

Photograph 12 View from Poulters Lane adjacent to the north west corner of the Site looking south east

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 06:52

Canon 5D Mk4 1.6x, Canon EOS 50mm

foV 90°

Viewpoint Location (Lat, Long): 52.210355, 0.668295

Viewpoint altitude 94m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica G\$18T GP\$ & Google Earth
Distance to closest boundary edge (approx): 3m

Looking direction: South east





Photomontage from Viewpoint 12 - Year 1 View from Poulters Lane adjacent to the north west corner of the Site looking south east

Cylindrical projection

48% @ A3, 96% @ A1

02.07.2025, 06:52

Canon 5D Mk4 1.6x, Canon EOS 50mm

HfoV 90°

Viewpoint Location (Lat, Long): 52.210355, 0.668295

Viewpoint altitude 94m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica GS18T GPS & Google Earth

Distance to closest boundary edge (approx): 3m

Looking direction: South east

- Proposals shown are based on the River Linnet Site Layout Plan provided by Quintas and Landscape Mitigation as shown on Landscape Strategy Plan by CSA
- See appendices for full technical methodology





Photomontage from Viewpoint 12 - Year 15 View from Poulters Lane adjacent to the north west corner of the Site looking south east

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 06:52 Canon 5D Mk4 1.6x, Canon EOS 50mm

HfoV 90°

Viewpoint Location (Lat, Long): 52.210355, 0.668295

Viewpoint altitude 94m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica G\$18T GP\$ & Google Earth Distance to closest boundary edge (approx): 3m

Looking direction: South east

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Photograph 17 View from Whepstead Road adjacent to the north east corner of the Site looking south west

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 07:42 Canon 5D Mk4 1.6x, Canon EOS 50mm HfoV 90°

Viewpoint Location (Lat, Long): 52.208744, 0.682998

Viewpoint altitude 89m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica GS18T GPS & Google Earth Distance to closest boundary edge (approx): 458m Looking direction: South west





Photomontage from Viewpoint 17 - Year 1 View from Whepstead Road adjacent to the north east corner of the Site looking south west

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 07:42 Canon 5D Mk4 1.6x, Canon EOS 50mm

HfoV 90°

Viewpoint Location (Lat, Long): 52.208744, 0.682998

Viewpoint altitude 89m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica G\$18T GP\$ & Google Earth Distance to closest boundary edge (approx): 458m

Looking direction: South west

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Photomontage from Viewpoint 17 - Year 15 View from Whepstead Road adjacent to the north east corner of the Site looking south west

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 07:42 Canon 5D Mk4 1.6x, Canon EOS 50mm HfoV 90°

Viewpoint Location (Lat, Long): 52.208744, 0.682998

Viewpoint altitude 89m AOD plus 1.5m (approx, rounded to nearest 0.5m) $\,$

Location data based on Leica G\$18T GPS & Google Earth Distance to closest boundary edge (approx): 458m Looking direction: South west

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Photograph 20 View from Chedburgh Road looking north towards the Site

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 08:46 Canon 5D Mk4 1.6x, Canon EOS 50mm

HfoV 90° Viewpoint Location (Lat, Long): 52.197692, 0.667566

Viewpoint altitude 104.5m AOD plus 1.5m (approx, rounded to nearest 0.5m) Location data based on Leica GS18T GPS & Google Earth

Distance to closest boundary edge (approx): 255m
Looking direction: North





Photomontage from Viewpoint 20 - Year 1 View from Chedburgh Road looking north towards the Site

Cylindrical projection 48% @ A3, 96% @ A1

02.07.2025, 08:46

Canon 5D Mk4 1.6x, Canon EO\$ 50mm

HfoV 90°

Viewpoint Location (Lat, Long): 52.197692, 0.667566

Viewpoint altitude 104.5m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica GS18T GPS & Google Earth

Distance to closest boundary edge (approx): 255m Looking direction: North

- Proposals shown are based on the River Linnet Site Layout Plan provided by Quintas and Landscape Mitigation as shown on Landscape Strategy Plan by CSA
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Photomontage from Viewpoint 20 - Year 15 View from Chedburgh Road looking north towards the Site

Cylindrical projection 48% @ A3, 96% @ A1

02.07.2025, 08:46

Canon 5D Mk4 1.6x, Canon EOS 50mm

HfoV 90°

Viewpoint Location (Lat, Long): 52.197692, 0.667566

Viewpoint altitude 104.5m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica G\$18T GP\$ & Google Earth
Distance to closest boundary edge (approx): 255m

Looking direction: North

- Proposals shown are based on the River Linnet Site Layout Plan provided by Quintas and Landscape Mitigation as shown on Landscape Strategy Plan by CSA
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Photograph 25 View from Bury Road looking north west towards the Site

