

Appendix 2: CONSULTATION, FEEDBACK AND RESPONSES
Site Specific Management Plan 007 - Waikanae River
MacKays to Peka Peka Expressway
M2PP-121-D-MPL-0007

13 February 2014


The following tables set out the responses to comments raised by reviewers and those parties consulted in regard to the preliminary SSSMP. The project responses are either reflected in the certification issue to which this Appendix pertains, or have been directed to other processes for action, or have been considered but for the reasons noted not agreed to. The parties consulted are those identified by the consent conditions and for Waikanae River are:

- Te Āti Awa ki Whakarongotai;
- Takamore Trust;
- Friends of Waikanae River;
- KCDC; and
- GWRC.
- El Rancho
- Kāpiti Cycling Incorporated
- Implementation Group of the Kāpiti Coast District Council Advisory on Cycleways, Walkways and Bridleways

COMMENTS ON PRELIMINARY ISSUE SSMP7: WAIKANA E RIVER

KCDC REVIEWERS COMMENTS: JW=Julia Williams- Landscape Architect; DP = Deyana Popova-Urban Designer; SK=Stu Kilmister-CWB Planner; SM= Shona Myers-ecologist – documented and meeting notes responses

Condition Reference	Condition Detail	Reviewer/ commenter	KCDC Reviewer's comment	reference in SSMP	Management Plan Author's response
		JW/DP	Change to bridge design will change the perception of bridge form and visual weight	Appendix1	Working on bridge design in further detail. Appendix 3 describes.
		SK	KCDC expecting 3.0m on main line as hard surface (Kapiti Blue on rural and chip seal on urban sections) and are less concerned about horses using it. Consider the main users are cyclists and walkers and horses can be accommodated where possible with extra grass strip if this is not detrimental fit with proposed cuts and fills	Appendix1	Agreed – plans and text amended to show 3m wide surfaced (seal or Kapiti blue) wide main line CWB. Will be provision alongside 3m for horses in rural areas with grass verge 1m wide where practicable without changes to cuts and fill
		SK	On El Rancho road KCDC want to see a 2.5 (2.2min) parallel path for CWB	Appendix1	Agreed – will be parallel 2.2m wide path beside El Rancho Road
		SK	Need to provide for radius curves (2.0m) on the CWB at locations where it connects to other CWB paths (e.g. at Waikanae River)	Appendix1	Agreed – radii will be addressed in detailed design – scale of plans may not show effectively.
DC.57(f)	Landscape maintenance	JW	'Flood protection planting shall require 100% plant survival, with 100% of trees in full leaf at the time of Final Completion.' This may be difficult if trees are planted in June-August, add 3 years for maintenance – trees may still not have come into leaf.	Pg. 23	This is not insurmountable and should be able to be readily resolved at the time. The trees can be checked in the autumn and then verified in the following spring once they are in full leaf.
DC.57(f)	Landscape maintenance	JW	'Survival of a minimum of 80% of 80% of the planted indigenous plant species.' Please correct to 80% (rather than 80% of 80%).	Pg. 24	SSMP has been amended to refer to '80%' consistent with the consent condition.
G.41(c)(i)	Valued vegetation	SM	Riparian vegetation to be retained is less than identified in the EMP		Agree, and rationale for this is outlined in Appendix 5. Note that final extent of vegetation clearance within Expressway will need to be consistent with the consent conditions.
G.43C(c)	SSEMP to include plans for mitigation	SM	More detail required as to where additional riparian mitigation will be undertaken		Agree, SSMP amended in response to final extent of vegetation communities being confirmed.

G.42C	Detailed specs to be included	SM	More details required. Remove <i>Vitex lucens</i> from planting schedule. A number of appendices still to come. "I understand that GWRC and NZTA are supportive of native riparian planting rather than willows in this area. I support this approach."		Agree, reference to <i>Vitex lucens</i> has been removed from plant schedule. More details on species has been added to planting plans.
DC.59A(h)	CPTED Review	JW/DP	Will the CPTED review of preliminary plans/comments to support plans be provided?		The preliminary comments from Frank Stoks (CPTED reviewer) are annotated to the Plans (Appendix 1 Sheet 2). A statement from CPTED reviewer will be provided from CPTED review meeting 5 November 2013.
DC.7A, DC.57A & DC.59A	SSUDPs and SSLMPs must be consistent with the ULDF	JW	ULDF 5.10.3: Plan M2PP-121-D-GPH-8501 Maximum slope for planting with topsoil and mulch is 1:3. Embankments either side of bridge @ 1:2 therefore require customised planting solution. Expect to see this in final plans		Uncertain as to the specific location this comment refers, but to confirm that out of the 4 embankments in this location, 3 are 1:3 in grade, and the other is 1:2.5 gradient. No specific planting solution is proposed. Any additional management will be addressed through plant maintenance contracts.
DC.7A, DC.57A & DC.59A	SSUDPs and SSLMPs must be consistent with the ULDF	JW	ULDF 5.11.3: Exotic terrestrial vegetation to be retained (south bank, NE of Ch 10600) not shown in Plan M2PP-121-D-GPH-8101. This vegetation appears to be replaced by grass in the plan on Sheet 2. (refer Figure 1 below) It is my understanding that this is recently planted re-vegetation and the community group involved has been informed and has agreed to its removal (to be confirmed in consultation)	Sheet 2 & 3	Agree, this area has been amended in the revised vegetation clearance plan attached in this version of the SSMP. The extent of vegetation clearance works on the south side of the Waikanae River were outlined to the Friends of Waikanae River, GWRC and KCDC representatives during the annual Waikanae River walkover on 26 November 2013. The extent of clearance is outlined in Appendix 5.
					
DC.7A, DC.57A & DC.59A	SSUDPs and SSLMPs must be consistent with the ULDF	JW/DP	UDLF 5.8.3 & 4: Inconsistencies. Greater level of detail is required to clarify the design in terms of quality and finish.		Changes to bridge forms as a result of detailed design process. Changes and rationale in relation to the ULDF set out in Appendix 3 Bridge Matrix
DC.57	The SSLMPs shall be consistent with the LMP	JW	LMP 8.54.2: Planting beside carriageway on southwest side of Expressway has native grasses as a transition at the edge. Clarify whether there is also an edge of gravel or grass directly adjacent to road – this is unclear on Sheet 16.	Sheet 16	Agree, this has been amended in the revised cross-sections to illustrate transition zone.

DC.57	The SSLMPs shall be consistent with the EMP	SM	EMP 7.1.5: Detailed design has determined the loss of approximately 0.33 ha of vegetation in this area as part of bridge construction and lay-down areas. [DETAILS OF EXTENT OF AREAS TO BE CONFIRMED. Need to ensure additional riparian mitigation undertaken to mitigate for this.	Pg. 13	Agree, the SSMP has been amended to include the final extent of vegetation clearance in this area and recommendations on locations for additional riparian mitigation for this loss.
DC.58	The SSLMPs shall be consistent with the EMP	SM	New channel will be formed with associated riparian planting of xxx m2 [DETAILS OF EXTENT OF AREAS TO BE CONFIRMED.	Pg. 18	Agree, extent of riparian planting now confirmed in this SSMP.
DC.59A(g)	The SSUDP prepared for the CWB shall include certain information	JW/DP	ULDF: 5.12.10: Gabions at CWB intersection with El Rancho access road not shown in Plan M2PP-121-D-GPH-8301 Intersection detail. Detail yet to come. May need to be changed to be consistent with potential changes from gabion to textures wall under bridge for this and other Sectors.		Agree, use of gabion as a threshold will be changed at El Rancho to be consistent with intersection of CWB and other local roads. KCDC use a hold rail system (at Otaihanga Road for example) so a similar system can be utilised.

COMMENTS ON PRELIMINARY ISSUE SSMP7: WAIKANAE RIVER – updated on 7th December 2013 following additional review.
KCDC REVIEWERS COMMENTS : JW=Julia Williams- Landscape Architect; documented and meeting notes responses]

Condition Reference	Condition Detail	Reviewer/ commenter	KCDC Reviewer's comment	reference in SSMP	Management Plan Author's response
	LMP principles, methodologies and procedures (where appropriate)	JW	Requires Final specification to verify	Appendix 4	Draft Landscape Specification supplied undergoing internal review and once signed off final version will be provided. .
	Landscape Conditions Condition DC57(f): Maintenance standards;	JW	Requires Final specification to verify	Appendix 4	Draft Landscape Specification supplied undergoing internal review and once signed off final version will be provided
	Urban design Conditions DC 59A g) ii)	JW	The CBW should be 3.0m wide between Waikanae Bridge and Otaihanga Road. Expect to see the Masterplan show that the CWB increases from 2.5m (on bridge) to 3.0m south of bridge at the point where it intersects with 2.2m link that runs down to river. Notation on plan should confirm this.	SHEET 2	
	DC 59A f) i)	JW	Lighting pole at intersection of the CWB and El Rancho Road. Confirm height of pole on plans.		Notation added re location of lighting pole; proposed height of lighting pole is 5.5m but this is yet to be confirmed.
	Consultation	JW	Consultation not received form Takamore Trust or Te Ati Awa ki Whakarongotai needs to be completed		An initial meeting was held with Ben Ngaia, Takamore Trust on 18th September 2013; a copy of the SSMP provided for Ben to take away and discuss with the Trustees.

