ETHOS URBAN

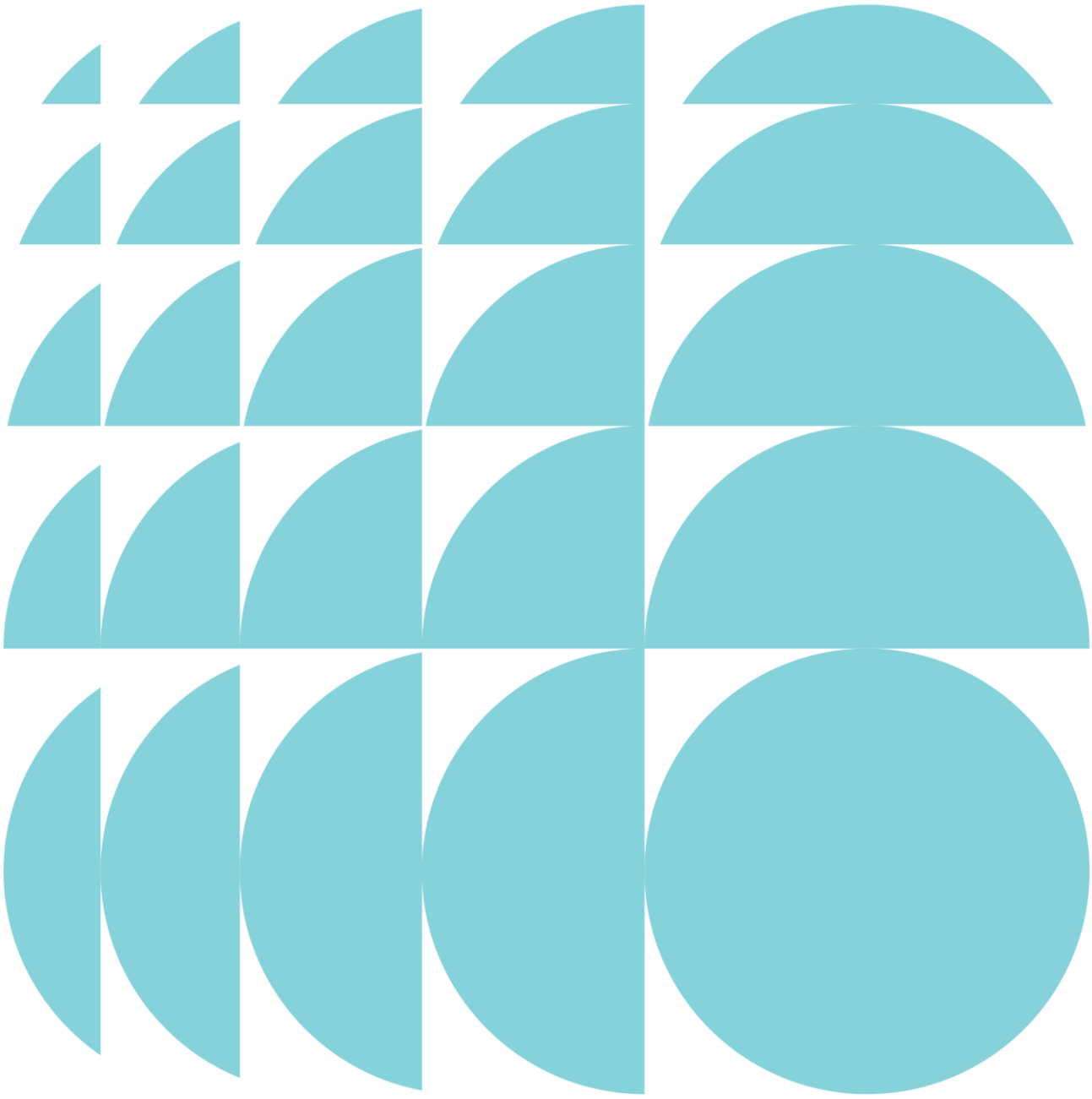
Environmental Impact Statement

NSW Cricket Centre
Wilson Park, Sydney Olympic Park

Submitted to NSW Department of Planning, Industry and Environment

On behalf of Cricket NSW

1 November 2019 | 2190029



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Development Application Details	
Applicant name	Cricket NSW
Applicant address	6 Herb Elliott Avenue, Sydney Olympic Park, NSW 2127.
Land to be developed	Wilson Park, Sydney Olympic Park. Lot C DP421320.
Proposed development	Construction and operation of the NSW Cricket Centre
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Qualifications	Bachelor of Economics, Sydney University
Address	173 Sussex Street, Sydney
In respect of	State Significant Development - Development Application for the NSW Cricket Centre
Certification	
	I certify that I have prepared the content of this EIS and to the best of my knowledge: • it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000; • all available information that is relevant to the environmental assessment of the development to which the statement relates; and • the information contained in the statement is neither false nor misleading.
Signature	
Name	Costa Dimitriadis, Belinda Thomas and Gordon Kirkby
Date	1/11/2019

List of Abbreviations and Key Terms

Abbreviation / Term	Description
BBL/WBBL	Big Bash League, Women's Big Bash League
CA	Cricket Australia
CLM Act	Contaminated Lands Management Act 1997
CNSW	Cricket New South Wales
Council	City of Parramatta Council, unless otherwise specified
DA	Development Application
Department or DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPA	Environment Protection Agency
ICC	International Cricket Council
LEP	Local Environmental Plan
LGA	Local Government Area
Minister	The Minister for Planning, unless otherwise specified
NSWCC	New South Wales Cricket Centre
Oval 1	The main ICC compliant oval
Oval 2	A secondary oval which complies with Cricket Australia's Community Guidelines (100m diameter)
PMOA	Player and Match Official Area
RMS	NSW Road and Maritime Services
TfNSW	Transport for New South Wales
Secretary	Secretary of the NSW Department of Planning and Environment
SEPP	State Environmental Planning Policy
SEPP SSP	State Environmental Planning Policy (State Significant Precincts) 2005
SOPA	Sydney Olympic Park Authority
SSD	State Significant Development

Executive Summary

Purpose of this Report

This submission to the Department of Planning, Industry and Environment (the Department) comprises an Environmental Impact Statement (EIS) for a State Significant Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It relates to the redevelopment of Wilson Park, Sydney Olympic Park (SOP) for the purpose of a state-of-the-art, dedicated, year-round cricket, training and administration facility known as the NSW Cricket Centre(NSWCC).

Sydney Olympic Park is identified as a State significant precinct in Schedule 2 of *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD). Development with a capital investment value of more than $10 million within Sydney Olympic Park is classified as State Significant Development (SSD) for the purposes of the EP&A Act. As the proposed development will have a capital investment value of more than $10 million, it is SSD.

A request for the Secretary's Environmental Assessment Requirements (SEARs) was made on 24 June 2019 and the SEARs were issued on 23 July 2019, modified SEARs were issued on 20 September 2019, following comments received from the Environment Protection Agency (EPA). This EIS has been prepared in accordance with the Department's guidelines for SSD applications lodged under Part 4 of the EP&A Act and addresses the matters identified in the SEARs.

The Site and Background

The site is identified as Wilson Park, located in the north western corner of Sydney Olympic Park. It has frontages to Parramatta River (north) Silverwater Correctional Complex (east), a busway and industrial lands (south) and Silverwater Road (west). The site is legally described as Lot C in DP 421320. The site is irregular in shape and contains a total area of 121,082m^2 and a leased area where development will occur with a site area of 65,767m^2.

During the 1950's, Wilson Park was utilised for gasworks, accommodating Petroleum and Chemical Corporation Australia Limited for the purposes of converting crude oil to gas. This use resulted in significant contamination of the site, leading to remediation of the site in the 1970's and the creation of a landfill leachate treatment plant at the north-eastern corner of the site. The remainder of the site was converted to playing fields in the 1980's. The site is currently operating as a park which is managed by Sydney Olympic Park Authority (SOPA). The site includes three separate playing fields, a 450-seat covered grandstand and an associated car park. The site is irrigated with harvested stormwater.

Wilson Park is generally flat ranging from 2m in the north sloping gently to 4 m in the south. Existing easements for stormwater and gas run north to south through the site. The north-eastern portion of Wilson Park, which is not within the development boundary, comprises two remediated landfill mounds supported with a fenced bioremediation treatment system. The site (as part of the overall Wilson Park) is one of ten engineered remediated landfill areas managed by Sydney Olympic Park Authority (SOPA) and is subject to a 'maintenance of remediation notice' issued by the NSW EPA under Section 26 of the Contaminated Lands Management Act 1997 (CLM Act).

In a broader context, the site forms part of Sydney Olympic Park which is a sporting and economic centre in metropolitan Sydney that covers 680 hectares. Sydney Olympic Park comprises a range of sports and entertainment venues, parklands, and commercial, retail and residential developments. Sydney Olympic Park benefits from convenient access to Homebush Bay Drive, Parramatta Road and the M4 Western Motorway, as well as Olympic Park railway station. The future Parramatta Light Rail Stage 2 and Sydney Metro West will also significantly increase accessibility to SOP.

Strategic need for the proposal

The New South Wales Cricket Association was formed in 1859 and today is known as Cricket New South Wales (CNSW). The headquarters of CNSW have been located predominantly in the Sydney central business district in different premises over the years and from 1997 – 2019 were located within the Sydney Cricket and Sports Ground precinct at Moore Park, Sydney. As part of the Sydney Football Stadium redevelopment, CNSW's facilities have been demolished and the detailed masterplan does not facilitate a new cricket centre within the precinct. As a result, CNSW has been required to explore new sites to accommodate their future operations. CNSW are currently located at interim facilities at 6 Herb Elliot Drive, Sydney Olympic Park.

CNSW's ambition is to deliver a state-of-the-art facility as a year-round elite training base for NSW's best cricketers as well as a hub for community cricket. A critical factor in relocating such a unique use, is the availability of suitable sites that are in proximity to existing and future sport and recreation land uses. Accordingly, the location of the site and the proposal represents a unique opportunity to transfer activity and benefits to one of Australia's leading sporting precincts.

The need for the project is directly linked to the NSW Government's plans for Western Sydney and more specifically, the Greater Parramatta and Olympic Peninsula area. Sydney Olympic Park provides world class sporting and event venues coexisting with residential, commercial and recreational land uses. The Central Sydney District Plan has identified that over the next 20 years, the Sydney Olympic Park area will develop into a lifestyle precinct, offering the potential to attract anchor tenants specialising in sports, health and physical education. Accordingly, the NSWCC is commensurate with the NSW Government's vision. It will deliver a development that will ensure that the precinct continues to meet the needs and expectations of elite and community cricketers, administrators, and visitors into the future.

Overview of the Project

This State Significant Development Application (SSDA) seeks consent for the detailed design, construction and operation of the NSW Cricket Centre (NSWCC) in Sydney Olympic Park.

The NSWCC will comprise a state-of-the-art, dedicated, year-round cricket, training and administration facility that services both regional and metropolitan cricketers, as well as providing facilities for aspiring junior cricketers to support sport, social, health and educational programs. The overall project timeframe is centred on the delivery of a completed project and the opening of the facility by February 2022.

The SSDA seeks approval for:

- A two storey cricket centre, including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council compliant oval 136m long x 144m wide (16,040m^2)(Oval 1) and associated seating;
- A second oval (Oval 2) that complies with the Cricket Australia community guidelines for community club cricket (with a minimum diameter of 100m (6365m^2);
- Outdoor practice nets, 71 wickets with a minimum of 30m run ups;
- A double height (10.7m) indoor training facility with 15 wickets;
- A single storey shed for machinery and storage;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

Planning Context

This EIS has been prepared in accordance with the requirements of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and **Section 5** of the EIS considers all applicable legislation in detail.

The *State Environmental Planning Policy (State Significant Precincts) 2005* (SEPP SSP) applies to the site, with the proposed development being permissible with consent and consistent with the provisions in this instrument. The SEPP does not impose any height or FSR controls or require undertaking a competitive architectural design competition for the proposal. Notwithstanding, the proposal has been reviewed by the NSW Government Architects' State Design Review Panel.

Environmental Impacts and Mitigation Measures

This EIS provides an assessment of the environmental impacts of the proposed development in accordance with the SEARs and sets out the undertakings made by Cricket NSW and consultant team to manage and minimise potential impacts arising from the development. The key environmental matters identified include:

- Built form and urban design;
- Facility use;
- Public domain and landscaping;
- Visual and view impacts;
- Environmental amenity;
- Transport, traffic, parking and access;
- Ecologically sustainable development (ESD);
- Major events;
- Heritage and archaeology;
- Biodiversity;
- Water, flooding and drainage;
- Utilities;
- Contamination;
- Noise and vibration;
- Air quality, odour and waste;
- Sediment, erosion and dust controls
- Building Code of Australia (BCA) and the Disability Discrimination Act
- Developer Contributions
- Construction Environmental Management Plan
- Social and Economic Impacts

The EIS provides a detailed assessment of the environmental, social and economic impacts of the proposed development drawing upon information provided by a team of experienced technical experts across a range of disciplines. The EIS concludes that the proposed development will not result in any significant social, economic or environmental impacts which cannot be appropriately managed through the identified mitigation measures and conditions of consent.

Conclusion and Justification

The EIS addresses the SEARs and provides a full assessment of the relevant environmental planning considerations in relation to the proposed NSWCC and confirms that the proposal is appropriate and will not result in any significant or otherwise adverse environmental impacts. It confirms that the proposed works will bring utilisation and activation to Wilson Park and in doing so deliver significant benefits to the NSW community, including through direct and indirect economic activity and employment. The broader economic and social strategic benefits of the proposal include:

- Providing best practice training, coaching and player preparation facilities, for all levels of the sport (from club level to the state representative team level), which enables NSW to enhance the chances of males and females being selected for national teams;
- Enhancing the ability of CNSW to attract and retain the best players by having a modern purpose built facility that is equipped with technological design to foster innovation and to advance Australia's leading role in the world of Cricket;
- Delivering a facility that is flexible and can address both the current and future needs of elite and community cricket players;
- Building a facility that is integrated with its surrounds including Sydney Olympic Park and Parramatta River foreshore;
- Enabling better utilisation of a strategically located sporting facility;
- Reaffirming the Sydney Olympic Park Precinct as the Central City's premiere major sporting destination;
- Enriching Sydney Olympic Park's attractiveness to touring national or international cricket teams who will use the facility for training or games, as well as providing a place to stay and be entertained;
- Providing sufficient infrastructure to accommodate cricket competition franchises at community, local, state, national and international levels;
- Growing grass roots cricket participation and community engagement in Australia's premier sports precinct; and
- Maximising the direct and indirect economic, social and cultural benefits to NSW from the project.

The environmental assessment at **Section 5** and **6** confirms that the proposed development fulfils the objective for this project and that the potential impacts of the development are acceptable and are able to be managed through compliance with the identified mitigation measures. Given the planning merits of the proposal, the proposed development warrants approval by the Minister for Planning and Public Spaces.

Figure 1 Aerial photomontage of the cricket centre from Silverwater Bridge

Source: COX Architecture

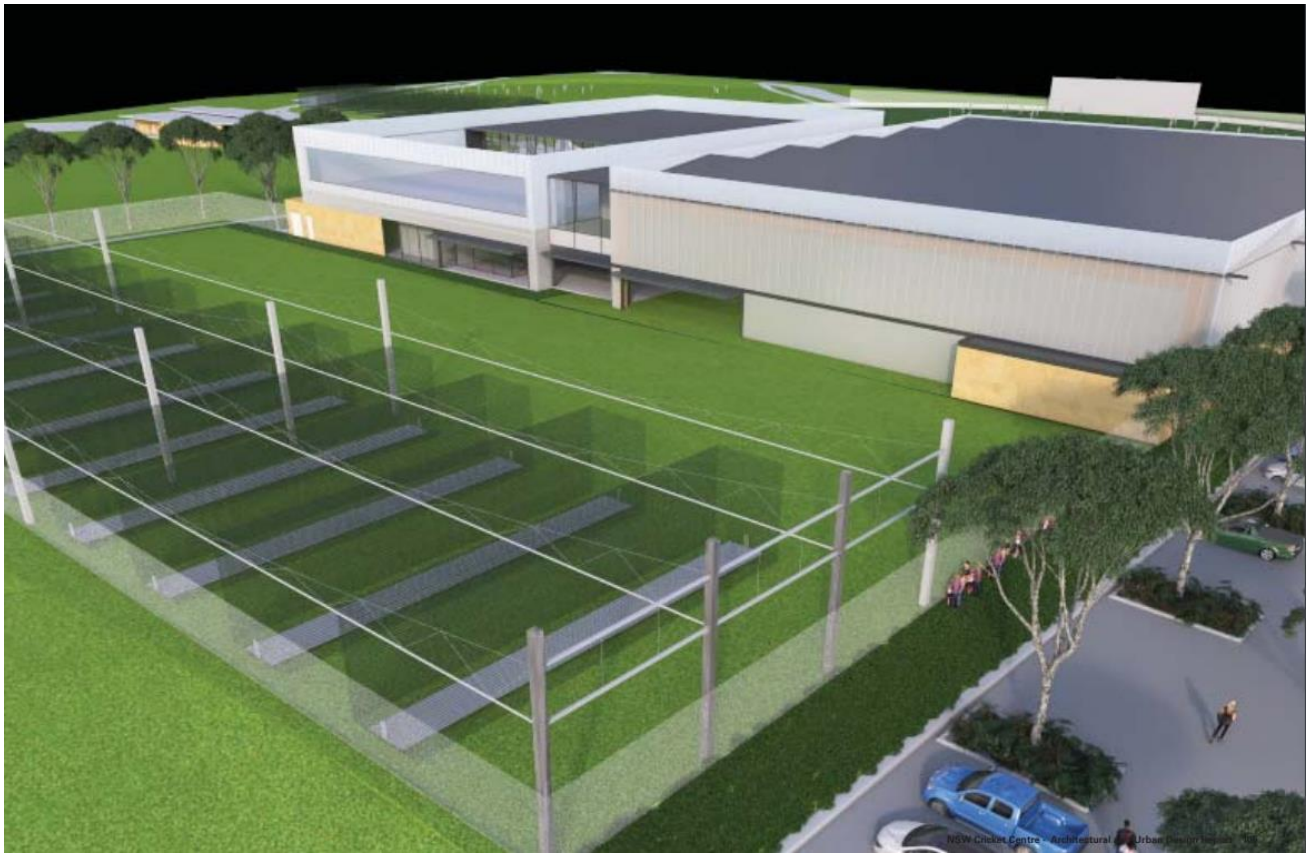


Figure 2 Aerial photomontage of the NSW cricket centre

Source: COX Architecture

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning, Industry and Environment (the Department) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of an application for State Significant Development (SSD).

Development within the Sydney Olympic Park with a capital investment value of more than $10 million is identified in Schedule 2 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). The proposal has a capital investment value of more than $10 million, the project is therefore declared to be SSD for the purposes of the EP&A Act.

The report has been prepared by Ethos Urban on behalf of Cricket New South Wales (CNSW), and is based on the Architectural Plans prepared by COX Architecture (COX) (see **Appendix B**) and other supporting technical information appended to the report (see Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included at **Appendix A** and detailed at **Table 4.** This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

1.1 Overview of Proposed Development

This state significant development application (SSDA) seeks approval for the construction and operation of the New South Wales Cricket Centre (NSWCC) at Wilson Park, Sydney Olympic Park. The SSDA is not staged development in the meaning of Section 4.22 of the EP&A Act. Specifically, this SSDA seeks consent for the following:

- A two storey cricket centre, including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council compliant oval 136m long x 144m wide (16,040m^2)(Oval 1) and associated seating;
- A second oval (Oval 2) that complies with the Cricket Australia community guidelines for community club cricket (with a minimum diameter of 100m (6365m^2);
- Outdoor practice nets, 71 wickets with a minimum of 30m run ups;
- A double height (10.7m) indoor training facility with 15 wickets;
- A single storey shed for machinery and storage;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

A detailed description of the proposed development that is the subject of this application is provided at **Section 4.0** of this report.

1.2 Background to the Development

In the 1920s the site was largely cleared farm land, partly covered with an undulating mangrove swamp area bordering the Parramatta River. The area was generally poorly drained with lower portions of the site being only slightly above high tide level. In the 1930s the lower areas were reclaimed to form the Carnarvon Golf Club until the early 1950s when the area was developed for a petrochemical plant that featured a number of tanks and large sludge ponds which stored residues (tar sludge) from the conversion of heavy crude oil to town gas. An image of the site in 1961 is provided at **Figure 3**.

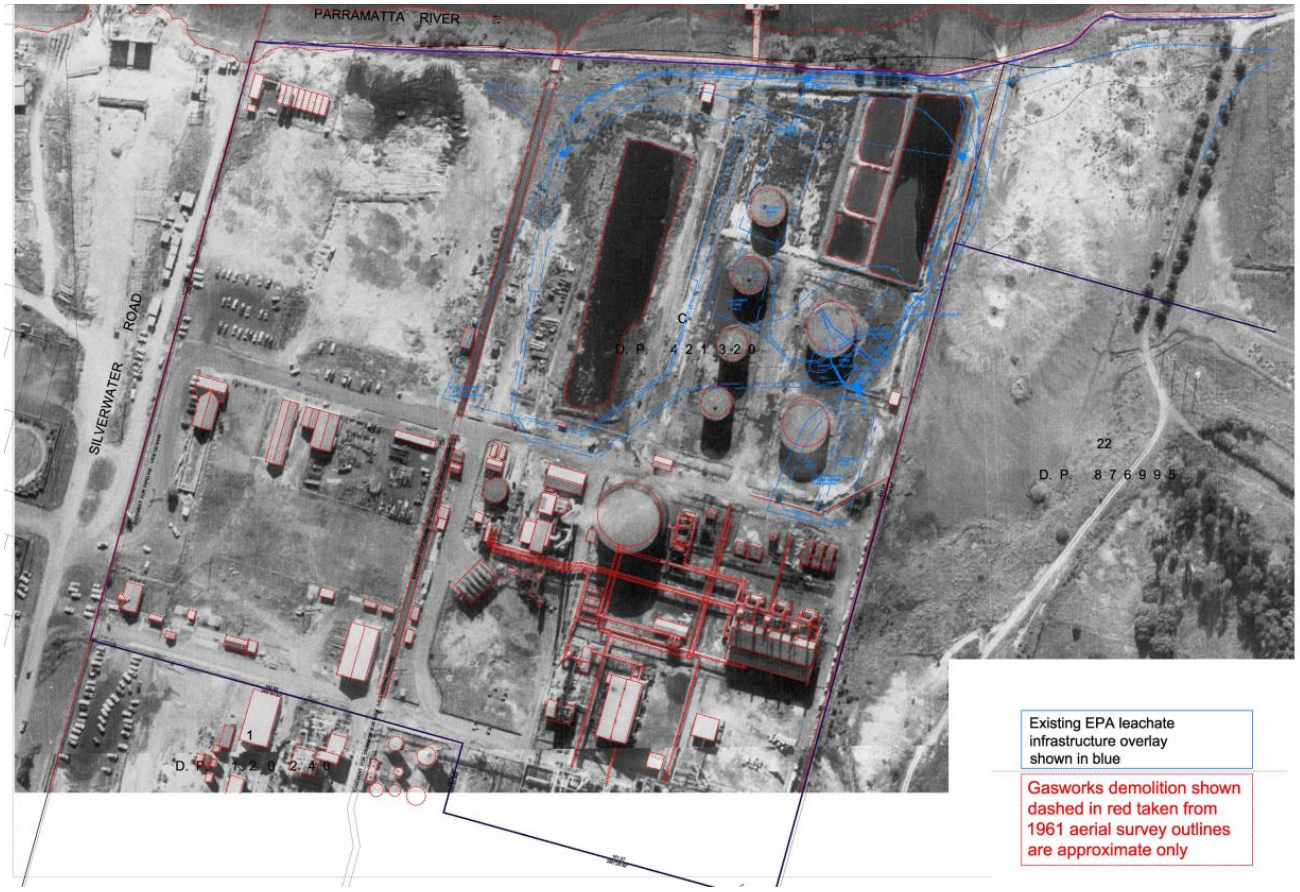


Figure 3 Use of site as gasworks in 1961

Source: Cox Architecture

The petrochemical plant was closed down in 1974 and it is understood that the sludge ponds were subsequently covered. Wilson Park was developed as playing fields in 1983 and used until 1992 when the park was closed to the public due to tar wastes seeping onto the playing fields.

In 1997 remediation of the site began and generally comprised encapsulating the waste. Wilson Park was reopened in 2003 and is currently used as playing fields. The site is managed under the Contaminated Lands Management Act Notice No. 28040.

1.3 Cricket New South Wales

Cricket NSW (CNSW) is the peak body for cricket in NSW. Cricket NSW operates across a number of departments, business administration services, commercial operations and events, communications, cricket performance and game development. There are also four affiliate associations based within the CNSW premises – Sydney Cricket Association, Country Cricket NSW, NSW Cricket Umpires' and Scorers' Association and NSW Districts Cricket Association.

The organisation manages and promotes talent pathways for junior and senior cricketers and is home to the state representative teams including the NSW Blues (men), NSW Breakers (women), the Sydney Thunder and Sydney Sixers in the Big Bash League (BBL) and the Women's Big Bash League (WBBL).

One of Cricket NSW's core objectives is to ensure that cricket has an impact at all levels of education. A variety of programs have been developed to help promote a healthy, active lifestyle amongst school-aged children through cricket. Additionally, Cricket NSW aims to help up-skill teachers so that they can carry on development in their schools. Key programs include:

- Junior Blasters Skills Program;
- Cricket Blast Schools Cup and Cricket Smart;

- School Ambassador Program;
- Partnerships supporting the delivery of programs in the school environment; and
- Sporting Schools Program

CNSW participation figures for the 2018/2019 season include 437,854 cricket participants across NSW/ACT, a 5% increase on the previous year. Junior and senior club registration, including indoor cricket accounted for 163,179 players, whilst 271,958 participants played cricket as part of their schooling whether it be via schools' competitions or programs. The Wilson Park catchment of local junior cricketers is identified in **Table 1.**

Table 1 Wilson Park Junior Players Catchment

Wilson Park Catchment	5km	10km
School Participation	2,260	18,318
Club Participation	699	5,960

Cricket NSW also conducts player development programs for talented youth identified within the competitions that they run. Although some players go on to play for Australia (approximately 35% of men and 38% of women are from NSW), NSW or Sixers and Thunder, the majority will play in the NSW Premier cricket or NSW Country competitions for their career.

Cricket NSW also undertakes regular coach and umpire education courses for accredited and non-accredited coaches throughout NSW. A large number of these are free of charge to ensure a broad range of the community have access to these. CNSW also represent cricket from grassroots through to the elite levels. **Figure 4** metrics provide some insight into the breadth of operations of Cricket NSW.

Figure 4 CNSW operations

Source: Cricket NSW

1.4 Funding of the Development

A Deed of Agreement (the Deed) has been executed between Sydney Olympic Park Authority (SOPA) and CNSW for the NSWCC which details the capital funding contribution and provides the land for building the NSWCC and lease to operate it for 25years plus extensions to the lease.

The funding is split between the following stakeholders:

- SOPA and the New South Wales State Government ($30 million);
- CNSW/ CA ($10 million);
- CNSW ($9 million) - additional funding to accommodate Sydney Sixers, Sydney Thunder and the Blues and Breakers; and
- the Federal Government ($5 million).

1.5 Relocation from Moore Park

The New South Wales Cricket Association was formed in 1859 and today is known as Cricket New South Wales (CNSW). The headquarters of CNSW have been predominantly located in the Sydney central business district in different premises over the years and from 1997 – 2019 were located within the Sydney Cricket and Sports Ground precinct at Moore Park, Sydney Cricket.

In November of 2018, Cricket NSW came to an agreement with the NSW Government to relocate their training facilities to Sydney Olympic Park, after 159 years of being located in Sydney's CBD and east. The deal was borne out of Cricket NSW's Moore Park base being redeveloped as part of the proposed masterplan for Allianz Stadium, which involved the demolition of the training facilities, without any scope for their recovery in its redevelopment. As a result, CNSW has been required to explore new sites to accommodate their future operations and Wilson Park presents as an opportunity to establish a CNSW headquarters. In the meantime CNSW are currently located at interim facilities at 6 Herb Elliot Drive, Sydney Olympic Park.

1.6 Cricket NSW's Vision

As the governing body of cricket in the state, Cricket NSW is seeking to accelerate the sport's development and success by providing a state-of-the-art Centre of Excellence, replacing their former, now-demolished facilities that were located in Moore Park.

The facility will comply with ICC standards and be the location of minor first-class cricket matches. It will be the best high-performance cricket facility in Australia, providing best practice training, coaching and player preparation facilities for emerging and current professional cricketers. These include the necessary facilities for administration, training, sporting and player preparation and recovery. This is motivated by Cricket NSW's aspiration of perpetuating the trend of half of the Australian Cricket Team's male and female cricketers originating in NSW.

The development of a new NSW cricket facility will address the deficiencies in existing infrastructure and improve facilities in line with contemporary Australian sports venue standards. The project will deliver a facility that is a modern, globally competitive venue. The development of the centre will address the following project objectives:

- Enable better utilisation of a strategically located sporting facility;
- Deliver a facility that is flexible and can address both the current and future needs of elite and community cricket players;
- Build a facility that is integrated with its surrounds including Sydney Olympic Park and Parramatta River Foreshore;
- Reaffirm the Sydney Olympic Park Precinct as the Central City's premiere major sporting destinations;
- Provide sufficient infrastructure to accommodate cricket competition franchises at state, national and international levels; and
- Maximise the direct and indirect economic, social and cultural benefits to NSW from the project.

1.7 Strategic need for the proposal

As outlined above, due to the redevelopment of the new Allianz Stadium in the precinct, Cricket NSW's facilities have been demolished, and a new facility has not been accommodated through the Stadium redevelopment masterplan. As a result, Cricket NSW has been required to explore new sites to accommodate their future operations.

Currently Cricket NSW are based at interim facilities at 6 Herb Elliot Drive, Sydney Olympic Park. These facilities include administration offices for staff and indoor wickets for players. The facilities are a "stop gap" until the future NSWCC development is built noting that the lease for this site expires in January 2022 (when the interim facilities will be redeveloped).

Cricket NSW's ambition is to deliver a state-of-the-art facility as a year-round elite training base for NSW's best cricketers as well as a hub for community cricket. A critical factor in relocating such a unique use is the availability of suitable sites that are in proximity to existing and future sport and recreation land uses. Accordingly, the location of the site and the proposal represents a unique opportunity to transfer activity and benefits to one of Australia's leading sporting precincts – the Sydney Olympic Park precinct.

The main purpose of the Cricket NSW Wilson Park development is to be the home of cricket in New South Wales, providing elite training and playing facilities for Cricket NSW High Performance programs (including the Sydney Sixers & Sydney Thunder) as well as administrative facilities for Cricket NSW. Contemporary high-performance training facilities will support the ongoing development of local, state and Australian cricket players.

It is envisaged that the facility will unify the organisation, the administration centre will accommodate Cricket NSW employees and will improve operational efficiencies and increase effectiveness and collaboration across the business by having employees in a modern office facility. Spaces such as offices, classrooms, meeting rooms and staff facilities will be multi-purpose and potentially have dual purposes (for example double as function rooms) to assist with the effective use of space.

The need for the project is directly linked to the NSW Government's plans for Western Sydney and more specifically, the Greater Parramatta and Olympic Peninsula area. Sydney Olympic Park provides world class sporting and event venues coexisting with residential, commercial and recreational land uses.

The Central Sydney District Plan has identified that over the next 20 years, the Sydney Olympic Park area will develop into a lifestyle precinct, offering the potential to attract anchor tenants specialising in sports, health and physical education. Accordingly, Cricket NSW Centre of Excellence is commensurate with the NSW Government's vision. It will deliver a development that will ensure that the precinct continues to meet the needs and expectations of elite and community cricketers, administrators, and visitors into the future.

The lack of access to the appropriate level of training facilities has also meant that CNSW:

- Cannot efficiently or effectively provide the necessary training and skills development activities and programs, to support the needs of cricketers from metropolitan and regional areas;
- Cannot increase its reach within the cricket community through the delivery of additional programs;
- Is unable to host significant national or regional cricket training clinics and camps;
- Is unable to deliver community development programs that are critical to increasing participation levels;
- Cannot meet the training and coaching needs of its elite level teams including the NSW Blues, Breakers, Sydney Thunder and Sixers;
- Further, the existing facilities do not:
    - Offer dedicated year-round cricket training, coaching and administration facilities;
    - Provide dedicated training facilities for female cricketers;
    - Deliver benefits to metropolitan and regional cricket participants, coaches and volunteers; and
    - Cater for the significant increase in participation.

CNSW has relationships with international and pathway squads, rapidly growing from one professional team to six. This growth has increased pressure on existing facilities with teams competing for training hours, as shown in **Figure 5**.

						Pathway Squads
NSW Blues	NSW Breakers	Men's BBL	Women's BBL	Men's BBL	Women's BBL	Men's & Women's
63 sessions	63 sessions	11 sessions	11 sessions	11 sessions	13 sessions	37 sessions
189 hrs	189 hrs	33 hrs	33 hrs	33 hrs	39 hrs	111 hrs
TOTAL: 627 hrs / 66 turf practice wickets = 9.5hrs per practice						

Figure 5 Summary of Training Hours

Source: Cricket NSW

CNSW's needs have changed significantly, with training time increasing and access to suitable training facilities decreasing, as depicted in **Figure 6**, which is a primary driver underpinning the need for the NSWCC.

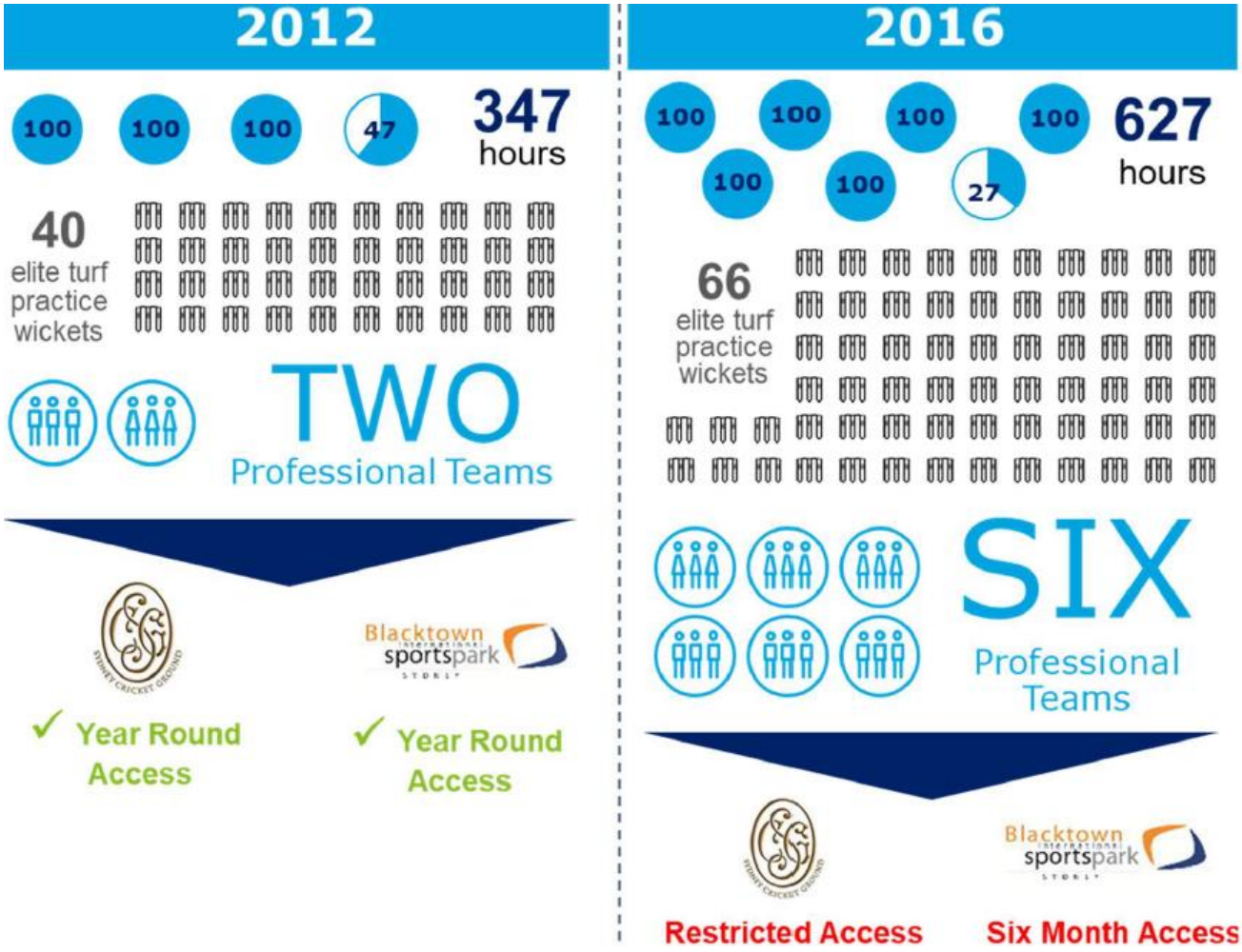


Figure 6 Demand Profile Change

Source: Cricket NSW

Given the constraints in meeting training demands for current teams and programs, CNSW has no capacity to meet the future growth needs of existing programs nor introduce new programs. This demand is a primary driver underpinning the need for the NSWCC. For example, Elite Pathways, a joint venture between Cricket Australia, Cricket NSW and Cricket ACT, requires access to training facilities to support:

- Exposing players with first class potential to national carnivals;
- Introducing state challenge competitions from U/13 to U/19;
- Expanding the Academy program to include more players and more coaches;
- Introducing the Overage Academy to support the next generation of State and BBL cricketers; and
- Providing a clearer pathway for the development of coaches and umpires.

CNSW's goal is to deliver a state-of-the-art facility as a year-round elite training base for NSW's best cricketers as well as a hub for community cricket. A critical factor in relocating such a unique use, is the availability of suitable sites that are in proximity to existing and future sport and recreation land uses. Accordingly, the location of the site and the proposal represents a unique opportunity to transfer activity and benefits to one of Australia's leading sporting precincts.

