

Visual Impact Assessment

SYDNEY METRO, SYDNEY OLYMPIC PARK VISUAL IMPACT ASSESSMENT

PREPARED FOR

SYDNEY METRO

JULY 2022 For Submission







URBIS STAFF RESPONSIBLE FOR THIS REPORT:

Associate Director: Jane Maze-Riley Consultant: Hugo Walton Project Code: P0033142 Report Ref: 01 RPT_Visual Assessment Report Version: 01 Report Status: For Submission Date: July 2022

CONTENTS

- **1.0 INTRODUCTION**
- 2.0 VIA METHODOLOGY
- **3.0 BASELINE VISUAL ANALYSIS**
- 4.0 RELEVANT ADDITIONAL FACTORS
- 5.0 SELECTION OF VIEWS
- 6.0 VISUAL EFFECTS ANALYSIS
- 7.0 VISUAL IMPACT ASSESSMENT
- 8.0 CONCLUSION

APPENDIX 1 - DESCRIPTION OF VISUAL EFFECTS APPENDIX 2 - RATING OF HISTORIC VIEWS APPENDIX 3 - CERTIFICATION APPENDIX 4 - PREPARATION OF PHOTOMONTAGES APPENDIX 5 - CMS SURVEY

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EXECUTIVE SUMMARY

This report has been prepared by Urbis Pty Ltd to accompany a Concept State Significant Development Application (Concept SSDA) to determine the visual effects and potential visual impacts of the proposed Over Station Development (OSD) and Adjacent Station Development (ASD). The proposal includes indicative massing envelopes including podium and tower forms for the site around the Sydney Olympic Park metro station.

Indicative massing models prepared by Urbis are intended to inform the Concept SSDA for the sites and as such have been used for analysis to inform the determination and rating of potential visual impacts. Our analysis is based on accurate and certifiable photomontages, from representative sample of views from within the site's visual catchment.

The extent and significance of the potential visual change has been assessed using a well established and accepted VIA methodology which is outlined on page 8.

We determined the visual catchment using GIS mapping software (LiDar data) to determine access to views of the tallest built form proposed from the surrounding area, and ground-truthed particular high points and sensitive view places.

Photomontages are useful objective visual aids and were prepared in a manner that satisfies the guidance included in the practice direction established in the Land and Environment Court of NSW.

10 views from agreed view places were selected for modelling in photomontages and were used for further analysis to consider the extent of visual change, the effects of those changes on the existing visual environment and the importance of those changes, being the final rating of visual impacts.

- Of the 10 views analysed 1 was rated as a medium, 8 were rated as low and 1 as nil level of visual impact.
- The regulatory context of the site allows for tall tower forms similar to the envelopes proposed, and as such the level of visual effects and impacts are contemplated by the controls.
- The proposal predominately blocks views of open sky from both near and distant locations and does not obstruct any scenic or highly valued landscape elements.
- In our opinion, this Concept SSDA can be supported on visual impacts grounds.

1.0 INTRODUCTION

Urbis Pty Ltd (Urbis) was engaged by Sydney Metro to prepare a Visual Impact Assessment (VIA) for part of Lot 58 and 59 in Deposit Plan 786296, commonly known as 5-7 Figtree Drive, Sydney Olympic Park (the site) and as Site 47 in the Central Precinct. The VIA is to inform a Concept State Significant Development Application (Concept SSDA) on site to provide an over station development (OSD) and adjacent station development (ASD) at Sydney Olympic Park metro station as part of the Sydney Metro West project.

This VIA includes a certification statement regarding the accuracy and preparation of photomontages prepared by Urbis, which are included in this report and form the basis of our analysis of visual impacts assessed within this report.

BACKGROUND

Sydney is expanding and the NSW Government is committed to delivering an integrated transport system that meets the needs of customers now and in the future.

Sydney Metro is Australia's biggest public transport program. Services on the North West Metro Line between Rouse Hill and Chatswood started in May 2019 on this new stand-alone metro railway system, which is revolutionising the way Sydney travels.

The Sydney Metro West project forms part of the broader Sydney Metro network which includes:

- The Metro North West Line
- Sydney Metro City & Southwest
- Sydney Metro West
- Sydney Metro Western Sydney Airport

1.2 SUBJECT SITE

The existing site is currently occupied by commercial and mixed-use buildings and the Figtree Conference Centre. At the time of fieldwork conducted on 25th March 2022, buildings on site were vacant, hoardings had been erected and works had begun on the Sydney Metro Sydney Olympic Park Station Site. The existing built forms on site are of low height and as such have a local and constrained potential visual catchment.

1.3 PROJECT DESCRIPTION

The Concept SSDA will seek consent for building envelopes above and adjacent to the Sydney Olympic Park metro station. The Concept SSDA specifically seeks consent for the following:

- Land uses within the building envelopes:
- Building 1: Commercial and retail

- Building 2: Retail, commercial and residential
- Building 3: Commercial, retail and residential
- comprising:
- Approximately 32,790m² of residential accommodation, with potential to deliver approximately 316 dwellings (subject to separate detailed SSDs):
- Approximately 1,760m² of retail premises
- Approximately 32,820m² of commercial premises
- Approximately 630m² of station uses (subject to CSSI approval)
- A 6 level basement under Buildings 2 and 3 which would provide parking for up to approximately 358 cars

SSDA(s):

- Site Specific Design Guidelines
- Concept strategies including the following:
- Utilities and services strategies
- Stormwater, flooding, and drainage strategy
- Ecologically Sustainable Development strategy

Maximum gross floor area (GFA) of approximately 68,000m²,

- Loading, vehicular and pedestrian access arrangements
- In addition, this concept SSDA seeks to confirm the following strategies and guidelines for consideration in subsequent Detailed

- As the proposed development is for a concept proposal, pursuant to section 4.22 of the EP&A Act, future approval(s) will be sought for the detailed design and construction of the proposed development.
- Visually, the proposal presents as 3 buildings of varying heights ranging from 21 storeys (Building 1), 27 storeys (Building 2), to 45 storeys (Building 3) with wide spatial separations between the three buildings above the podiums (a minimum of 24m is proposed between the proposed buildings and adjacent sites including Site 48 and Site 46). At ground level, the proposal will present to Figtree Drive to the south, with the remaining facades presenting to existing buildings, car parks and vegetation within the car parks (refer to Figures 1 - 3).



Figure 1 Site Envelope Plan showing location of proposed podium and buildings (Sydney Metro, 2022)



Figure 2 Envelope Section (Sydney Metro 2022)



Figure 3 Building Envelopes (Sydney Metro, 2022)

2.0 METHODOLOGY

The methodology employed for this VIA is based on a combination of established methods used in NSW including; the Guideline for landscape character and visual impact assessment, Environmental Impact Assessment practice note EIA -NO4 prepared by the Roads and Maritime Services December 2018 (RMS LCIA) and research developed by Dr Richard Lamb (Richard Lamb and Associates (RLA).

Although the content and purpose of the RMS LCIA is to assess the impact on the aggregate of an area's built, natural and cultural character or sense of place rather than solely on views, it provides useful guidance as to the logic and process of visual impact assessment (VIA).

The Urbis methodology identifies objective information about the existing visual environment, analyses the extent of visual effects on those baseline characteristics and unlike other methods, considers the importance of additional relevant information including view place sensitivity, compatibility and visual absorption etc. Separating objective facts from subjective opinion provides a robust and comprehensive matrix for analysis and final assessment of visual impacts.

Reviewing and combining industry best practice, Urbis continually reviews and develops its VIA methodology so that it is appropriate for application across the urban visual context.

Our method relies on the analysis of accurately prepared and certifiable photomontages prepared by Urbis in-house.

Urbis prepared certifiable photomontages in a manner that satisfies guidelines for the use of visual aids that are established in the NSW Land and Environment Court. Further information regarding the method of preparation and compliance with the Court's practice direction are included in Appendix 3 and Appendix 4.

The sequence of steps and flow of logic is shown graphically in our method flow chart.

2.1 URBIS VIA METHODOLOGY



3.0 BASELINE VISUAL ANALYSIS

3.1 VISUAL CHARACTER OF THE SUBJECT SITE

The site is broadly trapezoidal in shape, with its long edge to the east of the site. It has an area of approximately 11,407m² and is currently partially occupied by commercial development, designated car parking areas, as well as associated landscaping and internal access roads. The existing buildings are massed with wide setbacks from Figtree drive and neighbouring buildings. Rows of established trees exist within the southern, eastern and northern setbacks of the site.

