

#### **Stonestreet Green Solar**

Volume 4: Appendices
Chapter 8: Landscape and Views
Appendix 8.10: LVIA Visualisations

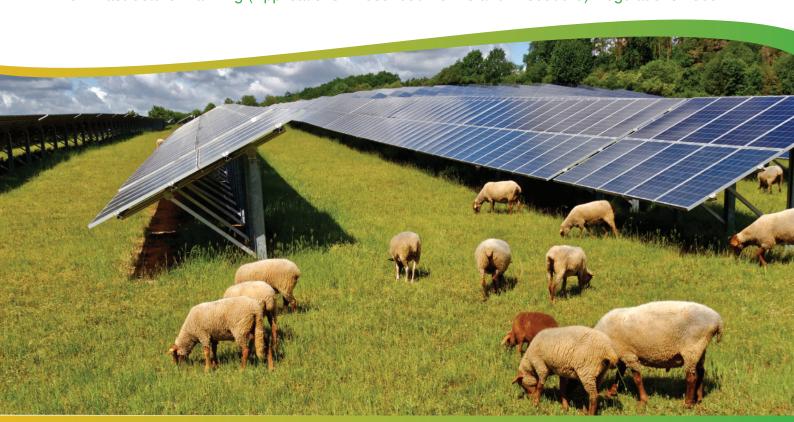
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The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



**Environmental Statement, Volume 4 Appendix 8.10: LVIA Visualisations** 



Stonestreet Green Solar Farm, Aldington, Kent LVIA Summer Views

Photomontages and methodology

May 2024

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#### 1.0 Overview

This document has been prepared by Realm Communications on behalf of EPL 001 Limited ('the Applicant') to detail the methodology used in the creation of accurate visual representations (AVRs) in realtion to the Development Consent Order ('DCO') application for Stonestreet Green Solar ('the Project'). This methodology document is Environmental Statement, Volume 4, Appendix 8.10: LVIA Visualisations.

The visual assessment of the proposed development reflects current best practice in relation to the verification of images, a process which is constantly being refined and improved with advances in technology and industry experience. The purpose of the photomontages is to present an accurate overview of the proposed development which enables its effect on the landscape and views to be objectively evaluated. Every image contained within this document is verified unless otherwise stated. Final images should not be used as a standalone tool to assess the suitability of a development, but should be used in conjunction with a site visit.

This audit trail demonstrates the key stages of production (that can, if required, be checked by a third party) including photography, surveying, 3D modelling and camera matching processes - all critical to ensuring the accuracy of the final photomontages. These methodologies are in accordance with current best practice and follow recommendations from The Landscape Institute's Technical Guidance Note (TGN 06/19): Visual Representation of Development Proposals.

The entities responsible for the preparation of the views that are set out in the following pages comprise:

#### **Selection of viewpoints**

SLR Consulting Limited Floor 3, The Cursitor Building 8 Chancery Lane London WC2A 1EN Phone: 0 3300 886631

#### **Photography**

Arcminute Ltd 25b Pall Mall Deposit ,124-128 Barlby Road Ladbroke Grove London W10 6BL Phone: 07774 857627

#### **Survey of existing views and camera locations**

Datum Survey Services
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High Road, Thornwood, Epping CM16 6TH
Phone: 07977 111935

#### **Production and checking of verified images**

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#### 2.0 Methodology

#### 2.1 Photography

The professional architectural photographer employed on this project was briefed by Realm to work to a methodology which conforms to the principles specified in section 1.0 Overview. The following methodology statement has been supplied by Arcminute:

**Photography brief** The following methodology applies to the production of photographic images originating in May 22, Jun 22, Dec 22, Apr 23, Jul 23 and Aug 23 which form the pictorial basis for visual impact assessment photomontages for 31 views for Stonestreet Green, Solar Farm Aldington, Kent.

**Overview** The Arcminute system is designed to create geometrically accurate photography and verifiable data for all its associated parameters and is fully compliant with all guidelines covering images required to be aligned with survey data for use in planning applications.