The NSWCC will address cricket's training, game development and administration needs and meet the increasing professionalisation of women's cricket needs in particular. Establishment of the NSWCC aligns with Federal Government, NSW Government and Australian Cricket strategic directions associated with:

- Investing in sports infrastructure and attracting major sporting events in Western Sydney;
- Increasing visitation (NSW and Sydney Olympic Park) and contributing to a stronger economy;
- Increasing sports participation and improving health outcomes (particularly childhood obesity); and
- Collocating sporting centres of excellence in Sydney's premier integrated sporting precinct.

Accordingly, the NSWCC is commensurate with the NSW Government's vision. It will deliver a development that will ensure that the precinct continues to meet the needs and expectations of elite and community cricketers, administrators, and visitors into the future.

1.8 Objectives of the Development

The objectives of the project comprise the following:

- Providing best practice training, coaching and player preparation facilities, for all levels of the sport (from club level to the state representative team level), which enables NSW to enhance the chances of males and females being selected for national teams;
- Enhancing the ability of CNSW to attract and retain the best players by having a modern purpose built facility that is equipped with technological design to foster innovation and to advance Australia's leading role in the world of Cricket;
- Delivering a facility that is flexible and can address both the current and future needs of elite and community cricket players;
- Building a facility that is integrated with its surrounds including Sydney Olympic Park and Parramatta River foreshore;
- Enabling better utilisation of a strategically located sporting facility;
- Reaffirming the Sydney Olympic Park Precinct as the Central City's premiere major sporting destinations;
- Enriching Sydney Olympic Parks attractiveness to touring national or international cricket teams who will use the facility for training or games, as well as providing a place to stay and be entertained;
- Providing sufficient infrastructure to accommodate cricket competition franchises at local, state, national and international levels;
- Growing grass roots cricket participation and community engagement in Australia's premier sports precinct; and
- Maximising the direct and indirect economic, social and cultural benefits to NSW from the project.

1.9 Analysis of Alternatives

The project team undertook an exhaustive series of studies to find the optimum location of the cricket ovals, outdoor practice nets and the building. CNSW has developed minimum functional requirements for the NSWCC based on extensive benchmarking, research and consultation. The development brief prepared by CNSW also requires the NSWCC to meet the International Cricket Council (ICC) and Cricket Australia (CA) specifications for cricket grounds. There are also key environmental constraints on the site particularly in relation to contamination which need to be addressed. It is critical from a practical, functional and feasibility perspective that the masterplan option responded to the key functional, cricket requirements and environmental constraints of the site as shown in **Figure 7** and **8** and detailed in **Table 2**.

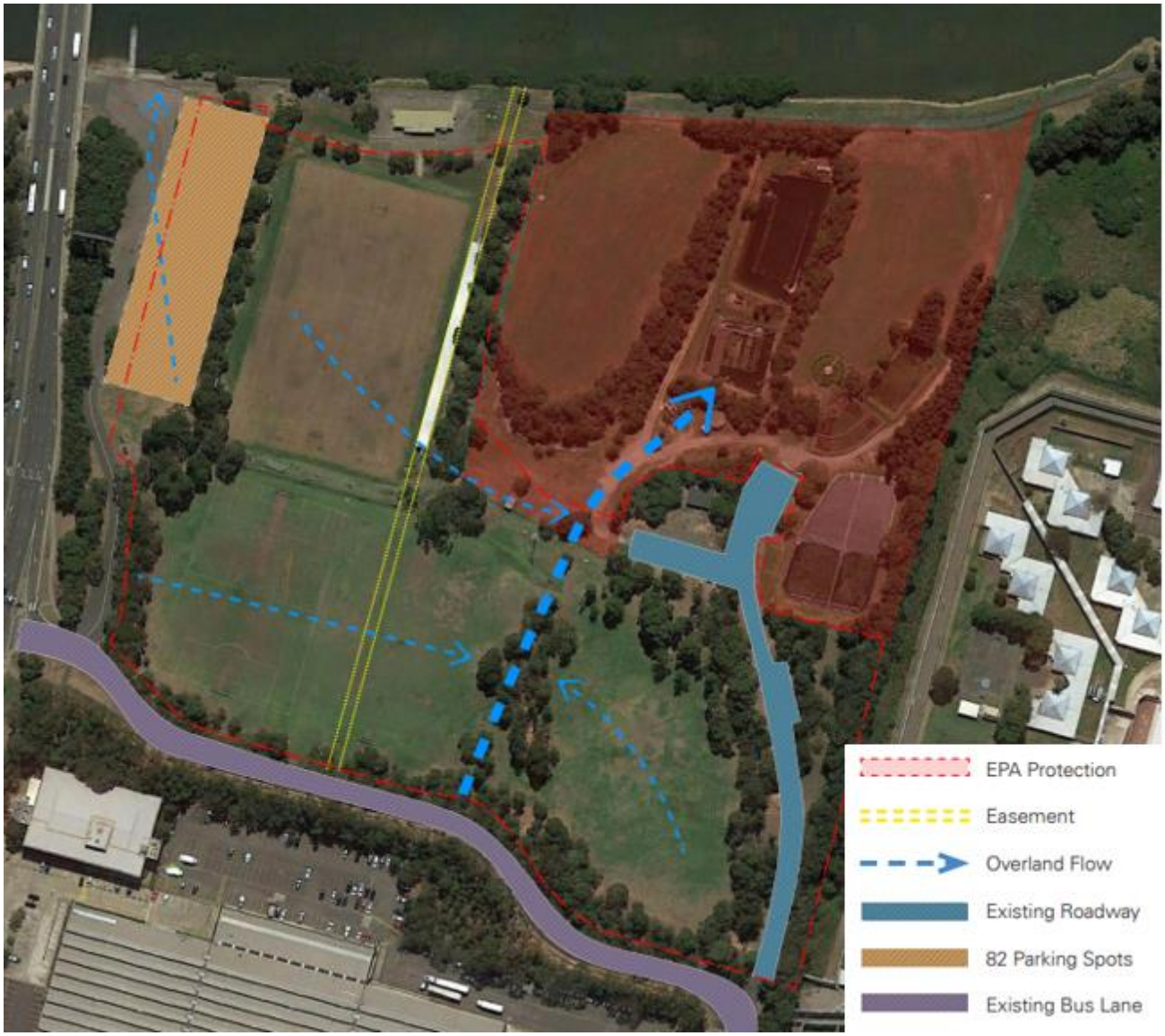
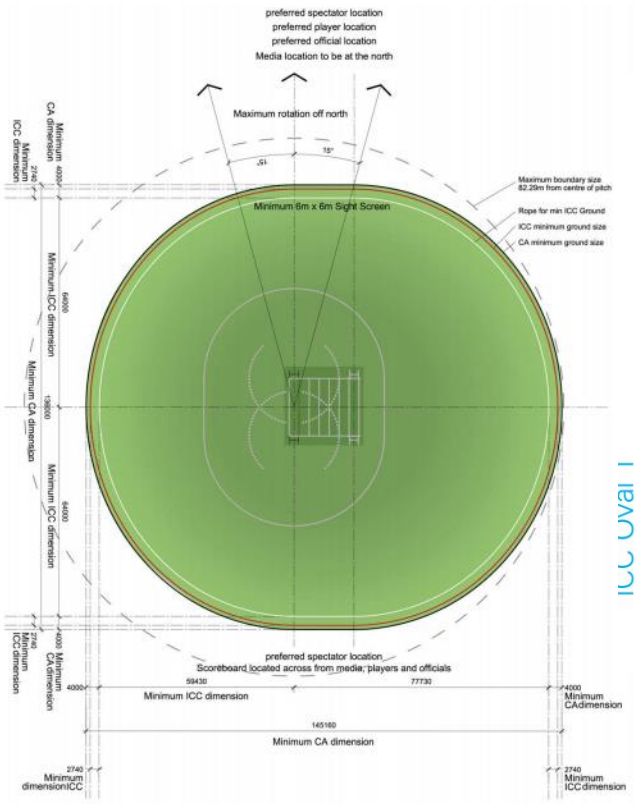


Figure 7 Masterplan Constraints

Source: Cox Architecture

Table 2 Masterplan Constraints

Functional Requirements	Cricket Constraints	Environmental /Site Constraints
• CNSW accommodation – office areas, breakout areas, meeting rooms, kitchen and amenities - suitable for 170 staff. • High Performance training facilities must include indoor training facilities, gym, rehabilitation, sports science and sports medicine areas, aquatic recovery areas, player social and rest areas, player meeting & briefing areas, technology to support the performance of the athletes (video etc), outdoor training nets; and 71 outdoor centre wicket training areas with a minimum 30m run up. • Connectivity between the outdoor practice nets and the high performance centre. • Connectivity between the ICC oval and the high performance centre. • Community facilities including meeting rooms to host up to 150 people, or spectator areas for 50 patrons for community matches and approximately 1500 patrons for Sheffield Shield matches. • The building should be to the north of the ICC oval to permit media to view in line with the wicket for non fan-facing match days. • The entire site should be secured between dusk and dawn to comply with the SOPA management requirements. • Other requirements – additional car spaces and ground staff accommodation, storage for plant and equipment.	**International Cricket Council** • An ICC compliant oval (Oval 1) - 136m long x 144m wide and other specific dimensions and orientation as detailed in **Figure 8**. • All wickets to be given a north-south orientation (within 15 degrees). • Minimum site screen size. • Match day requirements – the media centre is required to be located to the north of the ground behind the sight screen in line with the wickets. • Players and match officials' areas - the design of the facilities must ensure players and match officials have access to all dressing rooms, match viewing areas, operational rooms and dining areas, which seeks to limit potential corruption in the game. **Preferred Requirements** • Players and officials prefer to be in line with the wicket to the north; and • Players should ideally not be looking into the sun. **Cricket Australia** • Oval 2 – minimum playing field dimension - 100m diameter. • Cricket Australia also requires a larger 4m safety zone between the rope line and the fence line be designed for, as opposed to the smaller 2.74m safety margin nominated by the ICC.	• Contamination - The EPA controlled lands cannot be encroached bar a small triangle to the south east corner. • Overland flow – the overland flow should be carefully considered as its diversion would disturb the contaminants in the leachate ponds . • Easements - the buildings should not straddle the stormwater easement that runs north-south through the site. • Excavations should be limited due to the contamination under the capping layers on the site. • Flooding - All proposed buildings are to be located at a minimum RL of +3.35 AHD or higher. • The RMS bus roadway cannot be moved.



LEVEL OF COMPETITION	PREFERRED PLAYING FIELD DIMENSIONS	
	MINIMUM	RECOMMENDED
IN2CRICKET (AGES 5 TO 8)	25m	30m
UNDER 10	30m	40m
UNDER 12	40m	45m
UNDER 14	45m	50m
UNDER 16	45m	55m
OPEN AGE (COMMUNITY CLUB)	50m	60m
OPEN AGE (PREMIER/REGIONAL)	65m	75m
DOMESTIC MEN'S AND UNDERAGE NATIONAL MALE EVENTS	82m	82m
DOMESTIC WOMEN'S AND UNDERAGE NATIONAL GIRLS EVENTS	58m	58m

Figure 8 ICC and CA Requirements

Source: ICC

1.10 Development Options

1.10.1 Do Nothing

The 'Do Nothing' scenario involves the Wilson Park site remaining in-situ as an underutilised area of the Sydney Olympic Park Precinct. Currently, Wilson Park accommodates the Newington Gunners Football Club's training and playing requirements, however the football team has been relocated to the Eric Primrose Reserve for the 2020 winter season and City of Parramatta (Council) is committed to the redevelopment of Newington Reserve for the Gunners to be relocated to this ground for the 2021 season. Wilson Park does not provide facilities to host significant sporting events, nor does it comprise facilities that maximise the players' experience, training and development.

As outlined in **Section 1.5**, Cricket NSW are based at interim facilities at 6 Herb Elliot Drive, Sydney Olympic Park. These facilities include administration offices for staff and indoor wickets for players. The facilities are a "stop gap" until the future NSWCC development is built, noting that the lease expires in January 2022 (when the interim facilities will be redeveloped) and CNSW will be required to vacate the premises.

Without improvement, the 'Do Nothing' scenario will see the existing facilities fall further behind competing facilities interstate and overseas, with Sydney and NSW missing out on cricket events due to the poor quality or lack of available professional cricket facilities. This would include both local competition events as well as missed opportunities associated with the potential hosting of major regional and national cricket events.

This development is required, not only to meet the increasing demand for elite and community cricket facilities, but also to accommodate the existing demand caused by the displacement of the Cricket NSW's old facility within the Sydney Cricket and Sports Ground precinct. The 'Do Nothing' approach will result in the loss of potential economic, social and cultural opportunities. Due to the existing shortcomings of the site in terms of accessibility, amenities and safety, the 'Do Nothing' scenario is not considered to be an acceptable approach for a major sport and recreation asset.

1.10.2 Alternative Site Use

The alternative use of the site is another option available, however by virtue of the site's RE1 – Public Recreation and SP2 Infrastructure land use zoning, the redevelopment potential is significantly limited. Other permissible land uses include entertainment facilities, research facilities, community facilities, car parks and recreation areas. The Sydney Olympic Park area currently comprises a diverse mix of the abovementioned uses. To continue and expand the development of cricket, a new facility must be located in an appropriately zoned area within Sydney. There is a scarcity of large sites in the Sydney Olympic Park precinct, which means the availability of suitably zoned land for the proposed facility is limited. Seeking an alternative site that is located further afield would impact on Cricket NSW's capability to provide opportunities to develop the game of cricket among elite and community sporting groups. It is essential that such a facility is situated within the Sydney Olympic Park precinct and at a specific site that is capable of accommodating the abundance of world class equipment and facilities that will help produce the most elite cricketers.

A site analysis of other potential sites was prepared as part of the Government Treasury approved business case and it recommended Wilson Park. The proposed facility is considered to deliver a unique use that will facilitate the growth of cricket in NSW and accommodate the increased demand for world class cricket facilities. Furthermore, the provision of such facilities has been deemed a necessity by Cricket NSW and has accordingly been funded by the State Government.

The NSWCC is touted to host big bash fan days and "non fan facing " match days (Sheffield Shield, women's national league, second XI matches) with attendances of up to 1500 people. The site is able to accommodate such crowds in terms of traffic capacity and is therefore an appropriate location for the development. Additionally, it provides Western Sydney with world class cricket facilities, open to the entire cricket community of NSW for training purposes through an organised booking system. It also enables the Western Sydney community better accessibility in spectating semi-professional cricket matches, watching professional cricketers train. Hence, the NSWCC will inspire generations of cricketers, whilst also providing the facilities to develop these aspiring cricketers, as well as honing the skills of established cricketers, in turn strengthening the quality of cricketers produced in NSW.

1.10.3 Site Layout and Built Form.

CNSW and the project team commenced the exercise of identifying an appropriate site layout and built form outcome based on CNSW's functional requirements and the site's opportunities and constraints. The design team considered multiple alternative scenarios for the Wilson Park redevelopment during the preparation of the proposal. The extensive list of options is detailed in the Design Report at **Appendix C**.

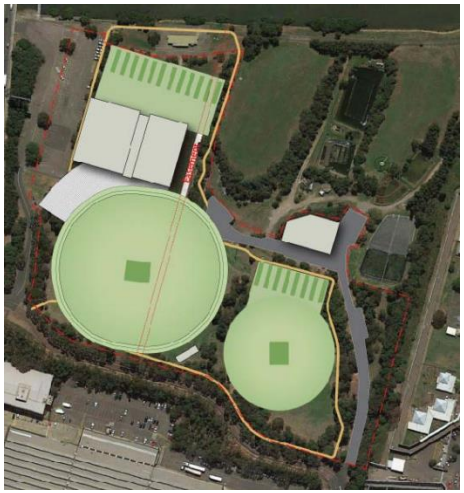
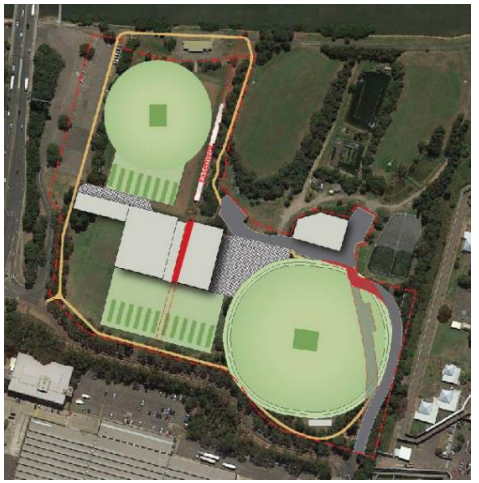
Six primary options are shown in **Table 3** . Each option was designed to achieve the same cricket requirements, ensuring each could be evaluated evenly. The various sub-options were considered in detail through the exercise of weighing up the benefits and drawbacks of each option on the surrounding land uses and public domain experience.

Options were also reviewed in response to the State Design Review Panel request for the applicant to review the breaking up of the bulk and scale of the building. The principles of design for the NSWCC is to ensure efficient use of resources by consolidating facilities within a single building envelope and promote the shared use of common areas and spaces. The NSWCC building cannot be broken up as the uses are multipurpose uses and functional requirements as outlined in **Table 2**:

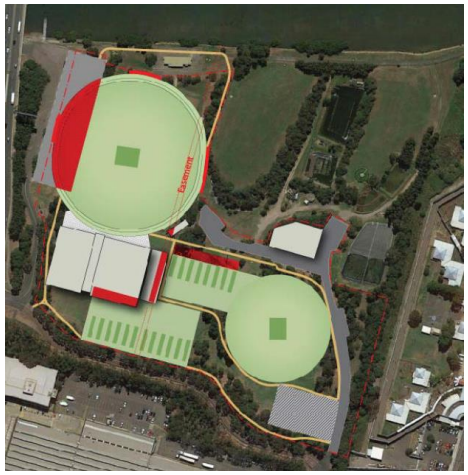
The building cannot be broken for the following reasons

- Relationship of the outdoor practice nets to the high performance centre;
- Relationship of Oval 1 to the high performance centre;
- The Player and Match Official Area facilities should be to the north of Oval 1 to permit media to view in line with the wicket for match days.;
- The main entrance should be adjacent the car parking off Clyde Street (which incidentally is a capping layer over contamination);
- No buildings should straddle the stormwater easement that runs north south through the site.

Table 3 Six Masterplan Options

	Master Plan Option 1 (Preferred)	Master Plan Option 2	Master Plan Option 3
			
Relationship of the outdoor practice nets to the high performance centre	●	●	●
Relationship of the ICC oval to the high performance centre.	●	●	●
The building should be to the north of the ICC oval to permit media to view in line with the wicket.	●	●	●
The main entrance should be adjacent the car parking off Clyde Street for level access.	●	●	●
The EPA controlled lands cannot be encroached bar a small triangle to the south east corner.	●	●	●

The overland flow should be carefully considered			
No buildings should not straddle the stormwater easement that runs north-south through the site			
Excavations should be limited due to the contamination under the capping layers on the site.			
The RMS bus road way cannot be moved.			
The entire site should be secured between dusk and dawn to comply with the SOPA management requirements.			
Inclusion of an ICC compliant oval			
Inclusion of a 100m minimum diameter oval 2			
Minimum of 71 outdoor training wickets with a minimum of30m run ups			

	Master Plan Option 4	Master Plan Option 5	Master Plan Option 6
			
Relationship of the outdoor practice nets to the high performance centre			
Relationship of the ICC oval to the high performance centre.			
The building should be to the north of the ICC oval to permit media to view in line with the wicket.			
The main entrance should be adjacent the car parking off Clyde Street for level access.			
The EPA controlled lands cannot be encroached bar a small triangle to the south east corner.			
The overland flow should be carefully considered			

No buildings should not straddle the stormwater easement that runs north-south through the site			
Excavations should be limited due to the contamination under the capping layers on the site.			
The RMS bus road way cannot be moved.			
The entire site should be secured between dusk and dawn to comply with the SOPA management requirements.			
Inclusion of an ICC compliant oval			
Inclusion of a 100m minimum diameter oval 2			
Minimum of 71 outdoor training wickets with a minimum of30m run ups			

In balancing the above advantages and disadvantages, the best fit would be Option 1 as shown in **Figure 9**. A key benefit of this option was the that proposal does not significantly encroach on the EPA zone, nor the overland flow and the cricket nets activate the northern area of the site adjacent to the river foreshore.

This Masterplan Option was considered the most appropriate option as the proposed development:

- Meets the client brief and provides ovals compliant with ICC and CA requirements;
- Provides 71 outdoor wickets with a minimum, 30m run up;
- Does not significantly encroach on the EPA fenced off zone;
- Avoids the overland flow path and avoids building over the stormwater easement;
- Locates the NSWCC building to the north of Oval 1;
- Provides spectator viewing areas to the west of Oval 1;
- Provides clear entry /address adjacent to the carpark;
- Activates the land adjacent to the foreshore through the location of training nets to be used by cricketers; and
- Provides clear view lines through the site and enables pedestrian access from the river to the south of the site.

Figure 9 **Chosen development layout**

Source: *Turf Design Studio*

1.11 Secretary's Requirements

In accordance with section 4.39 of the EP&A Act, the Secretary of the Department of Planning and Environment issued the requirements for the preparation of the EIS on 23 July 2019 and modified version on 20 September 2019. A copy of the Secretary's Environmental Assessment Requirements (SEARs) is included at **Appendix A**.

Table 4 provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 4: Secretary's Requirements

Requirement	**Location in Environmental Assessment**	
General		
The Environmental Impact Statement (EIS) must address the *Environmental Planning and Assessment Act 1979* and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000 (the Regulation. Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of key issues below, and any other significant issues identified in the risk assessment, must include: • adequate baseline data • consideration of the potential cumulative impacts due to other developments in the vicinity (completed, underway or proposed) • measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment • justification of impacts. The EIS must also be accompanied by: • high quality files of maps and figures of the subject site and proposal • a report from a qualified quantity surveyor providing: - a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived. The report shall be prepared on company letterhead and indicate applicable GST component of the CIV - an estimate of jobs that will be created during the construction and operational phases of the proposed development - certification that the information provided is accurate at the date of preparation.	Environmental Impact Statement	
Key Issues	**Report / EIS**	**Technical Study**
1. Statutory and Strategic Context Address the statutory provisions applying to the development contained in all relevant environmental planning instruments, including:		N/A
• State Environmental Planning Policy (State & Regional Development) 2011	• **Table 11**	
• State Environmental Planning Policy (State Significant Precincts) 2005	• **Table 11**	
• State Environmental Planning Policy (Infrastructure) 2007	• **Table 11**	
• State Environmental Planning Policy No. 64 – Advertising and Signage	• **Table 11**	
• Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005	• **Table 11**	
• Sydney Regional Environmental Plan No.24 (Homebush Bay Area)	• **Table 11**	
• Draft State Environmental Planning Policy – Environment	• **Table 11**	
• State Environmental Planning Policy No. 55 – Remediation of Land	• **Table 11**	
• Draft State Environmental Planning Policy (Remediation of Land)	• **Table 11**	
• State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017	• **Table 11**	
• State Environmental Planning Policy (Coastal Management) 2018	• **Table 11**	
• Parramatta Local Environmental Plan 2011.	• **Table 11**	
Permissibility Detail the nature and extent of any prohibitions that apply to the development. *Development Standards* Identify compliance with the development standards applying to the site and justification for any variations proposed. Address the relevant planning provisions, goals and strategic planning objectives in the following:	• **Table 12**	

Requirement	Location in Environmental Assessment	
• NSW State Priorities • The Greater Sydney Region Plan 2018 – A Metropolis of Three Cities • Central City District Plan • Future Transport Strategy 2056 and supporting plans • NSW State Infrastructure Strategy 2018 – 2038 • Better Placed: An integrated design policy for the built environment of NSW • Draft Greener Places (NSW Government Architect Green Infrastructure Policy) • Sydney's Cycling; Walking; Light Rail and Rail Future Guidelines • Sydney Olympic Park Masterplan 2030 (2018 Review) and relevant SOPA Guidelines • Sydney Olympic Park Authority's Design Excellence Policy • Sydney Olympic Park Major Event Impact Assessment Guidelines 2007 • Parklands Element Design Manual • Sydney Olympic Park Environmental Guidelines 2008 • Sydney Olympic Park Access Guidelines 2017 • Sydney Olympic Park Commercial Signage Policy 2018 Sydney Olympic Park Stormwater and Water Sensitive Urban Design Policy 2016 • Sydney Olympic Park Biodiversity Management Policy 2019 • Parklands Plan of Management 2010 • Parklands 2020 Vision (2002) • Parklands Future Directions Statement 2030 (draft) • Development near Rail Corridors and Busy Roads – Interim Guideline 2008 • Interim Construction Noise Guideline 2009 • Crime Prevention Through Environmental Design (CPTED) Principles • Managing Land Contamination: Planning Guidelines – SEPP 55 Remediation of Land • Guide to Traffic Generating Developments (Roads and Maritime Services) • Parramatta River Masterplan (Parramatta River Catchment Group) • Parramatta Bike Plan 2017 (City of Parramatta Council).	• **Table 10** • **Section 5.3.1** • **Section 5.3.2** • **Table 10** • **Table 10** • **Table 10 and Section 6.1.5** • **Table 10**	
2. Built Form and Urban Design The EIS shall: • provide a design excellence strategy prepared in consultation with the Government Architect NSW to ensure design excellence is achieved • provide detailed design and analysis of the development, including architectural design and materials • assess visual impacts • demonstrate how the development will achieve an optimal community, design and amenity outcome, including with regard to the proposed community field • outline potential design considerations aimed at mitigating any impacts identified • outline the design process leading to the proposal, with justification of the suitability of the site for the proposal • address the site and context including planning, massing, access and circulation options • address the contextual fit of the proposal, including height, bulk and scale, materials, setbacks and interface of the proposal with surrounding development, topography, streetscape, public open spaces and heritage items • assess the integration of services including waste management, loading zones, and mechanical plant • address Crime Prevention Through Environmental Design Principles • address Ecologically Sustainable Development principles including sustainability targets and integration of these in design approach • consider the incorporation of green infrastructure, including a Green Roof or Cool Roof, green walls and Water Sensitive Urban Design.	• **Section 6.1.6** • **Section 6.1.2** • **Section 6.2** • **Section 6.1.5** • **Section 6.1** • **Section 1.8 - 1.10** • **Section 6.2** • **Section 2.0** • **Section 6** • **Section 4.9** • **Section 6.9** • **Section 6.7** • **Section 6.7**	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report **Appendix D** Landscaping Report
3. Facility Use • The EIS shall include updated operational details of the facility, including but not limited to: - a table identifying the proposed land uses including a floor-by-floor breakdown of GFA, total GFA and site coverage	• **Section 4.4**	**Appendix U** Event Management Statement

Requirement	Location in Environmental Assessment	
- proposed capacity, including a breakdown of seating areas - specific uses - details of all publicly accessible facilities (for both formal and informal use) and - how they will operate - hours of operation - lighting and illumination - events. • The EIS shall include an Event Management Statement and a Plan of Management for the future use of the site that includes consideration of the interrelationship between the different uses proposed.	• **Table 6** • **Section 6.23**	**Appendix V** Plan of Management
4. Public Domain and Landscaping The EIS shall: • provide landscaping and/or public domain details, including consideration of equity and amenity of outdoor spaces and integration with built form, security, shade, topography and existing vegetation • address any impacts on existing trees, through an Arboricultural Impact Assessment • address linkages with surrounding public space networks, including Silverwater Park and Sydney Olympic Park, and the maintenance and enhancement of the foreshore shared path and its safety • address the interface between the public and private domain generally, including the possible removal of existing public amenities and the potential for public access to the proposed facilities.	• **Section 6.10** • **Section 6.13**	**Appendix D** Landscaping Report **Appendix Q** Arboricultural Report **Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report
5. Visual and View Impacts The EIS shall: • include a visual impact assessment to identify the visual changes and impacts on the site and its surrounds when viewed from key vantage points. Photomontages or perspectives should be provided showing the project (see plans and documents section).	• **Section 6.2**	**Appendix T** Visual Impact Assessment
6. Environmental Amenity The EIS shall: • include solar access analysis/shadow diagrams outlining impacts on adjoining developments/public domain • detail the impacts of the development on view loss, wind impacts and reflectivity • detail any new external lighting or illumination and consider the impacts of this lighting/illumination to surrounding properties and the public domain.	• **Section 6.5**	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report **Appendix C** External Lighting Strategy Report
7. Transport, Traffic, Parking and Access The EIS shall include a Transport and Traffic Impact Assessment that provides, but is not limited to, the following: <u>Construction</u> • assessment of cumulative impacts associated with other construction activities in the vicinity of the site • assessment of traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, pedestrian, cyclist and public transport services • preparation of a draft Construction Pedestrian and Traffic Management Plan (CPTMP). The CPTMP shall include vehicle routes, peak hour and daily truck movements, construction program, works zone location, hours of operation, access arrangements at all stages of construction, traffic control measures for all works, and cumulative impacts associated with other development • reference to existing CPTMPs for developments within or around the development site, to coordinate work activities to minimise impacts on the transport network and other road users • assessment of construction impacts on road safety at key intersections and locations for potential pedestrian, vehicle and bicycle conflicts • details of access arrangements for workers, emergency services and the provision of safe and efficient access for loading and deliveries • details of temporary cycling and pedestrian access arrangements during construction.	**Section 6.6** • **Section 6.22** • **Section 6.22** • **Section 6.22** • **Section 6.22** • **Section 6.22** • **Section 6.22** • **Section 6.6** • **Section 6.6**	**Appendix P** Traffic Impact Assessment **Appendix K CEMP**

Requirement	Location in Environmental Assessment	
Operational • current and estimated daily and peak hour traffic generation (including point to point transport), public transport, walking and cycling movements, together with cumulative impacts of existing, proposed and approved developments within the vicinity of the proposed development and any transport/traffic upgrades • assessment of impacts on surrounding road network intersections, including traffic modelling for key intersections, including SIDRA modelling for the Silverwater Road/Clyde Street intersection • details of any new or upgraded infrastructure works required • impacts of additional traffic generated by the development on existing and future road, light rail and bus services and pedestrian and cycle networks within the vicinity of the site, and identification of measures to manage/mitigate the likely future increased demand for public transport, pedestrian and cycle infrastructure, including any required upgrades • existing/proposed car and bicycle parking provision and pick-up and drop-off facilities for staff and visitors, including consideration of the availability of public transport and the requirements of the relevant parking codes and Australian Standards • assessment of access to, from and within the site from the road network including intersection locations, design and sight distance (i.e. turning lanes, swept paths, sight distance requirements) • proposed vehicle circulation, and access arrangements including vehicle access, drop-off arrangements, coach parking, service vehicles, emergency vehicles and loading areas for the development • assessment of predicted impacts on road safety • loading and servicing arrangements, including number of movements, vehicle type and likely arrival and departure times, and potential impacts on the traffic and transport network • measures to be implemented to encourage users of the development to make sustainable travel choices, including walking, cycling, public transport and car sharing, such as provision of adequate bicycle parking and end-of-trip facilities.	• **Section 6.6** • **Section 6.6** • **Section 2.3.1** • **Section 6.6** • **Section 6.6** • **Section 6.6** • **Section 6.6** • **Section 6.6**	
8. Ecologically Sustainable Development (ESD) The EIS shall: • detail how ESD principles (as defined in clause 7(4) Schedule 2 of the Regulation) will be incorporated in the design, construction and operation of the development • outline resource, energy and water efficiency initiatives, including the use of sustainable technologies and or/renewable energy.	• **Section 6.7**	**Appendix H** Ecologically Sustainable Development Report
9. Major Events The EIS shall: • adequately address the impact of major events in the precinct as they relate to the proposed works within the Town Centre (SOP Major Event Impact Assessment Guidelines) • demonstrate that the proposed works can provide acceptable amenity in major event mode, including any management or mitigation measures to address potential impacts.	• **Section 6.23**	**Appendix U** Event Management Statement **Appendix V** Plan of Management
10. Heritage and Archaeology The EIS shall include a Statement of Heritage Impact (SOHI) prepared by a suitably qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual. The SOHI is to address the impacts of the proposal on the heritage significance of the site and adjacent areas and is to identify the following: • all heritage items (state and local) and heritage conservation areas within the vicinity of the site including built heritage, landscapes and archaeology, detailed mapping of these items, and assessment of why the items and site(s) are of heritage significance • compliance with the relevant Conservation Management Plan • the impacts of the proposal on heritage item(s) and heritage conservation areas, including visual impacts, required BCA and DDA works, new fixtures, fittings and finishes and any modified services • the attempts to avoid and/or mitigate the impact on the heritage significance or cultural heritage values of the site and the surrounding heritage items and conservation areas • justification for any changes to heritage fabric including any options analysis engagement with appropriate local stakeholders. If the SOHI identifies impact on potential historical archaeology, an historical archaeological assessment should be prepared by a suitably qualified archaeologist in accordance with the Heritage Division, Office of Environment and Heritage Guidelines 'Archaeological Assessment' (1996) and 'Assessing Significance for Historical Archaeological Sites and Relics' (2009). This assessment should identify what relics, if any, are likely to be present, assess their significance and consider the impacts from the proposal on this potential resource. Where harm is likely to occur, it is recommended that the significance of the relics be considered in determining an appropriate mitigation strategy. If harm cannot be avoided in whole or part, an appropriate Research Design and Excavation Methodology should also be prepared to guide any proposed excavations or salvage programme.	• **Section 6.11**	**Appendix R** Heritage Impact Statement **Appendix FF** Aboriginal Cultural Heritage Assessment Report

Requirement	Location in Environmental Assessment	
The EIS shall provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that identifies and describes the Aboriginal cultural heritage values that exist across the entire area affected by the project, including any need for surface survey and test excavation. The identification of cultural values should be guided by the 'Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW' (DECCW, 2011). Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the 'Aboriginal cultural heritage consultation requirements for proponents 2010' (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must also be documented in the ACHAR and EIS. The ACHAR and EIS must also assess and document any impacts on Aboriginal cultural heritage values, including attempts to avoid impacts and identify conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to the Environment, Energy and Science Group of the Department of Planning, Industry and Environment (former NSW Office of Environment and Heritage).		
11. Signage The EIS shall: • provide detail on the location, size and content of any proposed signage • consider any signage as part of the overall built form and urban design of the development.	• **Section 4.13**	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report
12. Biodiversity • The EIS shall provide an assessment of the proposal's biodiversity impacts in accordance with the Biodiversity Conservation Act 2016 (BC Act), including the preparation of a Biodiversity Development Assessment Report (BDAR) where required under the BC Act. This must address impacts of shadowing and illumination on adjoining habitat and ecology, including the Parramatta River and nearby wetlands. • The BDAR must also address the impacts on the Green and Golden Bell Frog and its habitat both in the construction and operational phases of the development, including impacts on frogs that may have moved onto the construction site, in addition to noise, lighting and vibration impacts to habitats. • The BDAR must document the application of the avoid, minimise and offset framework including assessing all direct, indirect and prescribed impacts in accordance with the Biodiversity Assessment Method. • The BDAR must be prepared by a person accredited in accordance with the Accreditation Scheme for the Application of the Biodiversity Assessment Method Order 2017 under section 6.10 of the BC Act.	• **Section 6.11**	**Appendix I** Biodiversity Development Assessment Report
13. Water, Flooding and Drainage The EIS shall identify: • provision of an adequate and secure water supply for the life of the project, including any water licensing requirements or other approvals required under the *Water Act 1912* or *Water Management Act 2000* • a detailed and consolidated site water balance • impacts on surface waters and groundwater levels, flow paths, stormwater, related infrastructure, adjacent licensed water users, basic landholder rights, watercourses, riparian land, groundwater dependent ecosystems, any existing Council and inter-allotment drainage easements and measures to reduce and mitigate these impacts in relation to both water quality and quantity • proposed surface and groundwater monitoring activities and methodologies • any potential impacts in relation to the NSW Aquifer Interference Policy, Guidelines for Controlled Activities on Waterfront Land and relevant Water Sharing Plans • any geotechnical issues (including contamination and acid sulfate soils) associated with the construction of the development • drainage associated with the proposed works, including stormwater and drainage infrastructure • any flood risk in accordance with the guideline contained in the NSW Floodplain Development Manual 2005, including potential effects of climate change, sea level rise and an increase in rainfall intensity • potential effects of coastal processes and hazards (within the meaning of the *Coastal Management Act 2016*), including sea level rise and climate change both on and arising from the proposed development • any certified Coastal Management Program (or Coastal Zone Management Plan) and compliance with this, and demonstrate consistency with the management objectives described in the *Coastal Management Act 2016* and development controls for coastal management areas mapped under State Environmental Planning Policy (Coastal Management) 2018	• **Section 6.14**	**Appendix W** Civil and Stormwater Report **Appendix X** Civil Engineering Plans **Appendix Y** Flood Impact Assessment Report **Appendix O** Contamination Management Plan **Appendix GG** Site Audit Statement **Appendix E** Hydraulic Services Strategy Report

