Name PM06 Status Proposed Reference: Church Road at Bridge crossing N looking N		**Kilkenny County Council**	**Camera location** 654240,635320,58.1 **Target Direction** 654228,635401,58.6	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 12:56	CSC Chris Shackleton Consulting www.shackleton.ie info@shackleton.ie
Ballyhale Flood Relief Scheme	Rev: 1			Recommended viewing distance with both eyes is 240mm	

Name PM07 Status Existing Reference: Church Road at Bridge crossing S looking NE		**Kilkenny County Council**	**Camera location** 654245,635317,58.4 **Target Direction** 654255,635400,59.0	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 12:59
Ballyhale Flood Relief Scheme	Rev: 0			Recommended viewing distance with both eyes is 240mm

CSC Chris Shackleton Consulting
www.shackleton.ie info@shackleton.ie

Name PM07 Status Proposed Reference: Church Road at Bridge crossing S looking NE	**Kilkenny County Council**	**Camera location** 654245,635317,58.4 **Target Direction** 654255,635400,59.0	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 12:59	CSC Chris Shackleton Consulting www.shackleton.ie info@shackleton.ie
Ballyhale Flood Relief Scheme Rev: 1				Recommended viewing distance with both eyes is 240mm

Name PM08 Status Existing Reference: From Field looking SE		**Kilkenny County Council**	**Camera location** 654213,635465,56.3 **Target Direction** 654246,635445,56.5	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 13:26	CSC Chris Shackleton Consulting www.shackleton.ie info@shackleton.ie
Ballyhale Flood Relief Scheme	Rev: 0			Recommended viewing distance with both eyes is 240mm	

Name PM08 Status Proposed Reference: From Field looking SE	**Kilkenny County Council**	**Camera location** 654213,635465,56.3 **Target Direction** 654246,635445,56.5	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 13:26	CSC Chris Shackleton Consulting www.shackleton.ie info@shackleton.ie
Ballyhale Flood Relief Scheme Rev: 2			Recommended viewing distance with both eyes is 240mm	

Name PM09 Status Existing Reference: Opposite “Arricle View” Stone House looking N		**Kilkenny County Council**	**Camera location** 654241,635300,57.9 **Target Direction** 654299,635389,58.1	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 14:07	CSC Chris Shackleton Consulting www.shackleton.ie info@shackleton.ie
Ballyhale Flood Relief Scheme	Rev: 0			Recommended viewing distance with both eyes is 240mm	

Name PM09 Status Proposed Reference: Opposite “Arricle View” Stone House looking N		**Kilkenny County Council**	**Camera location** 654241,635300,57.9 **Target Direction** 654299,635389,58.1	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 14:07
Ballyhale Flood Relief Scheme	Rev: 1			Recommended viewing distance with both eyes is 240mm

CSC Chris Shackleton Consulting
www.shackleton.ie info@shackleton.ie

Name PM10 Status Existing Reference: Opposite 1 Main Street looking NW		**Kilkenny County Council**	**Camera location** 654314,635233,59.1 **Target Direction** 654282,635293,59.2	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 14:48
Ballyhale Flood Relief Scheme	Rev: 0			Recommended viewing distance with both eyes is 240mm

CSC Chris Shackleton Consulting
www.shackleton.ie info@shackleton.ie

Name PM10 Status Existing Reference: Opposite 1 Main Street looking NW		**Kilkenny County Council**	**Camera location** 654314,635233,59.1 **Target Direction** 654282,635293,59.2	Camera Canon 6D Mk 2 Lens Canon EF 24mm HView Angle Nominal 74 degrees Date/Time: 29/04/2022 14:48
Ballyhale Flood Relief Scheme	Rev: 0			Recommended viewing distance with both eyes is 240mm

CSC Chris Shackleton Consulting
www.shackleton.ie info@shackleton.ie

Photomontage Methodology / Method Statement

Work has been completed in accordance with best practice guidelines a summary of which are provided below.

Preparation

Prior to site visit camera locations were identified and located on digital map to enable GPS routing to the correct locations. The site was "scouted" for access using Google Streetview (c) Google.

