



Pathway Project

Walking and Cycling Access on the Auckland Harbour Bridge



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Executive Summary

The NZ Transport Agency, as custodians of the Auckland Harbour Bridge, are close to completing a major strengthening project of the clip-on lanes and as part of this work: ***“deliberately sought the necessary funding to ensure that further structural elements will be incorporated into the current strengthening works to future-proof the clip-on lanes and allow for future walking and cycling options”*** (NZTA Board member/Transit Chair Bryan Jackson, see Appendix 1).

Analysis of the Auckland Harbour Bridge’s future traffic loading reveals that the city-side ‘clip-on’ bridge has sufficient capacity for a walking and cycling share-use Pathway.

By tolling walkers and cyclists to use the Pathway, the Pathway’s implementation and operation can be financed by the private sector in partnership with the New Zealand Government, at no cost to taxpayers or ratepayers.

The Pathway will be architecturally designed as an attractive and iconic facility that includes viewing platforms and facilities for users. The cost to construct is currently estimated at \$14 to 16 million. Investors in the Pathway are forecast to receive a competitive return on their investment.

The net revenue generated by 15 years of tolling users will repay the Pathway’s construction and operational costs. This is within the timeframe before any additional harbour crossing is completed. The Pathway is proposed as a Public Private Partnership, under a Build, Own, Operate, Transfer (BOOT) arrangement with the New Zealand Government.

The Pathway will create significant economic benefits for the Auckland region, initially whilst under construction and long-term, as an internationally recognised tourist attraction. It is likely to be New Zealand’s most popular walking and cycling path as it will appeal to all tourists visiting Auckland, not just cycle tourists.

The Pathway will fix the most critical gap in the Auckland Region’s walking and cycling network. It will provide extra transport capacity for crossing the Waitematā Harbour, while delivering environmental benefits in terms of reduced air pollution and carbon emissions. The Pathway is a cornerstone project for the ongoing improvement of walking and cycling facilities on both sides of the Bridge, thus providing Aucklanders with an improved range of travel choices.

This proposal has been developed in conjunction with a large number of stakeholders, in particular, the New Zealand Transport Agency (NZTA), Airey Consultants, Holmes Consulting Group, Hopper Developments, Heart of the City, Copeland Associates, NextBike, Y&R, BetterWorld, Walk Auckland and Cycle Action Auckland.

The key steps are now to finalise the Pathway’s costings and to secure commitment from the Government and interested investors.

The Auckland Harbour Bridge Pathway Company is being formed to oversee the delivery of this project.

The Pathway

Background

The lack of a walking and cycling access on the Auckland Harbour Bridge is the most critical gap in the Auckland Region's walking and cycling network. Previous studies have failed to find a feasible solution for walking and cycling access on the Auckland Harbour Bridge. This has generally been due to technical issues, funding issues and/or a lack of political will.

This report sets out a proposal to fund, build and operate a dedicated walking and cycling pathway (the 'Pathway') on the Auckland Harbour Bridge to gain significant benefits for the Auckland Region and provide travel choice to the people of Auckland.

NZTA support

The NZ Transport Agency recently commissioned its bridge consultants, Beca Infrastructure, to provide a capacity analysis of the Auckland Harbour Bridge. The subsequent report¹ revealed that the southbound (city-side) clip-on has ample capacity for a shared walking and cycling path.

The concept of a toll to pay for its construction and operation has the support of the NZ Transport Agency (see Appendix 3, letter dated 7 December, 2009):

“Current analysis indicates that there is sufficient capacity in the southbound box girder to support a walkway/ cycleway and that, should a funding source be identified, we would be happy to work with the advocates of the scheme to develop proposals further.”

NZTA's Tommy Parker
State Highway Manager, Auckland and Northland

The Auckland Harbour Bridge clip-on lanes are currently undergoing a major strengthening project, which includes the addition of 900 tonnes of steel at an estimated cost of \$86 million. This strengthening will reduce movement of the clip-ons, and specifically provides for the future walking and cycling access on the Auckland Harbour Bridge:

“The [NZTA] Board deliberately sought the necessary funding to ensure that further structural elements will be incorporated into the current strengthening works to future-proof the clip-on lanes and allow for future walking and cycling options”

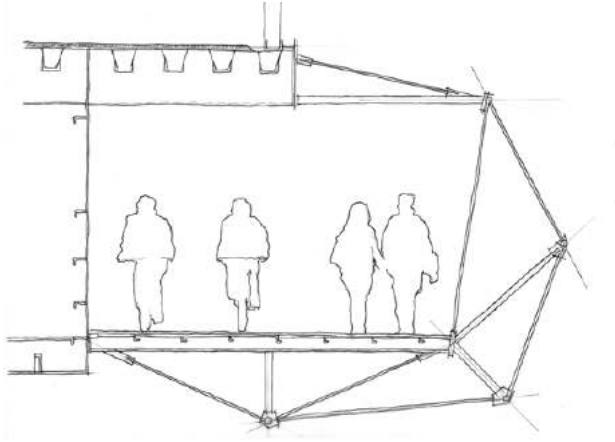
NZTA Board member/Transit Chair Bryan Jackson, see Appendix 1

¹ Assessment of Effect of Future Traffic Load Growth on Auckland Harbour Bridge by Beca Infrastructure Ltd, prepared for New Zealand Transport Agency, dated 28 September 2009.

The proposed option

Location and design

The Pathway over the Auckland Harbour Bridge will be attached under the deck cantilever of the eastern clip-on, as shown:



The Pathway will be an architecturally designed facility that will provide a safe and pleasant experience for commuters and attract tourists to visit. The Pathway will include viewing platforms and facilities for users.

Safety for users

The minimum clearances described in Austroads (Part 6A, Section 7.7.1) state that the minimum allowable cycleway width is 2.4 metres; being 0.3m lateral outside clearance, 0.4m central lateral clearance (for a speed differential of 40 km/h) and 0.7m envelope for a cyclist in each direction. The speed limit for cyclists will be 25 km/h and a 'share with care' environment created through the design.

Land Transport New Zealand's Pedestrian Planning and Design Guide recommends a pedestrian path of 2 metres (Table 14.14: Widths of segregated shared-use paths). The following minimum widths are proposed for the Pathway:

	Cycle path	Pedestrian path	Total
Pathway widths (minimum):	2.4 m	1.1 m	3.5 metres

The minimum clearance height is 2.5 metres, in accordance with Austroads (Part 6A, Section 7.7.1).

The most relevant comparison of a similar pathway in terms of gradient, location and type of path, appears to be the Canada Line Bridge in Vancouver, BC (see photo), where a retrofitted walking and cycling path was completed in August, 2009.



A comparison with the proposed Auckland Harbour Bridge Pathway:

	Auckland Harbour Bridge Pathway	Vancouver's Canada Line Bridge Pathway
Gradient	5%	6% (some ramps are 8%)
Total width	3.5 metres	3.5 metres
Length	1,500 metres	1,000 metres
Opening hours	Closed weekday nights	24 x 7
Security	Cameras, intercom and patrols	Patrols, no cameras
Cost	Estimated NZ\$16 million	US\$10 million

Vancouver's Transport authority advises that the Canada Line Bridge Pathway has had no documented issues with personal security of users.