Requirement	Location in Environmental Assessment	
• opportunities for the use of integrated water cycle management practices and principles to optimise opportunities for sustainable water supply, wastewater and stormwater management across the development.		
14. Utilities The EIS shall: • address the existing capacity of the site to service the development and any augmentation requirements for utilities, including arrangements for electrical network requirements, drinking water, waste water and recycled water, including staging of infrastructure and additional licence/approval requirements in consultation with relevant agencies. • identify the existing infrastructure on-site and any possible impacts of the construction and operation of the proposed works on this infrastructure	• **Section 6.15**	**Appendix E** Hydraulic Services Strategy Report **Appendix F** Utilities Report - Electrical
15. Contamination The EIS shall: • demonstrate compliance with the requirements of requirements of State Environmental Planning Policy No.55 – Remediation of Land and the *Contaminated Land Management Act 1997* Notice Number: 28040 issued in relation to the site and regulated by the NSW Environment Protection Authority (EPA), and associated Remediation Land Management Plan. • provide detailed contamination and geotechnical assessments, to be prepared for the full development area and reviewed by an EPA accredited site auditor. The reports must assess the site's subsurface conditions, including any soil and groundwater contamination. Due to historical contamination of the site, and proposed land use which includes building occupation, the detailed contamination assessments must include environmental sampling and analysis of soil vapour, groundwater and soil, at sufficient sampling density to characterise the site in accordance with the NSW EPA Sampling Design Guidelines. If these guidelines are not adhered to, detailed justification must be provided. • the detailed contamination assessments must determine the suitability of the site for the proposed development and provide recommendations for any remedial works if required. If remediation is required, the EIS must be accompanied by a Remedial Action Plan and Section B Site Audit Statement, to be reviewed by an EPA accredited site auditor • delineate areas of heavier contamination within or adjacent to the proposed development area, such as known tar pits, and describe how any risks from such areas will be managed as part of the construction and operation of the proposal • include a hazardous materials survey of all existing structures and infrastructure prior to any demolition or site preparation works.	• **Section 6.3 – 6.4**	**Appendix M** Preliminary Geotechnical Investigation **Appendix N** Detailed Site (Contamination) Investigation **Appendix O** Contamination Management Plan **Appendix GG** Site Audit Statement
16. Noise and Vibration The EIS shall include a noise and vibration assessment prepared in accordance with the relevant EPA guidelines. This assessment must consider construction and operational noise impacts on nearby noise sensitive receivers and outline proposed noise mitigation and monitoring issues.	• **Section 6.8**	**Appendix J** Acoustic Impact Assessment **Appendix K** Construction and Environmental Management Plan
17. Air Quality, Odour and Waste The EIS shall identify potential air quality, odour and waste impacts during both the construction and operation of the development and include any appropriate mitigation measures.	• **Section 6.16**	**Appendix K** Construction and Environmental Management Plan **Appendix Z** Air Quality Report
18. Sediment, Erosion and Dust Controls The EIS shall identify measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and particles.	• **Section 6.18**	**Appendix K** Construction and Environmental Management Plan **Appendix W** Civil and Stormwater Report **Appendix X**

Requirement	Location in Environmental Assessment	
		Civil Engineering Plans
19. Building Code of Australia (BCA) and the Disability Discrimination Act The EIS shall include a BCA report and access report demonstrating compliance with the BCA and the *Disability Discrimination Act 1992*.	• **Section 6.18 – 6.20**	**Appendix CC** Building Code of Australia (BCA) Report **Appendix DD** Access Report
20. Developer Contributions The EIS shall identify the scope of developer contributions proposed.	**To be confirmed during DA process.**	
21. Construction Environmental Management Plan Prepare a draft Construction Environmental Management Plan and site management plan for the proposed works, including the following: • community consultation, notification and complaints handling • impacts of construction on adjoining development and proposed measures to mitigate construction impacts • noise and vibration impacts on and off site • water quality management • dust control measures • construction waste classification, transportation and management methods in accordance with DECCW's *Know Your Responsibilities: Managing Waste from Construction Sites Guideline* • identification, handling, transport and disposal of any asbestos waste, lead-based paint and PCBs that may be encountered during demolition, site preparation and construction.	• **Section 6.22**	**Appendix K** Construction and Environmental Management Plan
22. Social and Economic Impacts Prepare a Social Infrastructure Assessment that addresses the social and economic impacts of the development, including, but not limited to: • the implications of removing publicly accessible recreation facilities for existing users of the site, including an analysis of the current use of the site • an analysis of other community facilities in the surrounding area • economic implications associated with the provision of alternative facilities • benefits for the local region and community more broadly.	• **Section 6.21**	**Appendix EE** Social and Economic Impact Assessment
Consultation	**Report**	**Technical Study**
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. In particular you must consult with: • City of Parramatta Council • Sydney Olympic Park Authority • Transport for NSW • Transport for NSW (Roads and Maritime Services) • Sydney Coordination Office within Transport for NSW • Environment, Energy and Science Group of the Department of Planning, Industry and Environment (former NSW Office of Environment and Heritage) • Heritage Division of the Department of Premier and Cabinet (former Heritage Division of the Office of Environment and Heritage) • Lands, Water and Primary Industries Group of the Department of Planning, Industry and Environment • Natural Resources Access Regulator • NSW Environment Protection Authority • NSW Police	• **Section 3.0**	**Appendix HH** Consultation Outcomes Report

Requirement	Location in Environmental Assessment	
• Government Architect NSW • Sydney Water • Ausgrid • existing users of Wilson Park • Aboriginal communities, including the Dharug Tribal Aboriginal Corporation and Metropolitan Local Aboriginal Land Council • surrounding residents, businesses and local community groups. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided. **Further consultation after two years** If you do not lodge a Development Application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.		
Plans and Documents	**Report**	**Technical Study**
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. These are to be provided as part of the EIS rather than as separate documents. In addition, the EIS must include the following items identified below.	**N/A**	
1. An existing site survey plan drawn at an appropriate scale illustrating: • The location of the land, boundary measurements, area (sqm) and north point • The existing levels of the land in relation to buildings and roads • Location and height of existing structures on the site • Location and height of adjacent buildings • All levels to be to Australian Height Datum (AHD).	**N/A**	**Appendix II** Site Survey **Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report
2. A locality/context plan drawn at an appropriate scale should be submitted indicating: • Significant local features such as parks, community facilities and open space and heritage items • The location and uses of existing buildings, shopping and employment areas • Traffic and road patterns, pedestrian routes and public transport nodes.	• **Figure 11** • **Figure 10**	**Appendix C** Architectural and Urban Design Report
3. Drawings at an appropriate scale illustrating: • Site analysis plan, detailed plans, sections, elevations and three-dimensional views of the development, including all temporary structures, landscaping and public domain works, and site features and their relationship to adjoining sites (at a minimum scale of 1:200) • The height (AHD) of the proposed development in relation to the land and any changes that will be made to the level of the land by excavation, filling or otherwise • An integrated urban design and landscape plan, including links to surrounding public transport, details of new and retained planting, shade structures and materials. The landscape plan is to give preference to local native tree, shrub and groundcover species where appropriate • A detailed signage plan showing the location, size and content of each sign, if relevant.	N/A	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report
4. Materials and finishes • A materials and finishes schedule.	• **Section 6.12**	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report
5. Visual Impact Assessment including focal lengths, must be done in accordance with Land and Environment Court principles as follows:	• **Section 6.2**	**Appendix T** Visual Impact Assessment

Requirement	Location in Environmental Assessment	
Visual assessment methodology • The consultant's methodology should be explicit. This may include a flow-chart indicating how the analysis is to be undertaken, or a narrative description of the proposed sequence of activities • As part of the methodology, the consultant should provide, and explain, criteria for assessment relevant to the site, local context and proposed built form and public domain outcomes. A rationale should be provided for the choice of criteria. Criteria must include reference to the planning framework • Visual catchment should be defined and explained (see below) • An assessment matrix should be produced including number of viewers, period of view, distance of view, location of viewer to determine potential visual impact - i.e. high, medium or low. Visual catchment • Potential visual catchments and view locations, including contours (areas from which the development is visible) should be identified • Categories of views (e.g. from public open space, from key streets, from main buildings and from key heritage items) should be defined • Photos are required for representative view categories, plotted on a map. Visual material • Reference to be made to site analysis • Provide key plan indicating where viewpoints are located and narrative explaining why these have been selected • The built form should be illustrated in the context of the visual catchment to enable assessment of the visual impact • The location of cross-sections should be clearly shown on a key plan and the choice of positions explained. The cross sections should be shown in the context of the visual catchment • Vertical exaggeration should provide an accurate rather than 'flattened' impression of buildings in the context of the visual catchment • A key plan must be provided for photomontages. In addition, the choice of locations should be explained. Photomontages should be provided for close as well as distant views • Assessment must benchmark against the existing situation with the proposed plans • Photomontages to be provided for key viewpoints from all directions, and from several positions within the visual catchment • As above, support visual evidence such as cross sections to be drawn to realistic scales and shown in context. A comparison of 'before' and 'proposed' is fundamental to a visual impact assessment, therefore the visual impact assessment (A3 in size) should be undertaken using human eye focal lengths (50mm at 35mm FX format and 46o angle of view) from long range, medium range and short-range positions so that they can be assessed with respect to visibility, visual absorption capacity and visual impact rating.		
6. Shadow diagrams showing solar access to the site and surrounding areas at summer solstice (21 December), winter solstice (21 June) and the equinox (21 March/21 September) at 9.00 am, 12.00 pm and 3.00 pm.	N/A	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report
7. Design report demonstrating how design quality will be achieved in accordance with the key issues above, including: • Architectural design statement • Diagrams, illustrations and drawings to clarify the design intent of the proposal • Detailed site and context analysis • Analysis of options considered including building envelope study to justify the proposed site planning and design approach • Summary of feedback provided by Government Architect NSW and NSW State Design Review Panel and responses to this advice.	N/A	**Appendix B** Architectural Plans **Appendix C** Architectural and Urban Design Report

2.0 Site Analysis

2.1 Site Location and Context

The site is located at Wilson Park, in the suburb of Sydney Olympic Park, within the Parramatta Local Government Area (LGA). Wilson Park is situated at the north western corner of the Sydney Olympic Park (SOP) precinct, approximately 7km east of Parramatta and 20km west of Sydney CBD in an area considered to be the geographic centre of Sydney. The site's locational context is shown in **Figure 10** below.

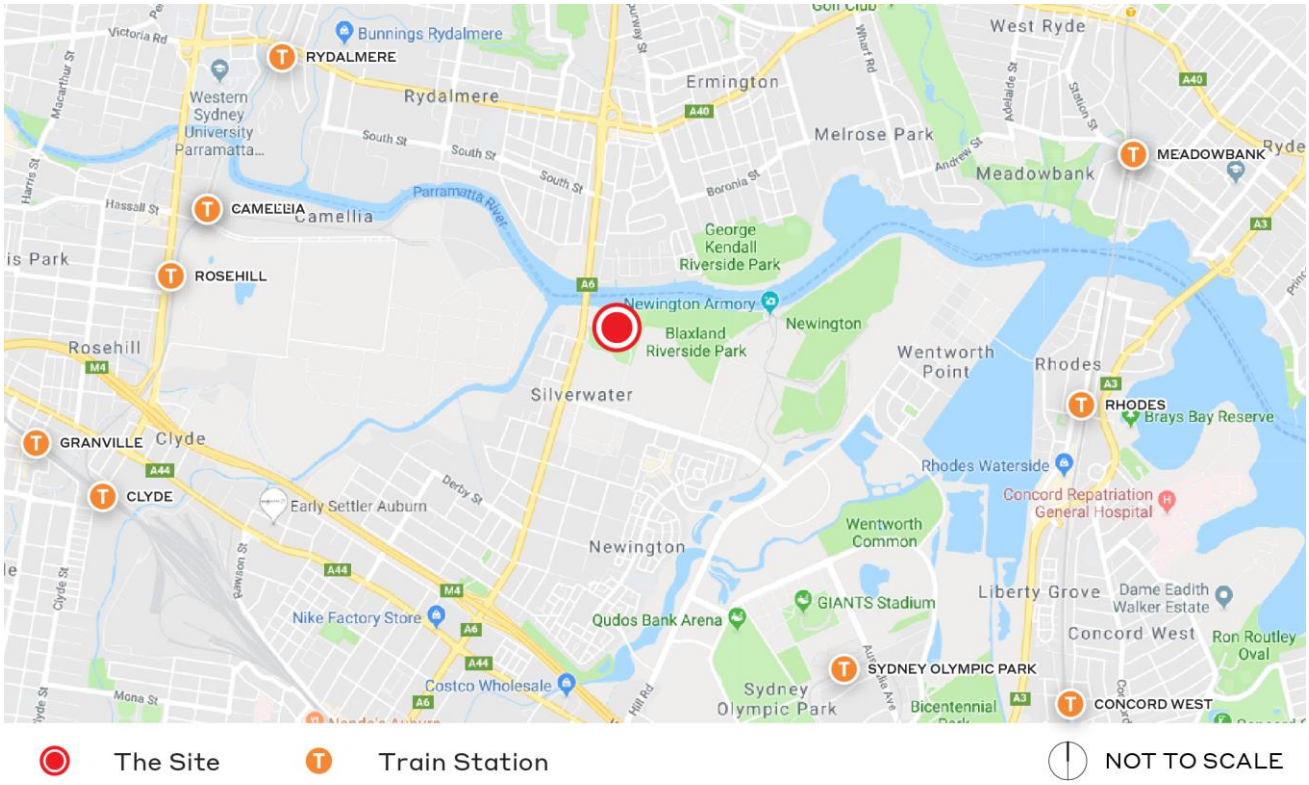


Figure 10 Site location plan

Source: Google Maps & Ethos Urban

In a broader context, the site forms part of the north western edge of Sydney Olympic Park which is a sporting and economic centre in metropolitan Sydney that covers 680 hectares. Sydney Olympic Park comprise a range of sports and entertainment venues, parklands, and commercial, retail and residential developments, see **Figure 11**. This precinct was created for the Sydney 2000 Olympic and Paralympic Games and has since undergone change and development to bring new life and investment to this precinct following the conclusion of the games. The Precinct also includes the Qudos Bank Arena, Sydney Showground, Giants Stadium, Aquatic Centre, Athletics Centre, Warmup Arena, and the NSW Rugby League Centre of Excellence.

Figure 11 Local context map

Source: Ethos Urban

2.2 Site Description

The site is currently owned by the Sydney Olympic Park Authority (SOPA) and it is legally described as Lot C in DP 421320. SOPA has executed a Deed of Agreement for Lease with CNSW that provides CNSW with a lease to operate the NSWCC for 25 years at Wilson Park. The site is irregular in shape and contains a total area of 121,082m^2 and a leased area of 65,767m^2 where development will occur.

The site is bounded by the Parramatta River to the north, Silverwater Correctional Complex to the east, a busway and industrial lands to the south and Silverwater Road to the west. **Figure 12** illustrates the lease line boundary for the purpose of development in the SSDA and also the overall site area for Wilson Park.

Figure 12 Site Aerial

Source: Nearmap & Ethos Urban

2.2.1 Existing Development

Wilson Park comprises three playing fields. One formalised football pitch is located at the north of the site with a single storey stadium with 450 bleacher seating adjacent to the field. Two other playing fields are located at the south of the site. The fields are not currently available for general community use and are locked. The site is in a regenerated bushland setting and the ground surface has been significantly modified during the remediation phase of the Park. Covered and capped fill are located below the current sports fields. 570 trees are located on site, predominantly around the boundary. Two car parks are located in the site, one in the north west corner and one in the eastern portion of the site. A chain wire mesh fence surrounds the site. Light towers are provided around the site for night-time training. There are two toilet blocks located on site, one adjacent to the riverfront at the north of the site (which is outside the lease area) and one in the centre of the site. Refer to **Figures 13-18** for images of the site.

Figure 13 Existing Wilson Park Grandstand

Figure 14 Northern field

Figure 15 Southern Field

Figure 16 Existing Chainwire fence surrounding site

Source/Notes:

Figure 17 Car park located at north west of site (1)

Figure 18 Northern fence adjacent to bike path

2.3 Existing Users

The playing fields have restricted access to the community and is used on a pre-booked basis, through the City of Parramatta (Council) and SOPA. The site was home to the Newington Gunners Soccer Club (the Gunners) since 2004. The Gunners played their last football season at the site in 2019 and will relocate to the Eric Primrose Reserve for the 2020 winter season. Council is committed to the redevelopment of Newington Reserve and expect this project to be complete in time for the 2021 Winter season, to be the new home of the Gunners.

2.3.1 Transport, access and connectivity

Vehicular Access and Parking

The site is situated along the eastern edge of Silverwater Road, with primary vehicle access off Clyde Street to the south west of Wilson Park. Clyde Street provides access to the car park located at the north west of the site the ownership of is split between SOPA and Council. This car park consists of 84 spaces on the SOPA eastern portion and 89 spaces on Council's western portion. There is an additional vehicular access point via Newington Road at the south-eastern corner of the site. A second car park is located off Newington Road on the east of the site and consists of 84 car spaces. **Figures 17** above illustrate the car parking available at the site.

Pedestrian Access and Cycleways

Along the Parramatta River foreshore to the north of the site, is the River Walk (see **Figure 20** and **Figure 21**), which is a shared path for pedestrian and cyclist use connecting to the other parks contained within SOP. This trail along the foreshore is only accessible during daylight hours. An image illustrating all cycling and pedestrian trails in the vicinity of the site is provided in **Figure 19** below.

Figure 19 Existing cycle and pedestrian paths

Source: Cox Architecture

SOP benefits from an extensive local and regional bicycle network, including dedicated on-road cycle lanes along the main roads within SOP and shared cycle/pedestrian pathways in the surrounding open space areas. This bicycle network is supported by 150 bicycle parking spaces dispersed in the Sydney Olympic Park precinct for use by the general public. Bicycle parking is provided adjacent to the northern amenity block.

Figure 20 River Walk shared path facing east

Figure 21 River Walk shared path facing east

Public Transport

The site is serviced by regular bus services running along Silverwater Road. A bus stop is located 10m south west of the site on the busway that connects Silverwater Road and Newington Road. This bus stop is serviced by no. 525 and no.544 bus services running to Parramatta and Macquarie Centre respectively. There are additional bus stops further south west of the site, with the same no.525 and no.544 services, travelling in the opposite direction to Burwood and Auburn Railway Station, respectively. The bus stops in the vicinity of the site are shown in **Figure 11** above.

Bus no.525 provides a direct connection to the Sydney Olympic Park Railway Station which is 2.5km south east of the site.

2.3.2 Contamination

The Wilson Park site comprises a comprehensive history that has resulted in site contamination and subsequent remediation with on-going management requirements. Most significantly, in the early 1950s the site was developed into a petrochemical plant featuring a various tanks and large sludge ponds storing tar sludge residues from the conversion of heavy crude oil to town gas. The gasworks and petrochemical plant were closed in 1974, with these sludge ponds subsequently covered.

Wilson Park transitioned into playing fields in 1983 which were used until 1992 when the park was closed due to tar wastes seeping onto the playing fields. Remediation works commenced at the site in 1997, encapsulating the waste. The contamination present at the site is currently managed under a Maintenance of Remediation Notice issued under the Contaminated Lands Management Act Notice No. 28040.

Two biological treatment systems for treating landfill leachate are located to the north-east of the site (part of the overall Wilson Park), sharing the same boundary with the site but being located outside the lease line boundary identified in **Figure 12**. The north eastern quarter of the park (outside the subject site) also includes two waste containment mounds approximately 100-110m in length. These mounds partially cover the old sludge pits and are approximately three metres in height (see **Figure 22**). The nature of the contamination is largely waste liquid tar rather than uncontrolled landfilling. However, the remediation strategy adopted is ‘cap-and-contain’, similar to the remediation of other landfilling areas within Sydney Olympic Park.

Figure 22 Remediation mound

Source: Ethos Urban

A second biological treatment system constructed in the south east corner of the fenced off area was commissioned in 2015 to treat leachate transferred from the Blaxland Landfill located east of Wilson Park.

Both the original Wilson Park treatment ponds and the Blaxland Landfill Biological Treatment Wetlands are regulated by the Protection of the Environment Operation Act licence No. 10243 issued for the portion of the site inside the fenced area which is identified as containing the highest contamination, refer to **Figure 23**.

Figure 23 Extent of EPA controlled land

Source: Cox Architecture

Declaration under the Contaminated Land Management Act 1997 over the entire Wilson Park site recognises that there are potential environmental risks associated with the site both within and outside the fenced area, refer to **Figure 23**. A preliminary assessment of the suitability of the current ground conditions for the proposed development has been provided by EPA Accredited Site Auditor Frank Mohen from AECOM, who has indicated that, based on the available historical information, the site can be made suitable for the proposed use, refer to **Appendix GG**.

It is considered that the southern part of the site has the lower contamination risk and lower management and maintenance requirements. A cap has already been constructed, resulting in a low vapour risk in surface soils and the open environment. As such, minimal excavation will be needed to establish the anticipated infrastructure.

The EIS is accompanied by geotechnical and contamination reports that have been reviewed by the Site Auditor, to assess the site's subsurface conditions and to determine the suitability of the site for the proposed development.

2.4 Overland Flow

A natural overland flow gully is located in a north south direction through the centre of the site. The gully divides the site into two separate major parcels of land, refer to **Figure 24**. The southern busway acts as a dam to control ingress of water onto the site via an existing culvert under the busway. Water flows from this culvert via the existing gully to the low lying land located between the two rear playing fields.

Figure 24 **Existing Overland Flow**

Source: *Cox Architecture*

2.4.1 Soil, geotechnical and groundwater conditions

Soil conditions

The Sydney 1:1,000,000 Geological Map, indicates that the site is underlain by disturbed terrain characterised be level plain to hummocky terrain. The Atlas of Australian Soils classifies the site under undulating Sodosol. This consists of hard acidic yellow mottled soil, often containing ironstone gravels throughout the profile. The site's geotechnical conditions are detailed further in the Geotechnical Assessment prepared by Douglas Partners (**Appendix M**).

Acidic Sulfate Soils

Douglas Partners (**Appendix M**) confirm that the site is classified as having low probability (6-70%) of acid sulphate soils (ASS), with a small area to the north-west having high probability (>70%) of ASS, with reference to the Atlas of Australian Acid Sulfate Soils. SEPP SPP nominates part of the site as being 'disturbed terrain' as shown in **Figure 25**.

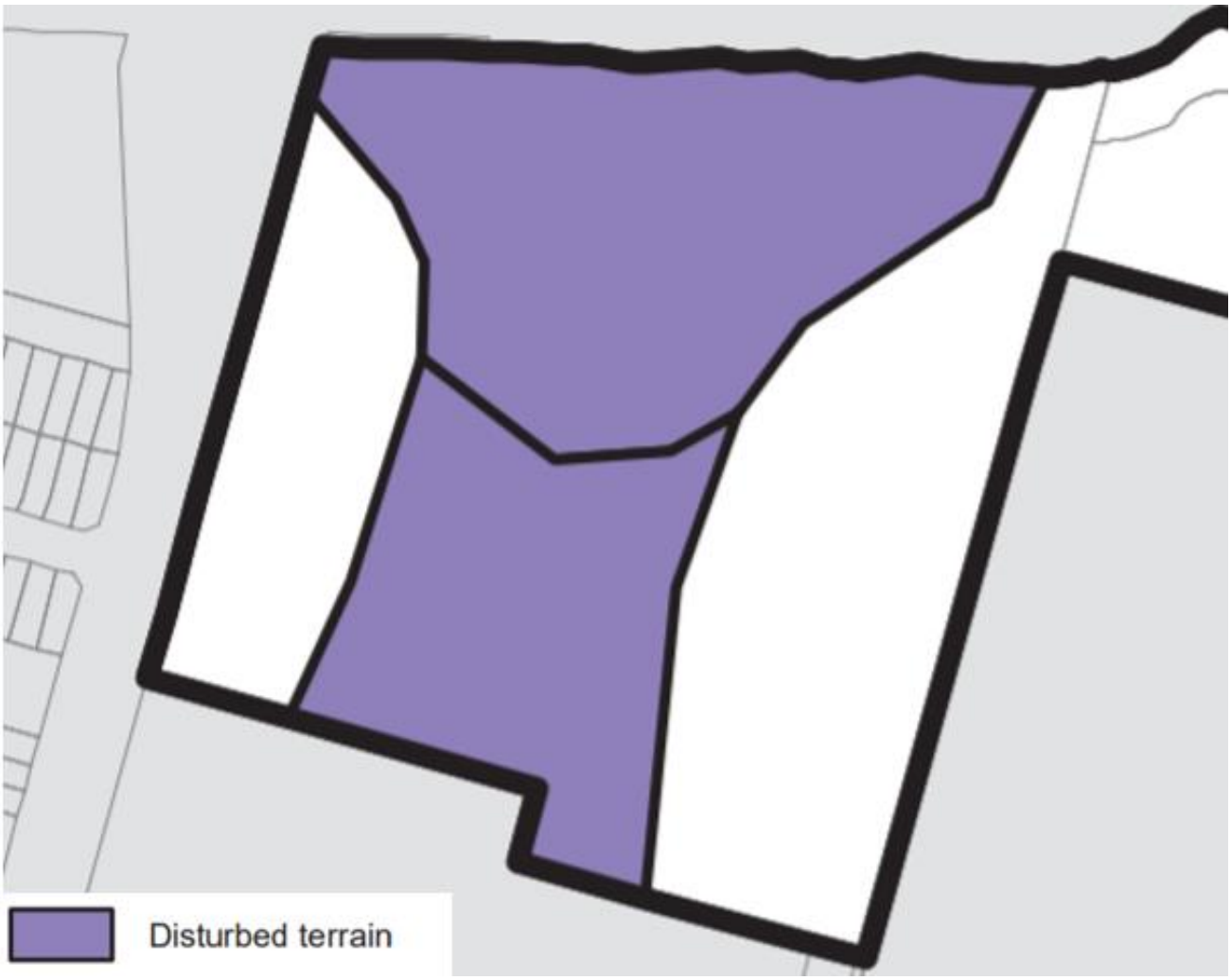


Figure 25 Acid Sulphate Soils

Source: SEPP SPP

Groundwater

Douglas Partners undertook a search of the NSW Department of Primary Industries Office of Water data as part of the Preliminary Site Investigation (**Appendix M**) for bores within a 500 m radius of the site. Eleven registered groundwater bores were identified within the 500 m radius of the site. Standing water levels reported for the nearest wells ranged typically between 0.25 m and 1.5m below ground level.

Douglas Partners confirmed that groundwater has been found in previous investigations to be present at shallow levels in the northern part of the site, where fill has been laid over the estuarine sediments. The groundwater levels fluctuate between clayey sand units (alluvium) and deposited fill, (between 2 and 3 m depth) and this water bearing zone may be influenced by tidal and rainfall variations. At a deeper depth (approximately 6 m) the Pleistocene clay was reported to contain intermittent saturated sand layers that tend to be confined within the clay and in some instances are at artesian pressures.

Environmental assessments performed by Groundwater Technology (GT) during 1994 and 1995 indicate that the groundwater flows in a northerly direction towards the Parramatta River at Wilson Park. From the groundwater contours GT determined that hydraulic gradients range from approximately 1 in 30 to 1 in 80. The anticipated hydraulic conductivity of clayey sands was in the range of 10-5 to 10-7 m/s.

2.4.1 Topography

Wilson Park is generally flat ranging from 2m in the north sloping gently to 4 m in the south. Further, it comprises an elevated hill at its south-eastern corner and an overflow drainage line between the existing sporting fields. The grassy hill to the east is approximately 8m above water level.

2.4.2 Vegetation

The vegetation within the subject land is comprised of a combination of exotic garden vegetation, exotic lawns and scattered planted native (including non-endemic) and exotic trees surrounding the sports fields and wetlands. The biodiversity values of the subject land are limited, due to the historical vegetation clearance and current use of the land as sports fields and recreational areas. The vegetation extends out from the northern corner into contiguous vegetation outside the subject land. There are 570 trees located on the site predominantly around the periphery of the playing fields. These trees include a mix of different locally indigenous and native species, such as River Oaks, Swamp Mahogany, Tallowwood, Grey Gums, Grey Box, Eucalypts, Ironbark, Box Gum, Mugga Ironbark Rough Bark Apple and Stingy Bark trees.

2.4.3 Heritage

The site does is not identified as a heritage item, nor is it located within a heritage conservation area. However, the site is located adjacent to the State Heritage listed “Silverwater Prison Complex Conservation Area” and identified within the Auburn Local Environmental Plan 2010 (ALEP 2010), see **Figure 26**.

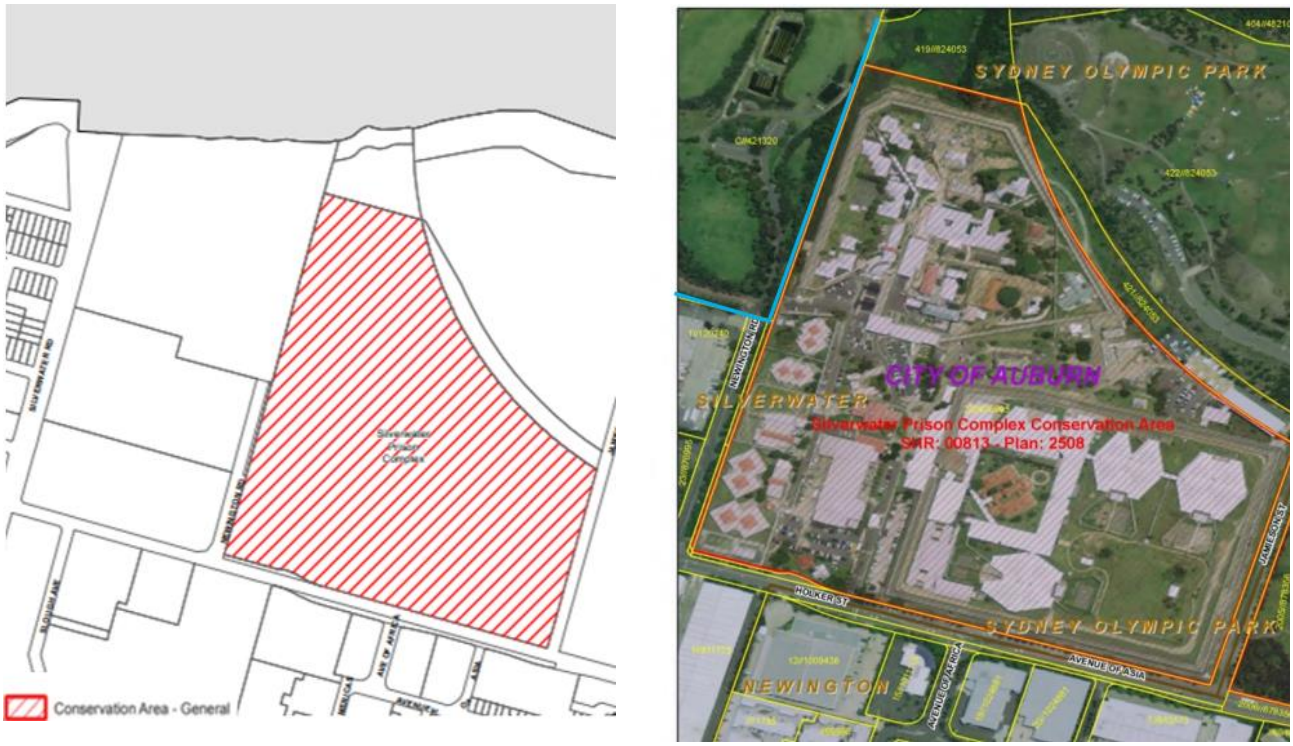


Figure 26 Adjacent heritage conservation area

Source: Auburn Local Environmental Plan 2010 and Heritage Registrar

Aboriginal Heritage and Archaeology

The precinct does not contain any documented Aboriginal relics or registered significant Aboriginal sites. The area has very limited archaeological potential as a result of its history of disturbance, refer to **Section 6.11**.

2.4.4 Utilities

A Utilities Report has been prepared by LCI (**Appendix F**) detailing the existing utilities and services within vicinity of the site. The infrastructure identified below has been found to have existing connections to the site:

- **Electricity** – The existing site is supplied from the Ausgrid electrical network. Supply is from kiosk substation S62647, located within the property boundary at the west of the site. Incoming high-voltage cables run in the road to the property boundary.
- **Communications** – The existing telephone cabling runs into the site from Silverwater Road, to the Riverfront amenities block and to the eastern amenities block. There are also two NBN pits identified within the site, however no associated conduit network is identified.
- **Gas** – the site is supplied by a Jemena gas main system located in Silverwater Road.
- **Potable Water** – the site is supplied with potable water from the water main located on the western side of Silverwater Road.
- **Stormwater** – There is an existing natural/grassed overland flow route within the site.
- **Sewer** – an existing 225mm sewer main is located on the western side of Silverwater Road.
- **Easements -** there are two easements on site, refer to **Figure 27** (shown in blue) – the western easement is for gas and fuel, the central easement is for storm water to the benefit the site located directly to the south,

Figure 27 Easements

Source: Cox Architecture

2.5 Flooding

The existing site is located within the constraints of a flood planning area as defined under the Sydney Olympic Park. All proposed buildings are to be located at or above the minimum flood planning level which is RL +3.35 AHD, refer to **Figure 28**.

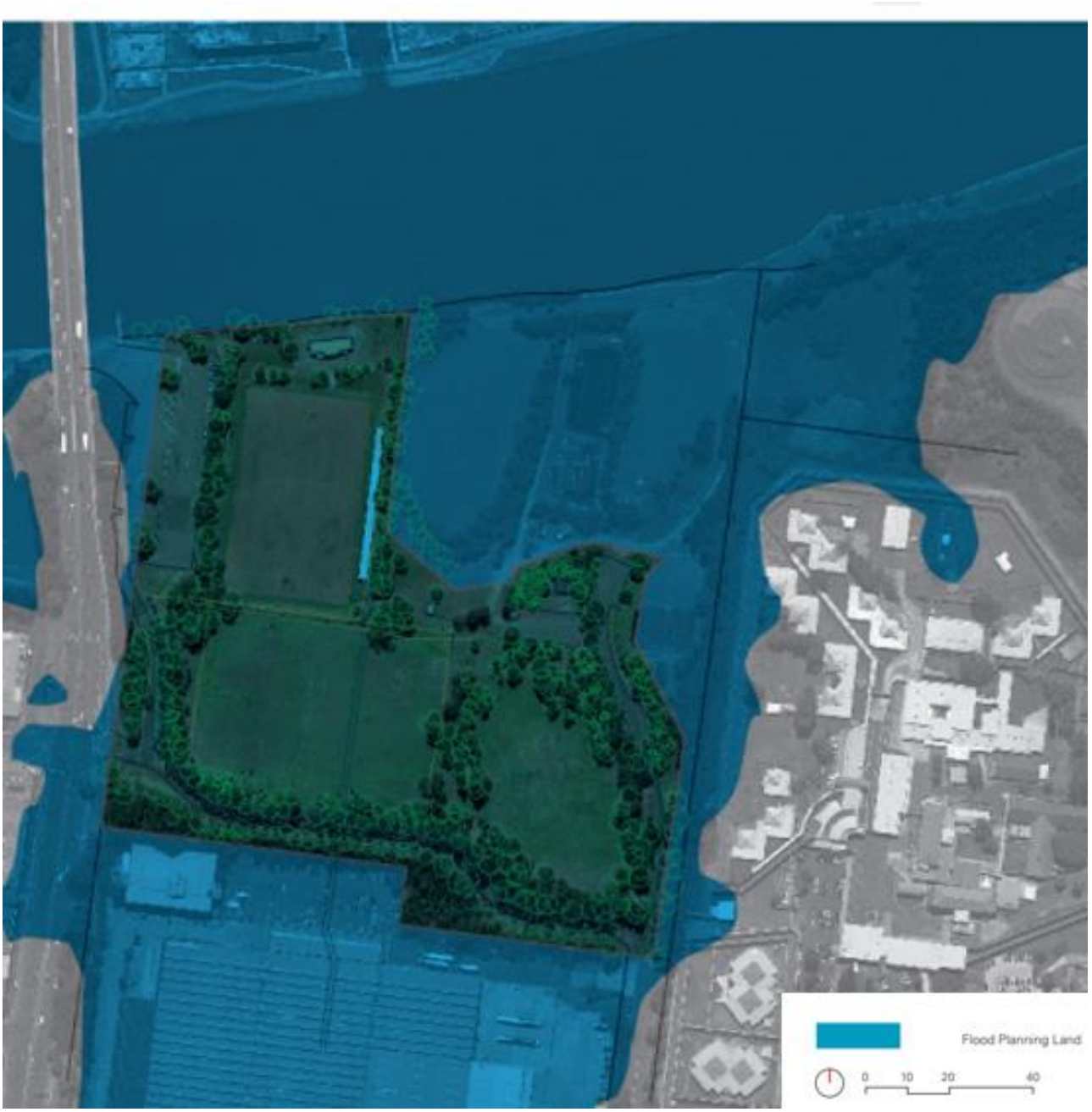


Figure 28 LEP Flood Diagram

Source: Auburn Local Environmental Plan 2010

2.6 Surrounding Development

The locality surrounding the site is mixed, with the Parramatta River foreshore to the north, Silverwater Correctional Complex to the east and some industrial uses to the south and Silverwater Road to the west.

The site is also in the vicinity of parklands, including Silverwater Park to the west, Blaxland Riverside Park to the east and is connected to cycling tracks on the River Walk to the north, that extend throughout the SOP precinct.

A more detailed description of the immediately surrounding development is provided below.

2.6.1 Immediate surrounding development

North

The site is adjacent to the Parramatta River foreshore to the north. Along this foreshore is the River Walk, which is a shared way used for cyclists and pedestrians which is open from dawn to dusk. Further north is the Parramatta River which separates the site from medium to high density residential developments, along with some public recreation spaces that are located on the northern side of the Parramatta River. Photographs identifying the northern boundary of the site and development on the northern side of the Parramatta River are provided at **Figures 29-30**.

Figure 29 Foreshore from east of River Walk

Figure 30 Apartments north of Parramatta River

The southern periphery of the site is bounded by a busway which connects Silverwater Road to Newington Road and is a critical route for major event transport. Further south of the site are various industrial uses. Images of the southern context of the site are provided in **Figure 31** and **Figure 32.**

Figure 31 Silverwater Correctional Complex

Figure 32 Industrial development to the south

East

The east of the site is bound by the Silverwater Correctional Complex. Notwithstanding this, the border separating the site from the Silverwater Correctional Complex is generally concealed by an abundance of trees that surround the site, as illustrated in **Figure 33** below. The north eastern boundary of the site contains a plethora of trees and parklands, with photographs provided at **Figure 34**.

Figure 33 Silverwater Correctional Complex

Figure 34 Abundance of trees at north east of site

West

Immediately to the west of the site is Silverwater Road, separating the site from a number of industrial uses. Photographs of the surrounding area to the west of the site are provided in **Figure 35** and **Figure 36**

Figure 35 Silverwater Road to the west

Figure 36 Dooley's Club to the west of the site

3.0 Consultation

CNSW engaged Ethos Urban to provide communication and stakeholder engagement services for the project. The consultation completed prior to the lodgement of the SSD DA is detailed in the Consultation Outcomes Report prepared by Ethos Urban and included at **Appendix HH**. It addresses all consultation activities and the key issues discussed, and feedback received.

