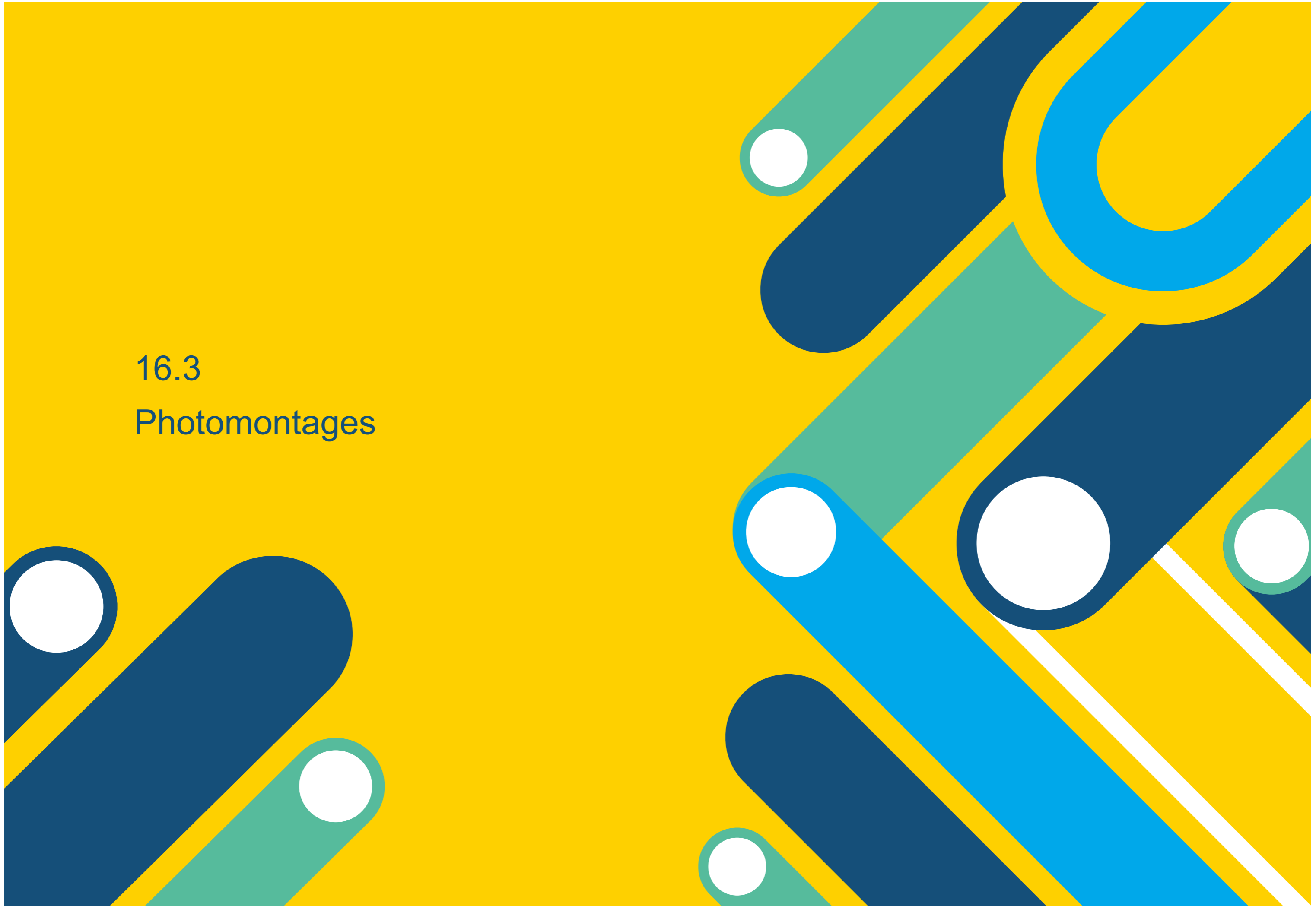


16.3

Photomontages



Verified Photomontage Methodology



This document outlines the methodology utilised by Innovision to create verified photomontages for proposed developments. The goal of verified photomontages is to deliver an accurate visual representation of the proposed development, enabling a comprehensive evaluation of its potential visual impacts. This methodology adheres to the best practices and recommendations from:

- Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals (September 2019).
- Scottish Natural Heritage – Visual Representation of Windfarms, Version 2.2, February 2017.

