# 33-35 Fairlight Street & 10-12 Clifford Avenue, Fairlight, NSW

Visual impact photomontage and methodology report

10th December 2024

VIRTUAL IDEAS

# 1. INTRODUCTION

This document, created by Virtual Ideas, aims to showcase the visual impact of the proposed development for 33-35 Fairlight Street & 10-12 Clifford Avenue, Fairlight, NSW, in comparison to the existing built form and site conditions.

# 2. VIRTUAL IDEAS EXPERTISE

Virtual Ideas is a reputable architectural visualisation company with over 15 years of expertise in crafting visual impact assessment content and reports for projects of significant magnitude, aligning with the standards set by local and state planning authorities.

Our reports have served as evidence in proceedings before both the Land and Environment Court and the Supreme Court of NSW. Our director, Grant Kolln, has provided expert testimony in visual impact assessment in the Supreme Court of NSW.

Virtual Ideas' methodologies and outcomes have undergone thorough scrutiny by court-appointed experts in relation to previous visual impact assessment submissions, consistently garnering recognition for their precision and reliability.

# 3. RENDERINGS METHODOLOGY

The following outlines the meticulous process employed by Virtual Ideas to produce the renderings that underpin this report.

### 3.1 DIGITAL 3D SCENE CREATION

Our initial stage involves crafting a precise, true-to-life digital 3D environment using Autodesk 3ds Max software, accurately scaled to real-world dimensions, and aligned to a standardised reference point utilising the MGA 56 GDA 2020 coordinate system.

To construct this environment, we combine various data sources, encompassing existing, approved and proposed building 3D models, along with site survey data. Further information regarding the origins of these data sources is provided in Appendices A, B, C, and D.

In cases where data sources lack alignment with the MGA-56 GDA 2020 coordinates, we employ identifiable features common across datasets, such as site boundaries and building outlines, which can be aligned with those already situated in the MGA-56 GDA 2020 framework.

Detailed accounts of the alignment processes for each data source are elaborated upon in Section 3.3.

### 3.2 SITE PHOTOGRAPHY

The site photography was captured by Virtual Ideas, with the respective viewpoint locations delineated on the viewpoint map in Section 4 of this document.

The choice of camera lenses for photography was made by Ethos Urban after careful consideration of multiple factors. Paramount among these were the distance of the camera position from the site and the scale of the proposed development in relation to the surrounding built environment and landscape.

For these public domain photomontages a 50mm lens was chosen. This lens choice ensures adequate visibility of both the proposed development and the immediate surrounding context, facilitating a thorough assessment of the proposed development's visual impact.

For certain scenarios, employing a 50mm lens may produce the most effective photomontage for assessing visual impact. The 50mm lens is often favoured for its close approximation to the human eye perception of distance. However, in instances where a 50mm lens fails to encompass an adequate surrounding context for comprehensive visual impact assessment, opting for a wider lens becomes imperative. All photographs are lens profile corrected in Camera RAW, which removes the distortion associated with the curvature of the lens.

Comprehensive metadata, including date, time, and lens information, is recorded during site photography. This critical data enables precise analysis and documentation of each photograph's attributes.

### 3.3 ALIGNMENT OF 3D SCENE

To accurately position the 3D scene within its geographical context, we employed the following data:

1. Site Survey Alignment: Utilising a provided site survey, we aligned the boundaries of the proposed buildings with geo-referenced data, ensuring precise positioning within the digital environment.

2. Camera Alignment: Cameras were aligned to surveyed positions supplied by CMS Surveyors, adhering to the MGA-56 GDA 2020 coordinate system. This meticulous alignment ensured that viewpoints captured within the 3D scene accurately reflected real-world perspectives.

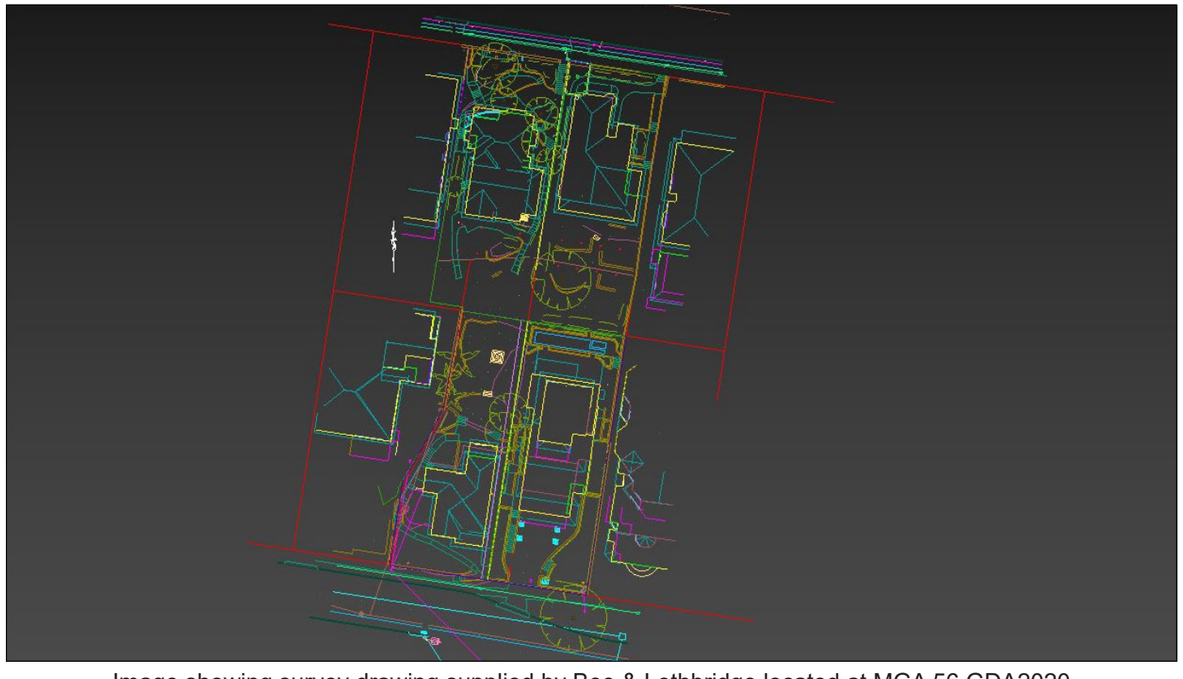


Image showing survey drawing supplied by Bee & Lethbridge located at MGA 56 GDA2020

### 3.4 RENDERING CREATION

Following the completion of the camera alignment, we proceeded to integrate lighting into the 3D scene. To replicate natural lighting conditions accurately, a digital sunlight system was incorporated into the 3D environment. This system emulates the directional lighting of the sun leveraging location data, as well as time and date information. Implemented through specialised software, the sunlight system ensures precise alignment with the sun's angle, enhancing realism within the scene.

The proposed building model was rendered with a basic chalk white material. This differentiation aids in visual clarity and enhances the presentation of the design elements.

