

Running, Tanya

From: Running, Tanya
Sent: Friday, October 15, 2021 8:15 AM
To: Michael Parsonson; Mike Wood
Cc: peter@kplc.co.nz
Subject: RE: Landscape Response
Attachments: SH1-SH29_Visuals_updated 151021.pdf

Good Morning

Please find **attached** the updated visuals as requested.

Kind regards Tanya

From: Michael Parsonson <michael@southernskies.co.nz>
Sent: Thursday, October 14, 2021 02:35 PM
To: Mike Wood <mike.wood@nzta.govt.nz>; Running, Tanya <tanya.running@wsp.com>
Cc: peter@kplc.co.nz
Subject: Landscape Response

Hi Mike / Tanya

Peter Kensington has reviewed the landscape response and has provided the following feedback.

Item 1(a)-(e) – response adequate.

Item 2 – response partly adequate (single-frame proposed views, in addition to single-frame existing views, were not provided – as per yellow highlighted text below):

*“Please also provide 50mm-lens single-frame images of the area of focus within the existing **and proposed views**, with these images being presented to the full scale of an A3-sized page (landscape orientation).”*

Item 3 – response avoided (with justification).

This is a merits-based issue, which I suggest will continue to be a ‘live’ issue through the application process. In my opinion, the opportunity to address a possible redesign of the landscape concept plan now (prior to notification) is preferable; however, I acknowledge that Waka Kotahi NZTA are resistant to make changes. I’d like to discuss this matter with you please, so that you are clear on the issue that I’m raising.

Item 4 – response avoided (with justification).

This is also a merits-based issue, similar to that at Item 3 above.

Regarding Item 2, we still require the proposed views. Peter understands that this is not a significant task and is happy to discuss it directly with your landscape specialist.

Regarding Items 3 and 4, the options for cultural and other inputs in landscape design are matters that may continue to be addressed as we move through the consenting process.

