Glenda Shaw

From: Josephine Draper
Sent: Thursday, 4 February 2010 11:56 a.m.
To: Josephine Draper
Subject: FW: SH1 vs WLR Implications

From: Josephine Draper
Sent: Friday, 12 June 2009 1:06 p.m.
To: Rob Whight
Subject: SH1 vs WLR Implications

1) SH1 Expressway Built First.

- A high proportion of trips on SH1 are local trips. One of the objectives of State Highway operations is to remove local trips from the SH where possible. Building an expressway without a local alternative route would not achieve this.
- Building SH1 adds a substantial amount of capacity (76000 AADT) where the demand is around 25000 AADT at present. This represents overprovision of capacity in the short term.
- Local trips would still be forced to use SH1 at the Waikanae River crossing - this would lead to persistent high local turning movements at Otaihanga / Kapiti and Te Moana.
- Development potential at Paraparaumu is linked to the provision of the WLR therefore could not go ahead until WLR is provided, even with substantial capacity on SH1.
- Cost of building SH1 expressway is substantially higher than WLR, therefore extra money would be spent to build a road that would not be fully utilised.
- There would be substantial safety benefits in providing the SH1 expressway option.

2) WLR Built First

- WLR results in a theoretical capacity of around 40,000 AADT which is much closer to the demand and does not represent excessive overprovision of roadspace
- Local trips removed from SH1 freeing up capacity.
- Turning movements also reduced at Otaihanga (accident blackspot) / Kapiti and Te Moana.
- Development potential freed up in Paraparaumu which would trigger faster traffic growth.
- SH1 expressway would be required in around 2028 based on projected growth rates.

If you want to see some numbers I can provide them.

Jo Draper
Senior Transport Planner
DDI [redacted]
M [redacted]
E [redacted]

NZ Transport Agency
Wellington Regional Office

Level 9 PSIS House
20 Ballance Street
PO Box 5084 Lambton Quay
Wellington 6145, New Zealand
T 04-804-5200
F 04-894-3305

Glenda Shaw

From: Jill Skinner
Sent: Wednesday, 14 October 2009 11:03 a.m.
To: Selwyn Blackmore
Subject: FW: KCDC and review shows traffic volumes don't justify a motorway

Just re-read Deb's email below .. looks like their discussion with Geoff/Deb/Brian Roche was generally consistent with their submission released earlier this week.

-----Original Message-----
From: Deborah Hume
Sent: Wednesday, 7 October 2009 10:36 a.m.
To: Janice McDougall; Rob Whight; Eric Whitfield
Cc: Andree Kai Fong; Frank Fernandez; Peter Hookham; Jill Skinner; Selwyn Blackmore
Subject: KCDC and review shows traffic volumes don't justify a motorway

Yesterday I met with Jenny Rowan and Pat D to talk about their:
- Completion of the draft submission and release to public (on website) on 15 Oct
- Keeness on preserving the ability to progress the 2 lane WLR (i.e. if we call in the rest, please try not to tie everything else up with it)
- Expectation that we could work well together to consent their preferred eastern route without a call in
- Belief (based on their modelling) that there is no need for an expressway, and a route of SH standard with more accessibility than an expressway would provide the benefits and be cheaper. In fact, doing it on the existing alignment is preferred by them (aka significant "mitigation" on eastern alignment)
- Upcoming meeting with Takamore Trust (Sunday)

KCDC will be attending October's Board meeting to present their submission.

Near the end of the meeting we were joined by Brian Roche and Geoff D where KCDC reiterated their message.

Rgds, Deb

-----Original Message-----
From: Janice McDougall
Sent: Tuesday, 6 October 2009 6:03 p.m.
To: Rob Whight; Eric Whitfield
Cc: Andree Kai Fong; Deborah Hume; Frank Fernandez
Subject: FW: Review shows traffic volumes don't justify a motorway

Hi Rob and Eric
How would we respond to this if asked? It would be good if you give Andy some info to send to the Minister's office Wednesday morning (I'll be on a plane).

Cheers
Janice

-----Original Message-----
From: [redacted] (MIN) [mailto:[redacted]]
Sent: Tuesday, 6 October 2009 5:20 p.m.
To: Janice McDougall; Andrew Knackstedt; Andree Kai Fong
Subject: FW: Review shows traffic volumes don't justify a motorway

-----Original Message-----
From: [redacted] [mailto:[redacted]]
Sent: Tuesday, 6 October 2009 4:32 pm
To: NewsRoom Intranet Subscribers
Subject: Review shows traffic volumes don't justify a motorway

Review shows traffic volumes don't justify a motorway

Press Release by Kapiti Coast District Council at 4:31 pm, 06 Oct 2009

Analysis of the traffic volumes expected on the State Highway between Poplar Ave and Peka Peka Road indicate no more than 900 vehicles per hour are expected by 2026, about half the amount of traffic needed to justify a motorway.

This is the conclusion reached by Flow Transportation Specialists, recognised experts in traffic analysis, after they reviewed the results of traffic modelling Opus International Consultants has developed for NZTA.

"Flow's addendum to their Transportation Review on Road Transport through Kapiti says a four lane undivided highway with a design speed of 100kph, rather than an expressway, has an 1870 vehicle per hour capacity," Mayor Jenny Rowan said today.
NZTA's report assumes a growth rate of 0.9% per annum.

The Flow report says, "Even if the growth rate was 2% per annum, theoretically this section of highway could accommodate expected traffic growth for at least 50 years. However, critical to this assumption is that the highway and intersections will be able to accommodate turning traffic safely and efficiently," the report says.

"What this means," Jenny Rowan said, "is we don't need a motorway. All we need is an improved State Highway.

"And the kinds of improvements we're looking for would improve traffic flows, safety and how well the highway works. They would include four-laning, removing traffic lights, putting in roundabouts and median strips, reducing the number of entrances and exits onto the highway with slip roads and looking at underpasses.

"I expect that completing the two-lane Western Link and improving the existing State Highway will be the main thrust of the Council's submission to NZTA," Mayor Rowan said.

ENDS

Anne Arkwright

From: Rob Whight
Sent: Tuesday, 1 September 2009 7:38 p.m.
To: Geoff Dangerfield
Cc: Bernice McLaughlin
Subject: Kapiti Designations

Geoff,

Further to your query this afternoon re the Kapiti designations, my understanding is as follows:

Stage 1 of the KWLR (Raumati Road, Paraparaumu to Te Moana Road, Waikanae - i.e. the central portion):
Generally the designation is 100m wide.
Vast majority of the land is owned by KCDC/NZTA.
Where KCDC has purchased the land, this has been under the 90% FAR rate (i.e. they have paid for 10% of it).
Whilst the designation is generally 100m wide, we can't fit a 100kph alignment into it in the vacinity of the Urupa just south of Te Moana Road. To fit the 100kph alignment in, we will need to alter the designation and negotiate further land purchase from the Takamore Trust (Do-able but likely to be slow).

Stage 2 of the KWLR (Te Moana Road, Waikanae to Peka Peka - i.e the northern portion):
The designation used to be 100m wide but was changed with KCDC's recent plan change which enabled the "eco-village" to the north of Te Moana Road (The designation cuts right through the middle of it for the first third of the distance from Te Moana to Peka Peka).
The designation is now effectively wide enough for a two lane, local road and would require alteration for a 4 lane expressway.
In addition, further towards Peka Peka, the designation is not consistent with a 100kph alignment and would require alteration.
To date, we (NZTA) haven't shown a great interest in this section of the KWLR as KCDC have previously taken the position that it would be developer funded (e.g. as the developer builds new houses the road would extend it's way through the area).
We understand that the land is privately/developer owned.

Stage 3 of the KWLR (Raumati Road, Paraparaumu to Poplar Ave, Paraparaumu - i.e. the southern portion):
The designation is generally 100m wide
Whilst some land is NZTA/KCDC owned, significant portions remain in private/developer ownership.
A significant portion of this land is subject to court proceedings between us and the Pritchard developers. (Hearing occured in Aug last year but result still awaited and relates to whether or not we should be offering land back to original owner after scrapping the Sandhills Motorway or whether we can offer it directly to KCDC. If the developer wins, they get to buy the land from us at the "old" price and then I'm sure they would be happy to enter negotiations to sell to us/KCDC at the "new" price - for a healthy windfall gain) There has for some time been potential to move the southern start of the KWLR further north from Poplar Ave towards Raumati Road. Whilst KCDC have engaged with the community on this, the engagement hasn't been completed and there are known to be various factions within the community. Our consultation brochure acknowledges that there are different options to be discussed here but this would occur after the general concept is chosen.
There is also a community desire for a Raumati railway station to tie in with this interchange.

Apologies for the late delivery of this response.

I'll be at KCDC at 09:00 and will meet you and Brian there.

Regards,
Rob

Glenda Shaw

From: Josephine Draper
Sent: Thursday, 4 February 2010 9:55 a.m.
To: Josephine Draper
Subject: FW: SH1 Expressway Options - Risk

From: Josephine Draper
Sent: Wednesday, 18 November 2009 4:21 p.m.
To: Eric Whitfield
Subject: FW: SH1 Expressway Options - Risk

FYI

So in summary, we can provide 95 %ile costs for the broken down elements but I got the impression Roger is not confident in the figures - there is so much uncertainty that they felt more confident only giving 95 %ile figures for the package.

WLR is more risky due to marshy ground and less investigation work on the route north of Te Moana.

From: Roger Burra [mailto[redacted]]
Sent: Wednesday, 18 November 2009 3:52 p.m.
To: Josephine Draper
Subject: SH1 Expressway Options - Risk

Hi Jo,

I looked into the issue regarding risk earlier today. It didn't take as long as I had expected but this is the first opportunity that I have had to get back to you.

For the "follows rail option" the 95%ile estimate is 21% greater than the expected estimate. For the "WLR" and "Avoids town centres" options the 95%ile is about 33% greater than the expected estimate. On examination, the difference results from the risk applied to building an expressway on the WLR designation north of Te Moana Road. Very little investigation has been carried out for this part of the designation. On top of this, we know that the ground here is likely to be soft and marshy. A higher risk factor (90%) was therefore applied to the unit costs for this part of the expressway. The expected costs for this northern part of the WLR Expressway accounts for about 30% of the construction and property costs for each option. This means that the additional risk has a relatively large influence on the 95%ile for the full package.

Higher risk factors were also applied to some parts of the "follows rail" alignment, particularly in urban or constrained areas or where rail relocation is likely. Since the costs for these sections make up a smaller proportion of the total construction and property costs, the impact on the overall project risk is less.

We can provide 95%ile costs for the breakdown in the table, but you should be aware that the sum of the 95%iles for each section will be higher that the 95%ile for the full package.

Roger Burra
Senior Transport Planner
Opus International Consultants Ltd
[redacted]
Tel +64 4 471 7404, Mobile [redacted]
http://www.opus.co.nz
Level 7 Majestic Centre, 100 Willis St, PO Box 12 003, Wellington, New Zealand

Glenda Shaw

From: Dave Gennard
Sent: Friday, 20 November 2009 4:15 p.m.
To: Rob Whight; Colin Crampton
Cc: Eric Whitfield
Subject: RE: Kapiti

Hi Rob,

I have spoken to Richard Paling concerning whether his techniques were sufficiently detailed to determine the significance differences between the routes in terms of impact on the wider economic benefits and his view is that they are not. They are calculated at a TLA level and it would "hairy" to go below this level and become a matter of judgement as opposed to factual accuracy.

