

Thamesfield, Henley on Thames

Accurate Visual Representations

Document prepared by Preconstruct Ltd on behalf of Retirement Villages Developments Ltd,
to accompany a planning application for the proposed development at Thamesfield, Henley on Thames.

9th September 2025
www.preconstruct.com

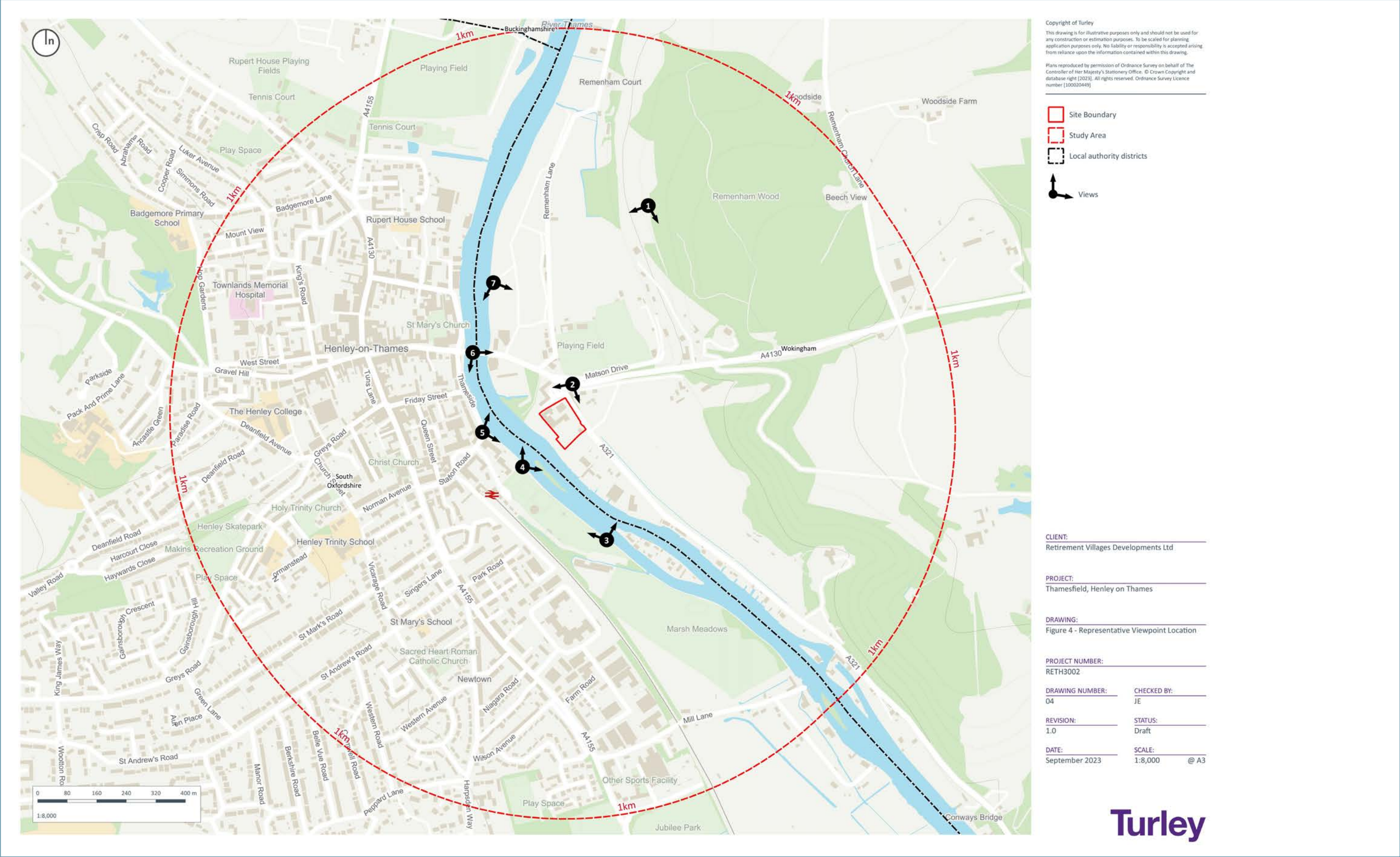


Contents

01	Viewpoint Locations	page 3
02	Viewpoint Data	page 4
03	Views	page 5
Appendix 01:	AVR Methodology	page 35
Appendix 02:	Sources of Data	page 37
Appendix 03:	Visualisation Level & Type Descriptions	page 39



01 Viewpoint Locations



02 Viewpoint Data

VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
1	Registered Common Land west of Remenham Wood	SW	AVR3 - Type4	580.5m	476830.1	183020.4	60.8	13/04/2023 / 18:53	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *
2	A4310 White Hill at junction with Wargrave Road	SW	AVR3 - Type4	70.0m	476607.9	182560.8	36.2	13/04/2023 / 18:28	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *
3	Thames Towing Path adjacent to Marsh Meadows	NW	AVR1 - Type4	360.5m	476719.7	182135.1	31.5	13/04/2023 / 16:13	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *
4	Thames Towing Path adjacent to Mill Meadows	NE	AVR3 - Type4	137.0m	476484.0	182348.7	31.2	13/04/2023 / 16:40	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *
5	Thames Towing Path at junction with Thameside	E	AVR3 - Type4	163.0m	476396.1	182429.1	31.8	13/04/2023 / 16:58	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *
6	Henley Bridge at junction with Thameside	SE	AVR1 - Type4	252.5m	476360.2	182640.0	36.2	13/04/2023 / 17:34	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *
7	Thames Path (west of Remenham Court)	S	AVR1 - Type4	382.5m	476406.2	182840.1	31.4	13/04/2023 / 18:11	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *

* All panoramic ‘existing’ views are shot with 50mm lens - 90° horizontal field of view (HFoV), cylindrical projection.

