April 2025

# Taronga Zoo Sky Safari

## Appendix L
## Visual Impact Assessment Methodology
## RTS Revision 2

PREPARED BY

Ethos Urban

PREPARED FOR

TARONGA
CONSERVATION SOCIETY AUSTRALIA
For the Wild

# Taronga Zoo Sky Safari, Mosman, NSW

Visual impact renderings and methodology report

29th April 2025

VIRTUAL IDEAS

# 1. INTRODUCTION

This document was prepared by Virtual Ideas to demonstrate the visual impact of the proposed developments for the Taronga Zoo Sky Safari, Bradleys Head Road, Mosman, NSW with respect to the existing built form and site context.

# 2. VIRTUAL IDEAS EXPERTISE

Virtual Ideas is an architectural visualisation company that has over 15 years experience in preparing visual impact assessment content and reports on projects of major significance that meet the requirements for relevant local and state planning authorities.

Our reports have been submitted as evidence in proceedings in both the Land and Environment Court and the Supreme Court of NSW. Our director, Grant Kolln, has been an expert witness in the field of visual impact assessment in the Supreme Court of NSW.

Virtual Ideas' methodologies and outcomes have been inspected by various court appointed experts in relation to previous visual impact assessment submissions, and have always been found to be accurate and acceptable.

# 3. PHOTOMONTAGE METHODOLOGY

The following describes the process that we undertake to create the photomontages that form the basis of 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, and C.

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 combination of 24, 35, and 50mm lenses 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.

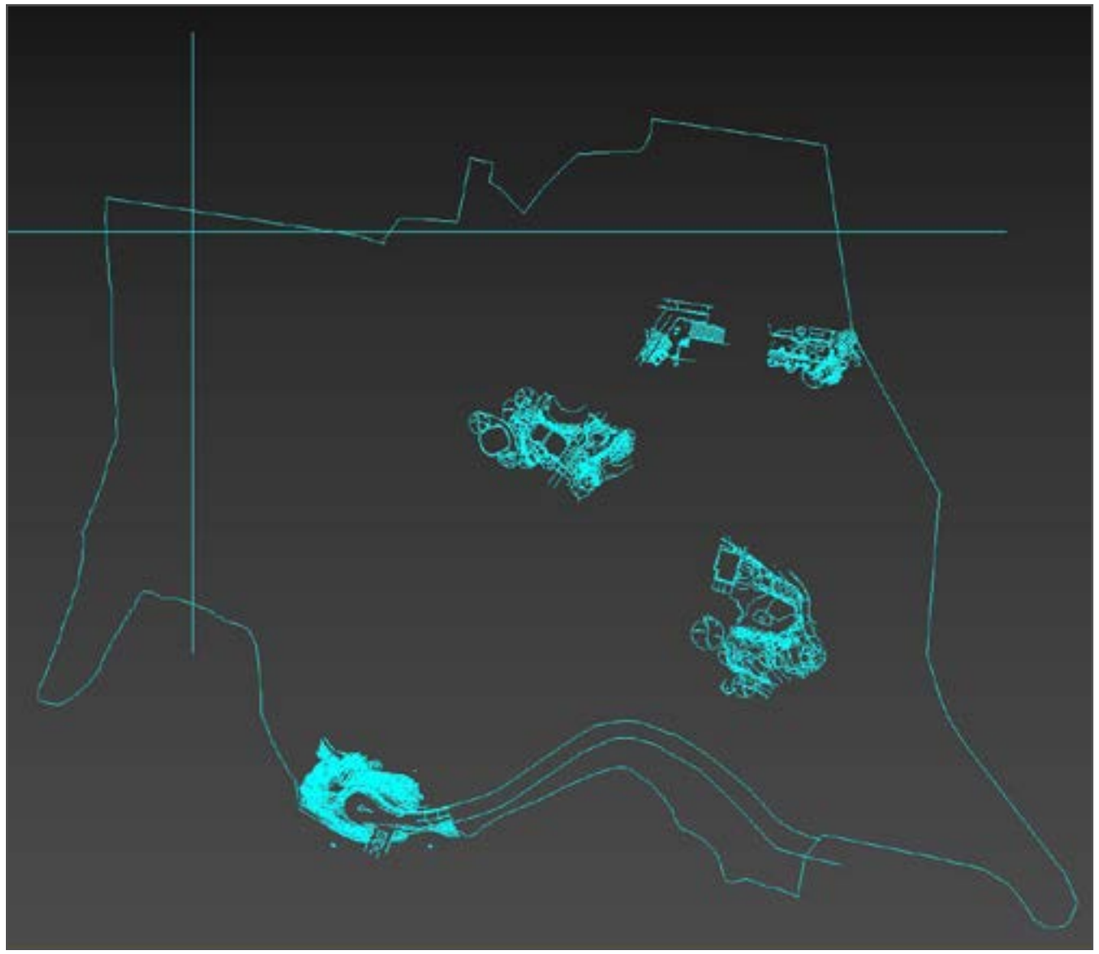
Comprehensive metadata, including date, time, and lens information, is recorded during site photography. This critical data enables precise analysis and documentation of each photograph's attributes.

### 3.2 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.

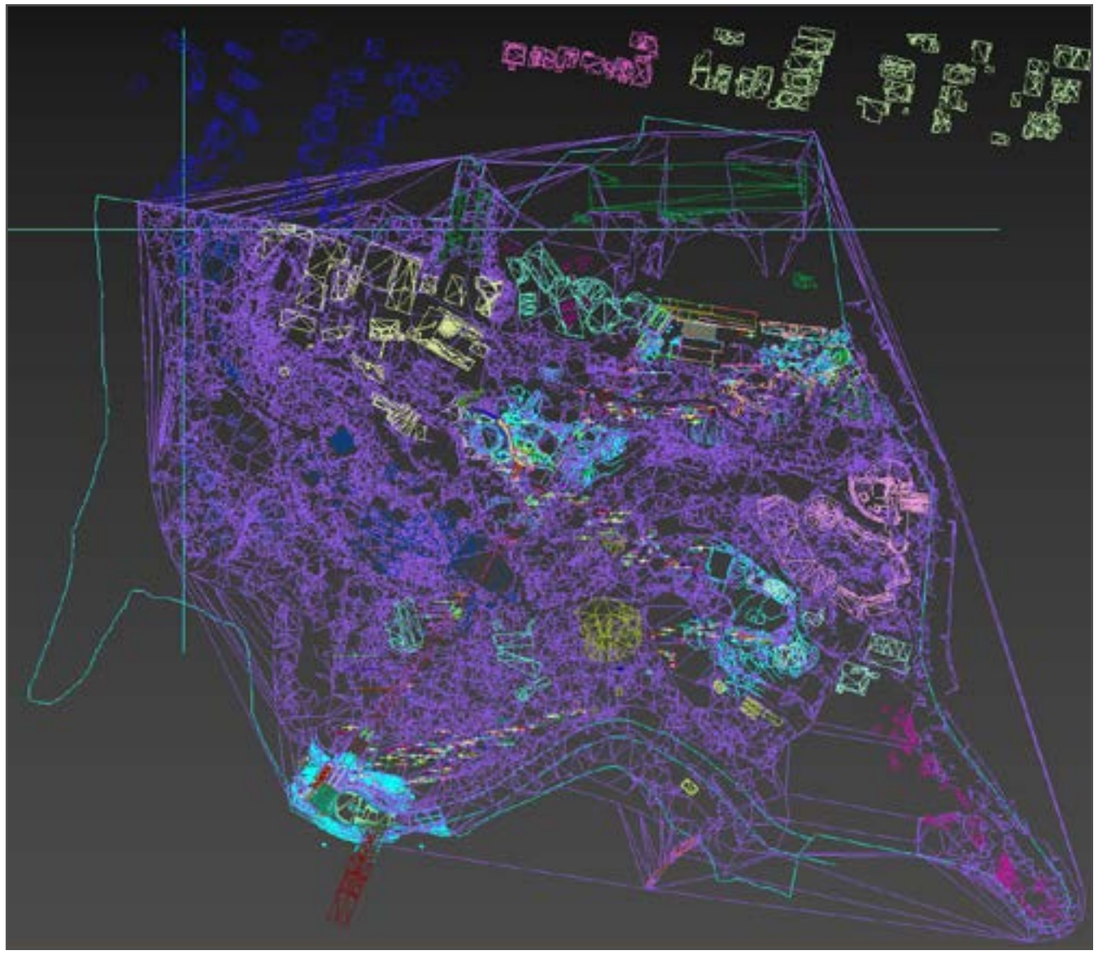
2. Camera Alignment: Cameras were aligned to surveyed positions supplied by CMS Surveyors, adhering to the MGA-56 GDA 2020 coordinate system. This meticulous alignment ensured that viewpoints captured within the 3D scene accurately reflected real-world perspectives.



### 3.3 RENDERING CREATION

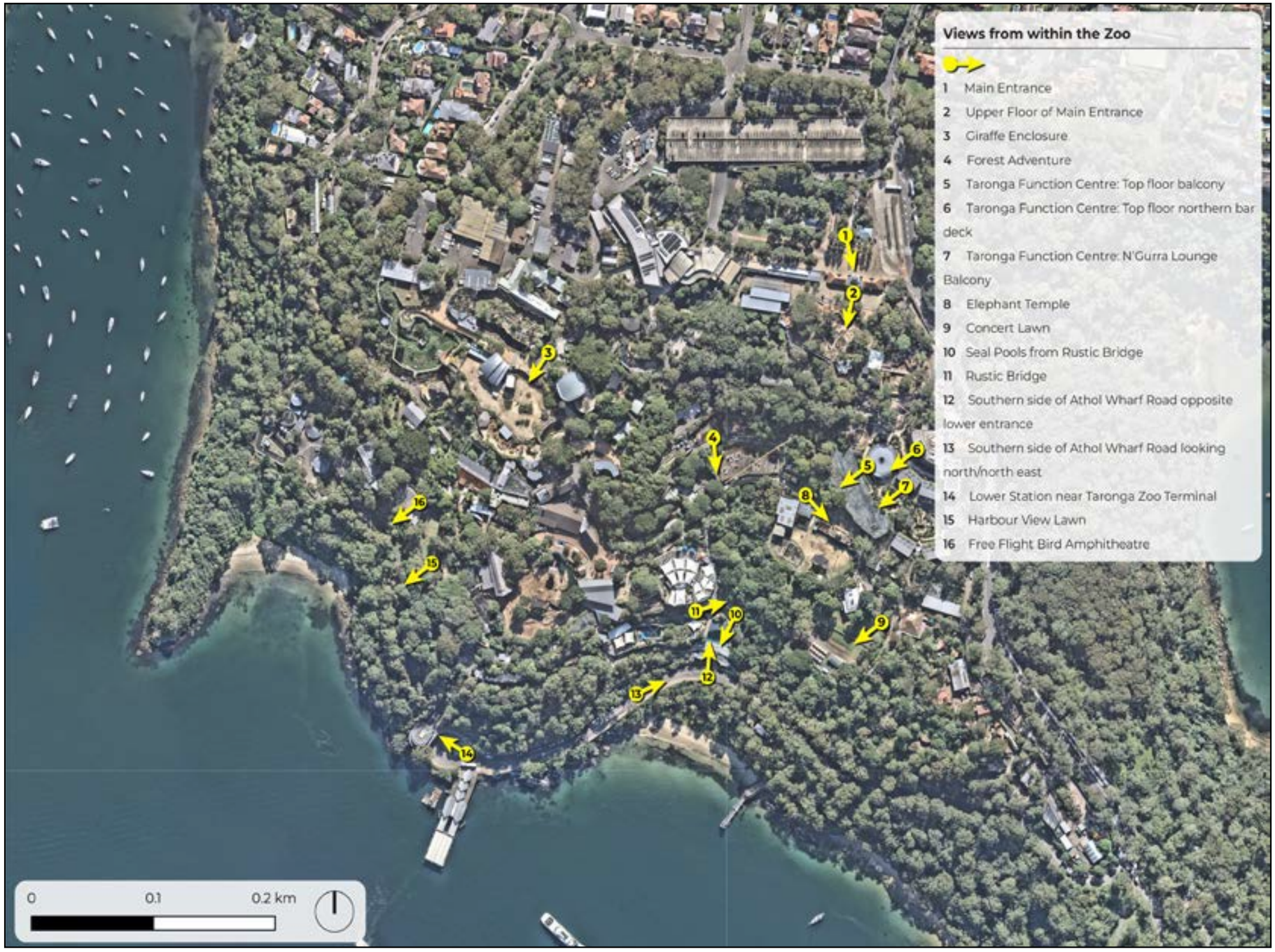
Following the completion of the camera alignment, we proceeded to integrate lighting into the 3D scene. To replicate natural lighting conditions accurately, a digital sunlight system was incorporated into the 3D environment. This system emulates the directional lighting of the sun leveraging location 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.