I will have a read of the work that Eric has sent through from Kapiti Coast District Council to see if we can use it or if it is something that we can get Richard Paling to consider within option evaluation.

Dave G

From: Rob Whight
Sent: Friday, 20 November 2009 1:20 p.m.
To: Colin Crampton
Cc: Dave Gennard; Eric Whitfield
Subject: RE: Kapiti

Chief,

Spoken with Eric, he will touch base with DG. Good to hear we're on the right track.

Thx,
R

From: Colin Crampton
Sent: Friday, 20 November 2009 12:47 p.m.
To: Rob Whight
Subject: Kapiti

After yesterday's meeting with the Minister we are on the right track with the Board paper. However, that discussion with Eric over best development potential has got my thinking juices going. Please can you arrange for immediate economic modelling of agglomeration effects between the two options. This work can be undertaken through existing contracts with Paling and Associates. Dave Gennard knows what to do.

Colin

Colin Crampton
Group Manager Highways and Network Operations
DDI [redacted]
M [redacted]
E [redacted]

Glenda Shaw

From: Josephine Draper
Sent: Friday, 5 February 2010 11:48 a.m.
To: Josephine Draper
Subject: FW: Draft Option Evaluation - Kapiti
Attachments: Attachment 4 option evaluation summary.pdf

Importance: High

From: Josephine Draper
Sent: Monday, 23 November 2009 4:39 p.m.
To: Eric Whitfield; Dave Gennard
Subject: Draft Option Evaluation - Kapiti
Importance: High

Please see attached, for your comments asap.

Thanks

Jo Draper
Senior Transport Planner
DDI [redacted]
M [redacted]
E [redacted]

NZ Transport Agency
Wellington Regional Office
Level 9 PSIS House
20 Ballance Street
PO Box 5084 Lambton Quay
Wellington 6145, New Zealand
T 04-804-5200
F 04-894-3305

LTMA Objective	Sub-Criteria	Comments	Contribution to LTMA Objective		
			WLR	W	E
Assists Economic Development	Construction Cost	Eastern highest, followed by Western and then WLR. Whether costs are considered for the expressway only elements or including the local road elements, Eastern is the highest, followed by Western and then WLR. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-	--	--
	Property Cost	Property cost is much greater for Eastern, then Western. WLR is least.	-	--	--
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-	-	--
	Incremental NPV	Benefits greatest for Eastern because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	+	++	+ -
	Security of Transport System	All comprise an improvement over do nothing. Three bridges are not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	+	+	+ -
	Contributing to high quality economic development	All options provide new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objectives and with Paraparaumu town centre plans and provides most new infrastructure.	-	-	++
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	+	+	++
	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	0	0	0
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	- -	-	-
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	+	++
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options must be considered equally risky until further work carried out.	-	-	-
Assists Safety and Personal Security	Crash Rates	Accident assessments have not been carried out, however, all expressway options are likely to have similar accident rates, but accident levels on SH1 should be reduced. The Eastern Option is likely to have a higher accident rate as a whole as additional local roads are included in the roading package.	- -	++	+
	Personal Security	At this stage it is impossible to provide a meaningful comment on the difference between the options in terms of personal security. Not enough detailed work has been undertaken.	0	0	0
Improves Access and Mobility	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	0	+	+ -
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	- +	+ +	+
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads mean improved safety and environment for pedestrians and cyclists. Best in Eastern, then Western.	0	+	+ -
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	--	0	+ +
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	--	-	0
Protects and Promotes Public Health	Air Emissions	At this stage an air quality assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Noise Emissions	At this stage an noise assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae.	-	0	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	--	--	-
Ensures Environmental Sustainability	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	+	+	+
	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western as half of the route is well known and then WLR where the land is known to be marshy.		0	+ -
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-	-	-
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-	-	0
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	--	-	0
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surfaces.	-	-	-
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	--	-	0
	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and Eastern may impact on the historic processional route.	--	--	-

Key

++	Strong Positive Contribution to LTMA Objective
+	Positive Contribution to LTMA Objective
0	No significant Change in Contribution to LTMA Objective
-	Negative Contribution to LTMA Objective
--	Strong Negative Contribution to LTMA Objective

LTMA Objective	Sub-Criteria	Comments	Contribution to LTMA Objective		
			WLR	W	E
Assists Economic Development	Construction Cost	Eastern highest, followed by Western and then WLR. Whether costs are considered for the expressway only elements or including the local road elements. Eastern is the highest, followed by Western and then WLR. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-	--	---
	Property Cost	Property cost is much greater for Eastern, then Western. WLR is least.	-	--	--
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-	-	--
	Incremental NPV	Benefits greatest for Eastern because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	+	++	+++
	Security of Transport System	All comprise an improvement over do nothing. Three bridges are not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	+	+	+-
	Contributing to high quality economic development	All options provide new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objectives and with Paraparaumu town centre plans and provides most new infrastructure.	--	-	+++
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	+	+	++
	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	0	0	0
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	- +	-	--
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	+	++
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options must be considered equally risky until further work carried out.	--	--	--
Assists Safety and Personal Security	Crash Rates	Accident assessments have not been carried out, however, all expressway options are likely to have similar accident rates, but accident levels on SH1 should be reduced. The Eastern Option is likely to have a higher accident rate as a whole as additional local roads are included in the roading package.	++	++	+
	Personal Security	At this stage it is impossible to provide a meaningful comment on the difference between the options in terms of personal security. Not enough detailed work has been undertaken.	0	0	0
Improves Access and Mobility	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	0	+	++
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	- +	- +	+
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads mean improved safety and environment for pedestrians and cyclists. Best in Eastern, then Western.	0	+	++
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	--	0	++
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	--	-	0
Protects and Promotes Public Health	Air Emissions	At this stage an air quality assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Noise Emissions	At this stage an noise assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae.	-	0	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	--	--	-
Ensures Environmental Sustainability	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	+	+	+
	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western as half of the route is well known and then WLR where the land is known to be marshy.	-	0	- -
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-	-	-
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-	-	0
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	--	-	0
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surfaces.		-	-
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	--	-	0
	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and Eastern may impact on the historic processional route.	--	--	-

Key

++	Strong Positive Contribution to LTMA Objective
+	Positive Contribution to LTMA Objective
0	No significant Change in Contribution to LTMA Objective
-	Negative Contribution to LTMA Objective
--	Strong Negative Contribution to LTMA Objective

Glenda Shaw

From: Dave Gennard
Sent: Monday, 23 November 2009 7:01 p.m.
To: Lisa Rossiter; David Silvester
Cc: Eric Whitfield
Subject: FW: Draft Option Evaluation - Kapiti
Attachments: Attachment 4 option evaluation summary.pdf

Importance: High

Hi,

I wonder if I can engage you on an issue that we have in developing the Kapiti Board paper.

We are looking for ways to differentiate the different options to provide the Board with a reasoned argument for and against each option in addition to the consultation results.

We are developing a framework assessment based on the information that we have to hand, which I have attached.

I would welcome your views on the criteria we have used and any guidance/ experience you can offer on the comprehensiveness of the information.

Clearly we are at a very early stage with most of the routes so do not have the breadth of quantitative information that one would desire to undertake this type of evaluation.

Apparently, discussions between Colin and Ernst has led to the suggestion that we should engage Kobus Mentz to review and provide input into the process which we will do asap. However, it would be good to have your input given that Lisa you have an overview of the various portfolios and David you have a view on the integrated planning aspects.

Our aim when developing it was to try and pick up the LTMA criteria (as this was stated as the way the Board would evaluate the results within the consultation information) - however, you may consider that there are other issues that are equally important issues that we have not considered as yet.

I would like to thank you for your assistance in anticipation of a positive response.

Regards

Dave G

From: Josephine Draper
Sent: Monday, 23 November 2009 4:39 p.m.
To: Eric Whitfield; Dave Gennard
Subject: Draft Option Evaluation - Kapiti
Importance: High

Please see attached, for your comments asap.

Thanks

Jo Draper
Senior Transport Planner
DDI [redacted]
M [redacted]
E [redacted]

LTMA Objective	Sub-Criteria	Comments	Contribution to LTMA Objective		
			WLR	W	E
Assists Economic Development	Construction Cost	Eastern highest, followed by Western and then WLR. Whether costs are considered for the expressway only elements or including the local road elements. Eastern is the highest, followed by Western and then WLR. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-	--	--
	Property Cost	Property cost is much greater for Eastern, then Western. WLR is least.	-	--	--
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-	-	--
	Incremental NPV	Benefits greatest for Eastern because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	+	++	++
	Security of Transport System	All comprise an improvement over do nothing. Three bridges are not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	+	+	++
	Contributing to high quality economic development	All options provide new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objectives and with Paraparaumu town centre plans and provides most new infrastructure.	--	-	++
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	+	+	++
	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	0	0	0
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	++	-	--
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	+	++
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options must be considered equally risky until further work carried out.	--	--	--
Assists Safety and Personal Security	Crash Rates	Accident assessments have not been carried out, however, all expressway options are likely to have similar accident rates, but accident levels on SH1 should be reduced. The Eastern Option is likely to have a higher accident rate as a whole as additional local roads are included in the roading package.	++	++	+
	Personal Security	At this stage it is impossible to provide a meaningful comment on the difference between the options in terms of personal security. Not enough detailed work has been undertaken.	0	0	0
Improves Access and Mobility	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	0	+	++
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	++	++	+
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads mean improved safety and environment for pedestrians and cyclists. Best in Eastern, then Western.	0	+	++
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	--	0	++
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	--	-	0
Protects and Promotes Public Health	Air Emissions	At this stage an air quality assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Noise Emissions	At this stage an noise assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae.	-	0	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	--	--	-
Ensures Environmental Sustainability	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	+	+	+
	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western as half of the route is well known and then WLR where the land is known to be marshy.	-	0	++
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-	-	-
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-	-	0
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	--	-	0
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surfaces.	-	-	-
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	--	-	0
	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and Eastern may impact on the historic processional route.	--	--	-

Key

++	Strong Positive Contribution to LTMA Objective
+	Positive Contribution to LTMA Objective
0	No significant Change in Contribution to LTMA Objective
-	Negative Contribution to LTMA Objective
--	Strong Negative Contribution to LTMA Objective