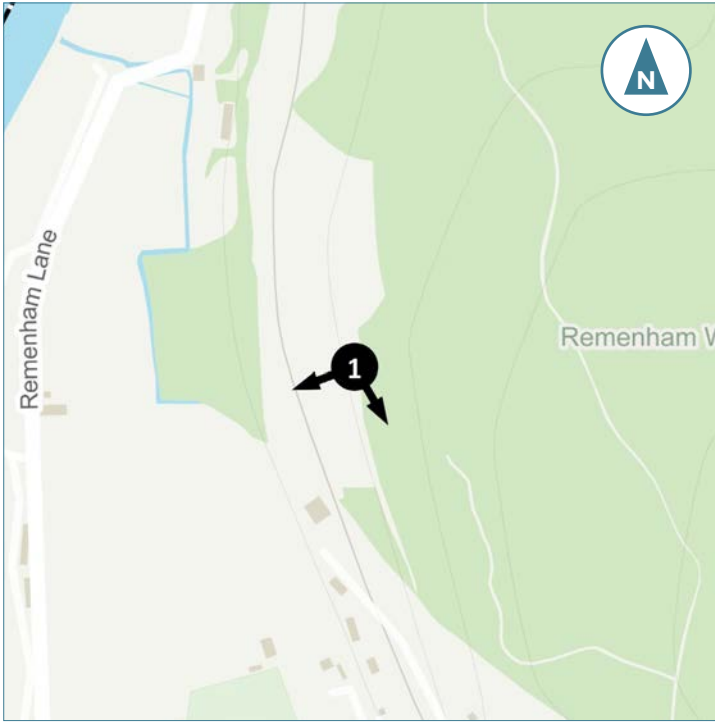
03 Views



View 1 Registered Common Land west of Remenham Wood
Existing and View Data



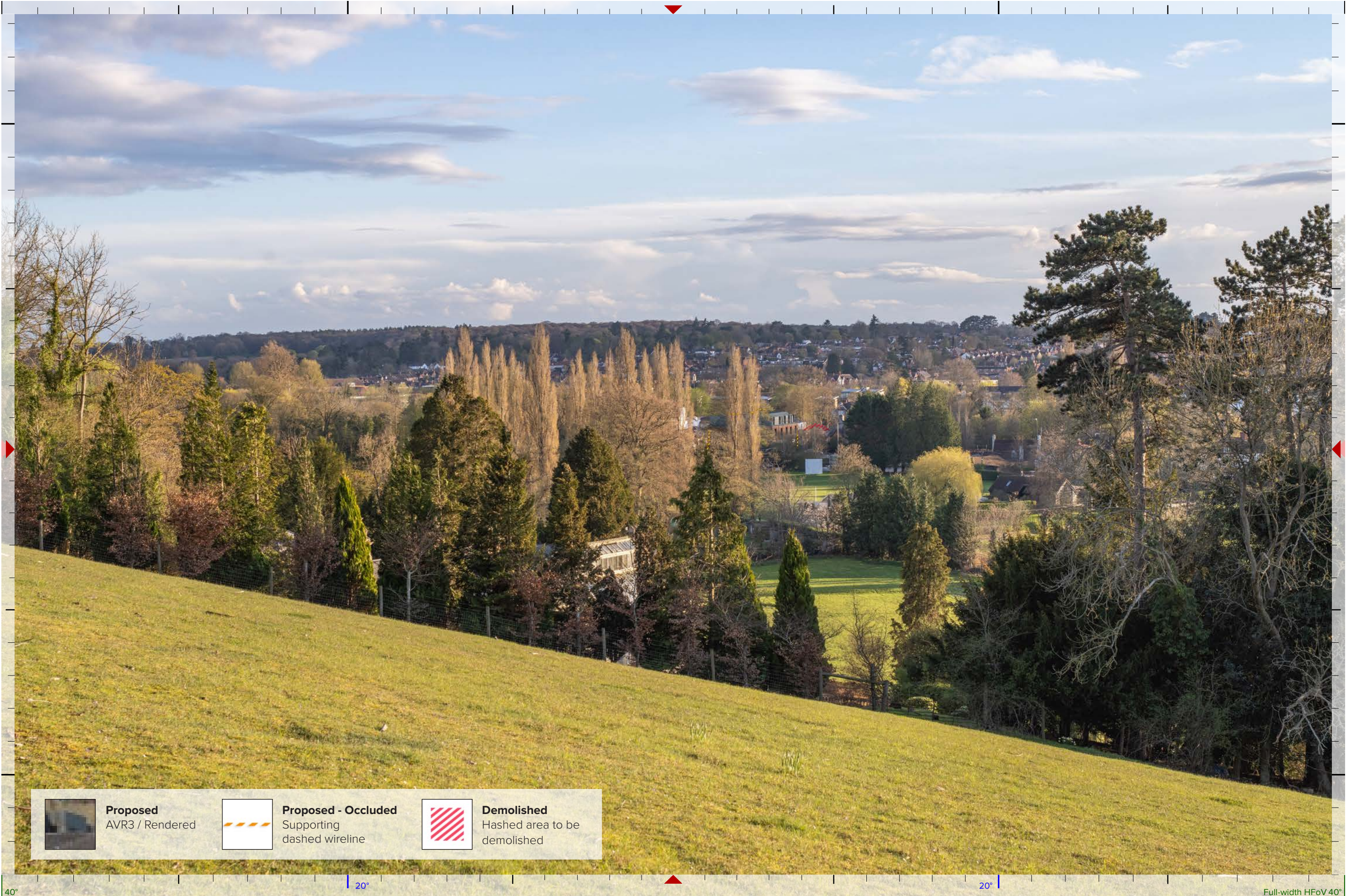
Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
1	Registered Common Land west of Remenham Wood	SW	AVR3- Type4	580.5m	476830.1	183020.4	60.8	13/04/2023 / 18:53	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *







Proposed
AVR3 / Rendered



Proposed - Occluded
Supporting
dashed wireline

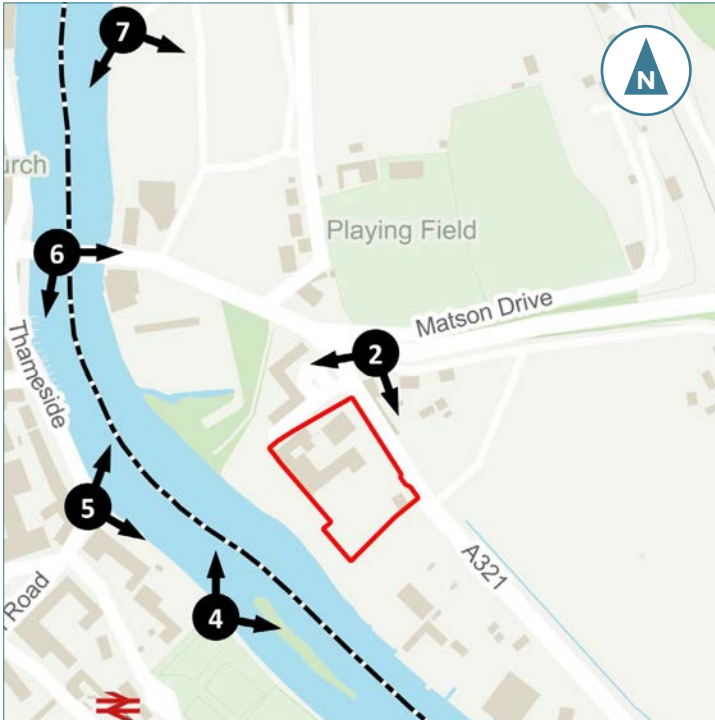


Demolished
Hashed area to be
demolished

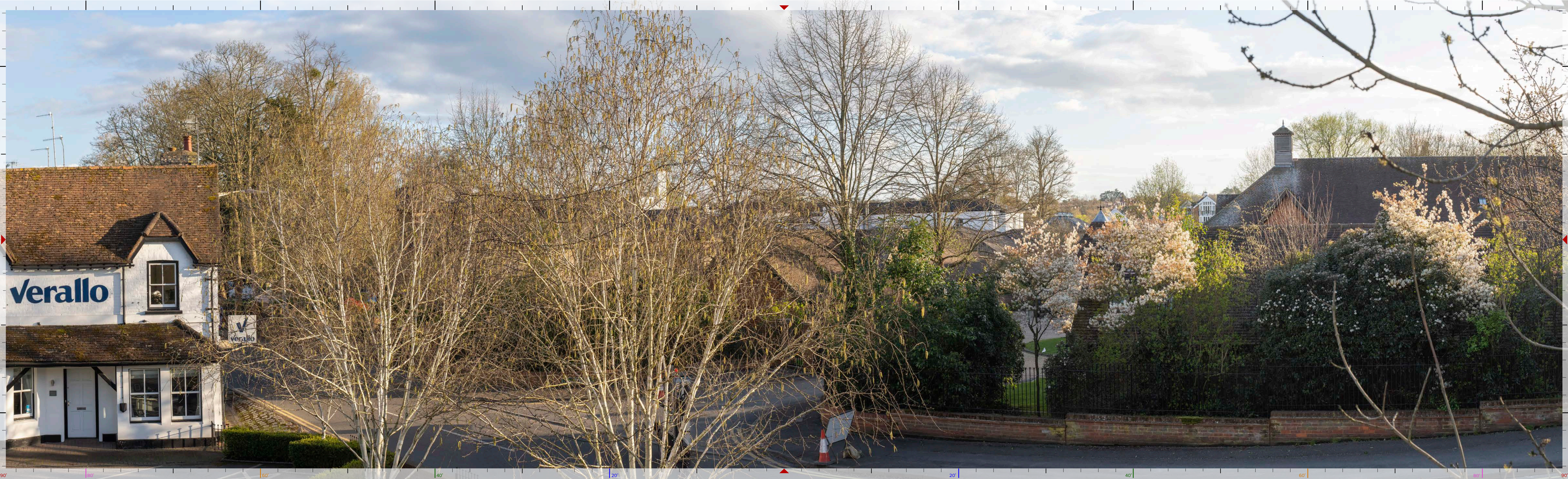
View 2 A4310 White Hill at junction with Wargrave Road
Existing and View Data



