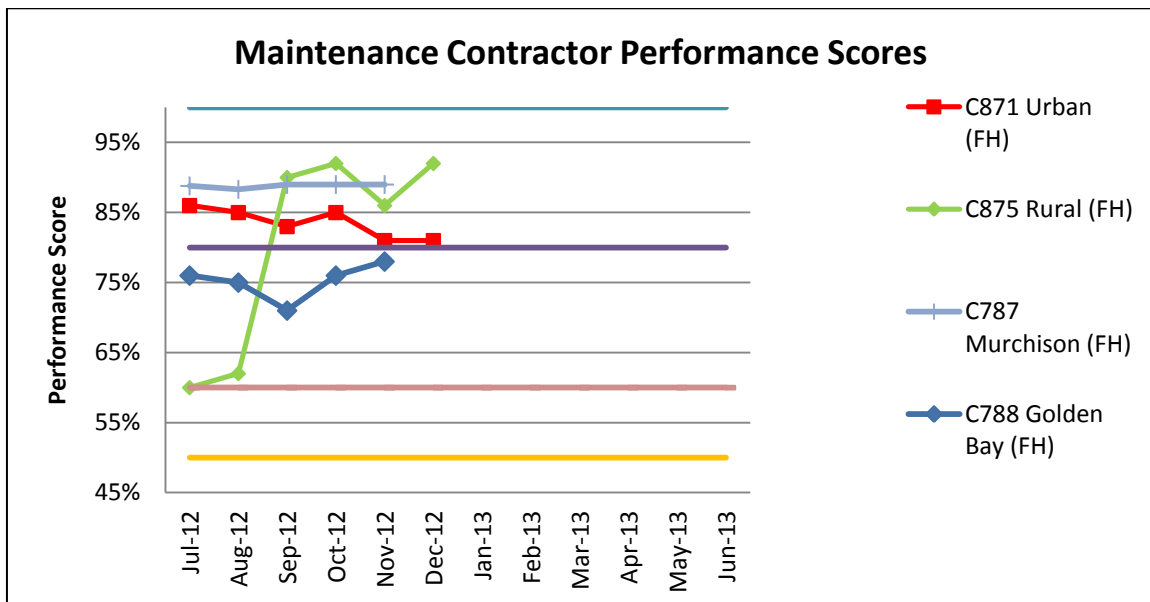
4.2 CSR on-time response targets were met in all areas in November 2012. At the time of writing this report, figures for December 2012 had not been finalised except for the urban contract.

4.3 The on-time/late numbers of CSRs are shown in the table below.

Month	C788 Golden Bay (FH)			C787 Murchison (FH)			C871 Urban (FH)			C875 Rural (FH)		
	On time	Late	Total	On time	Late	Total	On time	Late	Total	On time	Late	Total
November	17	0	17	2	0	2	120	0	120	30	5	35
December	10	1	11	0	0	0	50	1	51	29	1	30

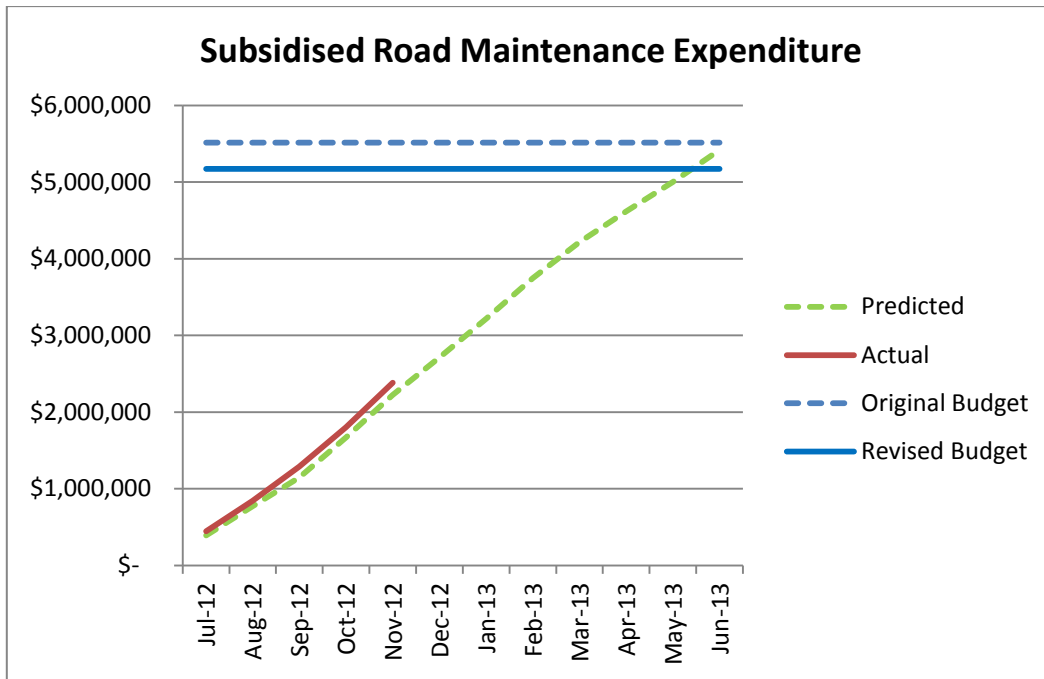
5 Performance Scores

5.1 Based on MWH audits of the contractor’s maintenance work, systems and overall contract delivery, the following graph summarises the Performance Scores over the four areas.