The existing built form on site is massed in a low-rise rectangular buildings with a large floor plates. These building are approximately two storeys in height, with wide setbacks from Figtree Drive and adjacent properties. These setbacks contain landscaping, mature trees, car parking and pedestrian infrastructure. The façades are characterised by large expanses of blank wall and rectangular floor to ceiling length glazing with columns placed at uniform distance around the perimeter of the buildings.

The site is within the vicinity of two ties of heritage significance. This includes the Abattoir Heritage Precinct and the Olympic Couldron at Sydney Olympic Park.

• The Abattoir Heritage Precinct is located opposite the Central Precinct site on Herb Elliot Avenue and contains the locally listed 'State Abattoirs Heritage Conservation Area'. The precinct consists of a collection of five single to two storey buildings set within landscaped gardens. The building are characterised by early 20th century architecture of red/brown painted bricks and terracotta roofing.

The Olympic Cauldron at Sydney Olympic Park is a state listed heritage item, located 400m from the site at the northern end of Cathy Freeman Park. The Olympic Cauldrons is a publicly accessible landmark of state historic significance as the culmination of the opening ceremony of the Sydney Olympic Games on 15 September 2000 and a reminder of Sydney's success and honour in having hosted the Millennium Games.



Figure 4 Subject Site

3.2 SURROUNDING VISUAL CONTEXT

The surrounding visual context of Sydney Olympic Park includes a developed core with a wide range of large floor plate commercial buildings as well as high density residential and hotel developments. This core is surrounded by large sporting facilities including stadium and event structures and large areas of paved and soft open spaces including plazas, parklands and environmental conservation lands.

Land uses immediately surrounding the site includes:

- East of the site is a commercial area comprising of low rise (two to three storey), large floor plate buildings within the block of land bordered by Fig Tree Dr, Australia Ave, and Herb Elliot Ave. These buildings feature wide setbacks and spatial separation from one another. Areas between the buildings contain mature trees, landscaping and hard stand car parking. Further west beyond Australia Ave is an area of high-density residential buildings including the Australia towers, beyond which is Bicentennial Park.
- South of the sites, the land use on the south side of Figtree Drive is predominantly low rise (two to three storey), large floor plate commercial buildings with large setbacks and spatial separation from one another. Further south of these buildings is the T7 Olympic Park railway line and Sarah Durack Ave.
- West of the site, beyond Olympic Boulevard, land uses include large areas of open public space, hard stand car parking, and sporting facilities including the Sydney Olympic Park Aquatic Centre, Sydney Olympic Park Athletic Centre and NSW Rugby Centre of Excellence.
- North of the site is the Abattoir Heritage Precinct, existing hotel buildings including the Pullman and Novotel and some commercial office buildings between two and eight storeys in height. Beyond the Abattoir Heritage Precinct is a large area of paved public open space and the Sydney Olympic Park Railway Station.

3.2.1 WIDER VISUAL CONTEXT

The wider visual context includes significant areas of open space, including wetlands, Sydney Olympic Park facilities and Bicentennial Park. Within the wider visual context, particularly to the north of Sydney Olympic Park are large areas of wetlands and a number of waterways including Haslams Creek, Homebush Bay and the Parramatta River.



Figure 5 View Location Map

REPRESENTATIVE VIEWS FROM THE VISUAL CONTEXT



VIEWPOINT 1 - DISTANT VIEW WEST FROM MORRISON RD AND PRINCES STREET



VIEWPOINT 2 - VIEW SOUTH WEST FROM RHODES FORESHORE



VIEWPOINT 3 - VIEW SOUTH EAST FROM PIERRE DE COURBETIN PARK



VIEWPOINT 4 - SOUTH FROM SYDNEY OLYMPIC PARK ARCHERY CENTRE



VIEWPOINT 5 - VIEW SOUTH EAST FROM OLYMPIC BOULEVARD



VIEWPOINT 6 - VIEW SOUTH WEST FROM TREILLAGE TOWER

REPRESENTATIVE VIEWS FROM THE VISUAL CONTEXT



VIEWPOINT 7 - VIEW NORTH EAST FROM BIRNIE AVENUE



VIEWPOINT 8 - VIEW SOUTH EAST FROM STADIUM AUSTRALIA PLAZA



VIEWPOINT 9 - VIEW SOUTH FROM MURRAY ROSE AVENUE



VIEWPOINT 10 - VIEW NORTH EAST FROM AQUATIC CENTRE PLAZA



VIEWPOINT 11 - VIEW NORTH TO ABATTOIR HOUSE PRECINCT FROM DAWN FRASER AVE



VIEWPOINT 12 - VIEW SOUTH EAST FROM BMX CLUB

REPRESENTATIVE VIEWS FROM THE VISUAL CONTEXT







VIEWPOINT 14 - VIEW EAST FROM HASLAMS MARKER



VIEWPOINT 15 - VIEW EAST FROM FIG GROVE CORNER OF DAWN FRASER AVE AND OLYMPIC BOULEVARD

3.3 VISUAL CATCHMENT

WHAT IS A VISUAL CATCHMENT?

The potential visual catchment is the theoretical area within which parts of the proposed development may be visible. The visibility of any proposed development varies depending on constraints such as the blocking effects of intervening built form, vegetation, infrastructure and topography.

Visibility refers to the extent to which the proposal would be physically visible, identifiable for example as a new, novel, contrasting feature or alternatively as a recognisable but compatible feature.

3.3.1 EXTENT OF VISUAL CATCHMENT

The potential visual catchment of the proposed development was initially determined via a desktop review of the site using 3D aerial imagery, maps and client supplied information. Fieldwork observations, were guided by identifying distinctive buildings near to the sites within Sydney Olympic Park as visual markers such as the Novotel Sydney Olympic Park, The Accor Stadium (Stadium Australia), Opal Tower (1 Australia Avenue), Qudos Bank Arena, and Australia Towers. In addition to cross check the observed and theoretical potential visual catchment, LiDar data in relation to existing buildings heights across the potential visual catchment were used to determine the extent of external visibility of the tallest proposed massing envelopes on the sites. The RLs of the proposed roof forms, including the tallest form at each site was used to guide the use of LiDar survey data. Indicative visibility is shown in the Figure 7 viewshed map. (Section 6 provides a detailed analysis to all selected view points.)

The upper parts of the tallest tower forms (buildings two and three) may be visible from distant locations including from high points including:

- to the east from parts of Bicentennial Park,
- · to the northeast near Meadowbank and Rhodes,
- to the north from Sydney Olympic Park facilities including the BMX Pavilion and Archery Centre,
- · to the northwest from parts of Newington,
- to the west from elevated areas of Sydney Olympic Park including Haslams Marker,
- to the southwest from the southern edges of Sydney Olympic Park.

Given the indicative heights proposed it is likely that the upper parts of both buildings will be visible from within a potentially large and expansive visual catchment. Notwithstanding, the proposed development will be most visible in medium and close views from immediately surrounding streetscapes including Olympic Boulevard, Fig Tree Drive, Australia Avenue and Herb Elliot Avenue. Our fieldwork observations confirm that potential views from medium and more distant locations are possible from parts of Sydney Olympic Park, Bicentennial Park, and Newington. From the northeast views of the proposed tower forms will be available from elevated and foreshore areas of Meadowbank, Putney and Rhodes. From the east views of the proposed tower forms will be available from elevated areas of Bicentennial Park, from the north from elevated areas of the Sydney Olympic Parklands (including the Archery Centre and BMX Pavilion. Potential views from the west are available from parts of Newington including Pierre de Coubertin Park and surrounding streetscape. Additionally, in the west potential views of the proposal are available from elevated areas of Sydney Olympic Park including Haslam's Marker. The topography sloping towards the south, limit potential views of the proposal from the south and southwest. Some views may be obtained from Bernie Avenue and the elevated roadways of the M4 and A3.

Close views to the site are restricted from some locations by intervening development including relatively recent commercial and residential development to the east of the site (Australia Towers, Opal Tower). From the north potential views of the proposed tower massing will be available from Olympic Boulevard, unrestricted by the low built form of the existing Abattoir Heritage Precinct. Potential close views may also be available from Dawn Fraser Avenue and the Plaza areas associated with the Accor Stadium (Stadium Australia). It is also expected that potential close views will be available from Fig Grove in the west and further south from the southern end of Olympic Boulevard and the plaza and car parking areas associated with the Sydney Olympic Park Aquatic Centre.

SUMMARY

The upper most part of buildings two and three are likely to be visible dependent on intervening built form and vegetation, from distant locations including large areas of Sydney Olympic Park, Bicentennial Park, Newington, Meadowbank, Putney, and Rhodes.