For the renderings, we applied detailed materials to the proposed developments.



## 4.1 MAP OF 3D CAMERA LOCATIONS

**PLAN ILLUSTRATING CAMERA LOCATIONS FOR VISUAL IMPACT RENDERS OF TARONGA ZOO, BRADLEYS HEAD RD, MOSMAN**

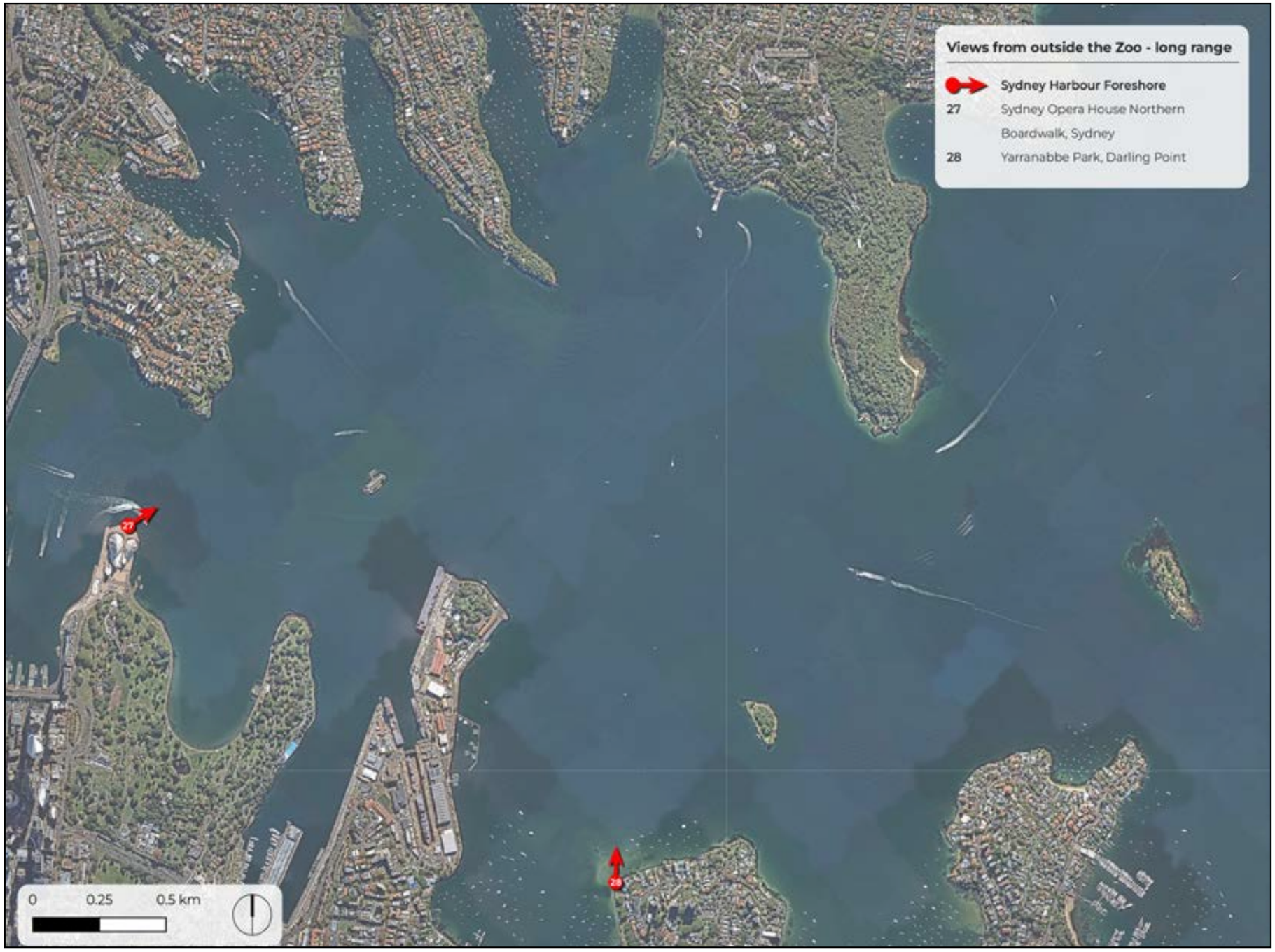


## 4.2 MAP OF 3D CAMERA LOCATIONS

**PLAN ILLUSTRATING CAMERA LOCATIONS FOR VISUAL IMPACT RENDERS OF TARONGA ZOO, BRADLEYS HEAD RD, MOSMAN**

## 4.3 MAP OF 3D CAMERA LOCATIONS

**PLAN ILLUSTRATING CAMERA LOCATIONS FOR VISUAL IMPACT RENDERS OF TARONGA ZOO, BRADLEYS HEAD RD, MOSMAN**



# 5.1 VIEWPOINT POSITION 01

**PHOTOGRAPH SHOWING CURRENT CONDITION**

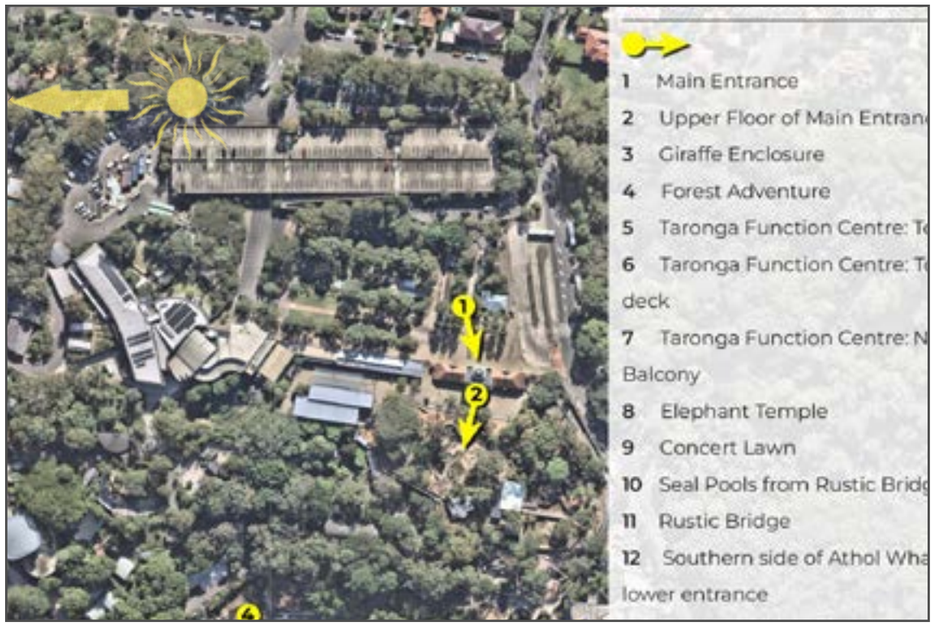
**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 02_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 6:43am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**



## 5.1 VIEWPOINT POSITION 01

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.1 VIEWPOINT POSITION 01

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.2 VIEWPOINT POSITION 02

**PHOTOGRAPH SHOWING CURRENT CONDITION**

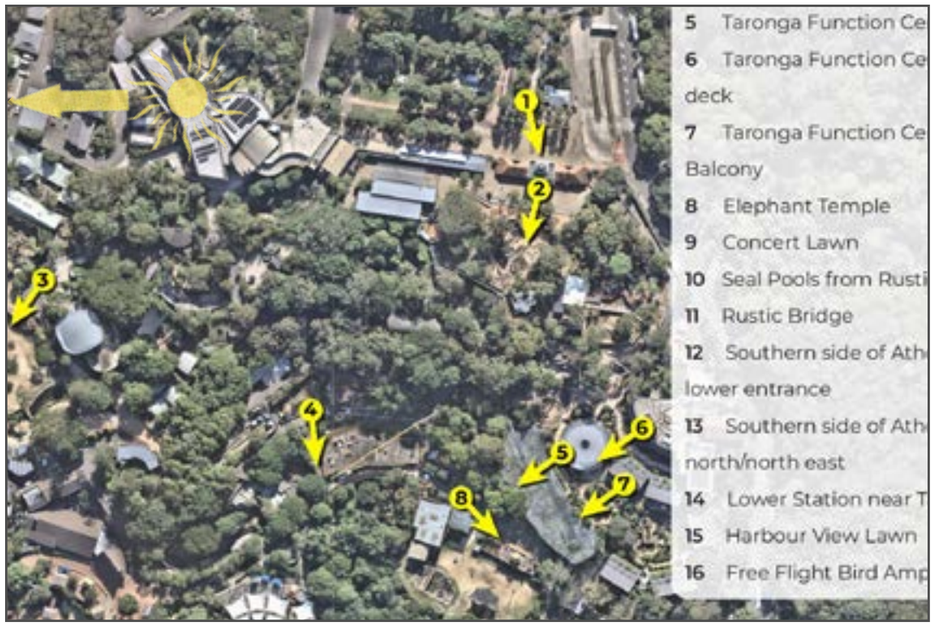
**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 03_24mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 6:21am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**



## 5.2 VIEWPOINT POSITION 02

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.2 VIEWPOINT POSITION 02

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.3 VIEWPOINT POSITION 03

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 04_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 7:01am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.3 VIEWPOINT POSITION 03