5.2 Fulton Hogan’s performance across the four maintenance contracts is in the ‘good’ to ‘excellent’ range, with generally only minor issues encountered. At the time of writing this report, scores for Golden Bay and Murchison had not been finalised.

6 Financial



6.1 The subsidised maintenance budget for 2012/13 has been reduced to account for over-expenditure in 2011/12. It is predicted that expenditure will exceed the reduced budget, however significant efforts are being made to identify savings by deferring or removing work from the maintenance programme in 2012/13 without compromising levels of service. Initiatives already underway include:

- Reducing professional services budget for additional traffic, safety and asset management investigations compared with previous years.
- Deferring purchase of additional CMA to make use of existing stocks. The New Zealand Transport Agency has a significant local stockpile if additional is required early in the next winter season.
- Scrutinising all expenditure to ensure justifiable renewal costs are not inadvertently ending up in maintenance and capital projects achieve a positive NPV if renewals budgets are used.

7 Roadmarking

7.1 The new, separate roadmarking contract has been awarded to Downer. The first remark was 98% complete by the end of December 2012.

7.2 Areas remarked include all of Richmond, south to Wakefield, and west to Tasman and including Moutere Highway, plus selected arterial and tourist roads outside of these areas where markings were in poor condition. All fire hydrants were also marked in all areas except Motueka which will be marked in January.

7.3 Expenditure to date has been slightly less than budgeted. Further inspections of marking condition particularly in Motueka are being undertaken to assess the need for more remarking.

8 Street Light Maintenance

- 8.1 Powertech continue to perform well with only six CSRs received during December and all completed on time. Routine lamp replacements are complete for Kaiteiteri, Brooklyn and Riwaka and are underway in Motueka.

9 Bridges

- 9.1 A new bridge maintenance contract has been awarded to Downer. This is a two year plus one year maintenance contract.
- 9.2 The 2012/13 routine inspections have been completed and the inspection report is being prepared. From these inspections routine maintenance lists are also being prepared to go to the relevant maintenance contractor for action. Structural repair work is being identified for inclusion in the next Structural Components Contract.
- 9.3 MWH staff are finishing the analysis of six bridges for HPMV loads on Wai-iti Valley Road and also in the Tadmor area. Both of these are high use areas by forestry. From this analysis parts of these areas will be able to be added to the approved list of HPMV routes in the Tasman District. A proposal to analyse a further 7 bridges in the Korere–Tophouse area has been recently approved by the Council.
- 9.4 MWH staff continue to liaise with forestry/transport companies regarding other routes that can potentially be 'unlocked' and provide efficiencies to cartage companies.
- 9.5 MWH has carried out a screening exercise in accordance with the NZTA guidelines to prioritise seismic improvements to Council's bridges. Further detailed inspection is planned for the Aorere River Bridge on Collingwood-Puoponga Road in January to determine the extent of seismic linkage improvements.
- 9.6 Skye Construction Limited won the tender for the replacement of the Yellow Pine Bridge and began construction in early to mid 2012. However, they persistently neglected to carry out their obligations and abandoned the contract. The contract was terminated on 4 December 2012. A new project for the completion of the bridge was won by Tasman Civil and the works are programmed for completion by April 2013. They are working very well in completing this project.

10 Resurfacing and Pavement Rehabilitation

- 10.1 The urban reseal programme been completed. There has been a delay to the commencement of the rural component due to the outstanding pre-seal repairs. Resurfacing on rural sites will commence in January for completion by the end of February 2013.
- 10.2 Seven sites totalling 3.8 lane kilometres will be rehabilitated during January-April 2013 using the granular overlay or cement stabilisation methodology along with associated improvements. The sites are on Motueka Valley Highway, Moutere Highway, Main Road Lower Moutere, Tadmor Valley Road and Matiri Valley Road.

11 Transportation Projects

- 11.1 Below is a summary of the various transportation projects around the District.
- 11.2 Russ Corner/Moutere Highway at Waimea West and Golden Hills Road intersection – A project to replace the priority control intersection with a roundabout is presently being prepared for tender. The proposed work has had a preliminary design safety audit undertaken.
- 11.3 Pukekoikoi (Turners Bluff) – The settlement over the land with the land owner stalled before Christmas 2012 which hopefully we can get back on track shortly. Higgins are still maintaining the site until hopefully the existing contract can be resurrected. Construction is now more likely to occur later this year.
- 11.4 Design work for roundabouts is being undertaken for the intersections of College and Queen Victoria Streets, and Champion Road and Hill Street in preparation of have funds to carry out these works.
- 11.5 A report is due shortly regarding improvements to the intersection of Lower Queen Street and Stratford Street where there are turning and capacity problems.
- 11.6 A package of minor safety works is due for tender shortly, the sites are:
- Pedestrian refuges on Tudor Street at the High Street intersection, Lower Queen Street near the retirement home, and Washbourne Drive at Queen Street.
 - Kerb and channel at School Road Lower Moutere to prevent vehicles cutting onto the path
 - Sight improvements at Main Road Lower Moutere and Robinson Road
- 11.7 The investigation works for the planned pedestrian safety improvements to the intersection of Waitapu Road SH60 and Meihana Street has been put on hold until a site meeting with NZTA and the Golden Bay Community Board can be arranged in the new school term.
- 11.8 The slip repairs to Abel Tasman Drive following the December 2011 storm event are designed and Council are in the process of acquiring land and consent to enable construction to begin. The works are forecast to be complete by December 2013 subject to tender prices and funding availability.
- 11.9 Council staff have been working with the two Community Boards on a number of pram ramp and footpath reconstruction projects for Motueka and Golden Bay including:
- New Pram Ramps
- Inglis Street/Saxon Street – 1 new ramp
 - Fearon Street at Harry Rankin – 2 new ramps
 - Ledger Avenue at Marion Place – reconstruct 1 ramp
 - Trewavas Street at Mountain View Place – 2 new ramps
- Footpath Reconstruction
- Monahan Street northern side from No. 4A – 6
 - Wharepapa Grove western side from Pah Street to end
 - High Street between Wharf Road and Courtney Street both sides various sections