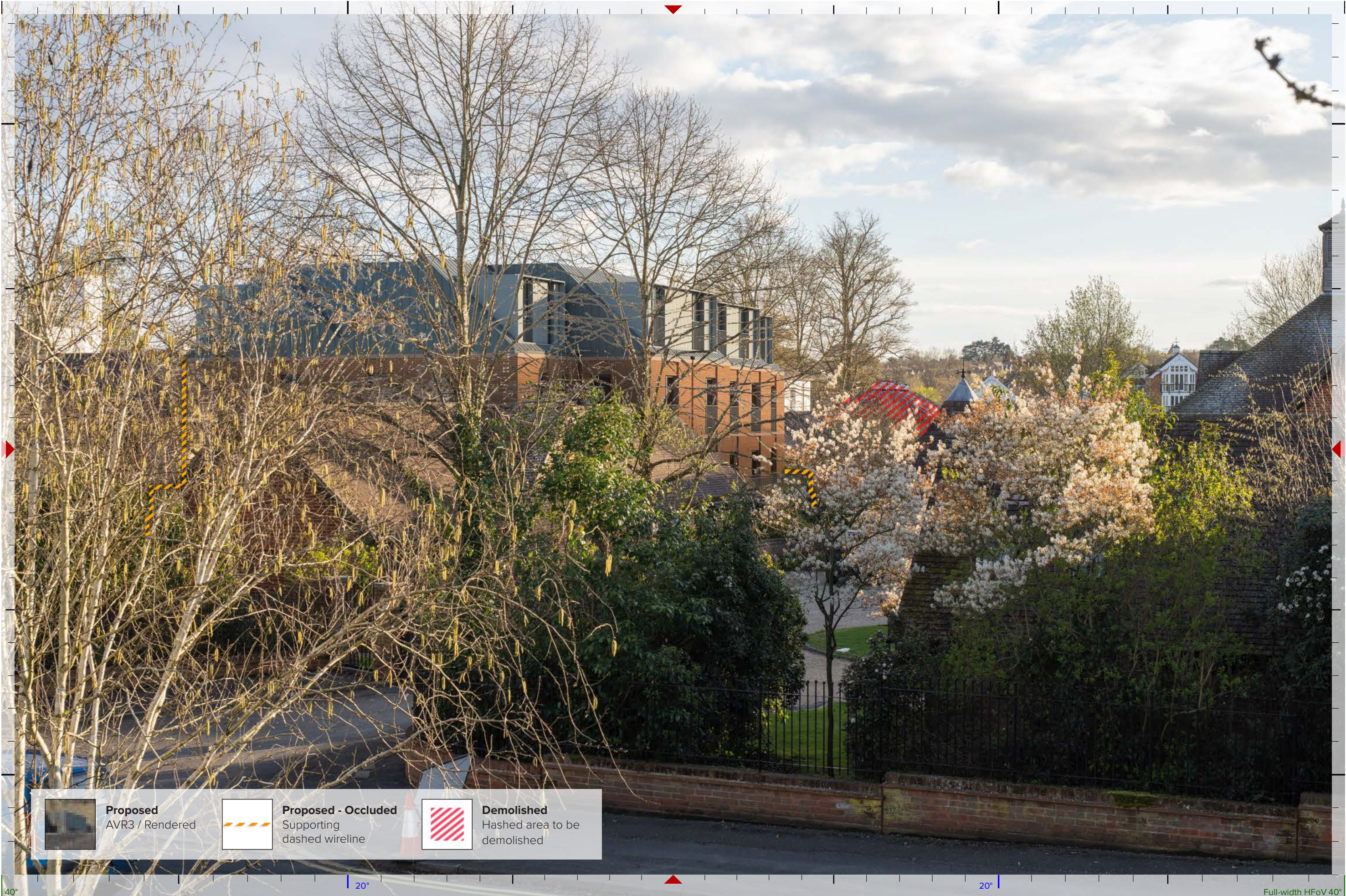
Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
2	A4310 White Hill at junction with Wargrave Road	SW	AVR3 - Type4	70.0m	476607.9	182560.8	36.2	13/04/2023 / 18:28	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *







View 3 Thames Towing Path adjacent to Marsh Meadows
Existing and View Data



Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
3	Thames Towing Path adjacent to Marsh Meadows	NW	AVR1 - Type4	360.5m	476719.7	182135.1	31.5	13/04/2023 / 16:13	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *





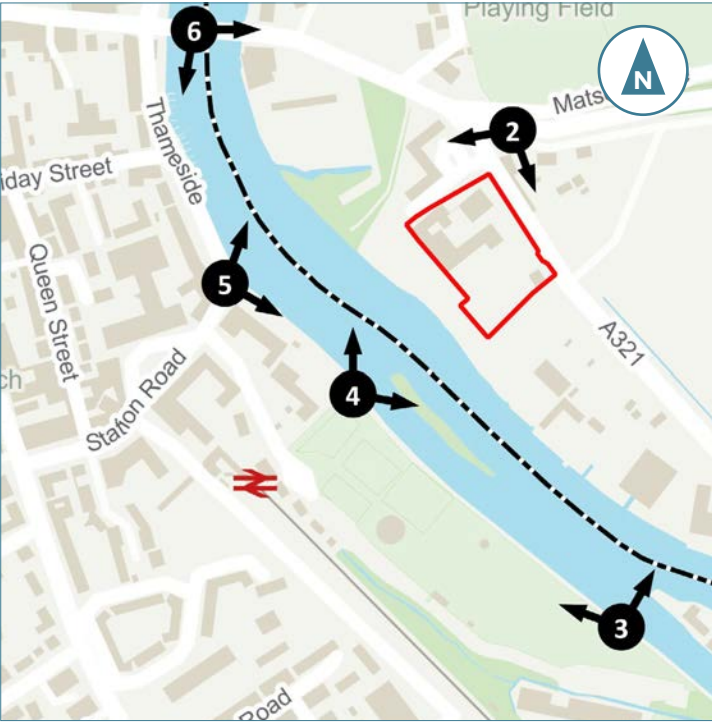


	Proposed AVR1 / Wireline Semi-transparent fill		Proposed - Occluded Dashed wireline		Demolished Hashed area to be demolished
---	---	---	---	---	---