LTMA Objective	Sub-Criteria	Comments	Contribution to LTMA Objective		
			WLR	W	E
Assists Economic Development	Construction Cost	Eastern highest, followed by Western and then WLR. Whether costs are considered for the expressway only elements or including the local road elements, Eastern is the highest, followed by Western and then WLR. NB if expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-	--	--
	Property Cost	Property cost is much greater for Eastern, then Western. WLR is least.	-	--	--
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-	-	--
	Incremental NPV	Benefits greatest for Eastern because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	+	++	++
	Security of Transport System	All comprise an improvement over do nothing. Three bridges are not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	+	+	++
	Contributing to high quality economic development	All options provide new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objectives and with Paraparaumu town centre plans and provides most new infrastructure.	--	-	++
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	+	+	++
	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	0	0	0
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	++	-	--
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	+	++
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options must be considered equally risky until further work carried out.	--	--	--
Assists Safety and Personal Security	Crash Rates	Accident assessments have not been carried out, however, all expressway options are likely to have similar accident rates, but accident levels on SH1 should be reduced. The Eastern Option is likely to have a higher accident rate as a whole as additional local roads are included in the roading package.	++	++	+
	Personal Security	At this stage it is impossible to provide a meaningful comment on the difference between the options in terms of personal security. Not enough detailed work has been undertaken.	0	0	0
Improves Access and Mobility	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	0	+	++
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	++	++	+
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads mean improved safety and environment for pedestrians and cyclists. Best in Eastern, then Western.	0	+	++
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	--	0	++
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	--	-	0
Protects and Promotes Public Health	Air Emissions	At this stage an air quality assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Noise Emissions	At this stage an noise assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae.	-	0	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	--	--	-
Ensures Environmental Sustainability	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	+	+	+
	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western as half of the route is well known and then WLR where the land is known to be marshy.	-	0	++
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-	-	-
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-	-	0
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	--	-	0
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surfaces.	-	-	-
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	--	-	0
	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and Eastern may impact on the historic processional route.	--	--	-

Key

++	Strong Positive Contribution to LTMA Objective
+	Positive Contribution to LTMA Objective
0	No significant Change in Contribution to LTMA Objective
-	Negative Contribution to LTMA Objective
--	Strong Negative Contribution to LTMA Objective

Glenda Shaw

From: Eric Whitfield
Sent: Thursday, 26 November 2009 3:15 p.m.
To: Dave Gennard
Subject: Kapiti paper - evaluation
Attachments: radar diagrams v2.xls

Hi Dave,

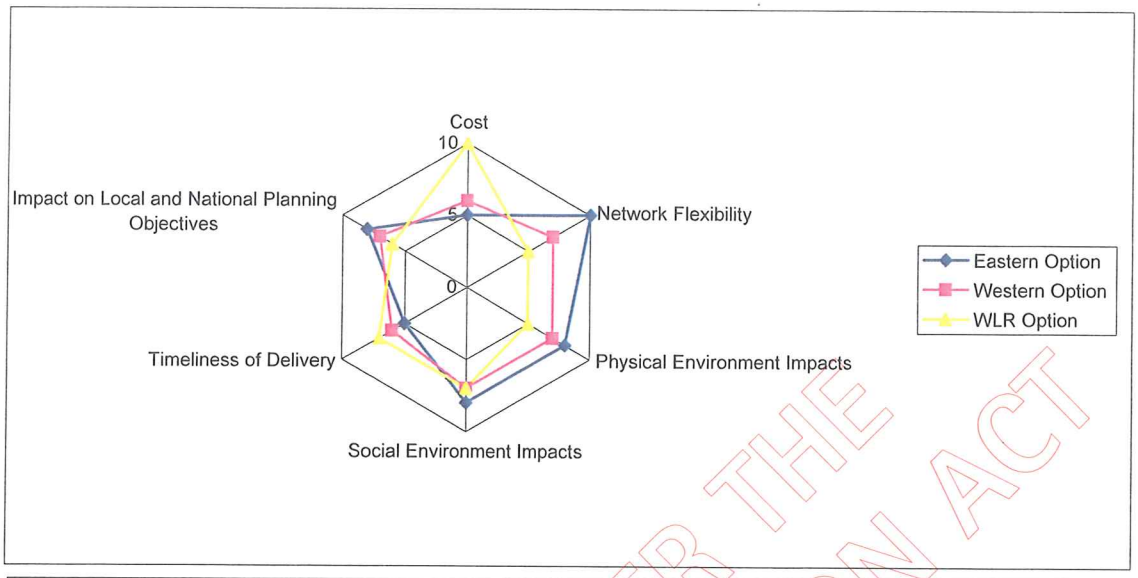
Do you want to review the next draft of this assessment? Go to the last tab with the ticks and crosses. I still think the GPS area needs more thinking which I'll work on in the meantime. I'm with the Board all day tomorrow but will catch up soon.
Cheers,

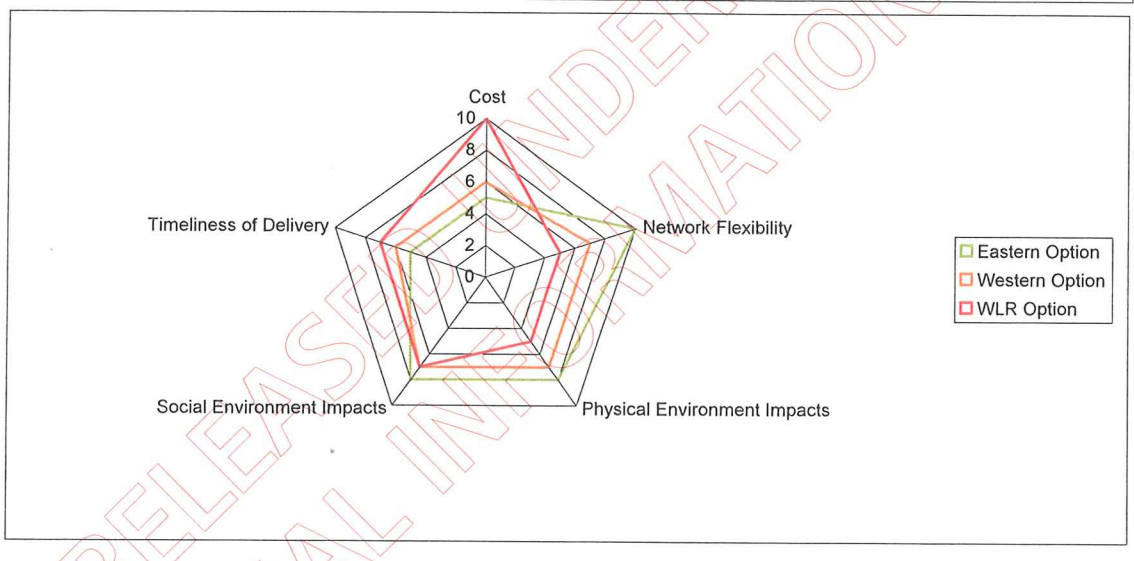
Eric Whitfield
Transport Planning Manager

New Zealand Transport Agency
PSIS House, Level 9
20 Ballance Street
PO Box 5084 Lambton Quay
T 64 4 894 5200
F 64 4 894 3305
DDI [redacted]
[redacted]

Spider diagrams

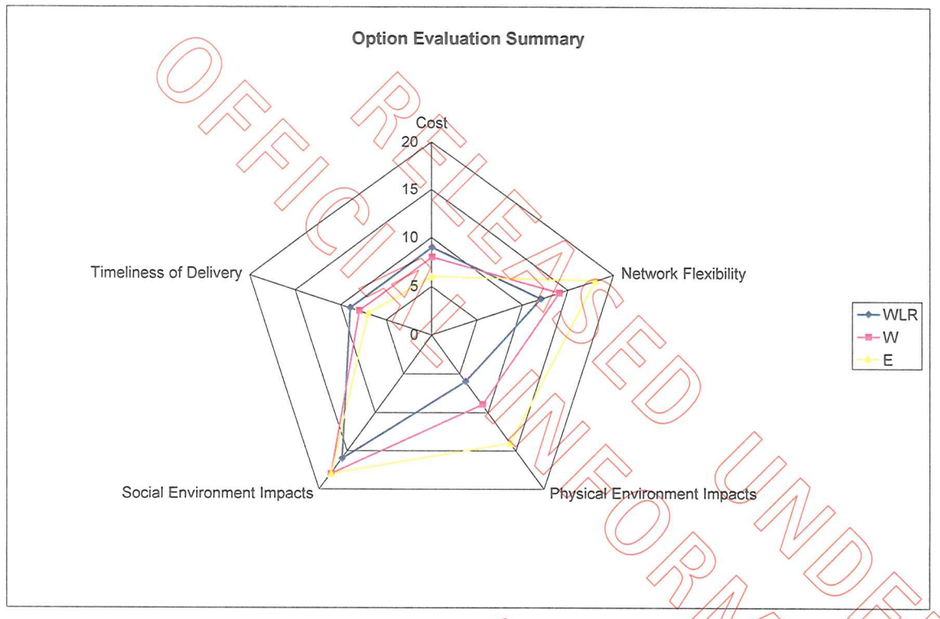
Option	Cost	Network F	Physical E	Social Env	Timelines	Impact on Local and National Planning Objectives
Eastern Option	5	10	8	8	5	8
Western Option	6	7	7	7	6	7
WLR Option	10	5	5	7	7	6





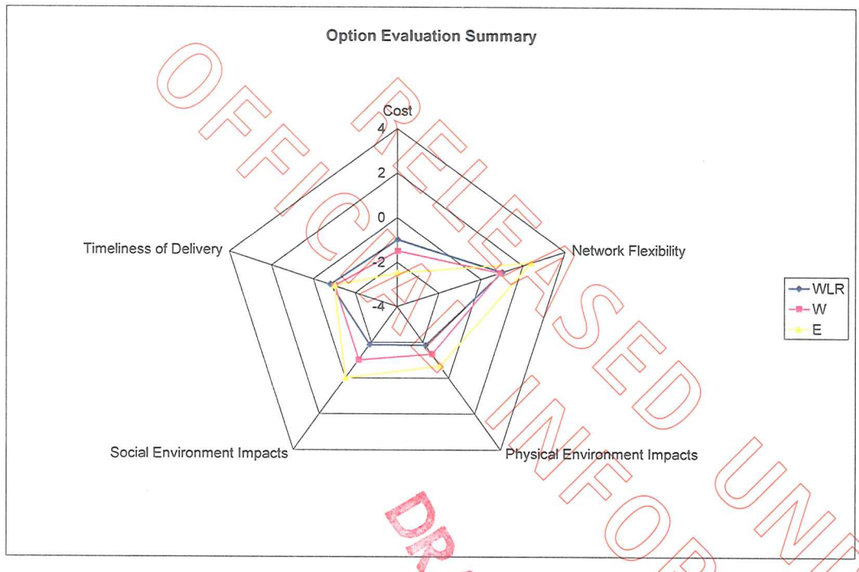
Key factors

Category	Factor	Comments	Ranking		
			WLR	W	E
Cost	Construction Cost	Eastern highest, followed by Western and then WLR. Costs considered only for expressways although if local roads are included, the order is the same. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	3	2	1
	Property Cost	Much greater for Eastern, then Western. WLR is least.	3	2	1
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	2	2	1
	Incremental NPV	Benefits greatest for East because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	1	2	3
	Subtotal		**9**	**8**	**6**
Network Flexibility	Security of Transport System	All comprise an improvement over do nothing. Three bridges not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	1	1	3
	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	1	2	3
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes.	3	2	1
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the	New local roads – improved safety for pedestrians and cyclists. Best in Eastern, then Western.	1	2	3
	Future Proofing – capacity for change in use of route	WLR option preserves the ability for 6 lanes. Past of Western route could also be future proofed.	3	2	1
	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	1	1	1
	Land transport integration – supporting regional growth	Providing new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objecties and with Paraparaumu town centre plans.	1	2	3
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	1	2	3
	Subtotal		**12**	**14**	**18**
Physical Environmental Impacts	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western and then WLR.	1	2	3
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options.	1	1	1
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	1	1	3
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	1	2	3
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options.	1	1	1
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	1	2	3
	Subtotal		**6**	**9**	**14**
Social Environmental Impacts	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern could displace Memorial Gates in Domain and may impact on the historic processional route.	1	2	3
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages. Western would provide some new linkages in Raumati.	1	2	3
	Population impacts / displacement	Eastern would cause greatest impact on population and physical displacement. WLR would cause least.	3	2	1
	Health and wellbeing – air emissions	Eastern would be worst as two new roads across river and route of expressway is closest to homes.	3	2	1
	Health and wellbeing – noise emissions	Potentially WLR would have least impact on residential populations, and Eastern option would be worst as closest to homes.	3	2	1
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through	1	3	2
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on Waikanae North.	1	2	3
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands.	2	2	1
	Business and economic opportunities	Potential for development around interchanges in all three options. All three would unlock development potential by freeing up roadspace. Redevelopment potential on old SH1 in all options. Eastern is preferred due to the greatest length of local access road.	1	1	3
	Subtotal		**16**	**18**	**18**
Timeliness	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	1	1	1
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	3	2	1
	Construction Programme	WLR option is best as traffic management is not required and there is less road length to build.	3	2	1
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	1	2	3
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options are equally risky.	1	1	1
	Subtotal		**9**	**8**	**7**



Key factors rev.