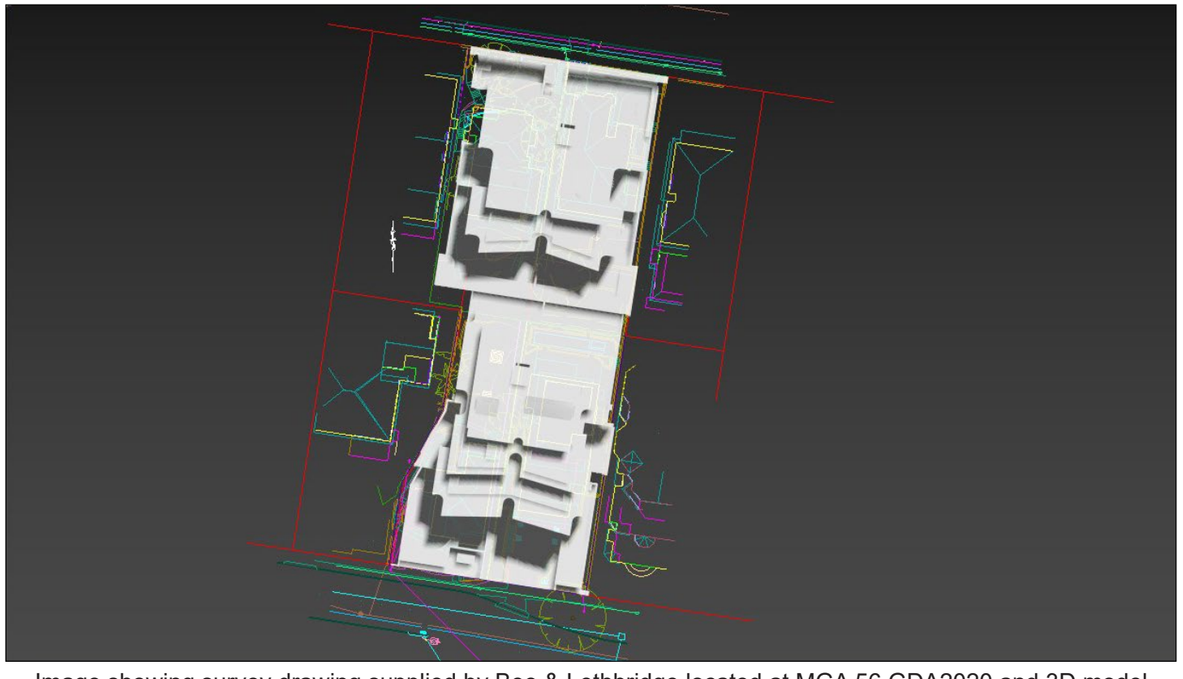
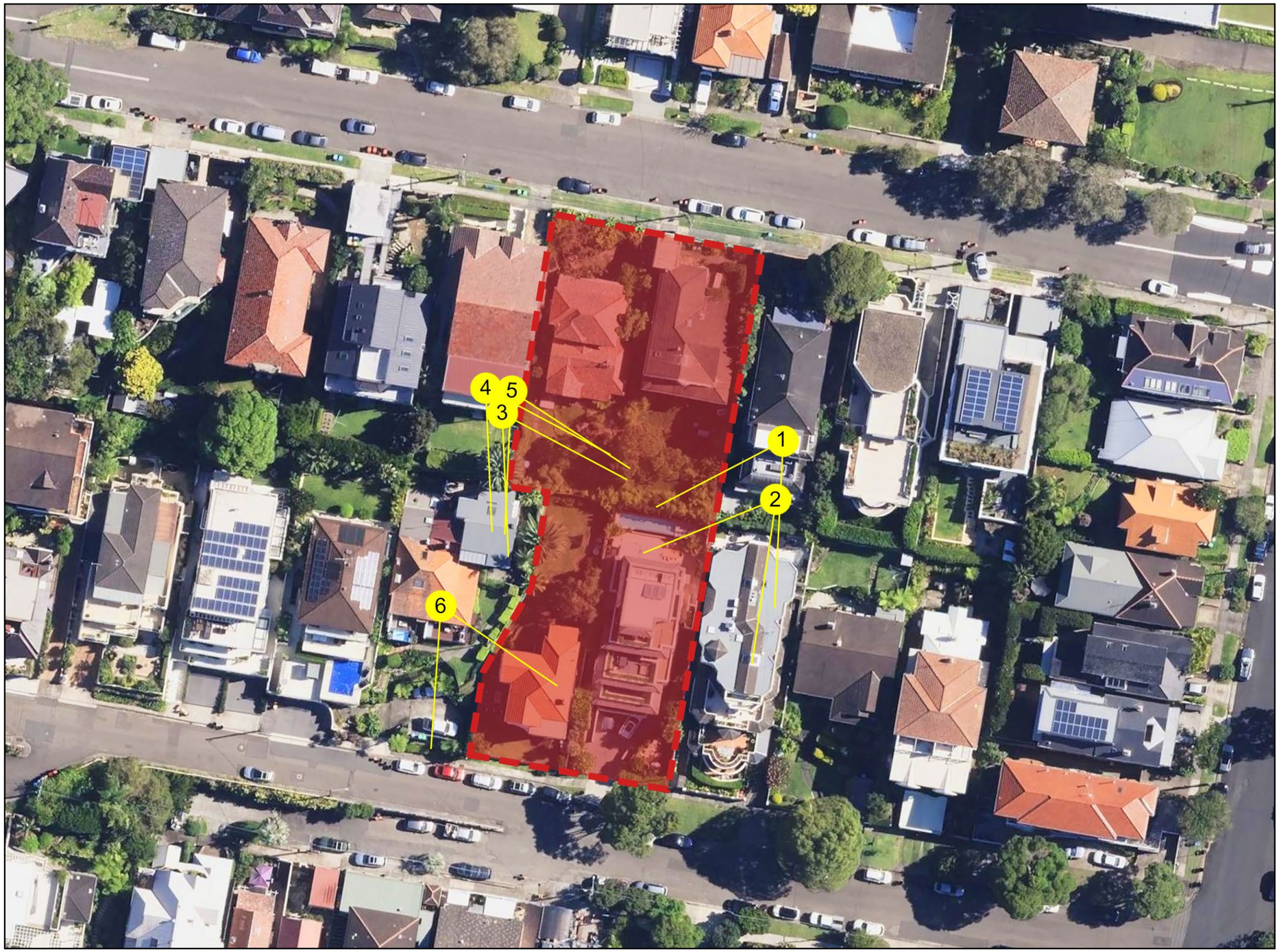


Image showing survey drawing supplied by Bee & Lethbridge located at MGA 56 GDA2020 and 3D model supplied by Platform Architects aligned to site boundary.

## 4. MAP OF PHOTOGRAPHY LOCATIONS




VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW (Balcony)

VIEWPOINT POSITION 05 - 2/14 Clifford Avenue, Fairlight, NSW (Kitchen)

Site boundary of proposed building developments 33-35 Fairlight Street & 10-12 Clifford Avenue

