



HUTT RIVER CITY CENTRE UPGRADE PROJECT

INTEGRATED CONCEPT DESIGN

DRAFT WORK PLAN OUTLINE - FOR DISCUSSION WORKSHOP 19 JANUARY 2016

The following notes set out a work plan outline to assist the Working Group (WG) to develop the preferred Concept Design for the Hutt River City Centre Upgrade Project. The preferred concept has been determined through an options identification, options evaluation and consultation process during 2014. The preferred concept is known as Option A.

The purpose of the next stage of the design process is to advance the preliminary concept to a level of concept design that enables:

1. Confirmation of the elements of the concept so they form an integrated plan (eg linear park, ped/cycle bridge, promenade etc) including tie in to Melling Bridge/interchange
2. Definition as to extent of properties to be acquired and any land that can be repurposed
3. A basis for phasing of construction/timing of implementation
4. Costings for the purpose of decisions around cost sharing between the parties (GWRC, HCC, NZTA)
5. Decisions by Councils (and NZTA depending on the process that unfold in 2016) to proceed – eg consents and beyond
6. A basis for proceeding to RMA approvals process in next phase (ie enough base information to allow for assessments (AEE) to be produced by experts during 2017) – separate workshop with planners to be arranged.

A consultation and communication strategy will be prepared for the consultation to be undertaken throughout this concept design process – will address how interaction occurs with affected parties/businesses, iwi, stakeholders, as well as how communications are to be undertaken (eg regular newsletters, media relations, web updates etc) and how the Councils/NZTA will continue to work together.

The broad time frame is to have 1-4 completed 2016. The decisions of Council may run into 2017 due to local council elections end of 2016. A draft time frame is set out as attached. The RMA process is expected to commence in 2017. It is understood that NZTA will shortly commission work for developing

the Business Case for Melling Bridge/Interchange. GWRC has also commissioned a review of the Environmental Strategy for the HRFMP. These two processes will interface closely with the Concept Design process.

Draft Scope

The preferred option is known and the elements to be included (eg ped/cycle bridge, promenade etc) are at a preliminary concept level. The scope of work to be addressed in developing the integrated concept design to meet the purpose set out above includes the draft matters listed below. These include the matters raised in consultation feedback and from hearing. There are obvious relationships between elements. The table below sets out the broad tasks to be addressed in the concept design process. These have been organised into headings (in red) that can hopefully shape into briefs for work packages. These are for discussion. It is anticipated that the design process will include consultation with owners and occupiers in regarding to specific design issues.

Design Matters to Consider	
Element	
DESIGN OBJECTIVES (as agreed by HVFMS 2015) – some of these are repeated	
<ul style="list-style-type: none"> Identify and provide for the modifications to the wider transport network as required to accommodate Linking and Development objectives. Improve the functioning, 	
Hierarchy	Confirm the network hierarchy – ring road concept and interrelationship of Queen, High, and Dudley/Daly Streets including modelling of these streets. Needs to consider potential for south end of Daly Street to change too (ie no traffic through) in future if desire to extend promenade. HCC has budget to develop an eastern ring road route and modelling needs to consider the way this might influence traffic movements if/when its implemented.
Local roads	Changes to Daly/Dudley including cross section, on-street parking, intersection controls, footpath paths, cycle lanes, access (and staging of access as construction occurs) to existing service lanes, access to parking under new buildings
	Changes to Marsden Street/Pharazyn Streets including cross section, on street parking,

<p>safety and accessibility of the intersection between SH2 and local road network and off road paths including residential areas on the hills.</p> <ul style="list-style-type: none"> Understand and recognise the need for car parking in strategic locations, including for recreational, commuter and shopper use. Improve the walking, cycling and other active mode linkages to and along the river corridor from the city centre, public transport nodes, and wider Hutt Valley urban area. 	<p>intersection controls, footpaths, cycle lanes, kerb crossing accesses to properties. Influenced also by land uses which might occur on Pharazyn Street side.</p>
<p>State Highway Links</p>	<p>Will be better understood once Melling interchange design is confirmed. Includes bridge connection and roundabout at Melling link. Levels and connection of Block road to address flooding (closely linked to Melling Bridge/Interchange)</p>
<p>Stop bank links</p>	<p>Carefully placed ramps/steps hierarchies and places to be determined as well as changes to the existing streets (Margaret Street and Andrews Ave) – parking, green/hard space, cycles etc. Consultation will be required.</p>
<p>PT links</p>	<p>Bus network (stops and interchange), rail station and parking (closely linked to Melling Bridge/Interchange). Timetabling???</p>
<p>Ped/cycle Bridge</p>	<p>Positioning and network connection points – tie into rail and stopbank heights and local streets (e.g. Block Road/Margaret Street), Can it hop across SH2 ?</p>
<p>Cycling</p>	<p>On road provision (lanes?) and within corridor hierarchies – commuters, sports, casual</p>
<p>Car Parking</p>	<p>Alternatives to river berms/extent of river berm use, access points, Harvey Norman, existing uses such as church on west side, west side surplus land for parking uses?</p>
<p>Linkages to river for recreation</p>	<p>Ramps for boating/kayaking access.</p>
<p>Access for maintenance purposes</p>	<p>Vehicle access for council</p>