					A meeting was held on 13th December 2013 with Ben Ngaia & Tony Ropata from Takemore Trust, Hemi Sundgren, Te Atiawa ki Whakarongatai, and Mahara Okeroa, representing NZTA to go through SSMP 7 and to discuss opportunities for iwi input into aspects of design. A further meeting was held on 23 January 2014 with Hemi Sundgren, which discussed specific opportunities for design input on the Waikanae River Bridge (i.e.columns, barrier, abutments).
	CPTED Review	JW	Final CPTED Review required.		Completed by Frank Stoks on 9 December 2013. Copy of comments appended to SSMP and amendments to SHEET 6 added.
	Informal notes:	JW	Page 5 diagram for SSMP process virtually unreadable		Agree, has been amended.
	Informal notes:	JW	Sheet 2 Masterplan <ul style="list-style-type: none"> • check spelling of tagability under 'Key CPTED considerations' • Remove note re gabion wall at intersection CWB and El Rancho Road since detail is not being used and hold bars are used instead. 		Spelling corrected. Gabion wall is correct.
	Informal notes:	JW	Sheet 6 Long Section - Notate 2.2m CWB on El Rancho Road cross section		Has been amended.
	Informal notes:	JW	<ul style="list-style-type: none"> • Sheet 7 • top left corner on Cross section 1 – layers are been mixed and plan has whited out area over it 		Printing error has been corrected.
	Informal notes:	JW	Sheet 19 Planting sections and details introduces ribbonwood and cabbage trees to riparian planting but they have not been transferred to Sheet 20 Planting Schedule		Plant schedule has been amended accordingly.

COMMENTS ON PRELIMINARY ISSUE SSMP7: WAIKANA E RIVER					
GWRC REVIEWERS COMMENTS [PW=Philippa Crisp, SW=Sharyn Westlake, IB = Ian Boothroyd]					
Condition Reference	Condition Detail	Reviewer/commenter	GWRC Reviewer's comment	reference in SSMP	Management Plan Author's response
DC.57 f) and G.42C c)	Matters to be included in an SSEMP	PC	Should be Foxton Ecological District	Pg. 21	Agree with intent, but Consent Condition DC.57 (f) (vii) F.3 states, "Any native plants to, so far as practicable, be genetically sourced from the Manawatu Ecological Region" and G42C(c)(v)E 3 states, "Any native plants to be genetically sourced from the relevant Ecological District". Throughout the project the focus in plant selection is Foxton Ecological District for all ecological mitigation planting and virtually all of the indigenous planting throughout the project.
DC.57 f) and G.42C c)	Matters to be included in an SSEMP	PC	<i>Vitex lucens</i> is not a local species, shouldn't be on the species list	Sheet 20	Agree - this species has been deleted from the planting lists and schedules.
DC.57 f) and G.42C c)	Matters to be included in an SSEMP	PC	If willow is to be planted (<i>Salix matsudana</i>), are they sterile clones?	Sheet 20	<i>Salix matsudana x alba</i> 'Moutere' has been specified in the plant schedule, which is a male clone.
DC.57 e) iv)	GWRC flood protection requirements	SW	GW has overflow paths along the Waikanae River (see plan W-268/5 - in Sharepoint). Planting should not obstruct these. The sequence requires editing. Planting needs to take flood flow into account.	Pg. 11	The overflow paths notated on the planting plans and species nominated take flood flow into account.
DC.57	GWRC flood protection requirements	SW	Riprap will need to be sized so that it won't migrate/be moved downstream during floods.	Pg. 14	Discussed rip rap size with hydrology and stormwater team and updated description on this page to reflect GWRC's concerns.
DC.57 f) i) & DC.42C (c) i)	Identification of vegetation to be removed	SW	Stockpiles of mulched vegetation should be out of the floodway.	Pg. 16	Amended SSMP to confirm that stockpiles of mulched vegetation shall be located out of the floodway.
G.42 and DC.57 f)	Mitigation planting	SW	The ecological riparian mix need to be plants with good root systems	Pg. 19, Sheet 16, 17 & 18	Agree, this was the intent of the planting in the riparian species selection in this area - and plant list has been reviewed in discussion with GWRC.
G.42 and DC.57 f)	Mitigation planting	SW	No willows to be planted in riprap. Other vegetation that folds over in a flood may be suitable (e.g. sedges, cabbage tree, ribbonwood). Sheets 19-23 details to be changed	Pg. 19, Sheet 16, 17 & 20	SSMP text has been amended and planting plans to state that no willows are to be planted within riprap. Riparian planting species list has been amended to incorporate more sedges, cabbage trees and ribbonwood in response to GWRC feedback.
G.42 and DC.57 f)	Mitigation planting	SW	GWRC cross section survey sight lines need to be kept clear (>3m) of vegetation. Survey marks may need to be relocated if under bridge footprint.	Pg. 19, Sheet 2, Sheet 16	The survey sight lines have been notated on the planting plans.

DC.57(f) and G.42C(c)	Plant supply	SW	Should be Foxton Ecological District	Pg. 21	As above, consent condition specifies to 'Manawatu Ecological Region'. Only plants from the Foxton Ecological District will be planted in Waikanae River and environs plantings. Throughout the project the focus in plant selection is the Foxton Ecological District for all ecological mitigation planting and virtually all of the indigenous planting.
N/A	N/A	SW	"Survival of a minimum of 80% of 80% of the planted...	Pg.24	This section of the SSMP has been amended to refer to 80% canopy closure at the time of final completion as per the consent condition.
G.34 and G.38 c)	Monitoring of the success of stream formation	SW	GW flood protection officer should be included in the list of people who monitoring is undertaken in coordination with.	Pg. 24	Agree, amended this section to incorporate reference to "GWRC flood protection Operations".
N/A	N/A	SW	Are you providing an area/platform for public viewing during construction	Drawings general	Nothing is proposed at this stage, but will be investigated to further.
N/A	N/A	SW	Sheet 15 is blank	Sheet 15	Amended
G.43C	Matters to be included in an SSEMP	IB	The SSMP is a preliminary of course and reads more as a plan of what is planned to be in the SSMP and does not state how all of the respective items will happen. It will be preferable to see the SSMP when the detailed steps of how it will happen have been fleshed out and incorporated (or refers to other plans/documents).	General	The detail of how each of the respective items will happen will be outlined in the construction methodology, which will have landscape and ecological input. At this stage, some components of the construction methodology and timing are still being confirmed.
G.43C	Matters to be included in an SSEMP	IB	Be preferable for each plan to have objectives or anticipated outcomes stated: separated into the various components. Nevertheless it meets the stated expectation of the EMP and discussions amongst experts regarding the inclusion of the SSEMP, SSLMP, SSUDP into a single SSMP.	General	In general terms, the objectives and outcomes are set out in the EMP; however, in the interests of keeping this SSMP concise for the purpose, some clarifications have been included to relevant sections. As outlined above, more details on ecological objectives and outcomes sought will be set out in the construction methodology.
G.43C	Mitigation planting / Vegetation clearance	IB	Section 5A: I note that less riparian vegetation clearance is required in this SSMP and that the additional vegetation lost will be incorporated elsewhere. Not sure what this is stating exactly. Does it suggest it will allow more vegetation loss elsewhere? How will this be balanced up in mitigation?	Section 5A	This section has been revised, including the addition of the new Appendix 5 outlining the extent of works in relation to that consented as well as a sum total of all ecological mitigation works by SSEMP. Ultimately, the balance of ecological mitigation works across the Expressway needs to be consistent with that consented.
G.43C	Mitigation planting / Riparian planting	IB	Section 5B: Suggests riparian planting to be consistent with Waikanae River riparian planting. Not sure if this is preferable – may be GWRC/KCDC riparian planting guidelines that are more appropriate.	Section 5B	The details of planting in this area have now been confirmed in the landscape specifications in conjunction with KCDC review and GWRC flood protection review comments on plant selection in this area.
N/A	Matters to be included in an SSEMP	IB	Some figures are still a bit indicative but presumably detail will follow	Figures	Revised figures have been added.
General	Matters to be included in an SSEMP	IB	Otherwise it is shaping up with expectations. I expect to see the step-by-step plan of how the plan will be implemented.	General	Step-by-step plan will be undertaken as part of the construction methodology in terms of timing, procedures etc. This will have ecological involvement.

Condition Reference	Condition Detail	Reviewer/ commenter	GWRC Reviewer's comment	reference in SSMP	Management Plan Author's response
		AF	Appendix 5, Table 1A is missing the 'A' in its labelling	Appendix 5 Ecological Mitigation Table	Amended table title to refer to '1A'.
		AF	Appendix 5, the set of tables which keeps a running tally of habitat loss and mitigation against what was agreed is helpful. At this stage it is noted that according to Table 2A, shortfalls are occurring in three of the four mitigation types. It would be reassuring now to be informed of which specific mitigation areas the current shortfalls will likely be made-up in, and assurance that a surplus in one mitigation type will not be viewed as sufficient to satisfy shortfalls in any other mitigation type.	Appendix 5 Ecological Mitigation Table	Added three new sections within the Word document in Vegetation and Wetlands sections to state that shortfall and surplus of ecological mitigation within this SSMP would be addressed in the Drain 7/Wharemauku and Kakariki/Smithfield SSMPs (being the largest ecological mitigation sites).

