

Ayrburn Screen Hub

ARROWTOWN

Camera Location Map



VP5 From Countryside Trail - Existing View



NORTHING **EASTING** **HEIGHT**
819695.59 432077.51 414.61

Original Photo - Taken 11/07/2025 11:14AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3

VP5 From Countryside Trail - Spur with no planting



NORTHING 819695.59
EASTING 432077.51
HEIGHT 414.61

Visual Simulation before mitigation planting - Taken 11/07/2025 11:14AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3

VP5 From Countryside Trail - Revised Planting for Increased Openness - February 2026



NORTHING	EASTING	HEIGHT
819695.59	432077.51	414.61

Visual Simulation - Taken 11/07/2025 11:14AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3

VP5 From Countryside Trail - Original Proposed Planting - June 2025



NORTHING	EASTING	HEIGHT
819695.59	432077.51	414.61

Original Visual Simulation - Taken 11/07/2025 11:14AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3

VP5 From Countryside Trail - Existing View



NORTHING	EASTING	HEIGHT
819695.59	432077.51	414.61

Original Photo - Taken 11/07/2025 11:14AM, Canon EOS 5DS 16mm lens
For context only



NORTHING	EASTING	HEIGHT
819695.59	432077.51	414.61

Visual Simulation - Taken 11/07/2025 11:14AM, Canon EOS 5DS 16mm lens
For context only



NORTHING	EASTING	HEIGHT
819695.59	432077.51	414.61

Original Visual Simulation - Taken 11/07/2025 11:14AM, Canon EOS 5DS 16mm lens
For context only

VP8 From Countryside Trail - Existing View



NORTHING	EASTING	HEIGHT
819344.74	432100.39	363.86

Original Photo - Taken 11/07/2025 10:59AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3

VP8 From Countryside Trail - Spur with no planting



NORTHING EASTING HEIGHT
819344.74 432100.39 363.86

Visual Simulation before mitigation planting - Taken 11/07/2025 10:59AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3



NORTHING	EASTING	HEIGHT
819344.74	432100.39	363.86

Visual Simulation - Taken 11/07/2025 10:59AM, Canon EOS 5DS 50mm lens

Viewing distance is 486mm when this sheet is printed at A3



NORTHING	EASTING	HEIGHT
819344.74	432100.39	363.86

Original Visual Simulation - Taken 11/07/2025 10:59AM, Canon EOS 5DS 50mm lens
Viewing distance is 486mm when this sheet is printed at A3

VP8

From Countryside Trail - Existing View



NORTHING	EASTING	HEIGHT
819344.74	432100.39	363.86

Original Photo - Taken 11/07/2025 10:59AM, Canon EOS 5DS 16mm lens
For context only



NORTHING	EASTING	HEIGHT
819344.74	432100.39	363.86

Visual Simulation - Taken 11/07/2025 10:59AM, Canon EOS 5DS 16mm lens
For context only



NORTHING	EASTING	HEIGHT
819344.74	432100.39	363.86

Original Visual Simulation - Taken 11/07/2025 10:59AM, Canon EOS 5DS 16mm lens
For context only

OTOH

Visual Simulation Methodology Statement

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Company Profile

One to One Hundred is an international award-winning architectural visualisation firm based in Auckland founded in 2004. We have established ourselves as one of the leading providers of 3D rendering in New Zealand. Although we specialise in producing marketing renderings, we offer a full range of visualisation services for developments of all sizes including visual impact simulations.

Projects

We have done visual simulations for the following projects:

- 2010 – Countdown Beachlands
- 2010 – Greys Avenue, Auckland CBD
- 2012 – Bureta Park, Tauranga
- 2012 – Wiri Prison, Manukau
- 2013 – New World Browns Bay
- 2014 – Countdown Aotea
- 2015 – Remuera Gardens, Remuera
- 2016 – Maria & Yates Streets, Onehunga
- 2016 – Corinthian Towers, Albany
- 2017 – 1150 Great North Road, Pt Chevalier
- 2017 – The Loxley, Takapuna
- 2017 – The Peninsula, Orakei
- 2018 – Pollard Lane, Waimauku
- 2018 – 8 Putiki Road, Grey Lynn
- 2018 – 368 Beach Road, Mairangi Bay
- 2018 – Summerset St Johns
- 2018 – Te Tauoma Masterplan, Mt Wellington
- 2018 – 3 Scotland Street, Freemans Bay
- 2019 – 30 Anzac Road, Browns Bay
- 2019 – 443-445 Mt Eden Road, Mt Eden
- 2019 – 42-48 Ponsonby Road, Ponsonby
- 2019 – 409 New North Road, Kingsland
- 2020 – 3 Scotland Street, Freemans Bay
- 2020 – Costco Westgate
- 2021 – Te Tauoma Stage 1, Mt Wellington
- 2021 – Te Tauoma Stage 2, Mt Wellington
- 2021 – 1 Garnet Road, Westmere
- 2022 – Pompallier on Ponsonby, Three Lamps
- 2024 – Foodstuffs Mangere
- 2024 – Foodstuffs Khandallah
- 2024 – 43 College Hill, Freemans Bay
- 2025 – 42-48 Ponsonby Road, Ponsonby

