URBAN3D

CITY PARK DEVELOPMENT

at the Former Tedcastles Site, Centre Park Road, Cork City

Visually Verified Views

Methodology Report

March 2022

STATEMENT OF RESPONSIBILITY

The verified views contained within this report have been prepared based on survey data supplied by P.C.A Ltd and proposed drawings supplied by C + W O'Brien Architects Ltd. Whilst Urban 3D endeavour to create technically accurate imagery, it is essential to recognise that photographic images / photo-montages verified or unverified alone cannot capture or reflect the complexity underlying the visual experience, and should therefore be considered an highly accurate approximation of the three-dimensional visual experience that an observer would receive in the field.

As part of a technical process, impact assessment and considered judgements using photographs and /or photo montages can only be reached by way of a visit to the location from which the photographs were taken.

Contents

03 About Urban 3D
04 Visually Verified Montages (VVM)
05 Project Overview
06 Photography
09 Topographical Survey
10 Software
11 Method Explained
16 Verified View Locations
18 View 1
21 View 2
24 View 3
27 View 4
30 View 5
34 View 6
37 View 7
40 View 8
43 View 9
46 View 10
49 View 11
52 View 12
55 View 13
58 View 14
61 View 15
64 View 16
67 View 17
70 View 18
73 View 19
76 View 20

1.0 About Urban 3D

Urban 3D, established in 2003, is a multidisciplinary design and CGI company with offices in Northern Ireland and London.

We work with independent House Builders, Estate Agents, Property Developers, Architects and Planning Consultants. Our enviable list of clients include Berkeley Group, Savills, Henry Boot, Acorn Property Group, HAB Housing, London Development Group, and a range of small boutique developers and architectural practices.

We deliver high quality, technically accurate computer generated images (CGI) and a range of associated services which include, 3D property animations, drone videography, photography, photo-montages and visually verified views (VVM's).

Our in-house team are qualified in their respective fields to a minimum of degree level, and those working on visually verified montages have a relevant degree in Architecture and a minimum of 5 years experience working within the architectural field.

2.0 Visually Verified Montages

WHAT ARE VERIFIED VIEWS?

Also known as accurate visual representations (AVR), Verified images, visually verified montages (VVM) and verified photo montages, verified views are highly accurate photo montages which have been created using a methodology which is compliant with the Guidelines for Landscape and Visual Impact Assessment, third edition. A verified view is a photograph captured at a specific recorded location, and merged with a highly accurate 3D model of the proposed scheme and existing survey data of fixed structures within the photograph. The result is a verified photo montage showing the proposal in context with the existing environment, which can then be used to assess the visual impact of a proposed scheme or development. They have become central to the Irish & UK planning system.

THE NEED FOR VERIFIED VIEWS

Verified views eliminate the guesswork and artistic interpretation associated with photo montages. Using rigorous methodologies set out by the Landscape Institute and London Framework, the results give the actual impression of scale and magnitude of a proposed scheme or development.

VERIFIED VIEW COMPLIANCE

Our process for creating verified views is compliant with:

1. The Landscape Institute Guidelines for Landscape and Visual Impact Assessment: 3rd edition.
2. Photography and photo montage in landscape and visual impact assessment Landscape Institute Advice Note 01/11
3. London View Management Framework SPG (March 2012) - Appendix C: Accurate Visual Representations.

This document is intended to clearly convey the underlying principles and processes that are used in the production of Verified Views.

The information presented in this document will allow a third party to verify the accuracy of the images produced.

The “London View Management Framework” has the following to say regarding Verified Views.

“By accurately combining an image of a proposed development with a representation of its existing context, verified views explain the location and massing of a proposed development. They may also illustrate additional properties including the degree of visibility, architectural form or choice of materials selected.”

For more information on these publications

- https://www.landscapeinstitute.org/technical/glvia3-panel/
- https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/migrated-legacy/LIPhotographyAdviceNote01-11.pdf
- https://www.london.gov.uk/what-we-do/planning/implementing-London-plan/planning-guidance-and-practice-notes/London-view-management

3.0 Project Overview

This proposed development is situated on Centre Park Road Tedcastle Site, Cork, South Docks

We have been commissioned as an independent VVM consultant to produce a total of 20 verified views at the following locations.