**Equipment** Images are captured on a 36mm x 24mm 61

megapixel digital sensor in combination with the following lenses: 17mm, 24mm, 35mm, 52mm and 80mm with shift capability (specially selected for best in class resolution and customised to conform to the high precision focal length and optical axis settings required in the process). Re camera mounts, custom made designs for both single frame and panoramic capture are used to obtain high precision camera positioning and orientation tolerances.

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For every view, a photographic record is made of the tripod location, the survey mark and the height reading of the camera above it.

**Post production** Standard image processing for dealing with RAW files is undertaken to create a TIFF image that honestly represents the scene in terms of tonality and colour. This image is then processed to remove lens distortion and identify the XY position on the image of the optical axis. Using an image that is fully corrected for distortion enables all the survey points in the image to be used for alignment and not just those confined to the so-called central 'safe area'.

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more manageable size based on 100 pixels per degree. For example, a 120 deg x 40 deg panorama has a pixel size of 12000 x 4000 or 48 megapixels. The image is then placed in a larger background where the optical axis is aligned with it's center in order to present the end users rendering application with a 'non shifted' image.

The following data is recorded on a text layer:

- Date and time
- Lens focal length (to nearest 0.001mm)
- Image size in pixels and mm
- Height above survey point (to nearest 0.001m)
- Lens shift (nominal figure to nearest mm)

The survey points are marked up on a separate layer by the survey team. This layer can be set in a blending mode so that the precise point on the image below the marked dot can be seen. Where temporary survey targets have been set up in the scene the before and after images are included as separate TIFF layers to enable both accurate camera alignment and seamless removal of the targets for final output.

**Issued files** The following files were issued to Realm:

- A layered TIFF containing the image and all of the above data.
- A flattened JPEG showing the survey points for use in the alignment process
- A photo of the tripod setup
- Any other supporting evidence deemed relevant to the end user such as a KMZ file of camera locations and other supplementary photography.

#### 2.2 Survey

All of the baseline photographs were taken by a professional architectural photographer. Each viewpoint location is surveyed and identified by Ordnance Survey co-ordinates. The heights and distances of significant points within each view that are easily distinguishable have also been recorded as Ordnance Survey grid and level datum and their accuracy has been checked relative to the fixed camera position. The survey points for each view provide an effective check for ensuring that the 3D model and existing views are accurately merged together.

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- PDF copies of each photo with point locations and view specific point numbers clearly marked
- AutoCAD DWG file containing 3D survey points with view specific point numbers.

Several views lacked sufficient clearly defined detail to survey. In these instances retro targets mounted on ranging rods were introduced to act as 'artificial' points within the field of view.

#### 2.3 3D model of proposed solar farm

The 3D building model of the proposed development (which is superimposed upon the 'existing' views) was created by Realm using CAD supplied by SLR and information supplied by Evolution Power. The 3D digital model was located into OS space (the survey used for the camera matching is in this coordinate system) using a combination of OS extracts, local site surveys and the site plans as provided by the architects. Spot height information from the architect's CAD was used to set the model's Z position in metres Above Ordnance Datum (AOD).

#### 2.4 3D landscape

Supplied by SLR and Quod.

#### 2.5 Camera matching

The verification process confirms the accuracy of the 3D model in relation to each view. The camera matching process involves

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accurately matching the position of the virtual camera with the real world camera in OS space, and the location of the 3D model of the proposed development within each (existing) view. This is achieved through aligning the imported 3D cloud of survey points within the base photo and 3D environment, creating a virtual camera that replicates the exact position and height of the real world camera to produce an image where the rendered survey points match in visual location those recorded by the survey team and photographer.

The specifications of the lens type relating to each existing view are also entered into 3DS Max to help guide with alignment. An alignment is deemed correct only when all survey points sit exactly over the pixel in the photo that corresponds with the marked-up survey photo. If all points match, the virtual camera must therefore be correctly aligned.

For each view we measure the distance from camera to target and apply respective equations to establish the potential adjustment necessary to compensate for both curvature of the earth and light refraction. Typically, when the real world camera is positioned within 1.5km from the target, the effects of curvature of the earth and light refraction are deemed to be negligible in terms of their visual impact and therefore no adjustment is made to the Z axis of the building model within the view.