- High Street western side from No.92 to Poole Street
- High Street eastern side from No. 51 to 43A
- Thorp Street in front of No.126

Reconstruct Pram Ramps 13/14

- Vosper Street near pensioners flats – 4 new ramps
- Wallace Street at the laneway – reconstruct one ramp

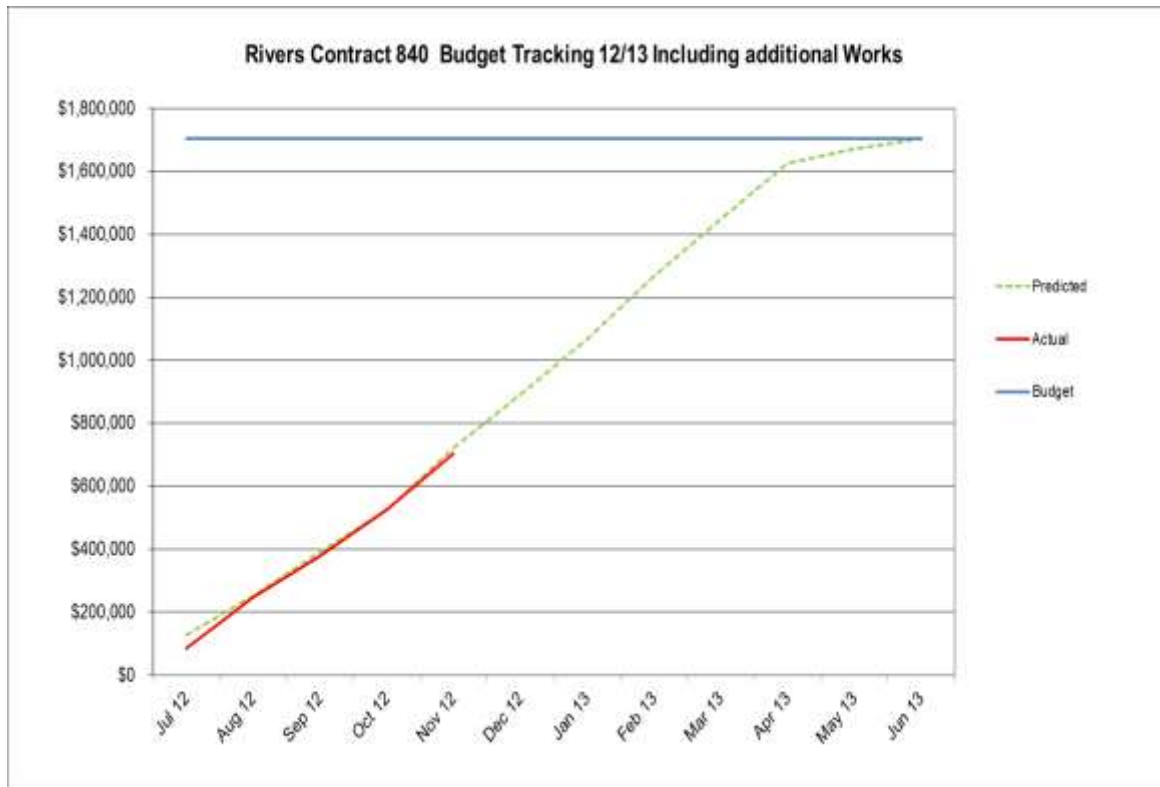
Reconstruction of footpath sections

- Greenwood Street northern side from Pethybridge Street to Thorp Street
- Greenwood Street southern side from Wilkinson Street to High Street
- Waitapu Road from house No. 47 to No.61.
- Wadsworth Street from Rototai Road to School entrance.

12 Rivers

12.1 Annual Operating Maintenance Programme (AOMP)

- 12.2 Taylors Contracting Limited have made steady progress on the AOMP programme for the first five months of the financial year. The November claim of \$178,450 brings the total expenditure on AOMP and additional tasks to \$704,489 which is approximately \$16,000 behind that programmed by the contractor. At the end of November 2012, the contractor had completed 41% of the allocated AOMP budget.
- 12.3 The present halt on the programmed removal of crack willow along the maintained river section other than where it is removed for river management purposes, has meant that the contractor has had to reschedule other work to best utilise their plant.
- 12.4 The weather has generally been settled over the period allowing access to most sites to carry out rock bank protection works.
- 12.5 Scheduling for the 2013-2014 AOMP programme is ongoing and is being undertaken in conjunction with the Rivers Asset Engineer with community meeting planned in March 2013.