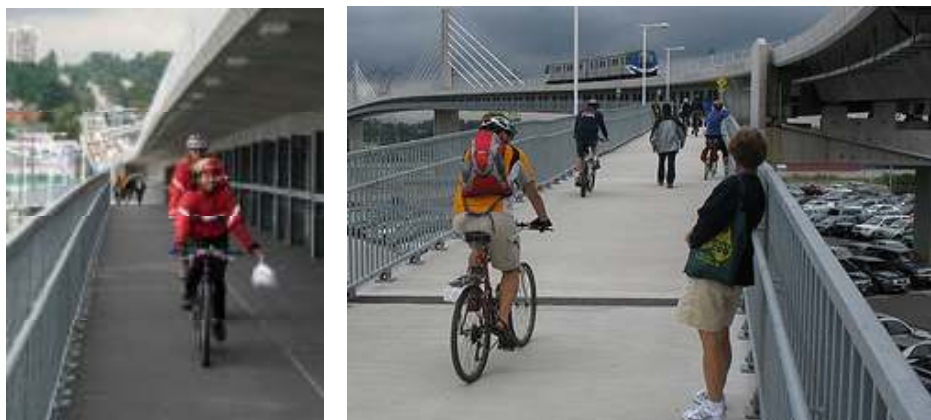
The facility is open 24 hours. It will only be closed due to extreme conditions or where a safety hazard exists (it has not closed to date).

The Canada Line Bridge shared pathway is steeper and narrower than that proposed for the Auckland Harbour Bridge. No accidents or injuries have been recorded on the Canada Line Bridge to date.

A short video of the Canada Line Bridge shared pathway can be viewed at:

<http://www.youtube.com/watch?v=i49nxEE4Res>

Additional photo's of Vancouver's Canada Line Bridge Pathway:



Security and emergency access

Security can be provided through the use of CCTV, intercom/alarms, security staff on foot and bicycle (who could be based at the existing Westhaven Marina Security) and police from the Traffic Control station on Northcote Point (where the existing Bridge traffic CCTVs and intercoms are monitored). Emergency access from the Pathway to the road deck above can be provided using fire service vehicle ladders.



Golden Gate Bridge Pathway Security Guards

Features and facilities

The Pathway will be built of fire-resistant materials and be well lit at night. Facilities on the Pathway will include viewing stations that give views across Auckland Harbour towards the city, North Shore and the Hauraki Gulf. These can include seating, drinking fountains and coin-operated binoculars. Toilets are available on the city side at Westhaven Marina, approximately 40 metres from the southern entrance to the Pathway.

Linkage to each side

On the southern (Auckland City) side, the Pathway connects directly to Westhaven Drive, which is part of Auckland City's existing 50-km cycling circuit, and provides access to the CBD via Westhaven and the Wynyard Quarter development. Connection into Ponsonby is provided by existing walking and cycling path along Curran Street or via Shelley Beach Road, as photographed here:



On the northern (North Shore) side, the Pathway connects to Princes Street, Northcote Point. The local street network provides access to Northcote, AUT University, Glenfield, Birkenhead, Takapuna and other North Shore suburbs and facilities.

Refer to Appendix 2 for photos of the connections described above. As a cycling destination, the Pathway is easily reached, and links to a number of surrounding cycle routes, as seen on ARTA's regional cycle route maps here:

North Shore:

<http://www.maxx.co.nz/assets/cycling/1-0%20132805%20ARTA%20Nth%20Shore%20Cycle%20Map%20Poster.pdf>

Auckland City:

<http://www.maxx.co.nz/assets/cycling/1-0%20132850%20ARTA%20Central%20Cycle%20Map%20Poster.pdf>

Link to ferries

The ferry from Northcote Point to the Auckland CBD provides an attractive option for recreational and tourist visitors who want to make a scenic tour of the Viaduct, Westhaven, Northcote Point and the Waitematā Harbour. There is an existing pathway (approx 100m) that provides a direct connection to the Northcote ferry terminal, shown in this photograph:



Part of NZ Cycle Trail

The Auckland Harbour Bridge Pathway will be the most popular walking and cycling path in New Zealand. As the Pathway is potentially a critical link in the NZ Cycle Trail for cycle tourists heading north, it will be developed to ensure future accreditation as part of the NZ Cycle Trail (see proposed route in Appendix 5).

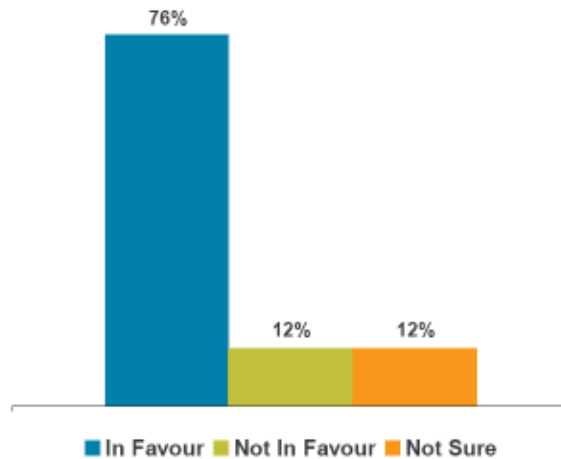
Advantages of the proposed option

This option for walking and cycling access across the Auckland Harbour Bridge has a number of distinct advantages over other options in previous studies. It:

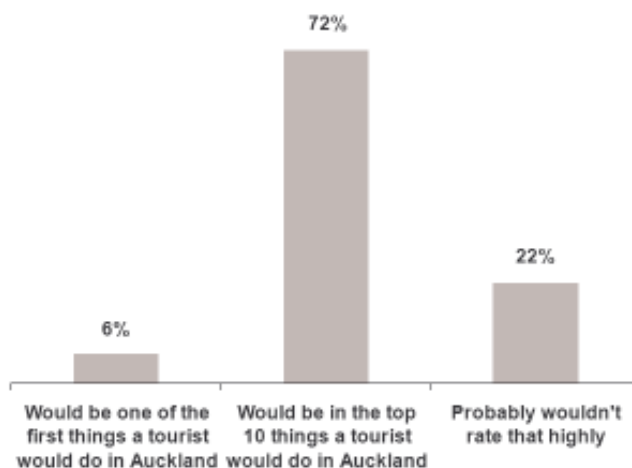
- can serve as a combined pedestrian and cyclist facility, creating significant cost savings over previous options which entailed two separate pathways;
- can be built wide enough (4+ metres) to designate separate spaces for both cyclists and pedestrians, improving safety for all users;

Support from Aucklanders

The Pathway has very strong support across the Auckland Region. Market research of Aucklanders² reveals 76% in favour, 12% against and 12% unsure.



It will be a popular tourist attraction for the Auckland Region: 78% of respondents regarded the Pathway as a 'top 10' tourist attraction:



Benefits of the proposed Pathway

Tourism opportunities

The Auckland Harbour Bridge Pathway will be attractive to the majority of visitors to Auckland. It will potentially be used by domestic and international visitors:

- of all demographic profiles;
- on holiday or business;

² Y&R's Viewfinder Research: November 2007

- with a wide range of cycling experience, from day trippers to seasoned cycle tourists.

It will be a highly scenic experience that showcases Auckland. It will be marketed as 'the World's finest Pathway in a City'.

The Auckland Harbour Bridge is a centrally-located landmark; it is relatively close to Auckland International Airport for cycle tourists heading north, as well as inner-city attractions and accommodation. With its location in Auckland, the Pathway will be particularly suitable as the starting or finishing ride for a cycle tourist visiting New Zealand.

Economic benefits

International tourists are likely to increase their average stay in Auckland from the current 1.8 nights³ to visit the Pathway. This will boost Auckland's economy through additional spending on food and accommodation, cycle hire, transport use as well as on other tourism infrastructure in the vicinity of the Pathway and the Auckland waterfront.

Domestic tourists will provide benefits such as spending on food and accommodation (although domestic tourists tend to stay in private homes), cycle hire and transport usage as well as boosting patronage of other tourist attractions.