The report identifies the proactive and strategic approach to communications and stakeholder engagement undertaken for this project. Each consultation exercise was undertaken in coordination with CNSW and the relevant technical experts that have contributing to developing and refining the proposed development.
The consultation program included:

- direct consultation by technical consultants with agencies identified in the SEARs;
- communication with site neighbours and key groups within and around the site;
- distributing a project flyer via a letterbox drop to more than 1400 residents and businesses, notifying upcoming consultation session; and
- completing one (1) community drop-in events for all members of the public and stakeholders.

A summary of the consultation undertaken to-date with stakeholders, the community and relevant agencies is provided in the Consultation Outcomes Report, and comprises the following groups:

- The Newington Gunners Soccer Club;
- City of Paramatta Council;
- Sydney Olympic Park Authority;
- Sydney Coordination Office;
- Environment, Energy and Science Group of the Department of Planning, Industry and Environment (former NSW Office of Environment and Heritage);
- Heritage Division of the Department of Premier and Cabinet (former Heritage Division of the Office of Environment and Heritage);
- Natural Resources Access Regulator;
- NSW Police;
- Government Architect NSW;
- Sydney Water;
- Ausgrid;
- Aboriginal communities, including the Dharug Tribal Aboriginal Corporation and Metropolitan Local Aboriginal Land Council;
- Environmental Protection Agency;
- Transport for NSW;
- Lands, Water and Primary Industries Group;
- Roads and Maritime Authority;
- Office of Environment and Heritage; and
- Silverwater Correctional Complex.

Several consultants have also undertaken additional consultation with relevant parties during the preparation of their reports. Council and SOPA have been in extensive consultation with the Gunners and Granville Districts Soccer Football Association, following SOPA taking over Wilson Park in July 2019. They have managed to secure an alternate site for the Gunners at the Eric Primrose Reserve in 2020 and are working towards the redevelopment of Newington Reserve for the 2021 season.

3.1 State Design Review Panel

The State Design Review Panel (SDRP) was convened to provide independent and impartial advice on the design quality of development proposals to inform the formal recommendations for Government Architects NSW to the proposal and to the Department's assessment team. The purpose of the NSW SDRP is to help proponents to make well-informed decisions about the design development of proposals.

The SDRP comprises panel members including Rory Toomey, Principal Design Excellence - Government Architect NSW (Chair of the SDRP), and two independent design experts including:

- Helen Lochhead, UNSW; and
- Matthew Pullinger, Matthew Pullinger Architect

The scheme was presented to the SDRP on 22 May 2019, and 25 September 2019 for preliminary feedback. A response to the key issues raised by the SDRP is provided below in **Table 5**.

Table 5 Response to Key SDRP Issues

SDRP Strategies	Response
• Maintain public access to the foreshore	• The proposal connects the River Walk in the north adjacent to Parramatta River foreshore, to the site, through new pathways to the east and west of the outdoor cricket nets which will connect through the site to Newington Road or Clyde Street. The paths will be appropriately lit, inviting and have clear sightlines and wayfinding signage to ensure the public will feel comfortable accessing the site. Illumination and wayfinding signage to the new pathways developed through the site will be designed in accordance with SOPA guidelines to ensure consistence with the precinct.
• Incorporate public toilets and amenities into the Cricket Centre to enable the removal of the existing toilet block;	• Public toilets and other amenities will be incorporated within the design of the development. The existing amenities block to the north sit outside of the lease line.
• Implement a plan of management to ensure long term public access to the parklands and community oval;	• A plan of management (**Appendix V**) accompanies the State Significant Development Application (SSDA) to ensure ongoing management of public and community access to the parklands and Oval 2.
• The community oval should not be fenced. A white picket fence to the ICC oval is acceptable;	• The proposal is for a Centre of Cricket Excellence. Appropriate fencing in terms of materials, transparency and height will be incorporated within the design of the development, surrounding Oval 1. The proposed fencing will ensure appropriate safety and security for the site.
• Minimise hard infrastructure, in particular incorporate landscape strategies such as swales to resolve drainage and overland flow issues;	• The development will minimise the use of hard infrastructure. It will also incorporate a landscape strategy which will include water sensitive urban design mechanisms, such as swales to resolve drainage and overland flow issues. The proposal retains the overland flow path through the southern section of the site.
• Retain existing vegetation around the edges of the parkland;	• As much existing vegetation as possible will be retained around the edges of the site. The landscaping strategy will be based on arborist report and landscape plans along with input from Cricket NSW grounds people to ensure the paying surfaces are maintained to the required standard.
• Confirm traffic and parking impacts and how additional vehicles will be accommodated;	• A Traffic and Parking Report will accompany the SSDA confirming traffic and parking impacts and how additional vehicles will be accommodated. The current car park layout is inefficient and there are

SDRP Strategies	Response
	opportunities to provide more spaces within the existing area.
• Illustrate connections to other parts of Sydney Olympic Park, wayfinding and lighting strategies.	• The SSDA will be accompanied by a wayfinding strategy, which will illustrate connections to other parts of Sydney Olympic Park. A lighting strategy will also be provided.
• The building currently presents as a sealed large box and does not engage with its context. Further consideration is required to the building's scale, transparency, legibility, visual presentation to Silverwater Rd and engagement with the public domain;	• Although the building is large is has incorporated openings and that will engage with its context. Consideration has been given to the building's scale, increasing its transparency and legibility although it is hidden visually from Silverwater Road due to the extensive vegetation it engages with the public domain on all sides;
• Consider how the built form could be broken up, redistributed throughout the site or potentially located partially over the carpark to improve the Centre's address to Silverwater Rd and enable reworking of the masterplan;	• The built form cannot be broken up due to the required interconnection between all internal activities which is critical to its successful operation
• Consider how the building can incorporate safety by design measures including passive surveillance, clear sightlines from and to the ovals, and clarity of wayfinding for public amenities;	• The building incorporates CPTED measures including passive surveillance with clear sightlines to and from the ovals, with wayfinding opportunities.
• Provide thermal modelling to demonstrate interior conditions will achieve comfort and provide details of all proposed ESD strategies;	• Thermal modelling will be prepared by the consultant to demonstrate that interior conditions will achieve comfort as well as providing the confirmed details of all ESD strategies;
• Provide a detail landscape plan and confirm retention of existing vegetation around the edges of the parkland;	• The landscape architect and Arborist have prepared reports and master plans which confirms the retention strategy of existing vegetation around the edges of the parkland.
• Illustrate connections to other parts of Sydney Olympic Park, wayfinding and lighting strategies.	• The intended connections through the site to other parts of Sydney Olympic Park are also indicated in the chapter on the master plan in the urban design report at **Appendix C**.
• Demonstrate how the provision of approximately 160 carparking spaces will adequately serve the predicted 50,000 yearly visitations;	• The provision of approximately 160 car parking spaces adequately serve the predicted yearly visitations which is modelled and reported on by the traffic consultant's report.

4.0 Description of the Development

This SSD DA seeks consent for the construction and operation of the NSW Cricket Centre at Wilson Park, Sydney Olympic Park. The proposal is driven by the desire to provide a state-of-the-art facility as a year-round elite training base for NSW's best cricketers and a hub for community cricket. The main purpose of the CNSW Wilson Park development is to be the home of cricket in New South Wales, providing elite training and playing facilities for CNSW High Performance programs (including the Sydney Sixers & Sydney Thunder) as well as administrative facilities for CNSW. Contemporary high-performance training facilities will support the ongoing development of local, state and Australian cricket players. Architectural drawings prepared by Cox Architecture detailing the proposed development design are provided in **Appendix B**.

This application seeks approval for the following development:

- A two storey cricket centre, including an internal atrium, gymnasium, community facilities, sports science and sports medicine facilities and business offices;
- An International Cricket Council compliant oval 136m long x 144m wide (16,040m^2) (Oval 1) and associated seating;
- A second oval (Oval 2) that complies with the Cricket Australia community guidelines for community club cricket (with a minimum diameter of 100m (6365m^2);
- Outdoor practice nets, 71 wickets with a minimum of 30m run ups;
- A double height (10.7m) indoor training facility with 15 wickets;
- A single storey shed for machinery and storage;
- Associated car parking, landscaping and public domain works; and
- Extension and augmentation of services and infrastructure as required.

The proposed layout of the NSWCC development is provided in **Figure 37** below.

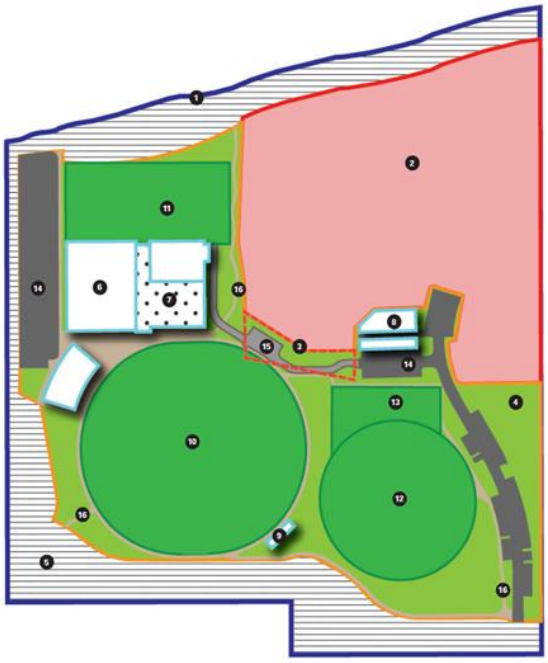
Figure 37 Proposed development

Source: Turf Design Studio

4.1 Numerical Overview

The key numeric development information is summarised in **Table 6**.

Table 6 Key development information

Component	Proposal
Site area	  Item / Area / M2 1 Site 121,082.336 2 EPA lands 33,724.521 **Sub total 87,357.815** 3 EPA resumed 1,293.919 **Sub total 88,651.734** 4 Lease boundary 65,767.867
GFA • Ground Floor • First Floor • Grounds shed • Scoreboard • Total GFA	 6 Ground floor 5,747.567 7 Level 1 1,504.247 8 Grounds 665.172 9 Scoreboard 102.000 **Total GFA 8,018.986**
Site Coverage	• 9.9%
FSR	• 0.122:1 (Boundary lease line) • 0.06:1 (Total Area)
Maximum Height	• 10.7m (RL15.95)
Car parking spaces	• 221 car parking spaces
Trees	• 304 trees removed. • 263 trees retained • 310 trees proposed to be replanted

4.2 Demolition, Excavation, Tree Removal

4.2.1 Demolition and Excavation

Demolition works proposed will be carried out in accordance with demolition Plan at **Appendix B**. The proposal will demolish of the existing single storey grandstand located along the eastern edge of the northern playing field.

4.2.2 Tree Removal and Protection

A total of 304 trees are recommended for removal, of which 310 are to be replanted to offset the impact of tree removal and to achieve a 40% canopy cover, in line with the NSW Government's canopy coverage commitments. A tree survey plan identifying trees for removal is provided as part of the Arborist Statement (**Appendix Q**) prepared by New Leaf Arboriculture.

4.3 Bulk Earthworks

The proposed development has been planned to minimise excavation. Notwithstanding this, it proposes minor excavation of approximately 1m to allow for the required site drainage and to level the mounds located to the east of the site. The proposal also seeks consent for bulk earthworks, including bulk filling of up to 1m above the current ground level, refer to **Figure 38**.

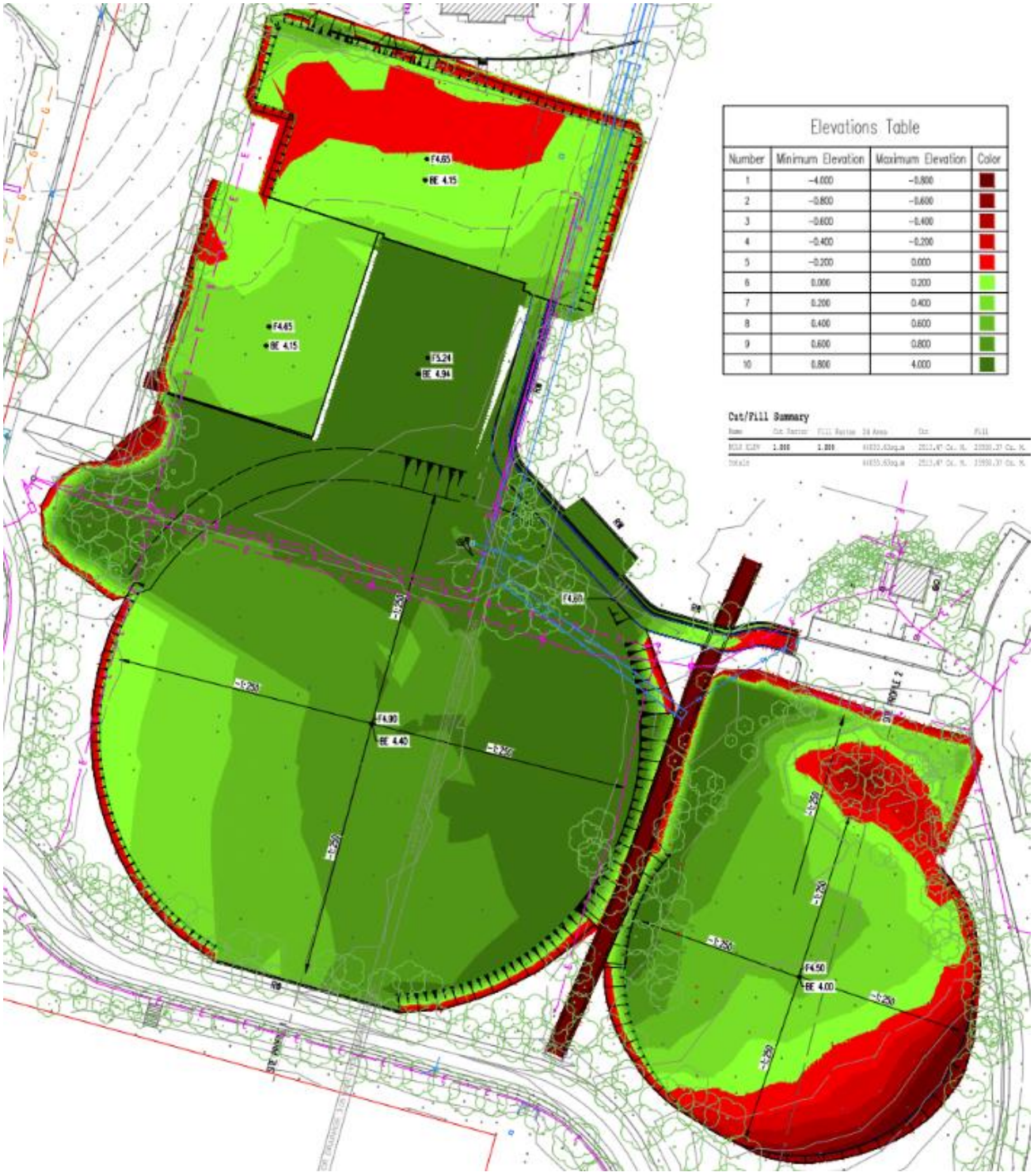


Figure 38 Bulk Earth Works

Source: TTW

4.4 Land Use

It is proposed that the type of groups using the site and events hosted at the NSWCC would include, but would not be limited to, the following:

The NSWCC building will accommodate approximately 170 staff and 80 contracted cricket players.

Cricket Training

- Professional cricket teams to train at the facility during the year between 9am to 5pm, although players may participate in activities before and or after these hours.
- Eleven junior (under 18) representative cricket teams each with approximately 20 players will generally train during the evening, 5pm -10pm during weeks outside of holiday period.

Cricket Matches

- Cricket matches on Oval 1 are expected to draw a maximum of 1000 patrons. These matches are “non-fan facing days”.
- Community cricket matches on either Oval 1 or Oval 2 are expected to accommodate 50 patrons;
- Stakeholder meetings expected to draw up to 150 people;
- School gala cricket matches where up to 600 children will arrive from up to 20 busses.

Fan Days

- Fan days associated with professional cricket teams, accommodating up to 1,500 people expected to occur approximately once or twice per year.

Community Cricket Activities

- Coaches workshops and courses;
- Umpiring workshops and courses;
- Volunteer workshops and courses;
- Community forums;
- School ambassador days;
- Social modified cricket (lunch time, afternoon, evening) ;
- Holiday clinics and programs; and
- Dinners and events.

Offices and Administration

- The high performance offices will be located on the ground level and the staff offices will be located on level 1.
- Administration is located above the High Performance facility in an effort to promote internal communication and collaboration between all facets of the Cricket NSW group.

Players and Match Officials Area

- Players and Match Officials Area (PMOA) is a requirement of both the ICC and Cricket Australia for some game days. This is part of the ICC anti-corruption code for participants of games, due to match day betting and integrity. This area is required to be accredited and secure from the remaining facility and is to have direct access to the playing field and is only available to players and match officials

Publicly Accessible Facilities

- The proposed cafe will provide the retail sale of food and beverages to patrons of the NSWCC and members of the public. The tenancy will include food preparation areas designated for the preparation of pre-packed food. As such, it is not proposed that the tenancy will incorporate a commercial kitchen or any major hazardous cooking facilities such as a deep fryer or gas burners. The proposal also provides a retail service area that consists of a glass cake display box and a coffee bar that will accommodate a coffee machine and grinder. The proposed coffee shop will employ a maximum of three (3) employees at any one time.
- The public amenities will have internal access to the multi-purpose space and direct external access to the playing field viewing or community activity areas.
- There will be one main entry to the Cricket NSW Centre which will be from a signalled intersection off Silverwater Road which leads to an existing carpark adjacent to the facility entry foyer. There will be an entry foyer to welcome guests to the facility including players, officials and public. The foyer will provide access to the reception, café, indoor nets, community meeting spaces, amenities, Oval one and Oval two, change facilities as well as staff and player restricted areas. The entry point to the facilities will be on the western edge of the NSWCC building adjacent to the carpark as depicted at **Figure 39**.

Figure 39 NSWCC indoor nets and entry point

Source: Cox Architects

4.4.1 Operational Hours

Standard operational hours are proposed as follows:

- Outdoor facilities: 8am to 10pm daily; and
- Indoor facilities: 6am to 10pm daily.

Occasional activities may be carried out outside of the above nominated hours of operation for special match day events.

4.5 Built Form

The proposal includes a part one, part-two storey building, located in the central western area of the site. The building is effectively rectangular in shape with a curvilinear component connected to the southern elevation, corresponding to the alignment of the oval. The massing and built form have been modulated to allow for the retention of key trees and reduced its scale to ensure it is not readily visible from Silverwater Road. The building has a maximum height of 10.7m (RL15.95).

The NSWCC building is composed of high quality building materials, including translucent cladding, Cladding in sandstone colour and timber cladding, site, refer to **Figure 40**. A detailed breakdown of the uses contained in this building is in the Architectural and Urban Design Report at **Appendix C**.

Figure 40 Schedule of colours, materials and finishes

Source: Cox Architecture

Elevations of the proposed cricket centre building are respectively provided in **Figure 41** and **Figure 42** below.

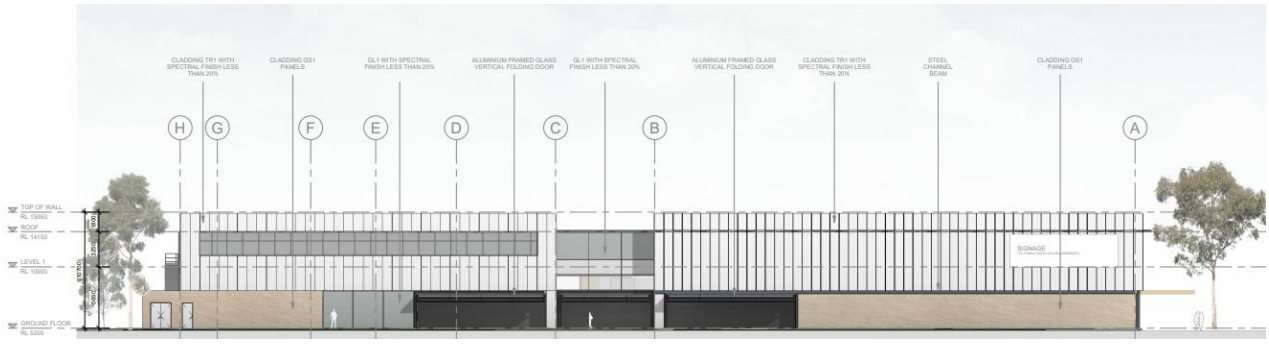


Figure 41 North elevation of the site

Source: Cox Architecture

Figure 42 East elevation of the site

Source: Cox Architecture

The proposed NSWCC has been developed to enable the functional relationships between building areas and with the associated site amenities and playing field. The ground floor is separated into three main components, community uses, indoor cricket training and high performance facilities. Whereas the first floor plan will accommodate predominantly all of the administration requirements of Cricket NSW with glazing on the southern upper levels to have a clear view over the main ICC wicket, refer to **Figure 43**.

The key functional relationships of the NSWCC building include the following:

- The entry change rooms are at ground level adjacent to the playing field and have clear access;
- The community learning areas and café and toilets are located in the southern component of the building to ensure these facilities can be readily accessed by the public and managed by the facility;
- The indoor nets are adjacent to the gym, sports science, sports medicine and high performance offices to ensure compatibility during the day;
- The main entry is accessed from the rear of the car park to provide a clear address to the site;
- Clear site lines to the field have been provided to maximise spectating;
- Equipment storerooms will be accessed via roller doors and have direct external access to the field to assist with moving equipment; and
- The storerooms are positioned on the north eastern end of the building to maximise access to the cricket nets.

Figure 43 NSWCC Building

Source: Cox Architecture

4.5.1 Grounds and Maintenance Building

The proposal also involves the construction of a 3.7m high, new grounds and maintenance storage building located to the north of Oval 2, refer to **Figure 44**. The materials will include sandstone coloured concrete panels and aluminium louvres. The location of the building ensures access to the playing field is on grade suit the site levels for the pitch roller and other maintenance vehicles. It will present as a one storey building with a consolidated multiple roller door design with separate storage areas for individual pieces of curator machinery and equipment. The types of equipment likely to be stored in the facility include rollers, mowers and line markers etc.

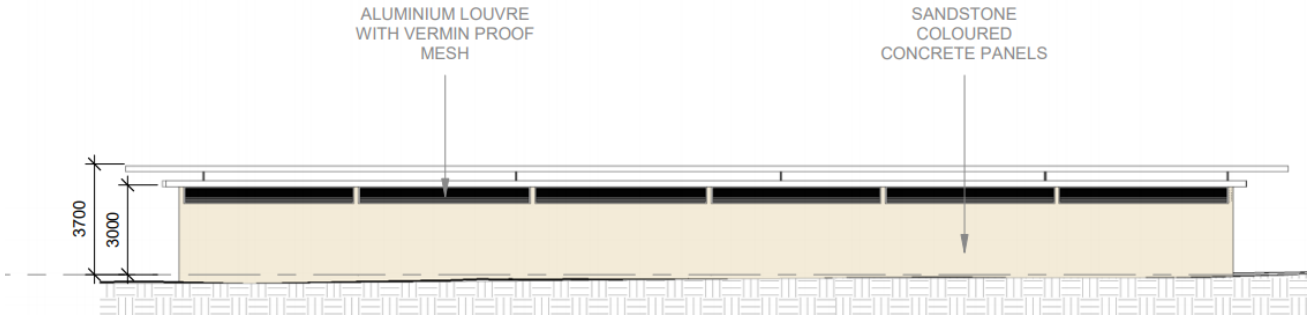


Figure 44 Southern Elevation – maintenance building

Source: Cox Architecture

4.5.2 Cricket Ovals

The proposed ovals are orientated in a north-south direction to minimise the effect of the setting sun on players. The proposed boundary distance from the centre of the pitch for Oval 1 is consistent with ICC requirements and Oval 2 is consistent with CA community cricket facilities guidelines. The proposed length for the cricket pitches is 22.56m long and 3.05m wide (refer to **Figure 45**)**.** The proposed turf for the ovals will be Santa Ana for the outfield and either Santa Ana and /or Legend for the wicket block.

Some public seating can be provided to the surrounds of the main oval, however there is no specific formalised seating provided. Spectators will be able to sit adhoc on the grass surrounding the oval to watch games or within the shaded part of the ground located to the west of the ICC oval square of the wicket to also give views to the scoreboard.

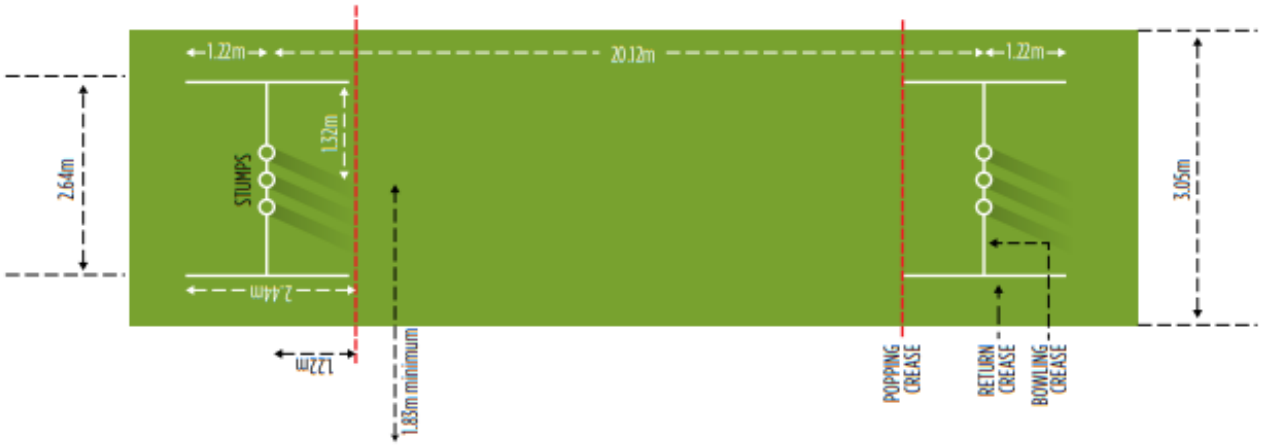


Figure 45 Required Cricket Pitch Dimension

Source: Cricket Australia

4.5.3 Outdoor Cricket Nets

The proposed turf training nets will have a north-south orientation and will be located in the north west corner of the site. The proposed length for the turf training pitches is 22m. This distance includes the pitch length from stump to stump (20.12m), the bowling crease (1.22m – one end only) and some space at the rear of the stumps at the batsman's end. Each turf training net will be separated by adjustable chain link fabric soft netting which will hang from a sliding track as demonstrated in **Figure 46.** The nets will range in height from 3m-4m. Using alternate pitches at any one time enables turf recovery and preparation whilst pitches are not in use. The wickets will be used by the players for training.

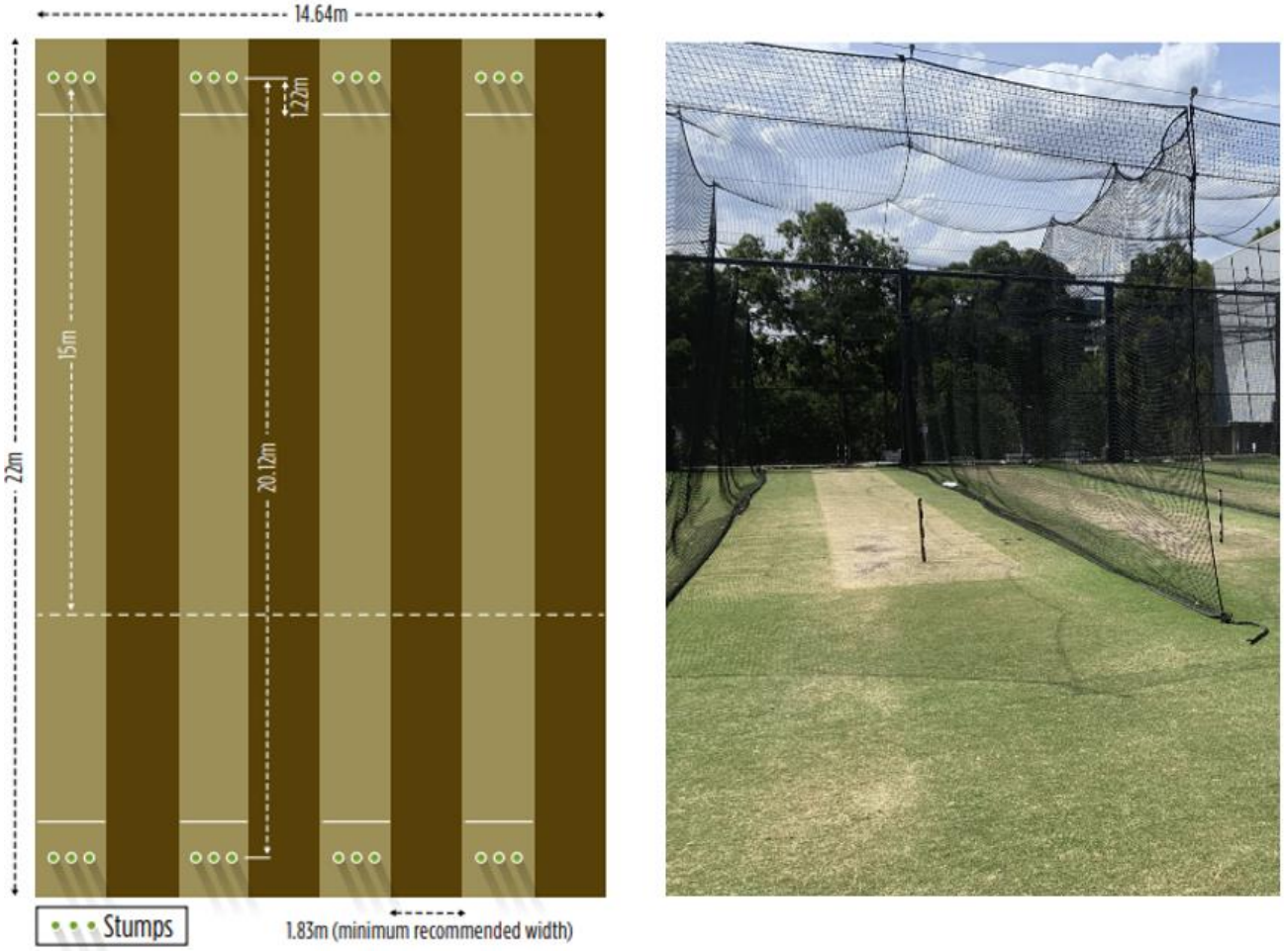


Figure 46 Turf net training design and typical image of outdoor cricket nets

Source: Cricket Australia

4.6 Landscaping and Public Domain

The landscape design proposes revegetation and rejuvenation works repairing and healing the landscape with the aim of restoring some of the original flora and fauna species that previously occupied the site. Tree replacement, habitat features, replanting of the riparian corridor and creating new vegetation green links will provide connections between Silverwater Park, Blaxland Riverside Park and Newington Reserve. The NSWCC will be framed by existing and new indigenous vegetation aligning with SOPA policies and guidelines as shown in the Landscaping Report prepared by Turf Design Studio (**Appendix D**) and at **Figure 47**.

Figure 47 Public Domain and Landscape Masterplan

Source: Turf Design Studio

4.6.1 Way finding

The sites primary address is adjacent to the western car park. To promote intuitive wayfinding the primary functions of the site are split to allow the building to act as a logical wayfinding node to access the wider site.

The proposal includes new pathways across the site, refer to **Figure 48**. The proposal connects the River Walk in the north adjacent to Parramatta River foreshore, to the site, through new pathways to the east and west of the outdoor cricket nets which will connect through the site to Newington Road or Clyde Street. The paths will be appropriately lit, inviting and have clear sightlines and wayfinding signage to ensure the public will feel comfortable accessing the site. Illumination and wayfinding signage to the new pathways developed through the site will be designed in accordance with SOPA guidelines to ensure consistence with the precinct.

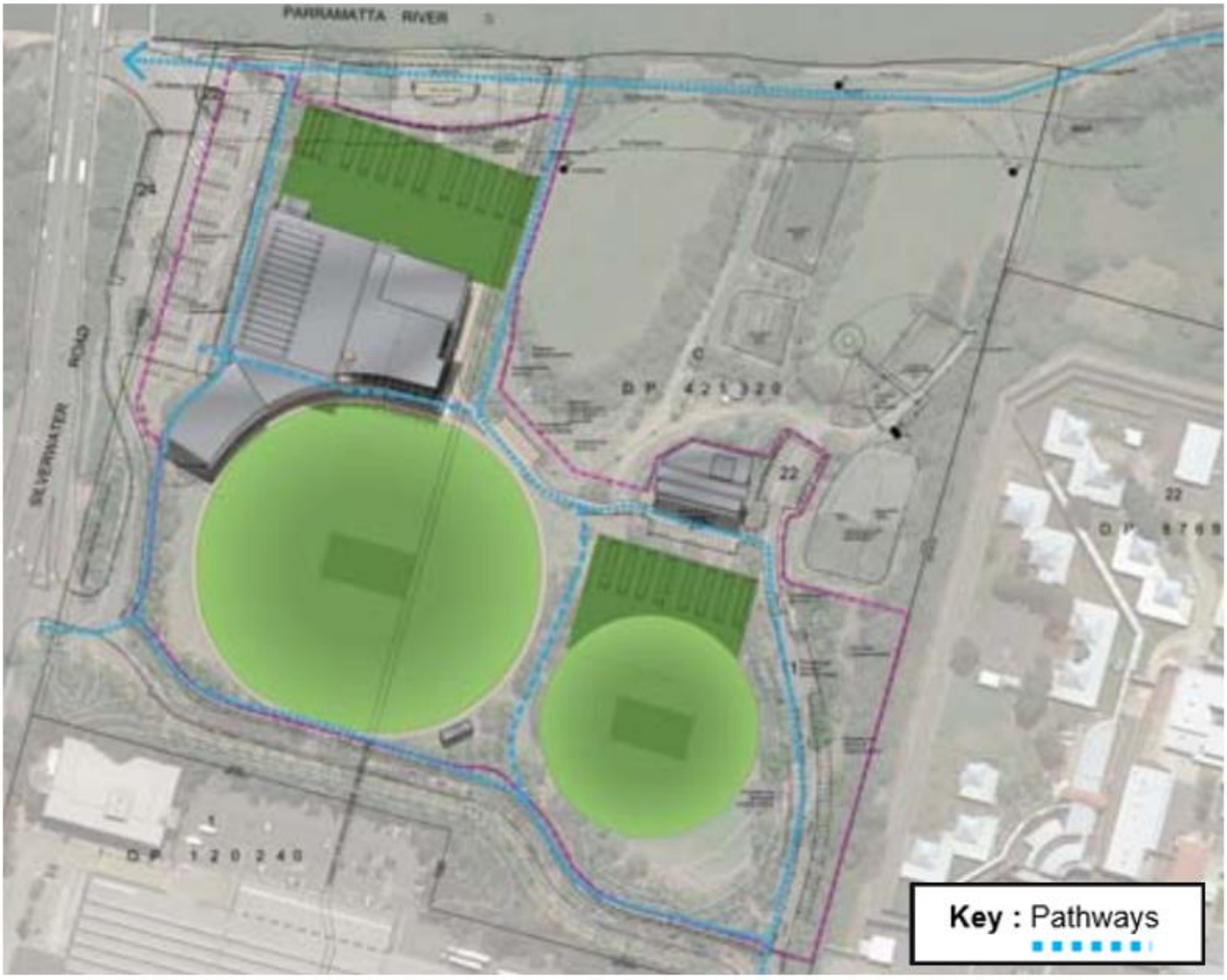


Figure 48 New pathways and connections

Source: Cox Architects

4.7 Vehicular Access and Parking

The proposed NSWCC will retain its existing main vehicular access point via Clyde Street and secondary access via Newington Road. The busway to the south of the site will continue to provide services for major events at SOP and other local services such as bus routes 525 from Parramatta to Burwood and no.544 from Macquarie Centre to Auburn.

The proposed NSWCC will upgrade the existing carparks new line markings and trees and provide 221 car parking spaces. Of these, 111 will be located in the western portion of the development and the other 110 at the eastern portion. The upgrade to the car parked is depicted in the photomontage at **Figure 49** and detailed in the Architectural and Urban Design Report at **Appendix C**.

Figure 49 Upgrade Car Parking

Source: Cox Architects

4.8 Fencing

The existing mesh fencing surrounding the site will be retained and upgraded where required. A white picket fence will surround Oval 1. Oval 2 will remain unfenced. Chain link fabric fencing will be used for the cricket net fencing enclosures.

4.9 Services and Utilities

The proposed development utilises existing services and utilities where viable and where necessary. Services and utilities in the surrounding area will be relocated, altered, augmented or protected in order to implement the envisaged development, refer to the Services and Utilities Report at **Appendix E** and **F.**

4.9.1 Hydraulics

The proposed development will be provided with new sewer, potable water and gas connections from Silverwater Road.

4.9.2 Electrical

Works will be undertaken to increase electrical capacity of the site, including the provision of a new main switchboard and consumer mains and upgrading of the kiosk substation. This will sufficiently power the proposed NSWCC development.

4.9.3 Communications

The proposed development will replace existing telephone services with NBN, providing both telephone and data services.

4.10 Lighting

The proposal will not provide sports lighting for the ovals or external practice wickets. External lighting proposed as part of the NSWCC development is designed with the principal consideration of providing a safe and welcoming environment for users of the facility. The proposed lighting has been designed to accord with the necessary guidelines including the Parkland Elements Design Manual, the Building Code of Australia, ICC guidelines, Sydney Olympic Park Access Guidelines and all the relevant Australian Standards.

Further detail regarding the external lighting proposed as part of the development is provided in **Section 6.54** and **Appendix G**.