12.6 The main focus of works completed on the AOMP in November was:

- Rock Bank Protection – Upper Motueka, Moutere, Wai-iti, Waimea, Riwaka and Dove Rivers.
- Riparian Plantings Maintenance – Dove and Motupiko Rivers.
- Willow Layering – Wai-iti River.
- Willow Planting – Aorere River.
- Ground base Spraying - Dove and Motupiko Rivers.
- Riparian Planting Maintenance - Dove and Motupiko Rivers.

12.7 Rameka Creek – Channel improvements and bank protections works have been carried on the section downstream of SH60 to Dobson Road involving three property owners. There has also been some further work upstream carried out for the Fulton Estate. There is still work to be investigated on the Baigent, Davies and Rhodes properties.

12.8 Maruia River – The main section of this work involving the clearing and disposal of crack willow and the realignment of the Maruia River over a distance of 650m has been completed. There is still some rock bank protection to be carried out by NZTA on the right bank. There has been some channel realignment work undertaken on the right bank to assist in the centralizing the main channel.

13 Road Safety**13.1 Motorbikes**

Six training and improved skills courses have been held this financial year. Three were for advanced riders, one for progressive riders and two for 50cc scooter riders. Training dates for 2013 have been set.

13.2 Additional funds from Moto NZ and ACC have been used to design some images for billboards, flyers, posters and a specific website, all aimed at promoting rider training to all bike riders. The website is now live (www.ridetolive.co.nz) and billboards, flyers, posters and media articles will be distributed early February.

13.3 Bike Wise/Get Moving Family Fun Rides

The dates and details for these events are:

- Motueka Sunday 17 February 2013
Starts 1.00pm at the skate park on Old Wharf Road. Cyclists will cycle the recently completed estuary walk and cycleway. The Bike Skills ramps and the Way2Go Activities trailer will be set up at the start/finish point to test cyclists skills. This is a joint project between the Council, Get Moving, Bike Wise and the Motueka Recreation Centre.
- Golden Bay Sunday 24 February 2013
Starts 10.00am at Takaka Primary School. The ride will take cyclists along Wadsworth Street, Meihana Street, Abel Tasman Drive, Rototai Drive and back to the school. From 11.00am there will Children's Day celebrations at the school led by the GB Recreation Centre with storytelling, face painting, mini horse and cart rides, children's entertainers and more.
- Richmond Sunday 3 March 2013
Starts 1.00pm at the ASB Aquatic Centre or for younger and less experienced cyclists there will be a start point at the top end of Lower Queen Street. Cyclists will cycle the new Tasman's Great Taste Trail to Rabbit Island and then can cycle back at their own pace, cycle on to Mapua or arrange pick up at Rabbit Island. Children's Day is being celebrated at Rabbit Island from 2.00-5.00pm with entertainment, games and activities provided along with the Bike Skills ramps and the Way2Go Activities trailer.

13.4 Stopping Distance Demonstrations

A series of Stopping Distance demonstrations are being organised for March 2013 and will involve all schools within the Tasman District. There is a wide range of different groups and organisations being involved (both Councils, Police, Fulton Hogan, both local radio networks, DHB, ACC)

Dates for the different demonstrations are set out below:

Monday 18 March

- Matai Crescent, Tapawera - morning
- Starveall St, Brightwater – afternoon

Tuesday 19 March

- Wadsworth St, Takaka – all day until 1pm

Wednesday 20 March

- Grey Street, Motueka – all day until 2.30pm

Thursday 21 March

- Pitfure Road, Wakefield – morning
- Iwa St, Mapua – afternoon

Friday 22 March

- Church St, Richmond – morning
- Herbert St, Richmond – afternoon

13.5 Flo and Slo

The safe use of courtesy crossings was the subject of an awareness campaign in January. The campaign was run with the use of Flo and Slo who remind pedestrians and drivers how courtesy crossings work with a number of key messages:

- Go Slow – Smile and Share
- Pedestrians please don't just step out onto the crossing look first, make eye contact with drivers and smile. It's about courtesy.
- Drivers please go slow, smile and remember that pedestrians are fragile.
- It's about courtesy – let pedestrians cross if they have been waiting a while.
- Go Slow – Smile and Share.