Category	Factor	Comments	Ranking		
			WLR	W	E
Cost	Construction Cost	Eastern highest, followed by Western and then WLR. Costs considered only for expressways although if local roads are included, the order is the same. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-2	-3	-5
	Property Cost	Much greater for Eastern, then Western. WLR is least.	-2	-3	-5
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-1	-2	-3
	Incremental NPV	Benefits greatest for East because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	1	2	3
	Subtotal		-1	-1.5	-2.5
Network Flexibility	Security of Transport System	All comprise an improvement over do nothing. Three bridges not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	2	2	4
	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	1	2	3
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	3	2	1
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the	New local roads – improved safety for pedestrians and cyclists. Best in Eastern, then Western.	1	2	3
	Future Proofing – capacity for change in use of route	WLR option preserves the ability for 6 lanes. Part of Western route could also be future proofed.	2	0	0
	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	1	1	1
	Land transport integration – supporting regional growth	Providing new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objecties and with Paraparaumu town centre plans.	-3	-2	4
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	1	0	3
	Subtotal		1	0.875	2.375
Physical Environmental Impacts	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western and then WLR.	-1	0	1
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-1	-1	-1
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-2	-2	-1
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	-3	-2	-1
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface..	-1	-1	-1
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	-3	-2	-1
	Subtotal		-1.833	-1.333	-0.667
Social Environmental Impacts	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and may impact on the historic processional route.	-3	-3	-1
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	-3	0	3
	Population impacts / displacement	Eastern would cause greatest impact on population and physical displacement. WLR would cause least.	-1	-2	-3
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through	-2	1	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	-3	-3	-1
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	-2	-1	-1
	Business and economic opportunities	Potential for development around interchanges in all three options. All three would unlock development potential by freeing up roadspace. Redevelopment potential on old SH1 in all options. Eastern is preferred due to the greatest length of local access road.	1	1	3
	Subtotal		-1.857	-1	0
Timeliness	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	-1	-1	-1
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	-1	-2	-3
	Construction Programme	WLR option is best as traffic management is not required and there is less road length to build.	-1	-2	-3
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	1	3
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options are equally risky.	-1	-1	-1
	Subtotal		-0.8	-1	-1



Option waluation

LTMA Objective	Sub-Criteria	Comments	Contribution to LTMA Objective		
			WLR	W	E
Assists Economic Development	Construction Cost	Eastern highest, followed by Western and then WLR. Whether costs are considered for the expressway only elements or including the local road elements, Eastern is the highest, followed by Western and then WLR. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-	--	--
	Property Cost	Property cost is much greater for Eastern, then Western. WLR is least.	-	--	--
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-	-	--
	Incremental NPV	Benefits greatest for Eastern because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	+	++	++
	Security of Transport System	All comprise an improvement over do nothing. Three bridges are not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	+	+	++
	Contributing to high quality economic development	All options provide new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objectives and with Paraparaumu town centre plans and provides most new infrastructure.	--	-	++
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	+	+	++
	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	0	0	0
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	++	-	--
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	+	++
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options must be considered equally risky until further work carried out.	--	--	--
Assists Safety and Personal Security	Crash Rates	Accident assessments have not been carried out, however, all expressway options are likely to have similar accident rates, but accident levels on SH1 should be reduced. The Eastern Option is likely to have a higher accident rate as a whole as additional local roads are included in the roading package.	++	++	+
	Personal Security	At this stage it is impossible to provide a meaningful comment on the difference between the options in terms of personal security. Not enough detailed work has been undertaken.	0	0	0
Improves Access and Mobility	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	0	+	++
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	++	++	+
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads mean improved safety and environment for pedestrians and cyclists. Best in Eastern, then Western.	0	+	++
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	--	0	++
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	--	-	0
Protects and Promotes Public Health	Air Emissions	At this stage an air quality assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Noise Emissions	At this stage an noise assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae.	-	0	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	--	--	-
Ensures Environmental Sustainability	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	+	+	+
	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western as half of the route is well known and then WLR where the land is known to be marshy.	-	0	++
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-	-	-
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-	-	0
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	--	-	0
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surfaces.	-	-	-
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	--	-	0
	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and Eastern may impact on the historic processional route.	--	--	-

Key		
	++	Strong Positive Contribution to LTMA Objective
	+	Positive Contribution to LTMA Objective
	0	No significant Change in Contribution to LTMA Objective
	-	Negative Contribution to LTMA Objective
	--	Strong Negative Contribution to LTMA Objective

Option Evaluation (2)

Objective	Sub-Criteria	Contribution to LTMA Objective		
		Western Link Road	Western	Eastern
LTMA – Assists Economic Development	Construction Cost	✗ Least expensive with a construction cost of $380 to $500M	✗✗ Second highest construction cost of $410 to $680M (inc local road elements)	✗✗ Highest construction cost at $610 to $930M (inc local road elements)
	Property Cost	✗ Property largely already purchased. 20 -50 land parcels affected	✗✗ 200 - 300 land parcels affected	✗✗ 300 - 400 land parcels affected
	Operation Cost	✗ Increase in operational cost due to increase in road length	✗ Increase in operational cost due to increase in road length	✗✗ Increase in operational cost due to increase in road length. More structures and local roads included in this option.
	Incremental NPV	✓ Benefits to SH1 traffic. No signficant benefit to local traffic	✓ Benefits to SH1 traffic. Minor benefit to local traffic	✓✓ Benefits to SH1 traffic. Significant benefits also to local traffic
	Security of Transport System	✓ Second crossing of Waikanae River provides additional security.	✓ Second crossing of Waikanae River provides additional security.	✓✓ Two additional crossings of Waikanae River provides additional security.
	Contributing to high quality economic development	0 Provides new infrastructure to facilitate economic development. Adverse impacts on Waikanae North and Paraparaumu Town Centre plans.	✓ Provides new infrastructure to facilitate economic development. Adverse impacts on planned Waikanae North.	✓✓ Provides new infrastructure to facilitate economic development. Facilitates planned development by providing local arterial.
	Contribution to the RONS Strategy	✓ Expressway provided for SH1, but would have a long lead time before commencement.	✓ Expressway provided for SH1, but would have a long lead time before commencement. Some local roading could be constructed in interim.	✓✓ Expressway provided for SH1. Quick wins can be achieved through the provision of consented local road across Waikanae River to relieve pressure on SH1.
	RMA process timeframes	✗✗ Consenting is very risky. Could prove to be fatally flawed because of cultural and environmental impacts.	✗✗ Consenting is very risky. Could prove to be fatally flawed because of cultural and environmental impacts. Many properties affected.	✗ Consently very risky. Many properties affected. Less cultural and environmental impact than WLR and Western options.
	Property Purchase Risk	✗ Majority of property is already purchased however there are still 20-50 affected properties that would require acquisition.	✗✗ Significant property purchase required (200 - 300 properties)	✗✗ Significant property purchase required (300 - 400 properties)
	Staging	✗✗ Staging difficult as there are no "quick wins." Congestion on SH1 will continue to build until Expressway is opened.	✓ Some staging possible through local road provision in southern end while Expressway is design and consented, however traffic congestion into Waikanae continues to build until Expressway is opened.	✓✓ Can be staged through construction of local roads first while Expressway is designed and consented.
	Consenting Risk	✗✗ Highly likely to be objected to by Takamore Trust, affected landowners, schools and KCDC making consenting very difficult.	✗✗ Highly likely to be objected to by Takamore Trust, many affected landowners, and KCDC making consenting very difficult.	✗✗ Highly likely to be objectived to by many affected landowners.
LTMA – Assists Safety and Personal Security	Crash Rates	✓✓ Significant safety improvements on SH1 likely due to removal of risk of high severity head on and right-turn-against crashes. Detailed analysis has not been undertaken.	✓✓ Significant safety improvements on SH1 likely due to removal of risk of high severity head on and right-turn-against crashes. Detailed analysis has not been undertaken.	✓ Significant safety improvements on SH1 likely due to removal of risk of high severity head on and right-turn-against crashes. Additional local roads may result in higher local crash rates. Detailed analysis has not been undertaken.
	Personal Security	-- Insufficient work carried out. Not possible to provide meaningful comment on the differences between schemes.	-- Insufficient work carried out. Not possible to provide meaningful comment on the differences between schemes.	-- Insufficient work carried out. Not possible to provide meaningful comment on the differences between schemes.
LTMA – Improves Access and Mobility	Integration with Other Transport Modes	✗ No new local roads for improved bus routes. SH1 moved farther from rail stations resulting in less integration.	0 New local road links in Raumati will facilitate some improved bus links. SH1 can integrate with rail in Paraparaumu but is moved farther from Waikanae rail station, resulting in less integration.	✓✓ New local arterial allows signficantly improved bus links between Waikanae, Paraparaumu and Raumati. SH1 remains close to rail stations facilitating better integration.
	Improvements to Access and Mobility with the provision of the facility	✓ New expressway significantly improves mobility for through traffic. Old SH will be an improved environment for local vehicular trips, walking and cycling. Good potential for parallel walking / cycling routes. Additional interchanges on expressway may need to be provided to facilitate access to/from areas.	✓ New expressway significantly improves mobility for through traffic. Old SH will be an improved environment for local vehicular trips, walking and cycling. Good potential for parallel walking / cycling routes.	✓✓ New expressway significantly improves mobility for through traffic. Old SH will be an improved environment for local vehicular trips, walking and cycling. Good potential for parallel walking / cycling routes. New local arterial signficantly improves access and mobility for local trips and new development opportunities.
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the	0 No improvements beyond facility.	✓ Limited new local roads mean improved choice of North-south routes for pedestrians and cyclists.	✓✓ New local roads mean improved choice of North-south routes for pedestrians and cyclists.
	Community linkages and connectivity	✗✗ No new local linkages and would prevent the provision of future linkages across the expressway.	0 Some new linkages in Raumati but would prevent the provisions of future linkages across the expressway north of Waikanae.	✓ New link across Waikanae River and new roads in Raumati. Some reduced permeability of SH1 in Waikanae town centre.
	Urban amenity	✗✗ Would adversely impact on the planned future town centre of Paraparaumu and high quality residential development in Waikanae.	✗ Would impact on Paraparaumu businesses but would not affect future development proposals for Paraparaumu Town Centre. Would adversely impact planned high quality residential development in Waikanae.	✗ Would have an impact on Waikanae Town Centre and Paraparaumu businesses on the existing SH1 but would not affect development proposals for Paraparaumu Town Centre or Waikanae.
LTMA – Protects and Promotes Public Health	Air Emissions	-- At this stage an air quality assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage an air quality assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage an air quality assessment has not been carried out and insufficient data is available to judge impacts of options.
	Noise Emissions	-- At this stage a noise assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage a noise assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage a noise assessment has not been carried out and insufficient data is available to judge impacts of options.
	Community services and facilities	✗✗ Would place the Expressway next to two schools in Raumati. Would increase severance between coastal communities and services in the town centres.	0 Potential to benefit facilties in Paraparaumu and Raumati but would increase severance between Waikanae Beach and Waikanae township.	✓ Potential to benefit facilties in Paraparaumu and Raumati. Local arterial provides better access to community facilities for local trips.
	Recreation and reserve areas	✗✗ Could impact on QE Park and wetlands north-west of Waikanae and pass close to Nga Manu nature reserve.	✗✗ Could impact on wetlands north-west of Waikanae and pass close to Nga Manu nature reserve.	✗ Could impact on the Paraparaumu Domain.
LTMA – Environmental Sustainability	Opportunities for Travel Demand Management with the option	✓ It is possible to use tolling both as a means of funding as a TDM tool.	✓ It is possible to use tolling both as a means of funding as a TDM tool.	✓ It is possible to use tolling both as a means of funding as a TDM tool.
	Land stability / geotechnical stability	✗ All routes go through areas of peat and soft ground.	✗ All routes go through areas of peat and soft ground.	✗ All routes go through areas of peat and soft ground.
	Coastal Marine Area and receiving environment	-- Detailed assessment necessary to determine impacts	-- Detailed assessment necessary to determine impacts	-- Detailed assessment necessary to determine impacts
	Groundwater	-- Detailed assessment necessary to determine impacts	-- Detailed assessment necessary to determine impacts	-- Detailed assessment necessary to determine impacts
	Natural habitats and fauna – coastal, terrestrial and streams	-- Detailed assessment necessary to determine impacts	-- Detailed assessment necessary to determine impacts	-- Detailed assessment necessary to determine impacts