#### 2.6 Lighting and rendering

To accurately light the 3D model, 3DS Max's 'daylight system' is set to replicate the solar time, date and geographic location (longitude and latitude) as recorded in the base photograph. The settings used for each base photograph (F stop, shutter speed etc) are replicated in both this 'daylight system' and the virtual camera set-up. This process mimics the virtual sun so that the lighting falls upon the 3D model as it would in real life at the point when the photograph was captured. Fine tuning is sometimes necessary to better match the resultant lighting and shadows to the base photograph.

Once the camera matching and lighting processes are complete, the render of the 3D model is output to the same pixel resolution as per each respective base photograph.

#### 2.7 Post production

**Fully rendered views** The render of the three-dimensional model was superimposed on the existing still views in Adobe Photoshop. The foreground of the existing views was then copied and placed over the rendered model in order to ensure that the depth is accurate within the photomontage view between the foreground, background and the rendered model.

At this stage, for the fully rendered photomontages, the textured model can adjusted to match the resolution, colouring and saturation of the photograph taken to create a close impression of what the textures of the buildings and structures would look like. This is a qualitative exercise and requires interpretation by the designer on how the structure will look. A final qualitative check of all of the photomontage images has been carried out to ensure that they provide objectively accurate views of the proposed development.

#### 2.8 Recommended viewing distances

It is recommended that final images are viewed at an optimum viewing distance (in relation to the size of printed photomontage) to give a correct sense of scale. We recommend that images are printed to a size that creates a comfortable viewing distance of up to 525mm.

We recommend that this document is printed at A3 size.

#### 2.9 Caveats

None.

## **3.0 Viewpoint Locations**

Ordance survey co-ordinates					
View Ref	Eastings	Northings	AOD Height		
6S	604808.228	136846.572	55.863		
125	605726.034	137191.606	70.258		
145	606258.86	137014.125	75.196		
16S	606406.2	137742.942	47.846		
20S	607183.685	138072.107	49.338		
22S	609425.873	137882.483	67.001		
24S	606417.867	136687.018	76.961		
25S	606693.664	137088.024	57.816		
27S	606765.645	136264.406	72.269		
285	607341.858	136246.190	86.395		
295	603738.835	137833.275	72.946		
30S	606140.145	138616.084	62.811		
31S	605185.774	139163.547	55.897		
34S	613592.977	140392.576	182.295		
35S	610010.323	142775.705	177.800		
36S	607881.041	145275.364	171.752		
38S	615961.853	138428.342	180.311		
3DS	608122.663	137726.051	56.604		



**Near Views** 



**Far Views** 

## **4.0** Final verified photomontages

### View 6 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 25.08.23 | Time 11:48





Full 140 degree panorama showing view context

## View 6 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 6 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 12 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 10:36





Full 180 degree panorama showing view context

## View 12 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 12 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 14 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 10:03





Full 180 degree panorama showing view context

## View 14 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 14 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 16 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 11:08



