



REIMAGINING MOONEE PONDS CREEK STAGE 2

CONCEPT DESIGN

PREPARED BY SPIIRE 09/06/2026 REV E



“

We acknowledge the Wurundjeri Woi-wurrung people of the Kulin nation and pay respects to elders past and present. Wurundjeri community have cared for our waterways for thousands of generations and we now share this responsibility together.

”



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PROJECT VISION

01.01 PROJECT VISION

The Reimagining Your Creek program is a Melbourne Water led program designed to restore previously engineered drainage assets to more natural systems with a focus on improving liveability through environmental and amenity outcomes for communities, and waterway health. As part of this program, Melbourne Water is delivering Stage 2 of Reimagining Moonee Ponds Creek following the successful delivery of Stage 1.

Evidence has demonstrated a positive relationship between providing access to green and blue open space and the physical health and well-being of communities. Stage 1 of the Moonee Ponds Creek naturalisation project converted approximately 360m of concrete channel into a naturalised creek and has changed the way the community values the creek.

Stage 2 will deliver the next section of creek naturalisation, continuing from Stage 1 downstream to just before Pascoe Vale Road. Melbourne Water is leading the delivery of Stage 2 on behalf of the Chain of Ponds Collaboration Group and in partnership with Merri-bek City Council, Moonee Valley City Council, Department of Energy, Environment and Climate Action (DEECA) and Wurundjeri Woi-Wurrung Cultural Heritage Aboriginal Corporation, and is the centrepiece of the Chain of Ponds Program.

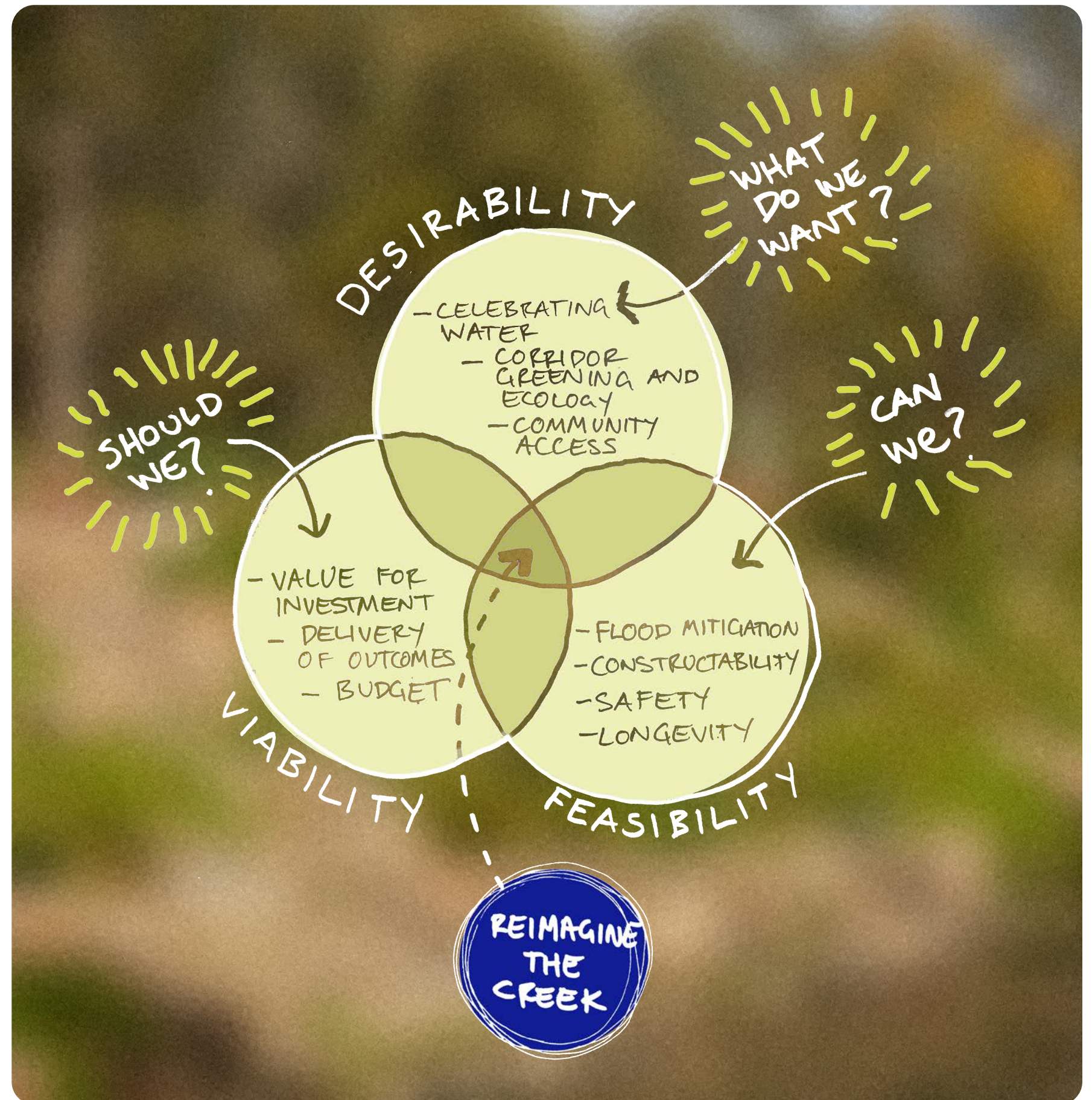
This second stage of the project is jointly funded by the Australian Government's Urban Rivers and Catchments Program and Melbourne Water.