3.3.2 EFFECTIVE VISUAL CATCHMENT

The effective visual catchment is the immediate area within which details, materiality and colours proposed subsequent to the approval and subsequent construction of a DA, would be easily perceived.



FIGURE 6 VIEWSHED MAP SHOWING THE INDICATIVE VISIBILITY OF THE UPPER STOREYS OF THE PROPOSED ENVELOPES FROM SURROUNDS

VIEW PLACE SENSITIVITY 3.4

View place sensitivity refers to the importance of a view or view place in the public domain. View place sensitivity means a measure of the public interest in the view. The public interest is considered to be reflected in the relative number of viewers likely to experience the view from a publicly available location. Places from which there would be close or middle distance views available to large numbers of viewers from public places such as roads, or to either large or smaller numbers of viewers over a sustained period of viewing time in places such as reserves, beaches and walking tracks, are considered to be sensitive viewing places.

There are no public reserves or parks located within the immediate visual context of the site from which direct views to the proposal are available. There is limited visibility of the proposal from nearby parks such as Bicentennial Park which is spatially separated from the subject site. In this regard visual effects on views from those open spaces (if they are available) are unlikely to be significant and as such potential visual impacts would be low.

3.5 VIEWER SENSITIVITY

Viewer sensitivity is a judgement as to the likely level of private interest in the views that include the proposed development and the potential for private domain viewers to perceive the visual effects of the proposal. The spatial relationship (distance), the length of exposure and the viewing place within a dwelling are factors which affect the overall rating of the sensitivity to visual effects.

There are permanent private domain residential developments in close proximity to the site. These include the Australia Towers and Opal Tower to the east of the site and the Boomerang Tower to the south of the site. We note the presence of hotels for example the Novotel and Pullman. Views from hotels would be considered to be commercial views and although potentially of long duration would be considered to have less weight when considering potential view loss.



4.0 RELEVANT ADDITIONAL FACTORS

4.1 VIEWING PERIOD

Viewing period in this assessment refers to the influence of time available to a viewer to experience the view to the site and the visual effects of the proposed development. Longer viewing periods, experienced either from fixed or moving viewing places such as dwellings, roads or waterways, provide for greater potential for the viewer to perceive the visual effects. The majority of views from close locations to the proposed development will be from moving viewing locations, or those of a short duration.

4.2 VIEWING DISTANCE

Viewing distance can influence on the perception of the visual effects of the proposal which is caused by the distance between the viewer and the development proposed. It is assumed that the viewing distance is inversely proportional to the perception of visual effects: the greater the potential viewing distance, experienced either from fixed or moving viewing places, the lower the potential for a viewer to perceive and respond to the visual effects of the proposal.

The visual catchment of the site includes close views from the north, south-east and south-west, from which views to heritage items are likely available. We note there are limited direct axial views aligned with parts of the subject site and that distant views may be available to upper part of the proposed built form, such as from the south and south-west. In this regard, and the heritage significance of the site, the majority of the views modelled fall into the close and medium distance ranges.

Ranges are as follows; close range (<100m), medium range (100-1000m) and distant (>1000m).

4.3 RELEVANT REGULATORY FRAMEWORK

Documented views included within statutory and non-statutory documents have been reviewed as follows;

None cross either subject site and therefore are not relevant to this assessment.

5.0 SELECTION OF VIEWS

5.1 WHAT IS A HERITAGE VIEW?

There are no widely adopted guidelines used in NSW to determine whether or not a potential 'heritage' view has been historically, intentionally designed. Many documented views exist that capture heritage items (typically individual buildings) from particular places and historic scenes of early colonial development for example streetscapes and view corridors across NSW etc. However without knowing the purpose of a photograph, or intentions and inherent potential cultural bias of a photographer at the time of photography, it cannot be determined whether or not a so called 'heritage view' is associated with cultural or visual values of significance.

This report considers the assessment criteria and methodology for determining the historic legitimacy of a documented view which may be thought to have heritage significance or value, developed by Dr Richard Lamb.

The co-author of this report assisted Dr Lamb in developing this approach. Urbis note that the criteria and ratings developed have been accepted by various consent authorities within NSW.

Views are rated at five different levels, Level 1 being a documented view that is considered as being most likely to be a deliberately designed view and therefore assumes the most significance or greatest value. A Level 5 view is the lowest rating assigned, based on evidence found, and refers to a view that is most unlikely to have been historically designed or intended as a visual link between items of features.

At a lower level still, on the hierarchy of views that might be claimed to be heritage views, are views from or in the vicinity of items, the curtilages or settings of items, from which new or non-significant items are visible. Simply being able to see a heritage item, place or setting does not make the view a heritage view. By the same token, being able to see a new, different or novel item of no current significance, in the context of a heritage item, does not create an impact on heritage values, unless it can be demonstrated that the acknowledged authentic heritage values of the item would be impaired to the detriment of interpretation of the heritage values of the item (level 5 L5).

No documented historic views were discovered during our desktop review or fieldwork. If any of the two views selected for analysis were subsequently found to be documented 'historic' views in our opinion they would be rated at the lowest level 'L5' given that they appear to be incidental views from or in the vicinity of items, the curtilages or settings of items, from which new or non-contributory items are visible.

5.2 VIEWPLACE SELECTION

In simple terms, the key purpose of a VIA for a Concept SSDA where simple massing envelopes will be assessed, is to determine the quantum of visual change (ie level of visual effects), external visibility, that is the extent of change that will be visible from external public domain locations, and also to consider the importance or sensitivity of the view place (including its accessibility).

The range of views assessed should include close, medium and distant views so that a representative sample of the types of views that are likely to be experienced by the public are considered. In this way conclusions about visual impacts across the wider, 'theoretical' potential visual catchment can be considered.

Visibility is also considered in terms of its likely exposure period for example; the kind of viewing locations, private domain, public domain, parks and reserves and whether potential views will be available for sustained period of time. For example from moving viewing situations eg from transport/rail/road corridors. Urbis have considered these factors as part of our desktop review and prior to undertaking fieldwork.

Prior to undertaking fieldwork, Urbis staff undertook a desktop review of all relevant statutory and non-statutory documents including the *Sydney Olympic Park Master Plan 2030* (2018 Review), *Draft Sydney Olympic Park Master Plan 2030* (Interim Metro Review) and views to and from the Town Centre identified as important to be preserved, an analysis of aerial imagery and topography and LiDar data to establish the potential visual catchment and to inform fieldwork inspections. Following fieldwork undertaken by Urbis to familiarise ourselves with the site and surrounding visual setting, and the documentation of a range of representative views from close, medium and distant locations surrounding the site, Urbis selected and recommended 10 view places for further analysis via the use of objective visual aids.

Photographs from each of the 10 priority view locations were used as bases to create accurate and verifiable photomontages. The view places were recorded using the GPS camera meta data, fieldwork measurements to fixed features such as kerbs, manhole covers, and buildings and were cross-checked using NSW point cloud independent survey data.

In addition, recommended views for modelling were approved by Sydney Metro and were independently surveyed by CMS surveyors.

The original photographs were taken using a Canon EOS 6D Mark 2 full frame camera using a 50mm focal length lens.

The photomontages prepared provide an accurate and faithful representation of the proposed built form. The process followed is as accurate as possible in the circumstances and in this regard the photomontages can be relied upon as objective visual aids to inform this assessment. Further information regarding the preparation and accuracy of photomontages is included in Appendix 3 and 4.

6.0 VISUAL EFFECTS ANALYSIS

View No.	Direction and location of view analysed
View 01	VIEW SW CORNER OF MORRISON ROAD AND PRINCES STREET
View 02	VIEW SW FROM LEWIS BERGER PARK
View 03	VIEW SE FROM PIERRE DE COUBERTIN
View 04	VIEW S FROM OLYMPIC PARK ARCHERY CENTRE
View 05	VIEW SSE INTERSECTION OF OLYMPIC BOULEVARD AND KEVIN COOMBS AVE
View 06	VIEW W FROM TREILLAGE OBSERVATION TOWER, BICENTENNIAL PARK
View 07	VIEW NE INTERSECTION OF BIRNIE AVENUE AND CARTER STREET
View 08	VIEW E FROM STADIUM PLAZA
View 09	VIEW SE SHOWGROUND ROAD AND MURRAY AVENUE
View 10	VIEW NNE FROM PLAZA SOUTH OF AQUATIC CENTRE

Table 2Views analysed



FIGURE 7 PHOTOMONTAGE VIEW LOCATION MAP

VIEW 01 CORNER OF MORRISON ROAD AND PRINCES STREET

Distance class

- Distant
- >1000m

Existing composition of the view

This is an elevated distant view southwest towards the site from the intersection of Morrison Road and Princess Street, Putney. The foreground composition includes Princes Street including a wide turfed median strip sloping down towards the Parramatta River. On either side of Princess Street are one to two storey single family homes of various architectural styles as well as a number of mature trees of varying heights. The midground contains additional mature trees and vegetation as well as the Parramatta River. Land-water interface is visible in the background composition, where the Parramatta River meets its southern banks. On the southern side of the river vegetation and residential houses are present. Further in the distance, the several buildings that make up the skylines of Rhodes and Sydney Olympic Park are visible.