RIVER ENGINEERING

<ul style="list-style-type: none"> • Improve the Hutt Valley's resilience to flood hazard by a river channel, structures clearance, and corridor design that provides for a 2800m³/s flood flow. 	<p>Specific design responses for interfaces with existing land uses – eg Harvey Norman</p> <p>Confirm channel alignment – stopbanks heights/position, x sections, armouring and channel edge treatments (rip rap/planting – exotic/native mix to be considered), bed profiles including environmental design, pools, riffles, and swimming holes.</p>
<ul style="list-style-type: none"> • Improve the Hutt Valley's resilience to flood hazard by managing development and infrastructure elements within the corridor (e.g. SH2 and any widening of it, stormwater and other pipe networks, or integrated building edges in the town centre) that can reduce the effective floodway, or affect 	<p>Park concept and character – urban/natural and experience – what are the shapes that work for river and its flood effects</p>
	<p>Outcomes for ecology/cross valley movements for birds etc and potential for educational/awareness outcomes</p>
	<p>Implementation time lines, construction material requirements and haul routes – tied with civils. Storage/stock piling of materials. Temporary access maintained for pedestrians during construction. Signs and information/interpretation boards to explain the project.</p>

stopbank integrity.

- Plan for future increases in floodplain resilience by considering now the future options (such as the broadening of the corridor and increasing the height of the new stopbanks) to ensure that these are not precluded by the currently planned upgrades.
- Improve the river channel edge protection so as to minimise the risk of failure of flood defences from erosion during a flood.

CIVILS/STRUCTURES

<ul style="list-style-type: none"> Facilitate development opportunities for sites that front to the river corridor in the city centre. 	<p>Daly Street</p>	<p>Structures to facilitate new buildings on Daly Street – stopbank retaining, design requirements for ‘lid’ over service lane and junction with new building edge</p>
<ul style="list-style-type: none"> Create a direct frontage between river front sites in the city centre and a new river promenade. 		<p>Transitional design for where new buildings not being built and can come later – how does the stopbank edge and top work?</p>
<ul style="list-style-type: none"> Recognise and provide for the viability and amenity of public and private properties adjacent to or adjoining the river corridor and stopbanks. 	<p>Stop bank links structures</p>	<p>Access to parking under new buildings/servicing – each with its own? Relationship to existing service lane</p> <p>Based on locational needs what is the structural form of connections – ramps/bridges/steps – and tie into streets and stopbank levels – architectural design of structures as a ‘family’ of elements</p>
	<p>Ped/Cycle Bridge</p>	<p>Bridge structural design - design for 1:440 flood, location, structure and type, (e.g. steel/concrete, spans, cable stay etc.), accessibility/gradients, architectural form (potentially visually related to Melling Bridge/Interchange), seismic design.</p>
		<p>Potential for extension of bridge over SH2 to connect to western hills (staging?)?</p>
	<p>Stopbank form/shape</p>	<p>Shape of stopbanks and other structures need to address constraints in space - (e.g. around the Marsden Street area or the city centre) to give requisite flood protection and also the linear park outcomes sought – e.g. benching, steps, undulations etc.</p>
	<p>Services</p>	<p>Engineering design for services through stopbank and use of berms for storm water quality management, trunk sewer, power lines. Services will need to be assessed to know whether to retain, upgrade or remove including existing streets that are to change. Potential for seismic sensory equipment to be contained in the stopbank. Also, a need to future proof the CBD storm water system - potential for storm water to be treated in the river corridor to increase capacity?</p>

	Rail Station	Platform, facilities etc.?
URBAN AND LANDSCAPE DESIGN		
<ul style="list-style-type: none"> Generate spaces and places along the river corridor that reflect Hutt River Environmental Strategy (Linear Park) and Making Places initiatives that that are reflective of user's needs, cultural and landscape values. Improve the ecological performance and biodiversity of the river corridor in respect of storm water management, riparian and terrestrial habitat values recognising the needs for flood protection works. 	<p>Linear River Park</p>	<p>Recreational uses/other uses considered in context of whole corridor and adjacent other open spaces in the city (ref Environmental Strategy review)</p> <p>Park concept and character – urban/natural and experience</p> <p>Vegetation types – transition from exotic to native – placement to give shape to spaces, relationship to flood levels and water velocities</p> <p>Pathways and hierarchy – faster movements/commuting v slower less direct – surface types and widths</p> <p>CPTED</p> <p>Car parking – areas and treatment with higher order of amenity than currently?</p> <p>Ground levels/shaping (and vegetation placement) to provide spaces/scale and</p> <p>Habitat – aquatic and terrestrial - corridor and linkages for animal/bird movement - other biota like butterflies</p> <p>East-West links across the river corridor for pedestrians, cyclists, and ecological links.</p> <p>Furniture – lighting/signage/seats, toilets etc – identity/relationship to city and river corridor – unique or generic</p> <p>Formal/informal event spaces, Saturday market</p>