4.11 Sustainability

The proposed development incorporates the principles of Ecologically Sustainable Development (ESD) within the design, construction and operation of the NSWCC, as demonstrated through the ESD Report prepared by LCI (**Appendix H).** Some of the following ESD measures will be incorporated for the new development:

- Passive Solar Design: The building thermal mass and insulation combinations, avoiding thermal bridging
- High performance glazed façade that balances daylight ingress and thermal performance
- Materials selected for the façade will be part of a modular system based on panel efficiencies thus minimising waste;
- Use of water efficient fixtures (5 Star taps, urinals and dishwashers, 4 Star toilets and clothes washing;
- Spatial and electrical provisions for power factor correction equipment if required
- High-efficiency LED lighting with an average power density of not more the lighting power densities outlined in NCC Section Part J6;
- Use of motion sensors, where appropriate, to automatically switch luminaires off after a period of inactivity;
- Roof rainwater capture into a 200kL tank for reuse in toilet flushing and landscape irrigation (excluding the main pitches);
- Low- flow water sanitary fittings and fixtures;
- Time flow Showers;
- Waterless urinals; and
- Construction and fit-out materials with low embodied energy.

4.12 Operational Waste Management

A Waste Management Plan prepared by Elephant's Foot is provided with this application at **Appendix AA**.

All waste generated by this development will be collected by private contractor to an agreed schedule (this report assumes three-times-weekly collections).

4.13 Signage

The NSWCC will accommodate signage zones. Details of the exact content, materiality, and illumination of signs within these proposed zones will be the subject of subsequent development applications, aligning with Sydney Olympic Park Commercial Signage Policy 2018 and State Environmental Planning Policy No. 64 – Advertising and Signage.

4.14 Construction management

A preliminary Construction Environmental Management Plan has been prepared by Mostyn Copper (**Appendix K**) which outlines the overarching principles and practices for the management of construction activities on the site, and will be used to inform the preparation of a detailed Construction Environmental Management Plan which would be required to be prepared by the appointed contractor prior to the commencement of works and adhered to for the duration of construction.

4.14.1 Construction Hours of Work

Standard construction hours of work are proposed as follows:

- Monday to Friday: 6am – 6pm;
- Saturday: 8am – 5pm; and
- Sundays or public holidays: No work permitted.

Occasional construction activity may be carried out outside of the above nominated hours of work for special deliveries, hoarding removal and services cutovers.

Furthermore, haulage hours associated with the development are as follows:

- Monday to Friday: 6am – 6pm;
- Saturday: 6am - 5pm; and
- Sunday: No work permitted.

4.14.2 Constructing staging

The proposed works are expected to commence in June 2020 and will be completed by February 2022, refer to **Table 7**.

Table 7 Construction staging and timing

Stage	Duration	Indicative interim timing
Procurement and Establishment	30 days	July 2019
Demolition of areas	240 days	February 2020
Refurbishment	720 days	February 2022
Commencement of operations	-	March 2022

5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposed DA. It addresses the matters for consideration set out in the SEARs (see **Section 1.11**). The Mitigation Measures at **Section 7.0** complement the findings of this section.

5.1 Secretary's Environmental Requirements

Table 4 in **Section 1.11** provides a summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this EIS and the accompanying technical studies.

5.2 Environmental Planning and Assessment Act 1979 & Regulation 2000

The EP&A Act establishes a specific assessment system to consider projects classed as State Significant Development (SSD). SSD is development deemed to be of State significance and includes for example projects of a certain value that are being completed on sites regarded as important to the NSW Government, such as Sydney Olympic Park. As noted, the proposed development that is the subject of this DA is categorised as SSD.

This EIS has examined and taken into account all possible matters affecting or that are likely to affect the environment by reason of the proposed development. **Table 8** provides an assessment of the proposed development against the objects of the EP&A Act.

The proposed development is consistent with Division 4.1 of the EP&A Act, particularly for the following reasons:

- the development has been declared to have state significance;
- the development is not prohibited by an environmental planning instrument; and
- the development has been evaluated and assessed against the relevant heads of consideration under Section 4.15(1).

In addition to the above, the EIS has addressed the criteria within Clause 6 and Clause 7 of Schedule 2 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage (see **Section 8**)

Table 8 Objects of the EP&A Act

Object	Comment
Section 1.3: (a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The proposal has the potential to provide a range of social and economic benefits and has been carefully designed and tested and will be monitored through the delivery and operational period, to ensure that it does not result in any adverse environmental impacts. This is detailed further in Section 5 and the Mitigation Measures in Section 7 of this EIS.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The principles of Ecologically Sustainable Development, as set out in Schedule 2 of the EP&A Regulation, as well as other relevant economic, environmental and social considerations have been addressed in this EIS and the accompanying information. The 'Justification of the Proposal' is outlined in Sections 6 and 9 of this EIS demonstrates how such factors have been considered in the detailed design, delivery and operation of the NSWCC.
(c) to promote the orderly and economic use and development of land,	The proposed development enables the redevelopment of the site to ensure activation of the site, in accordance with the established planning and design parameters, enabling the orderly and economic development of land. The development can be delivered in a timely manner to commence operations in early 2022, minimising disruptions to Sydney's cricket infrastructure and events.
(d) to promote the delivery and maintenance of affordable housing,	Not applicable.

Object	Comment
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The proposed removal and modification of the native vegetation within the subject land requires a total of 16 ecosystem credits, comprising PCT 1395 and a total of 32 species credits for the Green and Golden Bell Frog and the Southern Myotis. With the implementation of the proposed mitigation measures and the purchase of biodiversity credits described previously, it is considered that the impacts of the project on biodiversity will be minimal and can be appropriately managed, refer to BDAR report in **Appendix I**.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	Wilson Park is not identified as a heritage item in an environmental planning instrument or under the Heritage Act 1977. However, the site is located adjacent to the State Heritage listed "Silverwater Prison Complex Conservation Area" and identified within the Auburn Local Environmental Plan 2010. An assessment of the heritage context of the site has been prepared by (**Appendix R**). This assessment promotes the sustainable management of heritage and confirms the proposed development will not significantly impact the heritage significance of surrounding heritage items or the character of the site. Wilson Park does not contain any documented Aboriginal relics or registered significant Aboriginal sites. The area has very limited archaeological potential as a result of its history of disturbance
(g) to promote good design and amenity of the built environment,	Whilst no competitive architectural design process was required, the proposal demonstrates a high standard of architectural design, sustainable design principles and external appearance. An assessment of the proposed design of the NSWCC and its interface with the public domain and surrounding development is explored in Section 6.1. This assessment demonstrates that the detailed design and operation of the NSWCC achieves excellence in design and does not adversely impact the surrounding environment.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The proposed works will ensure the ongoing maintenance, performance, and safety of the building. It will comply with accessibility, construction, safety and security standards and ensure that the NSWCC is fit for purpose into the future, safeguarding the health and safety of patrons, staff and hirers.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	Consultation has been undertaken with various levels of government and government agencies during the preparation of this Development Application as outlined in **Section 3.0**, and all agencies will be afforded the opportunity for further input into the development process during the public exhibition process.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	Community consultation and participation to date has informed, and will continue to assist, the development and operation of the proposed NSWCC. This is detailed in **Section 3.0** of the EIS. Further consultation will be carried out during exhibition of the application, through the design development process, prior to the commencement of construction, and throughout the construction period.

As required by Clause 7(1)(d)(v) of Schedule 2 of the EP&A Regulation, the following additional approvals set out in **Table 9** are either not required by virtue of the fact that the project is SSD, or because they are not required in order to permit the proposed development to occur.

Table 9 Other legislation which does and does not apply

Act	Approval Applicable/ Required?
Approvals that do not apply to State Significant Development	
Coastal Protection Act 1979	N/A
Fisheries Management Act 1994	N/A

Act	Approval Applicable/ Required?
Heritage Act 1977	N/A
National Parks and Wildlife Act 1974	N/A
Native Vegetation Act 2003	N/A
Rural Fires Act 1997	N/A
Water Management Act 2000	N/A
Legislation that must be applied consistently	
Fisheries Management Act 1994	No
Mine Subsidence Compensation Act 1961	No
Mining Act 1992	No
Petroleum (Onshore) Act 1991	No
Protection of the Environment Operations Act 1997	No
Roads Act 1993	No
Pipelines Act 1967	No

5.3 Relevant Policies, Guidelines and EPIs

The proposed development is generally consistent with the provisions of the relevant planning policies identified in the SEARs, as detailed in the following sections and other supporting technical information appended to the report.

5.3.1 Greater Sydney Region Plan – A Metropolis of Three Cities

The *Greater Sydney Region Plan* is the overarching strategy for growing and shaping the Greater Sydney Area. It sets a 40-year vision (to 2056) and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters, refer to **Figure 50**.

The plan was adopted in March 2018 and seeks to reposition Sydney as a metropolis of three cities – the western parkland city, central river city, and the eastern harbour city. In the same vein as the former *A Plan for Growing Sydney*, the Plan provides 10 high level policy directions supported by 40 objectives that inform the District Plans, Local Plans and Planning Proposals which follow in the planning hierarchy.

Under the Plan, the site is located in the Central City within the Greater Parramatta and the Olympic Peninsula (GPOP) Economic Corridor. The Central City is expected to grow substantially as it capitalises on its location close to the geographic centre of Greater Sydney and unprecedented public and private investment in infrastructure, including the Parramatta Light Rail and Sydney Metro West. Sydney Olympic Park is identified to become a new lifestyle precinct.

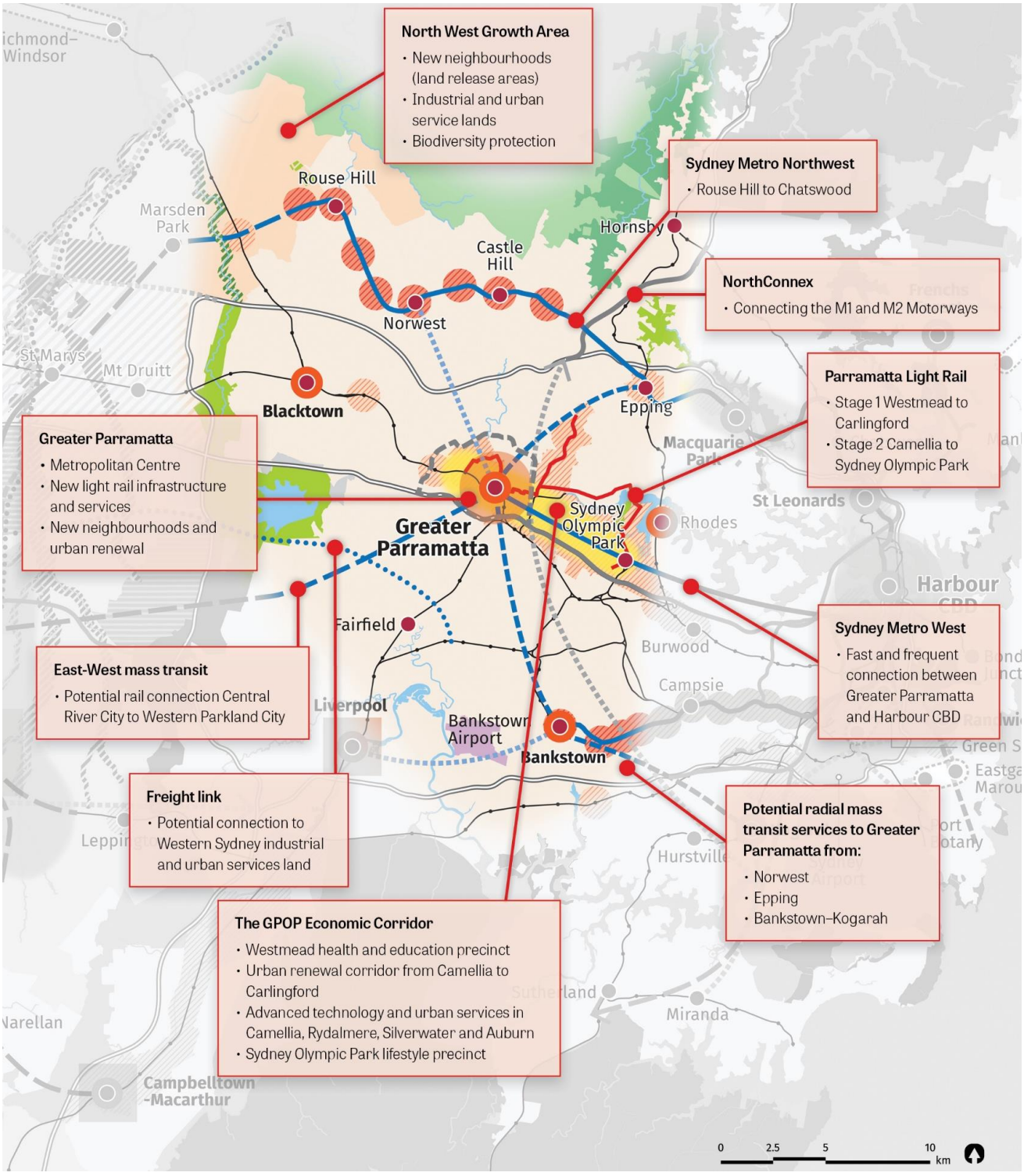


Figure 50 Features of the Central City

Source: Greater Sydney Region Plan

The proposal is consistent with the strategic directions for the growth and development of Sydney as follows.

A city supported by infrastructure

- The development of the NSWCC will provide a crucial piece of sporting infrastructure to support the ongoing attraction of Sydney to domestic and international visitors and the ability to hold and attract cricket orientated events.

	• The NSWCC represents a cost-effective means of ensuring that it is able to meet sporting and cricket requirements into the future
	**A collaborative city** • This direction acknowledges that managing the competing needs of the city requires all levels of government, industry and the community to work together. • Sydney Olympic Park is a sporting and economic centre covering over 680 hectares and comprising a range of sports and entertainment venues, parklands, and commercial, retail and residential developments. • The NSW Rugby League Centre of Excellence, Sydney Olympic Park Athletic Centre and Sydney Olympic Park Aquatic Centres are all major sporting facilities, which provide potential synergies with the NSWCC • The NSWCC remains consistent with the existing and long-term strategic vision for Sydney Olympic Park as a world-class recreation, sporting, and entertainment precinct.
	**A city for people** • The NSWCC has been designed to meet best-practice standards in universal design and compliance with the applicable Building Code of Australia provisions and Australian Standards. • The NSWCC will contribute to enhance community associations with cricket teams and communities. • The NSWCC will support a social dynamic that will build a community that is 'strong, healthy and well connected'. It has been designed as a new destination within Sydney that supports social interactions, active transport and exercise in a range of open spaces and community facilities. • The new central location of the NSWCC will improve the experience of people of different ages, backgrounds and socio-economic statuses.
	**Housing the city** • Not relevant.
	**A city of great places** • The NSWCC is located in proximity of concentrated employment opportunities, retail, education and entertainment opportunities, and offers 'more than just new homes and jobs'. • The NSWCC will create an enhanced destination within Sydney and contribute to the activation of the surrounding area, making a positive contribution to the quality of place within the local area and enhance the value of Sydney Olympic Park as a sporting precinct.
	**A well connected city** • The NSWCC is located in the heart of the Central City District and the GPOP Economic Corridor, with close access to surrounding jobs, schools, services and surrounding strategic centres.
	**Jobs and skills for the city** • The NSWCC will attract and host events that generate direct and indirect employment within the NSW economy and the NSWCC encourages business investment by bolstering the existing sporting precinct in Sydney Olympic Park
	**A city in its landscape** • Replacement trees are to be planted in for every tree removed, which will maintain the existing urban canopy in the precinct.
	**An efficient city** • The proposed ESD methods will ensure the sustainability performance of the NSWCC, contributing to its resilience and longevity.
	**A resilient city** • The proposal minimises exposure to natural hazards by ensuring it responds to overall climate adaption and resilience as outlined in the Environmentally Sustainable Development Strategy prepared by LSI (**Appendix H**). • The environmental initiatives implemented through the development contribute to enhanced environmental outcomes and seek to mitigate impacts related to climate change.

5.3.2 Central City District Plan

The *Central City District Plan* underpins the *Greater Sydney Region Plan* and sets the 20-year vision for the District through 'Planning Priorities' that are linked to the Regional Plan. The proposal is consistent with a number of these priorities, as follows:

- **Infrastructure and collaboration:** The NSWCC will create an important piece of sporting infrastructure, optimising the infrastructure that is available within the GPOP corridor by providing a state-of-the-art cricket, training and administration facility that accommodates for professional cricketers, as well as providing facilities for aspiring junior cricketers to support sport, social, health and educational programs ensuring NSW remains the premiere state for cricket.
- **Liveability:** The proposal will provide a cricket centre that is more accessible and inclusive. The NSWCC will allow for safer and more secure cricket training facilities, allowing for a more family friendly experience with increased cover and protection during all weather situations. It is anticipated this will have a flow on effect of allowing a greater number of people, of different ages and characteristics, creating a more inclusive development and social dynamic that will build a community that is 'strong, healthy and well connected'.
- **Productivity:** The NSWCC will directly contribute to the long-term strength and productivity of the NSW visitor economy. The proposal will provide constant activity on the site through the provision of cricket nets and giving opportunities for the public to be a part of the cricket centre. The cricket nets, indoor centre and ovals, will form a focus and activity at Wilson Park, whereas at the moment this area is considered the forgotten end of Olympic Park and is underutilised. The proposal will provide the public benefit to the foreshore whilst not impeding on the high-performance criteria. In this way it will also support broader economy growth in the region, as a direct benefit of increased activity.
- **Sustainability:** Planning priority 13 seeks to ensure community access to the waterways within the district are prioritised through increased pedestrian access and provision of recreation along the foreshore. The Parramatta River foreshore is nominated as a priority corridor for delivering open space as part of the district's Green Grid. A key element of this plan is the development of community facilities, parks, recreation and sporting facilities within a wider network of linked green spaces within the Greater Sydney Green Grid. The design and layout of the proposal provide clear visual and physical links between the ovals, community facilities and the foreshore, by the provision of two pedestrian pathways to the east and west of the external cricket nets in the north. The proposed pathways will connect the river foreshore to the south of the site with appropriate signage and lighting to ensure the paths are inviting to the public and they feel comfortable to enter the site. The removal of existing landscaping on the site has been minimised, and each tree removed will be replaced with appropriate specimens. The building will include photovoltaic cells and rainwater from the roof will be captured in a 200 litre tank.

Wilson Park is identified as being in the heart of the Central City and within the Greater Parramatta and the Olympic Peninsula (GPOP) Economic Corridor (**Figure 51**) and the Sydney Olympic Park Strategic Centre. The recreational and sporting offer provided by Sydney Olympic Park is identified as a major contributor to tourism and visitation in the Central City. The proposal will provide new first class sporting infrastructure and this will support the visitor economy and the attraction of local, national and international guests to Wilson Park.

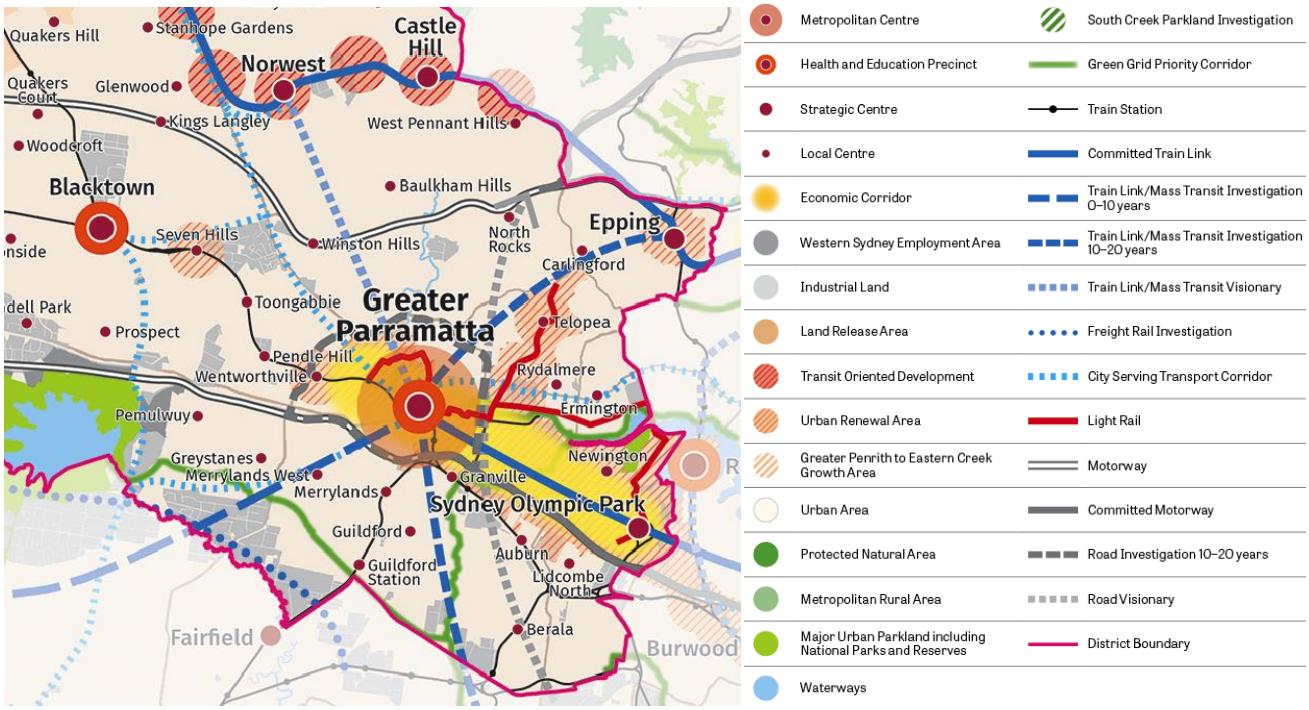


Figure 51 The Central City District

Source: Central City District Plan

5.3.1 Additional relevant strategies and plans

In addition to the above, the proposal remains consistent with the key additional planning policies, guidelines, and strategies identified in the SEARs as outlined in **Table 10** below.

Table 10 Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Policy/Guideline	Comments
NSW State Priorities	The NSW Premier's Priorities represent 14 key policy priorities for the NSW Government, establishing the vision and objectives for the State's near-term future and are intended to guide all government action. The priorities primarily relate to education, social policy, and governance and as such are not strongly related to or give effect to the proposed development. The project will have a positive impact on jobs in NSW by ensuring that the NSWCC will attract and host events that generate direct and indirect employment within the NSW economy and the NSWCC encourages business investment by bolstering the existing sporting precinct in Sydney Olympic Park.
Future Transport Strategy 2056 and supporting plans	The Strategy is the 2017 update of the NSW Long Term Transport Master Plan, and sets out six state-wide outcomes to guide investment, policy and reform and the provision of services. Whilst a number of these outcomes relate to integrating technological advancements with services and providing regional connections, the proposal is consistent with the desire to encourage active and sustainable options and provide more seamless transport options.
NSW State Infrastructure Strategy 2018-2038	The State Infrastructure Strategy outlines a 20 year strategy for infrastructure development in NSW in order to address a number of key challenges and opportunities, including population growth, demographic change, climate change and an emerging fiscal gap. The Strategy identifies that the NSW economy is expected to grow from $539 million to $1.4 trillion over the next 40 years. The projected economic growth will increase the demand for economic and social infrastructure. The proposal will deliver state of the art infrastructure to meet the needs of a growing population and a growing economy.
Better Placed: An integrated design policy for the built environment of NSW	The design process for the proposal has been developed with reference to the NSW Government Architect's (GANSW) integrated design policy *Better Placed*, with the proposed development achieving the objectives of this policy. As noted in the Design Excellence Strategy (**Appendix C**), the design of the NSWCC has been developed and critiqued with reference to the objectives of *Better Placed*.

Policy/Guideline	Comments
Draft Greener Places (NSW Government Architect Green Infrastructure Policy)	Draft Greener Places has been prepared by the NSW Government Architect to deliver the strategic approach for the planning, design and management of green infrastructure and to aid in the delivery of connected urban ecosystems across NSW. Draft Greener Places includes four key principles that typify well-designed green infrastructure, which are: 1. Integration; 2. Connectivity; 3. Multifunctionality; and 4. Participation. The proposed NSWCC is located at Wilson Park, a key green infrastructure asset, situated within the Sydney Olympic Parklands. The proposal enables the site to reach its potential by providing a number of additional shared pathways and connections through the site, which are outlined in the Landscaping Report prepared by Turf (**Appendix D**) and illustrated in the Landscaping Plan provided at **Figure 47**. These pathways will elicit better *connectivity* with surrounding recreational trails and physical connections and encourage the *participation* of community members in cycling, walking and general use of facilities, both of which are noted as key elements of well-designed green infrastructure. The proposal involves the replacement planting of at least 310 trees, to achieve a 40% canopy coverage. In turn, it achieves the NSW Government canopy coverage commitments and also embodies the key principle of integration. The proposal involves improved connectivity, stormwater management and environmental quality and also provides a facility that supports the capabilities of professional and aspiring cricketers, thus supporting community capacity and facilitating socio-cultural and economic benefits to the Western Sydney community. Therefore, this achieves the principle of multifunctionality. As such, the proposed development is a key source of Green Infrastructure, that embodies the principles espoused by this policy.
Sydney's Cycling; Walking; Light Rail and Rail Future Guidelines	*Sydney's Cycling Future 2013* seeks to increase the mode share of cycling in the Sydney metropolitan region for short trips between 20 to 30 minutes. Wilson Park benefits from access to extensive local and regional bicycle networks and the proposal will aim to increase the use of bicycles when travelling to/from the NSWCC by providing 20 bicycle parking spaces with end of trip facilities and improving the use of active transport options when accessing the site. *Sydney's Walking Future 2013* is the NSW Government's strategy to promote walking for transport and connecting people and places through safe pedestrian networks. The NSWCC will continue to promote walking to/from the site by improving awareness of walking routes. Sydney's Light Rail Future was released in December 2013. There are no light rail stations nearby. As such, it is more probable that alternate transport modes will be used to access the site. Sydney's Rail Future was released in June 2012 and establishes key actions to modernise Sydney's rail network and facilitate general operational rail improvements in Sydney. The nearest railway station to the site is Olympic Park railway station, situated approximately 2.5km south east of the site. It is more likely that alternate transport modes will be utilised to access the site.
• Sydney Olympic Park Masterplan 2030 (2018 Review) and relevant SOPA guidelines	The Sydney Olympic Park Master Plan (Master Plan 2030) sets the vision for the ongoing development of the Park's town centre including protecting the future of Sydney Olympic Park as a destination for cultural, entertainment, recreation and sporting events. Schedule 3, clause 26(1) of the SSP SEPP states that: *Development consent must not be granted for development on land within the Sydney Olympic Park site to which a master plan applies unless the consent authority has considered that master plan, except as provided by subclauses (2) and (3).* The purpose of the Master Plan is to: • provide a comprehensive approach to the development of Sydney Olympic Park; • ensure Sydney Olympic Park becomes an active and vibrant Town Centre within Metropolitan Sydney; • protect the role of Sydney Olympic Park as the premier destination for cultural, entertainment, recreation and sporting events;

Policy/Guideline	Comments
	• protect and enhance the public domain; • protect and enhance the Sydney Olympic Park parklands; and • provide detailed planning and design principles and controls to encourage development that responds to its context and contributes to the quality of the built environment and the future character and cultural significance of the site. The planning principles and general controls and guidelines in the Masterplan relate the Town Centre of Sydney Olympic Park not the Parklands. The provisions for Wilson Park are contained in the Sydney Olympic Park, Parklands Plan of Management (2010). The Master Plan 2030 (2018 Review) also seeks to guide sustainable urban renewal and development in the Park. The proposed NSWCC adopts sustainable design principles, construction practices and materials to support the objectives of the precinct. The project will include ESD techniques such as: • Passive Solar Design: The building thermal mass and insulation combinations, avoiding thermal bridging; • High performance glazed façade that balances daylight ingress and thermal performance; • Materials selected for the façade will be part of a modular system based on panel efficiencies thus minimising waste; • Use of water efficient fixtures (5 Star taps, urinals and dishwashers, 4 Star toilets and clothes washing; • Spatial and electrical provisions for power factor correction equipment if required; • High-efficiency LED lighting with an average power density of not more the lighting power densities outlined in NCC Section Part J6; • Use of motion sensors, where appropriate, to automatically switch luminaires off after a period of inactivity; • Roof rainwater capture into a 200kL tank for reuse in toilet flushing and landscape irrigation (excluding the main pitches); • Low- flow water sanitary fittings and fixtures; • Time flow Showers; • Waterless urinals; and • Construction and fit-out materials with low embodied energy.
• Sydney Olympic Park Access Guidelines 2017	The Access Statement prepared by Morris Goding Access Consulting (**Appendix DD**) confirms that the NSWCC achieves a high degree of technical compliance (or capability of compliance) with the SOPA Access Guidelines. This is discussed in further detail in **Section 6.19**.
• Sydney Olympic Park Authority's Design Excellence Policy	The architectural vision has been subject to an informed design review and integrity process in accordance with the Government Architect's SDRP. The Design Excellence Strategy at **Appendix C** and the discussion in **Section 6.1** below outline how the proposal promotes excellence in design.
• Sydney Olympic Park Major Event Impact Assessment Guidelines 2007	The Guidelines are utilised to assess the impact of developments within land controlled by Sydney Olympic Part Authority, with particular emphasis on the compatibility of uses. The Guidelines have been addressed in the Event Management Statement (**Appendix U**) and Event Plan of Management (**Appendix V)**.
• Parklands Element Design Manual	The Design Manual outlines quality and performance standards for public domain upgrades associated with developments within SOPA lands. The proposed development does not include any new works within the public domain and will not change any aspects of the access to or surrounding the site. As such the requirements of the Urban Elements Design Manual do not apply
• Sydney Olympic Park Environmental Guidelines 2008	The Sydney Olympic Park Environmental Guidelines 2008 aim to establish a high standard of environmental performance and improve the sustainability of Sydney Olympic Park. The individual objectives of the Environmental Guidelines have been addressed in Section 3 of

Policy/Guideline	Comments
	the Environmentally Sustainable Design Strategy prepared by LCI (**Appendix H**) and are discussed further in **Section 6.7** of the EIS.
• Sydney Olympic Park Access Guidelines 2017	The Access Statement prepared by Morris Goding Access Consulting (**Appendix DD**) confirms that the NSWCC achieves a high degree of technical compliance (or capability of compliance) with the SOPA Access Guidelines. This is discussed in further detail in **Section 6.20** below.
• Sydney Olympic Park Commercial Signage Policy 2018	The proposal includes signage zones, future detailed signage will be designed in accordance with the *Sydney Olympic Park Commercial Signage Policy 2018*.
• Sydney Olympic Park Stormwater and Water Sensitive Urban Design Policy 2016	The Sydney Olympic Park Stormwater and Water Sensitive Urban Design Policy 2016 has been addressed in the Stormwater Management Plan prepared by TTW (**Appendix W**) and discussed in further in **Section 6.14** of the EIS.
• Sydney Olympic Park Biodiversity Management Policy 2019	This Biodiversity Management Plan details how Sydney Olympic Park Authority will exercise stewardship over the biodiversity assets in its care and comply with applicable environmental legislation. The proposed removal and modification of the native vegetation within the subject land requires a total of 16 ecosystem credits, comprising PCT 1395 and a total of 32 species credits for the Green and Golden Bell Frog and the Southern Myotis. With the implementation of the proposed mitigation measures and the purchase of biodiversity credits, it is considered that the impacts of the Project on biodiversity will be minimal and can be appropriately managed. All biodiversity management has been addressed in the Biodiversity Development Assessment Report prepared by Cumberland Ecology (**Appendix I**) and discussed in further in **Section 6.12** of the EIS.
• Parklands Plan of Management 2010	The Parklands Plan of Management is designed to be flexible and responsive in preparing for and incrementally meeting the changing needs and expectations of the community with respect to the Parklands. The proposed NSWCC seeks to improve the quality and availability of playing fields at Wilson Park for both community and CNSW, through the upgrade and redevelopment of Wilson Park as a cricket facility. The proposed NSWCC will provide for formal and informal recreation. The proposed development will not impact on the Protect the Bioremediation Compound at Wilson Park recognising its special functions associated with leachate treatment. The River Walk will not be adversely impact on by the development.
• Parklands 2020 Vision (2002)	The Parklands 2020 Vision (2002) seeks to provide 'a landscape of hope', a globally significant model of environmental and cultural renewal. The aim is regenerate the parklands via the support of biodiversity and ecologically sustainable development; protect our natural and cultural heritage; and enrich life through research, education and recreation. The proposed NSWCC will retain up to 263 trees, whilst also replanting 310 trees to achieve a 10% site coverage with trees. This approach will protect the biodiversity values of trees and other vegetation within Wilson Park and SOP.
• Parklands Future Directions Statement 2030 (draft)	Following requests to SOPA, this document was unable to be obtained from SOPA for review and was not available online. The proposal is generally consistent with all other SOPA documents and the Parklands 2020 vision. If SOPA can provide this document an assessment can be provide at the response to submissions stage.
Development near Rail Corridors and Busy Roads – Interim Guidelines 2008	It is noted that Interim Guideline is not relevant to the proposed development, as the Guideline relates to the assessment of noise from rail and road traffic on residential uses, places of worship, hospitals, and educational establishments or childcare centres. These uses do not apply to the proposed development.
Interim Construction Noise Guideline 2009	The Guidelines are utilised to assess the impact of developments within land controlled by Sydney Olympic Part Authority, with particular emphasis on the compatibility of uses. The Guidelines have been addressed in the Event Plan of Management (**Appendix V)** and Event Management Statement (**Appendix U**).
Crime Prevention Through Environmental Design (CPTED) Principles	The Crime Prevention Through Environmental Design (CPTED) report prepared by Ethos Unban (**Appendix L**) assesses the development against the principles and confirms that the opportunities for crime can be minimised to reasonable levels and the rating would be within the 'low' category through the implementation of Mitigation Measures. This is discussed in further detail in **Section 6.9**.

Policy/Guideline	Comments
Managing Land Contamination: Planning Guidelines – SEPP 55 Remediation of Land	A Detailed Site Investigation (DSI) has been prepared by Douglas Partners and is provided at **Appendix N.** The DSI confirms that the site can be made suitable for the proposed development subject to the recommendations of the report (refer to **Section 6.3** below).
Guide to Traffic Generating Developments (RMS)	Clause 104 of *State Environmental Planning Policy (Infrastructure) 2007*, discussed further in **Section 6.6** below, requires that the development be referred to the RMS as Traffic Generating Development. This EIS is accompanied by a Transport Impact Assessment prepared by Traffix (**Appendix P**), which addresses the demand for parking and traffic generated by the proposal.
Parramatta River Masterplan (Parramatta River Catchment Group)	The purpose of the Parramatta River Masterplan is to make the Parramatta River a living river and make it swimmable again by 2025. This EIS is accompanied by a Civil and Stormwater Report prepared by TTW (**Appendix W**), which addresses the stormwater and run off for the proposal. Water quality treatment devices and water sensitive urban design features will be incorporated into the stormwater network to provide the required reduction in pollutant and nutrient loads. Primary filtration devices such as ocean guards will be used in pits, which then drain to storm filter devices such as a Jellyfish prior to discharging into Parramatta River. These techniques will ensure the run-off from the development will not adversely impact on Parramatta River.
Parramatta Bike Plan 2017 (City of Parramatta Council)	Parramatta Bike Plan seeks to enhance the productivity and liveability of Parramatta through an increase in cycling, helping foster healthy and connected residents, workers and visitors. Wilson Park benefits from access to extensive local and regional bicycle networks and the proposal will aim to increase the use of bicycles when travelling to/from the site by providing 20 bicycle parking spaces with end of trip facilities on the site.