14 Tenders

No.	Contract name	No. of tenders	Successful tenderer	Amount \$	Highest amount \$	Council estimate \$	Budget for this item \$	Comment
885	Bridge Structures Maintenance 2012/2014	4	Downer	388,288	1,028,939	813,300	1,022,670	Tender accepted
893	2012/2013 Roadside Drainage Package 1	5	CJ Industries	107,019	143,747	107,900	1,498,682	Tender Accepted
894	Pavement Rehabilitation 2012 -2013	3	Fulton Hogan	583,761	749,415	530,270	654,000	Tender Accepted
898	Moutere Highway Earthworks	4	CJ Industries	81,015	130,367	82,700	100,000	Tender Accepted
900	Yellow Pine Bridge Re-Tender	3	Tasman Civil	445,089	489,643	420,000	124,704	Tender Accepted

15 Appendices

Nil

8.8 DEVELOPMENT SIX MONTHLY REPORT

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Dugald Ley, Development Engineer
Report Number: RESC13-02-08
File Reference:

Item 8.8

1 Summary

1.1 This report details development activities in the District over the past six months.

2 Draft Resolution

That the Engineering Services Committee receives the Development Six Monthly Report RESC13-02-08

3 Subdivisions / Development (generally larger subdivisions)

3.1 Subdivisions developments are currently underway in:

Champion Road (Nelson City Council)	Wakefield – Gossey Drive
Bramley Estate extension	Parkers Road
Angelus Avenue	Champion Road

3.2 Increased interest from developers is evident especially in Richmond and Mapua. Both subdivisions in Champion Road (Nelson City Council) and Bramley Estate (Hart Road) continue to expand and existing residential zoned greenfields land have either consents issue or are in the application process.

3.3 Engineering Department staff continue to assist the planning staff in future zone changes and mediation of various land use consent applications.

3.4 A number of subdivisions using sustainable urban drainage designs have now been converted to less labour intensive maintenance regimes, i.e. grass swales being replaced with rock/stone due to reduced budgets now available for this type of work.

4 Appendices

Nil

8.9 TASMAN'S GREAT TASTE TRAIL UPDATE

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Dugald Ley, Development Engineer
Report Number: RESC13-02-09
File Reference:

Item 8.9

1 Summary

1.1 This report provides an update on Tasman's Great Taste Trail.

2 Draft Resolution

That the Engineering Services Committee receives the Tasman's Great Taste Trail Update

3 Key updates

3.1 I am pleased to report that a number of milestones have been successfully achieved, including:

- Celebration of the opening and naming of the new Waimea Suspension Bridge on 26 January 2013 (Appendix 1).
- Opening of the coastal route from Richmond/Nelson to Mapua, albeit with a temporary route until the path can be completed through Neiman Creek.
- Opening of the route to Wakefield although there are two temporary on-road links.
- Opening of the Riwaka Bridge linking Goodall Road with Riwaka-Kaiteriteri Road.
- Both bridges coping during the flood on 15 June 2013 when a 1-in-5 year event occurred at the Wairoa Bridge site and a 1-in-3 year event lower down at the Waimea Bridge. Note the flood berms and trail on the west side of the Waimea Bridge had approximately 1.0 metre flow over them temporarily with the trail available for use the next day.
- The Tasman's Great Taste Trail Bylaw came into force on 5 December 2012.
- Nigel Muir, Chief Executive of Sport Tasman has been appointed to the New Zealand Cycle Trails Establishment Advisory Board.
- Successful agreement has been reached on a contract with the Nelson Tasman Cycle Trails Trust for maintenance of parts of the trail (note, some parts are maintained by the Council through Community Services and the Council's roading contractor).
- Completion of the Pigeon Valley to Woodstock connecting route.
- Completion of the Golden Downs (Wakefield to St Arnaud/Tophouse) connecting route.

4 Surveys

4.1 Recent surveys of the trail have been carried out and the results show that:

- Weekend user numbers are three times the number of week day users, 331/day during the weekend, 110 during the week;
- Fifty percent of users are in the 30-50 years age group;
- Thirty three percent of users are in the over 50 years age group;
- Eighty percent came from the Nelson region; and
- People surveyed indicated an average 8.5 out of 10 for satisfaction with the trail.

5 Media

5.1 The trail continues to gain good media exposure. Two recent examples are the Waimea Bridge opening and an article that discussed the increased business activity as a result of

the trail, i.e. McDonalds and HQ Cafe in Brightwater have both had to provide extra space/bike stands for cyclists to park their bikes.

6 Next Stages

6.1 Priorities for completion in the next six months are:

- Higgins Road to Wakefield – temporary road section converted to off road.
- Dominion Flat, Chaytor Track and benches along the Ruby Bay Bypass.
- Riwaka to Goodall Road.
- Riwaka Bridge and trail to Kaiteriteri.

7 Conclusion

- 7.1 Tasman's Great Taste Trail will continue to grow as indicated in the programme set out in the Long Term Plan.
- 7.2 The project will continue on with "business as usual" and it is proposed that from now on the committee will be updated on a six-monthly cycle.

8 Appendices

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Opening of the C B Kidson Bridge



Item 8.9

Attachment 1

8.10 JACKETT ISLAND - INTERIM WORKS PLAN UPDATE

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Sarah Downs, Transportation Planning Officer
Report Number: RESC13-02-10
File Reference:

Item 8.10

1 Summary

- 1.1 The Council continues to monitor and hold the line as directed by the Environment Court.
- 1.2 During December 2012, the landowner continued to make requests from the Council to provide more protection. Council staff have carried out inspections in this time period to assess the condition of the wall.
- 1.3 The condition of the geotextile sand bag wall and its performance is protecting the landowner's property as expected by our experts.

2 Draft Resolution

THAT the Engineering Services Committee receives the Jackett Island - Interim Works Plan Update Report.

