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Dear Sir

NZCID Submission Auckland Western Ring Route Tolling Proposal¹

Introduction

1. The New Zealand Council for Infrastructure Development is a non profit organisation.
2. Members comprise a diverse range of private and public organisations that seek world class infrastructure developed and provided in New Zealand to help all New Zealanders achieve the standard of living to which we aspire.²
3. NZCID shares community and industry concern that there is an urgent need to complete construction of the Auckland Western Ring Route (WRR) in order to meet existing and future growth needs of the Auckland Region.
4. The Council seeks to work with Transit New Zealand to ensure the transport network builds a better New Zealand and it is in this collective vision that NZCID presents this submission of on the proposal to toll the Auckland Western Ring Route (WRR).

¹ Note: This submission represents the views of NZCID as a collective whole, and may not necessarily represent the views of individual member organizations.

² Details of NZCID membership and aims and objective can be found on the website www.nzcid.org.nz

Key Points of Submission

This submission covers the following key points:

5. NZCID supports early completion of the Western Ring Route as a toll road project
6. The economic justification for advancing completion of the WRR is compelling having been independently assessed to exceed \$800 million per annum, an annual benefit comparable with the one off economic benefit associated with the Rugby World Cup 2011
7. Continued delayed completion of the WRR will restrain the social and economic growth of south and west Auckland and thereby reduce the future earning capacity of the communities that live along the corridor.
8. Significant competing demands for limited public funding means early completion of the WRR is unlikely without toll funding. In this situation it is sensible to gain leverage from those projects like the WRR that can be toll funded.
9. Future fuel tax revenues will be less predictable. Tolling provides an alternative long term sustainable funding mechanism to supplement existing revenue streams.
10. Tolling the WRR in the immediate term provides the opportunity for a step change towards wider network tolling in the longer term once the necessary legislative change is put in place.
11. Tolling enables more efficient use of new infrastructure by application of variable charges to better manage traffic demand and encourage off peak travel and / or a shift to alternative modes of transport.
12. Notwithstanding its support for tolling of the WRR, NZCID is not convinced that the toll proposal advanced by Transit New Zealand represents the optimal tolling solution:
 - a. In comparison to international experience the indicative administration costs seem excessive,
 - b. Expected toll revenues appear conservative,
 - c. The tolling proposal is overly prescriptive,
 - d. The delivery time lines are excessive - completion by 2015 means that it will be nine years before this critical link in the Region's transport net work will be completed.
13. In order to speed up completion of the WRR, NZCID recommends that Transit make application to the Minister to have this project "called in", in order to streamline the consenting process.
14. International experience has shown that the PPP model has been effective in reducing public sector risk, providing for improved value for money, and a fast track delivery method.
15. NZCID considers the private sector should be provided the opportunity to compete with the proposed public sector delivery model for completion of the WRR on or before 2015.

NZCID supports early completion of the Western Ring Route as a toll road project

16. Completion of the WRR is a priority for Government as demonstrated by its commitment to increased funding for the project.
17. In 2005 the Prime Minister signalled Government's desire to see completion of the WRR by 2015, subject to Aucklanders acceptance of tolling as a means of funding the project.
18. It has been accorded the highest priority state highway project in the region by the Regional Land Transport Committee in its submissions on the Transit State Highway Programme, (although the preference of the RLTC is that greater priority of public funding be given to public transport and alternative transport modes in the event of a trade off in funding allocations).
19. Research clearly demonstrates that completion of the WRR will have positive social, environmental and economic outcomes. An analysis undertaken by Allen Consulting and Infometrics in August 2004 assessed the economic benefit from early completion of the WRR as being in excess of \$800 million per annum as detailed in the following two tables extracted from the original report:³

Direct impacts

Table 4.5 details the key characteristics of the Auckland western ring route package identified using standard benefit-cost analysis techniques. The total capital costs are estimated to be \$1,292.6 million. By comparison annual direct benefits in 2012 are estimated to be \$406.7 million. Assuming a discount rate of 8 per cent suggests a benefit-cost ratio of 2.3, considering only *direct* benefits and costs.