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.3 VIEWPOINT POSITION 03

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.4 VIEWPOINT POSITION 04

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 05_24mm_04 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 7:23am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.4 VIEWPOINT POSITION 04

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.4 VIEWPOINT POSITION 04

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.5 VIEWPOINT POSITION 05

**PHOTOGRAPH SHOWING CURRENT CONDITION**

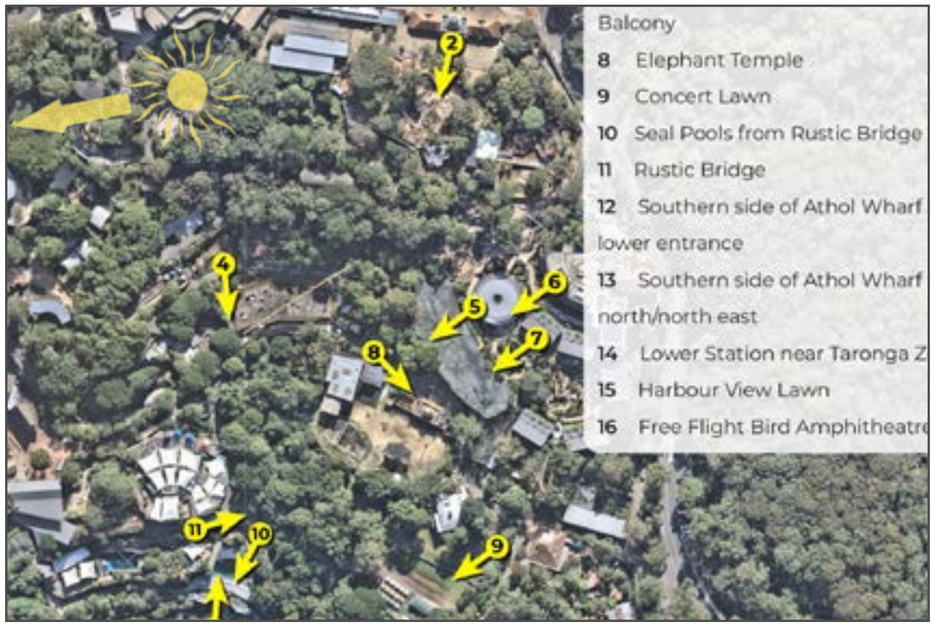
**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 06_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 19 January 2023 |
| Time: | 8:01am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**



## 5.5 VIEWPOINT POSITION 05

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.5 VIEWPOINT POSITION 05

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.6 VIEWPOINT POSITION 06

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 07_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 19 January 2023 |
| Time: | 6:44am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.6 VIEWPOINT POSITION 06

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.6 VIEWPOINT POSITION 06

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.7 VIEWPOINT POSITION 07

**PHOTOGRAPH SHOWING CURRENT CONDITION**

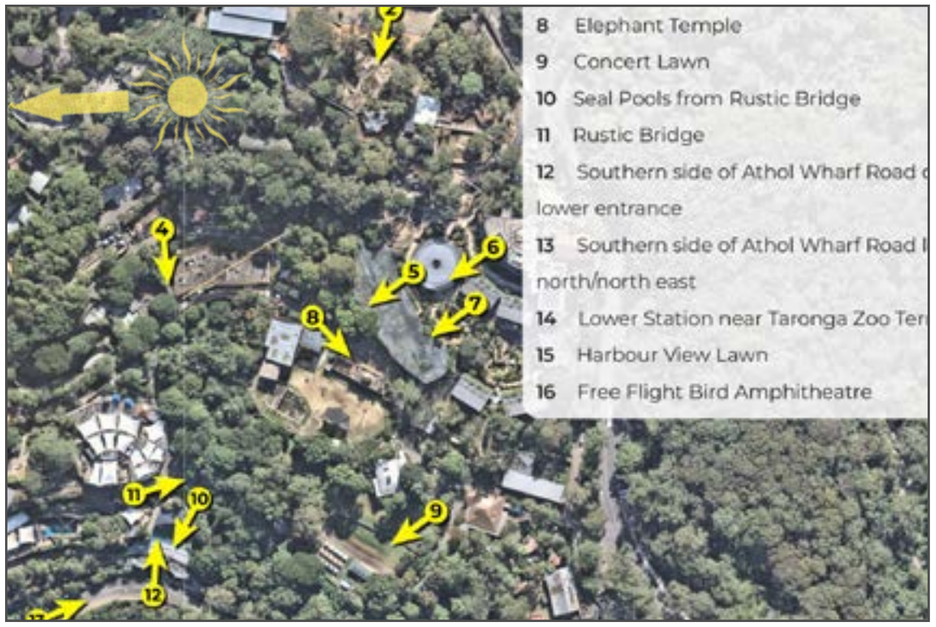
**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 08_24mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 19 January 2023 |
| Time: | 7:13am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**



## 5.7 VIEWPOINT POSITION 07

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.7 VIEWPOINT POSITION 07

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.8 VIEWPOINT POSITION 08

**PHOTOGRAPH SHOWING CURRENT CONDITION**

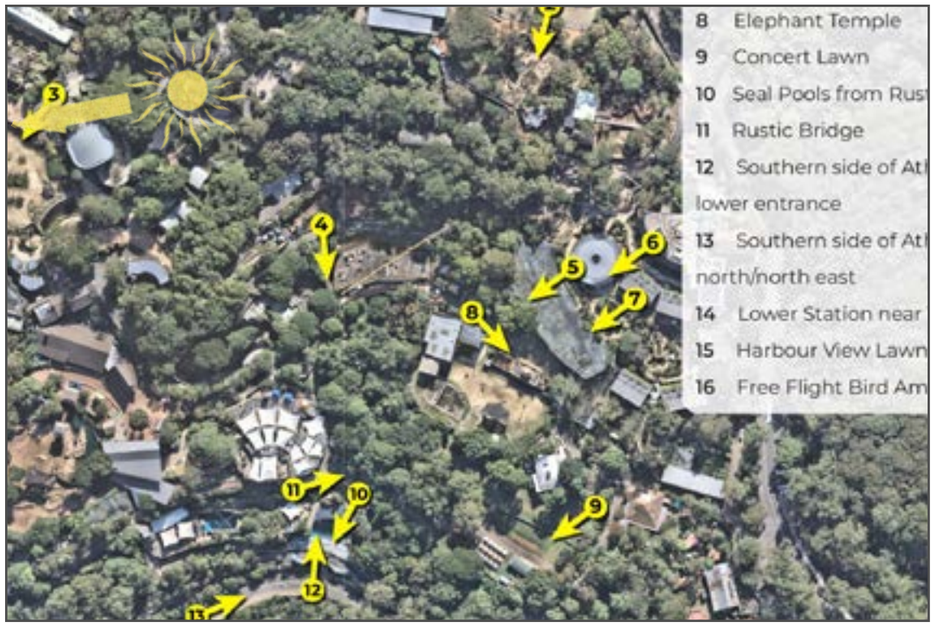
**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 09_Pos 01_24mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 7:37am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**



## 5.8 VIEWPOINT POSITION 08

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.8 VIEWPOINT POSITION 08

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.9 VIEWPOINT POSITION 09

### PHOTOGRAPH SHOWING CURRENT CONDITION

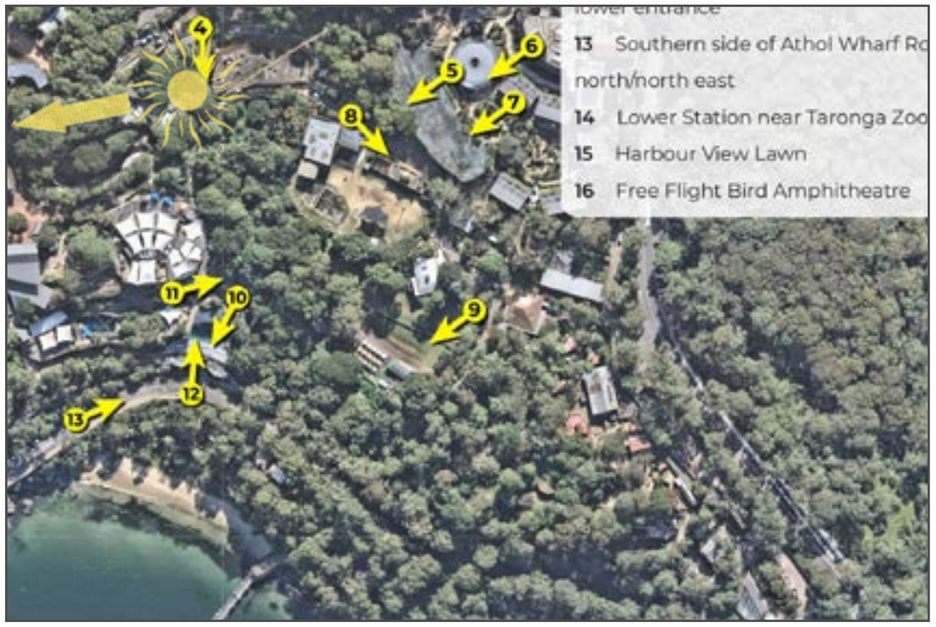
### PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT

### PHOTOGRAPH DETAILS

| | |
|---|---|
| File Name: | TZ_View 10_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 7:47am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

### SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT


### CAMERA LOCATION



## 5.9 VIEWPOINT POSITION 09

### PHOTOGRAPH SHOWING CURRENT CONDITION

## 5.9 VIEWPOINT POSITION 09

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.10 VIEWPOINT POSITION 10

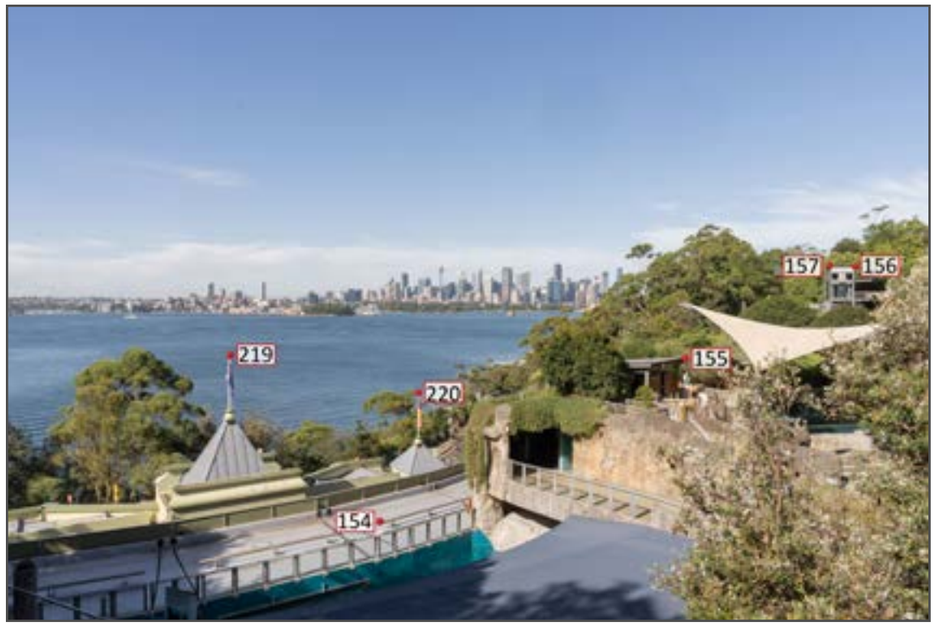
**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