Businesses that will benefit as a result of this increased tourism include the accommodation sector, food/beverage and hospitality sectors, bike shops, retail sector, and the transport sector for those wishing to access the Pathway (ferries, buses and rail as well as downtown car parking buildings).

Environmental benefits

The Pathway is forecast to be used each week day by at least 1,000 commuters, many of whom would otherwise drive private motor vehicles. This is estimated to result in carbon savings of over 1,800 tonnes per year and significant reductions in air and water pollution caused by vehicle emissions.

Other benefits

Spill-over benefits will include the wider social and health benefits experienced by Aucklanders seeking recreational activities, particularly as the Pathway would be a draw card for family cycle trips, and generally help make Auckland a more attractive place to live.

Taking 1,000 commuter vehicles off the Auckland Harbour Bridge each day will benefit the remaining commuters who drive, as it will reduce congestion and free up car parking in the CBD.

³ Average hotel nights by international tourists as advised by Tourism Auckland

Operating the Pathway

Patronage

Commuter use

It has been forecast that approximately 1,580 cyclists (Opus; AHB Cycle Demand Estimate, 2008) and 280 pedestrians (Maunsells; NZTA AHB Access Study, 2008) would commute daily over the Auckland Harbour Bridge.

The current mode share of cycle commuters across the Auckland region is 1.4%⁴. The daily traffic count across the Auckland Harbour Bridge is 165,000, so applying 1.4% to this figures indicates approximately 2,310 cyclists would use the pathway each day. NZTA advises that Auckland has a potential mode share for cycling of 8%, so the upside in cycling demand is considerable.

For the purpose of the determining a 'low usage' estimate, the following figures have been used for commuter users of the Pathway:

Season:	Off-peak (May-Sept)	Shoulder (Mar-Apr & Oct-Dec)	Peak period (Jan-Feb)
Cyclists	900	1,150	1,400
Pedestrians	50	150	280
Total daily Commuters	950	1,150	1,680

Tourism use

Dr Graeme Lindsay, Research Fellow, School of Population Health of the University of Auckland, estimates that an average of approximately 10 coach loads of tourists (approximately 300 people) could be expected to visit the Pathway daily, with an equal number choosing to cycle or walk from the CBD via Westhaven Marina.

During the January to February peak season, use of the Pathway by tourists is estimated to be 600 to 800 per day. This forecast is halved for the shoulder season (March to April and October to December) to 300 to 400 tourists per day.

For the purpose of the determining a 'low usage' estimate for this report, the following figures has been used for tourists:

Season:	Off-peak (May-Sept)	Shoulder (Mar-Apr & Oct-Dec)	Peak period (Jan-Feb)
Cyclists	42	105	280
Pedestrians	60	120	560
Total daily Tourists	102	225	840

⁴ Cycling mode share for the Auckland region in 2009 (ARC's Auckland Regional Land Transport Strategy). Mode share for public transport across the Auckland Harbour Bridge in 2006 was 27%.

These figures are used to calculate the base toll revenue in Appendix 1a. They are conservative, as they exclude:

- any major events that attract large numbers (eg: yacht races, cruise ship visits)
- event-orientated use by Aucklanders (eg: every year 7,500 runners take part in the Auckland marathon across the Auckland Harbour Bridge)
- the potential use of scooters (may be introduced on a trial basis after the initial opening of the Pathway).

NZTA's market research determined that 318,000 Aucklanders were likely to attend a proposed official walk-across event to commemorate the Bridge's 50th anniversary. (KeyResearch, October 2008).

Comparisons with other bridges

The above 'low usage' patronage figures for the Auckland Harbour Bridge can be summarised into the following table and compared to the Golden Gate and Sydney Harbour Bridges:

Auckland Harbour Bridge	Walking	Cyclists	Total per annum
Auckland residents	65,000	384,000	449,000
Tourists and visitors	79,000	68,000	147,000
Total per annum	144,000	452,000	596,000

Golden Gate Bridge	>1,000,000⁵	>800,000⁶	>1,800,000
Sydney Harbour Bridge	998,000	490,000	1,488,000⁷

Both the Golden Gate Bridge and Sydney Harbour Bridge are experiencing increases in use by walkers and cyclists. The Golden Gate Bridge authority has reported significant growth in the number of bike rental operators, and the Sydney Harbour Bridge recorded increases of 12% and 27% for walking and cycling respectively in 2009.

As the Wynyard Quarter is developed with high density accommodation and offices, the patronage of the Auckland Harbour Bridge Pathway is likely increase over time.

Operation and tolling

The Auckland Harbour Bridge Pathway is expected to be open seven days a week; 24 hours a day in the weekends and from 5:30am until midnight during the week. Additional closures may be required in exceptional circumstances (e.g. for maintenance or extreme weather).

⁵ Golden Gate Bridge Authority count in 2002

⁶ San Francisco Bicycle Coalition

⁷ Roads & Traffic Authority NSW count for 2009

A November 2009 survey of the 11,000 GetAcross supporters⁸ reveals 95.5% in favour of a toll on users to fund the construction of the Pathway. The toll will be collected using technology similar to 'pay and display' parking ticket machines working in conjunction with access barriers at each end of the Pathway. Given the level of security and monitoring, the level of toll evasion is expected to be minimal.

A small percentage of the toll will be used to pay for its collection. The rest of the toll will go to debt repayment, maintenance, security, insurance, operations and administration of the Pathway. See Appendix 1b for details.

The tolling system will monitor usage and manage access to ensure there are no extreme loadings (e.g. too many people) on the Pathway. It will also be able to restrict numbers or close access to the Pathway in the event of emergencies.

The following indicative tolls have been used in the financial modelling (GST Inclusive):

- Public transport Smartcard \$1.95 each way, \$3.90 return
- EFTPOS, cash, credit card, texting \$5.00 each way, \$10.00 return

The toll for children will be approximately half these rates. The price structure has been designed to encourage commuters (who currently pay a minimum of \$3.20 each way to take public transport, or incur the costs of petrol, congestion and car parking).

Tourists to Auckland are likely to pay by cash, credit card or text. The fare for the toll paid in these ways is higher to cover the higher costs of the transaction.

An estimate of the revenue in Year 1 from the proposed toll is calculated in Appendix 1.

The Auckland Harbour Bridge Pathway Trust will employ a general manager (part-time) and an administration officer who will be based nearby. They will be tasked with the efficient operation, maintenance and marketing of the Pathway.

The Pathway operation would operate under an agreement with New Zealand Transport Agency, as does the existing Bridge Climb and Bungy operation.

⁸ GetAcross is a not-for-profit group dedicated to making it possible for Aucklanders, domestic and international visitors to 'get across' the Auckland Harbour Bridge on foot or cycle. It was established in March 2007. See www.getacross.org.nz

Financing the Pathway

Cost of construction

A “basic option” Pathway has been costed by WT Partnership quantity surveyors at \$12 million (see Appendix 1d). This includes compliance and contingencies but not potential enhancements such as viewing stations and artistic/design elements.

Auckland architects, Copeland Associates are developing a "design enhanced" option. It is a bold visual statement that includes enhancements such as viewing platforms and integration with the existing bungy jump operation. It is estimated that the “design enhanced option” will cost approximately \$16 million. WT Partnership will prepare a costing for this option.

Estimated revenue and expenses

Under the ‘minimum usage’ scenario as described in the Patronage section above, the toll revenue is calculated in Appendix 1a.

The base year financial operation is summarised as:

Total Tolling Revenue (Base Year) as per Appendix 1a			\$2,390,216
Naming Rights		\$385,000	
			\$2,775,216
Expenses (Base Year)			
Salaries, Operations & Marketing	13%	\$319,000	
Insurance	3%	\$60,000	
Security	6%	\$85,000	
Maintenance contribution	11%	\$140,000	
Toll collection costs	6%	\$120,000	
Total cost before debt servicing/repayment			\$724,000
Surplus to service/repayment debt	71%		<u>\$2,051,216</u>

Projected income and expenses for Years 1 to 15 are summarised in Appendix 1b.