VIEW 1
N8 Lower Glanmire Road

VIEW 2
Port of Cork Garden off Lower Glanmire Road

VIEW 3
Tivoli Estate

VIEW 4
Woodside, Tivoli – Pedestrian Railway Crossing

VIEW 5
Bellevue Villas, Lower Glanmire Road

VIEW 6
Ferryboat House, Lower Glanmire Road

VIEW 7
Horgan's Quay

VIEW 8
Custom House Quay

VIEW 9
Clontarf Bridge, Cork City Centre

VIEW 10
Middle Glanmire Road, Montenotte

VIEW 11
Maryville, Ballintemple

VIEW 12
Monahan Road, Ballintemple

VIEW 13
Centre Park Road

VIEW 14
Centre Park Road

VIEW 15
The Marina Boat Jetty Pontoon

VIEW 16
Beaumont Drive

VIEW 17
Church Yard Lane, Ballintemple

VIEW 18
Not Required

VIEW 19
Lotaville, N8 Road, Tivoli

VIEW 20
Monahan Rd

The team responsible for the information requirements to produce the VVM's are as follows:

- Architects - C + W O'Brien Architects Ltd
- Land Surveyor - P.C.A. Ltd
- Photography & VVM - Urban 3D

4.0 Photography

EQUIPMENT

Camera
Canon 5D Mark iii

Lens
Canon EF 16-35mm f/4L IS USM
(Set at 35mm) (+50mm Prime)

Filter
Neutral Density Filter

Tripod
ALTA PRO 2 263AGH Aluminium Tripod kit

Plumb Bob & Line (Plummet)
115mm body accurately machined point

Survey Paint
Semi-permanent with a tight spray

3-Axis Camera Level
Fotosnow Professional 3 Axis Bubble Spirit Level

4.1 Camera

We maintained the same camera and lens settings for all 20 VVM's to ensure continuity when comparing this proposal from the various vistas.

- Canon EOS 5D Mark iii
- Canon EF 16-35mm f/4L IS USM
- Image Width - 5760 pixels
- Image Height - 3840 pixels
- Bit depth - 24
- Focal Length - 16-35mm
- Horizontal FOV - Variable
- Vertical FOV - Variable
- Exposure - 1/250 sec | F10 | ISO 200
- Files - RAW + JPEG

4.2 Tripod & Level

As per The Landscape Institute Guidelines for Landscape and Visual Impact Assessment: 3rd edition it is critical that the camera lens is level on all axis. We need to achieve a setup that ensures zero tilting left or right and zero banking forward or backwards.

To achieve this we use a combination of 3 separate levels to ensure accuracy to within +/- 1 degree.

1. The Canon 5D Mark iii - inbuilt digital leveling system
2. The Vanguard tripod head bubble level
3. Fotosnow Professional 3 Axis Bubble Spirit Level hot-shoe mount

4.3 On-site

The following workflow was used to produce the final image set.

1. The viewpoint location is established and the tripod is set up.
2. The camera is mounted on the tripod head and leveled so that the lens axis is horizontal; this is achieved by a combination of 3 separate levels to ensure accuracy to within +/- 1 degree allowing the camera to be corrected for both roll and tilt.
3. The subject is then framed and camera settings dialed in.
4. Once the camera is level the plumb line is placed over the lens at the point of no parallax.
5. The plumb line length is set to 1.6m. (Average human eye level)
6. The tripod centre column is then raised until the plumb line makes contact with the surface below.
7. Documentation images are taken of the camera and setup for record and evidence if require.
8. The lens is manually focused so that the subject is at the plane of focus.
9. The aperture is set to F10 to create a large depth of field whilst retaining sharpness throughout the image.
10. Image capture button is remote to ensure no shake or movement within the lens and camera.
11. Images are captured in RAW format and JPEG so that the original data is preserved and no “automatic” changes are, made to the data.
12. The plumb line and bob are then used as pendulum and swung at the precise angle of the lens. This establishes the viewing angle which is then transferred to the ground using survey spray paint.
13. The cross point is the exact centre of the lens and the arrow is the exact angle of the lens, both of which will be surveyed at a later date.
14. This process is repeated for all 20 required verified views.

5.0 Topographical Survey

EQUIPMENT

Lecia GS 15 antenna with a 360 prison Lecia Flexline TS10 Total Station

SURVEY TEAM

P.C.A. Ltd.
Hillcrest House
Hillcrest Road
Sandyford
Dublin
D18 V058
Tel: 01 213 6300
Please see more information here www.pca.ie

PROCESS

Once on-site photography is complete we study each photograph and select fixed structural points, typically a minimum of 6 objects. These objects are surveyed and are later used to ensure the 3D model of the proposed building is placed within the existing photograph accurately.

To ensure accuracy at the photo-merge stage we typically require and number of fixed points within the foreground, mid-ground & background.

A number of points will also cross the y axis to establish height, some will cross the x axis to establish width and some will cross the z axis to establish depth within each of the VVM's.