Regards
Michael

Michael Parsonson

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STATE HIGHWAY 1 AND STATE HIGHWAY 29 INTERSECTION UPGRADE

ATTACHMENT A: LANDSCAPE AND VISUAL ASSESSMENT ATTACHMENTS TO RESPOND TO RFI

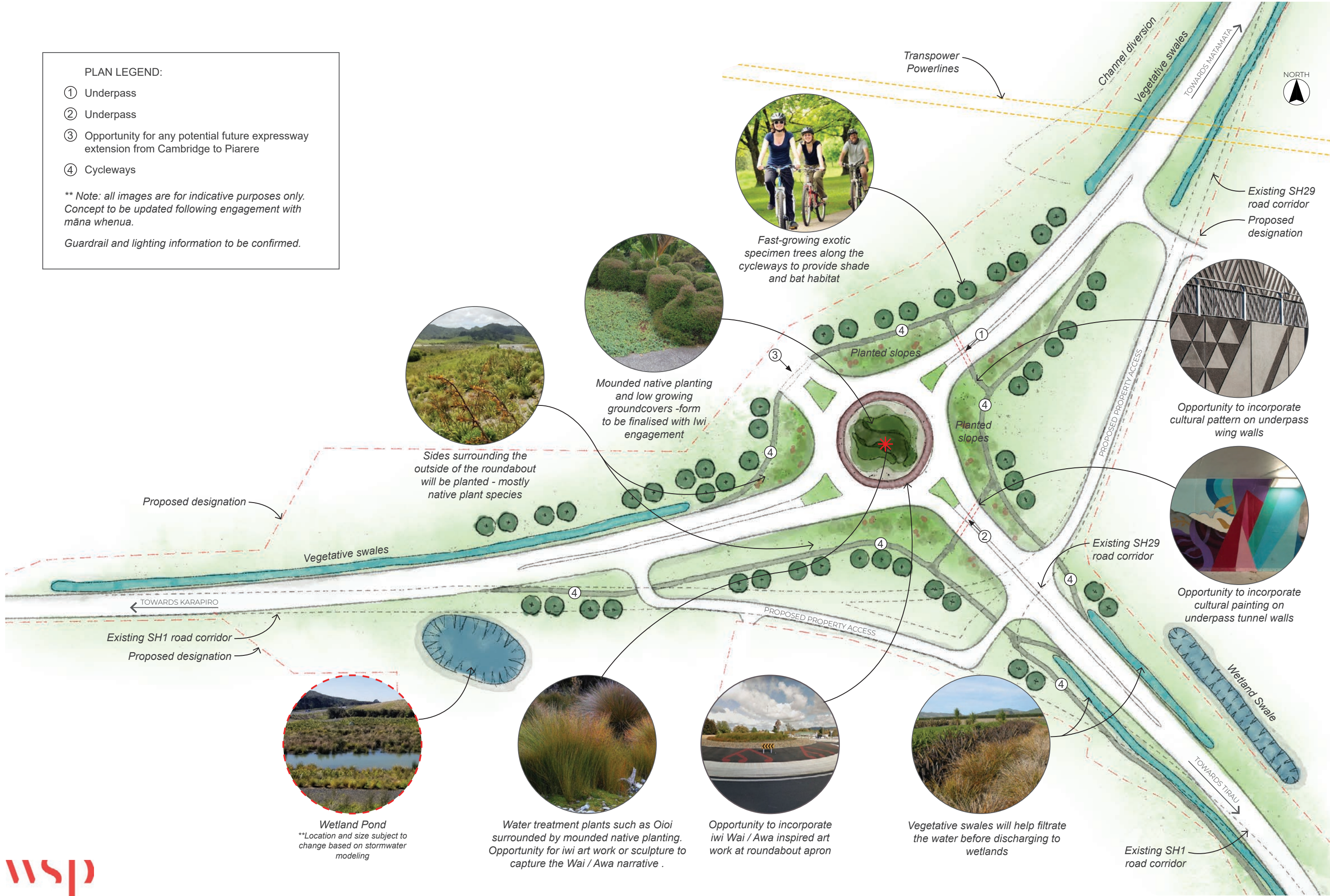


PLAN LEGEND:

- ① Underpass
- ② Underpass
- ③ Opportunity for any potential future expressway extension from Cambridge to Piarere
- ④ Cycleways

*** Note: all images are for indicative purposes only. Concept to be updated following engagement with māna whenua.*

Guardrail and lighting information to be confirmed.



Fast-growing exotic specimen trees along the cycleways to provide shade and bat habitat



Mounded native planting and low growing groundcovers -form to be finalised with Iwi engagement



Sides surrounding the outside of the roundabout will be planted - mostly native plant species



Opportunity to incorporate cultural pattern on underpass wing walls



Opportunity to incorporate cultural painting on underpass tunnel walls



Wetland Pond
**Location and size subject to change based on stormwater modeling



Water treatment plants such as Oioi surrounded by mounded native planting. Opportunity for iwi art work or sculpture to capture the Wai / Awa narrative .



Opportunity to incorporate iwi Wai / Awa inspired art work at roundabout apron



Vegetative swales will help filtrate the water before discharging to wetlands





LEGEND

- Viewpoints / Photo Locations
- Photo locations
- Trees to be removed
- Planted stormwater treatment swales
- Shared Path

SCALE: 1:8000 @A3



Viewpoint 1: Existing situation



Viewpoint 1: Visualisation of Proposal



VIEWPOINT 1 IMAGE 1: Image taken 19.01.2021 by David McKenzie, 55mm focal length (jpeg/NEF raw), here at A3, 300 dpi



VIEWPOINT 1 IMAGE 2: Image taken 19.01.2021 by David McKenzie, 55mm focal length (jpeg/NEF raw), shown at A3, 300 dpi

