

Welsh Government

**M4 Corridor around Newport**

Environmental Statement Volume  
3: Appendix 9.12

Photomontage Methodology

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# 1 Methodology for Production of Photomontages

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## 1.1 Introduction

1.1.1 The photomontages included in this report have been produced in accordance with the Landscape Institute Advice Note 01/11 'Use of Photography and Photomontage in Landscape and Visual Assessment' (2011) as follows:

## 1.2 Photography

1.2.1 In order to produce photographs of suitable quality to be used in the photomontages, the following points have been adhered to as much as possible:

- Photographs have been taken in weather conditions of clear visibility;
- A 50mm lens is used in a 35mm format;
- A 50% overlap is taken between photos to allow the sides of each photo to be removed when splicing the photos together to minimise distortion;
- Panoramas are produced by splicing standard photographs with recognised software (e.g. Adobe Photoshop) and not by the use of specialist cameras in order to minimise distortion;
- A levelled tripod is used. In addition, the camera is also levelled using a spirit level that sits in the flash socket of an SLR camera;
- A very high quality camera lens is used, the Canon EOS 5D Mark II digital SLR with a large, fine-detail, 21.1 megapixel full frame CMOS sensor;
- When taking the photo the precise location is recorded using a hand held GPS. The orientation to the proposed development, date, time of day and weather conditions are recorded for each viewpoint;
- If, when on site, the proposed viewpoint location is screened by trees or minor variations in topography, the viewpoint is relocated. Winter views will ensure maximum visibility through vegetation cover;
- Where possible, the site is positioned in the middle of the view with frames taken either side to give context; and,
- To ensure all photos align, all shots are taken from the same location/grid co-ordinate by turning the camera on the tripod on the same spot.

## 1.3 Methodology for the Production of Computer Models (Visualisation)

1.3.1 The new section of motorway is modelled to be superimposed on the photograph to generate the photomontage as follows:

- Base mapping and height data of the relevant area are set up to real-world OS coordinates;
- The proposed scheme model is located according to the scheme design. These are positioned to match real-world OS co-ordinates;

- The fully rendered scheme model has been placed within photomontages to provide further guidance when assessing the likely significance of effects on landscape and visual resources;
- Viewpoint locations are inputted using GPS data collected on site;
- The panoramic photography is then aligned for the relevant viewpoint using survey data, aerial imagery and GPS data collected on site;
- The direction and viewing angle of the perspective is then matched with each photographic frame in the panoramic views;
- Photographs are corrected for colour, brightness and contrast to ensure that image quality is optimised. Model lighting is corrected to match photographic conditions; and
- Using Adobe Photoshop imaging software additional features are combined with the generated photomontage.