01.02 THE OBJECTIVES

- Improve the ecological function and water quality of the creek
- Introduce a greater diversity of native plant species, primarily for landscape design, urban cooling and amenity purposes at the site through landscaping and the redesign and construction of the waterway
- Improve long term sustainability of the waterway
- Maintain hydraulic function and manage flood risk
- Increase community interaction with the creek and surrounding open space, creating opportunities for passive recreation and connection to place
- Increase community enjoyment of the waterway.

“IT IS STUNNING. IT IS REALLY PEACEFUL DOWN THERE WITH THE NATURAL LANDSCAPE, WATER AND THE ADDITIONAL WILDLIFE THAT THE SPACE NOW INVITES. IT PROVIDES A NICE ANTIDOTE TO THE URBAN AREAS WE ALL LIVE IN.”

(QUOTE FROM STAGE 1 COMMUNITY FEEDBACK SURVEY 2025)



OVERALL OPPORTUNITIES / CONSTRAINTS MAPPING



02 LEGEND

- 1 Start of Stage 2 project area
- 2 Existing concrete drop structures within the channel to be removed
- 3 Opportunity to tell the story of the original creek alignment through interpretation or wayfinding signage
- 4 Existing bridge to be maintained
- 5 Project area next to Lebanon Reserve is highly constrained. Moonee Ponds Creek Trail requires widening and a barrier fence to be installed
- 6 Enhance community access to the creek by upgrading the staircase and path crossing over the drain
- 7 Views to be enhanced along the creek at strategic locations
- 8 Opportunities to enhance the use of the road reserve to strengthen physical and visual connections to the creek
- 9 Opportunities to plant vegetation for privacy screening along residential property boundaries and improve fencing treatments. Existing private access gates to be considered
- 10 Potential new pedestrian access
- 11 Large eucalyptus trees along Lebanon Reserve are a priority to protect
- 12 Keep access for maintenance at Bass Street
- 13 Keep access for maintenance at Mascoma Street
- 14 End of Stage 2 concrete removal to terminate at maintenance access track at Pascoe Vale Road to maintain functionality of access.

- ACCESS Access
- I Opportunity for Cultural Immersion Trail elements
- Connection node (with seating and access)
- Long range view along waterway
- |||| Upgraded staircase access to creek
- Vegetation to provide privacy screening
- <<< Maintenance access

***Note:** In order to mitigate potential flooding impacts from the project, some tree and vegetation loss is unavoidable due to the significant earthworks that are required. Decisions on which priority trees and vegetation are to be kept will be informed by council, based on the overall benefits of the project.

DESIGN APPROACH

03.01 NATURALISATION

Reimagining Moonee Ponds Creek will transform the concrete channel into a more natural form. Continuing on from the works completed in Stage 1, this will involve replacing the concrete with rockwork and planting.

Because water flows more slowly over these natural materials than concrete, restoring the creek to a more natural form requires more room in the creek channel.

The project team conducted technical analysis and modelling to determine which solutions can achieve this. The analysis found that managing water movement along the creek requires more capacity along the whole length of the project.

Alternative options such as widening the creek channel in specific locations, such as Herbert Reserve, were considered. However this would only provide benefits in the immediate location, not contributing to an overall solution.