3 Project Update

- 3.1 In December 2012 further survey work was carried out on the Jakkett Island foreshore. The results of this survey are shown in Appendix 1. As with previous surveys, it shows quite clearly that erosion is now occurring further south towards the end of the island, while accretion is beginning to occur at the northern end.
- 3.2 In particular on the Van Dyke property, the accretion at the northern end of his property is evident in the survey data. This has allowed some of the sand bags at the northern end to be used in reinforcing the southern end of the wall. Extra bags for wall repairs were also stockpiled at the northern end of the wall when it was originally built in August 2011.
- 3.3 At the southern end of the geotextile sand bag wall, the dynamic coastal processes are still occurring causing further erosion. This has led to the exposure of some of the buried sand bags and in particular the forward toe bag. As instructed by our coastal expert no further work on the sand bag wall has taken place since maintenance work in October 2012.
- 3.4 The landowner has continued to request further work to be done to make repairs to the toe of the sand bag wall where it adjoins the property to the south of them. Through the Council's solicitors, the landowner was informed that the wall at the southern end of the property was "doing its job" and "holding the line" as directed by the Court. The Court accepted that the Council was maintaining the "hold the line" position in its consideration of the matter at the hearing held on 3 October 2012.
- 3.5 Council's consultant has advised that while there was erosion taking place at the southern end of the Van Dyke's property, it was secondary to the erosion occurring on the Jakkett Island foreshore. He considered that the erosion processes at play were more damaging to the foreshore. He also considered that the effects of erosion were moving south at a reasonable pace and within a year, little or no erosion would be occurring on the Van Dyke property and would be mostly focused on the other land owners further south of the Van dyke's property.
- 3.6 Since the maintenance work in October 2012, staff have inspected the sand bag wall on Jakkett Island. On each occasion there has been a thorough inspection of the wall and photographs were taken. These photographs have been forwarded to our consultant for consideration. His view is that the wall continues to perform as expected and is 'holding the line' and meeting the direction of the Environment Court Order.
- 3.7 Mr Van Dyke has also requested access over the sand bags for his boat and access to the beach for vehicles. Staff and our consultant, considered there was sufficient access for the landowner to move on and off the beach safely through the access formed as part of building the sand bag wall. The sand bag wall is not designed to take vehicle loadings and this practice could damage the bags and effect the stability of the wall. His solicitor was sent photographs of the access that had been originally established when the wall was constructed, to illustrate that the landowner was successfully using this access. Appendix 2 shows photographs of the geotextile sand bag wall and the access the Council provided.
- 3.8 The most recent inspection took place on 18 January 2013 after a week of high tides and a low pressure weather system.
- 3.9 Appendix 2 also contains photographs showing the sand bag wall. The wall has protected the property as expected.