5.3.2 State Legislation

Table 11 Summary of consistency with relevant State Legislation

Instrument	Assessment
EP&A Act	The proposed development is consistent with the objects of the EP&A Act for the following reasons: • The proposed cricket centre provides the Western Sydney community with a first-class cricket facility, where they can attend professional cricket matches, fan days and utilise first class facilities through an organised booking system. As such, it promotes the social and economic welfare of the community; • The proposal appropriately manages the existing natural environment, thereby properly managing, developing and conserving the State's natural and other resources; • As outlined in the ESD Report prepared by LCI at **Appendix H** the proposal facilitates ecologically sustainable development; • The proposed NSWCC will transform the undeveloped Wilson Park site into a first class cricket centre and thereby promotes an orderly and economic use; • The proposed development will not impact on threatened species and other species at the site or in its vicinity, namely green and golden bell frogs, as detailed in the Biodiversity Development Assessment Report at **Appendix I**; • The proposed arboricultural measures implemented with the NSWCC will adequately protect the environment and plant species, as evidenced in the Arboricultural Assessment Report at **Appendix Q**; • The proposed development site will not impact on any elements of built and cultural heritage or indigenous heritage, as demonstrated in the Heritage Impact Statement and Aboriginal Cultural Heritage Report prepared by Ecological Australia (**Appendix R** and **FF**); • The proposal promotes an improvement to the design and amenity provided at the Wilson Park site; and • The proposal includes a community consultation process and information regarding consultation is provided in **Section 3.0**. The proposed development is consistent with Division 4.7 of the EP&A Act, particularly for the following reasons: • the development has been declared to have state significance; • the development is not prohibited by an environmental planning instrument; and

Instrument	Assessment
	• the development has been evaluated and assessed against the relevant heads of consideration under section 4.15(1).
EP&A Regulation	The EIS has addressed the specification criteria within clause 6 and clause 7 of Schedule 2 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage (see **Section 6.7**). No additional approvals are required.
Biodiversity Conservation Act 2016	In accordance with this Act, an assessment of any State Significant proposal's biodiversity impacts must be undertaken as part of the provision of any SSD DA, including the provision of a Biodiversity Development Assessment Report (BDAR) in instances where it is required. The proposed removal and modification of the native vegetation within the subject land requires a total of 16 ecosystem credits, comprising PCT 1395 and a total of 32 species credits for the Green and Golden Bell Frog and the Southern Myotis. With the implementation of the proposed mitigation measures and the purchase of biodiversity credits described previously, it is considered that the impacts of the Project on biodiversity will be minimal and can be appropriately managed, refer to BDAR report in **Appendix I**.
Sydney Olympic Park Authority Act 2001	The Act establishes the functions of the Sydney Olympic Park Authority and the land it controls. The proposed development directly supports the objects of the Act, including: • promoting Sydney Olympic Park as a premium destination for cultural, entertainment, recreation and sporting events; • contributing to the activity and vibrancy of the Sydney Olympic Park centre within metropolitan Sydney; and • ensuring the NSWCC achieves best practice sustainability and environmental standards.
State Environmental Planning Policy (State & Regional Development) 2011	Development within the Sydney Olympic Park with a capital investment value of more than $10 million is identified in Schedule 2 of the SEPP as SSD. The CIV of the proposed development exceeds $10 million and as such is classified as SSD.
State Environmental Planning Policy (State Significant Precincts) 2005	Under Schedule 3, Part 23, Sydney Olympic Park is identified as a State Significant Precinct. The relevant provisions from the State Significant Precincts SEPP are addressed in **Table 12.**
State Environmental Planning Policy (Infrastructure 2007)	The proposal is deemed 'traffic generating development' under Part 3 Clause 104 as it seeks development of a public recreation facility (indoor and outdoor) that has access to a classified road and comprises 50 or more car parking spaces. Notwithstanding this, it is expected that the NSWCC is within the capacity of the existing road network.
State Environmental Planning Policy No.64 – Advertising and Signage	Signage zones are proposed; however, signage details will be provided in subsequent DAs, therefore an assessment against SEPP No. 64 is not relevant at this stage.
Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005	The Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 (Sydney Harbour REP) applies to land within the Sydney Harbour Catchment, which covers the Wilson Park. It includes general provisions relating to the Sydney Harbour Catchment. The Sydney Harbour REP prescribes a number of matters that are to be considered in the assessment of DAs. The proposed redevelopment is consistent with the aims of the Sydney Harbour REP and the relevant specific provisions for the following reasons: • The proposal will not affect the quality of water entering the waterway; • The proposal will not result in adverse impacts on terrestrial and aquatic species populations and ecological communities; • Public access to and use of the foreshore is enhanced (directly and indirectly) • There are no adverse impacts on local or maritime heritage; • The proposal is compatible with surrounding land uses and will complement the future character of Wilson Park.
Sydney Regional Environmental Plan No.24 (Homebush Bay Area)	SREP 24 was amended in 2009 by State Environmental Planning Policy (Major Development) Amendment (Sydney Olympic Park) 2009 to exclude Sydney Olympic Park from the land to which SREP 24 applies, at the same time as planning provisions for the Sydney Olympic Park precinct were transferred to the Major Projects SEPP (now SEPP SSP). Accordingly, SREP 24 does not apply to the project.
Draft State Environmental Planning Policy – Environment	The Draft SEPP Environment was released for public exhibition in October 2017 and aims to repeal and replace a number of SEPPs and SREPs that currently apply in NSW. Under the Draft SEPP, the site is identified as being within an area of 'Urban Bushland' and as such would be subject to controls relating to the protection of land that is reserved for public open space. No

Instrument	Assessment
	part of the site is zoned for this purpose at this time, and as such these provisions of the Draft SEPP do not apply. It is also noted that this Draft SEPP will also encompass the provisions of the Sydney Harbour Catchment REP. This SREP is discussed further above in the context of the proposal.
State Environmental Planning Policy No. 55 – Remediation of Land	A Detailed Site Investigation (DSI) has been prepared by Douglas Partners and is provided at **Appendix N.** The DSI confirms that the site can be made suitable for the proposed development subject to the recommendations of the report (refer to **Section 6.3.1** below).
Draft State Environmental Planning Policy (Remediation of Land)	The Draft SEPP Remediation of Land is currently under review and was released for public exhibition in January 2018. The objectives of the draft SEPP along with its key operational framework remain consistent with SEPP 55. The draft SEPP differs in that it contains new provisions that: • Require all remediation work that is to be carried out without development consent to be reviewed and certified by a certified contaminated land consultant; • Categorisation of remediation work based on the scale, risk and complexity of the work; and • Require environmental management plans relating to post-remediation management of sites or ongoing operation, maintenance and management of on-site remediation measures (such as a containment cell) to be provided to council. Refer to assessment provided within the Detailed Site Investigation prepared by Douglas Partners in **Appendix N**.
State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017	The proposed development will retain up to 263 trees, whilst also replanting 310 trees to achieve a 10% site coverage with trees. Hence, this will protect the biodiversity values of trees and other vegetation. Further information regarding trees and other vegetation is provided in the Arboricultural Impact Assessment at **Appendix Q** and **Section 6.12 and 6.13** of this report.
State Environmental Planning Policy (Coastal Management) 2018	The proposed development site is zoned as proximity area for coastal wetlands, coastal use area and coastal environmental area. The proposed development will be assessed in relation to the relevant provisions of the Coastal Management SEPP below. <u>Coastal Proximity</u> The proposed development satisfies the requirements of the Coastal Proximity Area, given that it will not significantly impact on the biophysical, hydrological or ecological integrity of the adjacent coastal wetland. Further, it does not significantly impact on the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland. <u>Coastal Environment Area</u> The proposed development is acceptable with regard to the matters pertaining to Coastal Environment Areas, in that it: • Is not located in the vicinity of any sensitive coastal lake; • Will not impede on any marine vegetation, native vegetation and fauna, along with their habitats, undeveloped headlands and rock platforms; • Implements CPTED measures in the design and planning of the proposal, in turn enhancing safe access along the foreshore; • Will not adversely impact the proximate heritage conservation area and is not impacted by Aboriginal Heritage (refer to **Section 6.11**); and • The design and siting of the proposed development responds to ecological constraints to avoid causing associated adverse impacts. <u>Coastal Use Area</u> The proposed development is acceptable with regard to the requirements for development within Coastal Use Areas for the following reasons: • The proposal does not interfere with people safely accessing the Parramatta River foreshore. In fact, it enhances the safety by implementing CPTED measures with the design and planning of the development; • The proposed NSWCC is only a two-storey building and is surrounding by trees. Therefore, it will not cause any impactful overshadowing, wind funnelling, nor view losses from public places to the foreshore;

Instrument	Assessment
	• The proposed NSWCC will provide an improved aesthetic to the Wilson Park site, in turn enhancing the visual amenity of the southern edge of the Parramatta River foreshore; • The site does not comprise any significant Aboriginal heritage elements and does not impact on surrounding cultural and built environment heritage; • The proposed development is designed, sited and will be managed to avoid any adverse impacts with relation to the matters pertaining to Coastal Use areas; and • The bulk, scale and size of the proposed development is compatible and not impactful to the surrounding coastal and built environment.
Auburn and Parramatta Local Environment Plan	The Auburn and Parramatta LEP do not apply to the site as it is identified as falling under the SEPP (Major Development) 2005 now known as SEPP (State Significant Precincts) 2005 .

5.3.3 State Environmental Planning Policy (State Significant Precincts) 2005

Part 23, Schedule 3 of *State Environmental Planning Policy (State Significant Precincts) 2005* (State Significant Precincts SEPP) identifies Sydney Olympic Park as a State Significant Precinct and establishes the statutory land use controls for the site. The proposed development's consistency with the key provisions contained in the State Significant Precincts SEPP is demonstrated in **Table 12** below.

Table 12 Consistency with the provisions of the State Significant Precincts SEPP

Clause	Comment
7. Land use zones	The Wilson Park site is primarily zoned RE1 Public Recreation. Development for the purposes of indoor recreation and outdoor recreation, is permitted with consent within this zone. The north east of the site is zoned SP2 Infrastructure, a small portion of the development encroaches on this land (1,294m^2) in the south western corner of the zone. Development for the purposes of a road is permissible with consent. The proposed development is consistent with the objectives of the RE1 zone for the following reasons: • The proposal provides an improved public domain through the provision of an additional pedestrian and shared connection that links the north of the site to the south. As such, it allows other parts of the site to be more accessible for recreational walks, whilst also providing an alternate cycling route. • The proposal includes the provision of 71 cricket practice nets. Moreover, there is the opportunity for the indoor cricket training facilities to be utilised by the public through an organised booking system. • The proposed development retains a significant number of trees (263) where possible and also proposes the replanting of at least 310 trees to offset the removal of between 304 trees. The proposal also does not pose significant adverse impacts to the habitat of surrounding wildlife, including the threatened green and golden bell frog (refer to BDAR when provided). • The proposed NSWCC provides a development that will bolster the Sydney Olympic Park precinct by providing a world class cricket facility for the development of aspiring and professional cricketers. It will also host some Sheffield Shield professional cricket matches and Big Bash fan days, in turn contributing to Sydney Olympic Park's status as a premium destination for major events. The proposed development is consistent with the objectives of the SP2 Infrastructure zone for the following reasons: • The proposed development on the SP2 land provides for an internal road which is considered to be infrastructure and is permissible in the zone. The proposed road is compatible with the zone and the RE1 zone and will not detract from the provision of infrastructure as it is located in a small portion of the SP2 zone.
18 Height of Buildings	No building height control applies to the site.

Clause	Comment
19 Floor Space Ratio	No floor space ratio control applies to the site.
20A Demolition requires consent	Approval for the demolition of existing grandstands and work to construct the NSWCC are sought as part of this SSDA.
23 Public utility infrastructure	The proposed development site is serviced by all the necessary public utility infrastructure.
24 Major event capability	Under this provision, consent must not be granted to development if the consent authority is satisfied that major events held within Sydney Olympic Park: Traffic modelling has been completed for the development which confirms that the NSWCC will not result in significant changes to the existing road network or its performance. The proposed development will directly support the functionality of the Sydney Olympic Park precinct, contributing to its existing status as a premium destination for major events by hosting major cricketing events and providing training facilities for professional and community cricketers. The proposal will provide for a functional and accessible cricket centre, without impacting the emergency evacuation procedures of the greater precinct
25 Transport	The proposed development incorporates improved and increased shared pathways throughout the site that will contribute to the promotion of public transport use and especially cycling and walking. This is demonstrated in the Landscaping Report provided at **Appendix D** and illustrated in **Figure 50.** This is also reinforced in the Traffic Impact Assessment (**Appendix P**).
26 Master Plan	An assessment of the proposal in relation to the Masterplan 2030 is provided in **Table 10.**
29 Development within an Environmental Conservation Area	The north eastern portion of the Wilson Park site, which is not part of the area where development will occur, is partially identified as an Environmental Conservation Area. The proposed development will not impact on this conservation area, as demonstrated through the Arboricultural Impact Assessment (**Appendix Q**) and the Biodiversity Development Assessment Report (**Appendix I**). Furthermore, the development implements the principles of ESD to ensure proposal is not detrimental to the natural environment.
30 Design excellence	The proposed development has been presented to the State Design Review Panel. Some comments have been incorporated into the final design.
31 Heritage Conservation	Due the height bulk scale and significant setback of the NSWCC the proposal will not adversely impact on any existing heritage conservation area including Silverwater Correctional Complex, nor item or any archaeological relics.

6.0 Environmental assessment

This chapter of the EIS contains our assessment of the environmental effects of the proposed development as described in the preceding chapters of this report.

Under Section 4.15 (1) of the EP&A Act, in determining a development application the consent authority has to take into account a range of matters relevant to the development, including the provisions of environmental planning instruments; impacts of the built and natural environment, the social and economic impacts of the development; the suitability of the site; and whether the public interest would be served by the development.

6.1 Built Form and Urban Design

The NSWCC will see the development of a state-of-the-art, dedicated, year-round cricket, training and administration facility that services both regional and metropolitan cricketers, as well as providing facilities for community use to support sport, social, health and educational programs.

The design and development will transform Wilson Park into a unique sporting venue that will have a main oval that meets ICC requirements. The design reflects and incorporates the heritage and history of CNSW whilst being

forward facing, modern and inspiring for future generations. Innovative solutions and design allows for multi-functionality of spaces to enable events for up to 1500 participants for a Big Bash League fan day and to a match day for up to 1000 spectators. Shade, seating capacity, spectator facilities, match requirements and operational requirements were also considered.

6.1.1 Scale and Form

The proposed NSWCC will deliver a good urban design outcome for Wilson Park and will help reinvigorate and activate the setting of the park. The proposed NSWCC respects the overall scale and form of Wilson Park and the surrounding industrial context, being developed to integrate with the architecture of the surrounding industrial context and parkland setting.

In response to the surrounding rectilinear warehouse sheds adjoining the site, the proposed NSW Cricket Centre's indoor centre and high performance building takes cues from its context, where each long span roof form is in response to the function it contains.

The indoor centre is required to be column free to provide a flexible internal space so it can be easily be configured for multiple functions, so the warehouse was a logical response to this criteria.

The shed form containing the High Performance and administration functions of the centre are more articulated in its nature, working within shadow planes and breaking down the eastern elevation to gain glimpses of distant views and providing improved daylighting within, whilst still being rectilinear in form.

The community centre in contrast, is responding to the cricket ground as the generator of its plan, becoming a pavilion for engaging with sport, providing a place for meeting, and respite from the elements whilst watching a game.

The massing and form of the NSWCC building is effectively a rectangular two storey building with a part one curvilinear component off the southern façade. The height of the building responds to the canopy of the surrounding trees. The built form adopts a low scale industrial quality which is consistent with the industrial character observed the south and west industrial business parks. The cricket centre will serve as a "human scale" and will not significantly dominate the overall Wilson Park. The built form is setback from the site boundary and Parramatta River to maximise the retention of key trees on the site and minimise impact on the foreshore and residences on the northern edge of the river, refer to **Figure 52.**

Figure 52 Proposed NSWCC Building setback from Parramatta River

Source: Cox Architecture

The proposed balconies on the northern and southern elevation of the first floor level, will ensure each side of the NSWCC building is activated and designed to create a welcoming environment for visitors, where previously Wilson Park was an unutilised park.

6.1.2 Detailing and materiality

Due to adverse foundations it is proposed that the NSWCC building is to be a constructed and clad in lightweight materials. The detailing and materiality of the proposal will provide a high-quality and contemporary finish whilst also integrating with the materiality of the surrounding industrial context.

The proposed building materials include translucent cladding, glass reinforced concrete cladding and timber cladding to ensure a contemporary finish to the building.

The proposed glass reinforced concrete cladding provides views and light from the building into the public domain and will contribute to the overall vibrancy and user and visitor experience.

The proposed landscaping surrounding the building softens the institutional design of this piece of infrastructure and draw on the public domain landscaping and parkland setting of Wilson Park into the NSWCC, contributing to overall visual interest. An elevation of the proposed cricket centre building and a schedule of materials, colours and finishes are respectively provided in **Figure 53** and **Figure 54** below.

Figure 53 East elevation of the site

Source: Cox Architecture

Figure 54 Schedule of colours, materials and finishes

Source: Cox Architecture

6.1.3 Functional Planning and internal Environment

The NSWCC building responds to the key requirements for high performance cricket training and administration facilities to ensure the proposal will be functional for the purposes of a cricket centre, including providing 15 indoor cricket nets.

The NSWCC main building contains a variety of uses for three main user group including professional cricketers, community cricketers and the public. The proposal includes community facilities, sports science and sports medicine facilities, an indoor cricket centre, gym, administration offices, bathrooms, locker rooms, a boardroom, café and reception among others. A detailed breakdown of the uses contained in this building is provided in the Architectural and Urban Design Report at **Appendix C**.

6.1.4 Integration with the public domain

The proposed NSWCC has been designed to integrate with the existing surrounding public domain. As the existing public domain offers excellent pedestrian and bicycle circulation, mature tree planting and vegetation, the proposed NSWCC building has sought to sensitively interface with and ensure successful design and operation of this external environment.

6.1.5 Design Excellence

The proposal is accompanied by a Design Excellence Strategy, contained within the Architectural and Urban Design Report prepared by Cox (**Appendix C**) embracing a number of design principles. These design principles build on the seven distinct objectives of the NSW Government Architect's 'Better Placed' policy, with regard to the site constraints and opportunities to achieve design excellence on the site. These principles are provided below.

Better Fit

- The proposed NSWCC has been carefully located and designed to fit within the tree-laden site, with its height also responding to the canopy of the surrounding trees.
- The main building has been setback considerably from the Parramatta River to the north of the site, minimising impact on the foreshore and residences on the northern edge of the river.
- To promote intuitive wayfinding, the primary access point to the site is the western car park, situated directly adjacent to the primary cricket centre building. Therefore, it provides for easy navigation of the site.

Better Performance

- The proposed cricket centre building has been designed to lie within the winter solstice shadow plane, as demonstrated in the Shadow Diagrams provided at **Appendix B**. This allows for the year round growth of the playing fields, ensuring that they continue to be in prime condition.
- The staff and administration areas are proposed to be oriented with a northerly aspect to enable access to the utmost daylight, whilst mitigating any acoustic impacts emanating from Silverwater Road nearby.

Better for Community

- The first class high performance cricket training facility that is to be accommodated within the NSWCC development will be a substantial enhancement to the existing community ground at the Wilson Park site, considering the existing facilities are not currently available for general community use. The indoor cricket training facilities and Oval 2 on the site will be available for community use through an organised booking system and subject to availability.
- The proposal provides additional pedestrian pathways and an extension to the existing River Walk shared path at the north of the site. This provides cyclists and pedestrians with an alternative route through the site and encourages more community use of the site.
- During operating hours, the community will be able to access the café that is contained within the proposed development.

Better for People

- The proposal builds on the existing character of Wilson Park as a sporting venue that provides a safe open space for the public to participate, albeit in a new sport (cricket) with a significantly high demand for such a major sporting facility.
- Despite the venue having restricted access at certain parts when professional teams are training or playing, the provision of such a high class cricket training and playing facility will encourage the engagement of the broader public with cricket and consequently will provide beneficial exposure of cricket to the wider public.
- The NSWCC provides increased opportunities for people to circulate through the site by foot or bicycle, as illustrated in the Public Domain and Landscape Masterplan contained in the Landscape Report (**Appendix D**).

Better Working

- The NSWCC has the primary function of providing a high performance training facility accommodating for contracted male and female Cricket NSW Big Bash leagues.

- Provides a smaller oval that is to be utilised for the purposes of cricket camps, school use and junior teams, in turn developing the future generation of cricketers and providing for Cricket NSW's key objective of NSW perpetuating the trend of developing half of Australia's professional cricketers.
- Provides spaces for community engagement and exposure towards the professional cricket training and playing facilities provided, including attendance to Big Bash fans days, in turn developing interest in cricket and exposure of the sport to the public.
- Contains business and office spaces accommodating CNSW's administration staff.

Better Value

- The proposal has been considered by various consultants to ensure that the proposal provides the utmost functionality and performance with minimal costs.
- The NSWCC has been designed with high quality and visually appealing materials that will enhance the ongoing experience for users of the proposed development.

Better Look and Feel

- The architectural design and facilities provided at the site will contribute to Sydney Olympic Park precinct's status as a premium sporting destination, by encouraging the engagement of the community in professional training, matches and participation in first class training to produce future professional cricketers.
- Its significant use as the main cricket NSW training facility and well-designed cricket centre building will bolster the undeveloped and unappealing Wilson Park site.

Recommendation

The proposed works have sensitively integrated with the overall scale, form, details and materiality to maintain the parkland and industrial setting whilst still achieving the desired functional requirements for CNSW and an overall high-quality contemporary finish. The proposal will bring new life to Wilson Park and ensure it is capable of attracting and hosting cricket events and operating into the future.

No Mitigation Measures are required by COX Architecture.

6.2 Visual Impacts

A View Impact Assessment (VIA) has been prepared by Ethos Urban (**Appendix T**) to address the detailed NSWCC design as compared to the existing situation. The assessment defines the visual catchment of the site and assesses key vantage points within the public domain that are representative of the primary visual catchment.

A series of photographs were taken around the site from key vantage points and viewed from the eye height of a pedestrian. All views are taken with a full frame camera (Canon 5d mkiv with GPS location)

These views are:

- View 1 - View from the mid-point of Silverwater Bridge, to address the viewpoint of a pedestrian crossing the bridge from its highest point to illustrate how the proposed building's roof and facade is viewed from the highest point on the bridge.
- View 2 - View from across the Parramatta River, this view is from the pedestrian pathway that fronts the northern edge of the Parramatta river which is the main active public edge.
- View 3 - View from the entry to the site from Clyde Street, this view is to assess the impact of the building as its context of the gateway to the site.
- View 4 - View from the carpark, this viewpoint is to assess the view of the western edge of the building from the carpark and pedestrian path and cycleway running along the southern back of the Parramatta River.

6.2.1 Visual catchment

Due to the size of Wilson Park, the theoretical visual catchment of the proposal is large. Despite this, a site inspection has determined that the primary visual catchment for the site is much smaller and is focussed around areas to the north and Wilson Park. The character of this visual catchment is generally in accordance with the description of place and character, noting the surrounding context of the site with River Walk and Parramatta River to the north, Silverwater Correctional Complex located to the east, industrial warehouses to the south and west and Silverwater Road running parallel to the western boundary. The primary catchment presents visually as a large parkland area playing fields in the centre of the site which is filtered with a dense canopy of trees on the periphery.

6.2.2 Views

The greatest visual impact is likely to occur at Viewpoint 4. The nature of change is derived from introduction of a new built form. As is noted, the visual impact of this is high. While the amount of new fabric visible is considerable, it is consistent with the place character at the viewpoints and visible from the viewpoints and does not fundamentally alter the visible nature or the use of Wilson Park.

While the nature of visual change is moderate from a small number of viewpoints, the impact of this change is low to moderate and is appropriate having regard to the provisions of relevant parts of applicable planning instruments. In particular, it will not obstruct or fundamentally alter the nature of views obtained from key vantage points as identified in the Master Plan and will not result in significant view loss from locations in the public domain.

Views through the site are promoted by locating the bulk of the building to the car park edge, this will also provide some acoustic shielding tot eh active areas from the busy Silverwater road. Conversely the administration area is located to provide views over the river front to the north to maximize daylighting into the office areas, to the east and to the south overlooking the main ICC and community ovals providing passive surveillance across the site.

Recommendation

The VIA confirms that whilst the nature of visual change is notable from a small number of viewpoints, the impact of the change is low and is considered to be appropriate having regard to the provisions of relevant parts of applicable planning instruments. In particular, it will not obstruct or fundamentally alter the nature of views obtained from key vantage points as identified in the Master Plan 2030 and will not result in view loss from locations in the public domain. Accordingly, no further study or refinement is required, and no specific mitigation measure has been nominated. The residual impact of the proposal is considered to be the same.

6.3 Contamination

6.3.1 Detailed Site Investigation Report

A Detailed Site (Contamination) Investigation Report (DSI) has been prepared by Douglas Partners in relation to the contamination conditions of the site (**Appendix N**).

The DSI assesses the site's subsurface conditions, including soil and groundwater contamination, using both historical and current data. The DSI includes investigations and discussions on soil vapour, groundwater and soil, at sufficient sampling density to characterise the site.

The investigation reports prepared by Groundwater Technology (1995) included 42 soil sampling locations, whilst the post remediation investigations prepared by Douglas Partners (1999) included 75 locations across the site. These numbers comply with the NSW EPA Sampling Design Guidelines which recommends a minimum of 73 sampling locations for a site of area of 6.6 hectares.

The proposed fence realignment will encroach into the area previously declared as unsuitable for any beneficial use, including the tar pits. The investigations confirmed that the proposed fence realignment does not encroach into the tar pits. Potential risks associated with the tar pits will be managed as outlined in the CMP.

No contamination requiring active remediation has been identified, and therefore a remediation action plan is not considered to be warranted.

Based on the supported land use suitability documented in the Site Audit Statement, and on the investigations and assessment summarised in the report, Douglas Partners consider that the site can be made suitable for the proposed development, subject to implementation of a Contamination Management Plan (**Appendix O**).

Recommendations

In order to meet the main objectives of the CMP, as listed above, further assessment and monitoring will be required, including (but not limited to) the following:

- An Environmental Consultant will be present to monitor planned earthworks for signs of contamination in the fill (e.g. tar, odours), both visually and using a gas detector (known as a PID);
- The Environmental Consultant will then direct an appropriate management approach to such a find, such that the source-pathway-receptor linkages identified are appropriately mitigated;
- The Environmental Consultant will review documentation provided for planned imported soil for suitability, and will conduct check sampling and testing prior to approving materials for use within the site;
- Groundwater will be sampled and tested through the course of the construction works, and for a period following, to assess potential impacts of the development (including additional fill) on the condition of groundwater;
- The proposed buildings will be fitted with a passive soil vapour mitigation system to prevent vapour intrusion into the buildings; and
- At the completion of the planned filling and compaction, the Environmental Consultant will validate the surface of the final site levels (both soil and soil vapour) to confirm suitability for the proposed site use.

6.3.2 Contamination Management Plan

A Contamination Management Plan (CMP) (**Appendix O**) has been prepared by Douglas Partners with reference to the Remediated Lands Management Plan (RLMP) prepared by SOPA dated January 2009 (SOPA, 2009).

This CMP will apply to all civil and construction activities associated with the proposed development of the site and will be integrated into the Construction Environmental Management Plan (**Appendix K**).

The site (as part of the overall Wilson Park) is one of ten engineered remediated landfill areas managed by Sydney Olympic Park Authority (SOPA) and is subject to a 'maintenance of remediation notice' issued by the NSW EPA under Section 26 of the Contaminated Lands Management Act 1997 (CLM Act).

The objectives of the CMP are to:

- Manage the integrity of the existing soil cap in the northern part of the site;
- Manage planned excavations below the cap, such that excavated soils are appropriately relocated and capped within the site, or waste classified for off-site disposal;
- Ensure that imported soils used for raising the bulk of the site are validated as being suitable;
- Ensure that any soils excavated (or cut) within the site are appropriately assessed and re-instated as directed by the Environmental Consultant;
- Manage any unexpected finds of contamination; and
- Minimise the risk of contamination exposure to workers involved in the development of the site.

The report details how certain activities should be managed including:

- Key legislation to abide by;
- Roles and responsibilities;
- Acceptance of material for filling;

- Environmental management procedures and control plan worker health and safety; and
- Contingencies.

The processes outlined in the CMP (**Appendix O**) will achieve the stated objectives and will enable the existing contamination at the site to be appropriately managed with minimal risk to the workers involved in the construction and minimal risk of environmental harm.

Recommendation

This CMP must form part of the contractor's approved CEMP for the works.

6.3.3 Site Audit Statement

A Site Audit has been conducted by the EPA accredited Site Auditor, Frank Mohen from AECOM with relation to the proposed NSWCC. A Site Audit Report has been prepared detailing the process undertaken to determine the ability of the site to accommodate the proposed development (**Appendix GG**).

The Site Audit Report concludes that the site can be made suitable for the proposed development given the following reasons:

- The Detailed Site Investigation prepared by Douglas Partners (**Appendix N**) indicates that the site will not pose unacceptable risks to human health or the environment in its proposed form and as such does not require a remedial action plan;
- No hazardous ground gases have been identified by the Site Auditor at levels that may cause harm to human health and nonetheless, the proposal comprises appropriate mitigation within the building structure;

Further to the above, the Site Audit Statement includes a condition requiring the implementation of the Contamination Management Plan (**Appendix O**) as its strategies are essential in ensuring that the site is made suitable for the proposed development. It furthermore recommends that the groundwater monitoring analytical suite contained in the RMLP be expanded to include OCPs and OPPs.

6.4 Geotechnical Investigations

A Preliminary Geotechnical Investigation Report has been prepared by Douglas Partners in relation to the geotechnical conditions of the site (**Appendix M**).

The purpose of the preliminary geotechnical investigation was to provide information on the subsurface conditions across the site. The scope of work included 44 cone penetration tests (CPTs) with pore pressure measurement (piezocones) to refusal as well as sampling and laboratory testing at 14 of the CPT locations.

The report notes that the site is one of ten engineered remediated landfill areas managed by SOPA. All works need to comply with the RLMP and relevant environmental regulations.

The field work encountered the following materials:

- Fill comprising variable mixtures of sandy clay and clayey sand with layers of clay/sand and gravel. The maximum depth of filling was 4.2m.
- Variable consistency clay including clay, silty clay and sandy clay, varying in strength from very soft to very stiff beneath the fill from a depth of between 1.4 m and 4.3 m.
- Very stiff to hard clay was present from a depth of between 1.4 m and 11.4 m and was up to 3.6 m thick.
- Shaly clay comprising interbedded clay and highly weathered shale in most test locations from depths of between 3.6 m and 11.7 m.
- Bedrock at depths of between 7.02 m and 12.66 m.
- Groundwater was observed at depths of between 1.5 m and 8.6 m.

6.4.1 Bulk Filling and Excavation

The proposed development will require bulk filling to approximately 1m above the current ground level. A detailed suitable methodology for bulk filling works on the site is stated in the report at **Appendix M**.

The proposed development has been planned to minimise excavation. However, some excavation for site drainage and to level the mounds currently located on the eastern playing field will still be required. Excavations of up to

approximately 1m on the eastern half of the site are expected. Excavation of more than 0.5 m depth is not allowed without regulatory approval, hence the appropriate approvals will need to be sought. Where it is necessary to expose the contaminated filling, appropriate controls must be put in place and additional environmental approvals may be required. Excavation below the groundwater table is expected to prove problematic and should be avoided where possible. Bulk excavation may require construction of a new capping layer. A detailed suitable methodology for new capping works is stated in the report at **Appendix M**.

Recommendations

- It is recommended that the geotechnical testing authority be engaged directly by the project principal and be independent of the earthwork's contractor.
- An assessment of the required platform capacity should be made once piling equipment has been selected. A working platform assessment by a geotechnical engineer will be required in areas of the site where heavily-loaded construction equipment is to be used.
- The suitability of the material for use within the capping layer should also be approved from an environmental perspective.
- Excavation works through the capping layer are not permitted without obtaining approval from the regulatory authority and therefore such approval will be needed.
- Dynamic cone penetrometer (DCP) tests should be carried out by a geotechnical engineer following foundation preparation to confirm that the foundation material is suitable for the design bearing pressure.
- The use of hinged slabs or unpaved areas at the building perimeter is recommended.
- It is recommended that all underground services be constructed with flexible materials and connections to allow for differential movement which could result in cracking of the services.

6.5 Environmental Amenity

6.5.1 Overshadowing

Overshadowing plans have been prepared by COX Architecture (**Appendix B**) and replicated at **Figure 55** illustrating the shadow cast by the NSWCC during the winter solstice, being the time of year when there is the greatest potential for overshadowing.

These shadows do not extend onto any neighbouring sites and are limited to a short period of time, meaning there is only a limited impact to the internal site.

Accordingly, it is clear that the proposed works will not give rise to any unacceptable overshadowing impacts and will protect the amenity of residential areas, given there are no residential properties in close proximity to the site and open space**.**

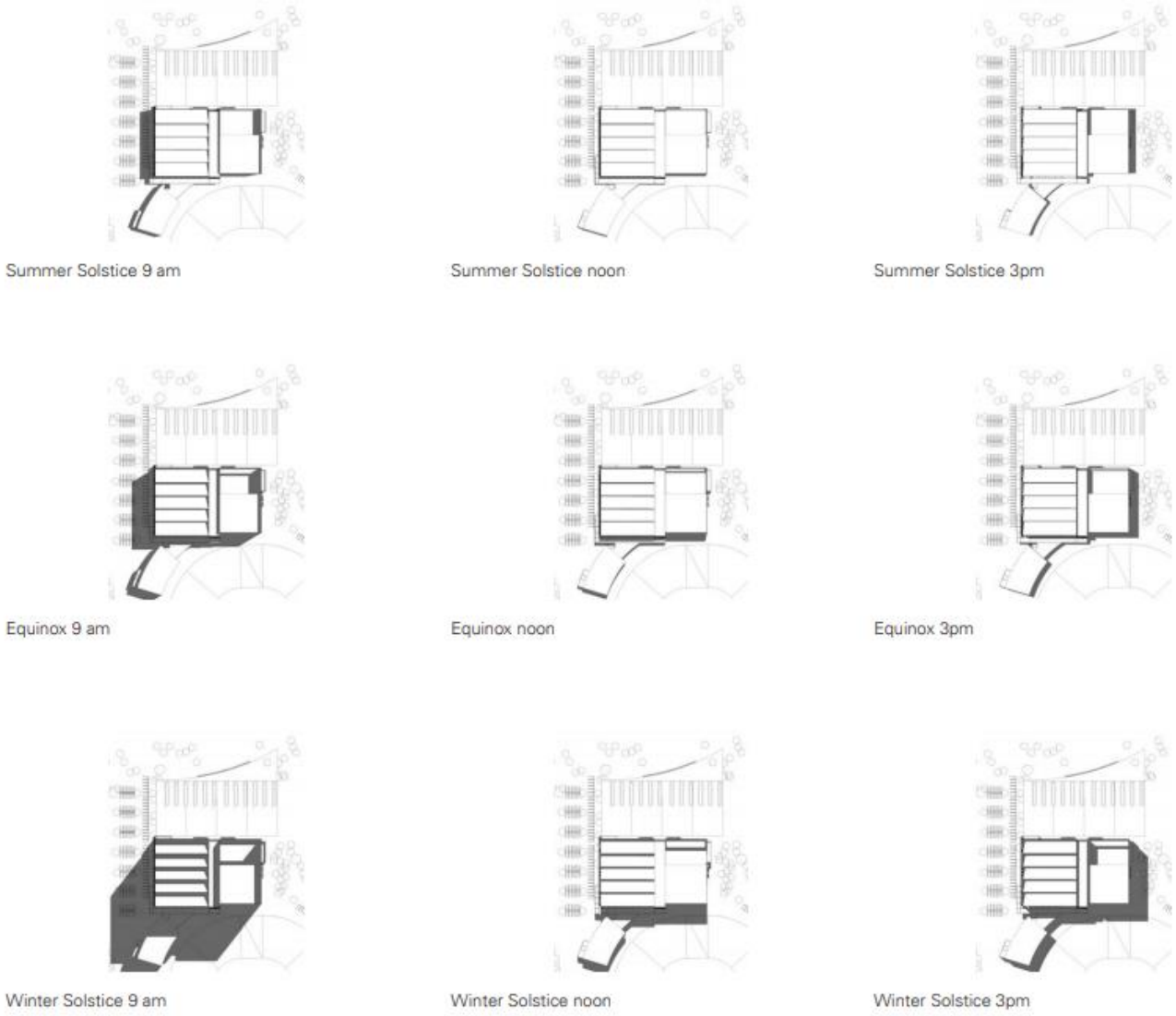


Figure 55 Overshadowing diagrams

Source: Cox Architecture

Recommendation

The assessment confirms that the proposed development does not result in any significant or adverse overshadowing impacts, and as such no further study or refinement is required and no specific mitigation measure has been nominated in this instance.

6.5.2 Wind Impacts

The prevailing winds for the Sydney region are from the southerly, north-easterly and westerly directions. The site is somewhat exposed to the prevailing winds due to the low-lying surrounding areas. In particular, the northern part of the site is exposed to the north-easterly winds due to its location fronting the Parramatta River. However, the site benefits from extensive tree planting which will shield winds from all directions, particularly the south, and it is expected that the northern portion of the site will be suitable for the proposed use (sport). The north-easterly wind in summer is generally cooler and can provide relief on hot days, which will benefit players. The proposed two-storey building to the north of the playing field is not expected to generate any adverse wind conditions at the site due to their small scale and orientation angled away from the prevailing winds. As such, due to the extensive tree planting and low scale and orientation of the proposed built form, wind conditions at the site are expected to be suitable for their intended uses.

Recommendation

It is considered that the proposed development does not result in any significant or adverse wind impacts, and as such no further study or refinement is required. No specific mitigation measure has been nominated in this instance.

6.5.3 Reflectivity

The materials selected for the proposed NSWCC building, including translucent cladding, and timber cladding were chosen to minimise reflectivity. Highly reflective materials such as glass will be limited in their application. All materials will achieve a spectral finish of less than 20%.

Recommendation

Through the selection of appropriate materials and finishes, proposed development will not result in any significant or adverse privacy impact. The following Mitigation Measure has been nominated to ensure the achievement of the reflectivity requirement.

Mitigation measure	Indicative timing
All external materials and finishes that are visible from a public road and footpath are to have a spectral reflectivity of less than 20%.	To be detailed in the construction drawings.

6.5.4 External Lighting

External lighting will be provided around the facility to provide a safe and welcoming environment for users of the facility and the general public. LCI has prepared an External Lighting Strategy detailing the proposed lighting (**Appendix G**).

Security lighting will be provided around the building perimeter and other assets to minimise dark areas and reduce the risk of vandalism. No sports lighting is proposed for the external cricket nets or ovals and the existing Wilson Park sports field lighting is proposed to be removed from the site. The proposed lighting is detailed in **Figure 56**.

Figure 56 Proposed Lighting

Source: LCI

A preliminary light spill assessment was completed, which confirmed that due to the significant distance of separation to the surrounding industrial and residential properties, the impact of spill lighting on users of the adjacent properties is anticipated to be negligible. Also, as the distance from the nearest signalised intersection (Silverwater Rd/Clyde St) to the closest luminaire is approximately 150m, the impact from spill light will be negligible. To minimise spill light onto the Parramatta River, the northern most lights in the western carpark will be switched off during curfew hours. To minimise the impact of site lighting on threatened and migratory species, mitigation measures will be adopted as outlined below.

All lighting will be designed to achieve the relevant Australian Standards for controlling the obtrusive effects of outdoor lighting.

Recommendation

The proposed lighting supports the ongoing operation of the NSWCC. The detailed design and operation of this lighting will ensure achievement of the relevant Australian Standards and that lighting is appropriately managed. The following Mitigation Measure is recommended.

Mitigation measure	Indicative timing
All applicable outdoor lighting will be design, installed, and operated in accordance with the relevant Australian Standards; AS4282, AS2560.1, and/or AS/NZS 1158.3.1, AS/NZS 2890,	To be detailed in the construction drawings, where relevant, and inform the future operation of the site.

Mitigation measure	Indicative timing
• Avoid direct illumination and minimise spill light of mapped coastal wetland areas artificial wetland areas by assessment at the mapped boundaries • Avoid direct illumination of the riverfront amenities block as this is outside the development area	To be detailed in the construction drawings, where relevant, and inform the future operation of the site.

6.5.5 Visual privacy

The nearest residential receivers are identified as being on the northern shore of the Parramatta River, approximately 200m from the site. Due to the distance and existing vegetation on the southern riverbank it is considered there would be no adverse visual privacy impacts.