DRAFT

Ensures	Landscapes	✗✗	✗	✗
		Would siginificantly impact dunes environment, and wetlands north west of Waikanae.	Provision of local road along WLR route would alter dunes environment in Raumati. Expressway would affect wetlands north west of Waikanae	Expressway follows an already heavily modified transport corridor. Local road elements along WLR route will alter dunes environment.
	Sites of cultural significance	✗✗	✗✗	✗
		Wahi tapu area to north west of Waikanae directly affected. Potential to affect battleground sites.	Wahi tapu area to north west of Waikanae directly affected. Could impact on memorial gates in Domain	Could impact on memorial gates in Domain and affect historic processional route through Waikanae
Investment and Revenue Strategy	Strategic Fit	✓✓	✓✓	✓✓
		(High) Expressway contributes to RONS strategy.	(High) Expressway contributes to RONS strategy.	(High) Expressway contributes to RONS strategy.
	Effectiveness	0	0	✓✓
		(Low). Is not consistent with accepted strategies and land use plans	(Low). Is not consistent with accepted strategies and land use plans	(High). Meets medium and low criteria and also improves intergration with land use and other transport modes and supports networks from a national perspective
	Economic Efficiency	0	0	0
		(Low). BCR 0.6 to 1.0	(Low). BCR 0.5 to 0.8	(Low). BCR 0.4 to 0.6
Government Policy Statement	Contribute to Economic Growth and Productivity	✓	✓	✓✓
		Reducing travel times and new Expressway expected to facilitate economic growth	Reducing travel times and new Expressway expected to facilitate economic growth	Reducing travel times and new Expressway expected to facilitate economic growth. New local arterial will contribute to regional growth plans and higher-quality development
	Consider Networks from a National Perspective	✓✓	✓✓	✓✓
		Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion
	Achieving Value for Money	✗	✗	✗
		BCR 0.6 to 1.0	BCR 0.5 to 0.8	BCR 0.4 to 0.6
	Encouraging Integrated Planning	✗✗	✗✗	✓✓
		Expressway plans directly conflict with KCDC's plans for Kapiti and do not provide for local transport links.	Expressway plans directly conflict with KCDC's plans for Kapiti and provide for only limited local transport links.	Expressway plans contribute to KCDC's aspirations for Paraparaumu town centre and Waikanae North. Allow for local arterial construction which is consistent with regional
	Making best use of existing networks and infrastructure	✓✓	✓	✓
		Utilises the old SH as a local road.	Utilises the old SH as a local road with the addition of limited new local roads.	Utilises the old SH as a local road with the addition of new local roads.
	Implementing and fostering a co-ordinated approach	✗✗	✗✗	✓
		Expressway plans directly conflict with KCDC's plans for Kapiti.	Expressway plans directly conflict with KCDC's plans for Kapiti.	Expressway plans do not directly conflict with KCDC's aspirations.
	Considering the impact of volatile fuel prices	--	--	--
		Option assessment has not considered different fuel prices.	Option assessment has not considered different fuel prices.	Option assessment has not considered different fuel prices.
National Energy Efficiency and Conservation Strategy	Managing demand for travel	✗	✗	✗
		Likely to generate an increase in car-based travel	Likely to generate an increase in car-based travel	Likely to generate an increase in car-based travel
	More efficient transport modes	✓	✓	✓✓
		No specific consideration.	Limited local roads will facilitate some improved bus links.	Provides additional local roads which will help to facilitate local bus services. Also provides good links to the railway network
Wellington Land Transport Strategy	A safer, more reliable road and rail corridor	✓✓	✓✓	✓✓
		Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion and reducing accident risk on SH1	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion and reducing accident risk on SH1	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion and reducing accident risk on SH1
	User expectations for a consistent regional corridor are met	✓✓	✓✓	✓✓
		Expressway contributes to RONS strategy which is a consistent strategy for an expressway between north of Levin and Wellington Airport.	Expressway contributes to RONS strategy which is a consistent strategy for an expressway between north of Levin and Wellington Airport	Expressway contributes to RONS strategy which is a consistent strategy for an expressway between north of Levin and Wellington Airport.
	Reduced congestion in parts of the corridor	✓✓	✓✓	✓✓
		Congestion will be alleviated at key pinch points including Kapiti Road Traffic Lights and Waikanae Traffic Lights	Congestion will be alleviated at key pinch points including Kapiti Road Traffic Lights and Waikanae Traffic Lights	Congestion will be alleviated at key pinch points including Kapiti Road Traffic Lights and Waikanae Traffic Lights
	Balanced investment in road and passenger transport, along with Travel Demand Management	✗	✓	✓✓
		Investment is focused on building Expressway for SH1	As well as expressway provision, local road will facilitate improved bus links between Raumati and Paraparaumu.	As well as expressway provision, provides additional local roads which will facilitate local bus services between Waikanae, Paraparaumu and

Key

✓✓	Strong Positive Contribution to Objective
✓	Positive Contribution to Objective
0	No significant Change in Contribution to Objective
✗	Negative Contribution to Objective
✗✗	Strong Negative Contribution to Objective
--	Not assessed or insufficient information at this time

Glenda Shaw

From: Dave Gennard
Sent: Thursday, 26 November 2009 5:55 p.m.
To: Lisa Rossiter; David Silvester
Subject: FW: Kapiti paper - evaluation
Attachments: radar diagrams v2.xls

Hi Lisa and David,

This is were we have got to so far. We are progressing this for the Board paper. However, as I understand it now that an independent team will be reviewing the information between now and the Board consisting of three people - one of which may be Kobus Mentz.

Your feedback on this would be very much appreciated.

Regards

Dave G

From: Eric Whitfield
Sent: Thursday, 26 November 2009 3:15 p.m.
To: Dave Gennard
Subject: Kapiti paper - evaluation

Hi Dave,

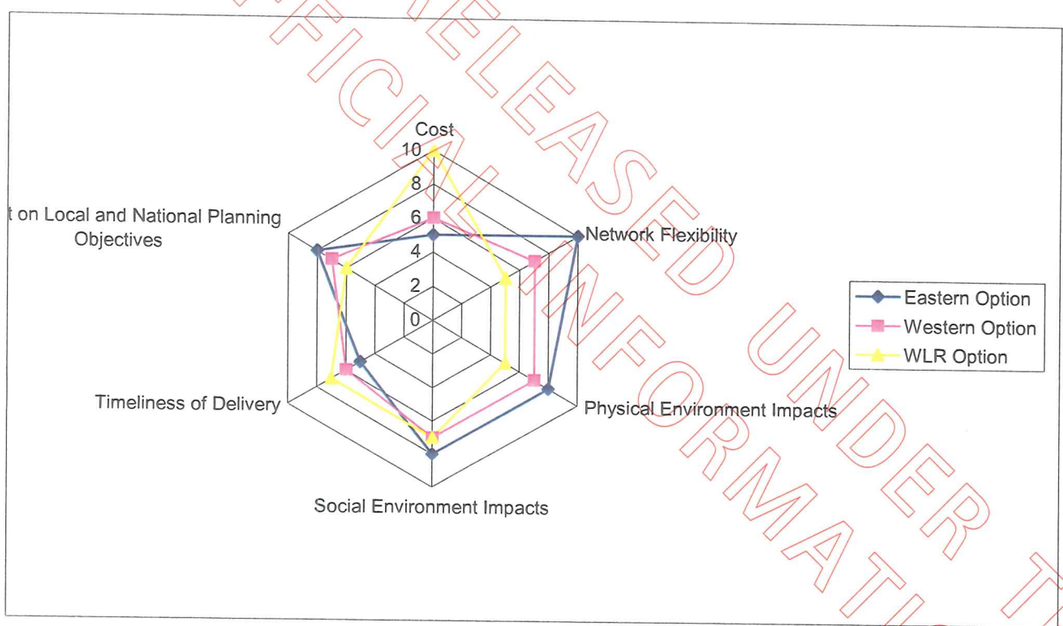
Do you want to review the next draft of this assessment? Go to the last tab with the ticks and crosses. I still think the GPS area needs more thinking which I'll work on in the meantime. I'm with the Board all day tomorrow but will catch up soon.
Cheers,