# 5.1 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

### VIEWPOINT LOCATION


### ALIGNMENT OF SURVEYED POINTS

### PHOTOGRAPH DETAILS

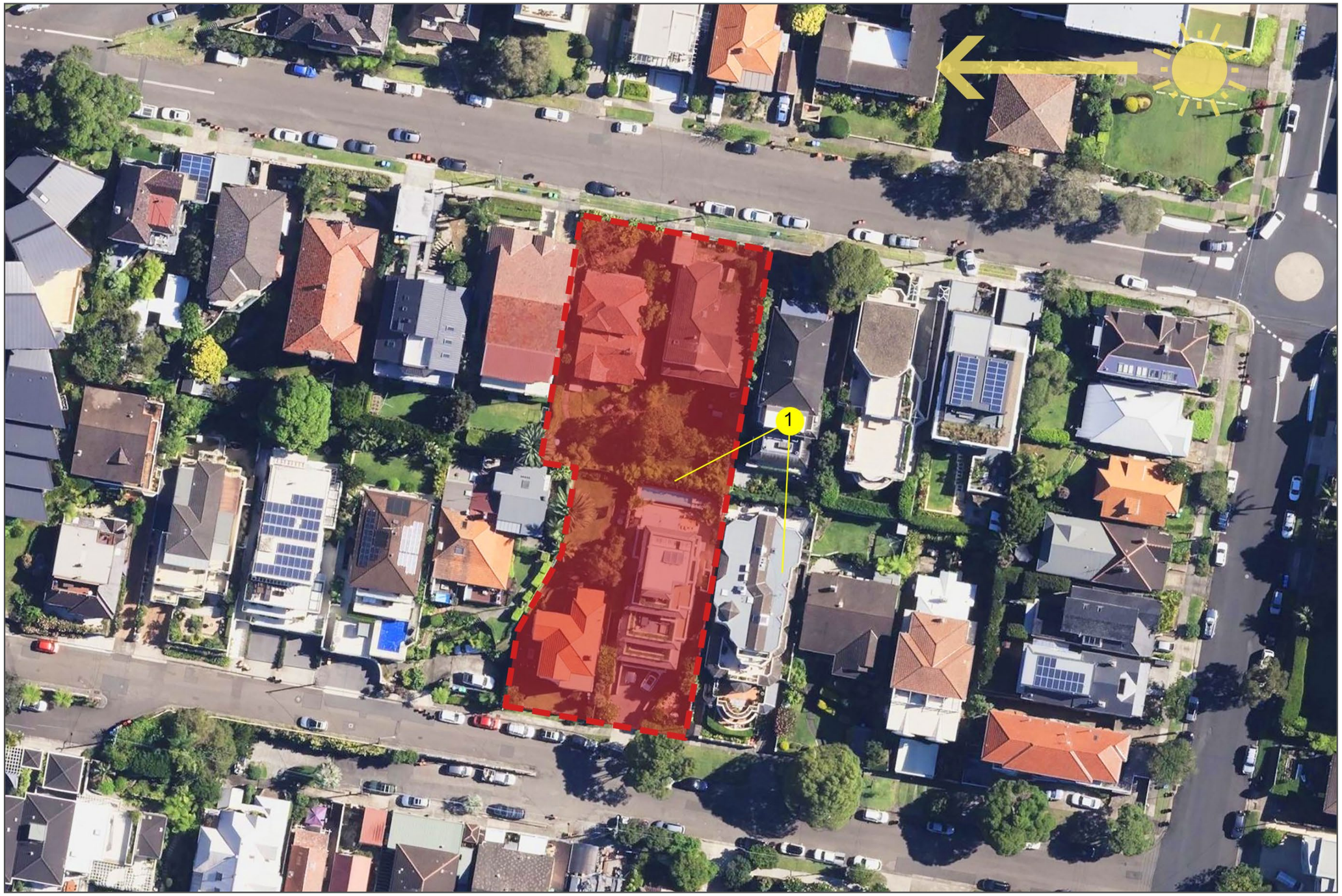
| | |
|---|---|
| File Name: | 31 Fairlight_2B_50mm_01 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 6th November 2024 |
| Time: | 09:02 AEDT |
| Lens: | EF24-105mm f/0 |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

### ORIGINAL PHOTOGRAPH

### ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

## 5.2 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

**VIEWPOINT LOCATION**



## 5.3 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

**ALIGNMENT OF SURVEYED POINTS**

## 5.4 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

**ORIGINAL PHOTOGRAPH**

## 5.5 VIEWPOINT POSITION 01 - 2/31 Fairlight Street, Fairlight, NSW (Terrace)

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 6.1 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW  (Balcony)

### VIEWPOINT LOCATION


### ALIGNMENT OF SURVEYED POINTS

### PHOTOGRAPH DETAILS

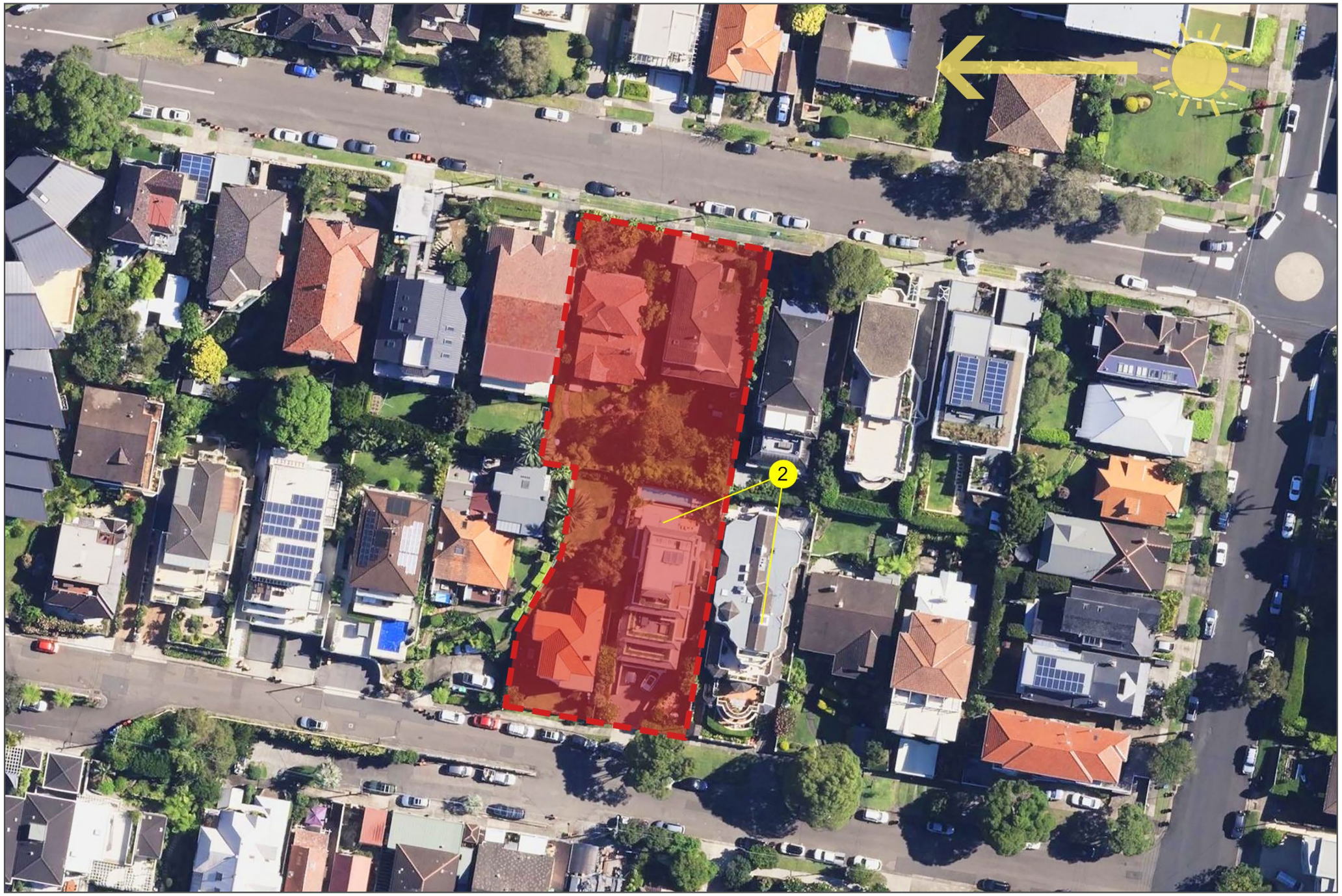
| | |
|---|---|
| File Name: | 31 Fairlight_3B_50mm_01 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 6th November 2024 |
| Time: | 08:47 AEDT |
| Lens: | EF24-105mm f/0 |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