Recommendation

It is considered that the proposed development does not result in any significant or adverse privacy impacts, and as such no further study or refinement is required. No specific mitigation measure has been nominated in this instance.

6.6 Transport, Traffic, Parking and Access

Traffix has reviewed the proposed development in terms of transport, traffic, parking and access impacts. The assessment is included at **Appendix P** and is summarised below.

6.6.1 Car parking

A total of 221 car parking spaces have been provided within the eastern (110 spaces) and western (111 spaces) car park on the site, 4 accessible parking spaces will be provided in the western carpark as per AS2890.6. The parking rates for recreational uses under SOPA's Masterplan 2030 require 3 spaces /100sqm and 1 space /2 staff. Given the above criteria for recreational use is for the general public, Traffix notes a first principles approach to parking numbers derived from the operation details for the centre is considered more appropriate.

Noting the various functions of the NSWCC, the proposal has been assessed for three scenarios representative of typical and extraordinary peak conditions, including, normal weekday core operations, normal weekend peak demands, and occasional special event peak demands.

The onsite parking capacity of 221 spaces will comfortably accommodate the weekday core demand of 175 spaces and the weekend peak demands of 118 spaces as outlined in **Table 13**. The development may accommodate special events hosting up to 1500 people for a fan day or Sheffield Shield cricket where parking capacity can be expanded to 550 spaces using the Clyde Street public carpark (90 spaces), and parking on Oval 2 (250 spaces) to accommodate the projected demand for 500 spaces.

Table 13 Car Parking Details

Operational Use Parking	Number of People	Adopted Parking Rates	Proposed Parking Spaces Required
Weekday Core Operations (typical business day)	47 professional players 170 administrative staff 40 junior players	Professionals: 1 space/1.3 players Staff: 1space/2 staff Junior players: space/1.5 players	175spaces Spare capacity: 46
Weekend peak demands (junior game days)	40 junior players and coaches 50 spectators 47 professional players 40 junior team players 20 administrative sports staff	Junior players/coaches and spectators:1 space/2 players Professionals: 1 space/1.3 players Staff: 1space/2 staff Junior players: space/1.5 players	118 spaces Spare capacity:103
Occasional special event (fan day events/ ICC match days)	1500	Patrons: 1 space/2.5 patrons	500 spaces Spare capacity: 50 Site (221 spaces) Clyde Street carpark (90 spaces), Oval 2 (250 spaces)

6.6.2 Bicycle Parking

Section 4.7 of the SOPA Master Plan 2030 does not stipulate bicycle parking rates for recreational facilities. Notwithstanding, the proposed development will provide 20 bicycle parking spaces with end of trip facilities.

6.6.3 Bus Parking

A 32 metre bus zone is to be provided at the western car park, facilitating all bus needs for the development. This area is capable of accommodating two 14.5m coaches, which will be the largest bus type expected and used by professional sports teams.

6.6.4 Service Vehicle Parking

The abovementioned bus zone will also accommodate heavy vehicle servicing demands including deliveries and waste collection, which are not expected to occur during event periods when buses will be relied upon. The proposal includes the provision of nine B99 service vehicle spaces, which will cater for the maintenance fleet operated by Cricket NSW. The provision of the loading and servicing spaces is considered sufficient to accommodate the future needs of the venue.

6.6.5 Traffic Generation

During weekdays the NSWCC will accommodate different activities simultaneously and will draw on a variety of users at any time, including employees, professional and junior players, parents and visitors.

On a typical weekday, the NSWCC would generate a total of 72 vehicle trips per hour during the AM peak period and 106 vehicles trips during the PM peak period. These numbers are based on the cumulative impacts of administration staff, professional staff as well as six non-professional teams using the site. The intersection of Silverwater Road and Clyde Street will continue to perform with the same Level of Service of B in the AM and E in the PM peak period. The maximum increase in overall delay is 3.2 seconds and impacts at this intersection are considered minimal. These intersections have also been tested for special event conditions and perform with a minimum Level of Service of B on weekends, thus demonstrating capacity to accommodate 1,500 patrons.

Conclusion

The onsite parking capacity of 221 spaces will comfortably accommodate the weekday and weekend core demand and accommodate special events of up to 1500 patrons utilising the Clyde Street park and Oval 2 for parking. There would be no reliance on any on street parking. The site accesses at Clyde Street and Newington Road can accommodate high volumes of traffic during special events. The results of intersection modelling demonstrate that the existing level of service will be maintained. Strategies for public transport can be formalised in a Green Travel Plan.

Mitigation measure	Indicative timing
A detailed Green Travel Plan is to be prepared outlining practical measures and initiatives to ensure that the NSWCC works towards the greater use of sustainable modes of transport to reduce car dependency. The Strategy is to include a two-yearly review system to assess travel demand and make refinements to the initiatives.	Prior to the commencement of operations, and ongoing relevant, and inform the future operation of the site
A detailed transport management plan can be drafted to ensure that activities can be scheduled to manage impacts during peak periods and events which may also incorporate public transport strategies during special events.	

6.7 Ecologically Sustainable Development

The incorporation of Ecologically Sustainable Development has been devised for the design, construction and operation of the proposed development. An ESD Report has been prepared by LCI Consultants (**Appendix H**) which addresses the ESD principles and outlines the sustainable development initiatives that will be incorporated into the future development. These initiatives are as follows (see **Figure 57**):

- **Building Envelope:** Utilisation of building materials that enable maximum efficiency and thermal performance, whilst minimising waste.

- **Energy Efficiency:** Integration of various initiatives that will reduce energy use and greenhouse gas emissions.
- **Water Efficiency:** Various water reduction measures, recycling of water and general optimisation of water efficiency for the development.
- **Materiality:** Use of materials that reduce waste generated on site, along with materials that maximise energy efficiency.
- **Waste Management:** Divert the vast majority of construction and demolition waste from landfill and effectively organise and encourage recycling throughout the development.
- **Transport:** Green travel provisions are incorporated into the proposed development.
- **Pollution Control:** Ensure soils and fill used onsite are free from contamination. Leachate treatment plant to be retained. Construction and Environmental Management Plan (**Appendix K**) prepared to eliminate pollutant run-off into Parramatta River.
- **Biodiversity:** Minimising the removal of existing vegetation and offsetting that which is removed with endemic plant species that can co-exist with existing vegetation and support local wildlife.
- **Public Open Space:** The protection and maintenance of environmental and ecological features will be addressed by facilities management.
- **Construction and Operational Management:** Metering water and energy consumption, maximisation of construction waste diverted from landfill, preparation of an environmental management plan and adhering to best practice building commissioning and tuning processes to maintain operational efficiency of building services.
- **Indoor Environmental Quality:** Provision of quality views, daylight access, high levels of thermal and acoustic comfort and diminishing the use of volatile organic compounds.

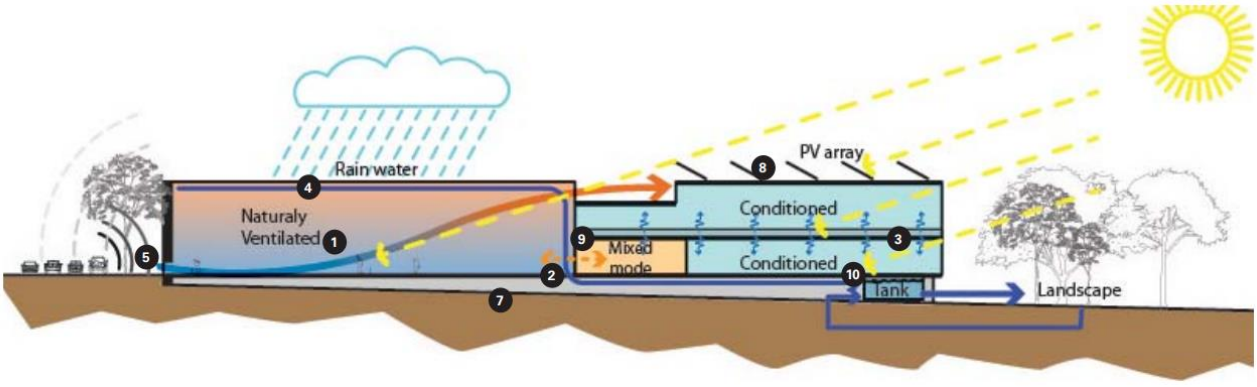


Figure 57 Environmental Initiatives

Source: Cox Architecture

The NSWCC has been assessed against the relevant sustainability framework including the *Sydney Olympic Park Environmental Guidelines 2008*, the *NSW Energy Efficiency Action Plan*, the *NSW Government Resource Efficiency Policy,* and the National Construction Code. This confirms that, where applicable, the proposed development is consistent with the relevant water conservation, energy conservation, material selection, and pollution control objectives and measures.

Recommendation

The Strategy at **Appendix H** outlines the minimum compliance requirements of the NSWCC to address energy, water and materials efficiency as well as climate resilience in accordance with the relevant sustainability framework. These enable environmentally responsible in the consumption of resources and creates a more enjoyable and healthier experience for players, staff and visitors.

Mitigation measure	Indicative timing
The detailed design of the NSWCC is to implement the initiatives identified in the An ESD Report has been prepared by LCI Consultants.	Once operational

6.8 Noise and Vibration

Acoustic Logic has completed an Acoustic Impact Assessment (**Appendix J**), to identify and provide a quantitative and qualitative assessment of the noise generating sources produced during the operation of the NSWCC. The assessment considers the surrounding land uses and the noise criteria and outlines mitigation and management strategies that have shaped the final design and operation of the NSWCC.

Acoustic Logic determined the nearest potentially affected receivers and existing noise impacts and provided four unattended noise monitors around the boundaries of the site as detailed in **Figure 58**. Unattended noise monitoring was conducted on 7 August 2019 and attended noise monitoring on 24 August 2019 between 4-5:30pm.

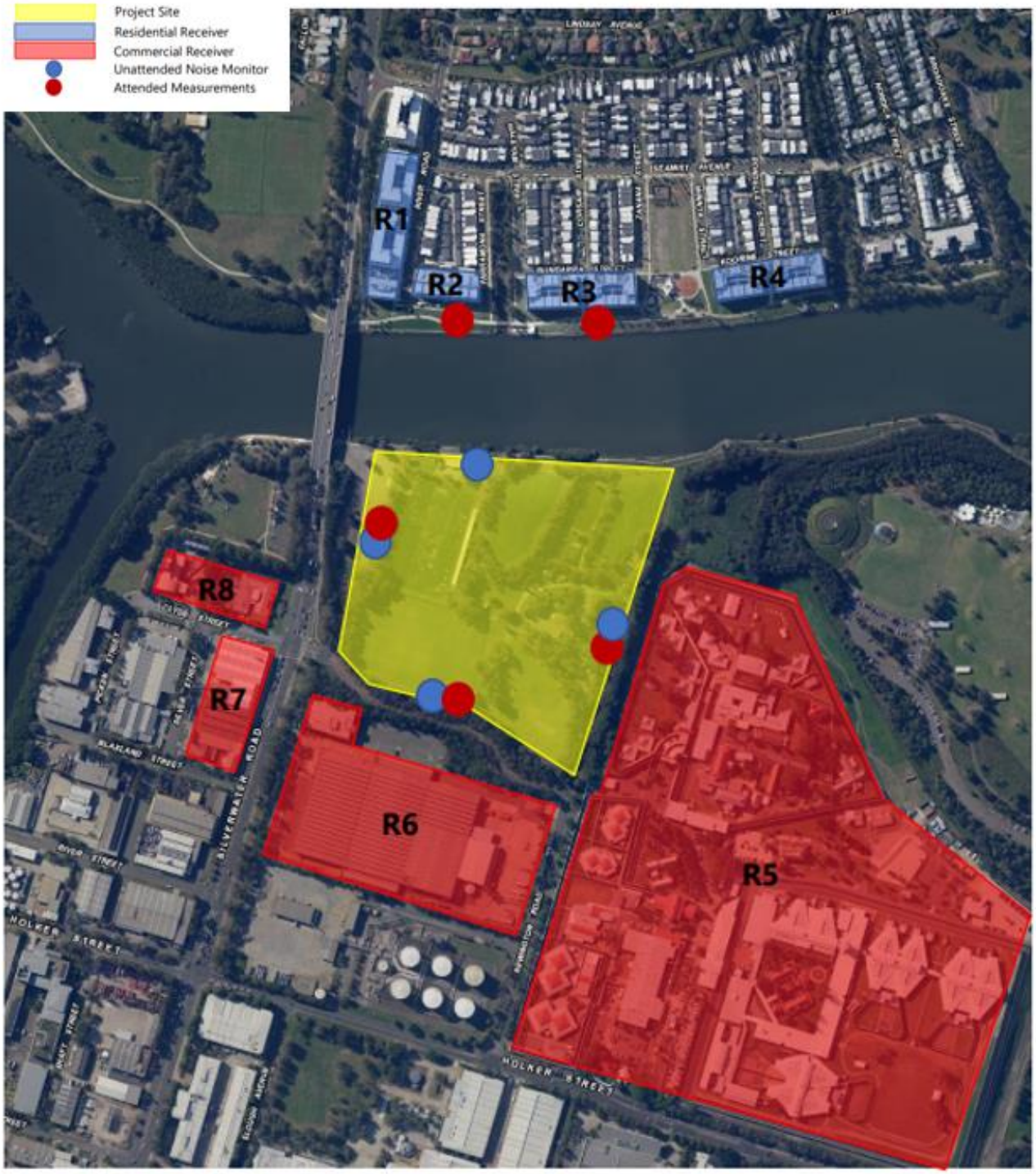


Figure 58 Noise catchment areas and receive types

Source: Acoustic Logic

Background noise levels vary between the boundaries, with the northern boundary being representative of residential developments across the river. Noise emissions to residential developments are a key issue.

The most significant noise sources emanating from the NSWCC would be from noise emissions from usage of the outdoor cricket pitch (batting cages) on the north western corner of the development towards residential development across the river.

Receivers R1 and R2 (residential developments across the river) are predicted to be exposed to noise levels up to 53 dB(A) on their southern façades during the day and evening periods. This is the allowable maximum based on EPA Noise Policy for Industry project noise trigger levels specific to the development (Intrusiveness Criteria: Background + 5 dB(A) for daytime and Amenity Criteria for evening time).

Recommendation

The above mentioned acoustic impacts during operation and construction of the proposed development will be appropriately mitigated through the implementation of the recommendations contained in the Acoustic Impact Assessment (**Appendix J**) and the Construction and Environmental Management Plan (**Appendix K**).

Mitigation measure	Indicative timing
Management controls should be utilised to manage patron departure, particularly at night to ensure patrons leave in a prompt and orderly manner.	Once operational
Car park floor is to be broom or similar finish to avoid tyre squealing noise.	Construction
No PA system use before 8am every day.	Once operational
Once plant location is determined, specific noise mitigation methods will be adopted to meet the noise objectives determined for plant noise.	Construction
Implement a complaint register which is stored on site and accessible at all times. Ensure staff register noise complaints and action that has been taken.	Once operational

The CEMP prepared by Mostyn Copper (**Appendix K**) provides a preliminary analysis of noise and vibration emanating from the development of the NSWCC and sets out the general requirements of the contractor with regard to the management of construction noise emissions.

The CEMP sets out that no machine work is to be conducted outside the normal working hours, unless written approval is obtained. Furthermore, it confirms that the noise and vibration from plant equipment and building services related to the proposed works will not give rise to an offensive noise as defined under the relevant Australian Standards and the Interim Construction Noise Guideline.

The main contractor on the site is responsible for the provision of noise monitoring where possible during the works, compliant with the relevant legislative requirements. A more detailed Construction Noise Management Plan is to be prepared specifying the performance requirements for the contractor on site.

6.9 Crime prevention through environmental design

A CPTED Report has been prepared by Ethos Urban (**Appendix L**) which outlines the project, policy, and crime context for the project and makes recommendations about appropriate CPTED strategies to reduce the opportunity for crime to occur. Mitigation measures have been developed to minimise the level of crime risk in these areas into the detailed design phase.

A review of crime occurring in the precinct area confirms that the atypical and high proportion of visitors to residents skews the available crime data and, therefore, using the standard crime rating statistical tool of incident rate per 100,000 population is not considered an accurate or appropriate tool to use when attempting to understand victimisation or offending rates in Sydney Olympic Park. Notwithstanding this, the development of the Cricket NSW Centre of Excellence should still be mindful of crime statistics and therefore this report will pay particular regard to deterring occurrences of ‘Steal from person’. These hotspots do not reflect the actual risk of victimisation.

The development will increase the number of people using and visiting the site, which provide for increased natural surveillance throughout the site. This includes paid staff, coaches, training technicians, groundsmen, players, students and attendees of events. However, it is likely that such activity will be primarily concentrated during daylight hours. This provides an improved outcome, considering that the adjoining land uses on three sides (except for the prison, which provides highly formalised surveillance) do not currently provide a level of natural surveillance, refer to **Figure 59**. The CPTED Report recommends maintaining sightlines to and from the proposed development and the surrounds by ensuring signage, landscaping and equipment do not create a visual obstruction – particularly with regards to the north/south view corridor from the cycleway

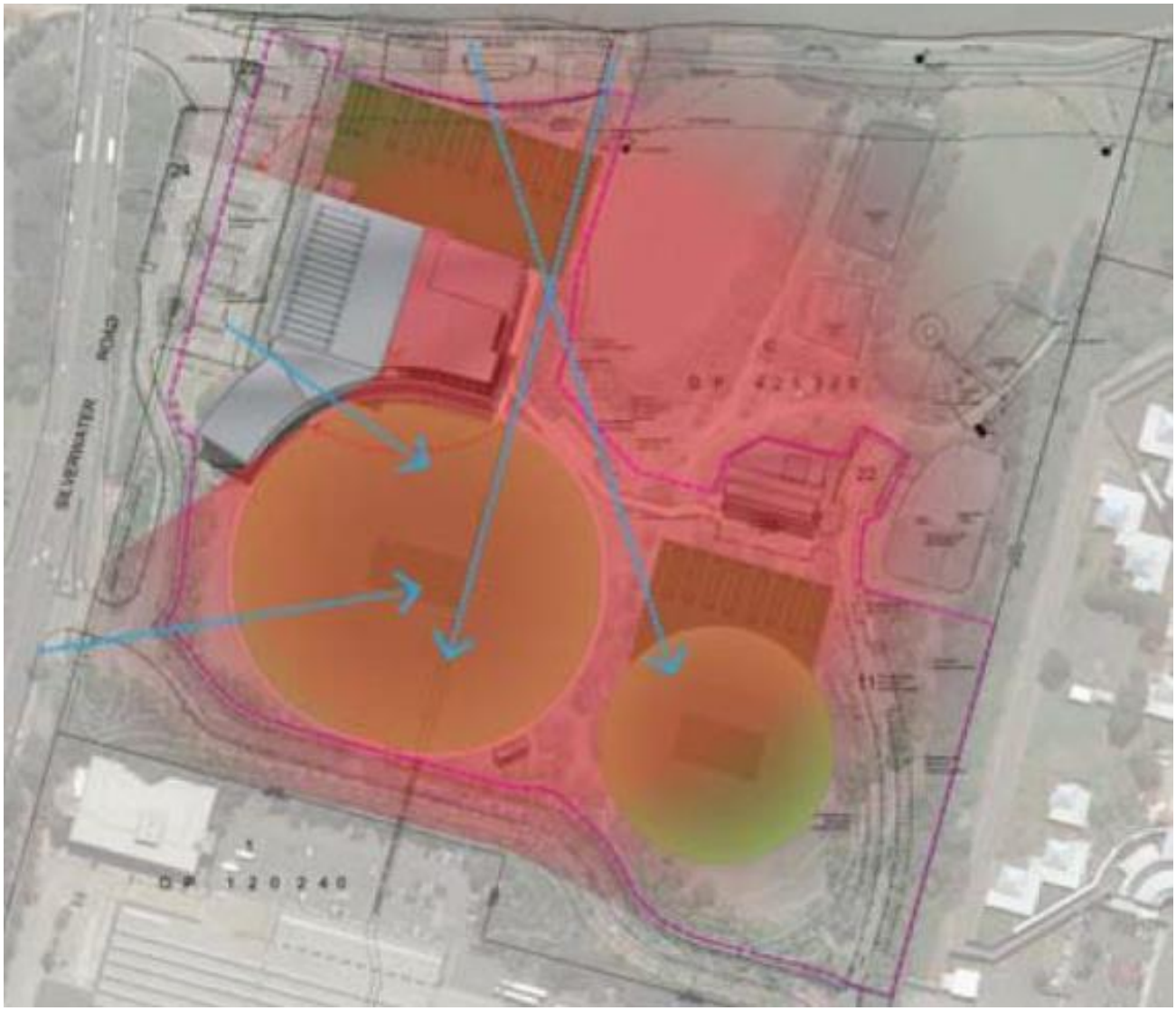


Figure 59 View Lines and Corridors of the Proposed Development

Source: Cox Architecture

Improved surveillance into the car park will be a particularly beneficial outcome of the development. The existing grade separation and lack of buildings fronting this area is not considered to provide an adequate disincentive for possible criminal activity, particularly after dark.

The provision of practice nets at the north of the site adjacent the river walk is an effective strategy of providing visual interest and activation, particularly around the toilet block. It is likely that views of professional local, state or national players training in these nets will increase the level of activity and guardianship in this area.

The assessment considers these potential crime categories and confirms that the opportunities for crime can be minimised to reasonable levels and the rating would be within the 'low' category through the implementation of Mitigation Measures.

Recommendation

The assessment confirms that the current design generally achieves the principles of CPTED and offers detailed recommendations on how to further improve safety within the site where appropriate. Further details on specific measures such as lighting layouts and surveillance camera (CCTV) layouts will be progressed at the detailed design and construction phase in accordance with the relevant standards and in coordination with security consultants and NSW Police.

The recommendations of the CPTED Report have informed the following Mitigation Measures.

Mitigation measure	Indicative timing
Consideration be given to providing technical supervision (through CCTV or similar) from the lobby area overlooking the car park to add additional surveillance to this area. Any potential CCTV system and placement of cameras or other technical equipment should be undertaken by a qualified security consultant with a Class 2A licence under the Security Industry Act 19	To be detailed in the construction drawings where possible, and/or implemented prior to occupation.
A lighting strategy is to be designed and implemented in consultation with a suitably qualified lighting expert to ensure that the CCTV network is effective, and the building will be lit during the night.	To be detailed in the construction drawings where possible, and/or implemented prior to occupation.
The final detailed construction drawings are to have consideration of the recommendations in Section 8 of the CPTED Report prepared by Ethos Urban (September 2019) as applicable.	To be detailed in the construction drawings

6.10 Public Domain and Landscaping

A Landscaping Report has been prepared by Turf Design Studio and is provided at **Appendix D**. An image of the proposed Public Domain and Landscape Masterplan demonstrating the proposed landscaping is captured in **Figure 47**. Landscaping is integral to the proposed development, given the parkland character of the site. Turf Design Studio's report addresses the integration of the landscaping with the proposed built form, the external amenity provided, security, topography and considers the existing vegetation. All these factors will be summarised below.

6.10.1 Integration with Built Form

The proposed landscape will integrate seamlessly with all the built elements of the development. The practice nets that are proposed to be located to the north of the development will be surrounded with existing and newly planted indigenous vegetation, enabling the nets to seamlessly integrate into the Wilson Park site. South of the main NSWCC building will be hardscaping with special plaza paving that is complementary to the oval form and architecture.

6.10.2 External Amenity

Furthermore, the proposed landscaping incorporates various external amenities for visitors and the surrounding community. These include:

- External plaza between the new centre and community building;
- Overhead architectural feature;
- Spectator hill;
- Additional pedestrian pathways and connections;
- Circuit path surrounding cricket ground;
- Strategic tree planting for shading;
- Pedestrian prioritised driveway with parking; and

Any proposed planting within the site will conform to the vegetation communities recommended by the ecologist to be found on site, in particular, Swamp Oak Floodplain Forest and Mangroves, identified as a high constraint, will not be impacted by the landscape proposal. The landscape plan will provide immediate offset for this removal through tree for tree replacement. The proposed soft scaping to the project site will be key to advocating the landscape aspiration.

Recommendation

No mitigation measures were recommended by Turf Design Studio.

6.11 Heritage

6.11.1 Non Indigenous Heritage

A Heritage Impact Statement (HIS) prepared by Ecological Australia is provided with this application (**Appendix R**). The HIS undertakes a review of all works against the relevant policies and concludes the works will have an acceptable heritage impact. A summary of the HIS findings in relation to the proposal are provided below.

The study area is located adjacent to the State Heritage listed “Silverwater Prison Complex Conservation Area” (SHR 00813**)** This site is also listed as a Conservation Area listed under Schedule 5 of the Auburn Local Environmental Plan 2010 (Area C00813).

Ecological confirm that Silverwater Correctional Complex is of exceptional significance as it is the core remaining part of John Blaxland's Newington Estate and of the State Hospital & Asylum for Women, for its subdivision and subsequent use for a variety of institutional functions, as an expression of a philosophy regarding the care of the aged.

Ecological note that the proposal is sympathetic with the existing park layout retained and the main building located approximately 320m to the west of the Correctional Centre. Trees will be maintained along the boundary of the park and Correction Centre where possible. No impacts to the heritage item itself are proposed, the works will occur outside of the heritage curtilage. No changes to views will occur due to the height of fences surround the Prison Complex, also as the core heritage buildings are located at the centre of the prison, and as such are not visible from outside the perimeter fence.

Archaeological relics associated with Newington Estate are not likely to be located within the study area due to the extensive amount of ground disturbance resulting from the construction and subsequent decommissioning of the PACCAL Gasworks.

Ecological confirm, there will be no direct or indirect impacts to the heritage significance of the Correctional Centre resulting from the construction of the NSWCC within the study area and as such no further heritage assessments or approvals are required for the development to proceed.

Recommendation
In the event that any suspected historical archaeological relics be uncovered during construction works, a suitably qualified archaeologist should be called to assess the finds. If deemed to be relics, the Heritage Council must be notified of the discovery under Section 146 of the Heritage Act 1977 and appropriate assessment and management determined and put in place.

6.11.2 Indigenous heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared by Ecological Australia is appended with this application at **Appendix FF**.

The report undertakes an assessment of the site for potential Aboriginal heritage in accordance with the Office of Environment and Heritages (OEH) ‘Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECC, 2011).

Aboriginal community consultation was undertaken for the project following the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010). The consultation registration process resulted in the registration of five (5) different Registered Aboriginal Parties (RAPs) for the project.

The study area is located within territory that was occupied by the Wangal clan – of which Bennelong was the best-known member. The Wangal clan extended from Lane Cove to Parramatta and Rosehill on the southern side of the Parramatta River. Recorded Aboriginal sites along the Parramatta River confirm that Aboriginal people were actively participating in river fishing, eeling, gathering shellfish as well as hunting kangaroos, wallabies and other small land mammals, reptiles and waterfowl

The entirety of the study area is listed as being within a “disturbed terrain” soil landscape, according to NSW Soil and Land Information System mapping. Further background mapping and research shows that the site was a former gasworks, established post 1940. Contaminated soils were dumped at the site in the form of waste liquid tar. The remediation for this contamination was to “cap and contain” which involves importing fill to the site and capping the potential contaminated soils with clay. Remediation was undertaken through the 1990s due to the construction of the Sydney Olympic Park which aimed at “beautifying” areas along the Parramatta River.

A site survey by ELA Archaeologist Daniel Claggett and Kevin Telford, Heritage Site Officer with the Metropolitan Local Aboriginal Land Council, confirmed the extensive disturbance of the study area. The entirety of Wilson Park has been remediated and approximately three-quarters of the site currently consists of sports fields and recreation areas built on fill material. The remaining northeast quarter of the study area is restricted from public access due to the contaminated nature of the subsurface, which consists of two tar sludge waste mounds, in addition to surface waste processing ponds and infrastructure being used to rehabilitate the area. Site survey identified nil archaeological potential across the whole area.

All survey has been completed in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010).

The ACHA has identified that zero Aboriginal heritage sites will be harmed by the proposed development. There is nil archaeological potential across the entirety of the study area and no archaeological mitigation measure are required.

Recommendation

No further archaeological assessment is warranted for the study area. Although general measures will need to be undertaken. These general measures include:

- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 regardless if they are registered on AHIMS or not. If suspected Aboriginal objects, such as stone artefacts are located during future works, works must cease in the affected area and an archaeologist called in to assess the finds.
- If the finds are found to be Aboriginal objects, the DPIE must be notified under section 89A of the NPW Act. Appropriate management and avoidance or approval should then be sought if Aboriginal objects are to be moved or harmed.
- In the extremely unlikely event that human remains are found, works should immediately cease, and the NSW Police should be contacted. If the remains are suspected to be Aboriginal, the DPIE may also be contacted at this time to assist in determining appropriate management.

The ACHAR should be submitted for registration on the AHIMS register within three months of completion.

6.12 Biodiversity

A Biodiversity Development Assessment Report (refer to **Appendix I**) has been prepared for the site by Cumberland Ecology using the Biodiversity Assessment Method (BAM) as established under Section 6.7 of the *Biodiversity Conservation Act 2016* (BC Act) as the site may have a significant impact on biodiversity, in particular the Green and Golden Bell Frog.

The site is considered to contain known habitat for the Green and Golden Bell Frog as it occurs within the vicinity of one of the eight key populations, Homebush Bay (DEC (NSW) 2005b). In addition, the artificial wetlands located within the Wilson Park are considered potential habitat for the species. They are also known to favour terrestrial habitats with extensive grassy areas, such as the ones located within the development site (DEC (NSW) 2005b). According to the Database of Threatened Biodiversity, 13,365 sightings have been recorded within a 5 km radius, including 14 on the subject land (OEH 2019a).

The report outlines key findings of the overall biodiversity assessment, and provides measures to avoid, minimise and mitigate impacts to the vegetation and species habitat present within the campus.

Key findings of the BDAR is summarised below:

- The biodiversity values of the south-western portion of the subject land are limited, due to the historical vegetation clearance and current use of the land as sports fields and recreational areas

- Four PCTs (1395, 1183, 1234 and 920) have been identified within the subject land. Other areas of the subject land are occupied by three artificial wetlands, exotic planted vegetation, exotic grassland and cleared areas.

- The subject land contains several fauna habitat features, including 3 hollow-bearing trees and three artificial wetlands. There is some connectivity between native vegetation within the north-eastern portion of the subject land and the native vegetation of the adjacent Blaxland Riverside Park.

- The development envelope is positioned over an area within the subject land containing the lowest biodiversity values, consisting predominantly of exotic grassland and scattered native trees, including non-endemic native species. In doing so, the proposal has considered the biodiversity values of the vegetation within the subject land and has demonstrated reasonable steps to avoid and minimise impacts based upon the proposed location within the site, including avoiding all potential breeding habitat for the Green and Golden Bell Frog.

- The proposal will result in some residual impacts to biodiversity including the clearance of approximately 1.3 ha of PCT 1395 – Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest within the development site, subsequently, at least two hollow-bearing trees will be removed.

- Potential indirect impacts of the proposal include inadvertent impacts on hydrological processes and adjacent habitat, and prescribed impacts such as habitat removal that facilitates movement of native fauna and prescribed impacts on hydrological processes have been considered.

- A suite of mitigation measures has been proposed to minimise the direct, indirect and prescribed impacts of the Project, such as construction mitigation measures, tree protection measures, weed management and pre-clearance surveys.

Recommendation

A list of recommendations is proposed to manage impacts prior to and during construction, as well as the operation phase of the development. Where residual unavoidable impacts are observed, biodiversity offset credits need to be purchased. As the Project includes removal and modification of areas of native vegetation, offsets are required in the form of ecosystem credits and species credits. This assessment indicated that the removal and modification of the native vegetation within the subject land requires a total of 16 ecosystem credits, comprising PCT 1395 and a total of 32 species credits for the Green and Golden Bell Frog and the Southern Myotis. With the implementation of the proposed mitigation measures and the purchase of biodiversity credits described previously, it is considered that the impacts of the Project on biodiversity will be minimal and can be appropriately managed.

6.13 Tree Removal and Protection

An Arboricultural Impact Assessment has been prepared by NewLeaf Aboriculture (**Appendix Q**) which considers the trees present within the proposed works area, including those to be retained and those to be removed.

A visual tree assessment was carried out by Jacki Brown, Arboricultural Consultant in February and March 2019. There are two hundred and eighty two (282) trees within the footprint of the proposed development including fifty eight (58) within the fill for landscape level regrading. Of these, one hundred and twenty two (122) are High Retention Value trees, one hundred and forty three (143) are Medium Retention Value trees, and seventeen (17) are Low Retention Value trees.

A total of 304 trees within or in proximity to the works area are identified as being necessary for removal. Of these, 310 trees will be replaced as part of the new landscape proposal.

To address the biodiversity and canopy coverage aims of the project, native trees of a diverse range of species will be planted as replacements on site. Species will be chosen from a diverse size and range and will include trees with potential to become large canopy trees, such as Eucalyptus, Casuarina, Syncarpia, Angophora and Corymbia species.

Trees near or in the vicinity of the work area will be retained and protected in accordance the Australian Standard AS4970 2009 Protection of trees on development sites and the additional protection measures set out under the Report.

Recommendation

- It is recommended that construction proceeds in accordance with the Australian Standard and the specific additional

- Tree protection measures recommended by the arborist are implemented.

- Provide at least 10% of the site area as tree planting area, and at least three hundred and ten (310) individual trees, to offset the loss of trees on site, and return the site to at least 40% canopy coverage in line with NSW Government canopy coverage commitments.

- Select native tree species from a range of mature size, species types and habit, to increase biodiversity and amenity on the site.

- Monitor all trees on site for the duration of works and for 12 months following, before implementing a regular tree maintenance programme

6.14 Water, Drainage and Flooding

6.14.1 Stormwater Concept Plan

The proposed design of the stormwater system for the development includes both minor and major stormwater conveyance systems, consisting of conventional pit and pit drainage networks, refer to **Figure 60**. Stormwater is captured, detained, treated and discharged to the existing stormwater culverts draining to Parramatta River. A traditional pit and pipe network of surface inlet pits and concrete stormwater pipes is proposed. The roof drainage proposed is a syphonic downpipe system. Energy break pits will be incorporated into the stormwater network by the Hydraulics consultants prior to discharge to the stormwater network to reduce discharge velocities/energy conveyance into the remaining stormwater network.

Figure 60 Stormwater Concept Plan

Source: TTW

6.14.2 Rainfall Events

The drainage design has inbuilt capacity to cater for long term rainfall increases due to climate change and is responsive to the CSIRO projected impacts of climate change. The minor drainage system as designed caters for the 5% AEP rainfall event in piped systems, which is a 20% increased rainfall intensity over the required 10% AEP

design rainfall. All major drainage systems have allowed for the current 1% AEP, with unrestricted overflows diverted away from buildings if capacity in exceeded. All overland flow paths for greater rainfall events have been designed with free unrestricted outlets and increases in rainfall intensity and more extreme rainfall events are factored into this design.

6.14.3 Water quality treatment

Water quality treatment devices and water sensitive urban design features will be incorporated into the stormwater network to provide the required reduction in pollutant and nutrient loads. Primary filtration devices such as ocean guards will be used in pits, which then drain to storm filter devices such as a Jellyfish prior to discharging into Parramatta River.

6.14.4 Flooding

The likelihood of flooding has been assessed in the Flood Impact Assessment Report prepared by TTW (**Appendix Y**). The proposed development improves the flood levels within the site, where the maximum ponding depth is reduced by 200mm and reduces the upstream flood level by 100mm. The proposed development does not have any negative impact with respect to flooding on neighbouring properties. TTW recommends that the finished floor levels be a minimum of 3.68mAHD to provide adequate freeboard (500mm) to the 100 year ARI flood in accordance with Council's DCP.

6.15 Utilities and services

LCI Consultants has prepared a Hydraulics Services Strategy Report (**Appendix E**) and a Utilities Report- Electrical (**Appendix F**) that identifies the existing utilities and infrastructure in vicinity of the site and notes any expected impacts or required upgrades as a result of the proposed development. The report also defines the strategy for the new electrical, water, sewer and gas connections.

Preliminary consultation has been undertaken with the relevant service providers, noting that further consultation will be required to obtain the necessary consents prior to undertaking works on the site or in the vicinity of existing infrastructure. The assessment confirms that the existing stadium can continue to be appropriately serviced.

Recommendation

LCI Consultants also developed preliminary design solutions for connecting new infrastructure to surrounding utilities and services. Issues raised by providers will be addressed and incorporated into the detailed design of the site for construction. No specific mitigation measures have been nominated in this instance.

6.16 Air Quality and Odour

6.16.1 Operational Air Quality, Odour and Waste

An Air Quality Report has been prepared by LCI and is provided at **Appendix Z**.

The report finds that the proposed operation of the building in the NSWCC is not anticipated to alter the air quality of the surrounding area.

The proposal includes a wet rehabilitation space that has two pools. The report confirms that the pool does not generate objectionable odour in the enclosure. As such, the discharge of the air will not be objectionable and will accord with AS 1668.2. It is noted that other systems in the building exhaust produce air that does not contain any problematic odours.

Recommendation

LCI recommends the provision of demand control ventilation systems in internal spaces. These mechanisms regulate air quality where necessary by increasing or decreasing the quantity of outside air provided and thereby will ensure optimal air quality.

6.17 Waste Management

6.17.1 Operational Waste Management

An Operational Waste Management Plan (OWMP) has been prepared by Elephants Foot Recycling Solutions (EFRS) and is provided at **Appendix AA** This OWMP has been prepared to comply with the Parramatta Development Control Plan, Parramatta City Council's Waste Management Guidelines for New Development Applications 2016 and the relevant Australian Standards.

The OWMP identifies that the estimated volume of waste will comprise 4829L/week of garbage and 5503L/week of recycling. In order to appropriately group and accommodate these waste volumes, EFRS recommend the provision of 3x 660L garbage bins and 3x 660L recycling bins. Further, bin collection is recommended three times a week and will be conducted by a private contractor.

Otherwise, EFRS provide that general waste across the site will be managed by contracted cleaners for office and reception areas, gym areas, changing facilities, practice pitches and the sports science and sports medicine facilities. The building manager is responsible for the transportation of waste bins from their designated operational locations to the main waste room prior to schedule collection. As such, no adverse impacts are anticipated as a result of operational waste storage and collection from the site.