Camera Setup

For these simulations, the photos were taken by Rough Milne Mitchell Landscape Architects (RMM) to our instructions. They used a Canon 5DS with ultra-high resolution and a full frame sensor. The photos were taken using a fixed 50mm lens and a 16-35 zoom lens. Photos were taken from a tripod with the lens mounted at 1.6m above the ground plane to correspond with the average human eye height. We ensure the camera has no roll by using a bubble level built into the tripod. If possible, we take the photos level with the horizontal, but sometimes it will not work with the necessary composition of the photo (if the viewing point is above or below the development in question).

Surveying

Patersons provided the survey of the camera locations and locator points within the photos to our instructions. Locator points must be fixed and easily identifiable. We aim to pick points in pairs, where possible, on either the X, Y or Z axis - for example two ends of a fence post or dashed road marking - with pairs on both sides of the photos, in the middle, in the foreground and in the distance.

Translation into CAD files

Patersons provided a DWG file with the terrain, building models and survey data (camera locations and locator points) with Coordinate Datum: NZGD 2000, Mt Nicholas Circuit and Level Datum: Dunedin Vertical Datum 1958.

Setting up the cameras in our software

We input the focal length of the lens used for the photo into the camera settings and set the pixel dimensions of the render to those of the photo (aspect ratio of 1.5). We then display the relevant photo in the background of the camera viewport using the Safe Frame setting. This adjusts the aspect ratio of the viewport (and subsequently the background photo) to that of the render dimensions.

Lining up the model

From the survey data, we have markers in 3D space that correspond to the XY and RL(Z) co-ordinates of the specified locator points in each photo. We then move the camera target until the locators match up exactly with the photo behind. There is a 2D zoom function that allows us to zoom in to check small points in the viewport without moving the camera.

The 3D model of the development

The 3D model was provided from SA Studio to Patersons who added in to their master file (survey data + terrain + building models). We have applied and refined details and materials according to the exterior material schedule.

Lighting

Our software provides a 'Sun and Sky' lighting function that allows us to set the time when the original photo is taken (allows for daylight saving) and input the location, and the resulting light direction and subsequent shadowing is physically correct assuming we have set the north point up correctly in the scene. This same technique is used to provide shadow studies.

Landscaping

We follow landscaping plans carefully in terms of type of planting, height, shape, and position. In this case, we have shown the proposed mitigation belt at an average height of 5m which equates to around 10 years growth. We have not altered any existing planting even though it would be reasonable to assume that it would also have increased substantially in height within a 10-year period.

Rendering

We render the camera at the exact pixel dimensions of the photo to enable it to transfer straight into a photomontage.

Compositing

We montage the 3D render into the photo in Photoshop by duplicating the background photo and then using the masking feature to paint in the foreground over the top of the render.

Final Presentation

We provide the visual simulations with the original photo, and the visual simulation on separate sheets. The sheets record the Northing, Easting and RL of each camera and state the camera type, lens and date/time of photo are displayed below each original photo.

Viewing Distance

We provide a viewing distance so that if a person were to print our sheet at A3 and take it to the exact location of the visual simulation, and were to then hold it out that distance from their eyes, the printed photo would line up with what they see exactly.

The viewing distance is calculated by taking half the FOV (to create a right-angle triangle) and half the photo width (the 'opposite'), then using a TAN calculation to work out the 'adjacent'. For example, a 50mm lens on a full frame camera has a field of view of 39.6° so we use an 'angle' of half that = 19.8°. Our visual simulation is displayed at a size of 350mm on an A3 page, so the 'opposite' is half that = 175mm. Entering these values into a trigonometry calculator provides an 'adjacent' viewing distance of 486mm.