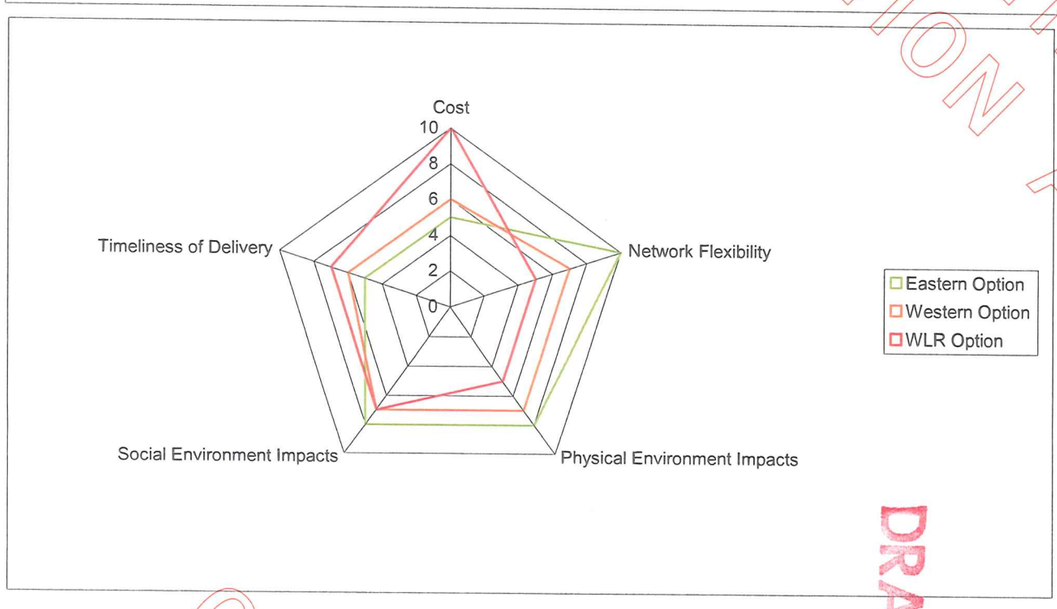
Eric Whitfield
Transport Planning Manager

New Zealand Transport Agency
PSIS House, Level 9
20 Ballance Street
PO Box 5084 Lambton Quay
T 64 4 894 5200
F 64 4 894 3305
[redacted]
eric.whitfield@nzta.govt.nz

Spider Diagram 1st dratt

Option	Cost	Network	Physical E	Social En	Timelines	Impact on Local and National Planning Objectiv
Eastern Option	5	10	8	8	5	8
Western Option	6	7	7	7	6	7
WLR Option	10	5	5	7	7	6



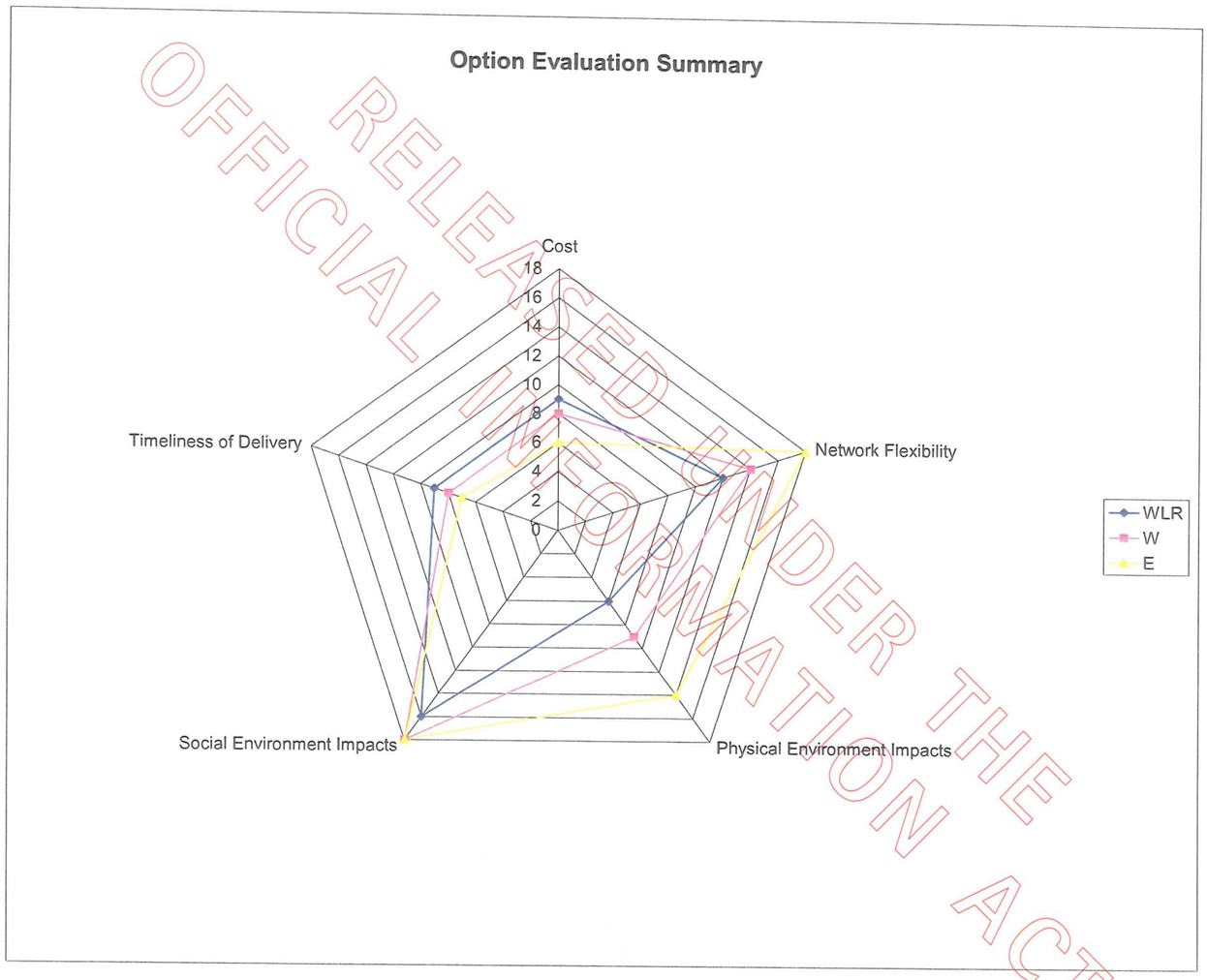


Key Factors

Category	Factor	Comments	Ranking		
			WLR	W	E
Cost	Construction Cost	Eastern highest, followed by Western and then WLR. Costs considered only for expressways although if local roads are included, the order is the same. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	3	2	1
	Property Cost	Much greater for Eastern, then Western. WLR is least.	3	2	1
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	2	2	1
	Incremental NPV	Benefits greatest for East because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	1	2	3
	Subtotal		**9**	**8**	**6**
Network Flexibility	Security of Transport System	All comprise an improvement over do nothing. Three bridges not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	1	1	3
	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	1	2	3
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes.	3	2	1
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads – improved safety for pedestrians and cyclists. Best in Eastern, then Western.	1	2	3
	Future Proofing – capacity for change in use of route	WLR option preserves the ability for 6 lanes. Past of Western route could also be future proofed.	3	2	1
	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	1	1	1
	Land transport integration – supporting regional growth	Providing new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objecties and with Paraparaumu town centre plans.	1	2	3
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	1	2	3
	Subtotal		**12**	**14**	**18**
Physical Environmental Impacts	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western and then WLR.	1	2	3
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options.	1	1	1
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	1	1	3
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	1	2	3
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options.	1	1	1
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	1	2	3
	Subtotal		**6**	**9**	**14**
Social Environmental Impacts	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern could displace Memorial Gates in Domain and may impact on the historic processional route.	1	2	3
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages. Western would provide some new linkages in Raumati.	1	2	3
	Population impacts / displacement	Eastern would cause greatest impact on population and physical displacement. WLR would cause least.	3	2	1
	Health and wellbeing – air emissions	Eastern would be worst as two new roads across river and route of expressway is closest to homes.	3	2	1
	Health and wellbeing – noise emissions	Potentially WLR would have least impact on residential populations, and Eastern option would be worst as closest to homes.	3	2	1
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae	1	3	2
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on Waikanae North.	1	2	3

	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands.	2	2	1
	Business and economic opportunities	Potential for development around interchanges in all three options. All three would unlock development potential by freeing up roadspace. Redevelopment potential on old SH1 in all options. Eastern is preferred due to the greatest length of local access road.	1	1	3
		Subtotal	**16**	**18**	**18**
Timeliness	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	1	1	1
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	3	2	1
	Construction Programme	WLR option is best as traffic management is not required and there is less road length to build.	3	2	1
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	1	2	3
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options are equally risky.	1	1	1
		Subtotal	**9**	**8**	**7**