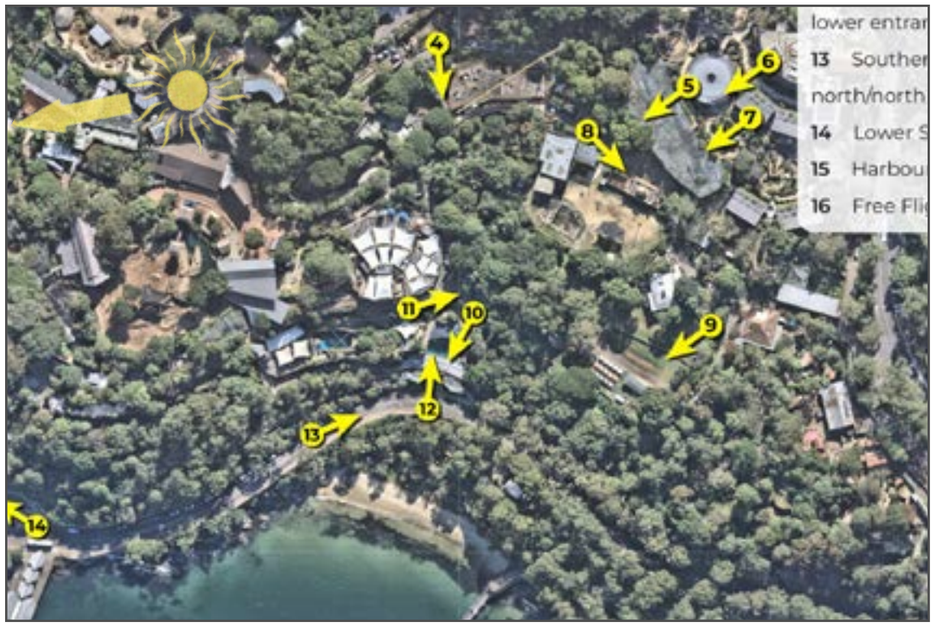
**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 11_24mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 7:58am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**

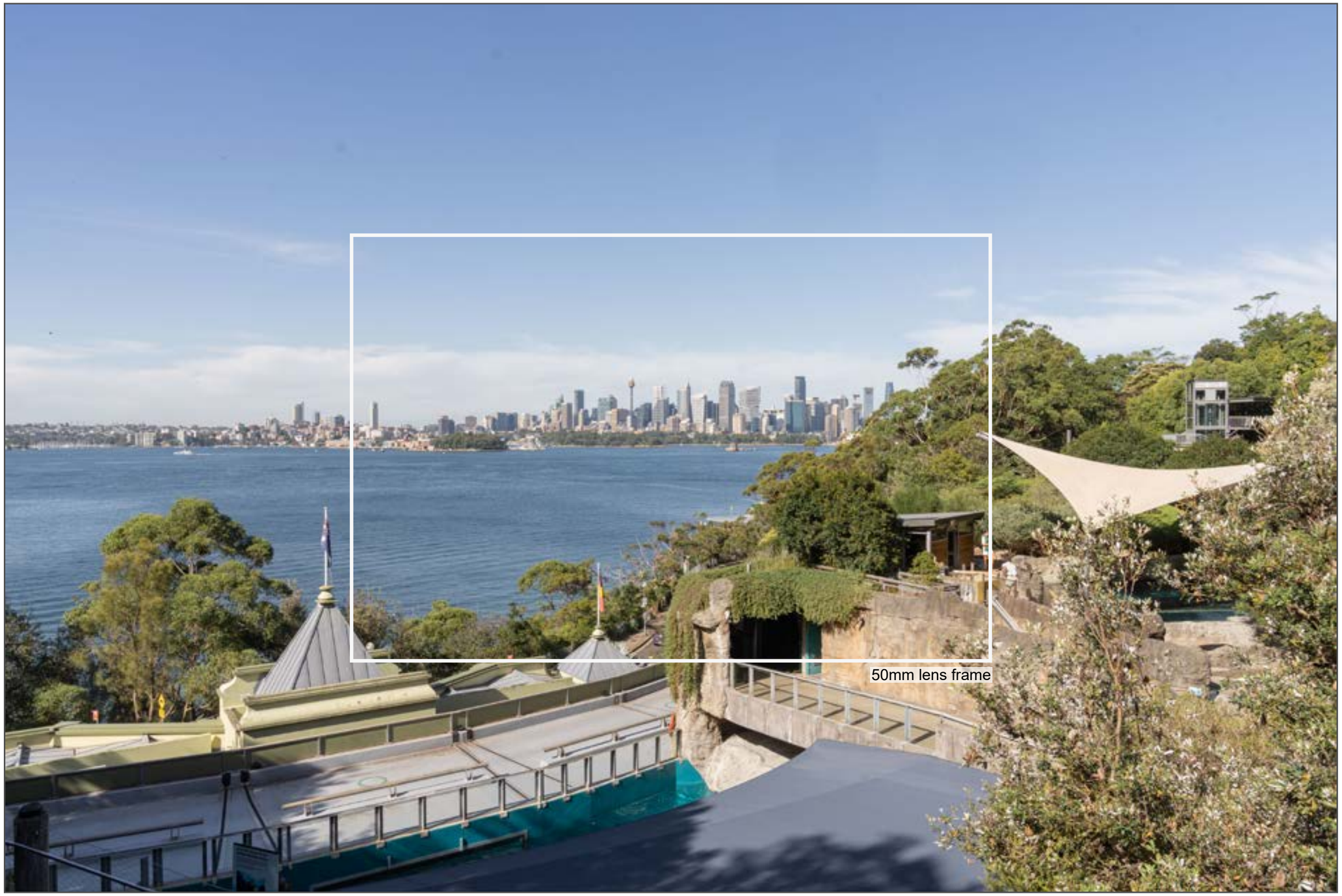



**CAMERA LOCATION**



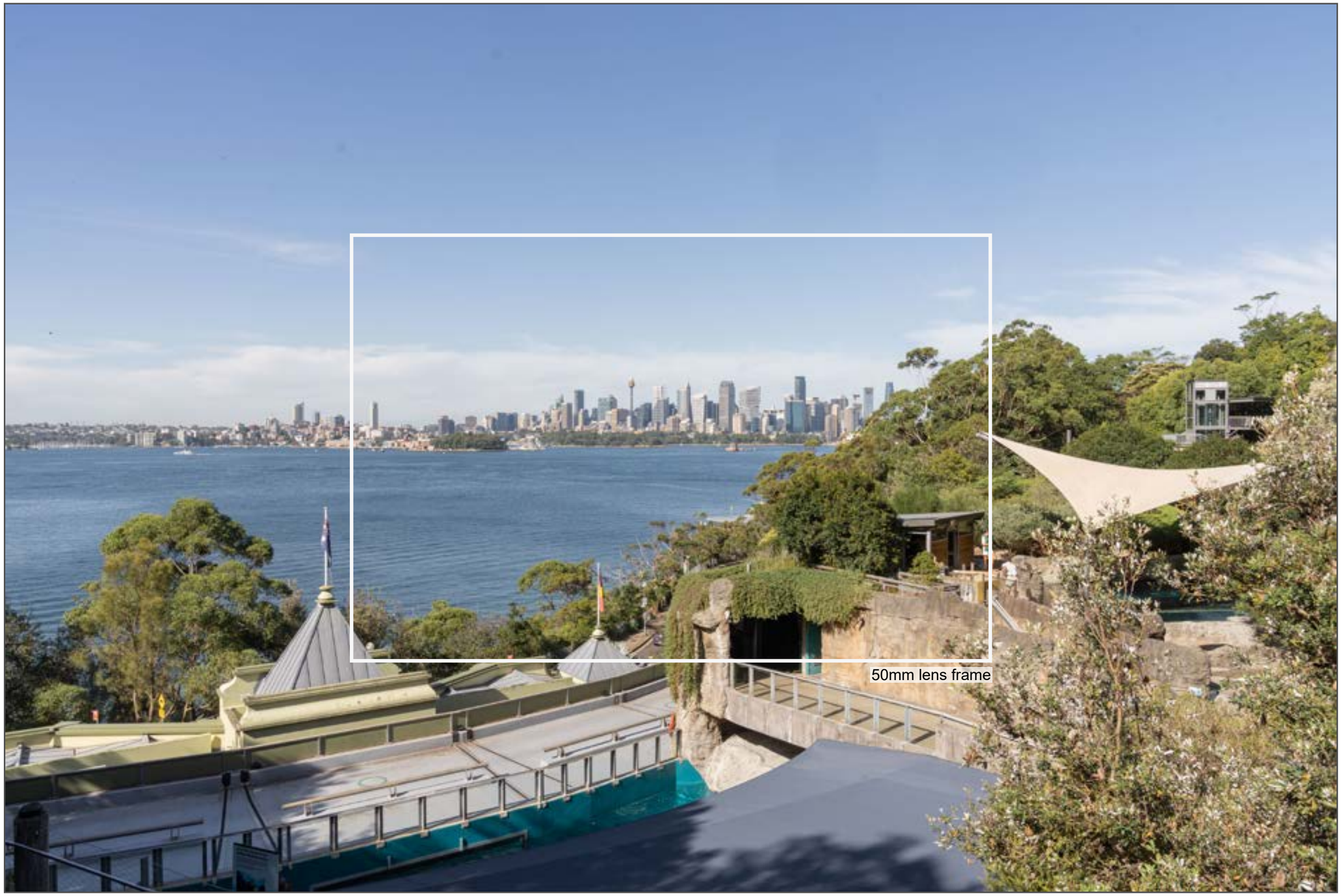
## 5.10 VIEWPOINT POSITION 10

**PHOTOGRAPH SHOWING CURRENT CONDITION**



## 5.10 VIEWPOINT POSITION 10

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**



# 5.11 VIEWPOINT POSITION 11

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 12_24mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 8:04am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.11 VIEWPOINT POSITION 11

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.11 VIEWPOINT POSITION 11

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.12 VIEWPOINT POSITION 12

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 13_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 8:18am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.12 VIEWPOINT POSITION 12

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.12 VIEWPOINT POSITION 12

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.13 VIEWPOINT POSITION 13

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 14_24mm_01 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 8:24am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.13 VIEWPOINT POSITION 13

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.13 VIEWPOINT POSITION 13

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.14 VIEWPOINT POSITION 14

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 15_24mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 8:30am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.14 VIEWPOINT POSITION 14