Table 4.5

AUCKLAND WESTERN RING ROUTE PACKAGE — KEY CHARACTERISTICS AND DIRECT IMPACTS

CHARACTERISTIC	Economic value (\$ Million)
Project costs	
Capital cost	1 292.6
Annual financing charge at 6%	77.6
Expected direct impacts in 2012	
Reduction in loss of life and permanent disability	14.2
Reduction in health care costs	2.5
Reduction in travel time and congestion	379.8
Reduction in vehicle operating costs	10.2
Net direct benefit in 2012	406.7
Benefit-cost ratio	2.3

Source: Infometrics Ltd.

³ The Benefits of Investing in New Zealand's Road Infrastructure, Allen Consulting Infometrics, August 2004 pp 39-40

Accounting for the flow on effects the benefit cost ratio was assessed at 4.6 as indicated in Table 4.6:

Table 4.6

ECONOMY WIDE IMPACTS OF AUCKLAND WESTERN RING ROUTE PACKAGE

MACRO ECONOMIC VARIABLE	Net impact (\$ M)	Per cent change (%)
Consumption		
Private Consumption	363	0.37
Government Consumption	- 6	(0.02)
Total consumption/ capita (\$)	84	0.28
Investment	111	0.27
Trade		
Exports	282	0.46
Imports	196	0.32
Output		
GDP	567	0.33
GDP/capita (\$)	133	0.28.
Real wage rate (index)	1.507	-0.46
Household income tax	281	-0.79

Source: Infometrics Ltd.

It is expected that construction and use of the Auckland western ring road will result in the following economy wide impacts in the year 2012:

- an increase in economic output (i.e. GDP) worth \$567 million or 0.37 per cent of GDP;
- increased aggregate investment worth around \$111 million;
- an increase in net exports of around \$96 million dollars;
- increased private consumption of around \$363 million and a decrease in government consumption of around \$6 million;
- a decrease in the household income tax rate of 0.79 per cent. This implies that, similar to the passing lanes package, New Zealand households will on average pay \$187 less tax per year; and
- a 355 kilotonne increase in CO2 emission. The maximum cost of which is not expected to exceed \$8.9 million.

In 2012 the total benefit to the economy, likely to result from the Auckland western ring road package, is \$838 million annually. The corresponding benefit cost ratio of the package is 4.6. This means that for every dollar invested in constructing the western ring road project the New Zealand economy as whole will receive benefits of \$4.60.

20. The key conclusion from this analysis is that the **opportunity cost of delay in completion of the WRR is \$838 million per annum in lost benefit to the New Zealand economy.**
21. To put this into perspective, a recent assessment of the benefit to New Zealand of hosting the Rugby World Cup in 2011 prepared by *Horwath Asia Limited* in October 2006 estimated that a one off benefit of \$1.15 billion in additional GDP would be added to the economy.

22. By way of comparison, two years of economic growth stimulated by early completion of the WRR (totalling approximately \$1.7 billion) would quickly subsume the benefits of hosting the Rugby World cup.
23. The economic justification for advancing completion of the WRR is compelling.

NZCID agrees that demands on limited public funding means early completion of the WRR is unlikely without toll funding

24. While completion of the WRR is both a national and regional priority it seems equally clear that without toll funding there is insufficient funding available either from local, regional or central government sources to see the timely construction of The Western Ring Route by 2015 or earlier.
25. There are other significant priority works required within the region's public transport state highway and local road network as well as important works required on a national basis.
26. The Auckland Regional Land Transport Strategy clearly sets out an increased emphasis on public passenger transport expenditure and the Regional Land Transport Committee has indicated its preference that in a trade off situation it would accept having to delay the Waterview section of the WRR if its completion would result in insufficient capital being available for other important transport projects.
27. Auckland's planned expenditure drawn from Long Term Council Community Plans, ARTA, and Transit data shows the total proposed expenditure for the region over the 10 year forecast period of \$15.7 billion divided between roads, public transport and travel demand management activities.
28. On the other hand, the expected level of funding for transport in the region, including Land Transport New Zealand National, Crown, and Regional funding totals just over \$7 billion, local funding set out in LTCCPs total \$4.6 billion and Government has committed an additional \$600m for OnTrack rail upgrade. That provides a total of \$12.2 billion available funding.
29. Deducting this amount from the planned expenditure leaves a funding gap of \$3.5 billion, excluding toll revenues.
30. While it may be possible to bridge part of this funding gap through, fuel tax increases, road user charges, additional Crown grants or local body rates and charges, there will still be a significant shortfall.
31. To bridge the funding gap through fuel tax alone would require an increase of the order of 30 cents per litre including GST which in the current political and economic environment is simply not tenable.⁴