METHODOLOGY 1: IMAGES USED FOR VIEWPOINT: SINGLE IMAGES

SH1 / SH29 INTERSECTION UPGRADE - LANDSCAPE & VISUAL ASSESSMENT

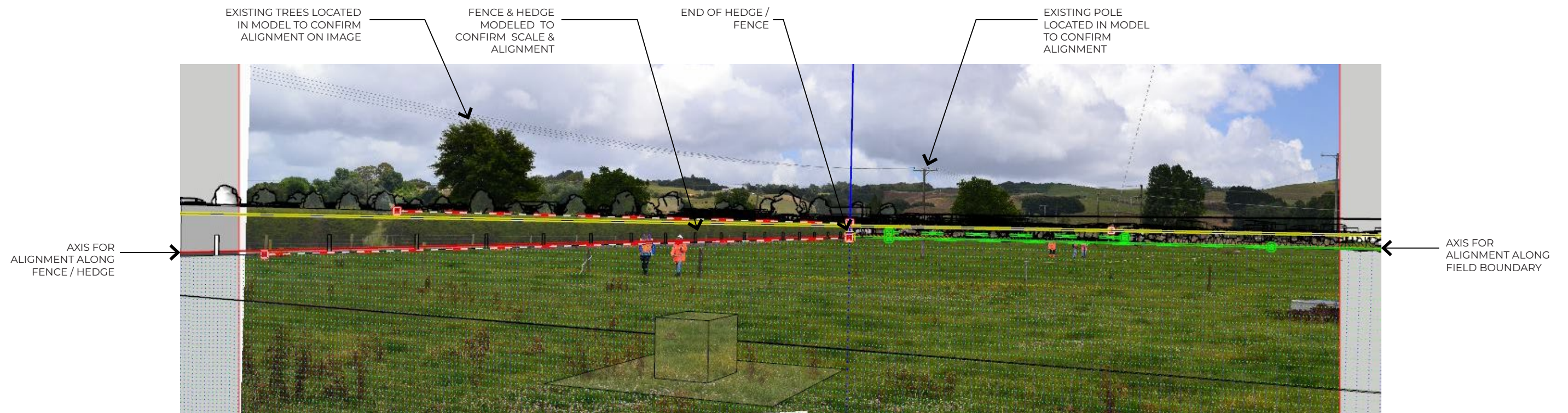
DATE: October 2021 PROJECT NUMBER: 2-A0012.04



Viewpoint 1: Stitch of 2 images taken 19.01.2021 by David McKenzie, 55mm focal length (jpeg/NEF raw)



Viewpoint 1: Stitch of 55mm focal length images with third image added to better approximate a human field of view



Viewpoint 1: Sketchup model using match points to line up key markers (including the hedge), trees modelled at randomised heights for naturalness, at 7.5-9 m to represent 5-10 years growth



Platanus acerifolia
London plane
 A very large, rapidly growing round headed tree. Bark flakes in patches on older branches and the trunk leaving a dappled surface. Maple-like palmate leaves 20-25cm, deep green & glossy with a white felt underneath. Tolerates most soils. Hardy DECIDUOUS – SHADE - APX 15+m

Example of fast growing non native Tree: London Plane (Platanus x acerifolia)
 Information source: <https://blackbridgenurseries.co.nz/>



VIEWPOINT 1 IMAGE 1: Part of photosimulation of viewpoint, based on image taken 19.01.2021 by David McKenzie



VIEWPOINT 1 IMAGE 2: Part of photosimulation of viewpoint, based on image taken 19.01.2021 by David McKenzie

INTRODUCTION

The visual simulations were prepared by Lawrence Elliott and Meg Back, using best visualisation practices¹. The photographs were taken by David McKenzie, Technical Principal, Landscape Architecture. All three are Registered Landscape Architects currently employed by WSP.

METHODOLOGY

Viewpoint locations were decided, and marked so as to be located later in the civil engineering design CAD model (includes road and roundabout design). Existing elements in the landscape such as hedges, trees, fence lines and field boundaries were identified and carefully located to later aid in alignment of the model to the photos.

Photographs have been taken using a DSLR camera (Nikon D3100) with a 50-55 mm focal length which was used consistently for all the photographs taken. A 50 mm focal length is typically used as this produces a reasonable representation of what is seen by the human eye. This is especially in terms of compression, ensuring objects in the image remain the same size and distance away as would be seen by the human eye. By comparison, using a 'wide' lens such as with a 17 – 35 mm focal length will enlarge the foreground while making objects in the distance further away and smaller. A 'telephoto' lens such as those 80mm and above has the effect of making objects in the distance appear both closer to the viewer and larger in size.

As a wide field of view was required to best represent particular components of the Project over a relatively wide area of view, each view was made up of a series of photographs tiled together to form a panorama with the individual images 'stitched' or digitally merged in Adobe Photoshop.