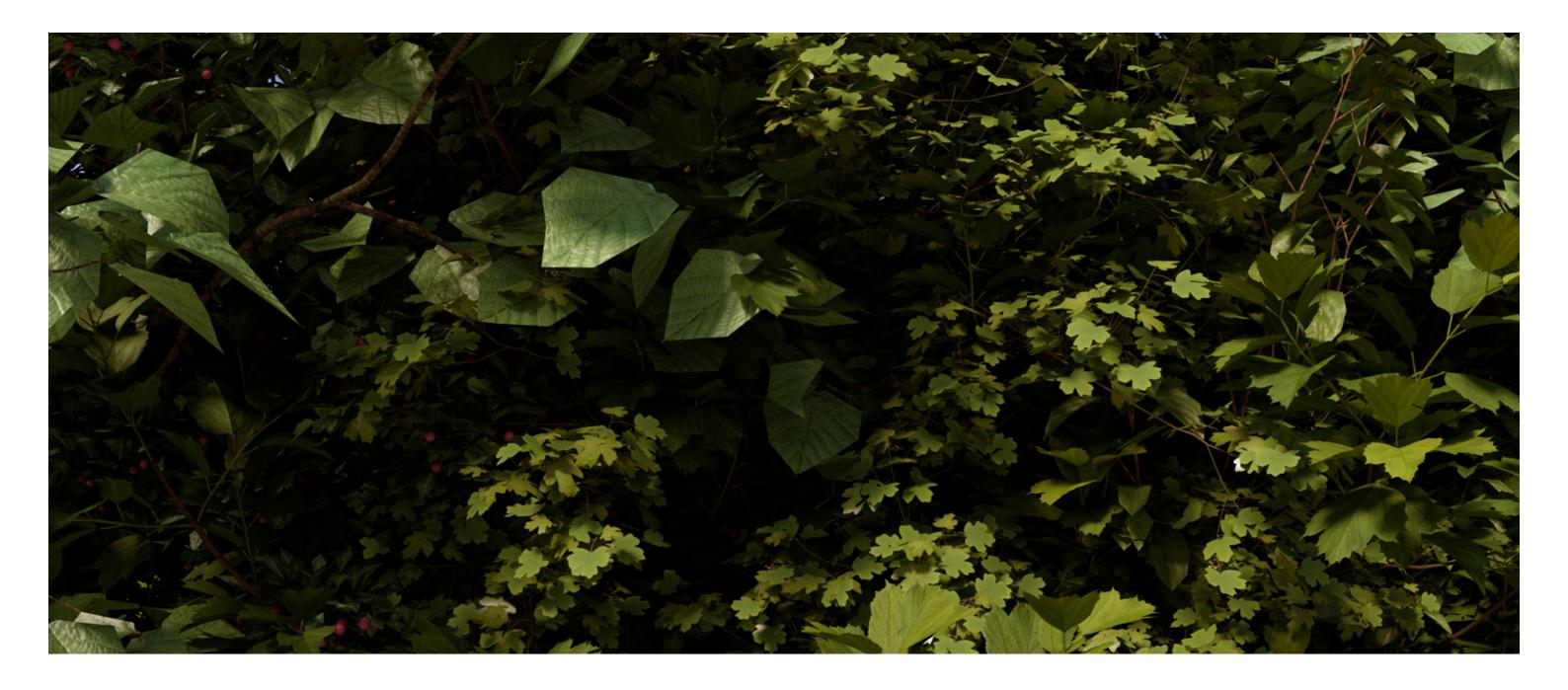


Full 180 degree panorama showing view context

## View 16 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 16 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 20 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 05.09.23 | Time 09:27





Full 180 degree panorama showing view context

## View 20 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 20 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 22 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 26.07.23 | Time 10:01





Full 180 degree panorama showing view context

## View 22 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 22 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 24 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 26.07.23 | Time 12:09





## View 24 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 24 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 25 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 26.07.23 | Time 13:01





## View 25 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 25 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 27 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 09:24





## View 27 proposed 90 degree pano - LVIA View Summer at year 1 planting



## View 27 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 28 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 26.07.23 | Time 11:38





Full 180 degree panorama showing view context

# View 28 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 28 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 29 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 12:53





Full 180 degree panorama showing view context

# View 29 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 29 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 30 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 12:53





Full 180 degree panorama showing view context

# View 30 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 30 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 31 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 17.05.22 | Time 12:17





Full 180 degree panorama showing view context

# View 31 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 31 proposed 90 degree pano - LVIA View Summer at year 15 planting



# View 33 existing ILLUSTRATIVE VIEW (non-verified) Summer





Full 180 degree panorama showing view context

# View 33 proposed ILLUSTRATIVE VIEW (non-verified) Summer year 1 planting



# View 33 proposed ILLUSTRATIVE VIEW (non-verified) Summer year 1 planting



### View 34 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 14.06.22 | Time 08:52





Full 180 degree panorama showing view context

# View 34 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 34 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 35 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 26.07.23 | Time 09:20





Full 180 degree panorama showing view context

# View 35 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 35 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 36 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 26.07.23 | Time 08:33





Full 180 degree panorama showing view context

# View 36 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 36 proposed 90 degree pano - LVIA View Summer at year 15 planting



### View 38 existing 90 degree pano - LVIA View - Summer

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 22.08.23 | Time 09:55





Full 180 degree panorama showing view context

# View 38 proposed 90 degree pano - LVIA View Summer at year 1 planting



# View 38 proposed 90 degree pano - LVIA View Summer at year 15 planting





#### **Realm Communications**

The Workshop, Old Barn Cottage, Down Lane Compton, Guildford GU3 1DQ

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**Environmental Statement, Volume 4 Appendix 8.10: LVIA Visualisations** 



Stonestreet Green Solar Farm, Aldington, Kent LVIA Winter Views

**Photomontages and methodology** 

May 2024

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- AutoCAD DWG file containing 3D survey points with view specific point numbers.