4 Environment Court Action

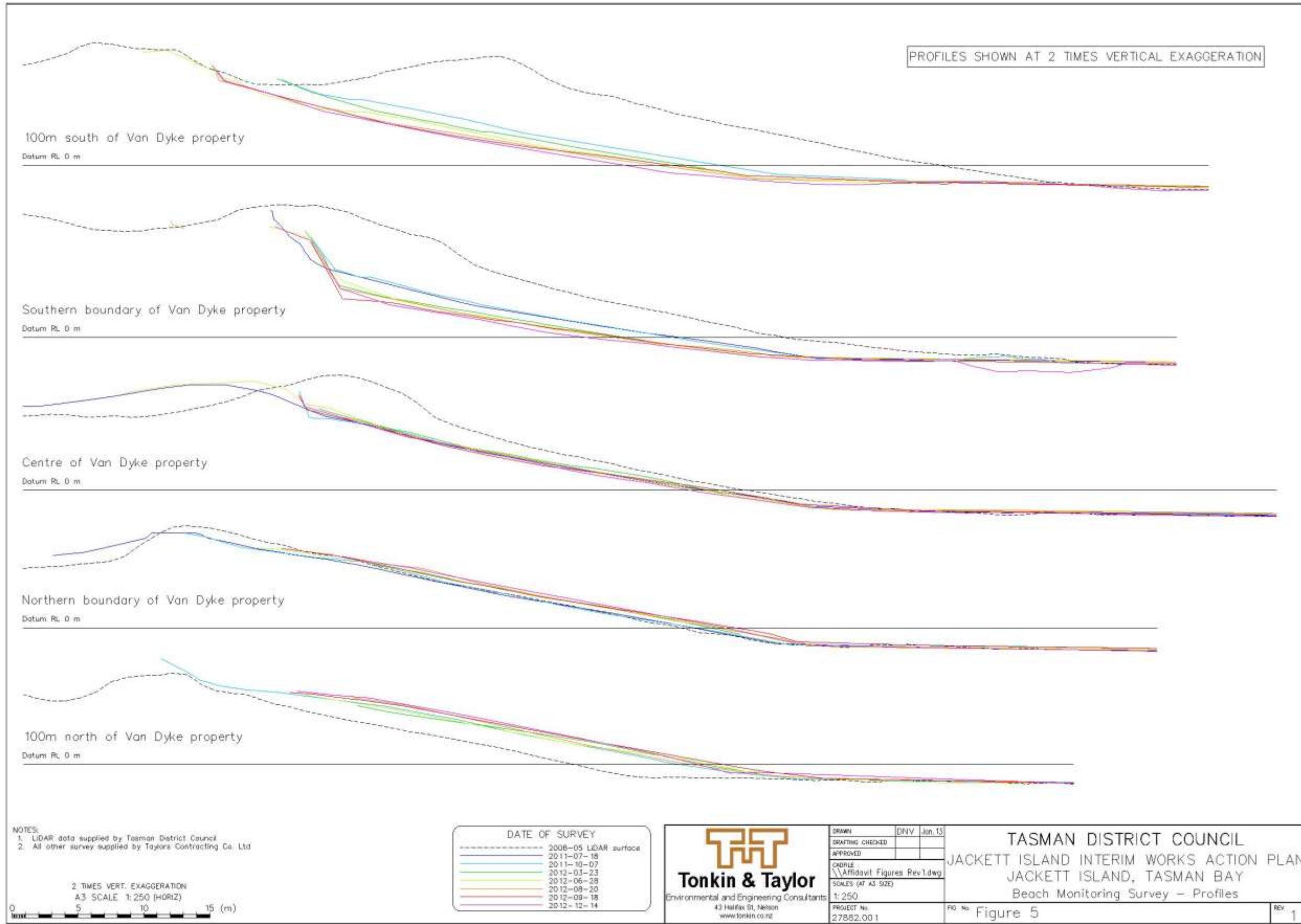
- 4.1 The Van Dyke Family Trust has sought reimbursement under section 314 (1) (d) of the Resource Management Act 1991. The basis for this order was for the Van Dyke Family Trust to recover expenditure of \$252,000 incurred in avoiding, remedying or mitigating the effects of erosion along the Jakkett Island foreshore adjacent to their property. This was claimed on the basis that the Council had failed to comply with the conditions of the coastal permit that authorised construction of the Port Motueka geotextile groyne.
- 4.2 On 23 November 2012, Tasman District Council filed an application with the Environment Court to cancel the interim enforcement order (ENV 2010 WLG 080 & 081) under section 321 of the Resource Management Act 1991 and seek a determination with regard to costs sought from the Van Dyke Family Trust. A memorandum with expert evidence was then filed on 30 November 2012 with further details of this application.
- 4.3 Through the modelling process relating to the investigation of a long term solution to the erosion problem on Jakkett Island, further work was carried out to improve the understanding of the physical coastal processes operating in that area. This modelling process highlighted the complex dynamic coastal processes that are occurring in the area of Jakkett Island.
- 4.4 The investigations have shown that the Port Motueka groyne has only had minor localised effects on physical coastal processes. There is also no measurable influence of the groyne on spit development and the associated erosion occurring along the open coast shoreline of Jakkett Island.
- 4.5 Affidavits have been submitted to the Court by Richard Reinen-Hamill, our coastal consultant from Tonkin & Taylor, Eric Verstappen, the Council's coastal resource scientist and Peter McComb from MetOcean Ltd, a company that specialises in coastal modelling.
- 4.6 The Van Dyke Family Trust is expected to file its rebuttal evidence by the Court directed date of 8 February 2013 in reply to the Council's application to cancel the interim enforcement order.
- 4.7 This application will be held at the same time as the application for a reimbursement order because of the considerable evidential overlap. Staff are expecting that this hearing will take place in the first part of 2013.

5 Project Status

- 5.1 The expenditure on the sand bag wall from 1 July 2012 to 14 January 2013 is \$30,501.21. The costs associated with the Interim Works Plan are being funded from the budget for the Jakkett Island Long Term Solution. This budget is \$650,000 and more detail will be provided in the Jakkett Island Long Term Solution Report included elsewhere in today's agenda.
- 5.2 Council will continue to monitor the sand bag wall on a regular basis until directed otherwise from the Court.

6 Appendices

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2.	Appendix 1a - Jackett Island swash lines	301
3.	Appendix 2 - Jackett Island Monitoring Photographs	303



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Monitoring Photographs for Jackett Island Interim Works Order



Photographs taken on 16 January 2013 after high tides and stormy weather



Photographs taken on 18 January 2013.



Access on and off the Van Dyke property – December 2012



Evidence of erosion south of the Van Dyke Family Trust property on Jackett Island and of accretion to the north.

8.11 CHAIRPERSON'S REPORT

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Trevor Norriss, Chairman, Engineering Services
Report Number: RESC13-02-12
File Reference:

1 Summary

This is the Chairman's regular report to the Committee.

2 Draft Resolution

That the Engineering Services Committee receives the Chairperson's Report RESC13-02-12

3 February meeting

- 3.1 Welcome to the first meeting of Engineering Services for this year. We have managed to come through a Christmas period without a major disaster so hopefully Councillors and staff have managed to catch up with family and had some time off.
- 3.2 We will be getting an update on Jackett Island and the Port Motueka Groyne from Sarah Downs at today's meeting. Also included is a report from Peter Thomson on the Industrial Water Users Arbitration.

4 Engineering Services Restructure

- 4.1 Ahead of us this year we have a major restructuring of Engineering and the way we deliver some of our services. This will require some steady heads from both Council and staff as we work our way through this. Council will be kept updated as we work through this.