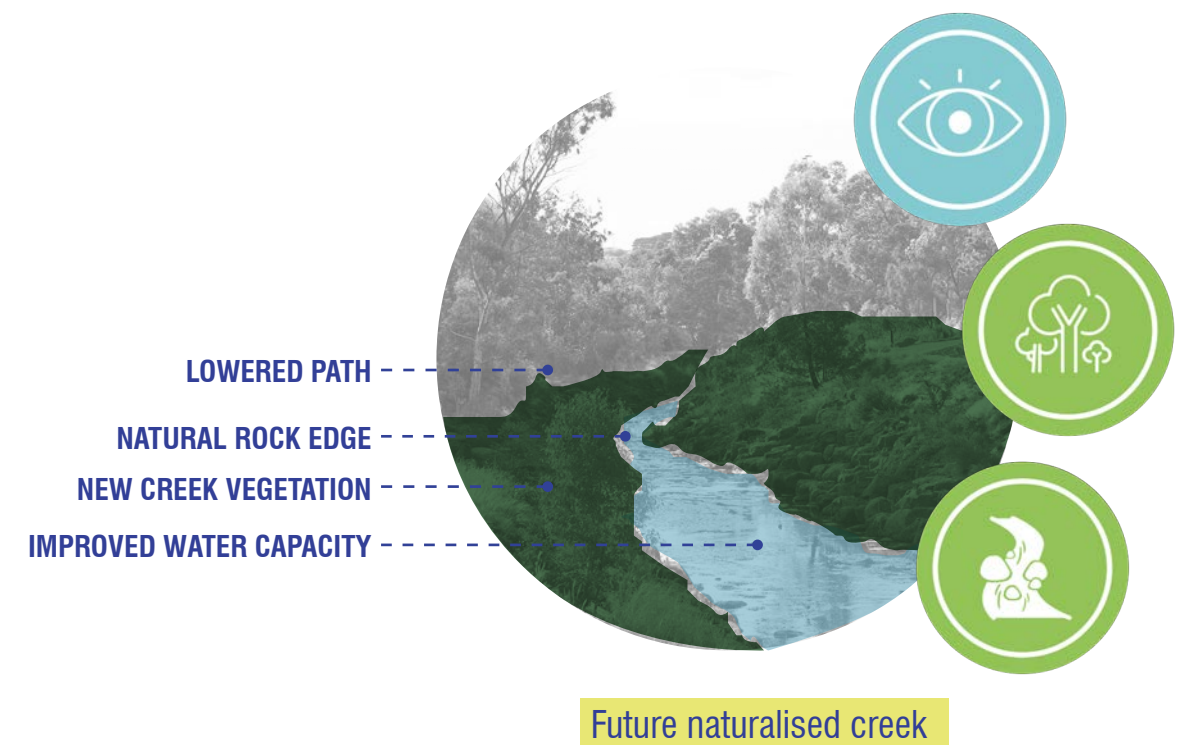
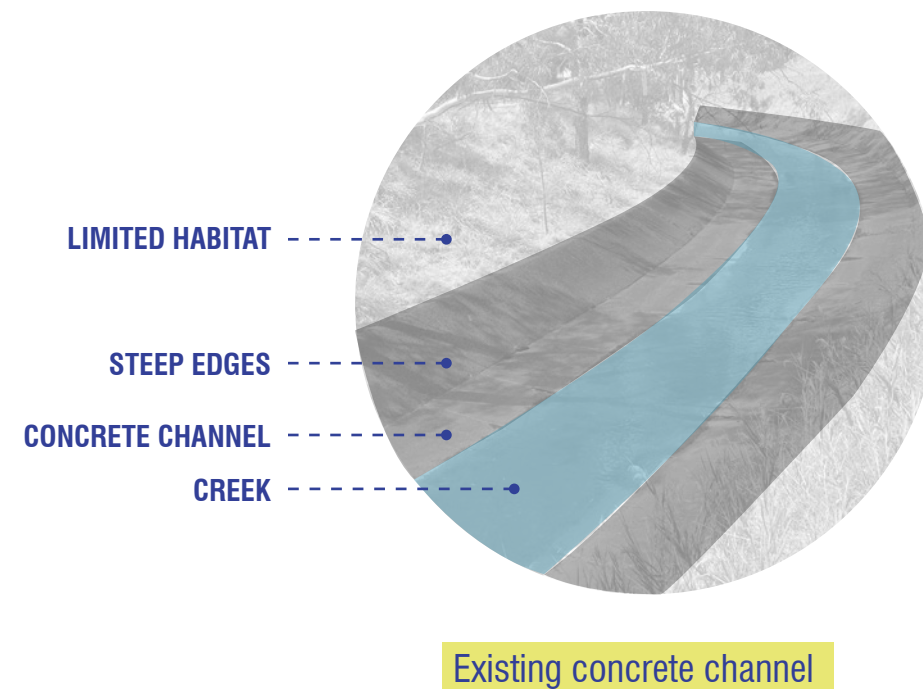
With limited land available next to the creek in Stage 2, the solution to make more room for water during a large rain event involves lowering the paths along the creek. An example of this is shown in the cross section on page 12.

Some of the key considerations for the design have been as follows:

- Ensure proposed batters within project scope are no steeper than existing batters
- Minimise retaining walls where possible
- Limit any retaining wall heights to ≤ 0.9 m where practicable to avoid barrier fence requirements
- Minimise earthworks near private properties.