Visual effects of the proposed development on the composition as modelled

The proposal introduces a new contemporary built form into the view. The eastern elevation of buildings two and three will contribute vertical block forms into the central background composition of this view. The upper levels of the buildings will be visible above and between the existing buildings that make up the Sydney Olympic Park Skyline. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development		
Visual Character	low	
Scenic Quality of View	low	
View Composition	low	
Viewing Level	nil	
Viewing Period	low	
Viewing Distance	high	
View Loss & View Blocking Effects	low	
Rating of visual effects on variable weighting factors		
Public Domain View Place Sensitivity	low	
Physical Absorption Capacity	high	
Compatibility with Urban Context and Visual Character	high	
Compatibility with desired future character	high	



Figure 8 View 01 - Existing



Figure 9 View 01 - Proposed



VIEW 02 LEWIS BERGER PARK, RHODES ADJACENT THE LITTLE GIRL STATUE

Distance class

- Distant
- >1000m

Existing composition of the view

This is a distant view southwest towards the site. The foreground composition is characterised by the surface of Homebush Bay which extends into the midground where it meets an uninterrupted band of dense vegetation on the south and western edges of the bay. The background includes the Sydney Olympic Park Skyline, this includes recognisable views of the Opal Tower, Australia Towers, Boomerang Tower and the Pullman Tower, as well as partial views of Stadium Australia and the Sydney Showground. AM radio antenna 3 is also visible within the background composition.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into this view. The eastern elevation of buildings two and three will contribute vertical block forms into the central background composition of this view. The upper levels of the buildings are visible above the existing band of vegetation and between the buildings that make up the Sydney Olympic Park Skyline. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	nil
Viewing Period	low
Viewing Distance	high
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	low
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Compatibility with desired future character	high
Overall rating of significance of visual impact	low



Figure 10 View 02 - Existing



Figure 11 View 02 - Proposed



VIEW 03 FOOTPATH IN PIERRE DE COUBERTIN, SOUTH OF NEWINGTON BOULEVARD

Distance class

- Distant
- >1000m

Existing composition of the view

This is a distant view southeast towards the site from Pierre de Coubertin Park, Newington. The foreground includes areas of open lawn associated with the public park, some mature trees of varying height, and a contemporary, low-rise (approximately five storey) residential building. The midground composition includes partial views of Pierre de Coubertin Dog Park, an AM radio transmitter tower, and vegetation including shrubs and mature trees of varying heights. The background includes large areas of open sky and partial views of taller contemporary buildings at Sydney Olympic Park, the Sydney Showground Dome, and the Sydney Showground lighting towers. Visibility of this built form is partially restricted by the mature trees positioned within the foreground midground.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into the view. The northern elevations of the upper storeys of buildings one, two and three will contribute new vertical block forms into the background composition. These new block forms are partially obstructed by existing mature vegetation within the midground. The height of the proposed envelope of tower three sits above other buildings within the view composition. Though spatially separated from this angle, the proposed envelopes will add additional compatible forms in proximity to the existing Sydney Olympic Park Skyline. The proposed envelopes do not create any significant view blocking effects. The upper-most parts of the tower forms predominantly block open areas of sky.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	low
Viewing Period	medium
Viewing Distance	low
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	medium
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Compatibility with desired future character	high
Overall rating of significance of visual impact	low



Figure 12 View 03 - Existing



Figure 13 View 03 - Proposed



VIEW 04 SOUTHWESTERN CORNER OF THE OLYMPIC PARK ARCHERY CENTRE HARD STAND

Distance class

- Distant
- >1000m

Existing composition of the view

This is a view south towards the site from the Sydney Olympic Park Archery Centre. The foreground composition of this view is characterised by the lawns and movable targets associated with the Archery facility. The midground composition contains an uninterrupted band of mature vegetation including mature trees. The background includes large areas of open sky and partial views of taller contemporary buildings at Sydney Olympic Park. Visibility of these buildings is partially restricted by the band of vegetation within the midground.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into the view. The northern and western elevations of the proposed buildings one, two and three will contribute new vertical block forms into the background composition. The upper levels of the buildings are visible above the existing band of vegetation. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	low
Viewing Period	low
Viewing Distance	high
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	medium
Physical Absorption Capacity	medium-high
Compatibility with Urban Context and Visual Character	high
Compatibility with desired future character	high
Overall rating of significance of visual impact	low



Figure 14 View 04 - Existing



Figure 15 View 04 - Proposed

VIEW 05 INTERSECTION OF OLYMPIC BOULEVARD AND KEVIN COOMBS AVE ADJACENT TO BUS SHELTER '6'

Distance class

- Medium
- 100-1000m

Existing composition of the view

This a distant view south-southeast towards the site from the northern end of Olympic Boulevard. The foreground includes the paved areas, a line of mature trees extend from the foreground into the midground composition along the northern side of the boulevard. A row of bus shelters and tower structures associated with Stadium Australia extend from the foreground into the midground composition along the southern side of the boulevard. The Pullman, Novotel and Boomerang buildings are visible and identifiable in the background, as well as three lines of pine trees that run the length of the southern portion of Olympic Boulevard.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into view. The northern and western façades of the upper levels of the proposed buildings one, two and three will contribute new vertical block forms into the background composition and are visible above the existing line of mature trees which run adjacent along Olympic Boulevard. The proposed envelopes do not create any significant view blocking effects. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view block open areas of sky.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	medium
Viewing Period	low-medium
Viewing Distance	low
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	medium
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Compatibility with desired future character	high
Overall rating of significance of visual impact	low



Figure 16 View 05 - Existing



Figure 17 View 05 - Proposed



VIEW 06

TREILLAGE OBSERVATION TOWER BICENTENNIAL PARK

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is an elevated distant view west towards the site. The foreground composition is characterised by vegetation and landscaping associated with Bicentennial Park. This includes a pedestrian boulevard, fountains, sculpture and seating. The boulevard is surrounded by lawns and mature trees so that the foreground is relatively open and free of built form. The mid-ground includes more mature trees within Bicenntenial Park which extends outward until they are met by the façades of the approximately seven storey Botania residential building. The background view includes existing medium and tall buildings, for example the Opal Tower, Australia Towers, Boomerang Tower and partial views of the Pullman tower. The existing tower cluster includes spatially separated tower forms which vary in height and scale.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into this view. The eastern elevation of buildings two and three will contribute vertical block forms into the central background composition of this view, where the upper parts of the buildings will be visible between the existing buildings. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. From this view buildings two and three are not dissimilar in form or character to the built form in the immediate surrounds within this precinct of Sydney Olympic Park. The upper floors of tower three are partially obstructed by the existing Opal tower. A small section of the upper part of tower one is visible over existing built form. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development	
Visual Character	low
Scenic Quality of View	low
View Composition	low
Viewing Level	nil
Viewing Period	low
Viewing Distance	high
View Loss & View Blocking Effects	low
Rating of visual effects on variable weighting factors	
Public Domain View Place Sensitivity	medium
Physical Absorption Capacity	high
Compatibility with Urban Context and Visual Character	high
Compatibility with desired future character	high
Overall rating of significance of visual impact	low



Figure 18 View 06 - Existing



Figure 19 View 06 - Proposed

VIEW 07 25M NORTHEAST OF THE INTERSECTION ON BIRNIE AVENUE AND CARTER STREET

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is a distant view northeast towards the site from the corner of Birnie Avenue and Carter Street towards the site. The foreground includes Birnie Avenue and mature trees and vegetation of varying heights that line either side of the avenue. The midground includes additional mature trees. The avenue extends into the background where the Sydney Olympic Park Aquatic Centre building is partly visible. Beyond the Aquatic Centre building, the upper storeys of a residential tower is visible.