Cylindrical projection 48% @ A3, 96% @ A1 02.07.2025, 08:24

Canon 5D Mk4 1.6x, Canon EOS 50mm HfoV 90°

Viewpoint Location (Lat, Long): 52.193565, 0.681396

Viewpoint altitude 99m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica G\$18T GP\$ & Google Earth
Distance to closest boundary edge (approx): 1031m
Looking direction: North west





Photomontage from Viewpoint 25 - Year 1 View from Bury Road looking north west towards the Site

Cylindrical projection 48% @ A3, 96% @ A1

02.07.2025, 08:24

Canon 5D Mk4 1.6x, Canon EO\$ 50mm

Looking direction: North west

HfoV 90°

Viewpoint Location (Lat, Long): 52.193565, 0.681396

Viewpoint altitude 99m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica GS18T GPS & Google Earth

Distance to closest boundary edge (approx): 1031m

- Proposals shown are based on the River Linnet Site Layout Plan provided by Quintas and Landscape Mitigation as shown on Landscape Strategy Plan by CSA
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Photomontage from Viewpoint 25 - Year 15 View from Bury Road looking north west towards the Site

Cylindrical projection

48% @ A3, 96% @ A1

02.07.2025, 08:24

Canon 5D Mk4 1.6x, Canon EO\$ 50mm

HfoV 90°

Viewpoint Location (Lat, Long): 52.193565, 0.681396

Viewpoint altitude 99m AOD plus 1.5m (approx, rounded to nearest 0.5m)

Location data based on Leica GS18T GPS & Google Earth

Distance to closest boundary edge (approx): 1031m

Looking direction: North west

- Proposals shown are based on the River Linnet Site Layout Plan provided by Quintas and Landscape Mitigation as shown on Landscape Strategy Plan by CSA
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Qualifications

- **1.0** CGEye Ltd was founded in 2004 and is established as one of the most experienced studios in the UK producing high-quality visuals for marketing and planning. We are experts in 3d modelling and post-production. All work on survey-verified views (AVR's) is led by the founding Director Paul Smith.
- **1.1** It is a private company employing 8 staff with a team of highly experienced CG Artists qualified to degree level.
- 1.2 We have been producing AVR's for over 15 years, and in that time have helped with planning applications and appeals for many infrastructure projects for Scottish and Welsh Power in England, Scotland and Wales, a number of solar farm applications around the UK, and numerous private housing LVIAs for some of the UK's biggest housebuilders. We have also worked in this area for warehousing projects, water treatment works and Grain storage facilities. Our work is carried out in line with current Landscape Institute guidelines.

Work commissioned

- **2.1** CGEye was commissioned by CSA Environmental.
- **2.2** The model used for the project was created by CGEye Ltd using a standard Solar array design, set to a height of 3 Metres.

Choice of simulation technique & media used

- **3.1** A photomontage is best described as a hybrid view combining base photography and cgi overlays. The intention is to represent the finished built environment as closely as possible, although no media can currently reproduce the human experience of viewing a scene. There is no method of analysis or representation that will accurately summarise every lighting, material, social, sensory or climatic condition.
- **3.2** The photomontage used here is optimised to show:
 - a) Visual impact of proposed solar farm.
 - b) Planting mitigation & screening over 1 & 15 years.
- **3.3** All views were produced from single frame shots and compiled into panoramic views at Year 1. The resulting panoramas were used to produce the Year 15 variants.

Photography

4.1 Photography was carried out using the following equipment to meet LI type 4 specification.

Body: Canon EOS 5D Mk 4

Lens: 50mm fixed (Canon EF 50mm f/1.2L USM).

- **4.2** Photos were recorded in both Jpg and Raw (CR2) format so that any necessary adjustments to colour balance, white balance, exposure etc. could be made in post-production without a compromise in quality.
- **4.3** Photos were taken using a tripod set at a recorded height from the ground and levelled using an in-built bubble- level. A plumb bob was suspended from the central shaft to locate the ground position of the camera so that the surveyor could record the exact locations.
- **4.4** A series of photos were recorded from the same setup that cover a wider panoramic view when stitched. All were recorded with at least a 40% overlap to minimise vertical distortion when stitched.

Figs: 1 & 2 Single-frame base photo as shot, showing ground stakes and other features used to assist with alignment of model.



Surveying

5.1 Processed data delivery

Survey data was supplied by Wintech as a 3d .DWG file and excel spreadsheet.

Using a Leica GS18T with tilt function, a survey station control baseline was set up from GPS observations and related to Ordnance Survey(OS) National Grid(OSGB36) using the OS RTK Active Network (OS Net). All levels relate to OS datum (GPS).

From this baseline, the camera position and 5 or more points of detail within the photo frame were measured and these 3D coordinates were recorded.

The professional surveying equipment employed delivers sub-cm positional accuracy suitable for LI TGN 06/19 compliant 'Type 4 survey-verified' photography and photomontage work.