### ORIGINAL PHOTOGRAPH

### ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

## 6.2 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW  (Balcony)

**VIEWPOINT LOCATION**



## 6.3 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW  (Balcony)

**ALIGNMENT OF SURVEYED POINTS**

## 6.4 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW  (Balcony)

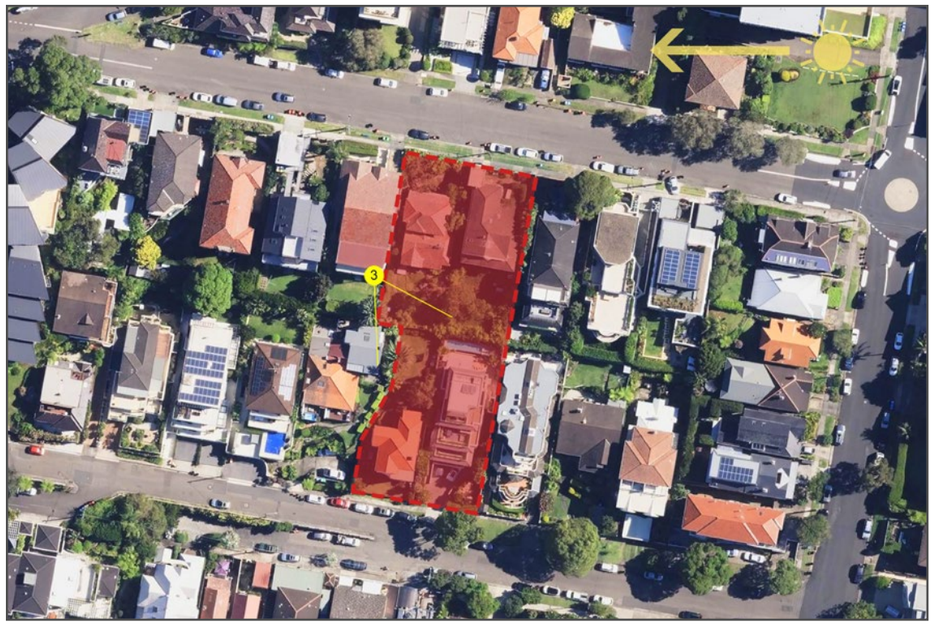
**ORIGINAL PHOTOGRAPH**

## 6.5 VIEWPOINT POSITION 02 - 3/31 Fairlight Street, Fairlight, NSW  (Balcony)

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 7.1 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW  (Balcony)

### VIEWPOINT LOCATION




### ALIGNMENT OF SURVEYED POINTS

### PHOTOGRAPH DETAILS

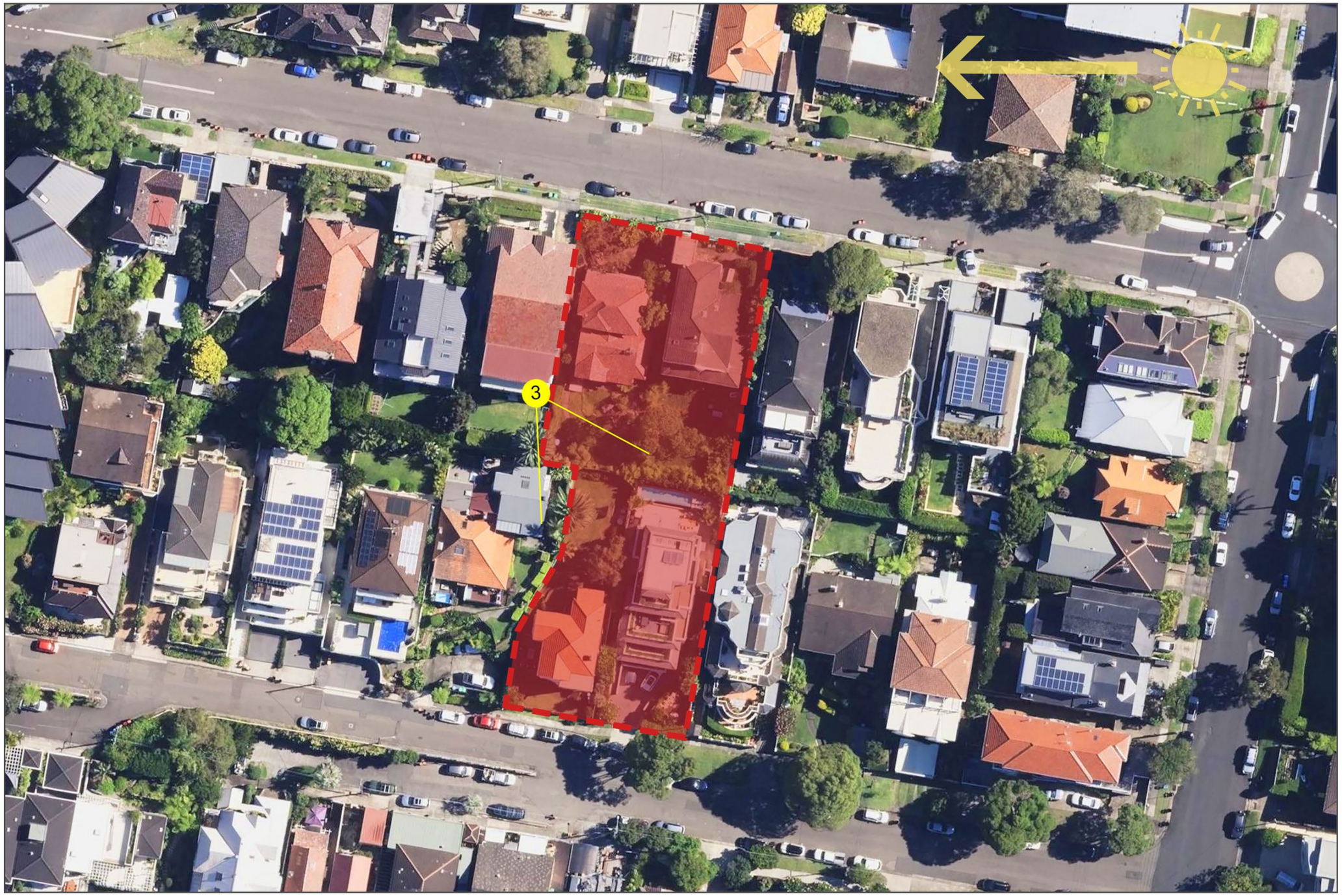
| | |
|---|---|
| File Name: | 37 Fairlight_2A_50mm_04 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 6th November 2024 |
| Time: | 10:29 AEDT |
| Lens: | EF24-105mm f/0 |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

### ORIGINAL PHOTOGRAPH

### ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

## 7.2 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW  (Balcony)

**VIEWPOINT LOCATION**



## 7.3 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW  (Balcony)

**ALIGNMENT OF SURVEYED POINTS**

## 7.4 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW  (Balcony)

**ORIGINAL PHOTOGRAPH**

## 7.5 VIEWPOINT POSITION 03 - 2/37 Fairlight Street, Fairlight, NSW  (Balcony)

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 8.1 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