Visual effects of the proposed development on the composition as modelled

The proposal introduces a new contemporary built form into the view. The western façades of the upper levels of the proposed buildings one, two, and three will contribute new vertical block forms into the background composition and are visible above existing mature trees and the Aquatic Centre Building. The proposed envelopes do not create any significant view blocking effects. Located behind the aquatic centre, the proposal will create gateway landmark buildings for vehicles entering the Sydney Olympic Park Precinct. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development

Overall rating of significance of visual impact	low
Compatibility with desired future character	high
Compatibility with Urban Context and Visual Character	high
Physical Absorption Capacity	high
Public Domain View Place Sensitivity	low
Rating of visual effects on variable weighting factors	
View Loss & View Blocking Effects	low
Viewing Distance	high
Viewing Period	low
Viewing Level	low
View Composition	low
Scenic Quality of View	low
Visual Character	low



Figure 20 View 07 - Existing



Figure 21 View 07 - Proposed



VIEW 08 VIEW FROM STADIUM PLAZA

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is a medium distance view east towards the site from the southern external plaza of Stadium Australia. The foreground predominately includes open paved space mature trees of varying height and temporary hoardings for construction works. The midground includes medium height long low built form currently occupied by the NSW Rugby Centre of Excellence and a number of additional mature trees of varying heights. The background includes partial views of the Novotel and Pullman buildings.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into the view. The northern and western façades of the upper levels of the proposed buildings one, two and three will contribute new vertical block forms into the background composition and are visible above the existing Pullman tower, a mature tree, and the NSW Rugby Centre of Excellence building. The proposed envelopes do not create any significant view blocking effects. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development

low	
high	
high	
high	
medium	
low	
medium	
low	
	low low low low medium low medium high high high



Figure 22 View 08 - Existing



Figure 23 View 08 - Proposed
VIEW 09 CORNER OF SHOWGROUND ROAD AND MURRAY ROSE AVENUE

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is a medium distance view south towards the site from the corner of Showground Road and Murray Rose Avenue. The foreground includes Showground Avenue and mature trees. A temporary works office is positioned to the west of the avenue. The avenue extends into the midground where the gardens and buildings of the Abattoir Heritage precinct are visible to the east of the avenue. The background includes partial views of the Pullman tower, a contemporary commercial tower and a residential tower.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into the view. The northern façades and a small portion of the western façades of buildings one, two, and three will contribute new vertical block forms into the background composition and are visible above the buildings, and gardens of the Abattoir Heritage Precinct. The proposal does not block heritage façades or views to heritage items. The proposed envelopes do not create any significant view blocking effects. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development

Overall rating of significance of visual impact	medium			
Compatibility with desired future character	high			
Compatibility with Urban Context and Visual Character	high			
Physical Absorption Capacity	high			
Public Domain View Place Sensitivity	medium			
Rating of visual effects on variable weighting factors				
View Loss & View Blocking Effects	low			
Viewing Distance	high			
Viewing Period	low			
Viewing Level	low			
View Composition	low-medium			
Scenic Quality of View	low			
Visual Character	low			



Figure 24 View 09 - Existing



Figure 25 View 09 - Proposed



VIEW 10 VIEW FROM PLAZA SOUTH OF AQUATIC CENTRE

Distance class

- Medium
- 100-1000m

Existing composition of the view

This is a medium distance view north towards the site from the southern forecourt of the Sydney Olympic Park Aquatic Centre. The foreground contains an open paved area bordered by dense vegetation to one side and a contemporary pavilion structure and mature trees of varying heights on the other side. The midground contains more paved areas, beyond this there are additional mature trees which partially restrict views of the commercial building beyond. The upper storeys of the Pullman tower are visible in the background.

Visual effects of the proposed development on the composition as modelled

The proposal introduces new contemporary built form into the view. The western facade of the upper storeys of building one contributes new vertical block forms into the eastern side of the midground composition and is visible beyond existing mature trees in the midground. The proposed envelopes do not create any significant view blocking effects. The proposed development will expand the existing tower cluster and add additional compatible forms to the existing Sydney Olympic Park skyline. The proposed envelope does not create any significant view blocking effects. The tower forms predominantly block open areas of sky.

Visual effects of proposed development

Overall rating of significance of visual impact	low	
Compatibility with desired future character	high	
Compatibility with Urban Context and Visual Character	high	
Physical Absorption Capacity	high	
Public Domain View Place Sensitivity	medium	
Rating of visual effects on variable weighting factors		
View Loss & View Blocking Effects	low	
Viewing Distance	low	
Viewing Period	low	
Viewing Level	low	
View Composition	low	
Scenic Quality of View	low	
Visual Character	low	



Figure 26 View 10 - Existing



Figure 27 View 10 - Proposed

7.0 **VISUAL IMPACT** ASSESSMENT

Having determined the level of extent of the visual change based on the 10 block model photomontages, Urbis have applied relevant weighting factors to determine the overall level of visual impacts or importance of the visual effects. Descriptions of relevant factors to be considered are outlined below. The factors and weighting system have been developed by Dr Richard Lamb and have been widely published in NSW and accepted by State and local agencies in relation to Visual Impact Assessments.

The weighting factors most relevant for consideration are sensitivity, visual absorption capacity and compatibility with urban features.

7.1 SENSITIVITY

The overall rating for view place sensitivity was weighted according to the influence of variable factors such distance, the location of items of heritage significance or public spaces of high amenity and high user numbers.

Public domain view place sensitivity was rated as medium to nil in all views, with the views experienced for shorter durations of time and not an extended duration of time, such as those from public open spaces. Views from public open spaces were either spatially separated or limited by built form and street vegetation.

7.2 PHYSICAL ABSORPTION CAPACITY

Physical Absorption Capacity (PAC) means the extent to which the existing visual environment can reduce or eliminate the perception of the visibility of the proposed redevelopment.

PAC includes the ability of existing elements of the landscape to physically hide, screen or disguise the proposal. It also includes the extent to which the colours, material and finishes of buildings, scale and character of these allows them to blend with or reduce contrast with others of the same or closely similar kinds to the extent that they cannot easily be distinguished as new features of the environment.

Prominence is also an attribute with relevance to PAC. It is assumed in this assessment that higher PAC can only occur where there is low to moderate prominence of the proposal in the scene.

Low to moderate prominence means:

Low: The proposal has either no visual effect on the landscape or the proposal is evident but is subordinate to other elements in the scene by virtue of its small scale, screening by intervening elements, difficulty of being identified or compatibility with existing elements.

Moderate: The proposal is either evident or identifiable in the scene, but is less prominent, makes a smaller contribution to the overall scene, or does not contrast substantially with other elements or is a substantial element, but is equivalent in prominence to other elements and landscape alterations in the scene.

The existing visual environment has a relatively high capacity to absorb the visual changes proposed given the surrounding urban context, the presence of medium and tall tower forms, which block or partially block medium and distant public domain views towards the proposed development. As other tower clusters and individual tall tower forms are approved within SOP, the PAC will increase over time which in turn will reduce the visual impacts.

VISUAL COMPATIBILITY 7.3

Visual Compatibility is not a measure of whether the proposal can be seen or distinguished from its surroundings. The relevant parameters for visual compatibility are whether the proposal can be constructed and utilised without the intrinsic scenic character of the locality being unacceptably changed. It assumes that there is a moderate to high visibility of the project to some viewing places. It further assumes that novel elements which presently do not exist in the immediate context can be perceived as visually compatible with that context provided that they do not result in the loss of or excessive modification of the visual character of the locality.

A comparative analysis of the compatibility of similar items to the proposal with other locations in the area which have similar visual character and scenic quality or likely changed future character can give a guide to the likely future compatibility of the proposal in its settina.

The proposed development has high compatibility with the existing visual character of the site and the immediate visual context.

The visual context surrounding the site is characterized by built forms that are not dissimilar in form, scale, height and character to the indicative envelopes proposed. In this regard the proposed development would not be out of place or an have unexpected features for viewers travelling within the immediate or wider visual catchment.

All views were rated as having a HIGH compatibility which provides a 'down-weight' to the level of visual effects, reducing their importance. The visual context of SOP is undergoing significant transformation with a greater number of high density developments, including the

expansion of the existing tower cluster which will further increase the compatibility of the proposal and reduce visual impacts.

7.4 COMPATIBILITY WITH **REGULATORY CONTEXT**

Compatibility with desired future character and objectives of this area in all views were found to be high.

impacts.

SIGNIFICANCE OF RESIDUAL 7.5 **VISUAL IMPACTS**

Residual effects are discussed and quoted below by Dr Lamb as follows:

The final question to be answered after the mitigation factors are assessed, is whether there are any residual visual impacts and whether they are acceptable in the circumstances. These residual impacts are predominantly related to the extent of permanent visual change to the immediate setting.