5 Flooding in Murchison

- 5.1 Over the Christmas period we had another heavy rain event in Murchison. Unfortunately two houses that have been repeatedly flooded in the past two years received yet another drenching. While on the face of it there seems to be a simple solution to prevent this; as usual it has become complicated. I have been assured by staff that our contractors have the tools in place to prevent this happening again while a better long term solution is found. This is a top priority as far as I'm concerned as the matter is now urgent for these home owners.

6 Great Taste Trail

- 6.1 Those of you who were able to attend the opening on Saturday 26 January of the new Cycleway Bridge at Lower Queen Street, and completion of the cycleway section to Mapua, will have been impressed with the number attending the event and also the huge usage the Tasman's Great Taste Trail is getting. I have received nothing but positive feedback on the project from members of the public who are buying cycles and getting out there. Well done all who have been involved. Dugald Ley has an updated information report in today's agenda.

7 Engineering staff

- 7.1 Our long serving Rivers Engineer Philip Drummond is retiring. Philip's knowledge and his rapport with adjacent landowners has been invaluable. Managing our rivers has always been a challenge with such a wide range of views, priorities (depending where you live) and complex rules that have to be worked through, let alone always tight budget problems. I have always enjoyed working with Philip, especially the historical debates on what has happened and what should happen. I have asked Philip to attend morning tea where I'm sure we will all wish him well in his retirement. Good luck Philip. (I'm sure Mrs Drummond has awell prepared Bucket list?)

- 7.2 We also have another notable achievement in Engineering. Not to be outdone by his son (dux at Motueka High), Mark Jones has just been awarded Chartered Professional Engineer status through the Institute of Professional Engineers. Mark has spent many hours of study over the past two years to achieve this. Well done Mark.
- 7.3 Finally, we are heading into a busy year with all that is happening, and an election at the end of the year (no grandstanding please). I look forward to the Committee's continued focus on delivering the core services of Council at affordable levels.

8 Appendices

Nil

8.12 ACTION SHEET

Information Only - No Decision Required

Report To: Engineering Services Committee
Meeting Date: 14 February 2013
Report Author: Robyn Scherer, Secretary - Engineering Services
Report Number: RESC13-02-11
File Reference:

Item 8.12

1 Summary

- 1.1 The action items from the 22 November 2012 Engineering Services Committee are attached as Appendix 1.
- 1.2 Also included is the item (RCN12-11-04) relating to the Engineering Services Reorganisation which will be reported to the Engineering Services Committee at the 6-weekly meetings.

2 Draft Resolution

THAT the Engineering Services Committee receives the Action Sheet RESC13-02-11

3 Appendices

1. Appendix 1 - Action Sheet

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Report Number	Item	Minute / Action	Accountable Officer	Status
Meeting Date: 30 August 2012				
RESC12-08-04	Provision of bus infrastructure	Investigate the doors to the new Westpac Bank opening out onto the seat of the existing bus stop in Queen Street, Richmond.	Gary Clark	Completed
RESC12-08-04	Provision of bus infrastructure	Report back to the Full Council with recommendations with regard to the provision of bus infrastructure associated with the new bus services.	Gary Clark	Pending
RESC12-10-07	Aranui Road Streetscaping	Undertake consultation on the draft Aranui Road Streetscape Masterplan	Gary Clark	Minor changes to be made to plans. Consultation will be carried out prior to Christmas with submissions closing in the new year. Hearing held 16 December 2012
RESC12-10-12	Tasman's Great Taste Trail Draft Bylaw	Hear submissions	Dugald Ley	Hearing held 16 December 2012
RESC12-10-14	Tasman's Great Taste Trail - Maintenance and Marketing	Reach formal agreement with the Nelson Tasman Cycle Trails Trust up to 30 June 2015 for maintenance and marketing of Tasman's Great Taste Trail	Dugald Ley	Progressing
RESC12-10-15	Jackett Island Erosion and Removal of Port Motueka Groynes	Report to Corporate Services Committee to confirm the over expenditure for the works carried out in the 2011/2012 financial year and on how to fund the additional expenditure	Gary Clark	Completed - 8 November 2012
RESC12-10-15	Jackett Island Erosion and Removal of Port Motueka Groynes	Six-weekly reports on year to date expenditure on project milestones	Gary Clark	Report to this meeting

Y:\Attachments\268519371>Action list from 22 November 2012.xlsx

9 CONFIDENTIAL SESSION

9.1 Procedural motion to exclude the public

The following motion is submitted for consideration:

THAT the public be excluded from the following part(s) of the proceedings of this meeting. The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution follows.

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, as follows:

9.1 Motueka River Erosion - 2867 Motueka Valley Highway

Reason for passing this resolution in relation to each matter	Particular interest(s) protected (where applicable)	Ground(s) under section 48(1) for the passing of this resolution
The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.	s7(2)(a) - The withholding of the information is necessary to protect the privacy of natural persons, including that of a deceased person.	s48(1)(a) The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.

9.2 Industrial Water Users Arbitration

Reason for passing this resolution in relation to each matter	Particular interest(s) protected (where applicable)	Ground(s) under section 48(1) for the passing of this resolution
The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.	s7(2)(b)(ii) - The withholding of the information is necessary to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information. s7(2)(g) - The withholding of the information is necessary to maintain legal professional privilege.	s48(1)(a) The public conduct of the part of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists under section 7.