Due to initial higher start-up operational costs, the Pathway toll is not forecast to cover the interest cost in Year 1. From Year 2 until 15 the principal and accumulated interest will be repaid to investors.

The financial modelling includes the sale of the naming rights to the Pathway. These have been estimated to be worth up to \$500,000 pa, however a conservative forecast of \$385,000 pa has been used.

The potential value of carbon credits generated under New Zealand’s Emissions Trading Scheme legislation is excluded. The carbon credits are estimated to be worth \$30,000

per annum based on the Governments price for a tonne of CO₂ of \$12.50. This is expected to increase significantly in the next few years⁹.

The revenue source from the Pathway toll has been calculated over 15 years to be able to service and repay a construction debt of approximately \$16 million (using a net present value calculation on the forecast revenues) at a return of 9.5% pa.

Should additional costs be incurred, or initial revenue is lower than forecast, then options to improve the Pathway's financial viability include; allowing scooters, extending the tolling period, or increasing the toll.

The financial viability of the Pathway has been reviewed and approved by InfraSol NZ (see Appendix 1e).

Funding sources

Options for funding of the Pathway range from: the Government nominating the Pathway as a 'Road of National Significance' and providing 100% funding, to the Pathway being privately funded and operated as a tolled facility as a Public Private Partnership.

Investors in the Pathway are forecast to receive a competitive return on their investment, as shown in Appendix 1b. Potential funding sources include private investors, financial institutions, New Zealand Superannuation Fund and a public bond offering.

Confirmation has been received from InfraSol (NZ) Ltd that the Pathway is financially viable (refer appendix 1e).

An application was made to the NZ Cycle Trail (previously known as the National Cycleway) to enable an economic benefit analysis to be completed. However this was unsuccessful as the NZ Cycle Trail's criteria is for multi-day cycling trails that capture the essence of New Zealand's remote wilderness.

Governance

The Auckland Harbour Bridge Pathway, as described in this proposal, is intended to be delivered under a Public Private Partnership as a Build, Own, Operate, Transfer (BOOT) arrangement and undertaken by the Auckland Harbour Bridge Pathway Company, see appendix 6 for details.

The Auckland Harbour Bridge Pathway Company will oversee the funding, design and building of the Auckland Harbour Bridge Pathway in conjunction with the NZTA. It will operate the Auckland Harbour Bridge Pathway for 15 years to repay the funding, after which time the Pathway will be transferred to the NZ Transport Agency at no cost and the trust wound up.

⁹ The UK Stern Review put a social cost on carbon of US\$85 per tonne of CO₂, this would equate to approximately NZ\$360,000 per annum in carbon credits for the Auckland Harbour Bridge Pathway (based on 1,200 fewer cars commuting an average 36 km round trip for 250 days of the year)

The way forward

The Auckland Harbour Bridge Pathway Company is to be established to oversee the delivery of the Pathway.

A programme of staged work has been identified. The phases of work include: design, detailed costings, funding secured, consent and legal considerations, construction management, marketing and operation.

The Auckland Harbour Bridge Pathway Executive meets monthly and its programme of work and minutes are reported on separately.

Details of the Auckland Harbour Bridge Pathway Company's Executive and Directors is provided in Appendix 6.

For any questions or updates, please contact:

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Frequently Asked Questions

Will the majority of the toll be consumed by collection costs?

No, about 6% of the toll will be used to pay for its collection. The rest of the toll will go to debt repayment, maintenance, security, insurance, operations and administration.

The tolling system will be based on technology for collecting public transport fares. It will provide patrons with a wide range of payment options while minimising the transaction cost.

Why should walkers and cyclists pay when motorists don't?

Ideally there would be no toll for walking and cycling access, but the reality is that the Pathway is highly unlikely to happen within the next 25 years without such a toll, as the NZTA do not regard it as a funding priority. Motorists paid a toll to use the Auckland Harbour Bridge for 25 years, from 1959 until 1984.

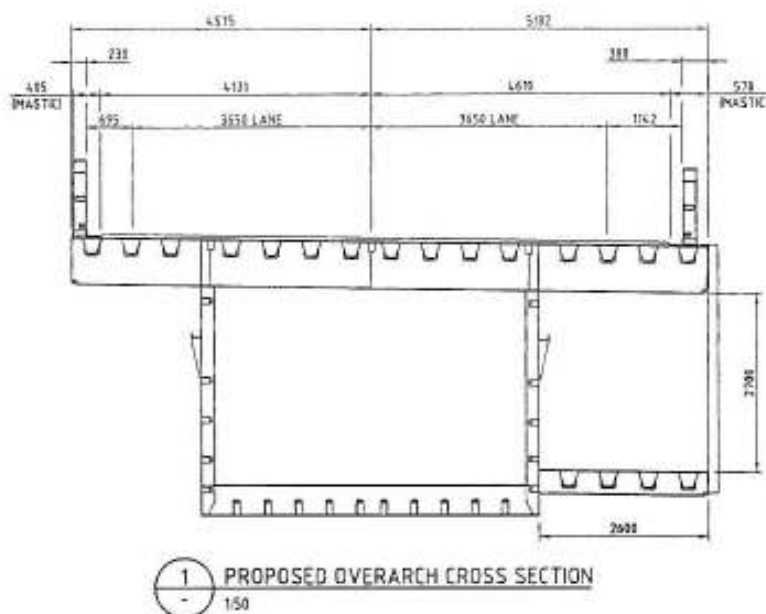
What about the clip-on's ability to carry the loading?

The eastern (south-bound) clip-on has ample capacity, as detailed by Beca's September 2009 analysis and reviewed by Holmes Consulting Group. The tolling system's control gates can be used to monitor the number of people using the Bridge in conjunction with bridge load monitoring systems, to ensure extreme loading cannot occur.

Has this option for a Pathway under the deck been considered previously?

Yes, this option was explored by Beca in their Feasibility Report (see the cross-section diagram below. The pathway is added in the bottom right of the diagram) and in the Maunsell Access study in 2007, but was disregarded early as "security was found to be a defining issue".

However, by tolling the Pathway, a high level of security patrols will be provided to ensure user safety, and the toll itself has some security benefits (e.g. it will reduce the likelihood of loitering).



Is it a priority for the region?

Yes, the walk/cycleway not only fixes the most significant gap in Auckland's walking and cycling network, it is a cornerstone project for improving walking and cycling in the Auckland Region (much as Britomart Station was the cornerstone project for reviving Auckland's rail passenger service).

Currently Auckland has the reputation of being one of the worst cities in the world for walking (page 28, ARTA's Sustainable Transport Plan 2006-16) and only 1% of Aucklanders regard cycling as 'always safe' (ARC's Community Perceptions Report 2007).

Do Aucklanders want it?

Yes. In November 2007 Y&R commissioned market research to gauge the level of support among Aucklanders for the walkway and cycleway. Very strong support was revealed, with 76% in support, 12% against and 12% unsure. See the survey results at: www.caa.org.nz/AHB/Support/MarketResearch.pdf

Aren't the clip-ons too unstable for a walkway and cycleway?

The clip-ons are currently undergoing major strengthening, which includes the addition of 900 tonnes of steel at an estimated cost of \$86 million. This strengthening will reduce movement of the clip-ons, and specifically provides for the Pathway:

"Through innovative thinking, further structural elements have been incorporated into the current strengthening works at relatively low cost to future proof for future walking and cycling options on the box girders [clip-ons]."