⁴ A one cent per litre petrol tax and equivalent RUC increase on light diesel vehicles raises \$14m per annum in Auckland. Therefore to fund the entire deficit through fuel taxes would require a fuel tax increase roughly equivalent to 30 cents per litre. ($\$3.5 \text{ billion} / 10 = \$350\text{m per annum} / \$14\text{m per cent increase} = 25 \text{ cents plus GST} = 28 \text{ cents per litre}$). If we relied on

32. Pressure for income tax cuts and other fiscal pressures are likely to see little in the way of additional Crown funding forthcoming noting that the Government has already committed more than it receives in fuel taxes, registration fees and Road User Charges to the transport programme over the next 6 years.
33. There has already been significant public criticism of recent rate increases which has resulted in a Government initiated independent rates review aimed at identifying alternative local government funding sources (of which tolling may be one).
34. For each of these reasons NZCID considers the availability of additional public funding for early completion of the Western Ring Route is constrained and therefore supports Transit's initiative to proceed with construction of the Western Ring Route by means of the appropriate mix of public or private debt funding, supported by tolls.

Unreliability of future fuel tax revenues

35. While in the past, revenues from fuel excise have shown a consistent and inexorable increase, the impact of recent petrol price increases and the parallel economic slow down raises serious questions about the long term sustainability of fuel excise as a revenue stream.
36. This was demonstrated in 2005 when fuel use declined against projections requiring Government to commit an additional \$862 million in Crown funding to avoid deferral of previously committed State Highway projects.
37. As vehicles progressively become more fuel efficient and use varies from factors such as the price of fuel and economic circumstances, fuel excise cannot be relied upon to provide a sustainable revenue stream in the future to fund the WRR programme, let alone the rest of the region's transport programme.
38. It is clear that a long term sustainable funding mechanism needs to be put in place to supplement existing revenue streams. Tolling provides such a mechanism.

Step towards network tolling

39. NZCID supports the principle of network tolling or road pricing as a means to raise revenue for transport funding in the Auckland region and improve traffic demand management.
40. However, it must be noted that road pricing proposals put forward by the Ministry of Transport earlier this year received strong public opposition, and would require substantive change to the Land Transport Management Act – a time consuming process.
41. Tolling the WRR provides the opportunity to step towards wider network tolling or an alternative road pricing mechanism in the longer term once the necessary legislative change is put in place, while, in the meantime, providing the opportunity to demonstrate to users the traffic demand management benefits that tolling provides.

petrol tax alone, without an equivalent light vehicle RUC increase, this would require a price increase on petrol of close to 40 cents per litre incl. GST.

Tolling enables more efficient use of the region's transport infrastructure

42. While the administrative costs associated with tolling are greater than that associated with fuel excise and levies, this higher cost is more than offset by the better long term efficiency in the use of transport infrastructure that tolling provides.
43. Petrol taxes provide no incentive to change where and when one chooses to drive.
44. On the other hand, toll fee structures can be used to optimise traffic flows, noting that the proposed tolling strategy provides for reduced tolls off-peak and at night encouraging peak spreading.
45. The existence of tolls encourages transfer to alternative transport modes more suited to commuter travel needs.
46. Moreover the economic gain resulting from early completion of the project vastly exceeds any additional administrative costs associated with tolling.