COMMENTS ON PRELIMINARY ISSUE SSMP7: WAIKANA E RIVER- ADDITIONAL COMMENTS PROVIDED BY JAN NISBET FROM THE ADVISORY GROUP ON 16 DECEMBER 2013

KAPITI CYCLEWAYS/WALKWAYS/BRIDLEWAYS ADVISORY GROUP [JN = Jan Nisbet]

<i>Condition Reference</i>	<i>Condition Detail</i>	<i>Reviewer/ commenter</i>	<i>Comment</i>	<i>reference in SSMP</i>	<i>Management Plan Author's response</i>
DC.59(a)	Matters to be included in an SSUDP		Mentioned that in previous meetings (during application preparation phase) there had been discussions around the desire to have a ford for horses to cross the river in the Waikanae bridge area.	SHEET 2	Confirmed that horse fording crossing points will be reinstated and remarked if these are affected during the construction.
DC.59(a)	Matters to be included in an SSUDP		What is the width of the CWB and the CWB width across the Waikanae River bridge?	SHEET 2	Width of CWB on bridge will be 2.5m and 3.0m elsewhere on main path parallel to expressway. On links from CWB to other existing trails (like beside river will be 2.5m). Beside El Rancho Road will be 2.2m shared path that will be used in conjunction with slow speed El Rancho access.
DC.59(a)	Matters to be included in an SSUDP		Concern raised about the lack of permeability to the outer Waikanae river bridge barrier – is it possible to modify the barrier to allow better visibility out to river?	SHEET 2	Consideration has been given to the edge barrier and this is designed to be consistent with the other side of the bridge so the bridge form appears consistent (as per the ULDF principle 5.8.1). Most people will still see over the barrier as it is solid to 1.1m high (about waist height for an adult) and then has a handrail on top making it 1.4m high. There is a gap between the solid and the top rail.
DC.59(a)	Matters to be included in an SSUDP		Concern raised about the height and proximity of proposed vegetation to the CWB	General	Planting will be low adjacent to the CWB – either grass or low so it can be seen over and taller vegetation does not obscure sight lines or snag cyclists
DC.59	CWB	JN	Provision of an off road route available to horses.	SHEETS 6 and 14-16	The CWB is available to horses. A 1.0m wide grass strip adjoining the 3.0m CWB will be provided where feasible and if space permits.
DC.59	CWB	JN	Signage for the route refers only to a cycleway and it needs to have walkers and horse riders included in the name or a more generic name such as off road route.	SHEETS 14-16	The current design and information on the signs was supplied by KCDC and is consistent with signs used elsewhere; the pictograms used on the signs display both a walker and a cyclist but not a horse. KCDC to advise on alternative name for route.

COMMENTS ON PRELIMINARY ISSUE SSMP7:WAIKANAE RIVER EL RANCHO					
Condition Reference	Condition Detail	Reviewer/commenter	Comment	reference in SSMP	Management Plan Author's response
General	General	General	Would like to avoid duplication of consultation with Vector, with whom they have met to discuss pedestrian access and Vector's maintenance access.	General	To be addressed as part of the temporary works to relocate the gas main.
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Need clearer differentiation of vegetation types on the plan, would like to see cross section under bridge to clearly illustrate levels and overall relationship, more dimensions needed on the plans.	Appendix 1	Plans amended to show these items
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Need for lighting under the bridge on El Rancho access road.	Appendix 1	There is proposed to be a light at the point where the CWB joins to the access road to alert drivers and CWB users to the intersection presence. The matter of lighting under the El Rancho access bridge will be further discussed with El Rancho as part of property negotiations
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Footpath added or access road widened where it passes under the bridge to provide safe environment for pedestrians as well as entrance off Kauri Road - need for this to be widened to improve safety.	Appendix 1	The El Rancho access road will be widened to 5.0m and an adjoining 2.2m wide shared path provided separated from the road by a shallow dish drain channel. The slow moving vehicles on El Rancho access road (posted speed is 15kmh) enables an element of sharing of the road and shared space by cyclists and walkers. The path provides a clear safe zone for walkers and cyclists that prefer not to be on the road space.
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Currently the SSMP plans do not extend to the entrance and ER would like the plans to show entrance off Kauri Road and the details of what is proposed in this area.	Appendix 1	This area is in the following SSMP area and will be addressed at that time.
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Would like to see CWB at entrance to Vector Gas enclosure amended to improve safety (i.e. vegetation pulled back to ensure good sight lines, and gabion added to act as a threshold marker for cyclists and others approaching ER access road.	Appendix 1	Agreed – The plan has been amended. The matter of a gabion marker will be further considered to be consistent with other thresholds for the CWB to local roads. There will be a light to illuminate the intersection.
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Would like to see the extent of construction yards shown on the plans; ER raised issue re height of security fences around yards as described in LMP but appreciate that they are needed as much as a safety measure as for security.	Appendix 1	Agreed – The plan to describe the construction area is included in Appendix 1.
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		Stormwater drain (swale) west of expressway does not drain into the river and so water tends to pond. ER concerned that as a result of the expressway more water will pond in this area. They would like to see drainage in this area permanently resolved	Appendix 1	This is an existing issue. There will be no additional ponding and culverting for the CWB will allow it to continue to drain towards the river.
DC.59(a) DC53C	Matters to be included in an SSUDP/SSLMP		ER raised the potential for installing 'cultural markers' and information at mouth of Muaupoko Stream.	Appendix 1	Agreed – this will be undertaken in consultation with iwi.

COMMENTS ON PRELIMINARY ISSUE SSMP7:WAIKANAE RIVER
FRIENDS OF WAIKANAE RIVER

Condition Reference	Condition Detail	Reviewer/commenter	Comment	reference in SSMP	Management Plan Author's response
General	General	Heather McKenzie, Secretary for Friends of Waikanae River	"No issues -impressed with the level of information and detail."	General	No response required.
DC.59	CWB (Cycleway/walkway /bridleway)	Feriel Falconer, Chair Friends of Waikanae River (10 December 2013)	Pedestrians and cyclists specifically mentioned but not horses.	E. Conditions of Consent [Summary], page 5	Text amended to specifically mention horse riders.
DC. 59	CWB widths	Feriel Falconer, Chair Friends of Waikanae River (10 December 2013)	Width of CWB inconsistent with consent conditions.	Various places in text and on plans	Text and plans have been amended accordingly and are consistent with what was agreed with KCDC and with the consent conditions.
DC. 57 f) vii) F. 3 G. 42C v) E. 3	<i>Any native plants to, as far as practicable, be genetically sourced from the Manawatu Ecological Region.</i> <i>Any native plants to be sourced from the relevant Ecological District.</i>	Feriel Falconer, Chair Friends of Waikanae River (10 December 2013)	Query on eco-sourced whether plant supply (i.e Manawatu Ecological Region / Foxton Ecological District)	P. Plant Supply (page 12).	Text amended to state that eco-sourced plant supply for all indigenous planting shall be from Foxton Ecological District.

COMMENTS ON PRELIMINARY ISSUE SSMP7:WAIKANA E RIVER TAKEMORE TRUST AND TE ATI AWA KI WHAKARONGATAI					
Condition Reference	Condition Detail	Reviewer/commenter	Comment	reference in SSMP	Management Plan Author's response
DC.57 and DC.59A j) i) and ii)	SSMPs to be prepared in consultation with Te Ati Awa ki Whakarongatai and Takamore Trust	Ben Ngaia, Takamore Trust Hemi Sundgren, Te Aiti Awa ki Whakarongatai	Identify areas where Takamore Trustees and Te Ati Awa ki Whakarongatai could provide input into design and detail.	Various places	An initial meeting was held with Ben Ngaia on 18th September 2013; a copy of the Preliminary issue of SSMP 7 was provided for Ben to take away and discuss with the Takamore Trustees. A copy of the Preliminary SSMP 7 was also provided to Hemi Sundgren to review and comment. A meeting was held on 13th December 2013 with Ben Ngaia & Tony Ropata from Takamore Trust, Hemi Sundgren, Te Atiawa ki Whakarongatai, and Mahara Okeroa, representing NZTA to go through SSMP 7 and to discuss opportunities for iwi input into aspects of design. A further meeting was held on 23 January 2014 with Hemi Sundgren, which discussed specific opportunities for design input on the Waikanae River Bridge (i.e.columns, barrier, abutments).