### VIEWPOINT LOCATION


### ALIGNMENT OF SURVEYED POINTS

### PHOTOGRAPH DETAILS

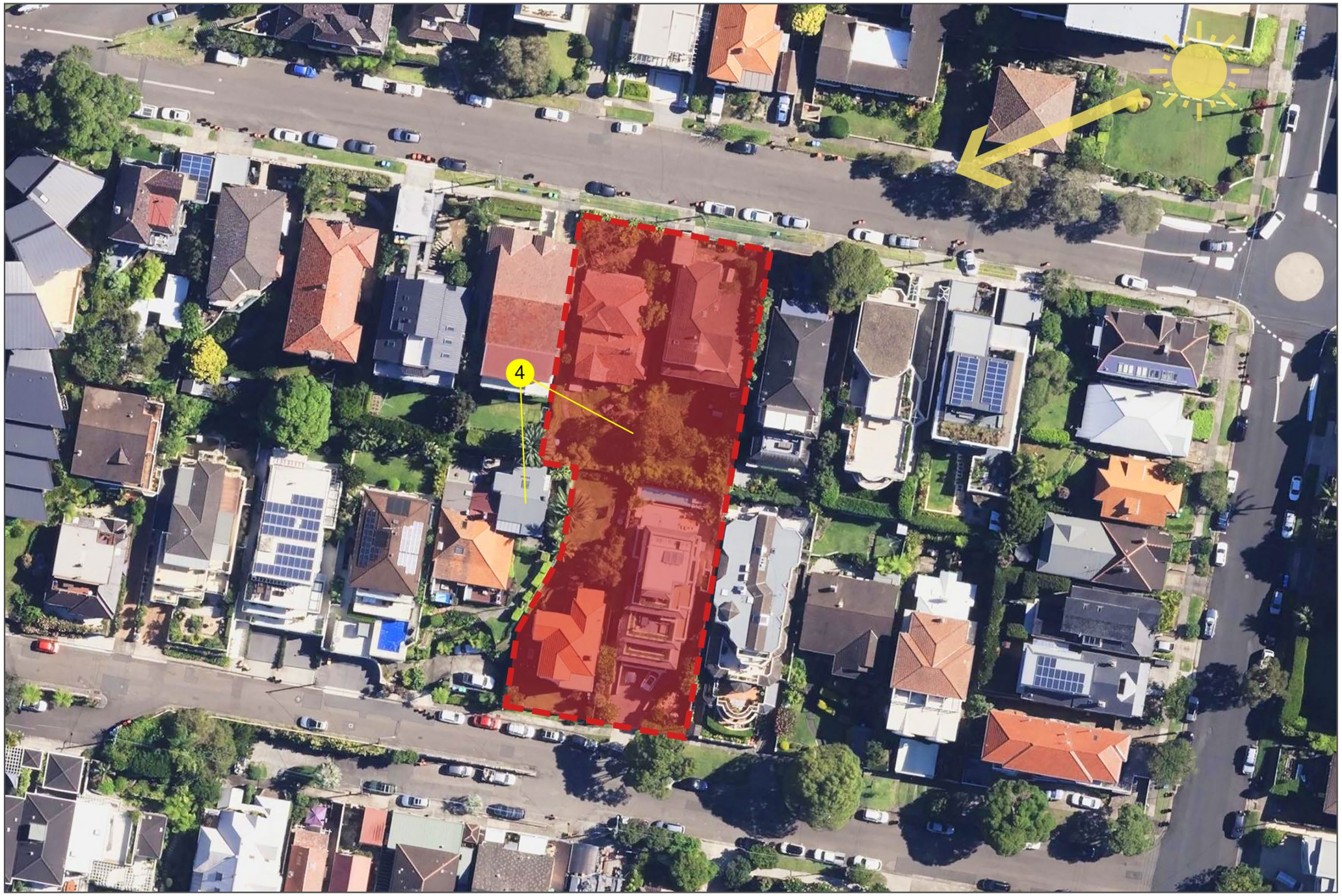
| | |
|---|---|
| File Name: | 37 Fairlight_3A_50mm_03 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 6th November 2024 |
| Time: | 07:51 AEDT |
| Lens: | EF24-105mm f/0 |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

### ORIGINAL PHOTOGRAPH

### ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

## 8.2 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

**VIEWPOINT LOCATION**



## 8.3 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

**ALIGNMENT OF SURVEYED POINTS**

## 8.4 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

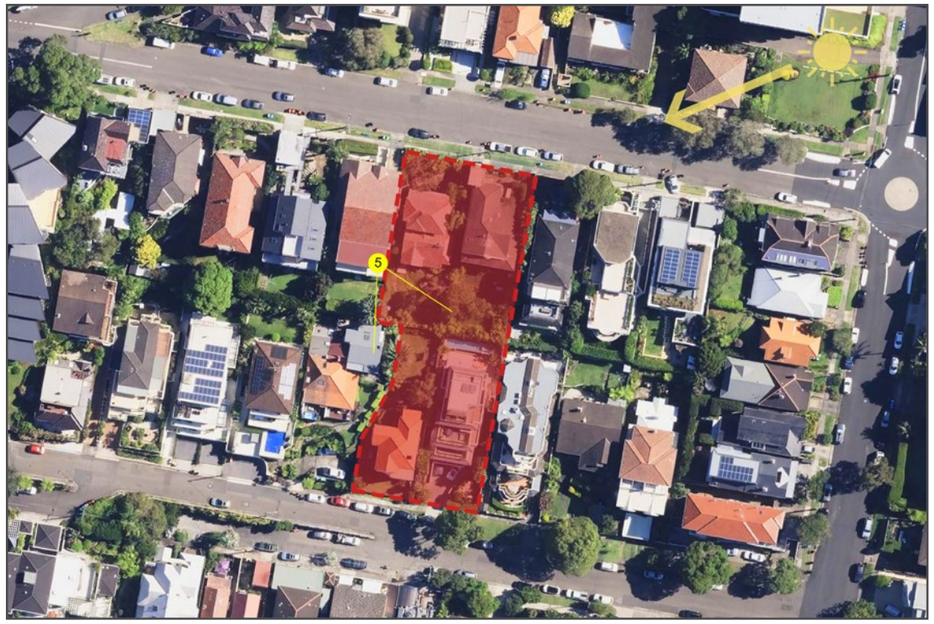
**ORIGINAL PHOTOGRAPH**

## 8.5 VIEWPOINT POSITION 04 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 9.1 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

## VIEWPOINT LOCATION




## ALIGNMENT OF SURVEYED POINTS

## PHOTOGRAPH DETAILS

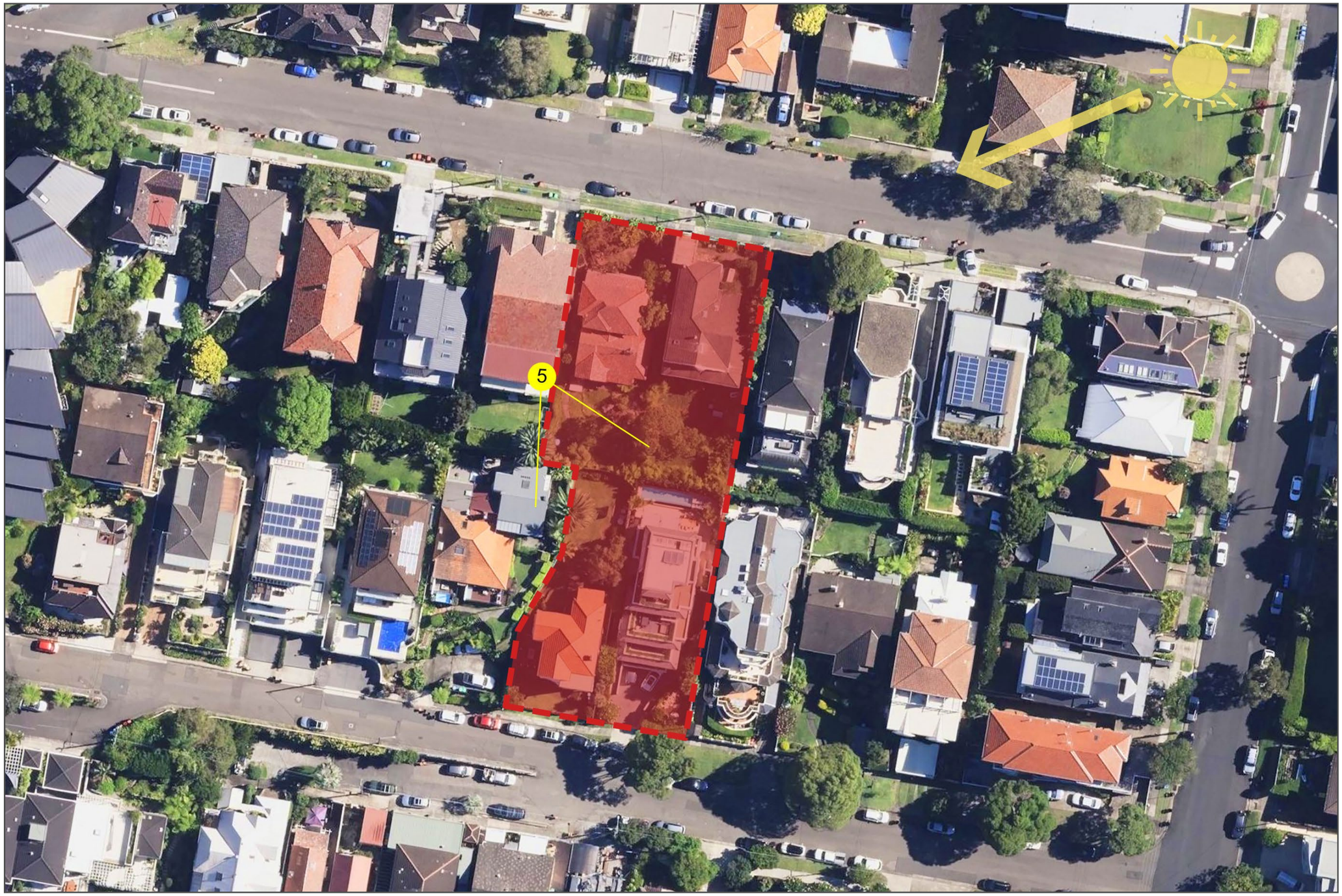
| | |
|---|---|
| File Name: | 37 Fairlight_3A_50mm_03 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 6th November 2024 |
| Time: | 07:51 AEDT |
| Lens: | EF24-105mm f/0 |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