The survey team document all required structural points relative to a datum point which also relates to the location and levels of the proposal.

Please see section 7 for more details.

6.0 Software

PHOTOGRAPHY - PHOTOSHOP

The photographs are captured as RAW images and are then processed in Photoshop.

SURVEY - AUTOCAD

The survey is supplied in AutoCad format.

3D MODEL - VECTORWORKS

The 3D model of the surveyed points is created in Vectorworks for mm perfect precision.

CAMERA MATCH - CINEMA 4D

We camera match the existing surveyed points and surveyed camera position to the virtual camera within Cinema 4D. All camera and lens parameters are transferred from real to virtual.

LIGHTING AND MATERIALS - CORONA RENDERER

We add all materials, lighting, reflections etc using Corona Renderer.

POST-PRODUCTION - PHOTOSHOP

Final correction and inspection of the images happens within Photoshop.

7.0 Method Explained

7.0 Photography

- Documented images showing camera setup with bank, tilt and roll corrected using levels as previously noted.
- The mid point of the lens is set to 1.6m above ground level (Average human eye level).
- Plummet (Bob & Line) set with string tied to zero parallax point on lens.
- Ground marked for survey with the intersection recording mid point of lens and the arrow recording the viewing angle.

Plumb Line & Bob with yellow arrow + cross hairs transferring the centre of lens and viewing angle to the ground ready for surveying.

Canon 5D Electronic Level, balanced

Hot-shoe External Level, balanced

Lens set at eye level 1.6M above ground

7.1 Identify required survey points

We identify fixed structural points within each photograph then label each point or object and instruct the survey team to proceed.

As noted it is best practice to have a varied range of fixed structural points between near, mid and far ground, and across the x,y,z axis.

STRUCTURAL ELEMENT

VP9.01, VP9.02, VP9.03. VP9.04
(Foreground / X & Y Axis)

WHITE LINES

VP9.05, VP9.06
(Foreground / X Axis)

BUILDING

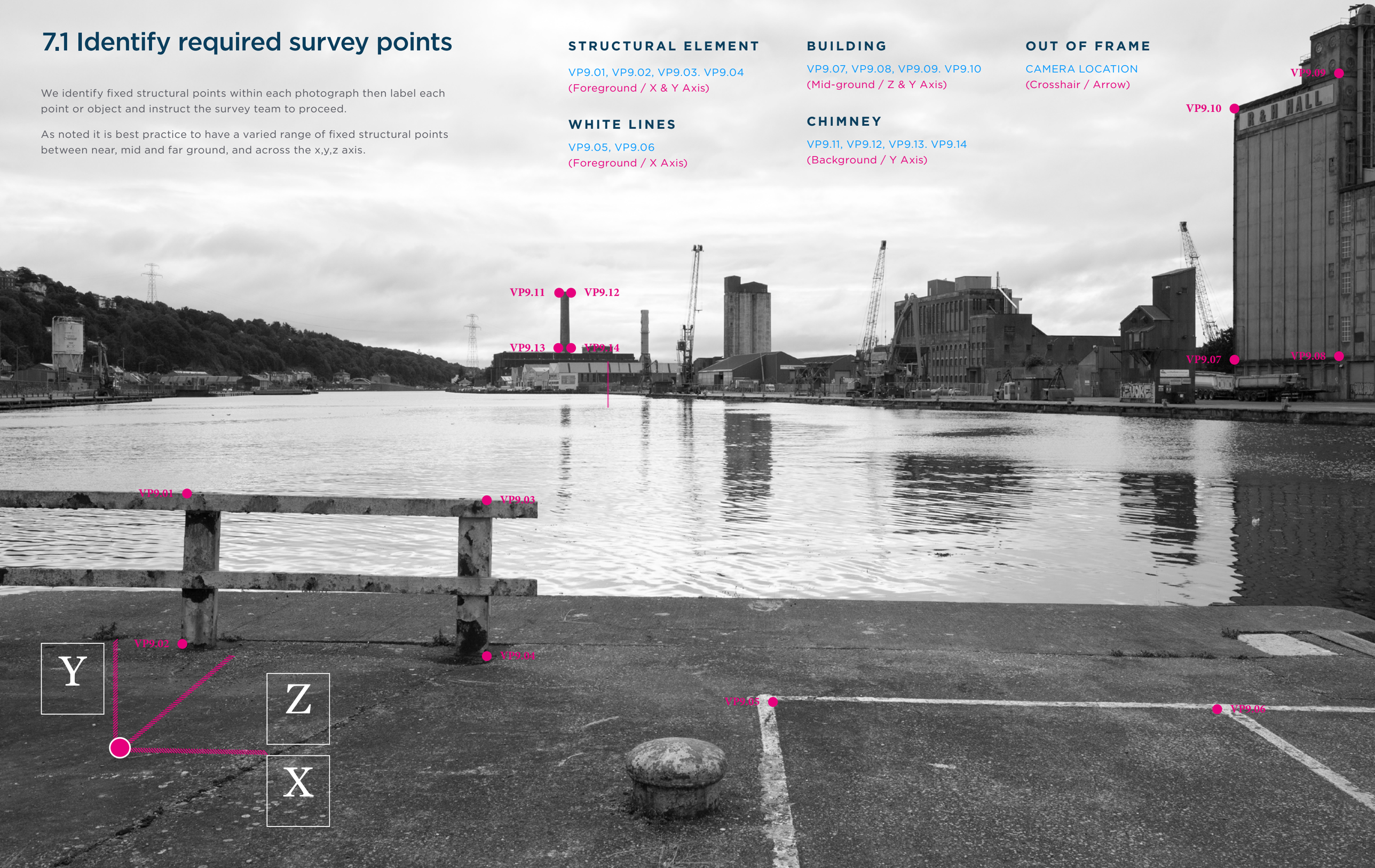
VP9.07, VP9.08, VP9.09. VP9.10
(Mid-ground / Z & Y Axis)