Appendix 3: BRIDGE SUMMARY

Site Specific Management Plan 007 - Waikanae River

MacKays to Peka Peka Expressway

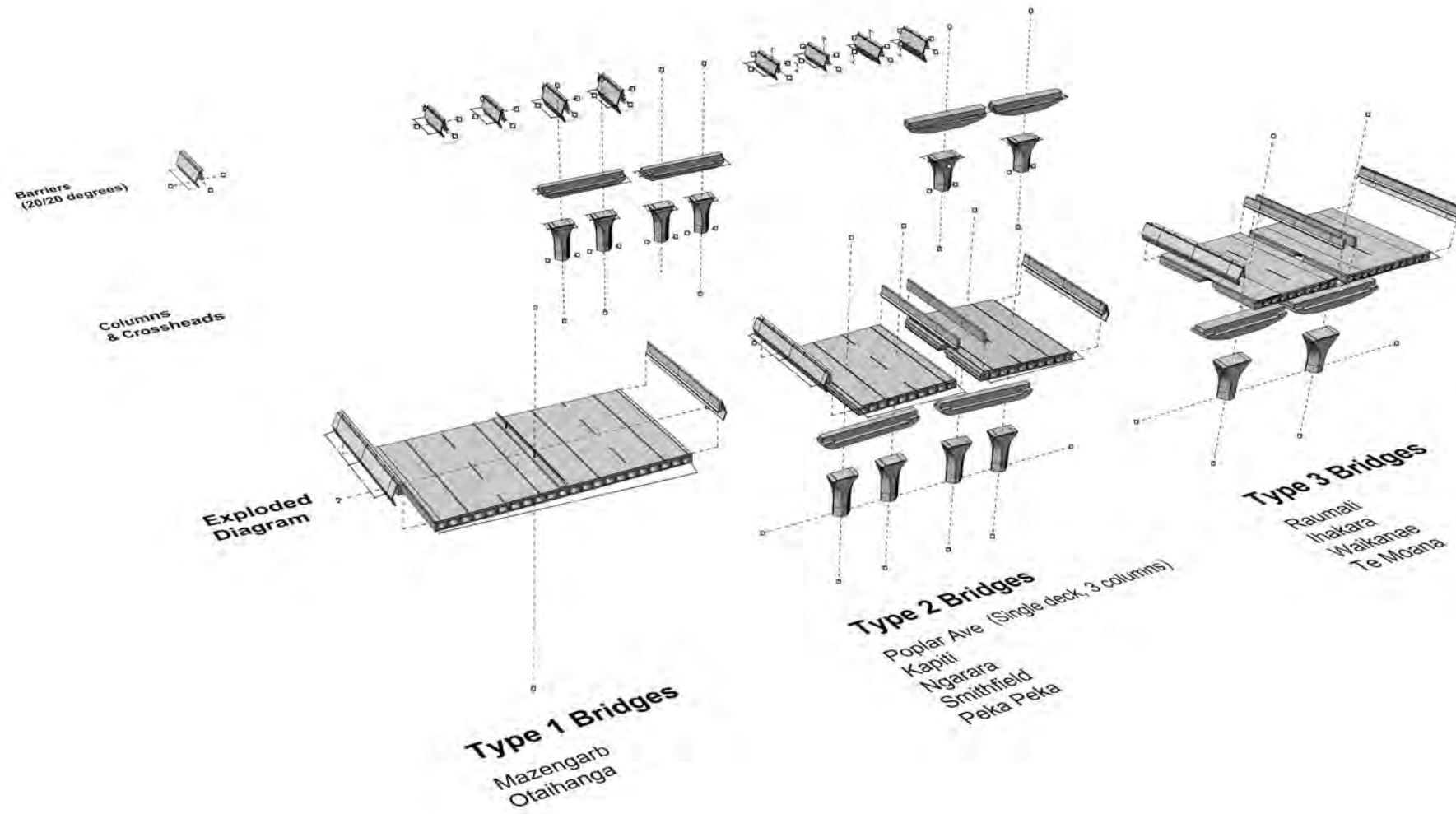
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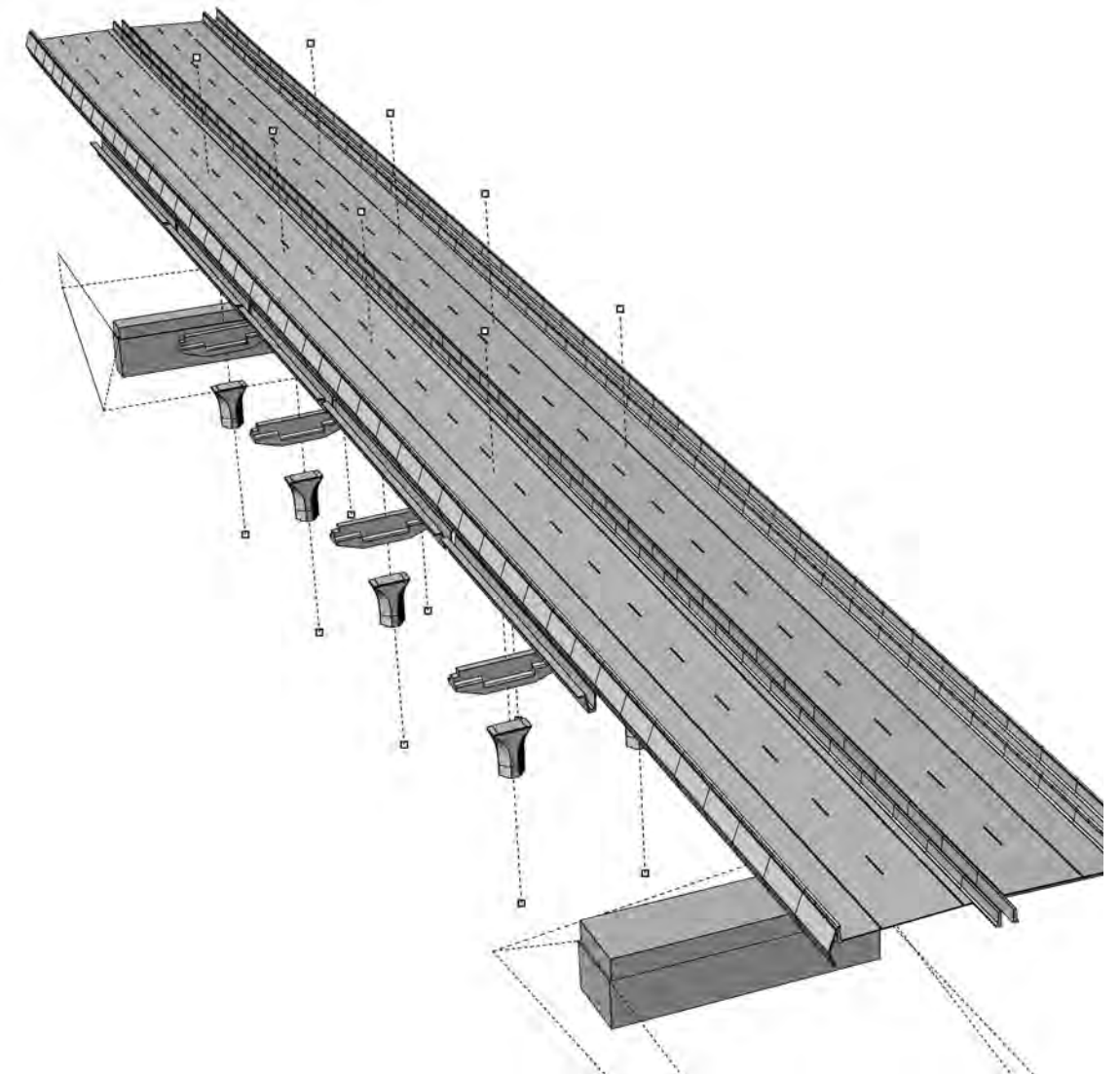
Waikanae River Crossing - Bridge Development Study MacKays to Peka Peka Expressway

REV- A
25th February 2014

Bridges as a series of components



Proposed Waikanae exploded isometric



Design Objectives

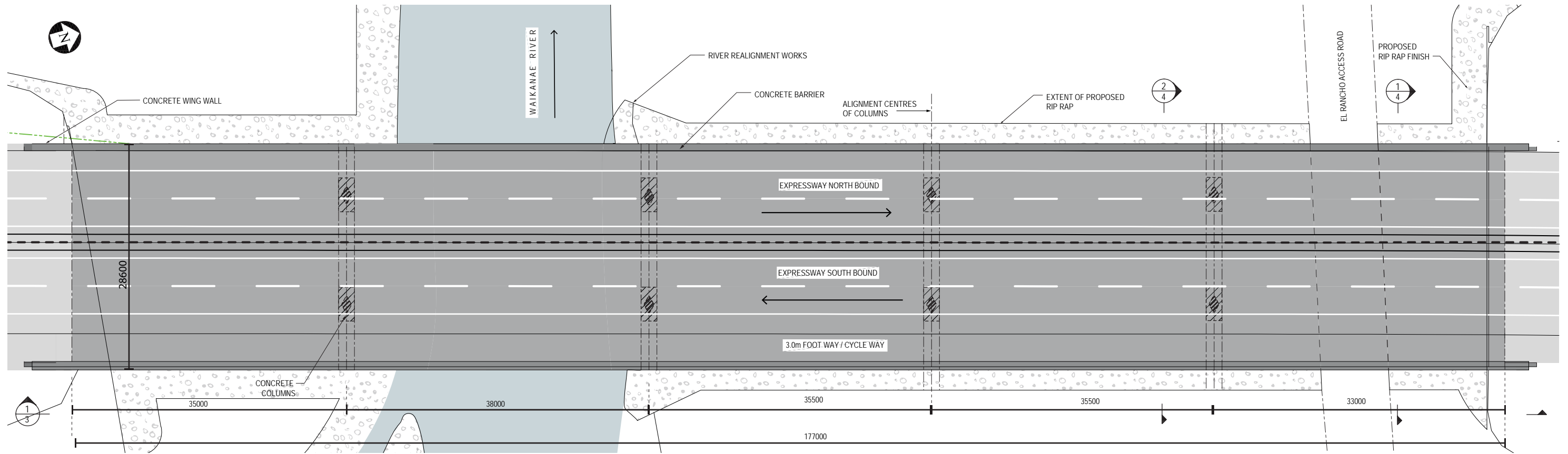
With reference to the Urban and Landscape Design Framework (Technical Report 5) (ULDF) there are four design objectives for the bridges and their respective contexts. These four objectives are overarching aims for the project and have been extracted from the Design Concept statements in two sections of the ULDF: Local Road Interface Design (section 5.7) and Bridge Design (section 5.8).