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.14 VIEWPOINT POSITION 14

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.15 VIEWPOINT POSITION 15

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

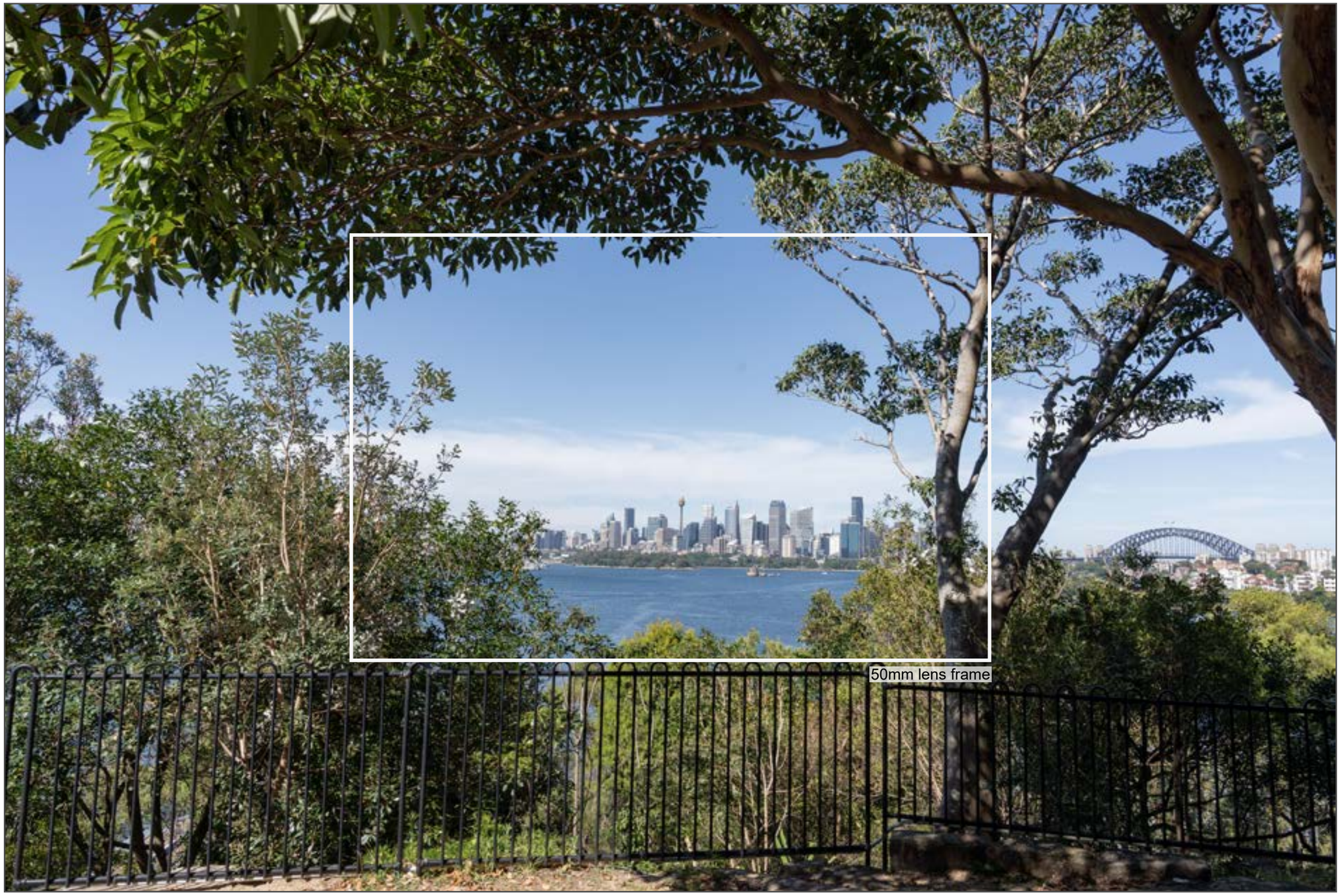
| | |
|---|---|
| File Name: | TZ_View 16_24mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 8:47am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

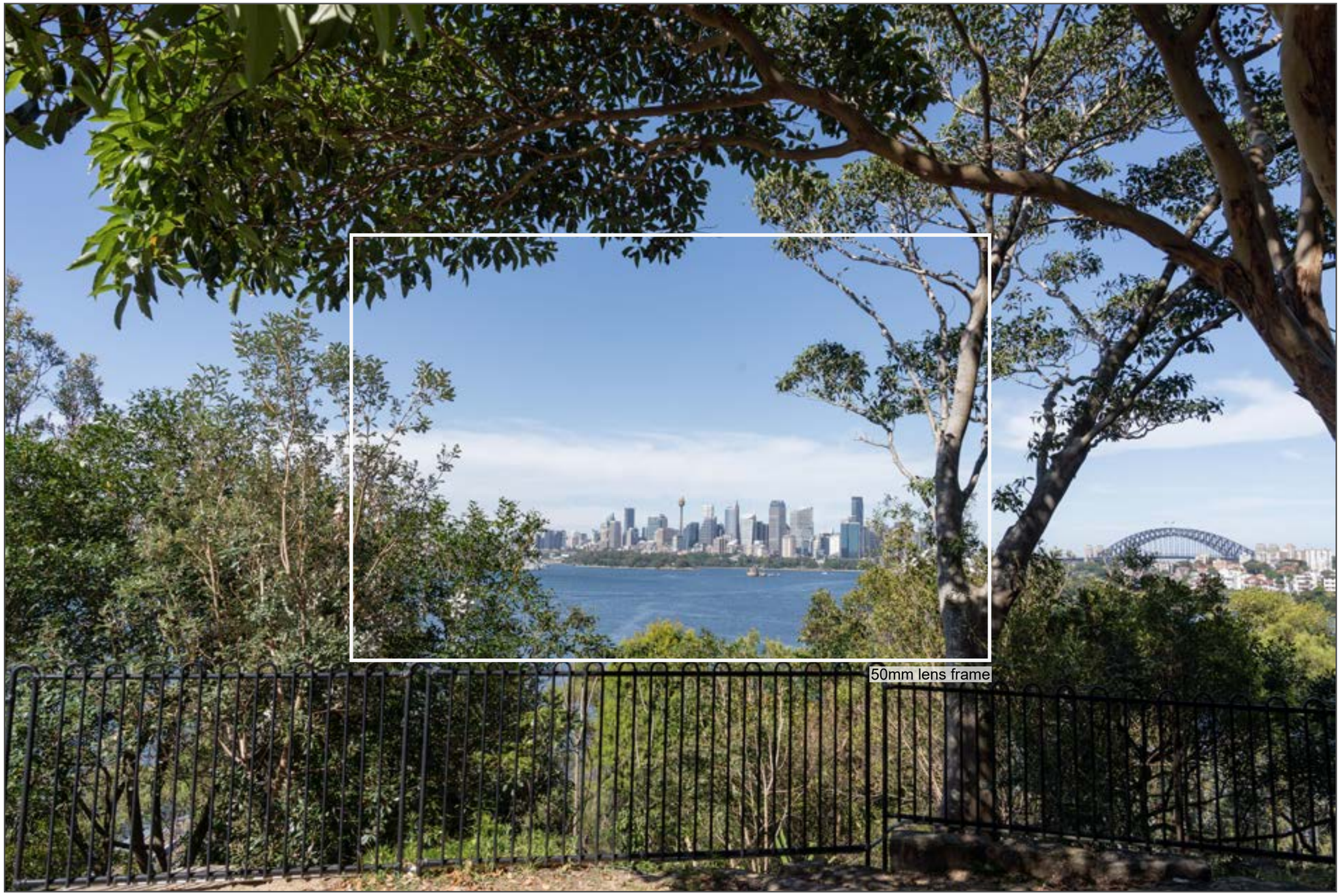
## 5.15 VIEWPOINT POSITION 15

**PHOTOGRAPH SHOWING CURRENT CONDITION**



## 5.15 VIEWPOINT POSITION 15

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**



# 5.16 VIEWPOINT POSITION 16

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 17_24mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 8:53am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.16 VIEWPOINT POSITION 16

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.16 VIEWPOINT POSITION 16

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.17A VIEWPOINT POSITION 17 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 18_35mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 19 January 2023 |
| Time: | 8:45am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 35mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.17A VIEWPOINT POSITION 17 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.17A VIEWPOINT POSITION 17 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.17B VIEWPOINT POSITION 17 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 17_Night_50mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 17 June 2024 |
| Time: | 7:12pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.17B VIEWPOINT POSITION 17 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.17B VIEWPOINT POSITION 17 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.18A VIEWPOINT POSITION 18 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 19_50mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 10:55am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.18A VIEWPOINT POSITION 18 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.18A VIEWPOINT POSITION 18 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.18B VIEWPOINT POSITION 18 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 18_Night_50mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 17 June 2024 |
| Time: | 6:24pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.18B VIEWPOINT POSITION 18 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.18B VIEWPOINT POSITION 18 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.19A VIEWPOINT POSITION 19 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | Cam Water 02_50mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 3 April 2024 |
| Time: | 2:50pm |
| Lens: | DT 0mm F0 SAM |
| Model: | Sony ILCE-7C |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.19A VIEWPOINT POSITION 19 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.19A VIEWPOINT POSITION 19 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.19B VIEWPOINT POSITION 19 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 19_Night_Pos 01_50mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 17 June 2024 |
| Time: | 5:12pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.19B VIEWPOINT POSITION 19 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.19B VIEWPOINT POSITION 19 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 5.20 VIEWPOINT POSITION 20

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | Cam Water 01_50mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 3 April 2024 |
| Time: | 2:30pm |
| Lens: | DT 0mm F0 SAM |
| Model: | Sony ILCE-7C |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.20 VIEWPOINT POSITION 20

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.20 VIEWPOINT POSITION 20

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.21A VIEWPOINT POSITION 21 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 21_50mm_01 |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 20 March 2023 |
| Time: | 11:47am |
| Lens: | EF24-105mm f/4L IS USM |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.21A VIEWPOINT POSITION 21 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.21A VIEWPOINT POSITION 21 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.21B VIEWPOINT POSITION 21 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 20_Night_50mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 17 June 2024 |
| Time: | 5:52pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.21B VIEWPOINT POSITION 21 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.21B VIEWPOINT POSITION 21 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.22A VIEWPOINT POSITION 22 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 22_Pos 01_50mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 10:19am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.22A VIEWPOINT POSITION 22 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.22A VIEWPOINT POSITION 22 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.22B VIEWPOINT POSITION 22 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 21_Night_50mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 17 June 2024 |
| Time: | 7:40pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.22B VIEWPOINT POSITION 22 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.22B VIEWPOINT POSITION 22 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.23A VIEWPOINT POSITION 23 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 23_50mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 9:56am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.23A VIEWPOINT POSITION 23 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.23A VIEWPOINT POSITION 23 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.23B VIEWPOINT POSITION 23 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 22_Night_50mm_02 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 June 2024 |
| Time: | 5:48pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.23B VIEWPOINT POSITION 23 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.23B VIEWPOINT POSITION 23 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.24 VIEWPOINT POSITION 24

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 24_24mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 9:22am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.24 VIEWPOINT POSITION 24

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.24 VIEWPOINT POSITION 24

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.25 VIEWPOINT POSITION 25

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 25_24mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 9:30am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.25 VIEWPOINT POSITION 25

