

3DX ACCURATE VISUAL REPRESENTATION (AVR) METHODOLOGY

OVERVIEW

The process of generating accurate visual representation (AVR) photo montages was carried out by 3DX.

3DX use a methodology that is compliant with relevant sections of: The Landscape Institute/IEMA Guidelines for Landscape and Visual Impact Assessment; Landscape Institute Advice Note 01/09 (Use of photography in landscape and visual assessment)

Digital photographs were taken from the locations surrounding the site by 3DX. The precise locations of the photography were recorded via GPS then converted from lat/long to British National Grid (BNG) and plotted onto the site topographical survey data using the grid lines. A development model was imported to correct geographical co-ordinates. With a known camera position, photographic and surveyed existing visible features, the development model was accurately aligned to each photograph.

PHOTOGRAPHY

For each photoviewpoint location, photographs were taken with a professional Canon 5D Mark III DSLR camera. The location at which the photographs were taken were recoded with GPS. The camera was levelled horizontally by internal level sensors.

Photography was taken at a focal length of 24mm (cropped) and a single 105mm for the furthest view point. Wide angle 24mm photos were cropped with an aspect ratio of 3.13 x 1 to match a 50mm style panoramic. All photos were post processed including lens correction within Adobe Lightroom.

Equipment Used for Photography:

- Canon EOS 5D Mark III DSLR camera
- Canon EF 24-105mm L lens
- Manfrotto Tripod
- Garmin Glo GPS

THE PROPOSED DEVELOPMENT

In this case, outline details of the proposed development drawings were supplied by Matthew Jones Architects. The cumulative scheme 3D model was then built from the drawings.

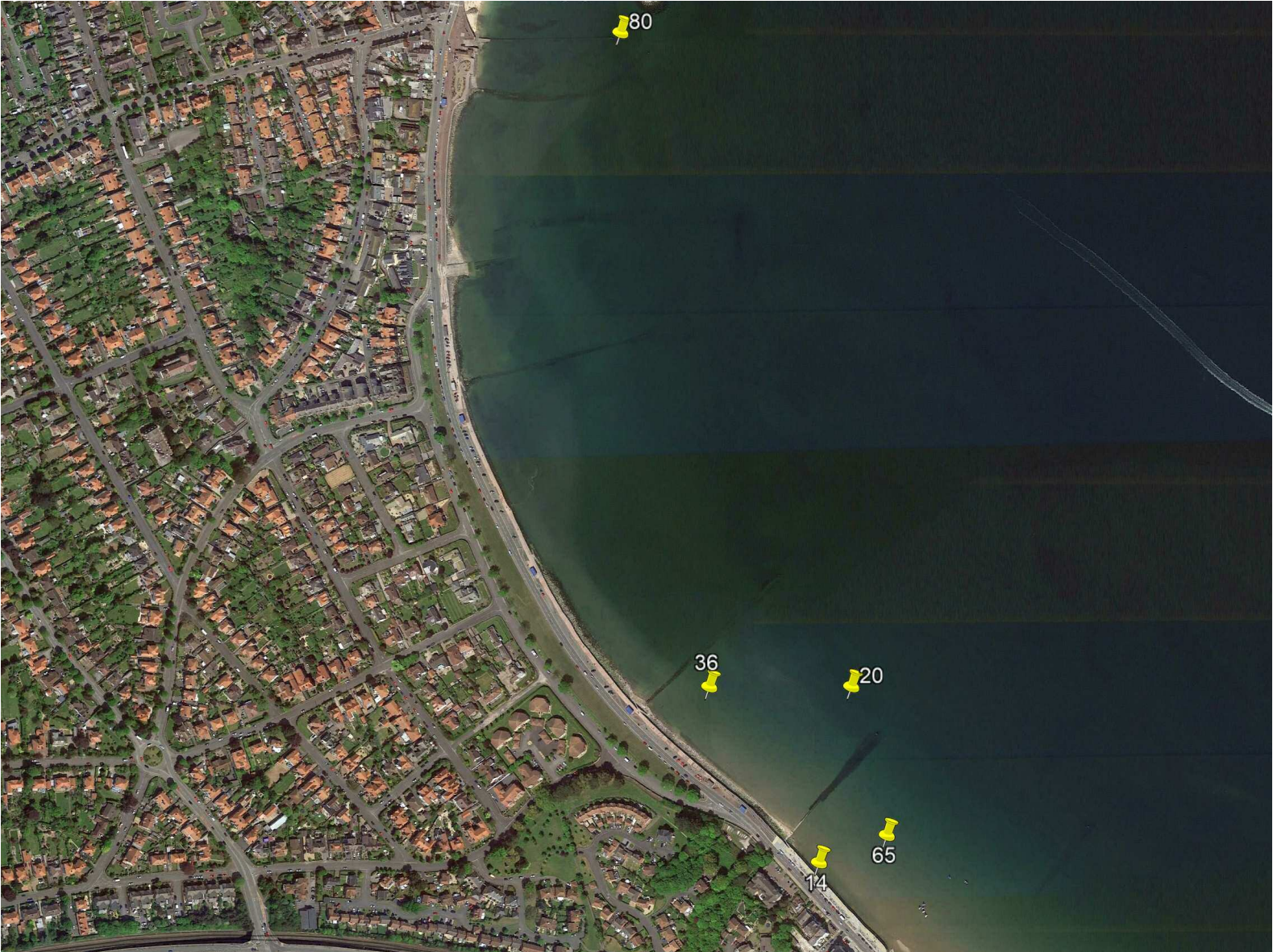
The proposed development model was checked for accuracy and consistency with supplied sections and elevations and subsequently aligned to the survey.

Using EXIF data that is attached to each photograph, an exact time of photography was noted and a lighting system was created in the 3D model to match the theoretical sunlight conditions at that time of day.

OCCCLUSION AND PERCEPTION OF THE PROPOSED VIEW

Within the limits of current technology and available data, techniques and experienced judgement were employed by the visualiser to manipulate the rendered image so that it appears as photorealistic as possible. With the rendered proposals aligned to the photography, a mask was applied to hide aspects of the proposed development that would be occluded by existing features such as existing structure or vegetation. This process was performed on all views. The unsightly heras fencing on the current Rhos on Sea promenade redevelopment was also photoshopped out of the final images to give a more accurate depiction.

LOCATIONS



FOCAL LENGTHS

14	24mm (cropped 3.13 x 1 aspect ratio)
20	24mm (cropped 3.13 x 1 aspect ratio)
36	24mm (cropped 3.13 x 1 aspect ratio)
65	24mm (cropped 3.13 x 1 aspect ratio)
80	105mm

GPS DATA

53°18'4.26959" N	3°44'0.293900" W
53°18'9.52559" N	3°43'58.06550" W
53°18'9.69839" N	3°44'5.920700" W
53°18'4.74479" N	3°43'56.22229" W
53°18'32.1479" N	3°44'11.14079" W

AVR 14



AVR 20



AVR 36



AVR 65





PHOTO 14 WITH SURVEY OVERLAY



PHOTO 20 WITH SURVEY OVERLAY



PHOTO 36 WITH SURVEY OVERLAY



PHOTO 65 WITH SURVEY OVERLAY



PHOTO 80 WITH SURVEY OVERLAY