Indicative location of earthworks & path lowering



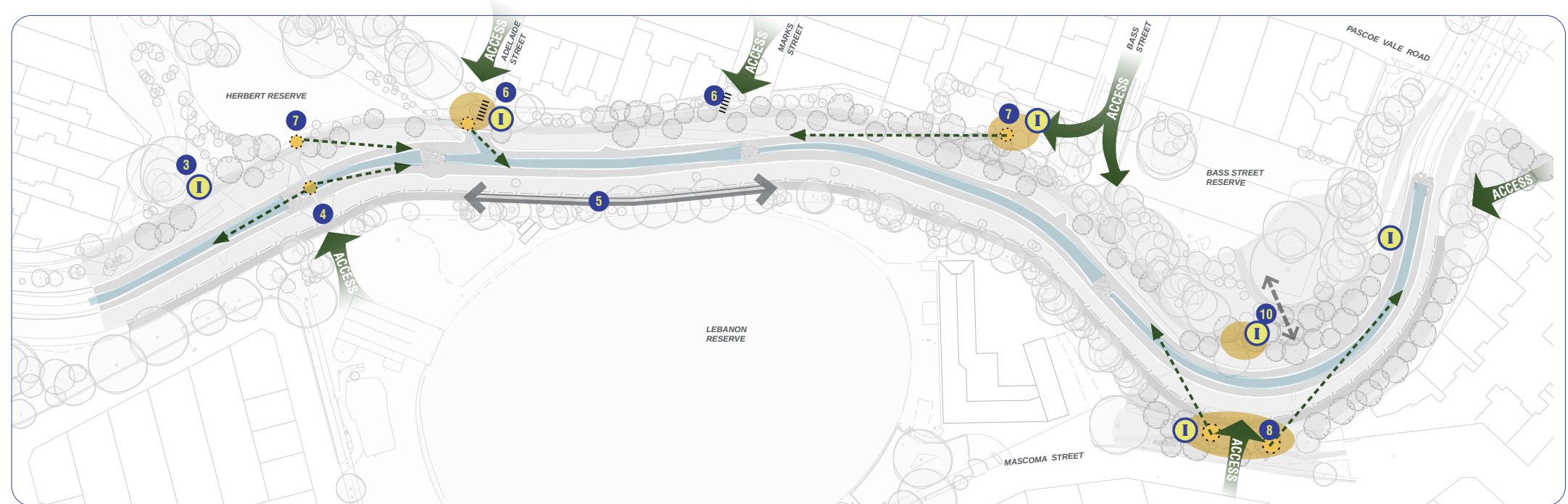
DESIGN APPROACH

03.02 IMPROVING COMMUNITY CONNECTION

In returning the creek to a more natural form, this project also aims to increase ways the community can enjoy and connect to this important feature of our neighbourhood.

In Stage 2, key opportunities include:

- Improving access to the creek corridor via paths / steps from surrounding streets including Adelaide Street, Marks Street and Bass Street
- Creating strong views and improving visual connections to the creek
- Placing large rocks for water to cascade over where it drops in level at the Herbert Street Bridge, will create a sound experience for visitors to hear the creek below
- Installing seats at key viewing locations and along paths for people to stop and rest.



- 4 Existing bridge to be maintained
- 5 Project area next to Lebanon Reserve is highly constrained. Moonee Ponds Creek Trail requires widening and a barrier fence to be installed
- 6 Enhance community access to the creek by upgrading the staircase and path crossing over the drain
- 7 Views to be enhanced along the creek at strategic locations
- 8 Opportunities to enhance the use of the road reserve to strengthen physical and visual connections to the creek
- 10 Potential new pedestrian access

- ACCESS Access
- I Opportunity for Cultural Immersion Trail elements
- Connection node (with seating and access)
- Long range view along waterway
- Upgraded staircase access to creek



DESIGN APPROACH

03.03 CELEBRATING CULTURAL VALUES

Waterways are important cultural landscapes and a way for communities to connect to water and learn about cultural values.

The creek works provide a chance to extend the Wilami Wunmabil Trail, which was implemented in Stage 1, giving community members a connection to the creek through Wurundjeri cultural knowledge.

We will identify opportunities to continue the trail along Stage 2 and work with Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation (WWCHAC) to continue celebrating and sharing cultural stories and values along the creek.

Ideal opportunities for this will be where there are rest nodes and visual connections to the creek. Melbourne Water will work with WWCHAC to develop the next steps for this aspect of the project and be guided by Elder input.



- 1 Opportunity to tell the story of the original creek alignment through interpretation or wayfinding signage
- I Opportunity for Cultural Immersion Trail elements
- Connection node (with seating and access)

Continue cultural trail & interpretation opportunities



Rest & gathering nodes

Existing cultural trail



DESIGN APPROACH

03.04 CREEK VEGETATION

Vegetation is a really important part of returning Moonee Ponds Creek to a more natural form.

The project creates an opportunity for thousands of native plants to be planted along the creek. This will include trees, shrubs, grasses and in-stream reeds to improve the waterway’s biodiversity.

This planting will build on the work already completed in Stage 1, with a planting list developed in collaboration with Melbourne Water, Council’s biodiversity officers and the Wurundjeri Narrap Unit.

Lowering the paths will involve some short-term impacts on native vegetation, due to significant earthworks required as part of the naturalisation. Some vegetation planted in the past 15 years needs to be removed to enable the works to occur, but this will be kept to a minimum. Where possible, trunks and branches removed will be re-used on site as mulch and habitat.