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.25 VIEWPOINT POSITION 25

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.26 VIEWPOINT POSITION 26

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 26_24mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 January 2023 |
| Time: | 9:35am |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 24mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.26 VIEWPOINT POSITION 26

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.26 VIEWPOINT POSITION 26

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.27A VIEWPOINT POSITION 27 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 27_Pos 02_50mm |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 20 January 2023 |
| Time: | 2:29pm |
| Lens: | FE 24-70mm F2.8 GM |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.27A VIEWPOINT POSITION 27 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.27A VIEWPOINT POSITION 27 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.27B VIEWPOINT POSITION 27 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 26_Night_50mm_03 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 June 2024 |
| Time: | 8:53pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.27B VIEWPOINT POSITION 27 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.27B VIEWPOINT POSITION 27 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.28A VIEWPOINT POSITION 28 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | TZ_View 28_50mm |
| Author: | Virtual Ideas |
| Format: | CR2 |
| Date: | 20 March 2023 |
| Time: | 10:43am |
| Lens: | EF24-105mm f/4L IS USM |
| Model: | Canon EOS 5DS R |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**

## 5.28A VIEWPOINT POSITION 28 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.28A VIEWPOINT POSITION 28 - DAY

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

# 5.28B VIEWPOINT POSITION 28 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

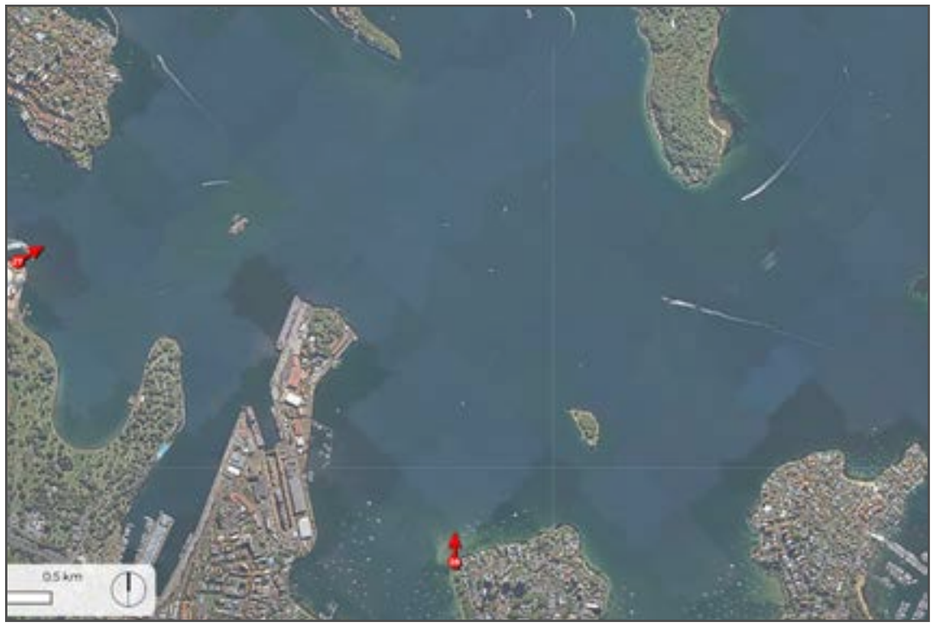
**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

**PHOTOGRAPH DETAILS**

| | |
|---|---|
| File Name: | View 27_Night_50mm_04 |
| Author: | Virtual Ideas |
| Format: | ARW |
| Date: | 18 June 2024 |
| Time: | 7:58pm |
| Lens: | FE 24-70mm F4 ZA OSS |
| Model: | Sony ILCE-7RM4A |
| Sensor: | Full frame |
| Focal length: | 50mm |

**SURVEY POINTS USED FOR 3D CAMERA ALIGNMENT**


**CAMERA LOCATION**



## 5.28B VIEWPOINT POSITION 28 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION**

## 5.28B VIEWPOINT POSITION 28 - NIGHT

**PHOTOGRAPH SHOWING CURRENT CONDITION AND PROPOSED DEVELOPMENT**

## 6.1 3D SCENE DATA SOURCES

**A.1 - 3D Model of the proposed Taronga Zoo Sky Safari - refer to Appendix A**

File Name: 20210173-AB-SK001-FBX[N]
Author: Scott Carver
Format: FBX
Alignment: MGA 56 GDA2020

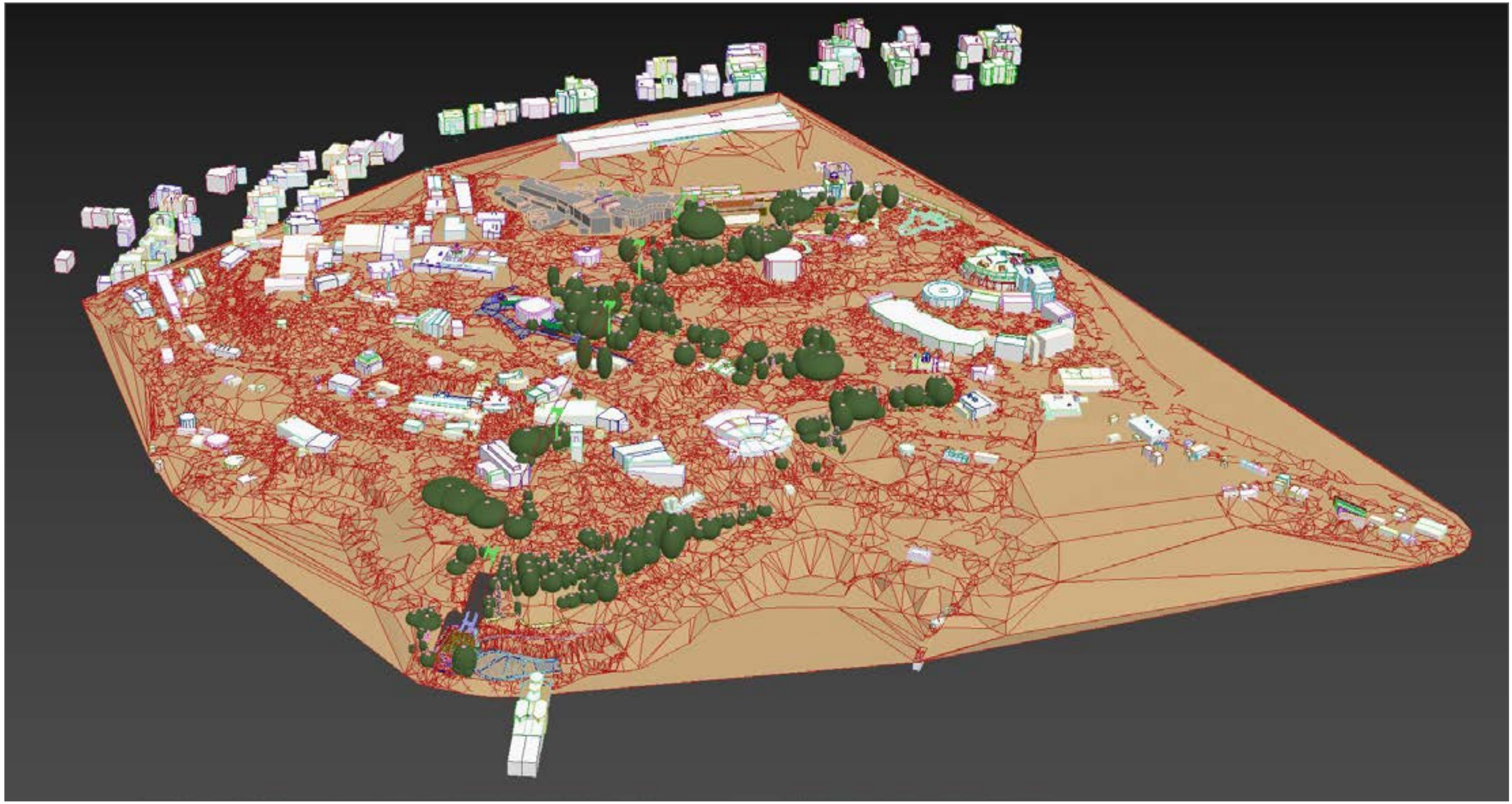
**A.2 - Site Survey - refer to Appendix B for details**

File Name: 21877Photolocation 1
Author: CMS Surveyors
Format: Autocad DWG
Alignment: MGA 56 GDA2020

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

File Name: 33575-04[A]
Author: Frank M Mason and Co. Pty Ltd
Format: Autocad DWG
Alignment: MGA 56 GDA2020

## 6.2 APPENDIX A: 3D MODEL SUPPLIED BY SCOTT CARVER



## 6.3 APPENDIX B: SITE SURVEY SUPPLIED BY CMS

CMS Surveyors Pty Limited
A.B.N. 79 096 240 201
LAND SURVEYING, PLANNING & DEVELOPMENT CONSULTANTS

CMS SURVEYORS



Date: 25-01-2023
Our Ref: 22126 Photo Locations

Studio 71/61 Marlborough Street
Surry Hills
NSW 2010

Dear Rick Mansfield,

**RE: PHOTO LOCATIONS – Taronga Zoo**

As requested, we have attended site and measured the Co-ordinates and Elevation of the photo locations for Taronga Zoo.

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

Measurements were taken using theodolite measurement and GNSS measurements by CORSNET.

DWG of locations has also been supplied.

| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 1 | 337479.034 | 6253943.558 | 71.23 | PHOTO 1 |
| 2 | 337456.482 | 6253958.605 | 71.82 | PHOTO 2 |
| 3 | 337461.336 | 6253919.366 | 76.10 | PHOTO3 |
| 4 | 337214.392 | 6253866.241 | 61.77 | PHOTO 4 |
| 5 | 337348.165 | 6253826.919 | 57.97 | PHOTO 5 |
| 6 | 337480.897 | 6253775.277 | 62.31 | PHOTO 6 |
| 7 | 337510.451 | 6253801.312 | 70.53 | PHOTO 7 |
| 8 | 337538.782 | 6253759.948 | 71.07 | PHOTO 8 |
| 9 | 337450.112 | 6253749.516 | 48.76 | PHOTO 9 |
| 10 | 337482.008 | 6253666.202 | 46.44 | PHOTO 10 |
| 11 | 337363.504 | 6253667.670 | 31.04 | PHOTO 11 |
| 12 | 337341.605 | 6253674.289 | 33.29 | PHOTO 12 |
| 13 | 337338.473 | 6253617.546 | 15.47 | PHOTO 13 |
| 14 | 337241.465 | 6253568.327 | 9.05 | PHOTO 14 |
| 15 | 337141.060 | 6253550.734 | 4.72 | PHOTO 15 |
| 16 | 337112.042 | 6253731.327 | 36.76 | PHOTO 16 |
| 17 | 337105.896 | 6253751.497 | 36.67 | PHOTO 17 |
| 18 | 336891.607 | 6253651.377 | 8.31 | PHOTO 18 |
| 19 | 336588.269 | 6253784.603 | 31.49 | PHOTO 19 |
| 20 | 336512.601 | 6253226.016 | 7.47 | PHOTO 20 |