May 2008 Board Transit Paper 6189

www.caa.org.nz/AHB/Comms/TransitBdPaper6189.pdf

Isn't it too steep to walk or cycle over the Auckland Harbour Bridge?

The gradient of the Bridge is 3 degrees. This is considered a gentle grade and rated 'easy' by the NZ Cycle Trail guidelines.

Will the Pathway affect the flow of traffic across the Bridge?

No, the shared Pathway is under the traffic deck and does not affect the configuration of traffic lanes in any way.



Every year the Auckland Marathon is quickly sold out. This is largely due to the attraction of being able to run over the Auckland Harbour Bridge.

Why not wait until the next harbour crossing?

The Transport Agency's Waitematā Next Harbour Crossing Study 2008 determined the next harbour crossing will be a tunnel for vehicles, with walking and cycling access to be provided on the existing Auckland Harbour Bridge. However, waiting for the next harbour crossing to be built means an unacceptable delay of 15 years or more for walking and cycling access across the harbour.

Why not provide bike racks on the front of buses or stick with the ferry service?

Cyclists enjoy cycling for fitness and convenience and don't want the delays and financial cost of taking a bus or ferry. As a bus fitted with a rack can carry a maximum of 3 bicycles at a time, this option is not appropriate for the estimated demand of 1,580 cyclists per day (Opus 'Auckland Harbour Bridge Cycle Demand Estimation' study, July 2008).

Cyclists currently use ferries to cross the harbour. However, with the demand exceeding capacity at peak times, Fullers Ferries support walking and cycling access on the Auckland Harbour Bridge (see Appendix 7).

Furthermore, buses and ferries do not address the lack of walking access across the Auckland Harbour Bridge.

What about the 'ANZAC' Bridge?

The ANZAC Bridge has been suggested to replace the existing Auckland Harbour Bridge and do away with the need for a tunnel. It is proposed to run through Auckland's Wynyard Quarter development across the harbour to the Onewa Rd/SH1 interchange.

As such a bridge would not be completed within the next 15 years; the opportunity exists for the Auckland Harbour Bridge Pathway to be built in time, funded by a toll paid by users.

Will the Pathway detract from the existing Bridge Climb and Bungy Jump operation on the Auckland Harbour Bridge?

No, we expect the Pathway will introduce and encourage more people to take the Bridge Climb or Bungy Jump experience.

Does the walkway/cycleway have the support of the local councils and stakeholders?

Yes, as evidenced by the following resolutions passed by local councils:

ARC's Transport and Urban Development Committee (Dec 5, 2007)

"That the Committee support provision for cycling and pedestrians on the Auckland Harbour Bridge in conjunction with the strengthening work on the clip ons."

North Shore City Council (Dec 4, 2007)

"That this Council supports the appropriate modifications to the Auckland Harbour Bridge to support a cycleway and walkway and the costs and feasibility of cycleway/walkway links to the Harbour Bridge be investigated and a report be brought back to this Committee."

Auckland City Council's Transport Committee (Dec 13, 2007):

"That the Chairman of Transport Committee write to Transit New Zealand advocating for a walkway and cycleway across the Auckland Harbour Bridge."

From the minutes of Te Araroa Trust's February 2008 meeting:

Te Araroa Trust supports Cycle Action Auckland's plan for cycling and pedestrian lanes on the Auckland Harbour Bridge. When these lanes are in place they will provide an

alternative route which the trust would vigorously promote as part of its New Zealand-long walkway. Cycle Action Auckland 's plan is consistent with Te Araroa Trust's philosophy of promoting walking.



The above image and vision are taken from NZTA's home page on the internet. The proposed Auckland Harbour Bridge Pathway will help NZTA achieve its vision.

Appendices

Appendix 1: NZTA (previously Transit) letter re: Future-proofing



I hope this letter will allay your committee's concerns. I trust that your committee understands the necessity of the structural upgrade works in their own right and that opportunities to add a facility in future will not be lost. The ability to fund an additional walking and cycling facility will be the real issue for region to face.

Yours sincerely

A handwritten signature in black ink, appearing to read "Bryan Jackson".

Bryan Jackson
Acting Chair

Appendix 1a: Tolling revenue (low usage scenario)

			Fare One Way	Fare Return	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Weekly Total	One way only %	Return trip %	TOTALS			
Off-peak (May - Sept)			21.67 weeks per year										40%	60%				
Walking	Casual	Adults	\$4.44	\$8.89	50	50	50	50	50	150	150	550	\$977.78	\$2,933.33				
	Casual	Children	\$1.78	\$3.56	10	20	20	20	20	60	60	210	\$149.33	\$448.00				
													25%	75%				
Cycling	Casual	Adults	\$4.44	\$8.89	30	30	30	30	30	150	150	450	\$500.00	\$3,000.00				
	Casual	Children	\$1.78	\$3.56	12	12	12	12	12	60	60	180	\$80.00	\$480.00				
													10%	90%				
Walking	Smart Card	Adults	\$1.73	\$3.47	50	50	50	50	50	225	250	725	\$125.67	\$2,262.00				
Cycling	Smart Card	Adults	\$1.73	\$3.47	900	900	900	900	900	800	800	6,100	\$1,057.33	\$19,032.00				
Total Off-peak period users			177,992		1,052	1,062	1,062	1,062	1,062	1,445	1,470	8,215	\$2,890.11	\$28,155.33		\$672,651		
Shoulder (Mar-Apr,Oct-Dec)			21.67 weeks per year										40%	60%				
Walking	Casual	Adults	\$4.44	\$8.89	100	100	100	100	100	250	250	1,000	\$1,777.78	\$5,333.33				
	Casual	Children	\$1.78	\$3.56	20	20	20	20	20	100	100	300	\$213.33	\$640.00				
													25%	75%				
Cycling	Casual	Adults	\$4.44	\$8.89	75	75	75	75	75	350	350	1,075	\$1,194.44	\$7,166.67				
	Casual	Children	\$1.78	\$3.56	30	30	30	30	30	140	140	430	\$191.11	\$1,146.67				
													10%	90%				
Walking	Smart Card	Adults	\$1.73	\$3.47	150	150	150	150	150	320	320	1,390	\$240.93	\$4,336.80				
Cycling	Smart Card	Adults	\$1.73	\$3.47	1,150	1,150	1,150	1,150	1,150	1,100	1,100	7,950	\$1,378.00	\$24,804.00				
Total Peak period users			263,142		1,525	1,525	1,525	1,525	1,525	2,260	2,260	12,145	\$4,995.60	\$43,427.47	\$1,049,166			
Peak (Jan-Feb)			8.67 weeks per year										40%	60%				
Walking	Casual	Adults	\$4.44	\$8.89	400	400	400	400	400	450	450	2,900	\$5,155.56	\$15,466.67				
	Casual	Children	\$1.78	\$3.56	160	160	160	160	160	180	180	1,160	\$824.89	\$2,474.67				
													25%	75%				
Cycling	Casual	Adults	\$4.44	\$8.89	200	200	200	200	200	375	375	1,750	\$1,944.44	\$11,666.67				
	Casual	Children	\$1.78	\$3.56	80	80	80	80	80	150	150	700	\$311.11	\$1,866.67				
													10%	90%				
Walking	Smart Card	Adults	\$1.73	\$3.47	280	280	280	280	280	380	380	2,160	\$374.40	\$6,739.20				
Cycling	Smart Card	Adults	\$1.73	\$3.47	1,400	1,400	1,400	1,400	1,400	1,100	1,100	9,200	\$1,594.67	\$28,704.00				
Total Peak period users			52.0		154,873		2,520	2,520	2,520	2,520	2,520	2,635	2,635	17,870		\$10,205.07	\$66,917.87	\$668,399
Annual total users:			596,007															
														Toll Revenue		\$2,390,216		