A toll road is better than no road

47. Concern has been expressed by local councils within the region that imposition of a toll on the WRR is unfair on the communities to the west and south that are dependent upon using this corridor.
48. On the other hand, the absence of toll funding to advance the WRR project means that the full social and economic benefits of completion of the WRR will be foregone for some time.
49. As noted in the previous section the opportunity cost of delay has been assessed at some \$838 million dollars per annum.
50. These lost benefits will restrain the economic growth of south and west Auckland and thereby reduce the future earning capacity of the communities that live along the corridor.
51. Moreover, the proposed tolls are not excessive by today's standards. Most trips will be for short lengths of the corridor. The average cost is expected to be \$2.00 per trip in return for 10 to 15 minutes travel time saved with an associated reduction in fuel consumption and emissions. That compares to the cost of a half hour car park in the city, half a cup of coffee, four minutes on a cell phone, or smoking four cigarettes.
52. While the imposition of the toll does impose a financial burden on users who chose to pay it, non-tolled alternatives routes will be available to those who chose not to pay the toll.
53. In return for paying the toll, users will enjoy a faster trip and a higher quality, safer driving experience than would otherwise be possible on the current roads or a partially completed WRR.

54. The provision of extra capacity will improve overall network efficiency for all users, including those on parallel non tolled lanes who chose not to pay a toll.

Impact of scheme design on local roads

55. NZCID notes there has been significant adverse criticism of the scheme design by local and regional authorities, particularly in respect of the impact on local roads.
56. Concerns have been raised over the unequal spread of the costs of tolling as a result of the phased toll-by-toll introduction, the lack of access to and from the tolled lanes on SH16 and the impact which tolling of SH20 on the Onehunga causeway will have on the Hillsborough-Onehunga communities.
57. The location of toll gantries on the main corridor as proposed, as opposed to the on an off ramps as is now more common in the Australian models, tends to encourage traffic diversion off the main corridor onto local roads to avoid incurring a toll.
58. NZCID recommends a re-evaluation of the scheme design and extensive traffic modelling analysis be undertaken to identify how best to overcome these problems and reduce leakage of traffic from the tolled route onto local roads.

Options should be considered to advance completion of the WRR earlier than 2015

59. Completion by 2015 means that it will be nine years before this critical link in the Region's transport network will be completed.
60. Every year of delay means the social and economic benefits of the completion of the project are foregone.
61. NZCID recommends that Transit make application to the Minister to have this project "called in" under the RMA to streamline the consenting process and look at alternative delivery models that may potentially speed up the construction time line.
62. International experience has shown that use of Public Private Partnerships has consistently been successful in delivering complex infrastructure projects similar to the WRR sooner than otherwise would be possible.

Opportunity should be provided for delivery of the WRR as Public Private Partnership

63. Notwithstanding its support for tolling of the WRR, as indicated in the previous sections, NZCID is not convinced that the toll proposal advanced by Transit New Zealand represents the optimal tolling solution.
64. In comparison to international experience the indicative administration costs seem excessive, and expected toll revenues conservative.
65. NZCID considers an optimal solution would be better identified by enabling the private sector to compete with the proposed public sector delivery model for completion of the WRR on or before 2015.

Evidence from Overseas on the PPP Procurement Track Record

66. Overseas experience has shown the benefit of private sector project delivery not only in terms of providing the opportunity for additional private sector debt and equity funding, but also in terms of delivering cost effective procurement and operation of large scale public assets.
67. In addition to the transfer of risk from the public to the private sector, the key benefit of the PPP approach is the performance incentive that private equity investment provides.
68. The transfer of risk encourages innovation, a strong customer service focus to maximize revenues, and commitment to the whole of the life of the project.
69. International experience has demonstrated that PPP projects have consistently provided value for money against public sector comparative models.
70. Under the public model, underestimation of project costs and/or the overestimation of traffic volumes and toll revenues can cause loss of public confidence as well as significant loss of public funds.
71. On the other hand, private sector involvement can reduce the risk associated with road projects by subjecting toll road proposals to true market assessment.
72. There is a wealth of information available internationally on experience with Public Private Partnerships as a procurement option. In particular, there is substantial evidence available from both the UK and Australia that demonstrates the PPP procurement track record
73. In a 1999 survey, the UK National Audit Office reports that 73 percent of publicly funded projects exceeded the agreed contract price, and 70 percent were delivered late, whereas 2003 research by the UK Treasury showed that 76 percent of PPP projects were delivered on time or rarely with no cost overruns borne by the public sector.
74. The Australian experience has been similar.
75. Sydney's M2 and Eastern Distributor projects had been sought on a negative tender basis

because the New South Wales State Government had evaluated that they would not be commercially viable and sought tenders for the required subsidies that they estimated would exceed \$A60m. In the event, both winning tenders bid zero subsidies.