Consulting Surveyors NSW
ISNSW THE INSTITUTION OF SURVEYORS NSW INC

HEAD OFFICE
2/99A South Creek Rd, DEE WHY NSW 2099
PO Box 463, DEE WHY NSW 2099
Ph: 02 9971 4802 Fax: 02 9971 4822
Email: info@cmssurveyors.com.au
Web: www.cmssurveyors.com.au

INCORPORATING
A.C.GILBERT & Co.
(Roseville)
MBS GREEN & ASSOCIATES
(Mona Vale)

COOTAMUNDRA
Incorporating PENGELLY & GRAY
90 Wallendoon St, COOTAMUNDRA NSW 2590
Ph: 02 6942 3295 Fax: 02 6942 4046
Email: cootas@cmssurveyors.com.au



| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 21 | 336373.625 | 6253372.516 | 2.58 | PHOTO 21 |
| 22 | 337558.398 | 6253387.357 | 2.55 | PHOTO 22 |
| 23 | 337659.101 | 6252737.235 | 1.49 | PHOTO 23 |
| 24 | 337186.512 | 6254079.685 | 55.47 | PHOTO 24 |
| 25 | 337380.584 | 6254119.021 | 72.21 | PHOTO 25 |
| 26 | 337506.959 | 6254105.702 | 78.24 | PHOTO 26 |
| 27 | 334921.387 | 6252361.942 | 3.52 | PHOTO 27 |
| 28 | 336752.664 | 6251093.331 | 1.52 | PHOTO 28 |
| 29 | 334921.293 | 6252359.186 | 3.52 | PHOTO 27-2 |
| 50 | 337043.780 | 6253849.157 | 42.62 | Roof |
| 51 | 337043.400 | 6253785.698 | 36.49 | Pergola |
| 100 | 337485.096 | 6253773.870 | 66.78 | Roof |
| 101 | 337485.171 | 6253775.380 | 66.70 | Roof |
| 102 | 337484.524 | 6253784.722 | 67.32 | Roof |
| 103 | 337481.190 | 6253796.222 | 66.49 | Roof |
| 104 | 337485.759 | 6253797.153 | 66.51 | Roof |
| 105 | 337401.785 | 6253794.218 | 85.90 | BEAM |
| 106 | 337411.977 | 6253734.780 | 56.02 | Roof |
| 107 | 337404.489 | 6253727.712 | 52.96 | Top of gutter |
| 108 | 337426.521 | 6253740.986 | 58.76 | Post |
| 109 | 337493.211 | 6253721.626 | 63.88 | PaRailpet |
| 110 | 337507.632 | 6253712.296 | 63.88 | PaRailpet |
| 111 | 337513.542 | 6253716.655 | 67.66 | Roof |
| 112 | 337516.410 | 6253716.107 | 67.66 | Roof |
| 113 | 337469.523 | 6253772.297 | 62.99 | Top of fence |
| 114 | 337471.281 | 6253769.546 | 63.10 | Top of fence |
| 115 | 337471.734 | 6253768.090 | 63.02 | Top of fence |
| 116 | 337472.892 | 6253764.891 | 62.88 | Top of fence |
| 117 | 337480.246 | 6253774.724 | 63.70 | Top of fence |
| 118 | 337456.766 | 6253911.419 | 76.23 | Post |
| 119 | 337455.814 | 6253911.672 | 74.75 | Post |
| 120 | 337437.366 | 6253914.055 | 75.53 | Post |
| 121 | 337436.029 | 6253914.779 | 75.09 | Post |
| 122 | 337432.111 | 6253920.314 | 72.53 | Top of wall |
| 123 | 337461.381 | 6253945.216 | 75.46 | Post |
| 124 | 337477.226 | 6253926.882 | 80.98 | Post |
| 125 | 337463.701 | 6253926.185 | 90.07 | Post |
| 126 | 337450.706 | 6253930.079 | 81.00 | Post |
| 127 | 337470.603 | 6253928.498 | 81.26 | PaRailpet |
| 128 | 337466.902 | 6253927.440 | 83.62 | PaRailpet |
| 129 | 337462.608 | 6253929.326 | 83.61 | PaRailpet |
| 130 | 337457.666 | 6253930.054 | 81.27 | PaRailpet |

Consulting Surveyors NSW
ISNSW THE INSTITUTION OF SURVEYORS NSW INC

HEAD OFFICE
2/99A South Creek Rd, DEE WHY NSW 2099
PO Box 463, DEE WHY NSW 2099
Ph: 02 9971 4802 Fax: 02 9971 4822
Email: info@cmssurveyors.com.au
Web: www.cmssurveyors.com.au

INCORPORATING
A.C.GILBERT & Co.
(Roseville)
MBS GREEN & ASSOCIATES
(Mona Vale)

COOTAMUNDRA
Incorporating PENGELLY & GRAY
90 Wallendoon St, COOTAMUNDRA NSW 2590
Ph: 02 6942 3295 Fax: 02 6942 4046
Email: cootas@cmssurveyors.com.au

## 6.3 APPENDIX B: SITE SURVEY SUPPLIED BY CMS



| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 131 | 337415.596 | 6253747.272 | 58.70 | Post |
| 132 | 337359.987 | 6253811.398 | 60.50 | Post |
| 133 | 337359.123 | 6253807.495 | 58.52 | Pergola |
| 134 | 337358.994 | 6253801.572 | 54.76 | Post |
| 135 | 337334.419 | 6253792.537 | 56.75 | Post |
| 136 | 337175.665 | 6253814.291 | 54.28 | Roof |
| 137 | 337202.460 | 6253851.123 | 60.09 | Pergola |
| 138 | 337202.022 | 6253852.631 | 60.10 | Pergola |
| 139 | 337167.717 | 6253823.411 | 54.00 | Post |
| 140 | 337176.145 | 6253853.575 | 59.31 | Post |
| 141 | 337460.230 | 6253727.310 | 51.57 | Top of wall |
| 142 | 337457.976 | 6253729.335 | 55.07 | Roof ridge |
| 143 | 337450.088 | 6253729.412 | 60.01 | Roof ridge |
| 144 | 337447.636 | 6253734.999 | 54.29 | Roof ridge |
| 145 | 337445.465 | 6253735.752 | 55.06 | Roof ridge |
| 146 | 337464.372 | 6253648.709 | 43.10 | Post |
| 147 | 337457.060 | 6253651.753 | 42.92 | Post |
| 148 | 337446.130 | 6253656.594 | 42.81 | Post |
| 149 | 337443.622 | 6253637.197 | 42.65 | Top of gutter |
| 150 | 337434.401 | 6253625.674 | 44.86 | Post |
| 151 | 337413.183 | 6253644.210 | 44.87 | Post |
| 154 | 337343.706 | 6253644.429 | 22.16 | Post |
| 155 | 337329.208 | 6253653.635 | 29.65 | Roof |
| 156 | 337258.927 | 6253649.931 | 37.99 | Roof |
| 157 | 337260.153 | 6253646.933 | 38.15 | Roof |
| 162 | 337343.028 | 6253674.563 | 34.50 | Top of fence |
| 163 | 337365.452 | 6253663.378 | 31.53 | Post |
| 164 | 337366.107 | 6253661.881 | 31.31 | Post |
| 165 | 337361.250 | 6253654.667 | 28.64 | Post |
| 166 | 337359.645 | 6253659.270 | 28.76 | Sign |
| 167 | 337362.553 | 6253667.692 | 30.29 | Underside of beam |
| 168 | 337264.936 | 6253690.433 | 49.47 | Roof ridge |
| 169 | 337268.471 | 6253661.992 | 41.55 | Roof |
| 170 | 337336.476 | 6253707.500 | 48.05 | Roof |
| 171 | 337324.890 | 6253712.068 | 47.90 | Roof |
| 172 | 337313.119 | 6253711.305 | 48.08 | Roof |
| 173 | 337250.382 | 6253722.066 | 55.04 | Roof ridge |
| 174 | 337242.358 | 6253732.938 | 54.96 | Roof ridge |
| 175 | 337238.905 | 6253738.571 | 52.92 | Roof ridge |
| 176 | 337203.602 | 6253750.662 | 52.41 | Roof ridge |
| 177 | 336649.371 | 6253896.204 | 74.74 | Parapet |
| 178 | 336643.805 | 6253874.381 | 74.74 | Parapet |

HEAD OFFICE
2/99A South Creek Rd, DEE WHY NSW 2099
PO Box 463, DEE WHY NSW 2099
Ph: 02 9971 4802 Fax: 02 9971 4822
Email: info@cmssurveyors.com.au
Web: www.cmssurveyors.com.au

INCORPORATING
A.C.GILBERT & Co.
(Roseville)
MBS GREEN & ASSOCIATES
(Mona Vale)

COOTAMUNDRA
Incorporating PENGELLY & GRAY
90 Wallendoon St, COOTAMUNDRA NSW 2590
Ph: 02 6942 3095 Fax: 02 6942 4046
Email: cootas@cmssurveyors.com.au



| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 179 | 336635.733 | 6253889.288 | 78.71 | Parapet |
| 180 | 336638.389 | 6253891.235 | 78.70 | Parapet |
| 181 | 336561.375 | 6253740.291 | 30.14 | Balcony |
| 182 | 336598.059 | 6253767.784 | 29.76 | Roof ridge |
| 183 | 336597.708 | 6253770.078 | 31.14 | Roof ridge |
| 184 | 336602.567 | 6253775.370 | 29.38 | Roof ridge |
| 185 | 336606.925 | 6253780.818 | 28.84 | Roof ridge |
| 186 | 336610.524 | 6253787.498 | 42.69 | Top of gutter |
| 187 | 337099.313 | 6253738.615 | 37.67 | Post |
| 188 | 337093.173 | 6253743.143 | 36.42 | Post |
| 189 | 337091.741 | 6253746.011 | 33.27 | Post |
| 190 | 337094.159 | 6253748.944 | 33.85 | Post |
| 191 | 337088.080 | 6253746.363 | 35.21 | Tree |
| 192 | 337106.752 | 6253727.601 | 37.45 | Fence |
| 193 | 337106.872 | 6253727.519 | 37.53 | Fence |
| 194 | 337109.453 | 6253725.941 | 37.53 | Fence |
| 195 | 337111.221 | 6253724.881 | 37.52 | Fence |
| 196 | 337193.828 | 6254074.130 | 55.60 | Top of kerb |
| 197 | 337212.946 | 6254068.647 | 67.18 | Tree |
| 198 | 337199.606 | 6254077.276 | 61.66 | Tree |
| 199 | 337202.277 | 6254072.167 | 58.37 | Tree |
| 200 | 337203.158 | 6254070.559 | 57.84 | Rail |
| 201 | 337194.742 | 6254071.149 | 60.36 | Tree |
| 202 | 337213.204 | 6254083.200 | 59.01 | Tree |
| 203 | 337377.738 | 6254111.332 | 74.96 | Sign |
| 204 | 337345.574 | 6254051.068 | 83.73 | Post |
| 205 | 337338.007 | 6254050.990 | 83.74 | Post |
| 206 | 337370.037 | 6254105.406 | 75.10 | Post |
| 207 | 337356.033 | 6254074.713 | 76.27 | Roof |
| 208 | 337498.132 | 6254086.927 | 86.59 | Power pole |
| 209 | 337482.639 | 6254069.493 | 80.65 | Post |
| 211 | 337477.299 | 6254068.151 | 83.59 | Sign |
| 212 | 337474.766 | 6254076.141 | 80.07 | Sign |
| 213 | 337478.137 | 6254085.583 | 80.00 | Post |
| 215 | 337338.014 | 6253632.625 | 21.75 | Top of wall |
| 216 | 337342.608 | 6253633.699 | 22.98 | Top of wall |
| 217 | 337349.215 | 6253631.937 | 22.98 | Top of wall |
| 218 | 337352.685 | 6253628.754 | 21.80 | Top of wall |
| 219 | 337346.676 | 6253635.666 | 29.93 | Post |
| 220 | 337332.581 | 6253635.681 | 26.38 | Post |
| 221 | 337259.926 | 6253579.082 | 12.56 | Post |
| 222 | 337256.750 | 6253577.006 | 13.42 | Post |