View 4 Thames Towing Path adjacent to Mill Meadows
Existing and View Data



Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
4	Thames Towing Path adjacent to Mill Meadows	NE	AVR3 - Type4	137.0m	476484.0	182348.7	31.2	13/04/2023 / 16:40	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *



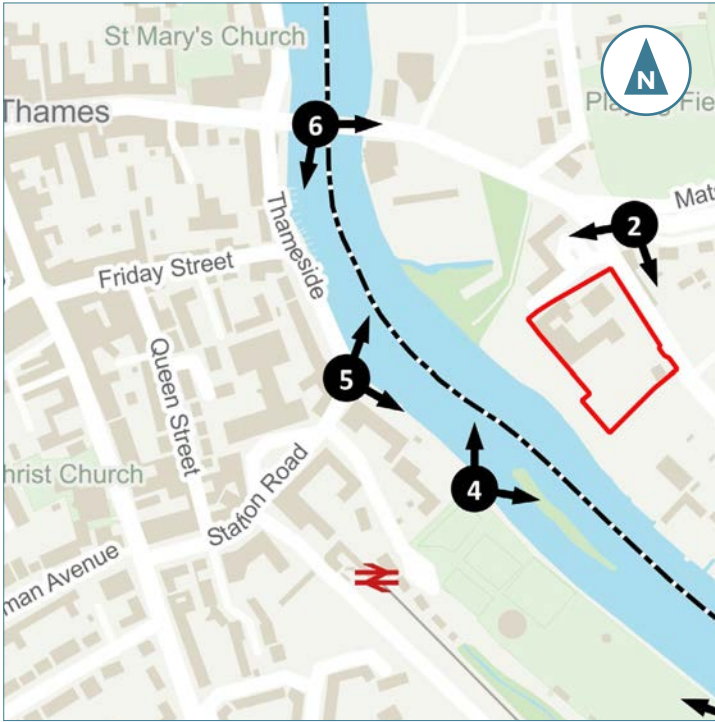




View 5 Thames Towing Path at junction with Thameside
Existing and View Data



Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
5	Thames Towing Path at junction with Thameside	E	AVR3 - Type4	163.0m	476396.1	182429.1	31.8	13/04/2023 / 16:58	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *





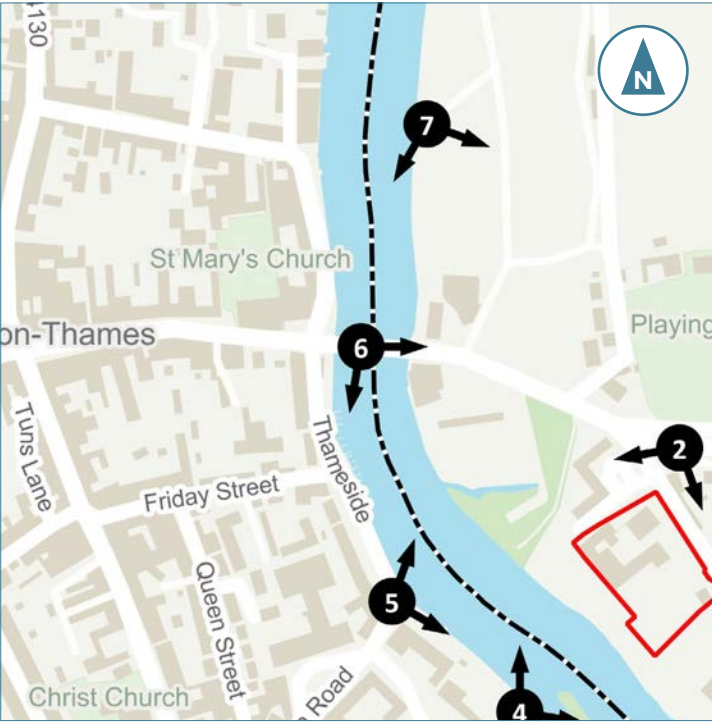


View 6 Henley Bridge at junction with Thameside

Existing and View Data



Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
6	Henley Bridge at junction with Thameside	SE	AVR1 - Type4	252.5m	476360.2	182640.0	36.2	13/04/2023 / 17:34	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *



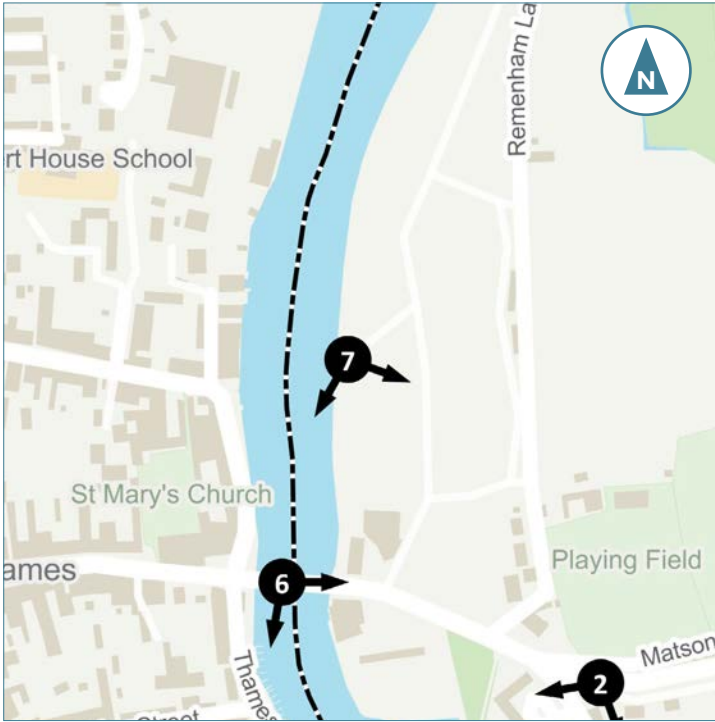




View 7 Thames Path (west of Remenham Court)
Existing and View Data



Cylindrical Pano | HFoV 90° (shown to scale on next page)



VP	Description	Direction (looking)	Visualisation Level & Type	Distance to site boundary	Easting	Northing	Ground AOD	Date / Time	Camera Height	Camera	Lens	Focal Length	Horizon	Projection	HFoV
7	Thames Path (west of Remenham Court)	S	AVR1 - Type4	382.5m	476406.2	182840.1	31.4	13/04/2023 / 18:11	1.65m	Sony A7R IV (35mm)	Canon 50mm F/2.8L	50mm	Central	Planar *	40° *







Appendices



Appendix 01: Methodology

Overview

The process of generating verified views (also referred to as accurate visual representations / AVR) was carried out by Preconstruct.

Preconstruct use a methodology that is compliant with relevant sections of: The Landscape Institute/IEMA - Guidelines for Landscape and Visual Impact Assessment (3rd edition 2013); The Landscape Institute - Visual Representation of Development Proposals - Technical Guidance Note (September 2019); The Revised SPG London View Management Framework (March 2012).

High quality/resolution photographs were taken from the agreed locations by Preconstruct. An adequate number of visible features were subsequently surveyed, including the precise location and bearing of the cameras. A development model was imported to correct geographical co-ordinates. With known camera positions and orientations, photographic and surveyed existing visible features, the development model was accurately aligned to the photographs.

Viewpoints Selection

The viewpoint locations were identified by Turley based on fieldwork and reference to relevant policy and guidance. Please see the accompanying Landscape and Visual Impact Assessment for further details.

Photography

For each agreed viewpoint location, a high resolution photograph was taken with a 35mm (full-frame) digital camera. The location at which the photograph was taken was marked with a nail, peg and / or spray paint, to allow the surveyor to record the precise location on a subsequent visit. The camera was levelled horizontally and laterally by means of a bubbled tripod head, camera-mounted spirit level and in-camera digital level.

Lens Selection Criteria

There is no definitive camera, lens, or FoV (Field of View), format suitable for all planning photomontages. Focal length selection was led by the provided scoping views. Emphasis

was also placed on capturing the proposed development set within the important peripheral context of the environment.

A 40°FoV lens (50mm lens, full-frame) was used for all views.

We strongly recommend that all parties use the planning photomontages as a complement to on-site assessment.

Lens Selection

50mm Lens - landscape orientation.
40° horizontal field of view (HFoV).

Panoramic Photography

Panoramic photography was requested for supporting existing/baseline reference.

A 50mm lens in portrait orientation (effective 27° horizontal field of view) and a rotational index of 15° (allowing an approximate overlap of 50%) was used to capture a series of individual frames that could be stitched to form a panoramic image.

Individual shots were stitched in photoshop or PT GUI by means of cylindrical projection to form a corrected panoramic image. The panoramas were then cropped to 90° HFoV.

Field of View Frame

Views within this document are annotated with a FoV frame/ scale. The red arrows indicate the vertical and horizontal points of perspective (Optical Axis). Each graticule/marker on the scale represents 1°. The numbers on the scale should be read in pairs. E.g. the space between the two markers | **40°** and **40°** | has a total horizontal field of view of 40°. Accuracy is estimated to be within 1° to 3°, to allow for rounding errors and lens variations.

Camera Make/Model

Sony a7R IV (ILCE-7RM4) (35mm)

Lens Make/Model

- Canon 50mm F/2.8L
- Sigma MC-11 Mount Converter - Canon EF to Sony E Mount

Tripod, Head & Other Photographic Equipment

- Manfrotto Tripod
- Manfrotto Tripod Head
- 360 Precision Head Panoramic Head
- Camera Mounted Spirit Level / In-Camera Digital Level
- Street Marking Paint / Marker Pen
- Survey Nails / Pegs

Post Production

Each base photograph has had a level of basic colour correction applied to it so that it best represents the impression of the scene as the photographer experienced it in person.

This processing is predominately done to the 16bit RAW file using Adobe Lightroom or Photoshop (Camera Raw). It includes, but is not limited to, adjustments in; colour temperature and tint; levels such as exposure and contrast; shadow and highlight recovery; sky recovery through the use of gradient corrections and AI masking; and other post processing effects such as sharpening and noise reduction.