## ORIGINAL PHOTOGRAPH

## ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT

## 9.2 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

**VIEWPOINT LOCATION**



## 9.3 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

**ALIGNMENT OF SURVEYED POINTS**

## 9.4 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

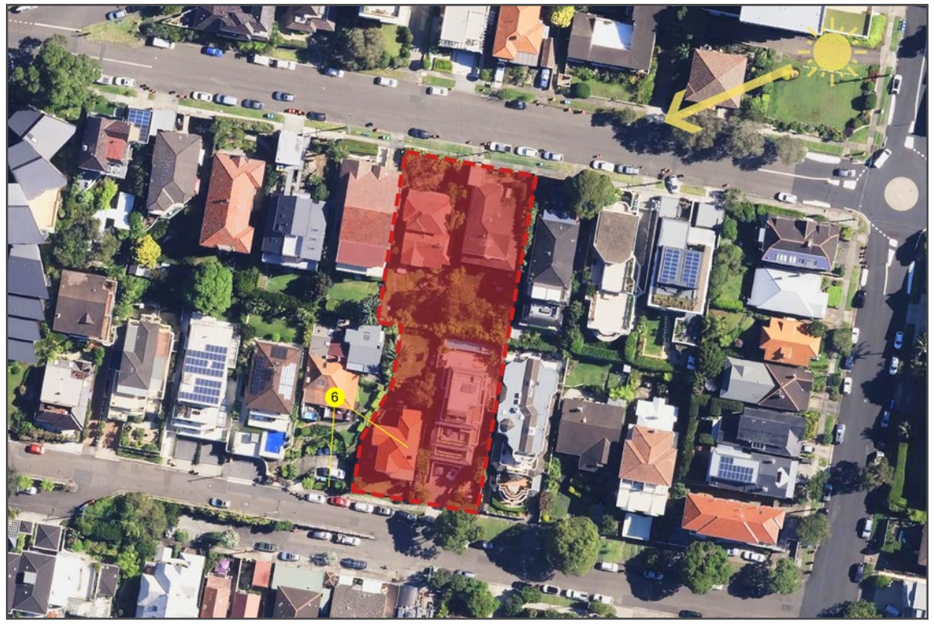
**ORIGINAL PHOTOGRAPH**

## 9.5 VIEWPOINT POSITION 05 - 3/37 Fairlight Street, Fairlight, NSW  (Balcony)

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 10.1 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW  (Kitchen)

**VIEWPOINT LOCATION**




**ALIGNMENT OF SURVEYED POINTS**

**PHOTOGRAPH DETAILS**

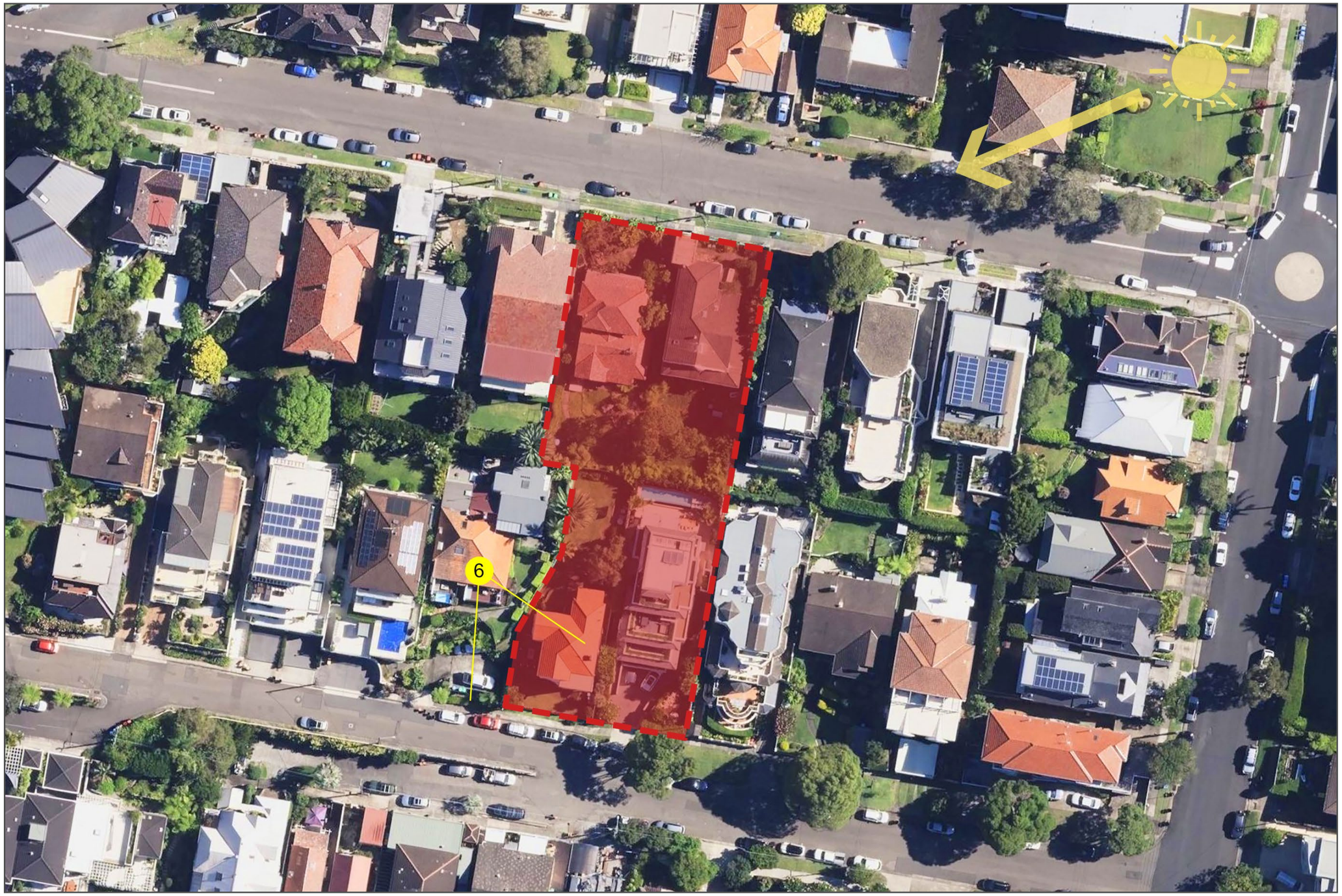
| | |
|---|---|
| File Name: | 14 Clifford_2B_50mm_43 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 6th November 2024 |
| Time: | 09:58 AEDT |
| Lens: | EF24-105mm f/0 |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