Appendix 1b: Annual fifteen-year cashflow projection

	Year 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Base Toll Revenue	\$2,392,007	\$2,515,195	\$2,644,728	\$2,780,931	\$2,924,149	\$3,074,743	\$3,233,092	\$3,399,597	\$3,574,676	\$3,758,772	\$3,952,348	\$4,155,894	\$4,369,923	\$4,594,974	\$4,831,615
"Novelty" patronage	20%	15%	10%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Sale of naming rights	\$385,000	\$396,550	\$408,447	\$420,700	\$433,321	\$446,321	\$459,711	\$473,502	\$487,707	\$502,338	\$517,408	\$532,930	\$548,918	\$565,386	\$582,348
Total Revenue	\$3,255,408	\$3,289,024	\$3,317,648	\$3,340,678	\$3,357,470	\$3,521,064	\$3,692,803	\$3,873,099	\$4,062,383	\$4,261,110	\$4,469,756	\$4,688,824	\$4,918,841	\$5,160,360	\$5,413,963
Less expenses:															
Admin	\$719,000	\$328,570	\$338,427	\$348,580	\$359,037	\$369,808	\$380,902	\$392,329	\$404,099	\$416,222	\$428,709	\$441,570	\$454,817	\$468,462	\$482,516
Insurance	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531	\$69,557	\$71,644	\$73,793	\$76,007	\$78,287	\$80,636	\$83,055	\$85,547	\$88,113	\$90,756
Security	\$130,000	\$87,550	\$90,177	\$92,882	\$95,668	\$98,538	\$101,494	\$104,539	\$107,675	\$110,905	\$114,232	\$117,659	\$121,189	\$124,825	\$128,570
Maintenance	\$140,000	\$144,200	\$148,526	\$152,982	\$157,571	\$162,298	\$167,167	\$172,182	\$177,347	\$182,667	\$188,147	\$193,791	\$199,605	\$205,593	\$211,761
Toll collection	\$120,000	\$123,600	\$127,308	\$131,127	\$135,061	\$139,113	\$143,286	\$147,585	\$152,013	\$156,573	\$161,270	\$166,108	\$171,091	\$176,224	\$181,511
Total cost before debt:	\$1,169,000	\$745,720	\$768,092	\$791,135	\$814,868	\$839,314	\$864,493	\$890,428	\$917,141	\$944,654	\$972,994	\$1,002,183	\$1,032,249	\$1,063,217	\$1,095,114
Surplus to service debt:	\$2,086,408	\$2,543,304	\$2,549,556	\$2,549,543	\$2,542,602	\$2,681,750	\$2,828,310	\$2,982,671	\$3,145,242	\$3,316,456	\$3,496,762	\$3,686,641	\$3,886,592	\$4,097,143	\$4,318,849

Investment able to be serviced by toll	NPV @ 14.00%	\$17,157,213
	NPV @ 12.00%	\$19,282,430
	NPV @ 10.00%	\$21,842,282
	NPV @ 8.00%	\$24,951,162
	NPV @ 7.00%	\$26,756,651

40% of casual users (adults) will have children with them, there are no commuter children
 CCTV surveillance monitored by Police Control (Northcote Point)
 Maintenance is based on a minimum 20 year warranty period
 Pathway operational costs increase at an average of CPI (estimated at 3% pa)
 First year operational costs are higher due to start-up costs
 Novelty factor will generate additional patronage in years 1 to 4 of 20%, 15%, 10% & 5% respectively
 Excludes night-time use by tourists
 Forecasting of use excludes any major events that attract large numbers (eg: yacht race, cruise ship, etc)

Appendix 1c: Key assumptions made in calculating the projected revenue

1. The usage is forecast to grow at 5% each year; the long-term growth rate for cycling in Auckland City is 5.2% (LTNZ Research Report No.340).
2. The forecast growth of 5% is supported by the Maunsell Access Study (October 2008) which advised "Long-term increases could also result if the facility was targeted as a tourist destination".
3. The weekday walking commuter numbers are based on Maunsell's analysis. The average demand of about 280 pedestrians per day could be far greater if the Pathway is promoted as a tourist attraction (which the Pathway will be, using some of the tolling revenue). Maunsell further advises: "The initial demand is likely to far exceed the numbers estimated, especially during weekends and holiday periods".
4. The daily weekday cycle numbers are based on the Opus 'Auckland Harbour Bridge Cycle Demand Estimation' study (July 2008) which determined an average of 1,580 cycle commuters.
5. Forecasting of use excludes any major events or special occasions that could attract large numbers (e.g. yacht racing, cruise ships). NZTA's market research determined that 318,000 Aucklanders were likely to attend an official walk-across event to commemorate the Bridge's 50th anniversary. (KeyResearch, October 2008. Margin of error +/- 5%).
6. The demand estimate excludes the potential for commuters to take the bus to the northern side and commute into the CBD by foot. It is presumed that car parking restrictions on Northcote Point will prevent commuters driving to the northern side and walking or cycling from there. However, the potential for a 'park and cycle' facility is worth further investigation.
7. The demand estimate excludes the potential for enhanced public transport connections (such as bus services equipped with bike racks) at the northern and southern sides to encourage commuters to walk or cycle over the Pathway.
8. Tolls increase by no more than CPI.
9. Forty per cent of casual cyclists will have children with them; it is assumed there are no commuter children.
10. Local councils will over time enhance the local walking and cycling connections.
11. Maintenance is based on a twenty-year warranty period.
12. The Pathway operational costs increase at an average of CPI (estimated at 3% pa).
13. The increase in walkers and cyclists during the peak period of January and February is attributed primarily to tourists and locals on holiday.

Appendix 1d: Costing for 'base design' Pathway by WT Partnership



Security

1. We have allowed for a basic CCTV package only with a maximum of 6 no. cameras. And viewing monitors at control rooms either side of the pathway.

Tolling

1. We have assumed basic pedestrian tilting arm type barriers connected to a simple control room / toll booth would be required at both ends. This could be reduced to one end only.

Safety

1. We have allowed a sum of \$100,000 only to cover safety equipment that may be required such as fire extinguishers, emergency lighting etc.

Preliminary and General Items

1. We have allowed a percentage addition of 15% to reflect the additional requirements of a state highway NZTA type contract and the restrictions that are likely to be applied. i.e. loading out of materials to be undertaken during night time lane closures only.

Contractor's Overheads and Margin

1. We have allowed a 7% addition for the Contractors Overheads and Margin. This is based on recent Project Data.

Contingency

1. We have allowed a 20% contingency this is reflective of the design work that still needs to be carried out.

Professional Fees

1. We have allowed a 8% fee based on 4% fee for engineering design and 4% for MSQA. This is in line with Airey Consultants discussions.

EXCLUSIONS

We have excluded the following items from our "Baseline" estimate:-

1. Viewing Points along pathway.
2. Feature Lighting.
3. Services other than those identified in the Schedule.
4. A barrier between the vertical supports to separate pedestrians and cyclists.
5. Piles / support legs at Northcote ramp to support entrance / exit ramps.
6. Intercom points along pathway.
7. GST
8. Other Agencies internal / external costs such as ACC, ARTA, NZTA etc.
9. Consent / Inspection Fees
10. Any land purchase costs.
11. Access Ladders from AHB to pathway.
12. Any noise suppression required.
13. Any Artwork / Features.
14. Any Signage.