RELEASED UNDER THE OFFICIAL INFORMATION ACT

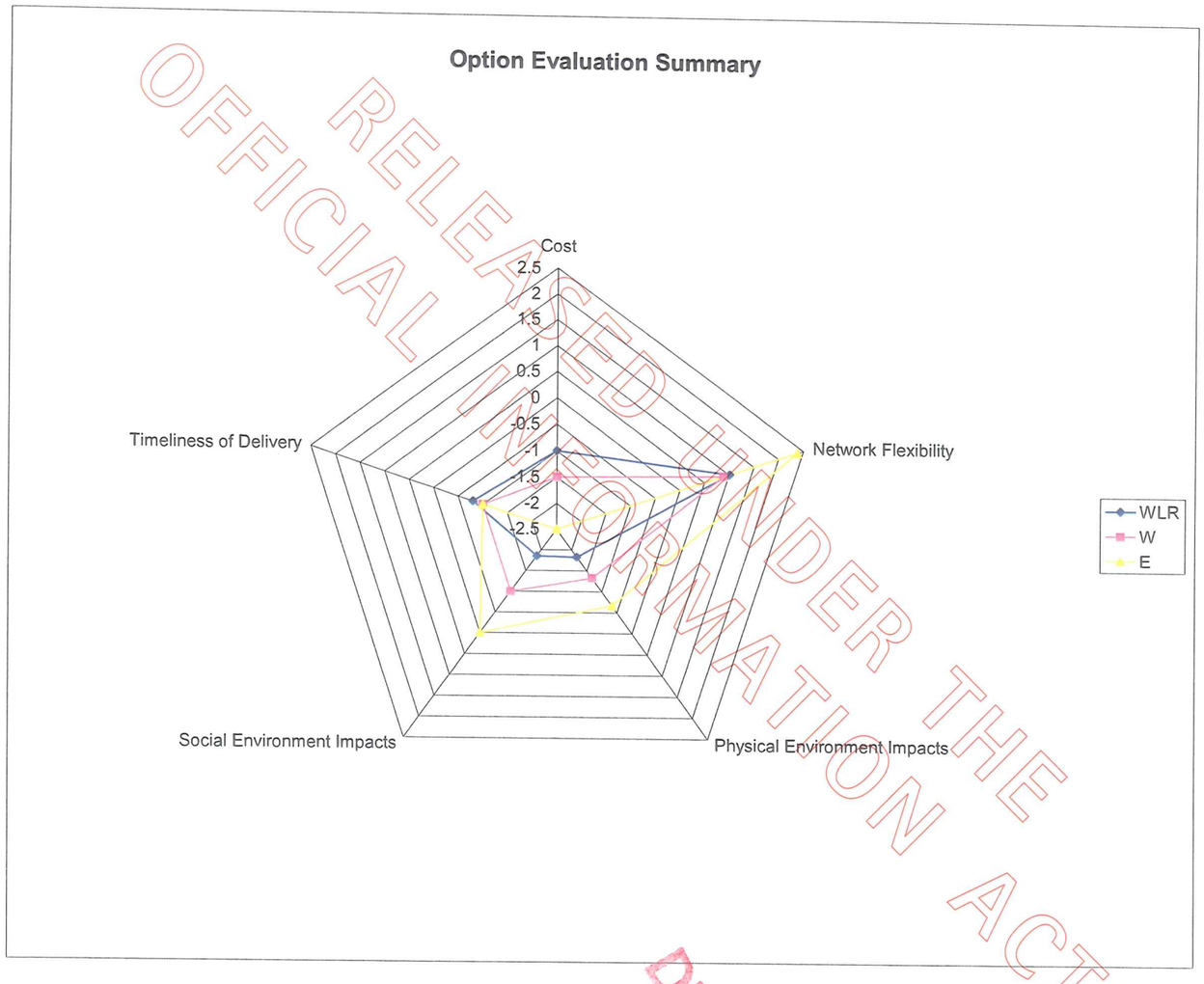


Key Factors rev

Category	Factor	Comments	Ranking		
			WLR	W	E
Cost	Construction Cost	Eastern highest, followed by Western and then WLR. Costs considered only for expressways although if local roads are included, the order is the same. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-2	-3	-5
	Property Cost	Much greater for Eastern, then Western. WLR is least.	-2	-3	-5
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-1	-2	-3
	Incremental NPV	Benefits greatest for East because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	1	2	3
	Subtotal		**-1**	**-1.5**	**-2.5**
Network Flexibility	Security of Transport System	All comprise an improvement over do nothing. Three bridges not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	2	2	4
	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	1	2	3
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	3	2	1
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads – improved safety for pedestrians and cyclists. Best in Eastern, then Western.	1	2	3
	Future Proofing – capacity for change in use of route	WLR option preserves the ability for 6 lanes. Part of Western route could also be future proofed.	2	0	0
	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	1	1	1
	Land transport integration – supporting regional growth	Providing new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objecties and with Paraparaumu town centre plans.	-3	-2	4
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	1	0	3
	Subtotal		**1**	**0.875**	**2.375**
Physical Environmental Impacts	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western and then WLR.	-1	0	1
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-1	-1	-1
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-2	-2	-1
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	-3	-2	-1
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface..	-1	-1	-1
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	-3	-2	-1
	Subtotal		**-1.833**	**-1.333**	**-0.667**
Social Environmental Impacts	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and may impact on the historic processional route.	-3	-3	-1
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	-3	0	3
	Population impacts / displacement	Eastern would cause greatest impact on population and physical displacement. WLR would cause least.	-1	-2	-3
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae	-2	1	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	-3	-3	-1
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	-2	-1	-1
	Business and economic opportunities	Potential for development around interchanges in all three options. All three would unlock development potential by freeing up roadspace. Redevelopment potential on old SH1 in all options. Eastern is preferred due to the greatest length of local access road.	1	1	3

	Subtotal		**-1.857**	**-1**	**0**
Timeliness	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	-1	-1	-1
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	-1	-2	-3
	Construction Programme	WLR option is best as traffic management is not required and there is less road length to build.	-1	-2	-3
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	1	3
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options are equally risky.	-1	-1	-1
	Subtotal		**-0.8**	**-1**	**-1**

RELEASED UNDER THE OFFICIAL INFORMATION ACT



Option Evaluation

LTMA Objective	Sub-Criteria	Comments	Contribution to LTMA Objective		
			WLR	W	E
Assists Economic Development	Construction Cost	Eastern highest, followed by Western and then WLR. Whether costs are considered for the expressway only elements or including the local road elements, Eastern is the highest, followed by Western and then WLR. NB If expressway only is built, an interchange at Kapiti Road / Ihakara would be required on the Eastern Option.	-	--	--
	Property Cost	Property cost is much greater for Eastern, then Western. WLR is least.	-	--	--
	Operation Cost	Not Assessed in detail. But will include Vehicle Operating Cost, CO2 emission costs, but no road maintenance costs. Similar road lengths but one additional structure for Eastern Option, so Eastern is highest.	-	-	--
	Incremental NPV	Benefits greatest for Eastern because of the local road provision. Therefore Eastern will be highest, followed by Western, then WLR.	+	++	++
	Security of Transport System	All comprise an improvement over do nothing. Three bridges are not significantly better than two. However, Western and WLR options risk a threat of sea level rise.	+	+	++
	Contributing to high quality economic development	All options provide new infrastructure to unlock development potential. WLR and Western would impact on planned developments at Waikanae North. East has least conflict with land transport integration objectives and with Paraparaumu town centre plans and provides most new infrastructure.	--	-	++
	Contribution to the RONS Strategy	WLR can be built first. Higher cost of Eastern could compromise the ability to build the rest of the RONS, however, can get quick wins from local road construction in the Eastern option meaning the ability to defer the larger spends and use saved funds elsewhere in the RONS.	+	+	++
	RMA process timeframes	All options would be called in so no difference between them. NORs to be lodged by 2012.	0	0	0
	Property Purchase	Eastern option has most property purchase so represents the greatest risk. Would be dealt with by the Environment Court so no control over process. WLR is the lowest risk.	++	-	--
	Staging	Would be difficult to stage the WLR option. Eastern option would be best as it can be staged through construction of local roads. Western option can also be staged to an extent.	0	+	++
	Consenting Risk	Western and WLR options are likely to be objected to by Takamore Trust. However there is no planning blight on WLR or Western options. All options must be considered equally risky until further work carried out.	--	--	--
Assists Safety and Personal Security	Crash Rates	Accident assessments have not been carried out, however, all expressway options are likely to have similar accident rates, but accident levels on SH1 should be reduced. The Eastern Option is likely to have a higher accident rate as a whole as additional local roads are included in the roading package.	++	++	+
	Personal Security	At this stage it is impossible to provide a meaningful comment on the difference between the options in terms of personal security. Not enough detailed work has been undertaken.	0	0	0
Improves Access and Mobility	Integration with Other Transport Modes	Eastern is better as new local road through heart of community provides better network for buses and two new local roads across river. Eastern route is also closer to rail stations.	0	+	++
	Improvements to Access and Mobility with the provision of the facility	WLR option and Western option have greater potential for parallel pedestrian / cycle routes. However, the old SH will be a better enviroment for cycling and walking in all options.	++	++	+
	Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	New local roads mean improved safety and environment for pedestrians and cyclists. Best in Eastern, then Western.	0	+	++
	Community linkages and connectivity	Eastern provides new link across Waikanae River and new road in Raumati but would cause additional severance in Waikanae. WLR would provide no new linkages and would prevent future linkages across expressway. Western would provide some new linkages in Raumati.	--	0	++
	Urban amenity	Eastern would have an impact on Waikanae Town Centre. Western and Eastern Options both have impacts on Coastlands. WLR option would impact on the desired future town centre of Paraparaumu but Eastern and Western would not affect the future town centre.	--	-	0
Protects and Promotes Public Health	Air Emissions	At this stage an air quality assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Noise Emissions	At this stage an noise assessment has not been carried out. However it is felt that there would be little difference between the options.	0	0	0
	Community services and facilities	None of the options destroy community facilities although the environment of them would be affected. WLR is the worst option as the route would be adjacent to schools. Western is the best option, although both Eastern and Western options would have an impact on Coastlands. Eastern would have an impact through proximity on the church and marae in Waikanae.	-	0	0
	Recreation and reserve areas	Eastern could impact on Domain. WLR could impact on QE Park. Both Western and WLR options could impact on greenspace around Waikanae North and pass close to Nga Manu Nature Reserve.	--	--	-
Ensures Environmental Sustainability	Opportunities for Travel Demand Management with the option	Possible tolling on all options.	+	+	+
	Land stability / geotechnical stability	Eastern follows a known route with good land stability so scores best. Followed by Western as half of the route is well known and then WLR where the land is known to be marshy.	-	0	++
	Coastal Marine Area and receiving environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surface.	-	-	-
	Groundwater	WLR and Western options reduce groundwater catchment area and influence the groundwater recharge process.	-	-	0
	Natural habitats and fauna – coastal, terrestrial and streams	Western / WLR worse due to crossing swampy ground west of Waikanae.	--	-	0
	Coastal processes as they contribute to natural character of coastal environment	Difference in impacts indiscernable between options but likely to have a negative impact due to increased run off from more hard surfaces.	-	-	-
	Landscapes	WLR option would destroy Sandhills environment. Both WLR and Western options would affect the natural environment west of Waikanae, and alter a greenfield environment.	--	-	0

	Sites of cultural significance	Wahi Tapu area west of Waikanae directly impacted by Western and WLR options. Also potential for battleground sites to be impacted by WLR and Western options. Eastern and Western could displace Memorial Gates in Domain and Eastern may impact on the historic processional route.	--	--	-

Key		
	-/-/-	Strong Positive Contribution to LTMA Objective
	-/-	Positive Contribution to LTMA Objective
	0	No significant Change in Contribution to LTMA Objective
	-	Negative Contribution to LTMA Objective
	---	Strong Negative Contribution to LTMA Objective

RELEASED UNDER THE OFFICIAL INFORMATION ACT

Option Evaluation (2)