6.17.2 Construction Waste Management

A Construction and Demolition Waste Management Plan (CDWMP) has been prepared by EFRS and is provided at **Appendix BB**. The CDWMP has been informed by the following waste management guidelines:

- Parramatta City Council's Waste Management Guidelines for New Development Applications (2016);
- Australian Government's Construction and Demolition Waste Guide – Recycling and Re-use Across the Supply Chain (2014);
- NSW Waste Avoidance and Resource Recovery Strategy (2014-2021);
- NSW Waste Classification Guidelines; and
- Australia's National Waste Policy.

EFRS note that the proposed development will generate approximately 68,300m^2 of construction waste and 48,240m^2 of demolition waste, along with the removal of 304 trees. Of this waste, 91% is estimated to be diverted from landfill through reuse on site or recycling.

Recommendation

In order to appropriately manage and mitigate any adverse impacts arising from waste, the different components of the OWMP and CDWMP should be implemented into the operation of the proposed development.

6.18 Sediment, Erosion and Dust Controls

The Soil and Water Management Plan has been based on providing sediment basins on the downslope side of each section of the development due to the presence of potentially dispersive soils on the site. A series of catch drains will convey sediment laden runoff from disturbed areas during the construction phase to these sediment basins. Sediment basins have been sized to cater for the 7 day rainfall depth event, allowing sufficient time after rainfall events to treat and remove sediment from captured water prior to discharge to local watercourses. Dust suppression and erosion controls to minimise erosion from construction vehicles/traffic and wind, will include vehicle wash downs, utilisation of water carts to supress dust during construction activities, and ongoing dust monitoring of the site. Further controls such as locating material stockpiles away from sensitive areas, staging construction works to minimise extent of disturbed surfaces, early revegetation of completed surfaces, and imposing speed limits on all site vehicles will further reduce dust generation and impact

The procedures and measures for erosion, sediment and dust control is provided in the Civil and Stormwater Report (**Appendix W**) and illustrated in the Civil Engineering Plans (**Appendix X**).

6.19 BCA Compliance

Steve Watson & Partners has completed a review of the project documentation and confirm that the design is capable of achieving compliance with the BCA (**Appendix CC**). Where additional details are required that are typically provided at the detailed construction documentation stage, Steve Watson & Partners confirm that they will complete an assessment of the design development documentation and specifications issued for construction.

The BCA assessment also confirms that there are few aspects that will be necessary to address by way of a performance solution to meet the relevant fire engineering and access requirements of the BCA and will be subject to further review and testing as part of the detailed design and construction process.

Steve Watson & Partners confirm that the design is capable of achieving compliance with the BCA. No mitigation measures are identified by Steve Watson & Partners. Compliance with the BCA is a standard requirement of the issuance of a Construction Certificate, and as such no specific mitigation measure is necessary in this instance.

6.20 Access

An Accessibility Review has been prepared by Morris Goding Accessibility Consulting (Morris Goding) in relation to the proposed development (refer to **Appendix DD**). The review was undertaken to ensure that ingress and egress, paths of travel, circulation areas, lifts, toilets, common areas and car parking of the proposed development all comply with relevant statutory guidelines and policies, namely the Disability Discrimination Act 1992.

The review demonstrates the proposed development provides an appropriate degree of accessibility. The architectural drawings indicate that accessibility requirements pertaining to external site linkages, building access, common area access and sanitary facilities can be readily achieved. Morris Goding assert that further work will need to be conducted at the detailed design of the development and submitted with the construction certificate documentation to ensure compliance.

6.21 Social and Economic Impacts

Ethos Urban has prepared a Social and Economic Impact Assessment (**Appendix EE**) to assess the social and economic impacts associated with the NSWCC and to identify the significance of these potential impacts, both positive and negative.

6.21.1 Social impacts

Way of life – the impact to way of life as a result of the proposal is classified as ‘minor-almost certain’ during the construction phase and ‘minimal -unlikely’ during the operational phase. Long term positive for the broader community associated with improved amenity of the surrounding site and enhanced specialist facilities at the site. An alternate sportsground has been secured for the Newington Football Club to mitigate the loss of the home ground.

Community – the impact on community cohesion, composition, character, sense of place and how it functions is classified as ‘minor -possible’ during the construction phase and ‘minimal-rare’ during the operational phase. Impacts are likely to be experienced differently by different groups and individuals. There is currently a limited residential community in the immediate vicinity which reduces impacts on residents of the area. The broader community, particularly people participating in cricket, will experience positive social benefits associated with delivery of an improved recreation facility at the site and improved facilities for players.

Culture – the impact on shared beliefs, customs, values and stories and connections to land, placed and buildings is classified as ‘likely minor’ during the construction phase and ‘minimal possible’ during the operational phase. There will be negative impacts to the Newington Football Club, however, to mitigate the loss of the home ground, a new training ground has been secured for the Club. The broader community, particularly people participating in cricket, will experience positive social benefits associated with delivery of an improved recreation facility at the site and improved facilities for play.

Health and wellbeing – the impact on health and wellbeing is classified as being ‘unlikely minimal’ during the construction phase and ‘moderate during the operational phase. The social benefits are realised long term, with improved sporting experience for all and flow on effects to health and wellbeing of participants in cricket. There will be negative impacts to the Newington Football Club, however, to mitigate the loss of the home ground, a new training ground has been secured for the Club. The NSWCC is likely to positively contribute to an increased

awareness of sport and recreation for the wider community and may contribute to an enhancement in sporting participation for the greater Sydney and NSW communities.

Surroundings – the impacts on amenity is classified as 'possible minor' during the construction phase and 'rare minimal' during the operational phase. Impacts are predicted to be felt by users of Wilson Park during construction phase, however, it is noted that the facility is currently underutilised, albeit there is a high potential to mitigate any negative social impacts and enhance positive contributions, through Construction Management Plans .

Personal and property rights – the impacts of the proposal on property rights is classified as and 'rare minor' during the construction phase and 'rare minimal' during the operational phase. The extent of the social benefit is likely to be experienced by the broader NSW population, particularly those who participate in cricket. The overall impact is low however, to ensure the public benefits are realised it will be important to ensure a community engagement plan is developed and delivered for the life of the project to ensure stakeholders personal and property rights are considered and enhanced.

Decision making systems – the impacts of the proposal on decision making systems is classified as 'unlikely minimal' during both the construction and operational phases. The extent of the impact will be felt by different user groups including the Members of the Newington Football Club and users of the NSWCC and the wider general public with interest in the decision-making system. The potential to mitigate this impact is high.

Access to and use of infrastructure, services and facilities – the impacts of the proposal on the infrastructure, services and facilities is classified as (minimal likely) during the construction phase, and 'rare minor' during the operational phase. the Members of the Newington Football Club and users of the NSWCC and the wider general public with interest in the decision-making system. It is important to ensure regular communication and engagement with stakeholders to manage the community awareness and understanding of the project during both the construction and operational phase.

Fears and aspirations – the impact of the proposal on fears and aspirations is classified as being 'runlikely minimal' or 'unlikely minimal' during both the construction and operational phases. The extent of the impact is potentially experienced by local residents and occupants of the immediate vicinity and local study area, with aspirational social benefits more likely experienced by the broader Greater Sydney community. Any potential negative social impacts and social benefits can be enhanced through the development and implementation of a cultural and community development social strategy and construction management and safety management plan.

6.21.2 Economic impacts

The proposed development will provide a more productive and efficient use of land at the site. It is expected that the development of the site will be a catalyst for future investment and revitalisation of the area. The Assessment quantifies these direct and indirect benefits, as well as identifying the potential negative impacts associated with the completion of construction works on the NSWCC. The following are summarised as being the economic impacts of the proposed development:

- **Construction employment** – The initial economic impacts generated by the project will occur during the demolition and construction phase, which is expected to span 1.3 years. The development cost of $49.6 million will consist of construction spending and ancillary development costs. This level of economic activity is estimated to support close to 67 full-time-equivalent jobs over the 1.3 year period. In addition, around 107 time-equivalent indirect jobs are expected to be created during this time.
- **Ongoing employment** – The development has the potential to accommodate around 190-210 direct jobs and employment levels are expected to increase by 20 to 30 jobs over a 10 year period. Additionally, 130 to 150 indirect jobs will be supported in the wider economy (Based on an ABS multiplier of 1.7 for the services sector) through the operations of the facility, including a share of jobs supported in the Study Area.
- **Expenditure**– The resultant refurbished stadium is expected to overall improve expenditure. The frequency of events to be held at the NSWCC is expected to greatly improve the levels of visitation and tourism expenditure within the local area and regional area. Value added is estimated at $12.38 million per annum.
- **Improved facilities for Cricket in NSW –** Currently the facilities available for cricket in NSW are inadequate and limit the ability to support and train cricketers and develop younger talent. The development of new cricket facilities at the site will greatly benefit cricket in NSW, including:
  - Providing necessary training and skills development activities and programs for crickets in metropolitan and regional areas;

- Improving the reach of cricket within NSW;
- Providing training and coaching at an elite level to elite teams and cricketers;
- Hosting significant national and regional cricket training clinics and camps;
- Providing year-round cricket training, coaching and administrative facilities;
- Providing dedicated training facilities for female cricketers;
- Providing capacity to cater for increases in cricket participation;
- Responding to the future needs of Cricket in NSW;
- Generating additional memberships from Cricket community through greater exposure and community participation, and
- Enhancing the state's ability to host cricket events, which would attract participants and visitors to the Primary Study Area, supporting local jobs and businesses through visitor spending.

The proposed NSWCC will also have significant unquantifiable economic impacts including:

- **Productive and more efficient use of the land** – The proposed development will provide a more productive and efficient use of land at the site. Currently the site is undeveloped relative to the surrounding area. Compared to the current uses of the site, the proposed development will allow for more intensive use of the site, including two ovals and cricket training, administrative and support facilities. It will transform the site into an employment centre with the potential to accommodate between 190 to 210 jobs once development has completed. It is expected that there will be increased level visitation from international and interstate visitors and there will be a general level of increased activities on the site with the potential for matches to be hosted.
- **Catalyst for further local revitalisation** – It is expected that the development of the site will be a catalyst for future investment and revitalisation of the area. The area surrounding the site is primarily industrial and appears dated and aged. The proposed development will signal to the market that the area has the potential for greater development and a wider range of uses, such as greater sport facilities and related sporting paraphernalia, recreation and retail activities. The proposed development will provide a catalyst for revitalisation through the following channels:
  - Improving the amenity of the surrounding area;
  - Increasing demand for local goods and services through increased visitation and increased spending within the local area, and
  - Other flow-on benefits including supporting cricket related businesses such as cricket paraphernalia.

Recommendation

The following Mitigation Measure is recommended with consideration of those identified in the Assessment.

Mitigation measure	Indicative timing
The proponent is to provide regular construction updates on the project website, to ensure the community, members and sports codes are kept informed of the construction phases and any potential disruptions/changes to the surrounding environment.	During construction

6.22 Construction Management

Mostyn Copper has prepared a preliminary Construction and Environmental Management Plan (CEMP) at **Appendix K** and Traffix prepared a draft Construction Pedestrian and Traffic Management Plan (CPTMP) in **Appendix P** detailing the construction processes and procedures to be undertaken.

The CEMP considers the construction methodology, sequencing and logic for mitigating potential construction risks to the precinct and its stakeholders. The information included in the CMP will inform a further detailed Construction Environmental Management Plan (CEMP) and associated technical studies that will be completed in coordination with the appointed contractor prior to the commencement of works on the site.

The CTMP assesses the feasibility of vehicles accessing the site during construction and addresses truck routes from the arterial network and access movements for demolition, excavation, construction and fit out state. It notes

that all truck routes will access the local road network from Silverwater Road which is an RMS approve heavy vehicle route and outlines specific truck routes in and out of the site noting that truck arrival and departure times will be coordinated by the site manager. All loading and unloading will be contained on site in the western carpark and no pedestrian footpaths are provided across the sites vehicular access points.

Community Consultation, notification and complaints handling

The SSDA involved a community consultation process, detailed within **Section 3.0** of this report and the Consultation Outcomes Report provided at **Appendix HH**. This involved the notification of all properties in the vicinity of the site, including the residences north of the Parramatta River and immediately surrounding industrial estates and Silverwater Correctional Complex. The complaints made during this process have been incorporated into Mostyn Copper's Complaints Register and appropriately managed.

Impacts of construction on adjoining development

Prior to the commencement of works appropriate hoarding that complies with Australian Standards and WorkCover requirements will be installed around the site's perimeter and maintained to prevent public access. Site signage will also be provided with 24 hour emergency contact details.

Traffix notes that traffic construction impacts are expected to be minimal, noting all truck parking and loading may occur wholly within site and with direct access to the arterial road network provided from Clyde Street.

Water Quality Management

The CEMP furthermore provides an extensive range of measures pertaining to water quality management for the proposed development. Detail regarding these measures is provided in the CEMP at **Appendix K**.

6.23 Event Management

A Plan of Management (PoM) has been prepared for the site by Mostyn Copper (Appendix **V**) and an Event Management Statement prepared by Ethos Urban (Appendix U). The PoM provides detail regarding the operation and management of the proposed NSWCC. This is summarised below.

Access Requirements

The NSWCC comprises one principal entry via the south western corner of the development, via Clyde Street. A secondary entrance will be provided on the south eastern corner of the development, via Newington Road, leading north to the eastern car park, where the groundskeeping and storage area are located.

Cricket NSW Proposed Usage

The CNSWCC will facilitate approximately 170 staff and 80 contracted athletes. During peak usage times, up to 120 athletes and public will arrive or leave the facility simultaneously.

The hours of operation for the facility are:

- Monday – Friday: 8am - 10pm
- Weekends and public holidays: 6am - 10pm

The indoor cricket centre will operate from 6am - 10pm.

The Plan of Management breaks down the use of the facility into five main uses, including:

1. High Performance
2. Community
3. Administration
4. Match Days
5. Event Days

The above categories are elaborated upon in detail within the PoM provided at **Attachment V**.

6.24 Site Suitability and Public Interest

The site is suitable for the proposed development given that:

- The proposal is consistent with the objectives of the zone as provides an improved public domain through the provision of an additional pedestrian and shared connection that links the north of the site to the south. As such, it allows other parts of the site to be more accessible for recreational walks, whilst also providing an alternate cycling route.
- The proposal includes the provision of 71 cricket practice nets and there is the opportunity for the indoor cricket training facilities to be utilised by the public through an organised booking system.
- The proposed development retains a significant number of trees (263) where possible and also proposes the replanting of at least 310 trees to offset the removal of 304 trees. The proposal also does not propose significant adverse impacts to the habitat of surrounding wildlife, including the threatened green and golden bell frog;
- The proposed NSWCC provides a development that will bolster the Sydney Olympic Park precinct by providing a world class cricket facility for the development of aspiring and professional cricketers. It will also host some men's and women's professional cricket matches and Big Bash fan days, in turn contributing to Sydney Olympic Park's status as a premium destination for major events.

As demonstrated by this EIS, the proposal considers and minimises any adverse environmental impacts to the site and surrounds.

The site is in public interest given that the proposal:

- Will facilitate necessary development of new facilities, and provide contemporary cricket facilities for future generations;
- Respects the ecological, heritage and aesthetic features of Wilson Park;
- Will create additional jobs, during the construction phase as well as during the operation phase, and represents
- an investment in the local economy; and
- The masterplan works will deliver a high landscape and design quality outcome.

7.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the construction and operation of the NSWCC has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

In accordance with the SEARs, the ERA addresses the following significant risk issues:

- the adequacy of baseline data;
- the potential cumulative impacts arising from other developments in the vicinity of the Site; and
- measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Figure 61 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

- the receiving environment;
- the level of understanding of the type and extent of impacts; and
- the likely community response to the environmental consequence of the project;

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- the complexity of mitigation measures;
- the known level of performance of the safeguards proposed; and
- the opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 61 Risk Assessment Matrix

Identification and discussion				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
Visual Impacts	C/O	• Changed visual environment during the construction phase. • Impact on existing views.	• The VIA confirms that whilst the nature of visual change is notable from a small number of viewpoints, the impact of the change is low and is considered to be appropriate having regard to the provisions of relevant parts of applicable planning instruments. • no further study or refinement is required, and no specific mitigation measure has been nominated. The residual impact of the proposal is considered to be the same.	1	2	3 Low
Heritage	C/O	• Physical and visual impacts on surrounding heritage items and conservation areas. • Archaeology and artefacts.	• The site will not physically impact the Silverwater Correctional Complex adjacent to the site which is identified as a heritage conservation area under the State Significant Precincts SEPP. • The Aboriginal Cultural Heritage Assessment Report identifies that zero aboriginal heritage sites will be harmed by the proposed development. In turn, no archaeological mitigation measures are required.	1	2	3 Low
Safety and security	C/O	• General security of the proposed development and its immediate surroundings.	• Despite the site being regarded a 'low' level crime risk, the proposal will incorporate CPTED measures in line with the CPTED Report prepared by Ethos Urban (**Appendix L**).	2	2	4 Low/Medium
Biodiversity and trees	C	• Impact on flora and fauna • Tree removal and construction impacts on tree health. • Spreading of weeds. • Loss of connectivity between small areas of habitat within the site. • Impacts to water quality, water bodies and hydrological processes.	• Retention of 263 trees, 304 trees to be removed from site and replanting of 310 trees to offset this loss. • Various measures to monitor and protect trees on site, especially those in TPZ areas. • Removal of habitat trees will be undertaken after a pre-clearance inspection by a qualified ecologist and will be supervised by the ecologist to protect existing fauna. • Areas to be cleared will be flagged and clearly delineated, including temporary frog-proof fencing to ensure that no areas intended for conservation will be inadvertently cleared during the construction process. • Temporary frog-proof fencing is recommended to be installed around the outer boundary of the development site to reduce the likelihood of Green and Golden Bell Frogs from entering the site during the construction period. • To minimise the spread of weeds, weed management is proposed in the BDAR at Appendix I. Specifically, it proposes prevention, eradication, containment and minimisation of weed species.	2	3	5 Low/medium

Identification and discussion				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
			• Loss of connectivity between small areas of habitat within the subject land will be mitigated with the establishment of additional dense planting buffers between the roads and buildings and areas of tree and understorey planting. • Impacts to water quality, water bodies and hydrological processes that sustain the habitat of threatened species are to be mitigated with the implementation of an approved sedimentation control plan.			
Sustainability	C/O	• Sustainable use of resources and operations	• The Ecologically Sustainable Development Report by LCI Consultants (**Appendix H**) details how the proposed NSWCC development will incorporate principles of ESD into the construction and operation of the development. • The ESD Report also proposes a variety of water and energy efficiency measures.	2	2	4 Low/medium
Transport, traffic, parking and access	C/O	• Traffic impacts. • Parking impacts.	• A detailed Green Travel Plan is to be prepared outlining practical measures and initiatives to ensure that the NSWCC works towards the greater use of sustainable modes of transport to reduce car dependency. • A detailed transport management plan will be prepared to manage peak parking demands on site, including overflow parking.	2	2	4 Low/medium
Wind	O	• Wind impacts on surrounding environment.	• The proposed development is minor in stature, reaching a peak of 10.7m high and is surrounded by trees. This will in turn not result in any adverse wind impacts.	1	1	2 Low
Solar access	O	• Potential reduction in solar access to public domain, Wilson Park site and surrounding area.	• Shadow plans prepared by Cox Architecture demonstrate that there will be no significant impact in terms of overshadowing to the site or surrounding neighbours.	1	1	2 Low
Noise and vibration	C/O	• Construction noise. • Operational noise.	• An Acoustic Assessment has been prepared by Acoustic Logic which considers the noise emanating from the operation of the proposed development. • The operational hours of indoor and outdoor facilities will be limited to certain times.	2	2	4 Low/Medium

Identification and discussion				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
			• Management controls should be utilised to manage patron departure, particularly at night to ensure patrons leave in a prompt and orderly manner. • Car park floor is to be broom or similar finish to avoid tyre squealing noise. • No PA system use before 8am every day. • Once plant location is determined, specific noise mitigation methods will be adopted to meet the noise objectives determined for plant noise.			
Utilities and services	C/O	• Capacity to service the NSWCC.	• A Utilities Report and a Hydraulic Services Strategy Report has been prepared by LCI Consultants, confirming that the site is capable of being serviced, with minor alterations and upgrades required.	2	2	4 Low/Medium
External Lighting	O	• Impact of lighting on habitat and ecology. • Impact of lighting on surrounding properties and public domain.	• All applicable outdoor lighting will be design, installed, and operated in accordance with the relevant Australian Standards; AS4282, AS2560.1, AS/NZS 1158.3.1 and/or AS/NZS 2890. This will be detailed in the construction drawings where relevant. • Avoid direct illumination of the riverfront amenities block as it falls outside the site boundary. • Avoid direct illumination and minimise spill light of mapped coastal wetland areas artificial wetland areas by assessment at the mapped boundaries.	2	1	3 Low
Reflectivity	C/O	• Reflectivity of materials utilised for NSWCC impacting upon surrounding road traffic.	• All external materials and finishes that are visible from a public road and footpath are to have a spectral reflectivity of less than 20%. • Site is concealed by trees from Silverwater Road and setback a significant distance from surrounding residents.	1	1	2 Low
Water and drainage	O	• Ability and resilience of proposed development to endure major rainfall events.	• The proposed development's drainage system caters for the 5% Annual Exceedance Probability (AEP) rainfall event in piped systems, which is a 20% increased rainfall intensity over the required 10% AEP design rainfall. • Energy break pits will be incorporated into the stormwater network to reduce discharge velocities/energy conveyance into the remaining stormwater network.	2	2	4 Low/Medium

Identification and discussion				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
Groundwater and Geotechnical	C	• Excavation below the groundwater table is expected to prove problematic.	• The proposed development minimises excavation.	3	2	5 Low/Medium
Contamination	C/O	• Contaminated soils.	• Douglas Partners confirm that no conditions have been encountered that would preclude the future use of the site for the NSWCC, given that no significant works are proposed to be undertaken on the contaminated land at the north-east of the site.	4	2	6 Medium
Air quality and Odour	C/O	• Build-up of contaminated vapour under building. • Dust generated from construction site. • Odour of wet rehabilitation space with two chlorinated pools. • Odour emanating from construction site.	• The Air Quality Report prepared by LCI Consultants provides that a means of monitoring contaminated vapours is being assessed in conjunction with the environmental consultant to ensure any vapour build up under the building is released to the atmosphere without leaching through the concrete and into the building. • The Air Quality Report provides that the ventilation of the wet rehabilitation space will sufficiently dissipate any chlorine odours. • Odour emissions from the site which could adversely affect air quality, or the amenity of the local area are to be monitored.	2	1	3 Low
Waste management	C/O	• Construction waste. • Operational waste.	• The Construction and Demolition Waste Management Plan identifies and quantifies likely waste streams during construction and outlines measures for waste minimisation, recycling and reuse, resulting in 91% of waste being diverted from landfill. • An Operational Waste Management Plan has been prepared by Elephants Foot Recycling Solutions which establishes the quantity and size of bins to be utilised and methods for disposal of waste associated with the operation of the NSWCC.	2	2	4 Low/Medium
Sediment, erosion and dust	C	• Dust produced from construction. • Erosion produced from construction vehicles/traffic and wind. • Presence of sediment including potentially dispersive soils.	• Dust emissions will be controlled by the use of water spraying when required. • Dust screens will be used at the perimeter of the site where applicable. • Heavy vehicles entering and leaving the site will be covered at all times. • Works involving potential dust generating activities will be scheduled to avoid gale wind forces when possible. • Vehicle and machinery movements during the construction works will be restricted to designated areas.	2	3	5 Low/Medium

Identification and discussion				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
			• Vehicle speed limits of 25 km/hr will be imposed on all vehicles on site. • Equipment will be operated in a proper, efficient and correct manner which includes proper maintenance in order to minimise exhaust emissions. • Should visible dust emissions occur at any time, works generating the dust emissions will cease, so that emissions of visible dust cease. • Provision of appropriately sized sediment basins on the downslope side of each section of the development to cater for the seven day rainfall depth event, allowing sufficient time after rainfall events to treat and remove sediment from captured water prior to being discharged to local watercourses. • Incorporating a series of catch drains that will convey sediment laden runoff from disturbed areas during the construction phase to these sediment basins. • Vehicle washdowns. • Installation of sediment control fences. • Covering stockpiles. • Avoiding soil disturbance prior to heavy rainfall.			
Communications and community	C/O	• Information about the application. • Construction impacts and complaints. • Operational information. • Operational impacts and complaints.	• Section 3.0 of this EIS and the Consultation Outcomes Report (**Appendix HH**) identify consultation activities that have been undertaken to date to inform the scope of the project and provide information to the community regarding the proposal and planning process. • The EIS will be publicly exhibited by the NSW Department of Planning, Industry and Environment. • The Event Management Statement will address providing information to the public and receiving and appropriately handling any complaints in relation to the operation of the NSWCC. • The Social and Economic Impact Assessment (**Appendix EE**) to assess the social and economic impacts associated with the NSWCC and to identify the significance of these potential impacts, both positive and negative.	3	2	5 Low/Medium

Identification and discussion				Risk Assessment		
Item	**Phase**	**Potential Environmental Impact**	**Proposed Mitigation Measures and / or Comment**	**Significance of Impact**	**Manageability of Impact**	**Residual Impact**
Building code compliance	O	• Compliance with relevant building codes and standards, including the Disability Discrimination Act	• The SSDA documentation has been the subject of expert review against the provisions of the Building Code of Australia, which confirm that the project is capable of complying with the relevant requirements, subject to further detailed design and certification at the relevant construction and occupation stages.	2	2	4 Low/Medium
Social	C/O	• Limited access to the proposed NSWCC afforded to the community and in turn a loss of a community use. • Inhibiting community access to the Wilson Park site during construction. • Displacing the Newington Gunners Football Club.	• There is an opportunity to connect this site with the general public and users of the foreshore to enhance visibility and connection between the facility and the public through landscaping and design elements. • The proposal incorporates enhancements to Wilson Park and its setting, with improved pedestrian access through ameliorated lighting and wayfinding that encourages broader community use. • To minimise disruption to the Newington Football Club, Cricket NSW and City of Parramatta worked with the club to identify options for an alternative available sportsground. • To enhance the sense of place at the site, there may be opportunities to connect the proposed development to the surrounding recreation facilities at Sydney Olympic Park, to establish a sense of the site as part of a broader recreation precinct. • Ensure collaboration between City of Parramatta Council and Cricket NSW to promote community access to part of the site. • It is important that additional users of the existing park are kept well informed of the construction phases and impact to sporting seasons. • To reduce unnecessary impact on surrounding residents, it may be possible to undertake a staged approach to the proposed development to ensure that parts of the site will be accessible at all times. • Develop a mechanism for neighbouring residents to provide feedback during construction, such as providing the contact details of site managers. • Anticipated 50,000 visitations to the indoor cricket centre by the community, school, cricket players and volunteers.	3	3	6 Medium

8.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 14.** These measures have been derived from the previous assessment in **Section 6.0** and those detailed in appended consultants' reports.

Table 14 Mitigation Measures

Ref No.	Mitigation Measure
Design and Operation	
D/O-BF	**Built Form**
D/O-BF1	Design development and the assessment of design integrity shall occur in accordance with the process outlined in the Design Excellence Strategy within the Architectural and Urban Design Report prepared by Cox Architecture (**Appendix C**).
D/O-BF2	The Architectural and Urban Design report prepared by Cox at **Appendix C** proposes design considerations that will mitigate impacts associated with the proposed development.
D/O-LR	**Lighting and Reflectivity**
D/O-LR1	All applicable outdoor lighting will be design, installed, and operated in accordance with the relevant Australian Standards; AS4282, AS2560.1, and/or AS/NZS 1158.3.1, AS/NZS 2890. This will be detailed in the construction drawings where relevant.
D/O-LR2	Avoid direct illumination of the riverfront amenities block as it falls outside the site boundary.
D/O-LR3	Avoid direct illumination and minimise spill light of mapped coastal wetland areas artificial wetland areas by assessment at the mapped boundaries
D/O-LR4	All external materials and finishes that are visible from a public road and footpath are to have a spectral reflectivity of less than 20%.
D/O-TA	**Transport and Accessibility**
D/O-TA1	A detailed Green Travel Plan is to be prepared outlining practical measures and initiatives to ensure that the NSWCC works towards the greater use of sustainable modes of transport to reduce car dependency.
D/O-TA2	A detailed transport management plan will be prepared to manage peak parking demands on site, including overflow parking.
D/O-ESD	**Sustainability**
D/O-ESD1	The detailed design of the development will incorporate the initiatives identified in the ESD Report prepared by LCI Consultants (**Appendix H**).
D/O-NV	**Noise and Vibration**
D/O-NV1	The operational hours of indoor and outdoor facilities will be limited to certain times.
D/O-NV2	Management controls should be utilised to manage patron departure, particularly at night to ensure patrons leave in a prompt and orderly manner.
D/O-NV3	Car park floor is to be broom or similar finish to avoid tyre squealing noise.
D/O-NV4	No PA system use before 8am every day.
D/O-NV5	Once plant location is determined, specific noise mitigation methods will be adopted to meet the noise objectives determined for plant noise.
D/O-SEC	**Safety and Security**
D/O-SEC1	The site is considered to have a 'low' risk of crime, nonetheless the development will adopt the CPTED measures in the CPTED report to further improve the safety and security of the proposed development.
D/O-WAS	**Waste**
D/O-WAS1	An Operational Waste Management Plan has been prepared by Elephants Foot Recycling Solutions which establishes the quantity and size of bins to be utilised and methods for disposal of waste associated with the operation of the NSWCC.
D/O-WD	**Water and Drainage**
D/O-WD1	The proposed development's drainage system caters for the 5% Annual Exceedance Probability (AEP) rainfall event in piped systems, which is a 20% increased rainfall intensity over the required 10% AEP design rainfall.

Ref No.	Mitigation Measure
D/O-WD2	Energy break pits will be incorporated into the stormwater network to reduce discharge velocities/energy conveyance into the remaining stormwater network.
D/O-AQ	**Air Quality**
D/O-AQ1	Despite it not being anticipated that the proposed development will cause any alteration to the air quality of the surrounding area, demand control ventilation systems are proposed in internal spaces to optimise air quality in the NSWCC building.
D/O-AQ2	LCI Consultants are working alongside the environmental consultant to produce a mitigation measure in response to the potential build-up of contaminated vapour under the building.
D/O-S	**Social**
D/O-S1	There is an opportunity to connect this site with the general public and users of the foreshore to enhance visibility and connection between the facility and the public through landscaping and design elements.
D/O-S2	The proposal incorporates enhancements to Wilson Park and its setting, with improved pedestrian access through ameliorated lighting and wayfinding that encourages broader community use.
D/O-S3	To minimise disruption to the Gunners, Cricket NSW, SOPA and City of Parramatta worked with the club to identify options for an alternative available sportsground.
D/O-S4	To enhance the sense of place at the site, there may be opportunities to connect the proposed development to the surrounding recreation facilities at Sydney Olympic Park, to establish a sense of the site as part of a broader recreation precinct.
D/O-S5	Ensure collaboration between City of Parramatta Council and Cricket NSW to promote community access to part of the site.
D/O-OD	**Odour**
D/O-OD1	The ventilation of the pool space will sufficiently dissipate any chlorine odours emanating from the rehabilitation pool space.
Construction Management	
CM-BIO	**Biodiversity and Trees**
CM-BIO1	Impacts on vegetation will be adequately managed through the recommendations contained in the Arboricultural Impact Assessment, including: • Retention of 263 trees and replanting of at least 310 trees to offset the loss of up to 304 trees; and • Various measures to monitor and protect trees on site, especially those in TPZ areas.
CM-BIO2	Removal of habitat trees will be undertaken after a pre-clearance inspection by a qualified ecologist and will be supervised by the ecologist.
CM-BIO3	Areas to be cleared will be flagged and clearly delineated, including temporary frog-proof fencing to ensure that no areas intended for conservation will be inadvertently cleared during the construction process.
CM-BIO4	Temporary frog-proof fencing is recommended to be installed around the outer boundary of the development site to reduce the likelihood of Green and Golden Bell Frogs from entering the site during the construction period.
CM-BIO5	To minimise the spread of weeds, weed management is proposed in the BDAR at **Appendix I.** Specifically, it proposes prevention, eradication, containment and minimisation of weed species.
CM-BIO6	Loss of connectivity between small areas of habitat within the subject land will be mitigated with the establishment of additional dense planting buffers between the roads and buildings and areas of tree and understorey planting.
CM-NV	**Noise and Vibration**
CM-NV1	The noise and vibration emanating from the construction of the proposed development will be satisfactorily mitigated through the measures contained in the Construction Environmental Management Plan (**Appendix K**).
CM-AQO	**Air Quality and Odour**
CM-AQO1	Monitoring odour emissions from the site that may adversely affect air quality or the amenity of the local area.
CM-WAS	**Waste**
CM-WAS1	The Construction and Demolition Waste Management Plan identifies and quantifies likely waste streams during construction and outlines measures for waste minimisation, recycling and reuse, resulting in 91% of waste being diverted from landfill.
CM-GEO	**Groundwater and Geotechnical**

Ref No.	Mitigation Measure
CM-GEO1	The proposed development minimises excavation, with no excavation exceeding one metre to be undertaken.
CM-CON	**Contamination**
CM-CON1	Land remediation works should result in no off-site disposal of any contaminated or treated landfill waste materials, where this is practicable.
CM-CON2	No works are proposed at the north-eastern portion of the site, which is the site's primary source of contamination.
CM-TA	**Transport & Accessibility**
CM-TA1	Sufficient space is provided on the site to accommodate the movement of construction vehicles.
CM-SED	**Sediment, Erosion and Dust Controls**
CM-SED1	The Construction Environmental Management Plan prepared by Mostyn Copper proposes a number of initiatives for dust control mitigation: • Dust emissions will be controlled by the use of water spraying when required; • Dust screens will be used at the perimeter of the site where applicable; • Heavy vehicles entering and leaving the site will be covered at all times; • Works involving potential dust generating activities will be scheduled to avoid gale wind forces when possible; • Vehicle and machinery movements during the construction works will be restricted to designated areas; • Vehicle speed limits of 25 km/hr will be imposed on all vehicles on site; • Equipment will be operated in a proper, efficient and correct manner which includes proper maintenance in order minimise exhaust emissions; and • Should visible dust emissions occur at any time, works generating the dust emissions will cease, so that emissions of visible dust cease.
CM-SED2	The Civil and Stormwater Report (**Appendix W**) proposes the following sediment control measures: • Provision of sediment basins on the downslope side of each section of the development due to the presence of potentially dispersive soils on the site; • A series of catch drains that will convey sediment laden runoff from disturbed areas during the construction phase to these sediment basins; • The aforementioned sediment basins have been appropriately sized to cater for the seven day rainfall depth event, allowing sufficient time after rainfall events to treat and remove sediment from captured water prior to discharge to local watercourses.
CM-SED3	The BDAR Report (**Appendix I**) includes sediment control measures, including: • Installation of sediment control fences; • Covering soil stockpiles; and • Avoiding soil disturbance prior to heavy rainfall.
CM-SED4	Erosion controls to minimise erosion from construction vehicles/traffic and wind are outlined in the Civil and Stormwater Report (**Appendix W**) and include the following: • Vehicle wash downs; • Utilisation of water carts to suppress dust during construction; and • Ongoing dust monitoring of the site.
CM-S	**Social**
CM-S1	It is important that additional users of the existing park are kept well informed of the construction phases and impact to sporting seasons.
CM-S2	To reduce unnecessary impact on surrounding residents, it may be possible to undertake a staged approach to the proposed development to ensure that parts of the site will be accessible at all times.
CM-S3	Develop a mechanism for neighbouring residents to provide feedback during construction, such as providing the contact details of site managers.

9.0 Conclusion

This EIS has been prepared to assess the environmental, social and economic impacts of the proposed construction and operation of the NSWCC. The EIS has addressed the issues outlined in the SEARs (**Appendix A**) and Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* to consider the relevant environmental planning instruments, built form, social, economic and environmental impacts resulting from the proposed development. Appropriate mitigation measures have been identified to manage the impacts of the development through the construction and operational phases of the project.

The proposed works align with the objectives of Cricket NSW and the NSW State Government Businesses case to address the deficiencies in existing infrastructure and improve cricket facilities in line with contemporary Australian sports venue standards. The project will deliver a modern purpose built facility that is equipped with technological design to foster innovation and to advance Australia's leading role in the world of Cricket. The NSWCC will also secure a vibrant cricket environment in NSW that delivers social, community, cultural and economic benefits to the state.

Having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- the proposal will provide world class training, coaching and player preparation facilities, for all levels of the sport (from club level to the state representative team level), which enables NSW to enhance the chances of males and females being selected for national teams;
- the NSWCC will enable sufficient infrastructure to accommodate cricket competition at community local, state, national and international levels;
- the new cricket centre will facilitate a number of significant social, cultural and economic benefits that might otherwise be lost or remain unrealised and significantly enhanced and activate a site that is currently underutilised and vacant open space;
- the proposed development is permissible with consent and meets the requirements of the relevant statutory planning controls;
- the proposal includes a full description of adequate and appropriate measures proposed, developed based on detailed technical assessment carried out in accordance with the Secretary's Environmental Assessment Requirements, in order to mitigate any adverse impacts of the development on the environment;
- there is no contamination requiring active remediation on site, therefore the site can be made suitable for the proposed development, subject to implementation of a Contamination Management Plan;
- the land is well served by existing and future public infrastructure, particularly public transport infrastructure and parking, cycling, road and pedestrian connections, which are readily available, and services can be augmented to meet the future needs of the NSWCC;
- the project has been informed by pre-lodgement consultation, and measures are recommended for ongoing consultation and engagement;
- the proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the Environmental Planning and Assessment Regulation 2000, and will support a sustainable development; and
- the proposal will safeguard the legacy Sydney Olympic Park as successful post-Olympics site that has been transformed into an active and vibrant precinct.

Given the planning merits described above, and the significant benefits associated with the proposed development, it is recommended that the application be approved.