CHIMNEY

VP9.11, VP9.12, VP9.13. VP9.14
(Background / Y Axis)

OUT OF FRAME

CAMERA LOCATION
(Crosshair / Arrow)



7.2 Survey

Maintaining the same naming convention, the surveyor supplies us with the survey data in AutoCad format.

This data is now transferred to Vectorworks where the points are modelled in 3D space relative to the same datum point as the proposed building.

All base levels and heights of models created of the fixed structures, are set relative to the finished floor levels and ridge heights etc. of the proposal.

STRUCTURAL ELEMENT

VP9.01, VP9.02, VP9.03. VP9.04
(Foreground / X & Y Axis)

WHITE LINES

VP9.05, VP9.06
(Foreground / X Axis)

BUILDING

VP9.07, VP9.08, VP9.09. VP9.10
(Mid-ground / Z & Y Axis)

CHIMNEY

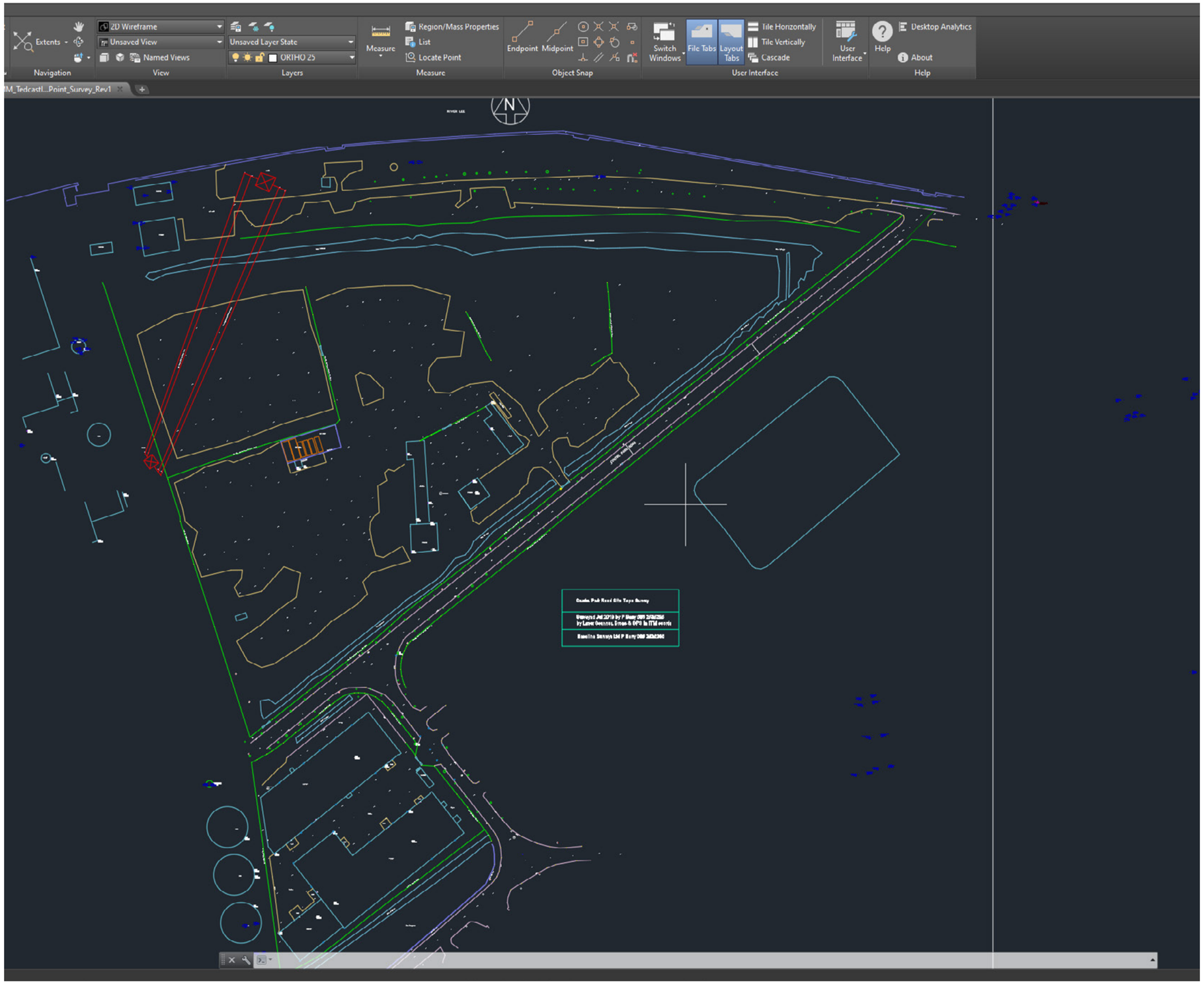
VP9.11, VP9.12, VP9.13. VP9.14
(Background / Y Axis)