Several views lacked sufficient clearly defined detail to survey. In these instances retro targets mounted on ranging rods were introduced to act as 'artificial' points within the field of view.

#### 2.3 3D model of proposed solar farm

The 3D building model of the proposed development (which is superimposed upon the 'existing' views) was created by Realm using CAD supplied by SLR and information supplied by Evolution Power. The 3D digital model was located into OS space (the survey used for the camera matching is in this coordinate system) using a combination of OS extracts, local site surveys and the site plans as provided by the architects. Spot height information from the architect's CAD was used to set the model's Z position in metres Above Ordnance Datum (AOD).

### 2.4 3D landscape

Supplied by SLR and Quod.

### 2.5 Camera matching

Environmental Statement, Volume 4, Appendix 8.10: LVIA Visualisations

The verification process confirms the accuracy of the 3D model in relation to each view. The camera matching process involves accurately matching the position of the virtual camera with the real world camera in OS space, and the location of the 3D model of the proposed development within each (existing) view. This is achieved through aligning the imported 3D cloud of survey points within the base photo and 3D environment, creating a virtual camera that replicates the exact position and height of the real world camera to produce an image where the rendered survey points match in visual location those recorded by the survey team and photographer.

The specifications of the lens type relating to each existing view are also entered into 3DS Max to help guide with alignment. An alignment is deemed correct only when all survey points sit exactly over the pixel in the photo that corresponds with the marked-up survey photo. If all points match, the virtual camera must therefore be correctly aligned.

For each view we measure the distance from camera to target and apply respective equations to establish the potential adjustment necessary to compensate for both curvature of the earth and light refraction. Typically, when the real world camera is positioned within 1.5km from the target, the effects of curvature of the earth and light refraction are deemed to be negligible in terms of their visual impact and therefore no adjustment is made to the Z axis of the building model within the view.

#### 2.6 Lighting and rendering

To accurately light the 3D model, 3DS Max's 'daylight system' is set to replicate the solar time, date and geographic location (longitude and latitude) as recorded in the base photograph. The settings used for each base photograph (F stop, shutter speed etc) are replicated in both this 'daylight system' and the virtual camera set-up. This process mimics the virtual sun so that the lighting falls upon the 3D model as it would in real life at the point when the photograph was captured. Fine tuning is sometimes necessary to better match the resultant lighting and shadows to the base photograph.

Once the camera matching and lighting processes are complete, the render of the 3D model is output to the same pixel resolution as per each respective base photograph.

### 2.7 Post production

**Fully rendered views** The render of the three-dimensional model was superimposed on the existing still views in Adobe Photoshop. The foreground of the existing views was then copied and placed over the rendered model in order to ensure

that the depth is accurate within the photomontage view. At this stage, for the fully rendered photomontages, the textured model can adjusted to match the resolution, colouring and saturation of the photograph taken to create a close impression of what the textures of the buildings and structures would look like. This is a qualitative exercise and requires interpretation by the designer on how the structure will look. A final qualitative check of all of the photomontage images has been carried out to ensure that they provide objectively accurate views of the proposed development.

### 2.8 Recommended viewing distances

It is recommended that final images are viewed at an optimum viewing distance (in relation to the size of printed photomontage) to give a correct sense of scale. We recommend that images are printed to a size that creates a comfortable viewing distance of up to 525mm.

We recommend that this document is printed at A3 size.

#### 2.9 Caveats

None.