DESIGN APPROACH

03.05 MOONEE PONDS CREEK TRAIL

A section of the Moonee Ponds Creek Trail sits within the Stage 2 project area. The path is in a dilapidated condition and runs very close to the creek edge where the ground falls away steeply, leaving little or no recovery space if a user unintentionally leaves the path.

The project design team explored alternative path alignments to try to avoid the need for fencing. However, these options were not feasible for this section of the trail due to site constraints, including:

- Steep terrain and topography
- Impacts to the Lebanon Reserve oval
- Potential loss of large native trees
- Limited width of the open space corridor
- Width of the adjacent road network

To comply with current design guidelines and standards (including Guide to Road Design Part 6A: Paths for Walking and Cycling and Road Design Note 06-14 - Pedestrian Fencing) within the Stage 2 project area, the path must be widened and a full barrier fence is required where the shared path is within five metres of a very steep slope (1 in 1 or steeper) to keep people safe. This is because there is a potential risk that path users may lose control, misjudge speed, or inadvertently run off the path, resulting in a fall down the steep banks and into the creek, with an increased likelihood of serious injury. For these reasons, fencing is needed as part of the upgrade to this section of the Moonee Ponds Creek Trail.

The new path will be made of concrete with line-markings, similar to the path in Stage 1. Because there is a steep embankment next to the path, a permanent full barrier fence is needed along the entire length of the path in Stage 2 for community safety. The fence will be similar to the one constructed in Stage 1, and based on Moonee Valley City Council's current standards for Shared Use Paths.

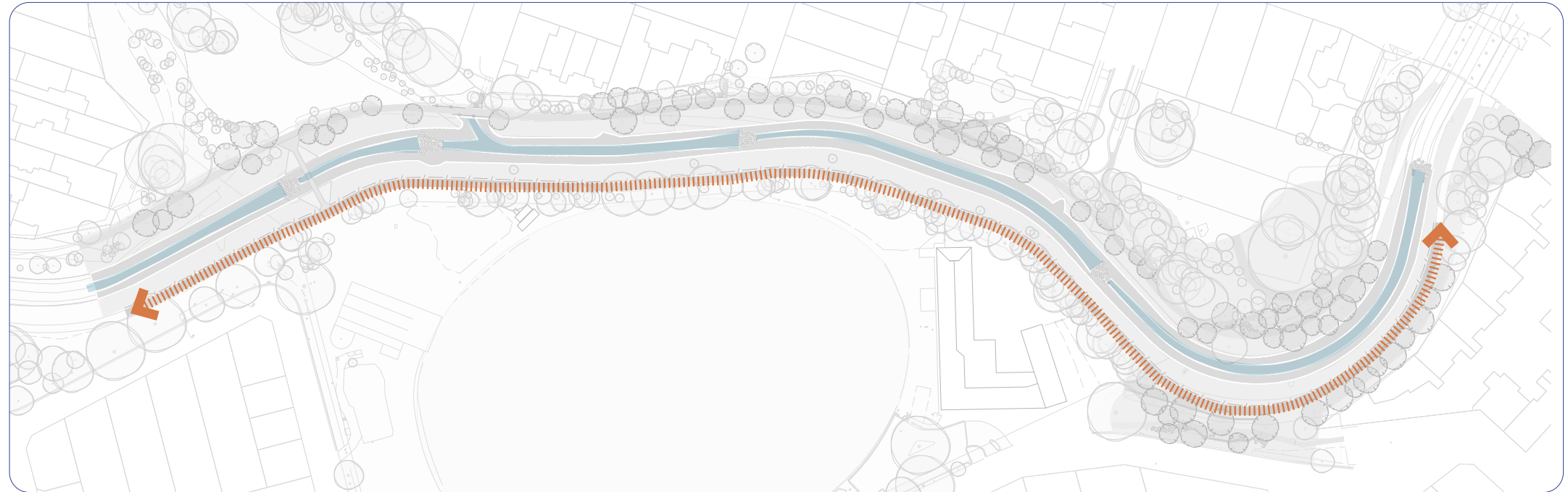
The design features maximum spacing between the vertical slats to optimise visibility and views of the creek while still complying with safety standards. Where possible, revegetation will be used to soften the visual impact of the fence while maintaining the important visual connection to the creek.

More information on design and safety standards can be found here:

Austrroads '[Guide to Road Design Part 6A: Paths for Walking and Cycling](#)'.