Objective		Sub-Criteria	Contribution to LTMA Objective		
			Western Link Road	Western	Eastern
LTMA	Assists Economic Development	Construction Cost	X Least expensive with a construction cost of $380 to $500M	XX Second highest construction cost of $410 to $680M (inc local road elements)	XX Highest construction cost at $610 to $930M (inc local road elements)
		Property Cost	X Property largely already purchased. 20 -50 land parcels affected	XX 200 - 300 land parcels affected	XX 300 - 400 land parcels affected
		Operation Cost	X Increase in operational cost due to increase in road length	X Increase in operational cost due to increase in road length	XX Increase in operational cost due to increase in road length. More structures and local roads included in this option
		Incremental NPV	✓ Benefits to SH1 traffic. No signficant benefit to local traffic	✓ Benefits to SH1 traffic. Minor benefit to local traffic	✓✓ Benefits to SH1 traffic. Significant benefits also to local traffic
		Security of Transport System	✓ Second crossing of Waikanae River provides additional security.	✓ Second crossing of Waikanae River provides additional security.	✓✓ Two additional crossings of Waikanae River provides additional security.
		Contributing to high quality economic development	0 Provides new infrastructure to facilitate economic development. Adverse impacts on Waikanae North and Paraparaumu Town Centre plans	✓ Provides new infrastructure to facilitate economic development. Adverse impacts on planned Waikanae North	✓✓ Provides new infrastructure to facilitate economic development. Facilitates planned development by providing local arterial.
		Contribution to the RONS Strategy	✓ Expressway provided for SH1, but would have a long lead time before commencement.	✓ Expressway provided for SH1, but would have a long lead time before commencement. Some local roading could be constructed in interim	✓✓ Expressway provided for SH1. Quick wins can be achieved through the provision of consented local road across Waikanae River to relieve pressure on SH1
		RMA process timeframes	XX Consenting is very risky. Could prove to be fatally flawed because of cultural and environmental impacts.	XX Consenting is very risky. Could prove to be fatally flawed because of cultural and environmental impacts. Many properties affected.	X Consently very risky. Many properties affected. Less cultural and environmental impact than WLR and Western options.
		Property Purchase Risk	X Majority of property is already purchased however there are still 20-50 affected properties that would require acquisition.	XX Significant property purchase required (200 - 300 properties)	XX Significant property purchase required (300 400 properties)
		Staging	XX Staging difficult as there are no "quick wins." Congestion on SH1 will continue to build until Expressway is opened.	✓ Some staging possible through local road provision in southern end while Expressway is design and consented, however traffic congestion into Waikanae continues to build until	✓✓ Can be staged through construction of local roads first while Expressway is designed and consented.
		Consenting Risk	XX Highly likely to be objected to by Takamore Trust, affected landowners, schools and KCDC making consenting very difficult.	XX Highly likely to be objected to by Takamore Trust, many affected landowners, and KCDC making	XX Highly likely to be objectived to by many affected landowners.
	Assists Safety and Personal Security	Crash Rates	✓✓ Significant safety improvements on SH1 likely due to removal of risk of high severity head on and right-turn-against crashes. Detailed analysis has not been undertaken.	✓✓ Significant safety improvements on SH1 likely due to removal of risk of high severity head on and right-turn-against crashes. Detailed analysis has not been undertaken.	✓ Significant safety improvements on SH1 likely due to removal of risk of high severity head on and right-turn-against crashes. Additional local roads may result in higher local crash rates. Detailed analysis has not
		Personal Security	-- Insufficient work carried out. Not possible to provide meaningful comment on the differences between schemes.	-- Insufficient work carried out. Not possible to provide meaningful comment on the differences between	-- Insufficient work carried out. Not possible to provide meaningful comment on the differences between schemes.
	Improves Access and Mobility	Integration with Other Transport Modes	X No new local roads for improved bus routes. SH1 moved farther from rail stations resulting in less integration.	0 New local road links in Raumati will facilitate some improved bus links. SH1 can integrate with rail in Paraparaumu but is moved farther from Waikanae rail station, resulting in less integration.	✓✓ New local arterial allows signficantly improved bus links between Waikanae, Paraparaumu and Raumati. SH1 remains close to rail stations facilitating better integration.
		Improvements to Access and Mobility with the provision of the facility	✓ New expressway significantly improves mobility for through traffic. Old SH will be an improved environment for local vehicular trips, walking and cycling. Good potential for parallel walking / cycling routes. Additional interchanges on expressway may need to be provided to	✓ New expressway significantly improves mobility for through traffic. Old SH will be an improved environment for local vehicular trips, walking and cycling. Good potential for parallel walking / cycling routes.	✓✓ New expressway significantly improves mobility for through traffic. Old SH will be an improved environment for local vehicular trips, walking and cycling. Good potential for parallel walking / cycling routes. New local arterial signficantly improves access and mobility for local trips
		Improvements to Access and Mobility beyond the facility (e.g. pedestrian / cycle networks included in the transport package)	0 No improvements beyond facility.	✓ Limited new local roads mean improved choice of North-south routes for pedestrians and cyclists.	✓✓ New local roads mean improved choice of North-south routes for pedestrians and cyclists.
		Community linkages and connectivity	XX No new local linkages and would prevent the provision of future linkages across the expressway	0 Some new linkages in Raumati but would prevent the provisions of future linkages across the expressway north of	✓ New link across Waikanae River and new roads in Raumati. Some reduced permeability of SH1 in Waikanae town
		Urban amenity	XX Would adversely impact on the planned future town centre of Paraparaumu and high quality residential development in Waikanae.	X Would impact on Paraparaumu businesses but would not affect future development proposals for Paraparaumu Town Centre. Would adversely impact planned high quality residential development in Waikanae.	X Would have an impact on Waikanae Town Centre and Paraparaumu businesses on the existing SH1 but would not affect development proposals for Paraparaumu Town Centre or Waikanae.
	Protects and Promotes Public Health	Air Emissions	-- At this stage an air quality assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage an air quality assessment has not been carried out and insufficient data is available to judge impacts of	-- At this stage an air quality assessment has not been carried out and insufficient data is available to judge impacts of options.
		Noise Emissions	-- At this stage a noise assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage a noise assessment has not been carried out and insufficient data is available to judge impacts of options.	-- At this stage a noise assessment has not been carried out and insufficient data is available to judge impacts of options.
		Community services and facilities	XX Would place the Expressway next to two schools in Raumati. Would increase severance between coastal communities and services in the town centres.	0 Potential to benefit facilities in Paraparaumu and Raumati but would increase severance between Waikanae Beach and Waikanae township.	✓ Potential to benefit facilities in Paraparaumu and Raumati. Local arterial provides better access to community facilities for local trips.
		Recreation and reserve areas	XX Could impact on QE Park and wetlands north-west of Waikanae and pass close to Nga Manu nature reserve.	XX Could impact on wetlands north-west of Waikanae and pass close to Nga Manu nature reserve.	X Could impact on the Paraparaumu Domain.
		Opportunities for Travel Demand Management with the option	✓ It is possible to use tolling both as a means of funding as a TDM tool.	✓ It is possible to use tolling both as a means of funding as a TDM tool.	✓ It is possible to use tolling both as a means of funding as a TDM tool.
		Land stability / geotechnical stability	X	X	X

Ensures Environmental Sustainability		Stability	All routes go through areas of peat and soft ground.	All routes go through areas of peat and soft ground.	All routes go through areas of peat and soft ground.
		Coastal Marine Area and receiving environment	--	--	--
			Detailed assessment necessary to determine impacts	Detailed assessment necessary to determine impacts	Detailed assessment necessary to determine impacts
		Groundwater	--	--	--
			Detailed assessment necessary to determine impacts	Detailed assessment necessary to determine impacts	Detailed assessment necessary to determine impacts
		Natural habitats and fauna – coastal, terrestrial and streams	--	--	--
			Detailed assessment necessary to determine impacts	Detailed assessment necessary to determine impacts	Detailed assessment necessary to determine impacts
		Landscapes	XX	X	X
			Would siginificantly impact dunes environment, and wetlands north west of Waikanae.	Provision of local road along WLR route would alter dunes environment in Raumati. Expressway would affect wetlands north west of Waikanae	Expressway follows an already heavily modified transport corridor. Local road elements along WLR route will alter dunes environment.
		Sites of cultural significance	XX	XX	X
			Wahi tapu area to north west of Waikanae directly affected. Potential to affect battleground sites.	Wahi tapu area to north west of Waikanae directly affected. Could impact on memorial gates in Domain.	Could impact on memorial gates in Domain and affect historic processional route through Waikanae.
Investment and Revenue Strategy		Strategic Fit	✓✓	✓✓	✓✓
			(High) Expressway contributes to RONS strategy.	(High) Expressway contributes to RONS strategy.	(High) Expressway contributes to RONS strategy.
		Effectiveness	0	0	✓✓
			(Low). Is not consistent with accepted strategies and land use plans	(Low). Is not consistent with accepted strategies and land use plans	(High). Meets medium and low criteria and also improves intergration with land use and other transport modes and supports networks from a national perspective.
		Economic Efficiency	0	0	0
			(Low). BCR 0.6 to 1.0	(Low). BCR 0.5 to 0.8	(Low). BCR 0.4 to 0.6
Government Policy Statement		Contribute to Economic Growth and Productivity	✓	✓	✓✓
			Reducing travel times and new Expressway expected to facilitate economic growth	Reducing travel times and new Expressway expected to facilitate economic growth	Reducing travel times and new Expressway expected to facilitate economic growth. New local arterial will contribute to regional growth plans and higher-quality
		Consider Networks from a National Perspective	✓✓	✓✓	✓✓
			Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion.	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion.	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion.
		Achieving Value for Money	X	X	X
			BCR 0.6 to 1.0	BCR 0.5 to 0.8	BCR 0.4 to 0.6
		Encouraging Integrated Planning	XX	XX	✓✓
			Expressway plans directly conflict with KCDC's plans for Kapiti and do not provide for local transport links.	Expressway plans directly conflict with KCDC's plans for Kapiti and provide for only limited local transport links.	Expressway plans contribute to KCDC's aspirations for Paraparaumu town centre and Waikanae North. Allow for local arterial construction which is consistent with regional growth plans.
		Making best use of existing networks and infrastructure	✓✓	✓	✓
			Utilises the old SH as a local road.	Utilises the old SH as a local road with the addition of limited new local roads.	Utilises the old SH as a local road with the addition of new local roads.
		Implementing and fostering a co-ordinated approach	XX	XX	✓
			Expressway plans directly conflict with KCDC's plans for Kapiti.	Expressway plans directly conflict with KCDC's plans for Kapiti.	Expressway plans do not directly conflict with KCDC's aspirations.
		Considering the impact of volatile fuel prices	--	--	--
			Option assessment has not considered different fuel prices.	Option assessment has not considered different fuel prices.	Option assessment has not considered different fuel prices.
National Energy Efficiency and Conservation Strategy		Managing demand for travel	X	X	X
			Likely to generate an increase in car-based travel	Likely to generate an increase in car-based travel	Likely to generate an increase in car-based travel
		More efficient transport modes	✓	✓	✓✓
			No specific consideration.	Limited local roads will facilitate some improved bus links.	Provides additional local roads which will help to facilitate local bus services. Also provides good links to the railway network.
Wellington Land Transport Strategy		A safer, more reliable road and rail corridor	✓✓	✓✓	✓✓
			Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion and reducing accident risk on SH1.	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion and reducing accident risk on SH1.	Expressway will contribute to better connections to Wellington and Palmerston North, reducing journey times and congestion and reducing accident risk on SH1.
		User expectations for a consistent regional corridor are met	✓✓	✓✓	✓✓
			Expressway contributes to RONS strategy which is a consistent strategy for an expressway between north of Levin and Wellington Airport.	Expressway contributes to RONS strategy which is a consistent strategy for an expressway between north of Levin and Wellington Airport.	Expressway contributes to RONS strategy which is a consistent strategy for an expressway between north of Levin and Wellington Airport.
		Reduced congestion in parts of the corridor	✓✓	✓✓	✓✓
			Congestion will be alleviated at key pinch points including Kapiti Road Traffic Lights and Waikanae Traffic Lights.	Congestion will be alleviated at key pinch points including Kapiti Road Traffic Lights and Waikanae Traffic	Congestion will be alleviated at key pinch points including Kapiti Road Traffic Lights and Waikanae Traffic Lights.
		Balanced investment in road and passenger transport, along with Travel Demand Management	X	✓	✓✓
			Investment is focused on building Expressway for SH1	As well as expressway provision, local road will facilitate improved bus links between Raumati and Paraparaumu.	As well as expressway provision, provides additional local roads which will facilitate local bus services between Waikanae,

Key		
	✓✓	Strong Positive Contribution to Objective
	✓	Positive Contribution to Objective
	0	No significant Change in Contribution to Objective
	X	Negative Contribution to Objective
	XX	Strong Negative Contribution to Objective
	--	Not assessed or insufficient information at this time