The purpose of extracting these objectives is to enable any changes to bridge structures and their context made through the concept and detailed design process to be considered at the highest level of the design intent. There are design principles in each of the sections as noted above and these too form a basis for considering the development of the designs for the bridges and their context.

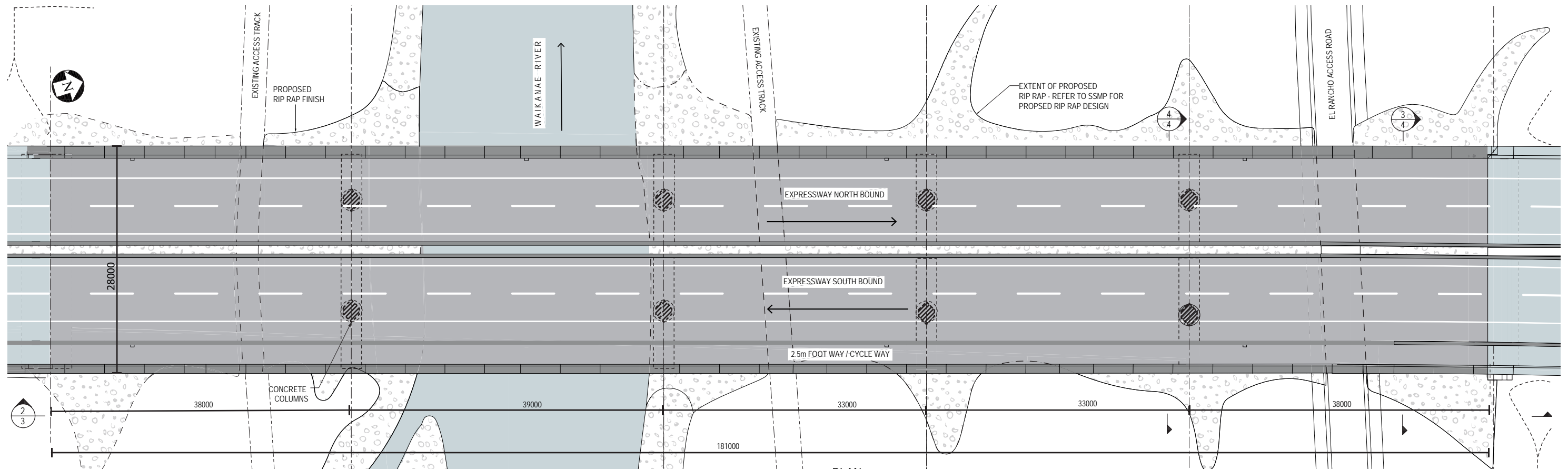
As is typical in a design evaluation process, any aspects of design that do not align with the design principles would be elevated to consideration against the design objectives.

Design Objectives:

1. The public spaces of the roads and streets take primacy over the experience for the Expressway because local people will be making slower movements and as a consequence the bridges will be more visually apparent to them than to people travelling along the Expressway.
2. As a new element in the landscape, the bridges respect the surrounding landscape and are expressed in terms of their horizontality, fluidity and simplicity because the landscape is relatively low key and low in scale; having several 'feature' bridges would become both visually complex and overwhelming in scale.
3. Bridges are formed as a whole from a single kit of parts, which allows the components to be repeated and a similar approach used at the multiple crossings to register as a 'family' of bridges because people will have multiple interactions day to day with the Expressway and this approach promotes simplicity and visual continuity
4. Utilise concrete prefabricated parts because this allows fine levels of quality control, cost benefits and significant improvements in construction time at the crossings and reduces disturbance to the area.



AEE PLAN- WAIKANAĒ RIVER BRIDGE - 1:500@A3



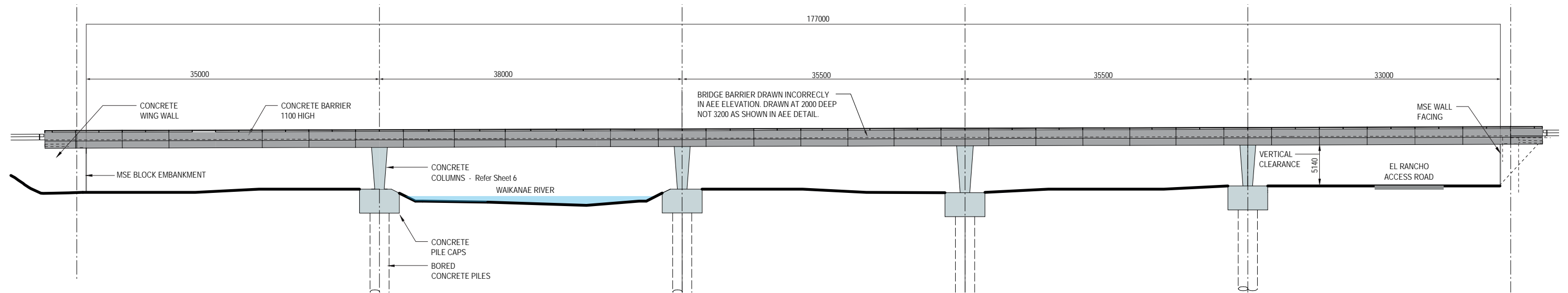
PROPOSED PLAN- WAIKANAĒ RIVER BRIDGE - 1:500@A3

Design development

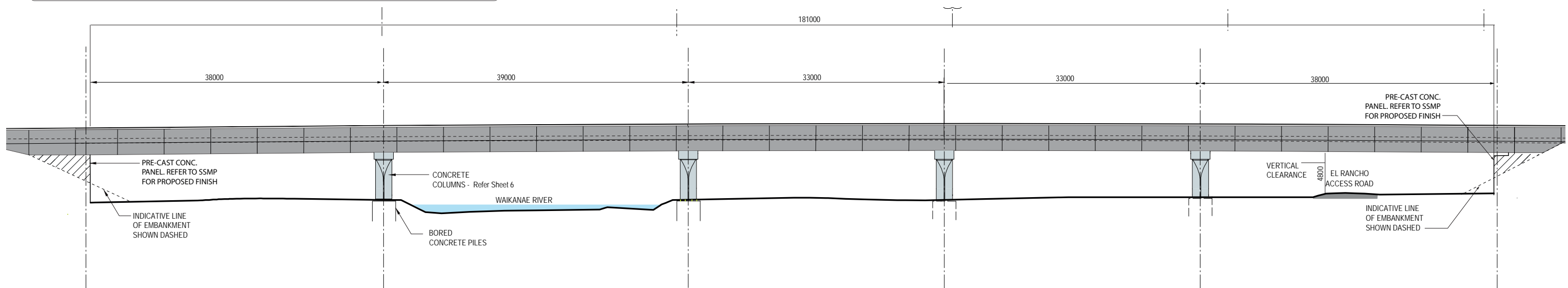
- 1. Split bridge (1m gap)
- 2. No exposed pile caps
- 3. Narrowed cycleway (3m to 2.5m)
- 4. Column profile developed
- 5. Rip rap design reflects river environment