[Road Design Note 06-14 - Pedestrian Fencing](#)

Moonee Valley City Council's Standard Fence detail can be found here under detail for MV44: <https://mvcc.vic.gov.au/work/my-development/standard-drawings/>



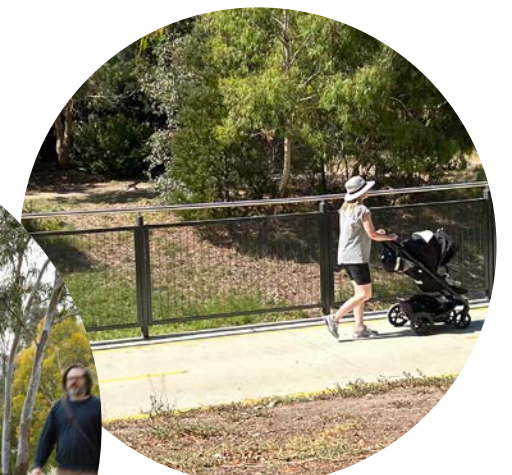
Moonee Ponds Creek Trail



Existing conditions



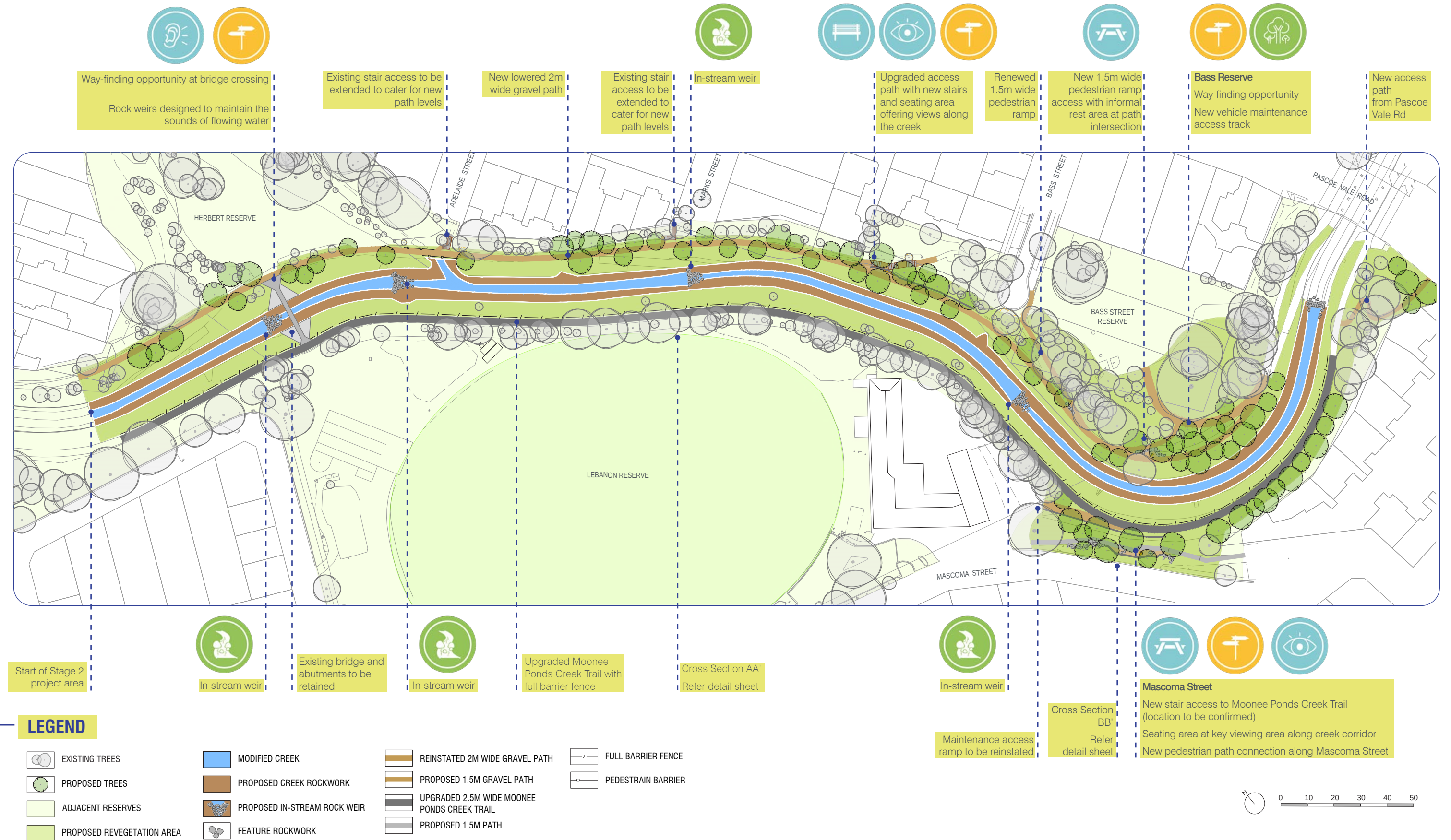
Proposed upgrade



Barrier fence

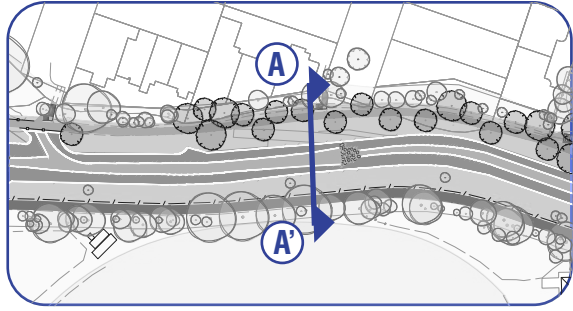
Concrete surface

LANDSCAPE CONCEPT PLAN

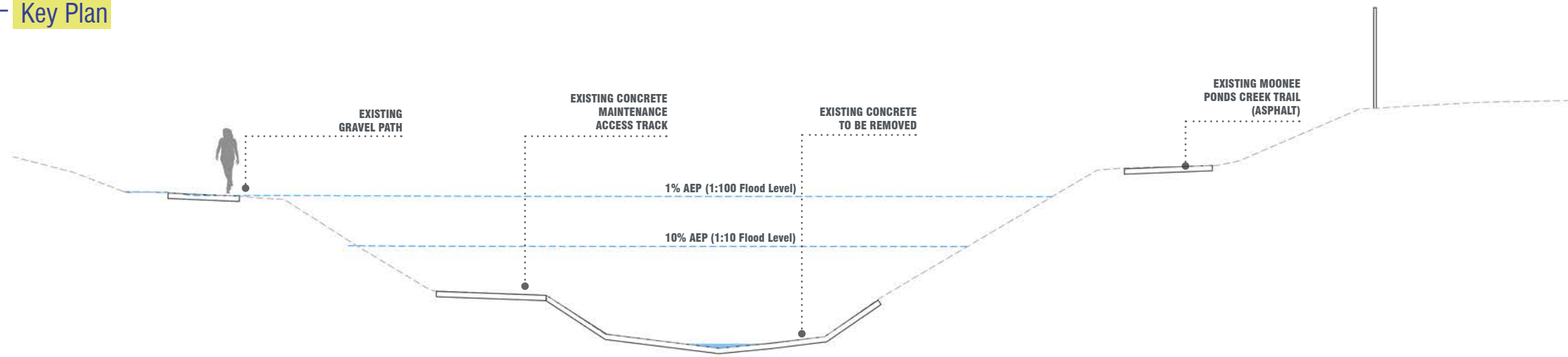


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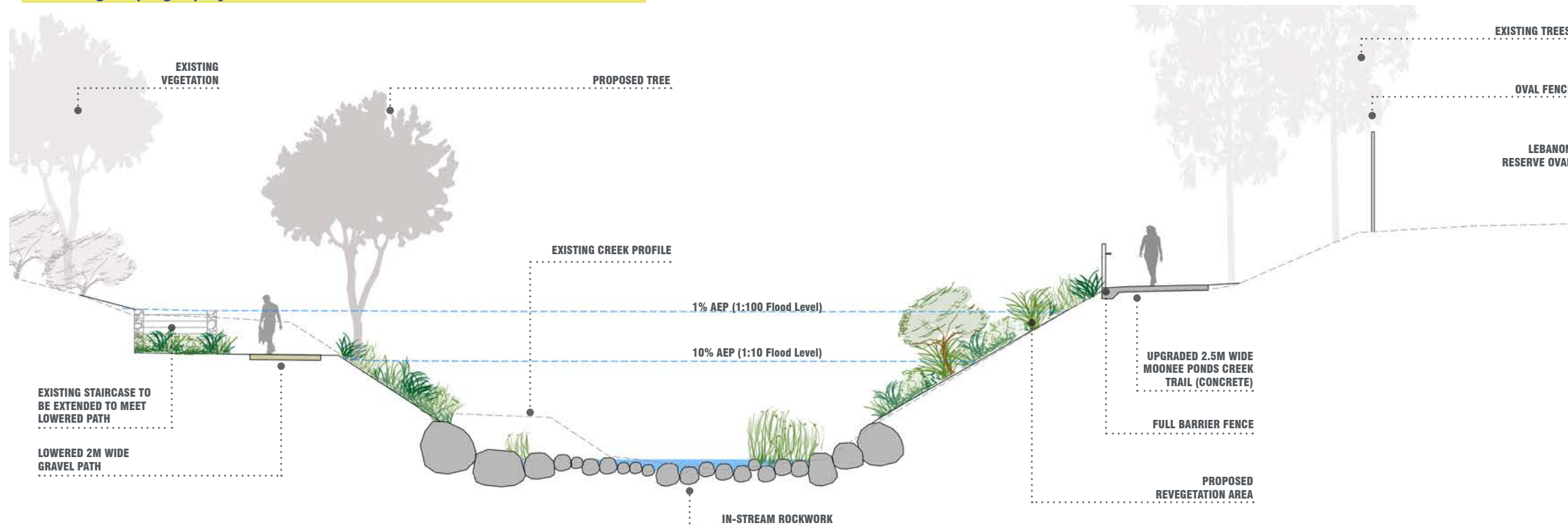
CROSS SECTION AA'