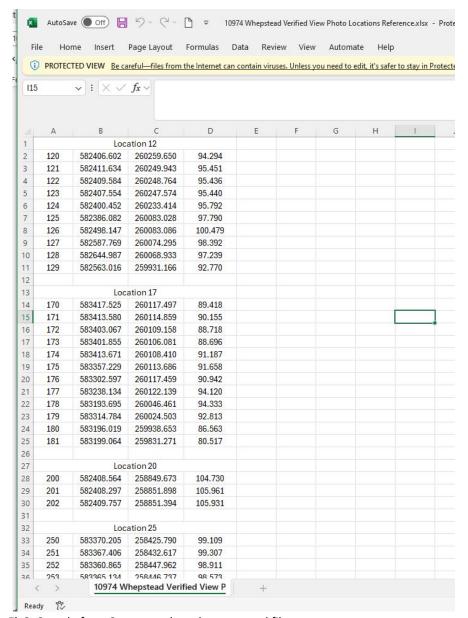


Fig3: Sample from Surveyors data sheet as excel file.

3D Modelling and view verification

- **6.1** CGEye Ltd Created a model of the solar arrays and positioned them using the layout plan provided. Using topographical survey drawings of the area and finished levels we were able to correctly place the model in realworld space, in Eastings, Northings and vertical height.
- **6.2** The survey files containing the coordinates for the control points were supplied to us as a 3D CAD file and a spreadsheet and we imported this information into our 3d software.
- **6.3** Next, we placed the required photograph as a background image in our software and placed a 'virtual' camera at the co-ordinates recorded at the site visit (i.e. at the position of the pin/marker representing the location of the real camera). The camera settings (focal length) and height above ground were adjusted to match those of the real camera.
- **6.4** We then could see the imported control points in 3d space, and all that was then required was to adjust the roll and tilt of the virtual camera so that those points matched the corresponding references in the photo.

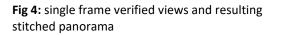
(See Appendix C)

Post-Production

- **7.1** The aligned 3d model was rendered at the same resolution and aspect ratio as the base photos. Rendering was done with full material detail. Verified views have to be compiled from single frame shots. For the wider panoramas it was necessary to set up 3 x single verified views, then stitch the composite images together afterwards.
- **7.2** The anticipated screening at years 1 & 15 was shown for each location. The landscaping and planting plans were used as a guide for this.
- **7.3** Because of the organic and unpredictable nature of vegetation growth, the growth patterns are estimated based on expected density and usual growth of species type. Viewing foreshortening is also taken in to account.

Images should be presented to a scale matching the LI TGN 06/19 definition of a 100% reference image. This equates to presenting a single frame (from a full frame sensor SLR camera with a 50mm lens) at 390mm x 260mm (fitting on an A3 sheet). A 39.6° horizontal field of view is presented for correct viewing at a comfortable arm's length. Specifically, this creates an image that is correctly scaled (mathematically) when viewed at 542mm from the eye.







Appendix B: Survey information & technical details

| View No | location | seaso n | style | Trip od heig ht | Single/ pano | Horizont al FOV | Vertical FOV | Lens | Date | Time | Eastings | Northings | Elevatio n (mAOD) | Eye level (mAOD) | Distance to nearest boundary | Bearin g |
|------------|--|---------------------------------|------------------|--------------------------|-----------------|--------------------------|----------------------------|------|----------|---------|-------------|-------------|-------------------------|----------------------------|---------------------------------------|-------------|
| LOC 12 | Poulters Lane to NW corner of site | Summer Clear and sunny | Full rendered | 1.59 M | Single/ pano | 39° (single frame) | 26.9° (single frame) | 50mm | 02/07/25 | 06:52am | 582406.602m | 260259.65m | 94.294 | 1.59m | 3m | 151° |
| LOC 17 | Whepstead Road to East of site | Summer Clear and sunny | Full rendered | 1.60 M | Single/ pano | 39° (single frame) | 26.9° (single frame) | 50mm | 02/07/25 | 07:42am | 583417.525m | 260117.497m | 89.418m | 1.60m | 458m | 235° |
| LOC 20 | Chedburgh Road to South of site | Summer Clear and sunny | Full rendered | 1.62 M | Single/ Pano | 39° (single frame) | 26.9° (single frame) | 50mm | 02/07/25 | 08:46am | 582408.564m | 258849.673m | 104.73m | 1.62m | 255m | 14° |
| LOC 25 | Bury Road to SE of site | Summer Clear and sunny | Full rendered | 1.56 M | Single/ Pano | 39° (single frame) | 26.9° (single frame) | 50mm | 02/07/25 | 08:24am | 583370.205m | 258425.79m | 99.109 | 1.56m | 1031m | 329° |

Appendix C: Verified setup – Viewport captures

Fig 5: Base photo showing surveyors control points (yellow crosses) aligned with ground stakes and telegraph poles.

Fig 6: View with proposals shown in place prior to rendering.