Rationale

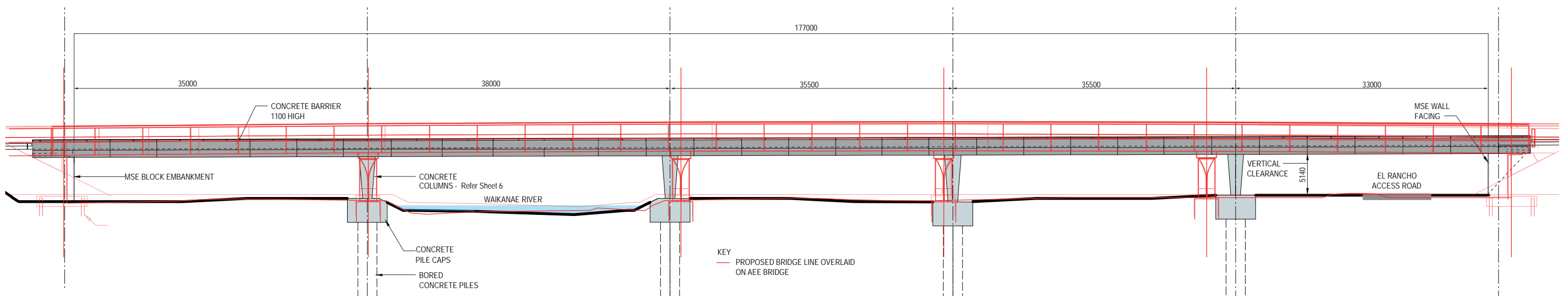
- 1. Breaks up overhead structure, reduced beam numbers
- 2. No pile caps required (two piles/col, now 1 pile/col) improves columns interface with the ground plain.
- 3. Reduced beam numbers and deck area
- 4. Flattened diamond did not work seismically, hexagon provides improved structural core
- 5. Greater integration of bridge elements with local context. Reflects river environment



1. AEE ELEVATION - WAIKANAE EAST ELEVATION - 1:500@A3



2. PROPOSED ELEVATION - WAIKANAE EAST ELEVATION - 1:500@A3



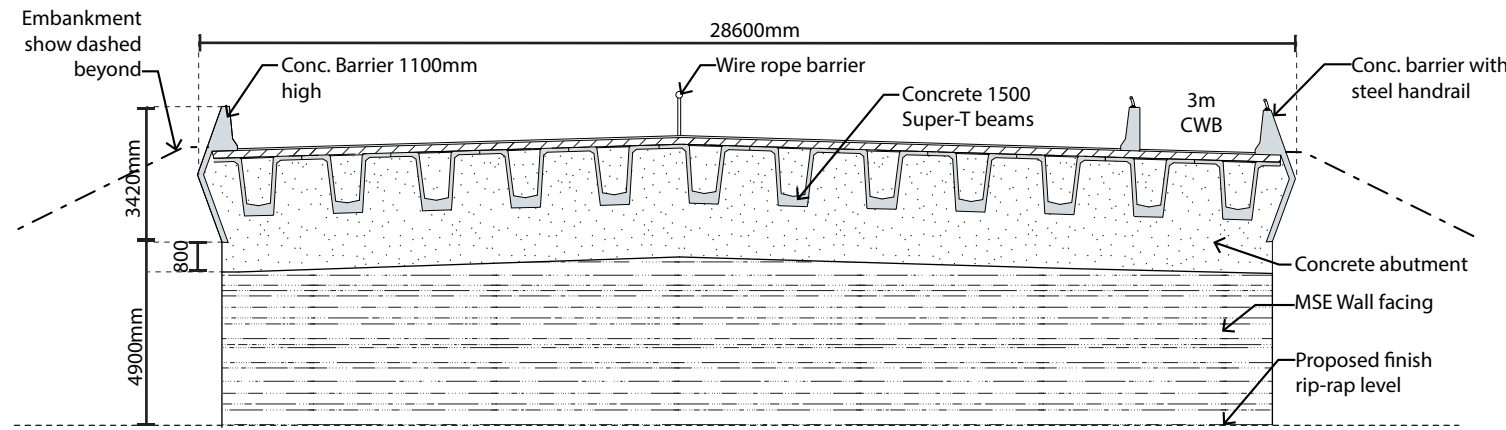
3. ELEVATION COMPARISON WAIKANAE EAST ELEVATION - 1:500@A3

Design development

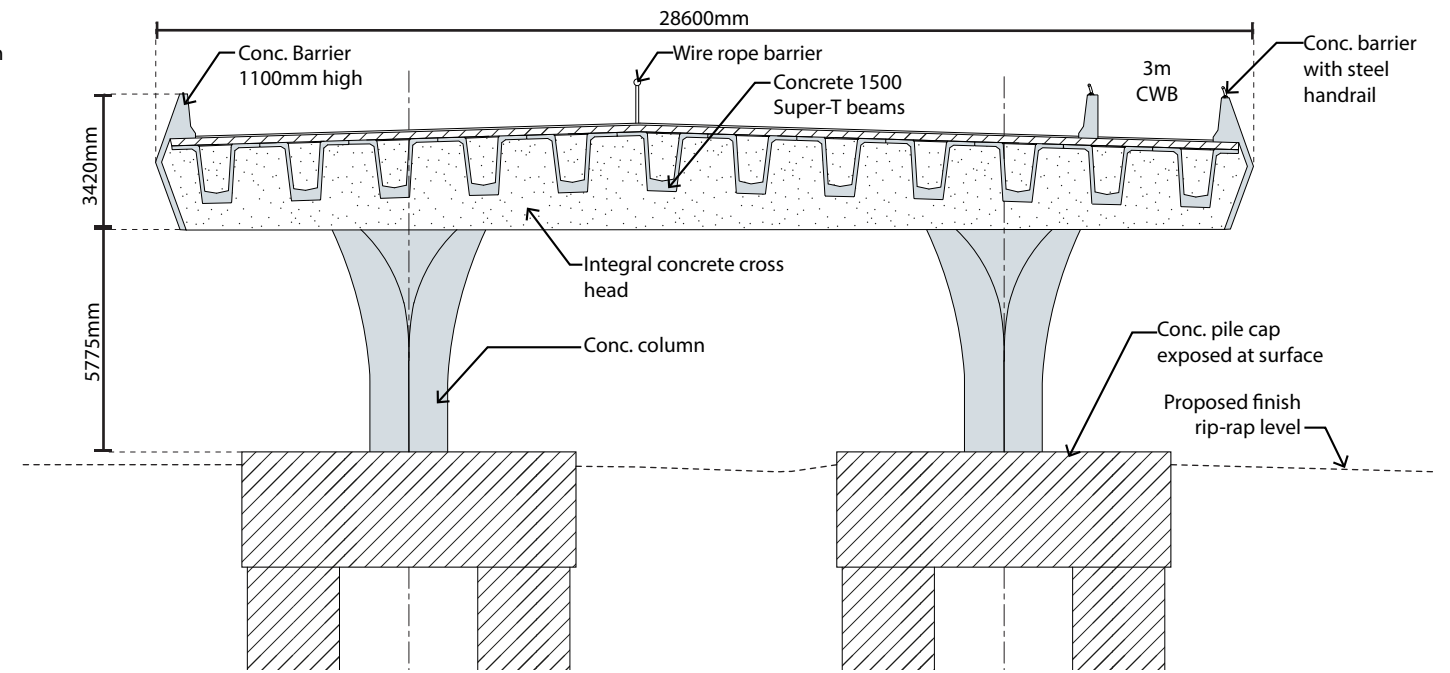
1. Pier locations adjusted
2. Bridge Barrier drawn larger
3. Bridge design changed from integral (Super structure connected to columns) to simply supported.
4. Column profile developed

Rationale

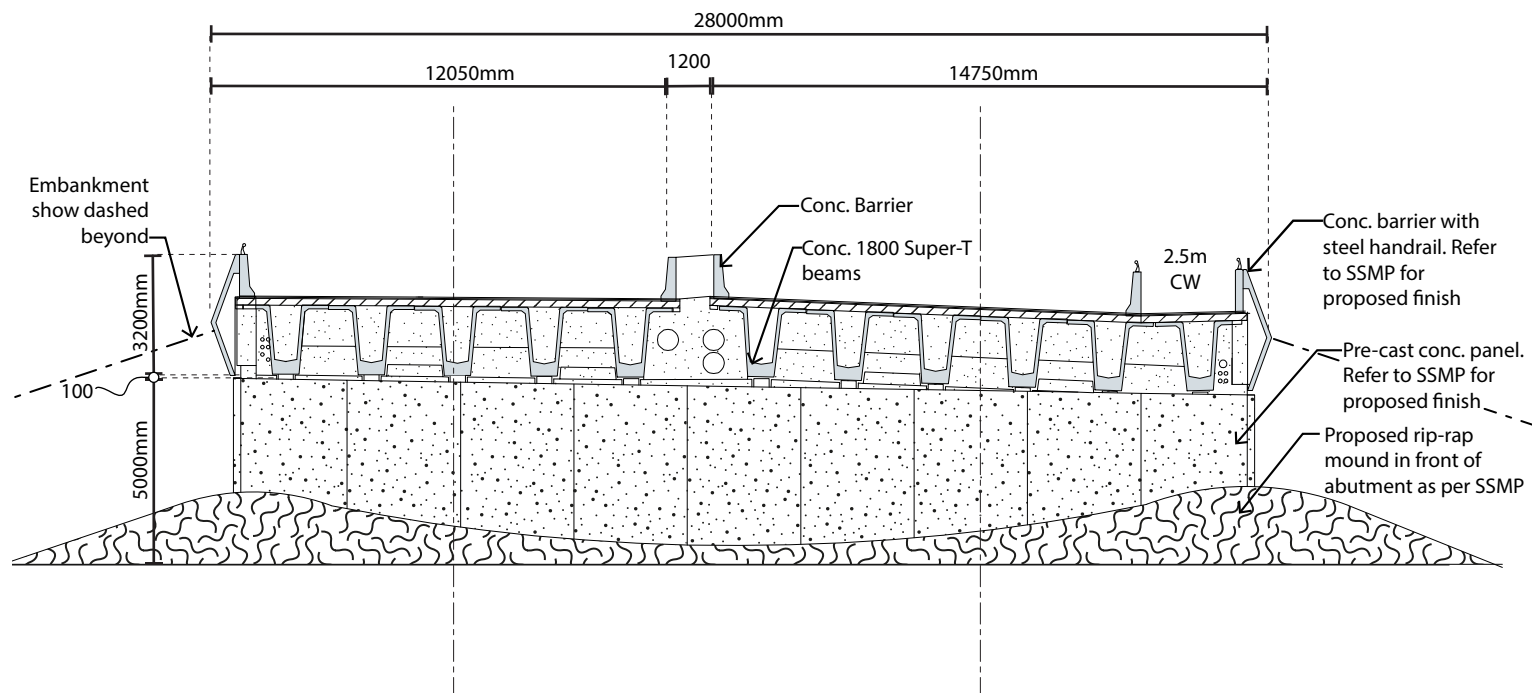
1. To tie in with revised beam design and span
2. Barrier drawn incorrectly in AEE elevation, (Actual barrier depth unchanged from AEE simulations)
3. Constructability issues because of seismic requirements.
4. Increased structural core based on geotech investigations carried out post AEE, while still providing the sculptural outer.
5. Integral connections difficult to build without increasing structural element sizes further.