Auckland Harbour Bridge Walk / Cycleway

For

Pathway Steering Group

Construction Costs Only

Basic Design Estimate

no	description	quantity	unit	TOTAL	
				rate	amount
"BASE LINE" ESTIMATE					
ST. MARY'S BAY ENTRANCE / EXIT RAMP (60m long)					
1	Allow for 100mm thick exposed aggregate walk / cycleway 4.5m wide approx 50m long. Including excavation and scoria fill / bedding.	240	m ²	100.00	24,000.00
2	General streetlighting poles	3	no.	8000.00	24,000.00
3	Pedestrian / cyclist barrier handrail	120	m	350.00	42,000.00
Ramp Structure					
4	Steel Piles 310xUC97 assumed average 10m length and 5m centres	240	m	300.00	72,000.00
5	Main supports 250x250x6 SHS at 4570 centres	3,024	kg	8.50	25,704.00
6	Deck joists 150x50x5 RHS at 600 centres	6,816	kg	9.50	64,752.00
7	Connections and fittings etc allowed as 15%		sum		12,548.00
8	2 pot epoxy surface treatment to structural elements only	33,072	kg	1.50	49,608.00
9	Locker Group Safe T Perf Sillatec 6	288	m ²	275.00	77,760.00
10	Non slip applied surfacing to cycle lane	162	m ²	70.00	11,340.00
NORTHCOVE ENTRANCE / EXIT RAMP (170m long)					
11	Allow for 100mm thick exposed aggregate walk / cycleway 4.5m wide approx 50m long. Including excavation and scoria fill / bedding.	240	m ²	100.00	24,000.00
12	General streetlighting poles	3	no.	8000.00	24,000.00
13	Pedestrian / cyclist handrail	340	m	350.00	119,000.00
Ramp Structure					
14	Assumed that pathway structure can be supported from existing structure supports thereby deleting requirement for piles		note		
15	Main supports 250x250x6 SHS at 4570 centres	8,208	kg	8.50	69,768.00
16	Deck joists 150x50x5 RHS at 600 centres	19,312	kg	9.50	184,152.00
17	Connections and fittings etc allowed as 15%		sum		28,088.00
18	2 pot epoxy surface treatment to structural elements only	27,520	kg	1.50	41,280.00
19	Locker Group Safe T Perf Sillatec 6	816	m ²	275.00	225,312.00
20	Non slip applied surfacing to cycle lane	456	m ²	70.00	31,920.00
WALK / CYCLEWAY STRUCTURE					
Structural Steel					
NOTE 1: All structural elements assumed to be HD galvanised					
21	Main supports 250x250x6 SHS at 4570 centres	52,056	kg	8.50	442,476.00
22	Deck joists 150x50x5 RHS at 600 centres	124,960	kg	9.50	1,187,120.00
23	Locker Group Safe T Perf Sillatec 6	5,280	m ²	270.00	1,425,600.00
24	Hangers 75 x 3mm SHS at 4570 centres	4,425	kg	8.50	37,612.50
25	Connections to existing structure 10mm angle 200 x 200	44,000	kg	9.50	418,000.00
26	Connections and fittings etc allowed as 15%		sum		410,889.20
27	2 pot epoxy surface treatment to structural elements only	225,441	kg	1.50	338,161.50
Surface Treatment					

NO	DESCRIPTION	QUANTITY	UNIT	TOTAL	
				RATE	AMOUNT
28	Non slip applied surfacing to cycle lane <u>External Skin</u>	2,970	m2	70.00	207,900.00
29	Curved support frame 76.1x3.6mm CHS	17,073	kg	8.50	145,120.50
30	Sub frame members 48.3x3.2mm CHS	19,096	kg		
31	Internal handrail frame 60.3 x 5.4mm CHS	8,041	kg	8.50	68,348.50
32	Connections and fittings +15%		sum		32,020.35
33	2 pot epoxy surface treatment to steel	44,210	kg	1.50	66,315.00
34	Aluminium tubular handrail	1,100	m	125.00	137,500.00
35	Locker Group curved 1 way mesh powder coated aluminium. Allowed for a 1.5m (horizontal) top section only	2,200	m2	180.00	396,000.00
36	Locker Group curved expanded aluminium. Allowed at bottom cladding 1.0m (vertical) section only	1,320	m2	200.00	264,000.00
37	Locker Group curved HVO profile galvanised steel. Allowed at bottom cladding 1.1m (vertical) section only.	1,430	m2	250.00	357,500.00
	<u>LIGHTING</u>				
	<u>Basic / General Lighting</u>				
38	Downwash lighting	1,100	m	250.00	275,000.00
	<u>Feature Lighting</u>				
39	Excluded		note		
	<u>SECURITY</u>				
40	CCTV System (6 camera package)		sum		150,000.00
	<u>TOLLING</u>				
41	Barriers etc	2	no.	20000.00	40,000.00
42	Control room / booth and equipment	2	no.	50000.00	100,000.00
	<u>SAFETY EQUIPMENT</u>				
43	Allowance		sum		100,000.00
					7,557,335.63
	Preliminary & General			15.0%	1,133,600.00
	Contractor's Overheads & Margin			7.0%	8,690,935.63
	Contingency Allowance			20.0%	1,859,860.00
	Professional Fees (including MSQA)			8.0%	892,730.00
	Total				12,051,895.63
	TOTAL OF ESTIMATE (Excluding GST)				\$ 12,051,900.00

Appendix 1e: Letter from InfraSol confirming financial viability



28th July 2010

The Chairman
Auckland Harbour Bridge Pathway Trust
AUCKLAND

Dear Bevan,

We have reviewed the projections of the AHB Pathway Group concerning patronage of the proposed Auckland Harbour Bridge combined footpath/cycleway and are of the opinion that, given current assumptions regarding project construction, operation and utility costs, the Pathway has a reasonable expectation to be financially viable. Patronage numbers include walking and cycling, but exclude moped and scooter potential.

However, this project should not be judged solely as a stand-alone financial proposition, but as a Public-Social Private Partnership (PSPP), which is in essence a PPP modified to include extra mechanisms and criteria to ensure that such a PPP meets a social goal, i.e.:

- Assures and implements public aims, agendas and tasks in the sense of community benefit;
- Adheres to and sustains the agendas and aims of co operations in the mid-and long term;
- Plans and suitably applies the necessary conditions and resources (e.g. financing) for sustainable results.

In the new world where social and environmental concerns and low carbon clean technology, ecology and such are identified as critical risks/issues, compared to the traditional pure economical and financial factors, the AHB Pathway stands out as a project that meets the Triple Bottom Line test, being financially, socially and environmentally responsible.

As a result we would suggest the Trust enter discussions with NZTA on financial arrangements to further advance the project.

Yours Sincerely
INFRA SOL (NZ) LTD

Leigh Hopper
Chairman

Appendix 2: Connections to the north and south

Southern side

From the CBD, this cycling and walking path provides access through the eastern side of the Auckland Viaduct.



Hire bikes in the Viaduct are available to visitors for rental by the hour. See www.nextbike.co.nz.



Cycling and walking path through the western side of Auckland Viaduct.



Westhaven Drive provides a safe (30 km/h with traffic calming) cycling environment to the start of the Auckland Harbour Bridge Pathway.



Access from Ponsonby/Herne Bay is provided by this shared path.



The Pathway connects directly to Westhaven Drive, which is part of Auckland City's existing 50-km cycling circuit, and provides access to the CBD and into Ponsonby via Shelley Beach Road or Curran Street.

The Link bus service through Ponsonby provides a frequent and direct service into the CBD and Britomart.



Northern side

At the transition between steel box girder and concrete viaduct, the Pathway does a 'dog leg' in between the pylon legs as shown.

This ensures no airspace is encroached above residential properties.



At the end of the box girder construction, the proposed Pathway comes down in between the pylons, as indicated by the orange arrow.



The Pathway connects to North Shore in the Princes Street car parking area, as shown.