OUT OF FRAME

CAMERA LOCATION
(Crosshair / Arrow)

Please download full survey data here if required.

Topographical Survey



7.3 - 3D Model

All objects / points, camera position, height and viewing angle are now modelled in 3D space relative to the proposed building model / datum.

STRUCTURAL ELEMENT

VP9.01, VP9.02, VP9.03. VP9.04
(Foreground / X & Y Axis)

WHITE LINES

VP9.05, VP9.06
(Foreground / X Axis)

BUILDING

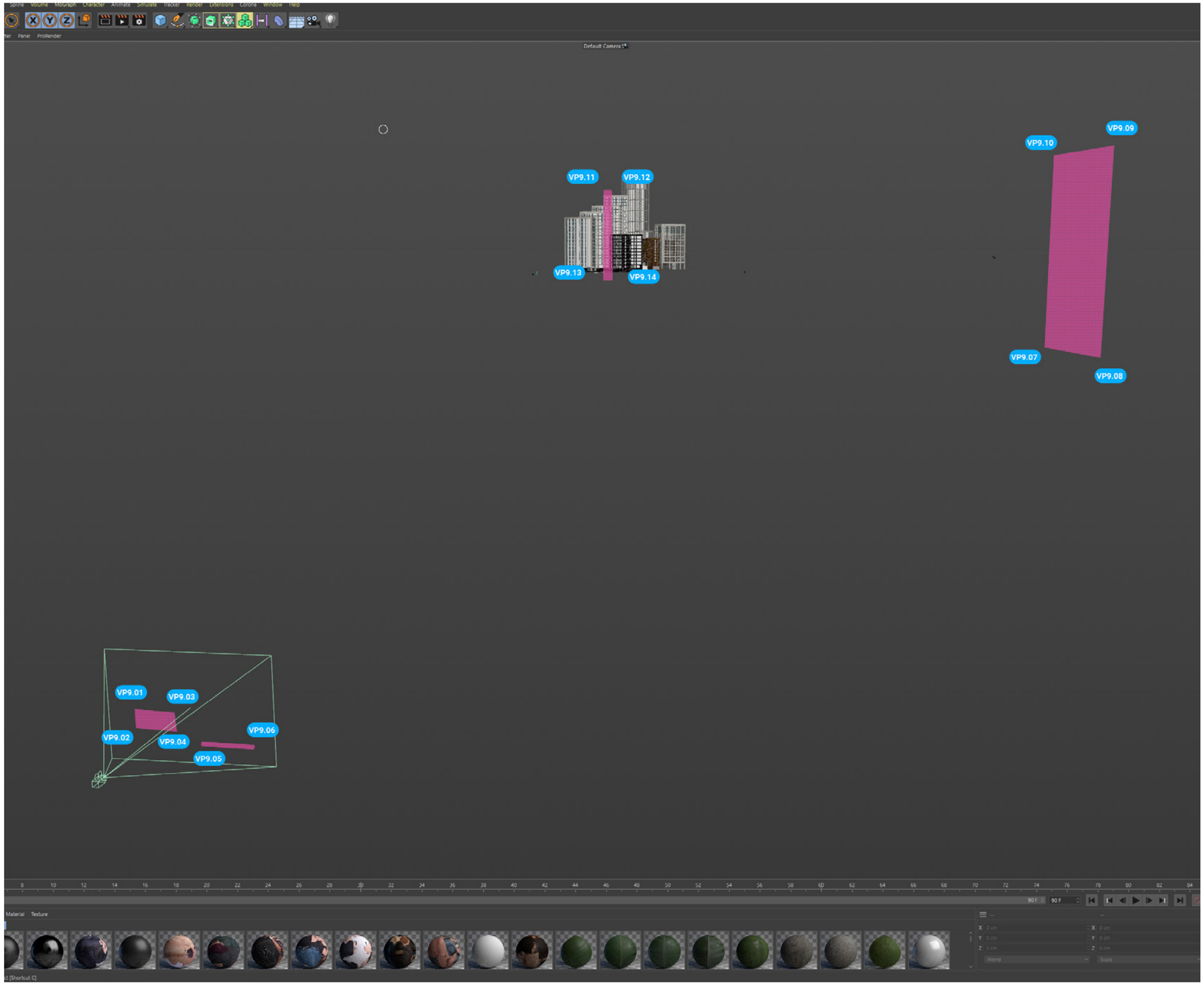
VP9.07, VP9.08, VP9.09. VP9.10
(Mid-ground / Z & Y Axis)