Photography

- Photographs were taken on site at locations specified using a high-resolution professional digital camera. The Camera a Canon 6D MK 2 is a full frame format (which corresponds to a traditional 35mm film format) as recommended by best practice guidelines.
- Images were taken in RAW format which provides the maximum flexibility in adjustment along with the best quality available, and with bracketed exposure. The images were stored with embedded camera/photo exif data.
- The camera was tripod mounted, spirit leveled and set at a nominal 1.6m above ground level
- The lens used was a Canon prime (fixed) lens 24mm, this wide angle lens was used to show greater context at the direction of the LVIA specialist.

Control

A series of survey points were captured on site for each photograph using Trimble R12 survey grade RTK-GPS. The following were measured:

- The camera position, plan and height
- Measured points of detail visible when the photograph was taken. On streetscape scenes points of detail (corners of buildings, poles, sign, white lines, structures, etc) are surveyed to provide an accurate orientation base where insufficient existing detail is available we supplement with either with red/white ranging rods or smaller orange cones placed in the camera's field of view while taking the photograph.
- Regardless of the type of control the configuration shall be non-collinear with a good photogrammetric geometry. This ensures that computational analysis is convergent.

Setting up AVR Images

- Survey and OS mapping is imported into 3D software
- A calibrated virtual matching 24mm camera was created to match the physical one used to capture the image. The camera was snapped to the surveyed real-life camera locations. The individual photograph frames were loaded into the vewport background.
- Using in-built software algorithms the virtual camera was adjusted so the points of detail on the photograph and the surveyed points in real-life coalesce in the camera viewport. Once complete the virtual camera was be orientated so that it is identical to the physical camera that took the base photograph.
- Checks were made using the surveyed information and project mapping and cross referenced with the photographs to ensure they align.
- A Daylight system was then accurately introduced into the scene at it correct geo-referenced coordinates. Once the time/date and time zone is set the digital sky will match the position of the sun and shadows created by the same in the base photograph.

Verifiable Photomontage & Proposed development modelling

- The proposed development, structure, road works and earthworks was modeled up in 3D from the drawings provided by the Client / Design Team.
- The building was located in accordance with surveyed location and at the correct FFL.
- True life digital materials were designed and assigned to the 3D model elements using reference imagery provided by the client. Sophisticated real world rendering shaders were used in conjunction with the daylight system to produce final renders which will react in a verifiable manner to match the reference photographic base images.
- Finally, the new development image and the existing original photograph were merged with due care for any demolitions/removals, foreground / background existing objects, landscaping, lighting, shadows, etc. to produce a single believable and verifiable composite image.

Viewing instructions

These images are designed to be printed at A3 and taken to site to evaluate the impact of the development.

Images should be viewed with both eyes open from the locations indicated and held at the indicated distance from the viewers eyes depending on the lens used. When held at arms length the viewer should be able to effectively focus not only on the photomontage in hand but also on the surrounding landscape which will give them a much wider field of view.

When used in this fashion the existing landscape will line-up and the photomontage will provide similar perspective and thus enable the viewer to visually evaluate the proposal.

Revealed Hidden Background / Method Statement

Some of the views in this project expose areas of previously hidden background, in this case housing.
A copy of these images and the revelant newly exposed background areas are highlighted here in red.

Methodology

For these images the existing trees (which are to be removed) block all views from this distance / angle.
There is no option to take a matching shot from a gap or slightly elevated position.
It is not possible without the removal of the intervening vegetation, which is the subject of the application to capture replacement reference photography with the same perspective and scale.

We have thus taken a series of new photographs and best matched these to provide a good representation of the level of permeability that the view will have. Since the supplementary imagery cannot exactly match the base photograph's point of view the red shaded area should be considered as representative.


PM06


PM09


PM07


PM10

Name Status Reference:	CGI 001 Existing View over Proposed Park near Church	**Kilkenny County Council**	**Camera location** NA **Target Direction** NA	Camera Lens HView Angle Date/Time:	Hasselblad L2D-20c 12.29mm (Zoom) 10/02/2023 12:01
Ballyhale Flood Relief Scheme	Rev: **0**				

CSC Chris Shackleton Consulting
www.shackleton.ie info@shackleton.ie

Name Status Reference:	CGI 001 Proposed View over Proposed Park near Church	**Kilkenny County Council**	**Camera location** NA **Target Direction** NA	Camera Lens HView Angle Date/Time:	Hasselblad L2D-20c 12.29mm (Zoom) 10/02/2023 12:01
Ballyhale Flood Relief Scheme	Rev: 2				

CSC Chris Shackleton Consulting
www.shackleton.ie info@shackleton.ie