# **3.0 Viewpoint Locations**

View Ref	Eastings	Northings	AOD Height
6W	604805.303	136846.782	57.393
12W	605727.599	137190.888	70.351
14W	Illustrative		
16W	606406.191	137742.816	47.892
22W	609423.812	137862.342	66.857
24W	606417.354	136686.418	78.634
25W	606692.204	137088.291	59.365
27W	606765.537	136264.414	72.327
28W	Illustrative		
29W	603750.607	137821.979	72.172
30W	606139.866	138615.236	62.693
31W	605183.472	139162.898	55.878
33W	Illustrative		
34W	613586.388	140385.610	181.49
35W	610010.314	142775.670	179.357
36W	607882.004	145276.942	173.379
38W	615961.479	138428.983	181.914
3DW	608121.924	137724.770	58.291



**Near Views** 



**Far Views** 

# **4.0** Final verified photomontages

### View 6 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 06.12.22 | Time 10:45





# View 6 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 6 proposed 90 degree pano - LVIA View Winter at year 15 planting



### View 12 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 13:45





Full 180 degree panorama showing view context

## View 12 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 12 proposed 90 degree pano - LVIA View Winter at year 15 planting



# View 14 existing ILLUSTRATIVE VIEW (non-verified) Winter





Full 180 degree panorama showing view context

## View 14 proposed ILLUSTRATIVE VIEW (non-verified) Winter year 1 planting



## View 14 proposed ILLUSTRATIVE VIEW (non-verified) Winter year 15 planting



#### View 16 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 14:15





Full 180 degree panorama showing view context

## View 16 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 16 proposed 90 degree pano - LVIA View Winter at year 15 planting



### View 22 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees |Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 12:24





Full 180 degree panorama showing view context

## View 22 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 22 proposed 90 degree pano - LVIA View Winter at year 15 planting



#### View 24 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 06.12.22 | Time 10:06





Full 140 degree panorama showing view context

## View 24 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 24 proposed - LVIA View 90 degree pano - LVIA View Winter at year 15 planting



#### View 25 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 06.12.22 | Time 10:17





Full 140 degree panorama showing view context

## View 25 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 25 proposed - LVIA View 90 degree pano - LVIA View Winter at year 15 planting



#### View 27 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 13:20





Full 180 degree panorama showing view context

## View 27 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 27 proposed 90 degree pano - LVIA View Winter at year 15 planting



# View 28 existing ILLUSTRATIVE VIEW (non-verified) Winter





Full 180 degree panorama showing view context

## View 28 proposed ILLUSTRATIVE VIEW (non-verified) Winter year 1 planting



## View 28 proposed ILLUSTRATIVE VIEW (non-verified) Winter year 15 planting



#### View 29 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 16:00





Full 180 degree panorama showing view context

## View 29 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 29 proposed 90 degree pano - LVIA View Winter at year 15 planting



#### View 30 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 14:49





Full 180 degree panorama showing view context

## View 30 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 30 proposed 90 degree pano - LVIA View Winter at year 15 planting



### View 31 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 15:26





Full 180 degree panorama showing view context

## View 31 proposed 90 degree pano - LVIA View Winter at year 1 planting



## View 31 proposed 90 degree pano - LVIA View Winter at year 15 planting



# View 33 existing ILLUSTRATIVE VIEW (non-verified) Winter





Full 180 degree panorama showing view context

## View 33 proposed ILLUSTRATIVE VIEW (non-verified) Winter year 1 planting



# View 33 proposed ILLUSTRATIVE VIEW (non-verified) Winter year 15 planting



### View 34 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 10:17





Full 180 degree panorama showing view context

# View 34 proposed 90 degree pano - LVIA View Winter at year 1 planting



# View 34 proposed 90 degree pano - LVIA View Winter at year 15 planting



## View 35 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 10:46





Full 180 degree panorama showing view context

# View 35 proposed 90 degree pano - LVIA View Winter at year 1 planting



# View 35 proposed 90 degree pano - LVIA View Winter at year 15 planting



### View 36 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 11:26





Full 180 degree panorama showing view context

# View 36 proposed 90 degree pano - LVIA View Winter at year 1 planting



# View 36 proposed 90 degree pano - LVIA View Winter at year 15 planting



### View 38 existing 90 degree pano - LVIA View - Winter

5 frame stitched view | FOV 90 x 38 degrees | Camera height above survey point 1650mm | Nominal lens rise 0mm | Date 19.04.23 | Time 09:45





Full 180 degree panorama showing view context

# View 38 proposed 90 degree pano - LVIA View Winter at year 1 planting



# View 38 proposed 90 degree pano - LVIA View Winter at year 15 planting





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