76. Australian states have used the PPP model to significantly advance major highway projects as listed in the following table. The total length of these corridor developments constructed in the 20 year span between 1988 and 2008 is roughly equivalent to the entire length of the NZ State Highway network.

Major Urban Tolls Roads in Australia Built in Much Shorter Time Frames than NZ

Project	Length km	A\$m Value	Start	Finish
Sydney M4	12.5	246	1988	1992
Sydney M5	21.0	380	1988	1992
Sydney Harbour Tunnel	3.0	685	1988	1992
Sydney M2	20.0	644	1994	1997
Sydney Eastern Distributor	6.0	700	1997	1999
Sydney Cross City Tunnel	2.1	680	2000	2005
Sydney Westlink M7	40.0	1,500	2002	2005
Sydney Lane Cove Tunnel	3.6	1,100	2002	2007
Melbourne City Link	22.0	1,780	1996	2000
Melbourne Eastlink	40.0	2,500	2005	2008
Total	170.2	\$A10,215		

77. Of particular note are the very short construction time frames that are being achieved in comparison to smaller projects in New Zealand.

78. One of the key benefits of the PPP procurement option is the incentive it provides to achieve early completion of a project in order to gain toll revenues as soon as possible.

An output based specification is recommended in place of the current prescriptive approach contained in the consultation document

79. While acknowledging that the current proposal is being used as part of a consultation process, the toll proposal in its current form is very prescriptive.
80. NZCID can find no provision within the Land Transport Management Act 2003 that requires the level of specificity that is included in the WRR toll proposal.
81. Rather than specify the tolling mechanism, fee structures and gantry location points, NZCID submits this should be determined as part of the bid process. This in turn will be guided by information provided through the community consultation process and transport modeling with regard to toll location preferences, willingness to pay, relative travel time savings, congestion and diversion impacts.
82. Preference is given to providing full information on each of these parameters to prospective bidders.
83. It is then up to bidders to make their own assessment of the risks associated with various levels of toll and location of toll gantries and undertake their own comparative modeling as appropriate.
84. This will maximize the competitive process and encourage innovation in design of both the corridor and the tolling system, including the level of tolls and the location of gantries.
85. The objective of the bid process is to find an optimum tolling strategy that ensures a satisfactory return on investment from the private sector perspective whilst achieving the public sector objectives to:
 - a. Advance completion of the project on or before 2015
 - b. Minimise the public sector financial contribution and concession term
 - c. Minimise congestion and maximize traffic flow
 - d. Minimise traffic diversion onto local roads
 - e. Ensure public amenity and ease of use
 - f. Ensure environmental sensitivity
 - g. Achieve high standards of operation and management of the road corridor
 - h. Ensure that a highly maintained asset is returned to the state at the end of the concession period.
86. NZCID recommends Transit clearly specify the project outcomes sought rather than be prescriptive as to how its desired outcomes should be achieved.

Lessons to be learned from Cross City Tunnel Project in Sydney

87. Despite the international success of the PPP model, NZCID notes that recent controversy over the Cross City Tunnel project in Sydney has led to some adverse concern about the introduction of PPPs in the NZ context.

88. However it is important to understand the context in which this situation has arisen.
89. A key contributing factor was a decision by the New South Wales Road Transport Authority in 2002 that the project must be delivered at “no net cost” to the State Government. This policy and other policy decisions precipitated a number of changes to the project. These included changes to the above ground streets aimed at improving urban amenity, together with an expected increase traffic volumes, and increases in the toll charges and revenues. This resulted in an increase in amount of private sector capital that could be introduced into the project. Many of these changes were made without adequate consultation and have subsequently been construed as a deliberate attempt to funnel traffic through the tunnel. As a result there has been a public outcry at both the level of tolls being charged and the closure of local roads to through traffic. Usage of the new tunnel has been well below expectation.
90. Notwithstanding the reduced traffic volumes, and some considerable political embarrassment, the project was opened eight months early, and, unlike the Route K situation in Tauranga (discussed below) the full cost of the reduced revenues has fallen on the private sector equity owners, a cost that might well have otherwise fallen on the State government.
91. The latter aspect provides a clear example of the value of the risk transfer from the public sector to the private sector.
92. Dr Kerry Schott, Executive Director, NSW Treasury to the Select Committee which reported on the project: noted:

“The fact remains that the project delivered a very successful engineering outcome in a more difficult than average construction environment. One cannot find too many projects that require tunneling under a major city with complex interchanges, for example, with existing water structures and pipes, and yet deliver construction before time and on budget.”⁵

Risk Transfer - Tauranga Experience with Route K

93. The risk associated with variability of traffic volumes has been clearly demonstrated in New Zealand with the Tauranga Route K project which has failed to attract the number of vehicles projected when the council sought special tolling legislation to build it.
94. Tauranga City Council financed the project with debt repayment being funded from toll revenues.
95. Public debt financing provided an apparent advantage at the time in that it attracted a lower rate of interest than an alternative private sector finance package.
96. In this case, actual toll revenue has not matched projected revenue and the shortfall has had to be met by ratepayers. As of June 2005, toll revenues represented only \$1.3m (34%) of the \$3.8m total cost of service.

⁵ Dr Kerry Schott evidence to Select Committee Report on Cross City Tunnel available at <http://www.parliament.nsw.gov.au/prod/parlment/Committee.nsf/v3listreports?open&vw=v3currentreportsbyinquiry>

97. The consequential loss of \$2.5m for that year represents a negative 5.6% annual return on the original construction cost of \$44.7m – considerably more than any saving on a lower cost of finance.
98. As such, Route K clearly illustrates the potential value of private sector investment and finance in exchange for the mitigation of risk to the public sector.
99. It is difficult to see how the Tauranga Route K project would have proceeded as a private toll road had the proposition been tested in the market, or, if it had, the risk would have been much more clearly exposed at the time.
100. However, the fact that the project is a net cost to rate payers doesn't mean the toll road is a failure.
101. Had it been procured in the traditional sense, without tolling, most of the costs of the project would have still been funded by rate payers or the benefits of having the road would have been foregone.
102. Although the cost of collection of tolls is relatively high at 44% of revenue, toll revenues nevertheless exceed the cost of collection by approximately \$700,000 per annum and are increasing each year.
103. This is revenue that otherwise would not be available to offset project costs.
104. Moreover, the overall social and economic benefits of the project must be valued against the costs in order to judge the overall benefits of advancing this project assisted by toll funded debt.

Conclusion -

105. NZCID considers early completion of the WRR is a project of national importance that should be advanced through debt funding supported by tolls.
106. The social and economic benefits of early completion far exceed the costs of debt finance and administration of tolls.
107. There are insufficient public funds available to meet the full infrastructure funding needs of the region and it makes sense to gain leverage from those projects like the WRR that can be toll funded.
108. Use of variable toll pricing enables more efficient use of the infrastructure than is possible through other funding mechanisms such as general taxes or fuel excise charges.
109. Opportunity should be provided for the private sector to compete with the proposed public sector delivery model for completion of the WRR on or before 2015.
110. Overall, the appropriate procurement structure for a project is that which provides the best value for money for the project including:

- a. An appropriate association of risk between the parties
- b. A procurement structure which optimizes the whole of life costs over the life of the project
- c. An output based specification, reducing the complexity and risk for the public sector procurer
- d. Sufficient flexibility to allow for changes in service requirements over time, while providing sufficient certainty over what is required.
- e. Appropriate incentive structures for the private sector to deliver services in a timely and efficient manner.
- f. Risk management expertise through external due diligence or specialist risk management providers.
- g. A consideration of the costs of finance and the ability to access revenue to service debt.

Thank you for the opportunity to make this submission in support of early completion of the WRR by means of toll funded debt finance.

Yours faithfully,



Stephen Selwood
Chief Executive