CHIMNEY

VP9.11, VP9.12, VP9.13. VP9.14
(Background / Y Axis)

OUT OF FRAME

CAMERA LOCATION
(Crosshair / Arrow)



Please download full survey data here if required.

Topographical Survey

7.4 - Camera Match

We now match up the two cameras (Virtual & Physical) and the points should sit at the correct position within the photographs. If they align correctly this tells us that the proposal will also sit at the correct position and scale within the same view.

STRUCTURAL ELEMENT

VP9.01, VP9.02, VP9.03. VP9.04
(Foreground / X & Y Axis)

WHITE LINES

VP9.05, VP9.06
(Foreground / X Axis)

BUILDING

VP9.07, VP9.08, VP9.09. VP9.10
(Mid-ground / Z & Y Axis)

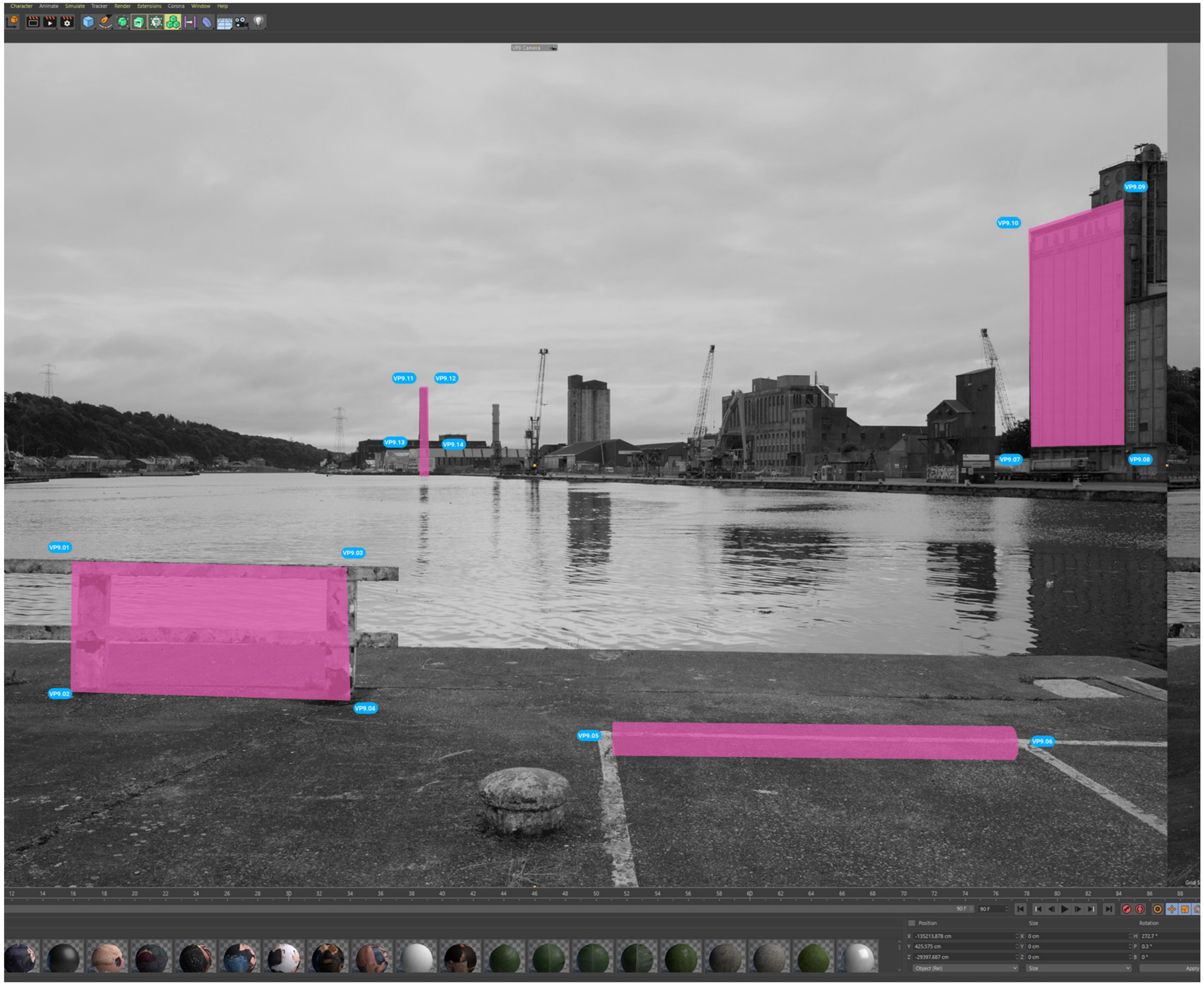
CHIMNEY

VP9.11, VP9.12, VP9.13. VP9.14
(Background / Y Axis)

OUT OF FRAME

CAMERA LOCATION
(Crosshair / Arrow)

We then repeat this method & procedure for each of the verified views on the following pages.