In terms of the urban component of the development, residual impacts relate to individuals' preferences for the nature and extent of change which cannot be mitigated by means such as colours, materials and the articulation of building surfaces. These personal preferences are to or resilience towards change to the existing arrangement of views. Individuals or groups may express strong preferences for either the existing, approved or proposed form of urban development.

7.5.1 APPLYING THE 'WEIGHTING' FACTORS

To arrive at a final level of significance of visual impact, the weighting factors are applied to the overall level of visual effects.

The proposed development has been assessed against provisions relevant to views and the level of visual effects shown in the Approved Concept Plan. Notwithstanding the proposed massing includes additional height and podiums of greater width, it was found to be compatible and consistent with the objectives of the Approved Concept Plan. Results of this section provided a 'down-weight' to the level of visual effects.

7.5.2 OVERALL VISUAL IMPACTS

Taking into consideration the level of visual effects of the proposal on baseline characteristics, and application of impact weighting factors, the visual impacts of the proposed development were found to be compatible with the existing urban character and desired future character of the area.

This provided a 'down-weight' in relation to the overall rating of visual

7.6 SUMMARY OF VISUAL IMPACTS

	Rating of Visual Effects on Variable Weighting Factors as Low, Medium or High				ow, Medium or High		
	Description	View Direction	"(Refer to Table 4 in Appendix 1 for descriptions of ratings) NB: high ratings mean low impacts e.g. where there is high compatibility or absorption, this reduces the significance of the weighting factor"				
View Reference			Public Domain View Place Sensitivity: High, Medium or Low (refer to sections 3.4 and 3.5 of the report)	Visual Absorption Capacity	"Compatibility (with regulatory controls and objectives for the site (including 2008 Approved Development))"	Compatibility with strategic desired future character	Overall Rating of Significance of Visual Impact
View 01	Corner of Morrison Road and Princes Street	SW	Low	High	High	High	Nil
View 02	Lewis Berger Park, Rhodes Adjacent the Little Girl Statue	SW	Low	High	High	High	Low
View 03	Footpath in Pierre De Coubertin, south of Newington Boulevard	SE	Medium	High	High	High	Low
View 04	Southwestern Corner of the Olympic Park Archery Centre Hard Stand	S	Medium	Medium-High	High	High	Low
View 05	Intersection of Olympic Boulevard and Kevin Coombs Ave	SSE	Medium	High	High	High	Low
View 06	Treillage Observation Tower Bicentennial Park	W	Medium	High	High	High	Low
View 07	25m Northeast of the Intersection on Birnie Avenue and Carter Street	NE	Low	High	High	High	Low
View 08	View from Stadium Plaza	Е	Medium	High	High	High	Low
View 09	Corner of Showground Road and Murray Rose Avenue	SE	Medium	High	High	High	Medium
View 10	View from Plaza South of Aquatic Centre	NNE	Medium	High	High	High	Low

 Table 3
 Summary Table of Visual Impacts

8.0 CONCLUSION

- In our opinion the proposed development creates medium to low visual effects on the majority of base line factors such as visual character, scenic quality and view place sensitivity from public domain view locations in most views
- Of the 10 views analysed, visual impact in 1 view was rated as medium, 8 views were rated as low and 1 view was rated as having nil or no visual impact.
- The built forms proposed are not dissimilar in character, height or form to those within the surrounding visual context.
- The proposal blocks views of open sky from both near and distant locations and does not obstruct any scenic or highly valued features.
- · No heritage views were identified.
- There are no views that form part of the statutory or regulatory framework.
- From distant views the proposal is viewed within a wide visual composition amongst existing buildings, which reduces the visibility and visual impact of the proposal.
- In this regard, the significance of the visual change (impact) was rated as medium or lower in all views, with the majority rating being low.
- In our opinion, this Concept SSDA can be supported on visual impacts grounds.



Figure 28 View east from Fig Grove towards the Pullman Hotel and subject site

DESCRIPTION OF VISUAL EFFECTS

Table 4 Description of Visual Effects

Published on the NSW Department of Planning, Industry and Environment website via major projects tab (NSW DPIE). This information has been developed by RLA and is acknowledged as being a comprehensive summary of typical descriptions regarding visual effects. The descriptions below have been used as a guide to make subjective judgements in relation to the effects and impacts of the proposed development on each modelled view.

Factors	Low Effect	Medium Effect	
Scenic quality	The proposal does not have negative effects on features which are associated with high scenic quality, such as the quality of panoramic views, proportion of or dominance of structures, and the appearance of interfaces.	The proposal has the effect of reducing some or all of the extent of panoramic views, without significantly decreasing their presence in the view or the contribution that the combination of these features make to overall scenic quality.	
Visual character	The proposal does not decrease the presence of or conflict with the existing visual character elements such as the built form, building scale and urban fabric.	The proposal contrasts with or changes the relationship between existing visual character elements in some individual views by adding new or distinctive features but does not affect the overall visual character of the precinct's setting.	
View place sensitivity	Public domain viewing places providing distant views, and/or with small number of users for small periods of viewing time (Glimpses-as explained in viewing period).	Medium distance range views from roads and public domain areas with medium number of viewers for a medium time (a few minutes or up to half day-as explained in viewing period).	
Viewer sensitivity	Residences providing distant views (>1000m).	Residences located at medium range from site (100-1000m) with views of the development available from bedrooms and utility areas.	
View composition Panoramic views unaffected, overall view composition retained, or existing views restricted in visibility of the proposal by the screening or blocking effect of structures or buildings.		Expansive or restricted views where the restrictions created by new work do not significantly reduce the visibility of the propos- or important features of the existing visual environment.	
Relative viewing level	Elevated position such as ridge top, building or structure with views over and beyond the site.	Slightly elevated with partial or extensive views over the site.	
Viewing period	Glimpse (e.g. moving vehicles).	Few minutes to up to half day (e.g. walking along the road, recreation in adjoining open space).	
Viewing distance	Distant Views (>1000m).	Medium Range Views (100- 1000m).	
View loss or blocking effect	No view loss or blocking.	Partial or marginal view loss compared to the expanse/extent of views retained. No loss of views of scenic icons.	

	High Effect
:	The proposal significantly decreases or eliminates the perception of the integrity of any of panoramic views or important focal views. The result is a significant decrease in perception of the contribution that the combinations of these features make to scenic quality.
	The proposal introduces new or contrasting features which conflict with, reduce or eliminate existing visual character features. The proposal causes a loss of or unacceptable change to the overall visual character of individual items or the locality.
I	Close distance range views from nearby roads and public domain areas with medium to high numbers of users for most the day (as explained in viewing period).
	Residences located at close or middle distance (<100m as explained in viewing distance) with views of the development available from living spaces and private open spaces.
ıl	Feature or focal views significantly and detrimentally changed.
5	Adjoining development, public domain area or road with view blocked by proposal.
g	Majority of the day (e.g. adjoining residence or workplace).
	Close Views (<100m).
	Loss of majority of available views including loss of views of scenic icons.

Visual impacts factors

Indicative ratings table of visual impacts factors:

Factors	Low Impact	Medium Impact	High Impact
Physical absorption capacity	Existing elements of the landscape physically hide, screen or disguise the proposal. The presence of buildings and associated structures in the existing landscape context reduce visibility. Low contrast and high blending within the existing elements of the surrounding setting and built form.	The proposal is of moderate visibility but is not prominent because its components, texture, scale and building form partially blend into the existing scene.	The proposal is of high visibility and it is prominent in some views. The project location is high contrast and low blending within the existing elements of the surrounding setting and built form.
Compatibility with urban/natural features	High compatibility with the character, scale, form, colours, materials and spatial arrangement of the existing urban and natural features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character, scale, form and spatial arrangement of the existing urban and natural features in the immediate context. The proposal introduces new urban features, but these features are compatible with the scenic character and qualities of facilities in similar settings.	The character, scale, form and spatial arrangement of the proposal has low compatibility with the existing urban features in the immediate context which could reasonably be expected to be new additions to it when compared to other examples in similar settings.
Compatibility with urban features	High compatibility with the character, scale, form, colours, materials and spatial arrangement of the existing industrial features in the immediate context. Low contrast with existing elements of the built environment.	Moderate compatibility with the character and built form of the existing urban context and buildings in the immediate context. The proposal introduces new features, but these are compatible with the scenic character and qualities of the setting.	The character, scale, form and spatial arrangement of the proposal has low compatibility with the industrial context, or which could reasonably be expected to be new additions to it.