<ul style="list-style-type: none"> Engage with iwi with mana whenua of the river in regard to cultural values and those values' representation in the project outcomes. Facilitate development opportunities for sites that front to the river corridor in the city centre. Create a direct frontage between river front sites in the city centre and a new river promenade. Recognise and provide for the viability and amenity of public and private 	<p>Heritage – recognition of heritage of the river: Maori history, Colonial history, Pharazyn/Marsden Street community who have strong connection to the area.</p> <p>Storm water management – from wider local catchment as well as in corridor surfaces/roads/paths</p> <p>Promenade – widths, surface treatment, length, furniture, edge to adjacent new buildings (see Daly Street below)</p> <p>Access to river edge/form of access and investment - treatment of boundaries to private property</p> <p>Maintenance and responsibilities – HCC/GWRC. Long-term extraction of gravel to maintain river bed levels. Level of investment made in the river corridor in terms of infrastructure which may be damaged or destroyed in the event of a large flood.</p> <p>Process of engagement with community and iwi over design</p> <p>Extent of Purchase and surplus land areas treatment – how much is linear park and how much is surplus /could be used for other things now or later?</p> <p>Sustainability</p> <p>Rail Station</p> <p>Melling Bridge</p>
	<p>What level of reuse of existing material, repurposing houses and removal intact or recycling, is there an interest in developing KPI for energy use during construction, etc – sustainability plan can embody outcomes sought</p> <p>Can it be shifted a bit south – how far? Can it be extended north to Belmont (in future), what can be grouped at station to make a functional transport hub? Can it ever be more than a basic hub (can residential development/commercial development occur given constraints (eg seismic)</p> <p>Coordinated interchange design with other elements (eg rail station, peds. crossing SH2,</p>

properties adjacent to or adjoining the river corridor and stopbanks.	and Interchange	gateway concept)
	Ped/Cycle Bridge	Positioning to optimise connectivity and accessibility, architectural form
	Stop bank links structures	Based on locational needs what is the structural form of connections – ramps/bridges/steps – and tie into streets and stopbank levels – architectural design of structures as a ‘family’ of elements
	Marsden Street/Pharazyn Streets	Changes to Marsden Street/Pharazyn Streets including cross section, on street parking, intersection controls, footpaths, cycle lanes, kerb crossing accesses to properties

<ul style="list-style-type: none"> Recognise that any design options developed will require consideration relative to existing statutes, strategies and plans. 	PLANNING AND LEGAL	
	Consenting	Strategy for consents/designation – what is process going to be – dealing with other approvals like road stopping
	Policy	Zoning changes and interfaces with existing zone types – e.g. River Recreation Zone – thinking about risk of flooding/higher level of awareness about protection for future.
	Land use for ‘surplus’ land	What happens to land areas on west side – Pharazyn/Marsden Street - are current zones appropriate? Can alternative zones work given constraints – e.g. seismic
	Design Quality	Managing design of private development that interfaces with river – e.g. promenade and ground floor uses, overlooking etc.
	AEE components	What are the subject areas for AEE going to be and involvement of these specialists in the design process (workshop to come on this with planners)

PROPERTY	
Strategy	Strategy for property acquisition (jigsaw doing) – including total property needs - whats for Making Places, roading/interchange, flood management.
Adjoining development	Guiding adjacent developments and opportunities – eg Daly Street - what to design for. Taking advantage of opportunities/nominating development sites?
Approvals	Re road stopping/purchase/sale of public land/leases for temporary uses of ‘surplus’ areas

IMPLEMENTATION	
<ul style="list-style-type: none"> • Enable a staged implementation process such that developments can occur over time as practicable. • Ensure the design outcome is affordable in terms of its ability to be implemented 	<p>Estimates for implementation</p> <p>Continuous process of review of costs by QS to guide design decisions. Construction timeframe package.</p> <p>Benefits</p> <p>Capturing the benefits to demonstrate the value of project including social benefits?</p> <p>Funding Strategies</p> <p>Opportunities for capturing some of costs in returns from private investments</p> <p>Timing</p> <p>Timing the implementation to coincide with completion of other projects in the region, such as TG in order to maximise availability of labour, materials etc. Potential for some aspects of the project to commence sooner than others / separately to the main consent i.e. work to be formed into discrete packages</p> <p>Project Management</p> <p>Overall project management and best delivery model for implementation (eg Councils/NZTA individually or set up a delivery agency etc)</p>

and maintained.

- Engage with communities of interest and seek their feedback as to the design options and costs of implementation.