8.0 Verified View Locations

VIEW 1
N8 Lower Glanmire Road

VIEW 2
Port of Cork Garden off Lower Glanmire Road

VIEW 3
Tivoli Estate

VIEW 4
Woodside, Tivoli – Pedestrian Railway Crossing

VIEW 5
Bellevue Villas, Lower Glanmire Road

VIEW 6
Ferryboat House, Lower Glanmire Road

VIEW 7
Horgan's Quay

VIEW 8
Custom House Quay

VIEW 9
Clontarf Bridge, Cork City Centre

VIEW 10
Middle Glanmire Road, Montenotte

VIEW 11
Maryville, Ballintemple

VIEW 12
Monahan Road, Ballintemple

VIEW 13
Centre Park Road

VIEW 14
Centre Park Road

VIEW 15
The Marina Boat Jetty Pontoon

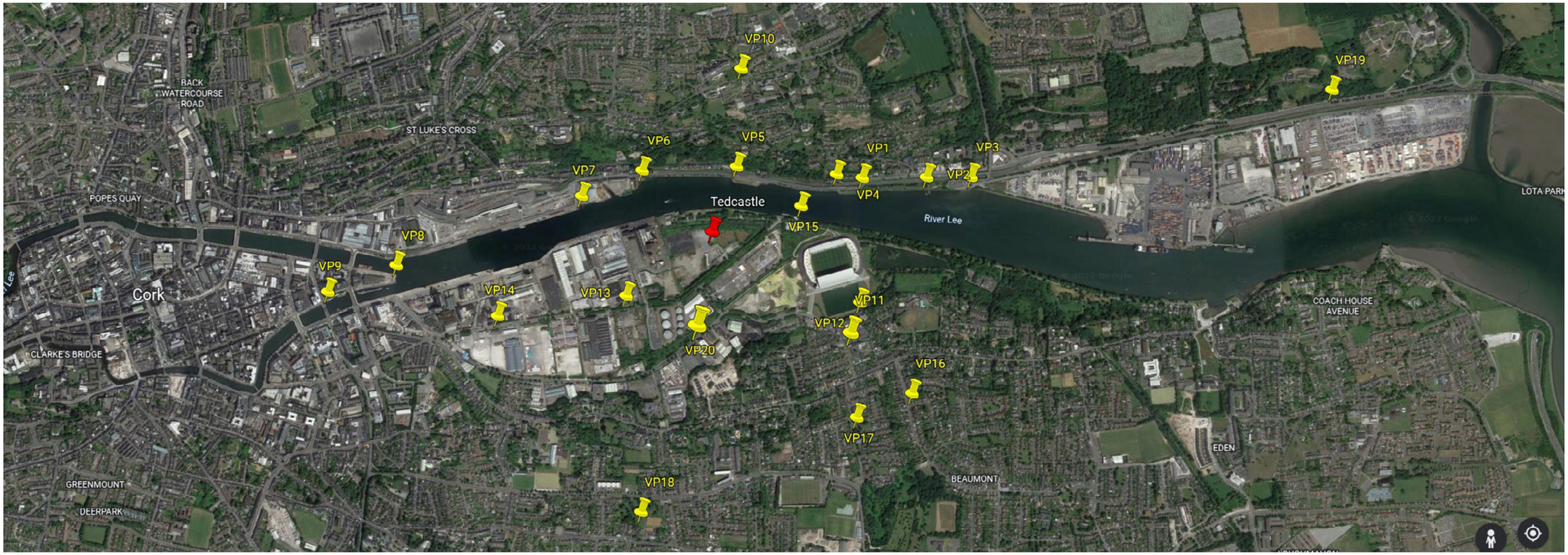
VIEW 16
Beaumont Drive

VIEW 17
Church Yard Lane, Ballintemple

VIEW 18
Not Required

VIEW 19
Lotaville, N8 Road, Tivoli

VIEW 20
Monahan Rd



9.0 Verified Views

VP1 | PHOTOGRAPH 35mm | F10

BEFORE

VP1 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

KEY: Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20

Custom House Tower – Granted Permission March 2021 - REF: ABP-308596-20

VP1 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP2 | PHOTOGRAPH 35mm | F10

BEFORE

VP2 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

KEY: Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20

Custom House Tower – Granted Permission March 2021 - REF: ABP-308596-20

VP2 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP3 | PHOTOGRAPH 35mm | F10

BEFORE

VP3 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

KEY: Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20

Custom House Tower – Granted Permission March 2021 - REF: ABP-308596-20

VP3 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP4 | PHOTOGRAPH 35mm | F10

BEFORE

VP4 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

KEY: Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20

Custom House Tower – Granted Permission March 2021 - REF: ABP-308596-20

VP4 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP5 | PHOTOGRAPH 35mm | F10

BEFORE

VP5 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP5 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP5b | PANORAMIC

KEY: Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20

VP6 | PHOTOGRAPH 35mm | F10

BEFORE

VP6 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP6 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP7 | PHOTOGRAPH 35mm | F10

BEFORE

VP7 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP7 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP8 | PHOTOGRAPH 35mm | F10

BEFORE

VP8 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP8 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP9 | PHOTOGRAPH 35mm | F10