The local street network provides access to Northcote, AUT University, Glenfield, Birkenhead, Takapuna and other North Shore suburbs and facilities.



A walkway leads directly from the proposed Auckland Harbour Bridge Pathway to Northcote Point ferry terminal and bus stop, a distance of approximate 120 metres.



The ferry terminal at Northcote Point is approximately 120 metres from the proposed Auckland Harbour Bridge Pathway. This terminal is served by a number of bus services providing connections to the North Shore.



View of ferry departing Northcote Point. This will be a pleasant option for many tourists (both cycling and walking) to make the return trip back to the CBD.



Queen St in Northcote Point provides good walking, cycling and public transport access between the proposed Pathway and North Shore suburbs.



The historic Northcote Tavern and Garden Bar, located within 400 metres of easy cycling from the Auckland Harbour Bridge Pathway.



Example of North Shore local craft shop within close proximity of the Pathway.



The Pathway will support the growth of walking and cycling tourism and recreational trails.



Appendix 3: Technical confirmation from NZTA



Level 13, Qantas House
191 Queen Street
PO Box 1459
Shortland Street
Auckland 1140
New Zealand
T 64 9 368 2000
F 64 9 368 2059
www.nzta.govt.nz

7 December 2009

Last week, the NZTA released a report updating the forecast future loadings on the Auckland Harbour Bridge. The report confirmed earlier analysis that if left unrestricted to all traffic, the Northbound box girder (clip on) could need to be replaced in approximately 20 years. In order to reassure the public and stakeholders, the NZTA has confirmed that planning for a future additional harbour crossing is on going and that it is expected that planning and design for this crossing will be undertaken in the next 10 years with construction not expected to start before 2020. This crossing, whether bridge or tunnel, will complement the existing bridge and between them, will provide for all transport modes.

In the interim the NZTA will develop their Asset Management Strategy for the existing bridge to continue to manage the structure to meet the current demands for its safe and efficient operation.

At the same time the NZTA is committed to investigating all possible options to extend the life of the bridge and any of its component parts. There are a number of possible innovations to pursue in this regard.

With respect to the Pathway proposal for a Walking and Cycling link on the existing Harbour Bridge advocated by Getacross, I can confirm that the NZTA's position remains unchanged. Current analysis indicates that there is sufficient capacity in the southbound box girder to support a walkway/ cycleway and that should a funding source be identified, we would be happy to work with the advocates of the scheme to develop proposals further.

A handwritten signature in black ink, appearing to read 'Tommy Parker', with a long horizontal stroke extending to the right.

Tommy Parker
State Highway Manager, Auckland and Northland

Appendix 4: NZTA's future-proofing of AHB for the Pathway



21 October 2008

Bevan Woodward
Deputy Chair
Cycle Action Auckland
PO Box 91-301
AUCKLAND

NATIONAL OFFICE

Victoria Arcade
44 Victoria Street
Private Bag 6995
Wellington 6141
New Zealand
T 64 4 894 5400
F 64 4 894 6100
www.nzta.govt.nz

Dear Bevan

I refer to your email of 9 October 2008 to the reference "*Structural elements have been incorporated into the current strengthening works to future-proof for walking and cycling facilities on the box girders*". I presume this is from the letter written by Rick van Barneveld to the Hon Judith Tizard on 14 May 2008. You have asked for details of what these structural elements are.

The strengthening of the box girders requires additional deck cross girders and internal web stiffeners.

The cross girders fit up under the deck and go the full width of the box girders. As part of the design these girders were increased in size to allow for the torsional effect of the additional cycleway/walkway.

The internal web stiffeners are plates of steel welded at right angles to the sides of the box girder to stiffen the sides. Again these were increased in size to allow for the torsional effects mentioned above.

This work was done as a prudent measure as it would have been very difficult to carry this out at a later date, should the cycleway/walkway be added.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Roly Frost', is written over a light blue circular stamp.

Roly Frost
General Manager Network Operations

Appendix 5: Map of connecting cycleway routes

The connecting routes to the Pathway provide a route from Auckland's CBD to the north. The proposed NZ Cycle Trail is shown in green (---), overlaid on ARTA's Regional Cycle Network:



Appendix 6: Project management

The AHB Pathway project is managed by:

Project Director

Bevan Woodward

Pathway Steering Group

Jon Ramage, CEO, Y&R

Alex Sweeney, CEO, Heart of the City

Christine Rose, ARC's Chair of Transport

Chris Darby, NSCC Councillor

Roger Twiname, Director, Airey Consultants

Richard Leggat, Chair, BikeNZ

Anne Hartley, NSCC Councillor

Mark Roberts, Sustainable Business Network & Cycle Action Auckland

Project Co-ordinators

Kirsten Shouler

Andy Smith

Auckland Harbour Bridge Pathway Company will oversee the Pathway project. It is owned 50/50 by Infracol NZ Ltd (a subsidiary of Hopper Developments) and the Auckland Harbour Bridge Pathway Charitable Trust.

Auckland Harbour Bridge Pathway Company Executive:

Executive Director: Bevan Woodward

CEO: Corrie Keyser, Infracol NZ

Project Co-ordinator: Kirsten Shouler

Structural engineering consultant: Roger Twiname, Airey Consultants

Design consultant: Barry Copeland, Copeland Associates

Stakeholder liaison: Andy Smith

Auckland Harbour Bridge Pathway Company Directors:

Leigh Hopper (Chair), Bevan Woodward (Executive Director), Corrie Keyser, Kirsten Shouler, Mark Roberts, Christine Rose, Alex Sweeney

Architects

John Dymond, Copeland Associates

Finn Scott, Copeland Associates

Engineering Advisors

Roger Twiname, Director, Airey Consultants

Michael Newby, Holmes Consulting Group

Graphic Design

Luke Williamson, Halcyon Design

Raul Sarrot, Fresh Fish Studio

Communications

Audrey Van Ryn

Kate Thompson
Jon Bridges

Legal Advice

Michael Lloyd, Barrister
Davey Salmon, LeeSalmonLong

Demand Forecasting

Dr Graeme Lindsay, University of Auckland
Andrew Stevenson, Tasman Research

Web site Management

Mark Roberts, Sustainable Business Network
Liz Quilty, Velofille.com

Market Research

Karin Glucina, Y&R

Appendix 7: Letter of support from Fullers Ferries



To whom it may concern:

Fullers Group Limited is the largest operator of passenger ferries on Auckland's Hauraki Gulf; transporting over four million passengers each year to a number of island destinations as well as on a network of ferry services across the Auckland Harbour. Around forty percent of all trips are made by Auckland residents travelling for recreational reasons or by people from outside Auckland travelling as tourists.

Fullers' interest in supporting Cycle Action Auckland's initiative to create a network of cycleways throughout the Auckland City region is for the potential it offers Aucklanders and tourists to use existing ferry services for recreation and tourist experiences. Fullers sees this as a growth area that would generate new revenue for the ferry industry that would be applied to improving existing services, underwrite to some extent the commuter fare price and be the catalyst for starting new ferry services.

Fullers' ferries are capable of carrying cycles and some of the cycleways proposed by Cycle Action Auckland would have an attractive feature of a ferry ride to enhance the recreational value for the cyclist.

The proposed cycleway incorporating the Harbour Bridge is a particularly important one. It would without doubt be the iconic cycleway in New Zealand and give Auckland the tourist boost it so desperately needs. A base from which a wider network can grow – combined with the enthusiasm Cycle Action Auckland.

We urge you to support this important visionary initiative, we unreservedly support it ourselves.

Yours sincerely

A handwritten signature in black ink, appearing to read "M Fitchett", written in a cursive style.

Michael Fitchett

General Manager – Support Services