Photography

Innovision uses a Canon 5D Mark IV full-frame digital camera equipped with a Canon EF 50mm 1.4 USM lens. In certain instances as recommended by the landscape assessor, a 24mm wide angle lens is used in order to capture more landscape context. For panoramic photo capture, the camera is mounted in portrait format on a tripod with a panoramic head. The lens centre (nodal point) is set at an eye level of 1.65m. If obstacles such as fences or hedges block the view, the camera height may be adjusted accordingly, with all changes documented.

The camera is levelled in both pitch and roll axes using the levelling plate. The panoramic head allows the camera to rotate around the lens centre to prevent parallax effects between incremental photos. In portrait orientation, the camera rotates 20° between each photograph. The camera's position is precisely located using a high precision global navigation satellite system (GNSS). A surveyor records the camera location coordinates during the site visit. Supplementary photos document the camera setup and position for future reference or additional photography.

Survey

A combination of high accuracy GNSS and Total Station is used to accurately record the camera position and capture an array of selected survey reference points for camera matching and calibration. All survey points are recorded in the Irish Transverse Mercator (ITM) Grid coordinate system with X, Y, and Z coordinates. An adequate number of survey points are recorded per photo to verify the overall view alignment.

Additional topographical surveys and LiDAR data, if available, are also used to further verify the accuracy of the images.

Model Creation

A full-scale site model, either provided by the design team or created in-house, is positioned in its own 3D Studio Max file. The model is geo-located and accurately sized, with additional colour, material, and finish details added. Planting and mitigation designs, along with various stages, are also incorporated as required by the client.

Viewpoint Alignment / Verification

Viewpoints are recreated in a digital 3D environment using 3D Studio Max software. Each viewpoint is set up using verified survey points, camera, and lighting environment. The surveyed X, Y, Z coordinates of reference points and the camera position are established in 3DS Max. The camera is positioned using the survey data and matched with settings from the photography EXIF data, such as ISO and exposure.

A 'daylight system' in 3DS Max accurately sets up the lighting environment using settings related to the EXIF data and global positioning, including the time and date of photography, time zone, and site longitude and latitude. Once the viewpoint model, camera, and survey points are set, the camera is adjusted to the required field of view and direction, aligned with the survey data.

Rendering & Post Production

Each viewpoint is rendered using the V-ray plugin in 3D Studio Max. The rendered image is overlaid and positioned against the viewpoint photo. Any parts of the render obstructed by the foreground scene are masked. Images are placed on an Innovision layout file template.

Result

The resulting image provides an accurate and verifiable representation of the proposed development from the selected camera positions. It closely depicts the potential future impact of the development on the surrounding environment and existing buildings, making it an invaluable tool for planning purposes.

Project Specific Notes:


- All images were taken using a 50mm 1.4 USM lens. No wide angle images were used in this study.
- All images were produced in accordance with Landscape Institute Technical Guidance Note 06/19: Visual Representation of Development Proposals (September 2019).
- A provisional traffic signal arrangement has been incorporated into the photomontages, based on indicative design parameters. Traffic signal positions will be included in detail design stage.
- Landscape planting has been depicted at a growth stage of 5-7 years in all photomontages.



Overview Map


EXISTING VIEW



Viewpoint Location & Capture Information Location (ITM): 531249.96, 726095.28 Camera Level (Metres Above Ordnance Datum): 6.7 Date & Time: 04/12/2023, 1:58 PM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220
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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 531249.96, 726095.28 Camera Level (Metres Above Ordnance Datum): 6.7 Date & Time: 04/12/2023, 1:58 PM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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EXISTING VIEW




Viewpoint Location & Capture Information
Location (ITM): 531749.70, 725944.50
Camera Level (Metres Above Ordnance Datum): 18.8
Date & Time: 04/12/2023, 2:13 PM

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 531749.70, 725944.50 Camera Level (Metres Above Ordnance Datum): 18.8 Date & Time: 04/12/2023, 2:13 PM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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EXISTING VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 531989.06, 725877.52 Camera Level (Metres Above Ordnance Datum): 24.5 Date & Time: 04/12/2023, 2:29 PM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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PHOTOMONTAGE VIEW



Viewpoint Location & Capture Information Location (ITM): 531989.06, 725877.52 Camera Level (Metres Above Ordnance Datum): 24.5 Date & Time: 04/12/2023, 2:29 PM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220
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EXISTING VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 532417.22, 725791.99 Camera Level (Metres Above Ordnance Datum): 24.6 Date & Time: 04/12/2023, 11:26 AM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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PHOTOMONTAGE VIEW