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COOTAMUNDRA
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90 Wallendoon St, COOTAMUNDRA NSW 2590
Ph: 02 6942 3095 Fax: 02 6942 4046
Email: cootas@cmssurveyors.com.au

## 6.3 APPENDIX B: SITE SURVEY SUPPLIED BY CMS



| Point Number | Easting | Northing | Reduced Level (RL) | Photo Point |
|---|---|---|---|---|
| 223 | 337244.950 | 6253569.427 | 10.61 | Post |
| 224 | 337333.929 | 6253648.865 | 29.21 | Roof |
| 225 | 337663.634 | 6253347.351 | 34.58 | Roof ridge |
| 227 | 337147.128 | 6253539.937 | 7.03 | Roof |
| 228 | 337142.528 | 6253538.029 | 8.13 | Roof |
| 230 | 337128.442 | 6253526.578 | 5.97 | Roof |
| 231 | 337133.076 | 6253528.528 | 7.16 | Roof |
| 232 | 337134.822 | 6253528.687 | 5.51 | Roof |
| 233 | 337136.331 | 6253532.291 | 5.49 | Roof |
| 234 | 337137.705 | 6253535.677 | 6.28 | Roof |
| 235 | 337139.672 | 6253531.150 | 7.35 | Roof |
| 236 | 337121.747 | 6253516.523 | 2.94 | Pier |
| 237 | 337121.239 | 6253517.133 | 2.69 | Top of wall |
| 238 | 337112.440 | 6253568.527 | 17.07 | Post |
| 239 | 337116.519 | 6253574.284 | 17.08 | Post |
| 240 | 337117.566 | 6253578.323 | 17.68 | Parapet |
| 241 | 337132.109 | 6253578.896 | 12.38 | Sign |
| 242 | 337135.632 | 6253577.538 | 11.69 | Sign |
| 243 | 337103.714 | 6253566.163 | 17.00 | Post |
| 244 | 337100.214 | 6253574.450 | 17.01 | Post |
| 245 | 337105.070 | 6253573.213 | 18.16 | Roof |
| 246 | 337108.138 | 6253577.574 | 18.25 | Roof |
| 248 | 337074.183 | 6253593.551 | 3.96 | Top of fence |
| 249 | 337069.854 | 6253601.329 | 6.03 | Underside of beam |
| 250 | 337051.968 | 6253637.077 | 1.16 | Rock |
| 251 | 337356.240 | 6253502.657 | 2.86 | Pier |
| 252 | 337356.995 | 6253507.189 | 8.40 | Post |
| 253 | 337356.224 | 6253506.178 | 8.92 | Post |
| 254 | 337366.998 | 6253516.381 | 2.86 | Pier |
| 255 | 337372.960 | 6253524.963 | 2.85 | Pier |
| 256 | 337372.518 | 6253528.355 | 5.12 | Roof |
| 257 | 336607.683 | 6253786.803 | 36.81 | Top of fence |
| 258 | 337108.224 | 6253477.233 | 3.16 | Pier |
| 259 | 337116.414 | 6253497.935 | 3.20 | Pier |
| 263 | 337122.542 | 6253715.226 | 37.08 | Sign |
| 264 | 334925.237 | 6252361.305 | 4.33 | Top of fence |
| 2001 | 334333.637 | 6250765.381 | - | Centrepoint tower |

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
Damon Roach

HEAD OFFICE
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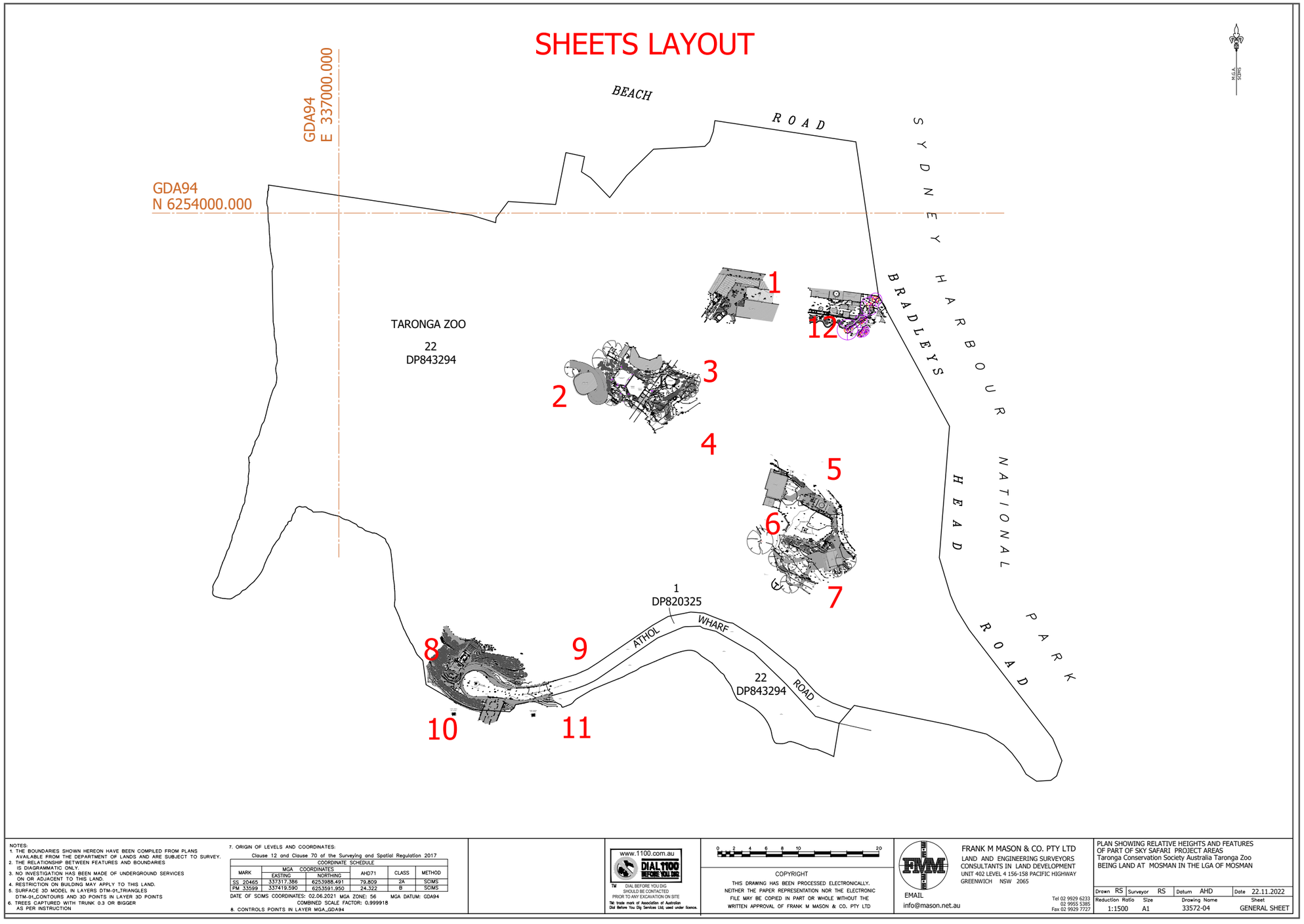
Email: cootacmssurveyors.com.au

## 6.4 APPENDIX C: EXISTING SITE SURVEY SUPPLIED BY FRANK M MASON AND CO. PTY LTD




NOTES:
1. THE BOUNDARIES SHOWN HEREON HAVE BEEN COMPILED FROM PLANS AVAILABLE FROM THE DEPARTMENT OF LANDS AND ARE SUBJECT TO SURVEY.
2. THE RELATIONSHIP BETWEEN FEATURES AND BOUNDARIES IS DIAGRAMMATIC ONLY.
3. NO INVESTIGATION HAS BEEN MADE OF UNDERGROUND SERVICES ON OR ADJACENT TO THIS LAND.
4. RESTRICTION ON BUILDING MAY APPLY TO THIS LAND.
5. SURFACE 3D MODEL IN LAYERS DTM-01_TRIANGLES DTM-01_CONTOURS AND 3D POINTS IN LAYER 3D POINTS
6. TREES CAPTURED WITH TRUNK 0.3 OR BIGGER AS PER INSTRUCTION

7. ORIGIN OF LEVELS AND COORDINATES:
Clause 12 and Clause 70 of the Surveying and Spatial Regulation 2017

| COORDINATE SCHEDULE | | | | | |
|---|---|---|---|---|---|
| MARK | MGA COORDINATES EASTING | MGA COORDINATES NORTHING | AHD71 | CLASS | METHOD |
| SS 20465 | 337317.386 | 6253988.491 | 79.809 | 2A | SCIMS |
| PM 33599 | 337419.590 | 6253591.950 | 24.322 | B | SCIMS |

DATE OF SCIMS COORDINATES: 02.06.2021 MGA ZONE: 56 MGA DATUM: GDA94
COMBINED SCALE FACTOR: 0.999918
8. CONTROLS POINTS IN LAYER MGA_GDA94

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FRANK M MASON & CO. PTY LTD
LAND AND ENGINEERING SURVEYORS
CONSULTANTS IN LAND DEVELOPMENT
UNIT 402 LEVEL 4 156-158 PACIFIC HIGHWAY
GREENWICH NSW 2065
Tel 02 9929 6233
02 9955 5385
Fax 02 9929 7727
EMAIL
info@mason.net.au

PLAN SHOWING RELATIVE HEIGHTS AND FEATURES
OF PART OF SKY SAFARI PROJECT AREAS
Taronga Conservation Society Australia Taronga Zoo
BEING LAND AT MOSMAN IN THE LGA OF MOSMAN

| Drawn | RS | Surveyor | RS | Datum | AHD | Date | 22.11.2022 |
|---|---|---|---|---|---|---|---|
| Reduction Ratio | | Size | | Drawing Name | | Sheet | |
| 1:1500 | | A1 | | 33572-04 | | GENERAL SHEET | |