Survey

The survey subcontractor was instructed (by means of marked-up photographs, map and in situs tripod photographs) to record a range of contextual reference points and viewpoint locations. This information was supplemented with publicly available LIDAR point cloud data.

Survey Equipment

- Leica 1200 series GPS Smartnet enabled dual receiver (GPS and GLONASS)
- Leica Total Station (1201 or TS16 or TS15) 1' accuracy with 1000m reflectorless laser

Field Survey Methodology

- Camera locations: where possible, the camera position will be used as a setup point for the total station, enabling the re-creation of the view as seen in the imagery and reducing the risk of wrong interpretation of detail. Connection is usually via GPS Smartnet derived control points in OSGB datum and grid. 3-4 control stations are used, to ensure long distance accuracies and to identify possible outliers.

- Reference points visible in the photography are measured with reflectorless means from the total station. If long distance views have suitable detail too far from the camera station, further setups are used closer to the detail. Common visible detail points are observed from different setup points to check and increase accuracy achieved.
- Accuracies of camera positions and surveyed details will vary due to setup geometry and distance, but will typically always be below 20 centimetres.

Survey Data Processing and Delivery

Data is processed using industry standard software (Leica GeoOffice and TerraModel) to create points listings. A3 verification plots or digital photos are marked up with the surveyed points to aid identification. All points are to OSGB36 grid and datum, to allow the use of common Ordnance Survey products and industry standard site surveys.

The Proposed Development

Preconstruct imported a 3D Trimble SketchUp model of the proposed development as supplied by the project architect. This was subsequently directed and reviewed by the project architect.

Preconstruct created a 3D model of the proposed development using drawings, supplied by the project architect.

This was then subsequently aligned to the OSGB36 co-ordinate system. The model and renders were directed and reviewed by the project architect. Landscape design, and proposed planting and trees, was directed and reviewed by the landscape architect.

The Verification Process

The collected survey reference point data and camera location data was imported into the 3D model environment from the delimited text file (relative to the OSGB36 co-ordinate system) by means of a proprietary script.

At each viewpoint location a virtual camera was set up in the 3D software (Autodesk 3DS Max) using the coordinates provided by the surveyor. The 3D coordinates of the survey reference points were used to create an accurate ‘point cloud’ model of the contextual surveyed parts of the scene. This was

supplemented with publicly available LIDAR point cloud data.

The scene was verified by matching the contextual surveyed points (and LIDAR data) to the photograph. For each viewpoint, a ‘point cloud’ render* was made from the virtual camera in the 3D digital model. Using Adobe Photoshop, the photography and ‘point cloud’ render were aligned.

Subsequently more renders were made for the proposed building wider and landscape. The alignment process was repeated to provide accurate placement of the proposed built-forms within the context of the photographs.

Where proposed built-form is occluded by existing context, it was masked-out and a dashed-line applied (for both AVR1-wireline and AVR3-rendered views).

In the event that existing buildings are to be demolished, and are still visible in the proposed views, a red hatch is applied.

* Rendering is the process of generating an image from a model (or models in what collectively could be called the 3D environment), by means of computer programs - specifically, in this case Chaos Group’s Vray.

Printing, Viewing Distance and Image Enlargement

The ‘Viewing Distance’ and ‘Image Enlargement’ (as per specified in LI Technical Guidance Note 06/19 - Sep 2019) are relevant only to printed documentation.

Image enlargement values are included within this document on each view. Images to be viewed at a comfortable arm’s length.

All focal lengths listed relate to a 35mm full-frame sensor camera.

Caution is needed in regard to the automatically scaling of printers and printing software. Printing should at 100% and edge-to-edge to match the listed sheet sizes.

Appendix 02: Sources of Data

Survey Data

Asset	Description	Supplier	Reference	Date	Comment
Survey Data	Table of Points (XLSX file) Surveyors notes/mark-up (PDF)	Mastermap Surveys	VV-00133	20/04/2023	Imported using proprietary script. Origin Shift -476606 E -182451 N

Key Supplied Data

Asset & Description	Format	Supplier	Reference	Date	Comment
Proposed Scheme Model	Trimble SketchUp File	Design Engine	2212_Skp_Pitched_Roof_Scheme_Pre_Construct.skp	01/09/2025	Directed and reviewed by Architect. Model not set at correct AOD Heights. Model not in OS coordinate system.
Existing Survey Plan	DWG	Via Design Engine	LS2498_T_290621 3.dwg	01/09/2025	Contains OS Data. Used to align model to OS coordinate system.
Architectural Drawings Ground Floor Plan	DWG / PDF	Design Engine	2212-P-201 3.dwg	01/09/2025	Used to align model to OS coordinate system.
Architectural Drawings Section Drawings	PDF	Design Engine	2212-P-300-Proposed Site Section AA 6.pdf	01/09/2025	Used to assist in alignment of Proposed Scheme Model to correct AOD heights.

Supporting Data

Asset & Description	Format	Supplier	Reference	Date	Comment
LIDAR - Surface Height Data	Point Cloud (.laz)	Environment Agency	National-LIDAR-Programme-Point-Cloud-2021-SU78se	Data: 2021 Downloaded: 04/2023	Used to confirm accuracy of alignment of photography to models.

Generated/Compiled Data (by Preconstruct)

Asset	Description	Reference	Comment
3D Model / Scene	Scene files generated in Autodesk 3DS Max to create and render model data	5430 MaxRender	

Example Survey Data



Survey points shown in red, supporting LIDAR point cloud in purple.