Key Plan



Existing Topography - MARKS STREET CROSS SECTION AA'



Proposed Naturalised Creek - MARKS STREET CROSS SECTION AA'



Gravel path

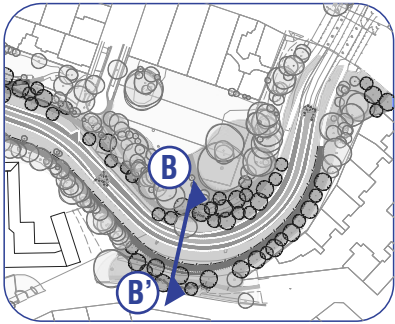


Revegetation

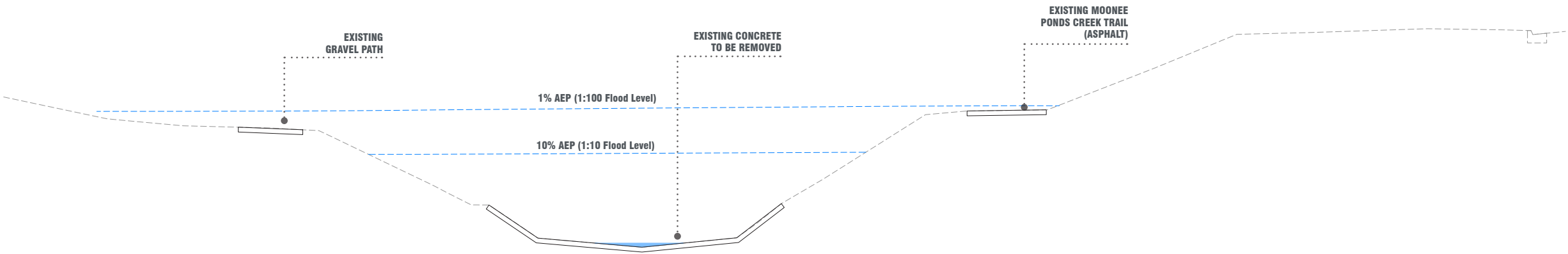


Barrier fence

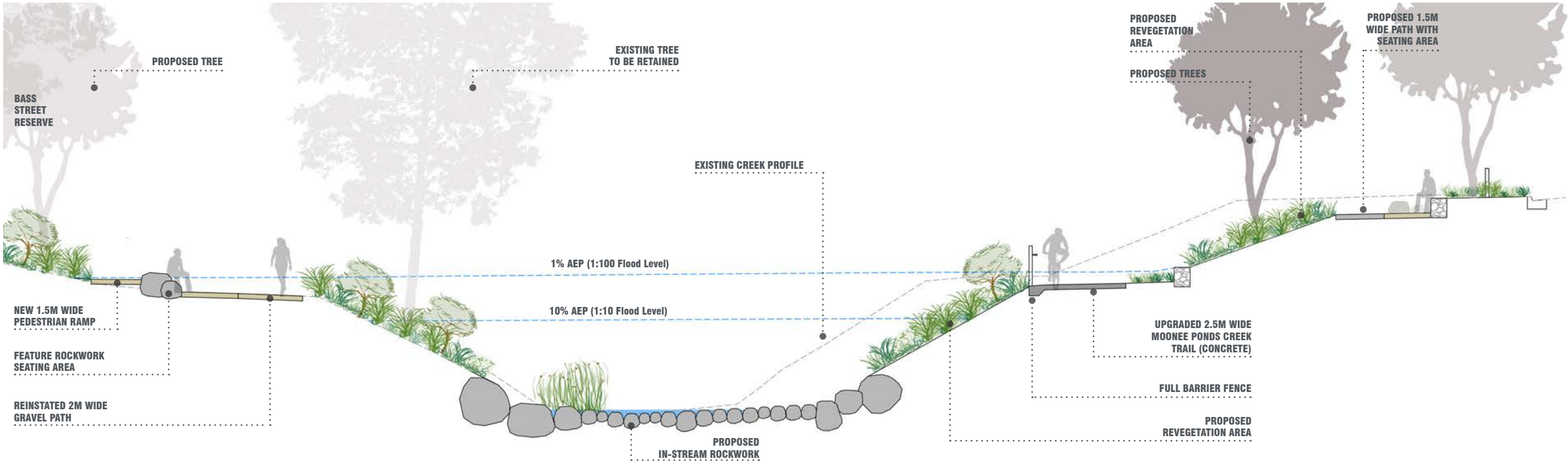
CROSS SECTION BB'



Key Plan



Existing Topography - MARKS STREET CROSS SECTION BB'



Proposed Naturalised Creek - MARKS STREET CROSS SECTION BB'



Feature rockwork



Revegetation



Steps & seating