**ORIGINAL PHOTOGRAPH**

**ORIGINAL PHOTOGRAPH WITH PROPOSED DEVELOPMENT**

## 10.2 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW  (Kitchen)

**VIEWPOINT LOCATION**



## 10.3 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW  (Kitchen)

**ALIGNMENT OF SURVEYED POINTS AND AEROMETREX PHOTOGRAMMETRIC CITY MODEL**

## 10.4 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW  (Kitchen)

**ORIGINAL PHOTOGRAPH**

## 10.5 VIEWPOINT POSITION 06 - 2/14 Clifford Avenue, Fairlight, NSW  (Kitchen)

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 11.1 3D SCENE DATA SOURCES

**1 - 3D Model of the proposed building - refer to Appendix A**

File Name: FSF_33-35 Fairlight St - 3D View - For CGI_241106
Author: Platform Architects
Format: DWG
Alignment: Aligned to MGA 56 GDA2020 via Appendix C

**2 - Site Photography Survey - refer to Appendix B for details**

File Name: 20582BPhotolocation1/20582BPhotolocation2
Author: CMS Surveyors
Format: Autocad DWG
Alignment: MGA 56 GDA2020

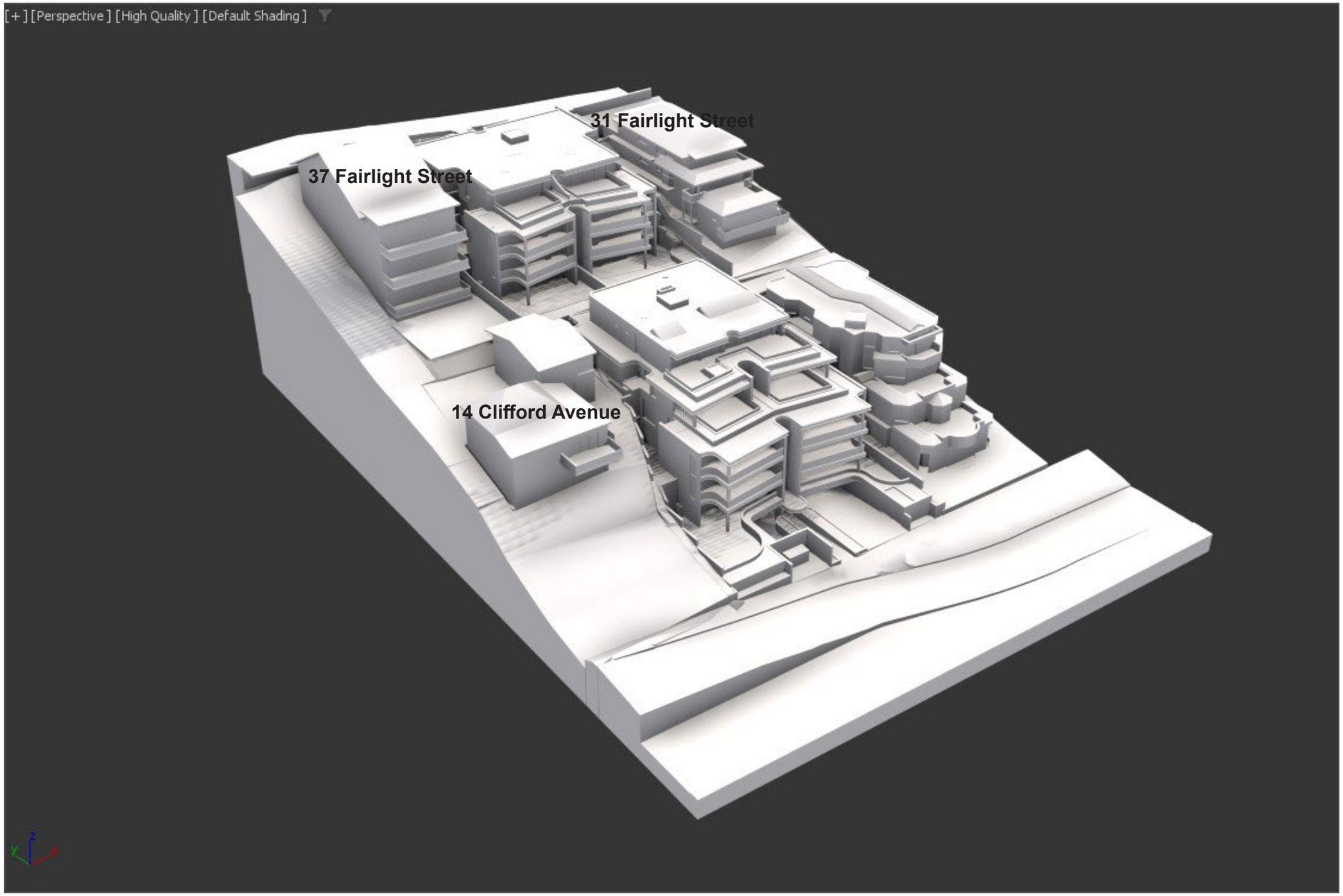
**3 - Existing Site Survey - refer to Appendix C for details**

File Name: MGA 23181
Author: Bee & Lethbridge
Format: Autocad DWG
Alignment: MGA 56 GDA2020

**4 - Photogrammetic city model - refer to Appendix D for details**

File Name: Aero_LOD 20_CBD
Author: Aerometrex
Format: fbx
Alignment: MGA 56 GDA2020

## 11.2 APPENDIX A: 3D MODELS SUPPLIED BY PLATFORM ARCHITECTS




**PROPOSED BUILDING**

# 11.3 APPENDIX B: SITE SURVEY SUPPLIED BY CMS

CMS SURVEYORS | LAND SURVEYING | CONSTRUCTION | 3D SCAN AND MODEL

Date: 22-11-2024
Our Ref: 20582B Photo Locations 2

Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

Dear Rick Mansfield,

**RE: PHOTO LOCATIONS – 31 & 37 Fairlight St, Fairlight**

As requested, we have attended site and measured the Co-ordinates and Elevation of the photo locations along 31 & 37 Fairlight St, Fairlight

Co-ordinates are MGA 56 **(GDA 2020)** and elevation to Australian Height datum (AHD).

Measurements were taken using Leica TS15 and RTC-360 measurements. The measurements are verified with PM909 & PM918.

DWG of locations has also been supplied.

| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 1 | 340295.866 | 6258980.802 | 43.350 | CAMERA 3/37 BALCONY |
| 2 | 340299.154 | 6258980.522 | 43.360 | CAMERA 3/37 BALCONY |
| 3 | 340299.957 | 6258983.356 | 43.370 | CAMERA 3/37 BEDROOM |
| 4 | 340292.143 | 6258944.859 | 38.674 | CAMERA 2/14 BALCONY |
| 5 | 340298.268 | 6258979.598 | 46.526 | CAMERA 2/37 BALCONY |
| 6 | 340293.400 | 6258980.490 | 46.525 | CAMERA 2/37 BALCONY |
| 7 | 340297.306 | 6258982.469 | 46.545 | CAMERA 2/37 BEDROOM |
| 8 | 340338.312 | 6258965.915 | 40.012 | CAMERA 3/31 COURTYARD |
| 9 | 340332.975 | 6258968.236 | 42.769 | CAMERA 3/31 BALCONY |
| 10 | 340338.812 | 6258967.520 | 42.769 | CAMERA 3/31 BALCONY |
| 11 | 340338.318 | 6258971.832 | 45.467 | CAMERA 2/31 TERRACE |
| 12 | 340299.906 | 6258974.146 | 43.977 | TOP OF POST |
| 13 | 340340.023 | 6258974.732 | 45.472 | CAMERA 2/31 TERRACE |
| 14 | 340323.297 | 6258947.959 | 43.398 | TOP OF PARAPET |
| 15 | 340330.359 | 6258943.974 | 42.043 | TOP OF ROOF RIDGE |
| 16 | 340323.118 | 6258939.049 | 37.348 | TOP OF PARAPET |
| 17 | 340253.056 | 6258851.710 | 35.373 | TOP OF ROOF |
| 18 | 340316.692 | 6258954.016 | 44.790 | TOP OF ANTENNA |
| 19 | 340383.262 | 6258883.910 | 36.286 | TOP OF ROOF RIDGE |
| 20 | 340336.576 | 6258970.307 | 46.558 | CORNER OF SEAT |