RATING OF HISTORIC VIEWS

DEFINITION AND RATING OF HISTORIC VIEWS

This information has been sourced from Richard Lamb and Associates (RLA)

There is a hierarchy of heritage views, from the most to the least relevant with regard to determining impacts of contemporary proposals. The hierarchy of views relies on assessment against a set of criteria as follows:

At the highest level, we consider that a genuine heritage view is one designed to be experienced, where the intention is documented and where the reason for the view being recognised as significant is supported by the recognition of the values against the relevant heritage criteria, including the inclusion and exclusion guidelines required in the NSW heritage system. Historical research should support such views as being authentic heritage views, the locations of which and attributes of which are determined to be of significance (level 1 L1).

At the second level are views that have become recognised or have evolved as of authentic heritage Significance. There can be many pathways to recognition; for example, views may become socially significant, become significant by historical association with other, later events and items, or through accretion of later items, become significant for archaeological, scientific, aesthetic or other reasons relevant to views (level 2 L2).

At a third level, views between heritage items may become of authentic heritage value by visual linkages deliberately designed between subsequent heritage items and places, linkages occurring through use or changing customs, or linkages created by the loss of former linkages and settings, making them more valued, or rare. These are authentic, evolved, or acquired heritage views (level 3 L3). Below that level are views of and between heritage items that exist in the objective sense, but are incidental. That is, their existence, while providing an attribute of the setting, does not contribute to the authentic values of the items. Views between the items in this case exist, but are not of significance in themselves (level 4 L4).

At a lower level still, on the hierarchy of views that might be claimed to be heritage views, are views from or in the vicinity of items, the curtilages or settings of items, from which new or non-significant items are visible. Simply being able to see a heritage item, place or setting does not make the view a heritage view. By the same token, being able to see a new, different or novel item of no current significance, in the context of a heritage item, does not create an impact on heritage values, unless it can be demonstrated that the acknowledged authentic heritage values of the item would be impaired to the detriment of interpretation of the heritage values of the item (level 5 L5).

CERTIFICATION

USE OF PHOTOMONTAGES OR OTHER VISUALISATION

The Landscape Institute (UK) provides the following guidance:

Visual representations or 'visualisations' must fairly represent what people would perceive in the field. The sophistication of visualisation technique needs to be proportionate to factors such as purpose, use, user, sensitivity of the situation and magnitude of potential effect.

The use of the most appropriate type of visualisation requires an understanding of the landscape and visual context within which the development may be seen, knowledge regarding the type of development proposed, its scale and size, and an understanding of the likely effect of introducing the development into the existing environment.

Photomontages were selected as being an appropriate means to model the potential visual effects of the proposal. This analysis required only block-model photomontages as a means to show the extent of the built form proposed. Other graphic aids which include fine-grained level of architectural detail and a more photo-realistic image of the built forms proposed will be provided by others.

PHOTOMONTAGES IN THE LAND & ENVIRONMENT COURT OF NSW

The preparation of photomontages has been undertaken to comply with the practice direction for the use of photomontages in the Land and Environment Court of New South Wales which in NSW is the most conservative standard to follow in the absence of any statutory guidelines. This involves following a number of steps as outlined below.

- Any photomontage proposed to be relied on in an expert report or as demonstrating an expert opinion as an accurate depiction of some intended future change to the present physical position concerning an identified location and is to be accompanied by:
- A photograph showing the current, unchanged view of the location depicted in the photomontage from the same viewing point as that of the photomontage (the existing photograph);
- A copy of the existing photograph with the wire frame lines depicted so as to demonstrate the data from which the photomontage has been constructed. The wire frame overlay represents the existing surveyed elements which correspond with the same elements in the existing photograph; and
- A 2D plan showing the location of the camera and target point that corresponds to the same location the existing photograph was taken.
- Survey data.
- Confirmation that accurate 2D/3D survey data has been used to prepare the Photomontages. This is to include confirmation that survey data was used: for depiction of existing buildings or existing elements as shown in the wire frame; and to establish an accurate camera location and RL of the camera.

- Any expert statement or other document demonstrating an expert opinion that proposes to rely on a photomontage is to include details of:
 - The name and qualifications of the surveyor who prepared the survey _ information from which the underlying data for the wire frame from which the photomontage was derived was obtained; and
 - The camera type and field of view of the lens used for the purpose of the photograph in (1)(a) from which the photomontage has been derived.

CERTIFICATION OF ACCURACY OF PHOTOMONTAGES

The method of preparation is outlined in Appendix 4 of this report, prepared by Urbis visualisation - lead Ashlev Poon.

- The accuracy of the locations of the 3D model of the proposed development with and adjacent surveyed reference markers which are visible in the images. and Z MGA coordinate were recorded in DWG format and provided to Urbis. **3.** The location of the camera in relation to the model was established using the survey model and the survey locations, including map locations and RLs. Focal lengths and camera bearings in the meta data of the electronic files of the
- respect to the photographic images was checked by Urbis in multiple ways: 1. The model was checked for alignment and height with respect to the 3D survey 2. All view locations were independently surveyed by CMS surveyors, where the X, Y
- photographs are known.
- images.
- 5. No significant discrepancies were detected between the known camera locations and those predicted by the computer software. Minor inconsistencies due to the natural distortion created by the camera lens, were reviewed by myself and were considered to be within reasonable limits.

relied upon by the Court for assessment.

4. Reference points from the survey were used for cross-checking accuracy in all

- Urbis is satisfied that the photomontages have been prepared in accordance with the Land and Environment Court of New South Wales practice direction.
- I certify, based on the methods used and taking all relevant information into account, that the photomontages are as accurate as is possible in the circumstances and can be

PREPARATION OF PHOTOMONTAGES

SYDNEY METRO, Olympic park

VISUAL ASSESSMENT - PHOTO-SIMULATIONS

PREPARED FOR TRANSPORT FOR NSW JUNE 2022





PHOTO-SIMULATIONS PREPARED BY:

Urbis, Level 10, 477 Collins Street, MELBOURNE 3000.

DATE PREPARED :

13 May 2022

VISUALISATION ARTIST :

Ashley Poon, Urbis - Lead Visual Technologies Consultant Bachelor of Planning and Design (Architecture) with over 20 years' experience in 3D visualisation

LOCATION PHOTOGRAPHER :

Jane Maze-Riley, Urbis - Associate Director, National Design

CAMERA:

Canon EOS 6D Mark II - 26 Megapixel digital SLR camera (Full-frame sensor) - with GPS enabled

CAMERA LENS AND TYPE :

Canon EF24-105mm f/4L IS USM

SOFTWARE USED :

- 3DSMax 2023 with Arnold 5.0 (3D Modelling and Render Engine)
- AutoCAD 2021 (2D CAD Editing)
- Globalmapper 23 (GIS Data Mapping / Processing)
- Photoshop CC 2022 (Photo Editing)

DATA SOURCES :

- Point cloud and Digital Elevation Models from NSW Government Spatial Services datasets Sydney 2019-06 and 2020-05
- Aerial photography from Nearmap 2022-04-16
- Proposed 3D massing model received from Architect 2022-04-11

METHODOLOGY :

Photo-simulations provided on the following pages have been produced with a high degree of accuracy to comply with the requirements as set out in the practice direction for the use of visual aids in the Land and Environment Court of New South Wales.

The process for producing these photo-simulations are outlined below:

- Photographs have been taken on site using a full-frame GPS enabled digital camera coupled with a quality lens in order to obtain high resolution photos whilst minimising image distortion. Photos are taken hand-held and at a standing height of 1.6m above natural ground. Photos have generally been taken at a standard focal length of 50mm or at 35mm to cover a wider context. A photo taken using the 50mm focal length on a full-frame camera (equivalent to 40° horizontal field-of-view / 46.8° diagonal field-of-view) is an accepted photographic standard to approximate human vision.
- Using available geo-spatial data for the site, including independent site surveys, aerial photography, digital elevation models and LiDAR point-clouds, the relevant datasets are validated and combined to form a georeferenced base 3D model from which additional information, such as proposed architecture, landscape and photographic viewpoints can be inserted.
- Layers of the proposed development are obtained from the designers as digital 3D models and 2D plans. All drawings/models are verified and registered to their correct geo-location before being inserted into the base 3D model.
- For each photo being used for the photo-simulation, the GPS location, camera, lens, focal length, time/date and exposure information is extracted, checked and replicated within the 3D base model as a 3D camera. A camera match is created by aligning the 3D camera with the 3D base model against the original photo, matching the original photographic location and orientation.
- From each viewpoint, a reference 3D model camera match is generated to verify an accurate match between the base 3D model (existing ground survey/vegetation etc) and original photo. A 3D wireframe image of the 3D base model is rendered in the 3D modelling software and composited over the original photo using the photoediting software.
- From each viewpoint, the final photo-simulation is then produced by compositing 3D rendered images of the proposed development into the original photo with editing performed to sit the render at the correct view depth. Photographic elements are cross-checked against the 3D model to ensure elements such as foreground trees and buildings that may occlude views to the proposed development are retained. Conversely, where trees/ buildings may be removed as part of the proposal, these are also removed in the photo-simulation.