Viewpoint Location & Capture Information Location (ITM): 532417.22, 725791.99 Camera Level (Metres Above Ordnance Datum): 24.6 Date & Time: 04/12/2023, 11:26 AM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220
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EXISTING VIEW



Viewpoint Location & Capture Information Location (ITM): 532640.89, 725668.67 Camera Level (Metres Above Ordnance Datum): 24.5 Date & Time: 04/12/2023, 11:57 AM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220
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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 532640.89, 725668.67 Camera Level (Metres Above Ordnance Datum): 24.5 Date & Time: 04/12/2023, 11:57 AM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220</p>
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EXISTING VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 532703.34, 725712.91 Camera Level (Metres Above Ordnance Datum): 26.3 Date & Time: 04/12/2023, 12:09 PM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220</p>
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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 532703.34, 725712.91 Camera Level (Metres Above Ordnance Datum): 26.3 Date & Time: 04/12/2023, 12:09 PM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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Viewpoint Location & Capture Information
Location (ITM): 532817.21, 725591.60
Camera Level (Metres Above Ordnance Datum): 16.7
Date & Time: 04/12/2023, 11:45 AM

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

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PHOTOMONTAGE VIEW



Viewpoint Location & Capture Information
Location (ITM): 532817.21, 725591.60
Camera Level (Metres Above Ordnance Datum): 16.7
Date & Time: 04/12/2023, 11:45 AM

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

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EXISTING VIEW




Viewpoint Location & Capture Information
Location (ITM): 532932.76, 725653.70
Camera Level (Metres Above Ordnance Datum): 18.4
Date & Time: 04/12/2023, 2:48 PM

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

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PHOTOMONTAGE VIEW



Viewpoint Location & Capture Information Location (ITM): 532932.76, 725653.70 Camera Level (Metres Above Ordnance Datum): 18.4 Date & Time: 04/12/2023, 2:48 PM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220
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EXISTING VIEW




Viewpoint Location & Capture Information
Location (ITM): 533083.72, 725569.36
Camera Level (Metres Above Ordnance Datum): 16.5
Date & Time: 04/12/2023, 2:53 PM

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

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PHOTOMONTAGE VIEW



Viewpoint Location & Capture Information Location (ITM): 533083.72, 725569.36 Camera Level (Metres Above Ordnance Datum): 16.5 Date & Time: 04/12/2023, 2:53 PM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220
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EXISTING VIEW



Viewpoint Location & Capture Information Location (ITM): 533368.95, 725398.59 Camera Level (Metres Above Ordnance Datum): 20.9 Date & Time: 04/12/2023, 10:42 AM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220
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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 533368.95, 725398.59 Camera Level (Metres Above Ordnance Datum): 20.9 Date & Time: 04/12/2023, 10:42 AM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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EXISTING VIEW




Viewpoint Location & Capture Information
Location (ITM): 533690.11, 725489.72
Camera Level (Metres Above Ordnance Datum): 24
Date & Time: 04/12/2023, 10:57 AM

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 533690.11, 725489.72 Camera Level (Metres Above Ordnance Datum): 24 Date & Time: 04/12/2023, 10:57 AM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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EXISTING VIEW



Viewpoint Location & Capture Information Location (ITM): 534392.17, 725456.30 Camera Level (Metres Above Ordnance Datum): 21.5 Date & Time: 04/12/2023, 10:20 AM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220
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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 534392.17, 725456.30 Camera Level (Metres Above Ordnance Datum): 21.5 Date & Time: 04/12/2023, 10:20 AM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71 -912 8220</p>
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EXISTING VIEW



Viewpoint Location & Capture Information Location (ITM): 534940.46, 725722.37 Camera Level (Metres Above Ordnance Datum): 26.4 Date & Time: 04/12/2023, 9:51 AM	Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm	Visuals prepared by innovision Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220
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PHOTOMONTAGE VIEW



<p>Viewpoint Location & Capture Information Location (ITM): 534940.46, 725722.37 Camera Level (Metres Above Ordnance Datum): 26.4 Date & Time: 04/12/2023, 9:51 AM</p>	<p>Camera Information Camera: Canon 5D Mark IV Lens: Canon EF 50mm f/1.4 USM Focal Length: 50mm</p>	<p>Visuals prepared by innovision  Sligo Airport Business Park Strandhill Sligo www.innovision.ie +353(0)71-912 8220</p>
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