BEFORE

VP9 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

KEY: Custom House Tower – Granted Permission March 2021 - REF: ABP-308596-20

Albert Quay – Granted Permission February 2020 – REF: ABP-305779

VP9 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP10 | PHOTOGRAPH 35mm | F10

BEFORE

VP11 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP10 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP11 | PHOTOGRAPH 35mm | F10

BEFORE

VP11 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP11 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP12 | PHOTOGRAPH 35mm | F10

BEFORE

VP12 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP12 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP13 | PHOTOGRAPH 35mm | F10

BEFORE

VP13 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP13 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP14 | PHOTOGRAPH 35mm | F10

BEFORE

VP14 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP14 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP15 | PHOTOGRAPH 35mm | F10

BEFORE

VP15 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP15 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP16 | PHOTOGRAPH 35mm | F10

BEFORE

VP16 | VERIFIED VIEW 35mm | F10

AFTER

KEY: City Park Development

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP16 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **City Park Development**

VP17 | PHOTOGRAPH 35mm | F10

BEFORE

VP17 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP17 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP18 | PHOTOGRAPH 35mm | F10

BEFORE

VP18 | VERIFIED VIEW 35mm | F10

AFTER

KEY: City Park Development

Panoramic Photograph (Before)

Panoramic Photomontage (After)

KEY: Former Ford Factory – Granted Permission April 2021 REF: ABP-309069-20

City Park Development

VP18 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

VP19 | PHOTOGRAPH 35mm | F10

BEFORE

VP19 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP19 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

VP20 | PHOTOGRAPH 35mm | F10

BEFORE

VP20 | VERIFIED VIEW 35mm | F10

AFTER

Panoramic Photograph (Before)

Panoramic Photomontage (After)

VP20 | PANORAMIC

Best viewed at 820mm X 260mm on A1 Sheet Size to correlate with LI Guidance

KEY: **Former Ford Factory – Granted Permission April 2021 – REF: ABP-309069-20**

URBAN3D

St James' | London

116 School House Lane, Ebrington
City of Derry, N.Ireland, BT47 6HD

Tel: +44 (0) 197 822 6343
Email: hello@urban3d.net
Web: www.urban3d.net