URBIS

SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT PHOTO-SIMULATIONS - VIEW LOCATION MAP

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_MAP REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 1 (PHOTO 2173) LOOKING SW, INTERSECTION OF MORRISON RD & PRINCES ST | EXISTING PHOTO : 2022-03-25 08:20 AEDT



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_01A REV: -



DWG NO: VP_01B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 1 (PHOTO 2173) LOOKING SW, INTERSECTION OF MORRISON RD & PRINCES ST | PHOTO-SIMULATION - PROPOSED



DISTANCE TO PROJECT - 4470M ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW

> DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_01C REV: -



ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_02A REV: -



3D POINT CLOUD

ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_02B REV: -



DWG NO: VP_02C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 3 (PHOTO 2198) LOOKING SOUTH-EAST, PIERRE DE COUBERTIN PARK | EXISTING PHOTO : 2022-03-25 10:38 AEDT



ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_03A REV: -





3D POINT CLOUD

ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_03B REV: -



BUILDING 1

STATION SERVICES BUILDING (SUBJECT TO SEPARATE SSI)

DISTANCE TO PROJECT - 1860M ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_03C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 4 (PHOTO 2189) LOOKING SOUTH, ARCHERY CENTRE | EXISTING PHOTO : 2022-03-25 10:03 AEDT





ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_04A REV: -



3D POINT CLOUD

ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_04B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 4 (PHOTO 2189) LOOKING SOUTH, ARCHERY CENTRE | PHOTO-SIMULATION - PROPOSED





BUILDING 3

BUILDING 2 BUILDING 1

STATION BUILDING (SUBJECT TO SEPARATE SSI)



DISTANCE TO PROJECT - 1670M ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_04C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 5 (PHOTO 2209) LOOKING SOUTH-EAST, OLYMPIC BOULEVARD | EXISTING PHOTO : 2022-03-25 11:19 AEDT



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_05A REV: -





JOB NO: P0033142 DWG NO: VP_05B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 5 (PHOTO 2209) LOOKING SOUTH-EAST, OLYMPIC BOULEVARD | PHOTO-SIMULATION - PROPOSED



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_05C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 6 (PHOTO 2188) LOOKING WEST, TREILLAGE TOWER | EXISTING PHOTO : 2022-03-25 09:51 AEDT





ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_06A REV: -





SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 6 (PHOTO 2188) LOOKING WEST, TREILLAGE TOWER | ALIGNMENT OF 3D MODEL TO PHOTO

JOB NO: P0033142 DWG NO: VP_06B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 6 (PHOTO 2188) LOOKING WEST, TREILLAGE TOWER | PHOTO-SIMULATION - PROPOSED



DISTANCE TO PROJECT - 790M ORIGINAL PHOTO EXTENT - 35MM STANDARD VIEW

> DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_06C REV: -



URBIS

SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 7 (PHOTO 2240) LOOKING ENE, BIRNIE AVE | EXISTING PHOTO : 2022-03-25 12:57 AEDT

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_07A REV: -



DWG NO: VP_07B REV: -


DISTANCE TO PROJECT - 690M **ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW**

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_07C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 8 (PHOTO 2211) LOOKING ENE, STADIUM PLAZA, OFF DAWN FRASER AVE | EXISTING PHOTO : 2022-03-25 11:34 AEDT



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_08A REV: -





ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_08B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 8 (PHOTO 2211) LOOKING ENE, STADIUM PLAZA, OFF DAWN FRASER AVE | PHOTO-SIMULATION - PROPOSED

URBIS

BUILDING 3

BUILDING

STATION SERVICES BUILDING (SUBJECT TO SEPARATE SSI)

DISTANCE TO PROJECT - 570M ORIGINAL PHOTO EXTENT - 50MM STANDARD VIEW

> DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_08C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 9 (PHOTO 2227) LOOKING SOUTH-EAST, MURRAY ROSE AVE | EXISTING PHOTO : 2022-03-25 12:07 AEDT



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_09A REV: -





DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_09B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 9 (PHOTO 2227) LOOKING SOUTH-EAST, MURRAY ROSE AVE | PHOTO-SIMULATION - PROPOSED





DISTANCE TO PROJECT - 320M **ORIGINAL PHOTO EXTENT - 35MM STANDARD**

> DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_09C REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 10 (PHOTO 2248) LOOKING NNE, PLAZA SOUTH OF AQUATIC CENTRE | EXISTING PHOTO : 2022-03-25 13:19 AEDT



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_10A REV: -



JOB NO: P0033142 DWG NO: VP_10B REV: -



SYDNEY METRO, OLYMPIC PARK - VISUAL ASSESSMENT VP 10 (PHOTO 2248) LOOKING NNE, PLAZA SOUTH OF AQUATIC CENTRE | PHOTO-SIMULATION - PROPOSED



DATE: 2022-05-13 JOB NO: P0033142 DWG NO: VP_10C REV: -

CMS Surveyors Pty Limited A.B.N. 79 096 240 201



LAND SURVEYING, PLANNING & DEVELOPMENT CONSULTANTS

Date: 31-03-2022 Our Ref: 21287 Photo Locations

Angel Place, Level 8, 123 Pitt Street Sydney NSW 2000

Dear Jane Maze-Riley,

RE: PHOTO LOCATIONS – Sydney Olympic Park Metro station

As requested, we have attended site and measured the Co-ordinates and Elevation of the photo locations for Sydney Olympic Park Metro station.

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

Measurements were taken using theodolite measurement and GNSS measurements.

DWG of locations has also been supplied.

Point Number	Easting	Northing	Reduced Level	Photo Point
Number			(112)	
1	322276.458	6253038.915	Ground RL 22.29	PHOTO 1
2	321654.241	6254587.145	Ground RL 5.37	PHOTO 2
3	321402.546	6254408.275	Ground RL 18.01	РНОТО 3
4	320228.227	6254341.924	Ground RL 15.37	PHOTO 4
5	320128.615	6253276.568	Ground RL 18.87	PHOTO 5
6	320715.925	6253624.631	Ground RL 8.38	PHOTO 6
7	320816.698	6252931.496	Ground RL 13.97	PHOTO 7
8	321098.701	6252953.769	Ground RL 18.05	PHOTO 8
9	321083.537	6253087.805	Ground RL 14.28	РНОТО 9
10	321202.974	6253143.405	Ground RL 15.61	PHOTO 10
11	321357.981	6253101.073	Ground RL 20.68	PHOTO 11
12	320797.993	6252497.773	Ground RL 19.75	PHOTO 12
13	321256.002	6252692.583	Ground RL 21.16	PHOTO 13
500	321825.643	6252926.584	127.18	Building
501	321854.722	6252911.441	126.79	Building
502	321828.700	6252882.978	127.07	Building
503	321850.585	6252913.964	124.83	Building
504	321642.070	6252915.327	93.43	Building
505	321752.122	6252984.064	120.27	Building
506	321751.383	6253014.583	130.75	Post



HEAD OFFICE A.C.GILBERT & Co. 2/99A South Creek Rd, DEE WHY NSW 2099 (Roseville) PO Box 463, DEE WHY NSW 2099 Ph: 02 9971 4802 Fax: 02 9971 4822 (Mona Vale) Email: info@cmssurveyors.com.au Web: www.cmssurveyors.com.au

INCORPORATING COOTAMUNDRA Incorporating PENGELLY & GRAY 90 Wallendoon St, COOTAMUNDRA NSW 2590 MBS GREEN & ASSOCIATES Ph: 02 6942 3395 Fax: 02 6942 4046 Email: coota@cmssurveyors.com.au

APPENDIX 5

CMS SURVEY

Page 1 of 2



Point Number	Easting	Northing	Reduced Level (RL)	Photo Point
507	321770.733	6253002.926	105.26	Building
508	321762.689	6253042.391	94.69	Building
509	321761.879	6253043.000	120.26	Building
510	321731.252	6252906.711	127.69	Building
520	321270.732	6252951.993	80.29	Building
521	321236.748	6252930.278	80.28	Building
522	321281.259	6252935.602	80.28	Building

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 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 3395 Fax: 02 6942 4046 Email: <u>coota@cmssurveyors.com.au</u>