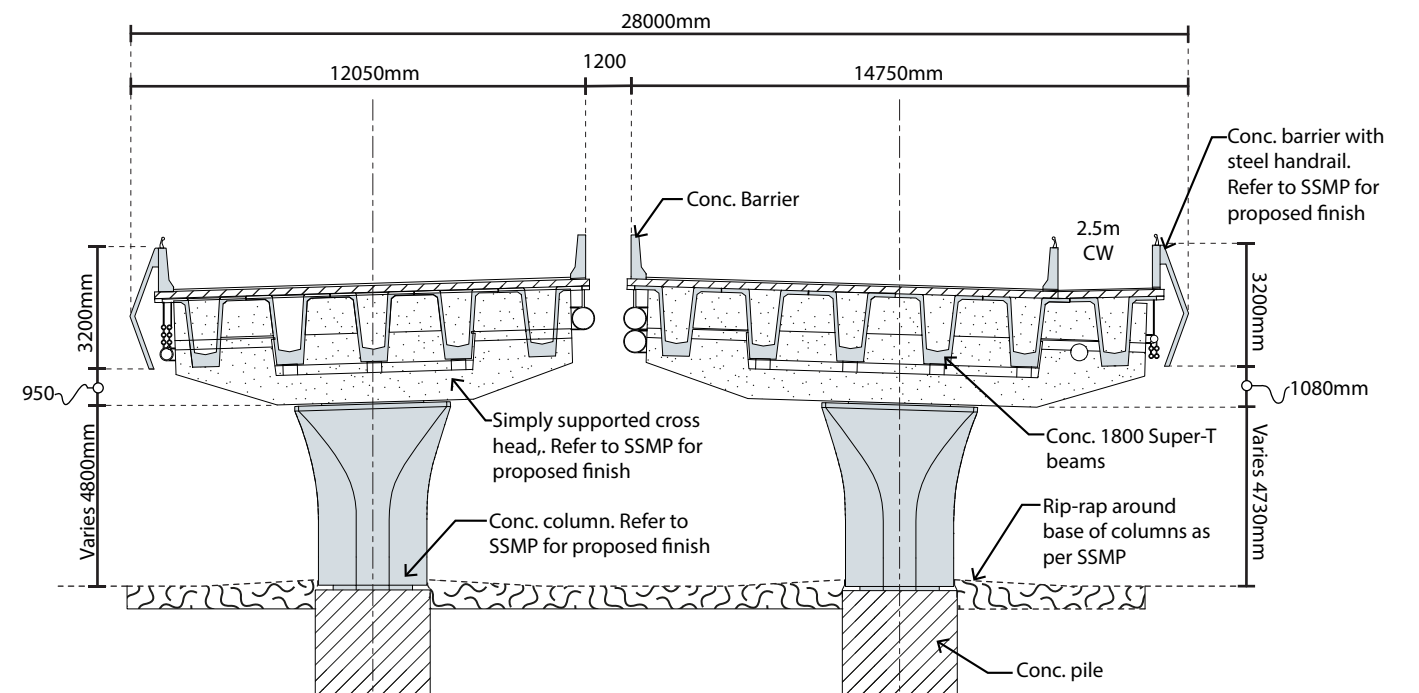
1. AEE SECTIONAL ELEVATION - WAIKANA E NORTH ABUTMENT - 1:200@A3



2. AEE CROSS SECTION - WAIKANA E RIVER BRIDGE (LOOKING NORTH) - 1:200@A3



3. PROPOSED SECTIONAL ELEVATION - WAIKANA E NORTH ABUTMENT - 1:200@A3



4. PROPOSED CROSS SECTION - WAIKANA E RIVER BRIDGE (LOOKING NORTH) - 1:200@A3

Design development

1. More detail provided for abutment treatment, Rip rap design reflects river environment
2. No exposed pile caps
3. Crosshead form now below barrier at column.

4. Column profile changed

Rationale

1. Greater integration of bridge elements with local context. Reflects river environment
2. No pile caps required (two piles/col, now 1 pile/col) improves columns interface with the ground plain.

3. Simply supported structure requires platform to seat beams
4. Increased structural core based on geotech investigations carried out post AEE, while still providing the sculptural outer.



AEE VISUALISATION - WAIKANAЕ RIVER BRIDGE (NORTH SIDE OF WAIKANAЕ RIVER LOOKING EAST)

NOTE: IN ORDER TO DEMONSTRATE BRIDGE FORM THIS VISUALISATION DOES NOT SHOW THE PROPOSED VEGETATION



PROPOSED VISUALISATION - WAIKANAЕ RIVER BRIDGE (NORTH SIDE OF WAIKANAЕ RIVER LOOKING EAST)

NOTE: IN ORDER TO DEMONSTRATE BRIDGE FORM THIS VISUALISATION DOES NOT SHOW THE PROPOSED VEGETATION



PROPOSED VISUALISATION - 10 YEARS AFTER CONSTRUCTION - WAIKANAЕ RIVER BRIDGE (NORTH SIDE OF WAIKANAЕ RIVER LOOKING EAST)

Elements	AEE Design	Current Design	Developments	Why?	ULDF Principles
<p>Column North Elevation 1:100@A3</p>			<ol style="list-style-type: none"> Overall average column height reduced Column base width increase hexagonal column rather than flattened diamond Removal of pile cap 	<ol style="list-style-type: none"> Developed crosshead design requires different clearance at top of column To provide increased structural core to the column based on geotech investigations carried out post AEE, while still providing the sculptural outer. Revised approach to pile cap based on geotech investigations carried out post AEE. 	<ol style="list-style-type: none"> Please refer to ULDF principles summary on sheet; 7 of this document. With particular reference to principle number; 1, 2, 3, 5, 8, 11 and 13
<p>Column East Elevation 1:100@A3</p>			<ol style="list-style-type: none"> Increased vertical clearance to barrier. Column base width increase hexagonal column rather than flattened diamond Removal of pile cap 	<ol style="list-style-type: none"> Designed for columns/bridge and sight distance ratio improved on bridge to conceal beams To provide increased structural core to the column based on geotech investigations carried out post AEE, while still providing the sculptural outer. Revised approach to pile cap based on geotech investigations carried out post AEE. 	<ol style="list-style-type: none"> Please refer to ULDF principles summary on sheet; 7 of this document. With particular reference to principle number 1, 2, 3, 5, 8, 11 and 13
<p>CWB & Cross Head 1:100@A3</p>			<ol style="list-style-type: none"> Simply supported rather than integral Cycleway narrowed to 2.5m from 3m Beam sizes changed from 1500mm to 1800mm 	<ol style="list-style-type: none"> Constructability issues because of seismic requirements. Integral connections difficult to build without increasing structural element sizes further. A ford crossing the Waikanae river was the preferred method for crossing the river. It was deemed undesirable to have horses on the Waikanae bridge Span lengths at river channel beyond maximum for 1500 super-T beams. 	<ol style="list-style-type: none"> Please refer to ULDF principles summary on sheet; 7 of this document. With particular reference to principle number 1, 2, 3, 4, 8 and 13