A computer model was created in Autodesk Civil3D using topographical data where the new elements including re-aligned road and roundabout were designed for the Project. This 3D surface was then imported into Sketchup and was used as the base model for illustrating the components of the Project as depicted in the visualisations.

The viewpoint position, height and focal length of the lens of the original photo images were used to define a representative camera setting in the Sketchup model at the same position, height and focal length. The software has camera matching capability and by using the photo panorama image as a background and by employing utilities within the programme, the model was orientated, sized and positioned to best represent how each component of the Project will look within the panorama. Key points and existing landmarks were used as checks and balances to ensure the viewpoint was correctly placed, prior to the production of rendered images of the new development in Enscape. Proposed trees and shrub planting were also added in Sketchup.

The rendered image of the model alone was then brought into "Adobe Photoshop" as a unique layer and overlaid on the base photo panorama. Tree removal was generated via the use of Adobe Photoshop to alter the base image. Using Adobe Photoshop effects and tools, the Landscape Architect then combined render and base images and additional elements (e.g. planting) to produce then enhance the resulting image. For instance, foreground objects may be brought back to the front, background objects that would be hidden or removed (as part of the proposal) were adjusted, and visual representation added of indicative landscape mitigation measures. Further digital manipulation has been carried out to provide "realistic" effects to the modeled simulation and rendered materials.

¹ NZILA Best Practice Guide: Visual Simulations BPG 10.2 as retrieved from https://nzila.co.nz/media/uploads/2017_01/vissim_bpg102_lowfinal.pdf

CONCLUSION

The visualisations provided show the Project's components digitally placed into photo backgrounds. These are in proportion to landforms and objects in the same location. The changes to the scene have been manipulated in an attempt to produce a "realistic" impression and they should be treated as artist's impressions only. Trees have been shown at an age of approximately 5 – 10 years.

INTRODUCTION

Future cycleway connections through proposed underpasses provide an opportunity to create useful links and apply cultural interpretation. Pedestrian / cyclist underpasses are included in the future SH1/SH29 roundabout to link into the existing cycling network of the Waikato River Trails, Hauraki Rail Trails, Te Awa (Cambridge to Ngaruawahia) in the vicinity.

KEY DESIGN CONSIDERATIONS FOR THE UNDERPASSES

It is important that underpasses are well designed to ensure they are safe, attractive and welcoming. The Project in general will observe the principles as outlined in Waka Kotahi's 'Bridging the Gap' urban design guidelines¹ as well as CPTED guidelines².

The following guidance will inform the design of underpasses:

- Underpasses will be integrated with the wider cycling network;
- Underpasses will be integrated with the earthworks, structures, stormwater, landscape and art work;
- The walls of the underpasses will be continuous and not feature recesses where litter might accumulate or someone might hide;
- The underpasses will be straight with straight approaches, for as long as practically possible to ensure that the far end of the underpass and anyone approaching beyond this point is readily visible as early as possible;
- The underpasses will have a minimum height of 2.5m;
- The underpasses will safely accommodate cyclists and pedestrians;
- The underpasses will be at grade with the surrounding land where possible and for as far as possible to provide for clear visibility;
- The planting around the underpass entrance will not be located, or of a height when mature that will obscure sight lines to and from the underpasses;
- Effective lighting inside and at the entrances of the underpasses will be considered;
- Materials used will include robust, long-lived, vandal proof materials;
- Murals, art, feature paving, lighting and surface treatments will be considered and used where possible to create an attractive environment; and
- To enable a high chance of planting success - species used will not be drought sensitive and will have vigorous growth where they will be less likely to be overtaken by weeds.

¹ Bridging the gap: NZTA urban design guidelines (2013) As retrieved from: <https://www.nzta.govt.nz/resources/bridging-the-gap/>

² Ministry of Justice (2005) Crime Prevention Through Environmental Design. as retrieved from <https://www.justice.govt.nz/assets/Documents/Publications/cpted-part-1.pdf> & <https://www.justice.govt.nz/assets/Documents/Publications/cpted-part-2.pdf>

ADDITIONAL NOTES: UNDERPASS DESIGN STANDARDS

SH1 / SH29 INTERSECTION UPGRADE - LANDSCAPE & VISUAL ASSESSMENT

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