CMS SURVEYORS PTY LIMITED
(02) 9971 4802
info@cmssurveyors.com.au
ABN 79 096 240 201
www.cmssurveyors.com.au
Sydney Office
2/99A South Creek Rd
Dee Why NSW 2099
PO Box 463 Dee Why NSW 2099
Riverina Office
90 Wallendoon St
Cootamundra NSW 2590



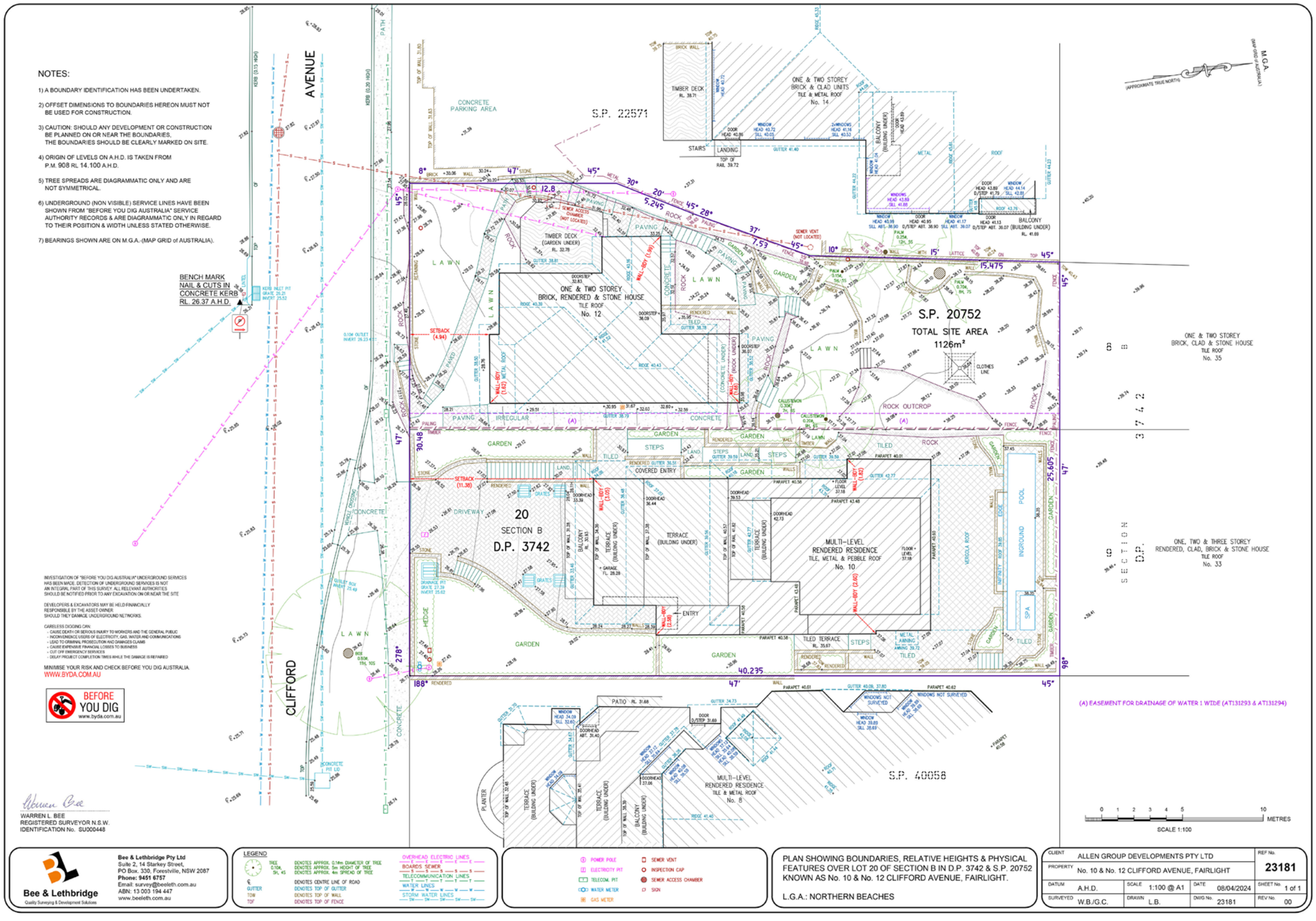
CMS SURVEYORS

| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 21 | 340337.758 | 6258970.737 | 46.108 | CORNER OF SEAT |
| 22 | 340341.277 | 6258972.236 | 42.811 | CAMERA 3/31 LOUNGEROOM |
| 23 | 340340.772 | 6258970.429 | 42.814 | CAMERA 3/31 LOUNGEROOM |
| 30 | 340290.363 | 6258950.370 | 38.820 | CAMERA 2/14 KITCHEN |
| 1010 | 340316.280 | 6258957.756 | 42.755 | TOP OF GUTTER |
| 1011 | 340317.244 | 6258956.462 | 43.445 | TOP OF PARAPET |
| 1012 | 340315.837 | 6258947.289 | 43.433 | TOP OF PARAPET |
| 31 | 340292.858 | 6258944.148 | 39.625 | CORNER OF RAILING |
| 32 | 340301.622 | 6258932.447 | 40.334 | TOP OF ROOF RIDGE |
| 33 | 340301.205 | 6258896.446 | 31.046 | TOP OF ROODF RIDGE |
| 34 | 340315.319 | 6258886.772 | 32.607 | TOP OF CHIMNEY |
| 35 | 340282.887 | 6258948.218 | 38.708 | CAMERA 1/14 BALCONY |
| 36 | 340282.952 | 6258950.693 | 38.718 | CAMERA 1/14 DINING |
| 37 | 340283.810 | 6258951.342 | 38.725 | CAMERA 1/14 LIVING ROOM |

Note: R.L. shown on the report for photo locations are ground levels. Camera height should be added to the supplied RL of each corresponding photo location.

Yours faithfully,
CMS Surveyors Pty Limited
Hayden Cook,
Diploma of Surveying (TAFE NSW)

# 11.4 APPENDIX C: EXISTING SITE SURVEY SUPPLIED BY BEE & LETHBRIDGE



# 11.5 APPENDIX D: PHOTOGRAMMETRIC CITY MODEL SUPPLIED BY AEROMETREX

aerometrex.
Digital Mapping Specialists

## Sydney 75mm - 3D MODEL

| | |
|---|---|
| **Aerometrex Project Number:** | A5673 |
| **Aerial Survey Acquisition Dates**: | 4th, 10th, 11th and 12th February 2019 |
| **Number of frames captured:** | 127,250 |
| **Capture Pixel Size**: | 7.5 cm GSD |
| **Horizontal Datum:** | Geocentric Datum of Australia 1994 (GDA94) |
| **Vertical Datum:** | Australian Height Datum (AHD) |
| **Map Projection:** | MGA Zone 56 (MGA56) |
| | FBX Offsets: X= 313,000 Y= 5,236,000 |
| **Spatial Accuracy – XYZ:** | Derived controls from 10cm Photogrammetric surveying – 25cm absolute accuracy |

**Data Summary:**

- **FBX Tiles** – 3D mesh tiles in FBX format split into their Level of Details. Please refer to the associated *metadata.xml* and Tile_Index.kml folder for global offsets and tile extents respectively.

  Please note there are different directories for different Level of details meaning L19 is typically the highest level of resolution and geometry and every Level down the geometry gets simplified as well as the texture resolution.

aerometrex.
Digital Mapping Specialists

Figure 1: Sydney 2019 3D Model example

Figure 2: Sydney 2019 3D Model example

Any queries/feedback please contact Aerometrex - Adelaide
ph +61 8 8362 9911

aerometrex.
www.aerometrex.com.au