ULDF principle	Assessment of ULDF principles
1. Make the bridges generally consistent in their form so they register as a 'family' and provide some visual continuity within the local environment	Proposed bridge form remains consistent and has become even more so as there is less variation in types from that shown in AEE. Accordingly there is enhanced consistency in the local environment.
2. Express the bridges as simple forms that sit across the changes in landscape and are not seen as strong statement in their own right	Proposed bridge form remains simple and sits across the landscape as an horizontal element. The piers at Waikanae River continue, as in the AEE ,to be located beneath the bridge which as a visual device exemplifies the horizontality of the bridge.
3. Unite the bridge elements of piers/columns, cross head, deck and barrier as one sculptural form and ensure services are concealed from view	Proposed bridge continues to treat the elements of piers, cross head and deck and barrier as one sculptural form. The Waikanae Bridge at AEE had always had piers beneath the bridge. The change is with a lower cross head, but the principle on uniting these elements remains in that the cross head has been shaped to provide a visual transition from the barrier to the angled line of the cross head and then the pier below.
4. Ensure the form of the bridges from the underside is visually appealing to recognise the primacy of the local roads user's experience in design consideration	The river is not at a local road (except the access road to El Rancho). However, the principle will be satisfied provided there are no services elements or other extraneous protrusions below the deck when viewed from below.
5. Design the intersection of the piers/columns with the ground in concert with the local road interface design of abutment forms and materials (refer to local road interface design principles)	The river is not at a local road (except the access road to El Rancho). The columns have been considered in terms of not obstructing views under the El Rancho road. With the removal of the pile cap, the columns have an improved connection to the ground. The rip rap design has been revised to better reflect the Waikanae river environment and its braided river islands. Rip rap will be placed and mounded around the base of columns and abutments improving the integration of these elements.
6. Light the spaces beneath local road over bridges to enhance the quality of the space including the use of natural light penetration where the local road has a higher frequency of pedestrian cycling and other non-vehicular users	The river is not a local road (except the access road to El Rancho). However, there is some additional light penetration from the AEE design as the bridge is now split. It is not recommended to add lighting beneath the bridge for CPTED reasons. There is proposed to be lighting at the El Rancho access road location to assist visitor wayfinding and that can be turned off when not in use.
7. Use architectural lighting to emphasise the sculptural forms of the bridges and light units that are readily serviceable from the ground	As above it is not proposed to light the forms under the Waikanae River bridge
8. Utilise the opportunity provided by multiple bridges to make a system of parts that can be repeated at each location and improve efficiency of construction	Proposed bridge continues to be considered as a system of parts - this has been further refined from the AEE design such that the number of parts has been reduced for all the Expressway bridges and provides more consistency overall.
9. Use textured finishes within the bridge elements surfaces' to provide a crafted finish – avoid printed forms	The proposed finish on the Waikanae River Bridge barriers will be fair faced concrete with a white wash, applied concrete coating to ensure colour and tonal uniformity between panels. The bridge abutment will have inlaid Otaki pebbles, this moderate texture will help transition between the barrier and the riprap ground plane. The other elements – columns, cross head and deck will be simple, fair faced concrete without the applied white wash coating to help make these elements visually recessive relative to the barrier. Matt graffiti protection to be applied to all bridge elements surfaces. Refer to the SSMP for further detail on the proposed finishes.
10. Repeat the bridge design concepts within the design of pedestrians bridges recognising that these may be able to utilise lighter weight materials	Not relevant
11. Develop each bridge crossing design considering the piers/columns types best suited to the location	The proposed Waikanae River bridge has a column type that is best suited to this location, given the hydrological constraints and the requirements to minimise the number of columns in the flood plain. The requirement to minimise column numbers is also influential to the depth of the bridge deck and the width of the barrier forms
12. Locate bridge piers associated with bridge watercourse crossings away from riparian edges to prevent need to armour stream edges	The proposed Waikanae River bridge has piers that are close to the normal watercourse alignment on such that armouring of the river channel edge will be required. This is as per the AEE consent.
13. Ensure that the integrity and significance of the bridge forms as important to the amenity of the community is not accorded any less priority than the other design requirements of the project	The design of the bridge forms at Waikanae River has seen the consideration of all the contributing factors of visual amenity, CWB crossing, structural design in high seismic zone, river hydrology and Constructability



Appendix 4: LANDSCAPE SPECIFICATION
Site Specific Management Plan 007 - Waikanae River
MacKays to Peka Peka Expressway
M2PP-121-D-MPL-0007

13 February 2014

SEE SEPARATE A4 BOUND DOCUMENT.

Appendix 5: ECOLOGICAL MITIGATION TABLE
Site Specific Management Plan 007 - Waikanae River
MacKays to Peka Peka Expressway
M2PP-121-D-MPL-0007

13 February 2014

M2PP Explanation of Changes to Mitigation Requirements and Availability

These tables compare consented habitat loss and mitigation requirements, with the locations and quantum resulting from Detailed Design Table 1 and 1A compare the amount of habitat loss and its location. Table 2 and 2A compare the amount of mitigation to be provided and its location. Note that habitat loss is measured at 17 discrete sites (AEE). Mitigation is provided for in a 6 broad mitigation areas (SSEMP). The final rows identify if there is a surplus or shortfall in available mitigation sites necessary to meet the updated calculations. This worksheet will be updated as each SSEMP is developed and will guide design of subsequent SSEMPs to ensure mitigation requirements are met.

Source - AEE and EMP Calculations				
Table 1: Habitat Loss by Site / Stream	Indigenous Wetland Habitat (ha)	Indigenous Terrestrial Habitat (ha)	Stream Habitat - Freshwater (linear m)	
Raumati Manuka Wetland	0.03			
Southern Otaihanga Wetland	0.55			
Northern Otaihanga Wetland	0.53			
El Rancho Wetland	0.38			
Unnamed Sites 1 - 7	0.01	1.80		
Tuku Rakau Forest	0.30	0.25		
Ngarara Mahoe		0.86		
Otaihanga Kanuka Forest		0.17		
Raumati Road Kanuka		0.35		
Waikanae River Riparian (planted)		0.13		
Kakariki Stream Riparian (planted)		0.18		
Culverts (inc armouring)			1,119	
Diversions			1,525	
Bridges (armouring)			327	
Loss Allowed by Consent (G.42)	1.8	3.74	2,971	

As progressively updated by Detailed Design				
Table 1A: Habitat Loss by Site / Stream	Indigenous Wetland Habitat (ha)	Indigenous Terrestrial Habitat (ha)	Stream Habitat - Freshwater (linear m)	
Raumati Manuka Wetland	0.03			
Southern Otaihanga Wetland	0.86			
Northern Otaihanga Wetland	0.53			
El Rancho Wetland	0.38			
Scattered cabbage trees	0.01	1.80		
Tuku Rakau Forest	0.30	0.25		
Ngarara Mahoe		0.86		
Otaihanga Kanuka Forest		0.06		
Raumati Road Kanuka		0.35		
Waikanae River Riparian		0.22		
Kakariki Stream Riparian		0.18		
Permanent Culverts (inc armouring)			1,119	
Diversions			1,525	
Bridges (armouring)			327	
Revised Total Loss	2.11	3.72	2,971	
Difference consented and actual	0.31	-0.02	0.00	

Reference
AEE Calc
Updated by Detailed Design
AEE Calc
AEE Calc
AEE Calc
AEE Calc
AEE Calc
AEE Calc
Updated by Detailed Design
AEE Calc
Updated by Detailed Design
AEE Calc
AEE Calc
AEE Calc
AEE Calc

Table 2: Ecological Mitigation Requirements	Indigenous Wetland Habitat (ha)	Indigenous Terrestrial Habitat (ha)	Stream Habitat - Freshwater (linear m)	Stream Habitat - Riparian (ha)
Total Mitigation Required	5.4	7.6	5,240	17.7
+ Flood storage areas 2A & 3	4.1	0	1,400	5.9
Combined Total (G.42)	9.5	7.6	6,640	23.6
Raumati Manuka	2.07	1.15	330	1.14
Otaihanga Wetlands	1.14	4.34	440	1.77
Muaupoko	0	0	75	0.46
Kakariki / Smithfield	2.33	4.32	2,350	8.8
Hadfield / Paetawa	0	1.65	1,375	5.25
Drain 7	3.92	0	1,560	6.32
Total Available Mitigation Area/Length	9.46	11.46	6,130	23.74
Surplus / Shortfall	-0.04	3.86	-510	0.14
Situation	Shortfall	Surplus	Shortfall	Surplus

Table 2A: Ecological Mitigation Areas	Indigenous Wetland Habitat (ha)	Indigenous Terrestrial Habitat (ha)	Stream Habitat - Freshwater (linear m)	Stream Habitat - Riparian (ha)
Revised Mitigation Requirements	6.3	7.5	5,240	17.7
+ Flood storage areas 2A & 3	4.1	0	1,400	5.9
Combined Total (G.42)	10.4	7.5	6,640	23.6
Raumati Manuka	2.07	1.15	330	1.14
Otaihanga Wetlands	1.81	3.57	438	1.55
Muaupoko	0	0	72	0.22
Kakariki / Smithfield	2.33	4.32	2,350	8.8
Hadfield / Paetawa	0	1.65	1,375	5.25
Drain 7	3.92	0	1,560	6.32
Total Available Mitigation Area/Length	10.13	10.69	6125.20	23.28
Surplus / Shortfall	-0.30	3.18	-514.8	-0.32
Revised Situation	Shortfall	Surplus	Shortfall	Shortfall

Recalculated
Updated total
EMP calc
Updated by Detailed Design
Updated by Detailed Design
EMP calc
EMP calc
EMP calc