Point #	Eastings	Northings	Height (AOD)
V4	476483.981	182348.680	31.241
C1	476615.86	182465.417	42.807
C2	476600.666	182459.837	42.602
C3	476593.576	182458.287	43.104
C4	476563.438	182453.448	41.75
C5	476607.467	182456.969	41.104
C6	476588.257	182448.313	40.925
C7	476559.463	182453.691	40.401
C8	476556.975	182455.66	36.233
C9	476559.935	182452.68	39.25
C10	476561.544	182450.763	39.264
C11	476563.168	182448.876	39.264
C12	476563.874	182448.137	36.266
C13	476562.293	182449.821	36.366
C14	476560.625	182451.882	36.259
C15	476565.158	182444.756	39.409
C16	476564.933	182445.967	39.425
C17	476567.013	182443.499	39.378
C18	476565.868	182443.939	39.4
C19	476601.582	182455.599	37.964



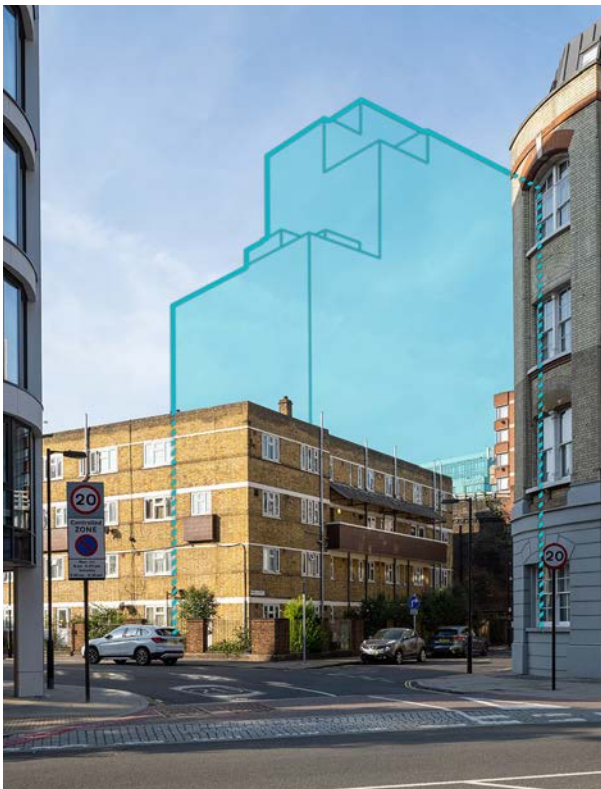
Appendix 03: Visualisation Level & Type Descriptions

Accurate Visual Representations (AVR) ‘Level’ Descriptions

Extract from ‘The London View Management Framework’ (SPG March 2012 - Part 3, page 248)
‘Appendix C: Accurate Visual Representations’:

“To assist agreement between all parties prior to AVR preparation, the following classification types are presented to broadly define the purpose of an AVR in terms of the visual properties it represents. This classification is a cumulative scale in which each level incorporates all the properties of the previous level.”

Preconstruct — Typical AVR Level Examples



AVR1 (Wireline)
Confirming degree of visibility
This example — a ‘wireline’ (outline and edges) with a translucent fill. Dashed-line and no fill where occluded.



AVR2 (Clay)
Explaining architectural form
This example — a lit render in a uniform opaque ‘clay’ material. Masked out where occluded.



AVR3 (Rendered)
Confirming the use of materials
This example — a ‘rendered’ ‘photorealistic’ depiction. Masked out where occluded.

Visualisation ‘Type’ Descriptions

The Landscape Institute’s ‘Visual Representation of Development Proposals, Technical Guidance Note 06/19’ (September 2019) proposes four Visualisation Types (1-4), from least to most sophisticated.

The visualisations within this document are categorised as Type-4. They demonstrate the highest level of accuracy and stringent verifiable methodology of the 4 types.

Preconstruct — Type-4 Specification

Photomontage / Photowire — Survey / Scale Verifiable
Aim: to represent scale, appearance, context, form, and extent of development.

Full Frame Sensor (FFS) photography shot with a level tripod (and panoramic head where appropriate).

Use of 50mm lens when practical, but exceptions for wider lenses apply. This includes up to 24mm and 24mm Tilt-Shift lenses — ideal for close-range views and urban context.

Viewpoint locations calculated with either bespoke survey (inc advanced GPS) or using a combination of: digital mapping observations, phone GPS and LIDAR data. Dedicated viewpoint location plan/map included.

Placement of the proposed development within the photographs is accurate and verifiable through the use of camera matches using bespoke viewpoint survey and/ or LIDAR data. The proposed development, survey data, and viewpoints are all accurately geolocated within an OS coordinate system.

3D digital model of development provided by the design team or created from technical drawings.

Where practical, ‘Image Enlargement’ values (and corresponding page sizes) are shown on each image page. This is typically 100% but exceptions apply.

Inclusion of detailed technical methodology.



PRECONSTRUCT[®]

*Intelligent communications
for the built environment.*

Marketing CGI

Planning Views and AVR

Animations and Fly-throughs

Virtual Reality

Apps & Interactive Media

Bristol.

Old Police Station, Bedminster Parade, Bristol, BS1 4AQ, UK.
+44 (0) 117 930 4546

info@preconstruct.com

www.preconstruct.com

London.

24 Greville Street, London, EC1 8SS, UK.
+44 (0) 207 060 4540