



Redevelopment of the Sydney Football Stadium

State Significant
Development Assessment
(SSD 9249)
December 2018



December 2018

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Cover photo

Artist's Impression of the stadium bowl (Source Applicant's EIS)

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Glossary

Abbreviation	Definition
Applicant	Infrastructure New South Wales, or anyone else entitled to act on this consent
AHD	Australian Height Datum
AS	Australian Standard
BCA	Building Code of Australia
CIV	Capital Investment Value
Consent	Development Consent
Council	City of Sydney Council
CMP	Construction Management Plan
CPTED	Crime Prevention Through Environmental Design
DCP	Development Control Plan
Department	Department of Planning and Environment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FFL	Finished Floor Level
GANSW	Government Architect of NSW
GTP	Green Travel Plan
GFA	Gross Floor Area
GSC	Greater Sydney Commission
ICNG	Interim Construction Noise Guidelines
INP	Industrial Noise Policy
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
LGA	Local Government Area
Minister	Minister for Planning
NVIA	Noise and Vibration Impact Assessment Report
OEH	Office of Environment and Heritage
RMS	Roads and Maritime Services
RtS	Response to Submissions

SEARs	Planning Secretary's Environmental Assessment Requirements
SCG	Sydney Cricket Ground
Secretary	Planning Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SFS	Sydney Football Stadium
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SEPP 55	State Environmental Planning Policy No. 55 – Remediation of Land
SEPP 47	State Environmental Planning Policy No, 47 – Moore Park Showground
SLEP	Sydney Local Environmental Plan 2012
SSD	State Significant Development
SRtS	Supplementary Response to Submissions
TfNSW	Transport for New South Wales
TIA	Traffic Impact Assessment Report
WMP	Waste Management Plan



Executive Summary

This report provides an assessment of a State significant development (SSD) application lodged by the Infrastructure NSW (the Applicant) seeking approval for the redevelopment of the Sydney Football Stadium. The site is located at 40–44 Driver Avenue, Moore Park, within the City of Sydney Local Government Area (LGA). The site currently accommodates the Sydney Cricket Ground (SCG), Sydney Football Stadium (SFS) and associated buildings. The proposal relates to the northern part of this site accommodating the SFS, ancillary buildings and the Moore Park Carpark 1 (MP 1).

The Proposal

The proposal is a concept development application (SSD 9249) for:

- the Concept Proposal for maximum building envelope, design and operational parameters for a new rectangular stadium with up to 45,000 seats (same as existing) and 55,000 patrons in concert mode
- Stage 1 works including the demolition of the existing SFS and ancillary structures, including the existing Sheridan, Roosters, Waratahs and Cricket NSW administration buildings and indoor wickets, down to existing slab level / ground level, associated works and identification of MP 1 as the demolition and the construction compound.

The Applicant proposes to lodge a Stage 2 application for the detailed design, construction and operation of the stadium, if the Concept Proposal and Stage 1 works are approved. The Stage 2 application for the future stadium would be informed by the design and operational parameters of the Concept Proposal.

The Concept Proposal has a capital investment value (CIV) of approximately \$674million. The development would generate up to 30 construction jobs in Stage 1 and up to 1500 operational jobs on peak event days. The proposal is SSD development as it has a CIV in excess of \$10 million (\$674 million) and is located within the Sydney Sports Stadiums Site in Schedule 2 (Item 7) of the State Environmental Planning Policy (State and Regional Development) 2011.

Community Engagement

The Department undertook a wide range of engagement strategies both with the community and the public authorities including local government including:

- attending a Planning Focus Meeting held on site along with the key government agencies and Council representatives on 12 April 2018
- attending three community engagement sessions organised by the Applicant at the SFS venue, on 3 May, 8 May and 12 May 2018 to inform the community about the proposal and the application timelines
- preparation of a communication strategy to engage with the community during the assessment process
- a media release on Department's website which appeared on Tuesday 12 June 2018
- a separate landing page on the Department's website with information to assist the community during the exhibition period with online subscription opportunities for interested community members
- inclusion of the information on the NSW Have Your Say website
- public exhibition of the proposal (discussed below)
- face to face meetings with six community groups after the closure of the exhibition period
- a further face to face meeting with one community group after the lodgement of the Response to Submissions
- briefing representatives from Randwick City Council.

The proposal was publicly exhibited between 14 June 2018 and 11 July 2018 (28 days). The Department of Planning and Environment (the Department) received a total of 717 submissions during the exhibition, including:

- 11 submissions from public authorities
- one submission from City of Sydney Council (Council) objecting to the development
- 687 submissions from the members of public, including 662 objections
- 16 submissions from organisations and community groups including eight objections
- two objections from Members of Parliament (MP).

The Department received a further 15 individual submissions objecting to the development after closure of the exhibition period. Additionally, a letter was received from an MP, on behalf of a constituent.

The key issues raised in the submissions related to justification of the proposal, excessive bulk and scale of the proposed building envelope, adverse visual impacts, adverse traffic and noise impacts due to demolition works and the operation of the future stadium, adverse amenity impacts due to dust generated by demolition works, inadequate information regarding the proposed noise assessment, adverse impacts on Moore Park due to increased number of events, inadequate public infrastructure to cater for the development, adverse social and economic impacts, insufficient community consultation and absence of satisfactory sustainable design measures.

The Applicant's Response to Submissions (RtS), submitted on 14 September 2018, included responses to the key issues raised in the submissions from both agencies and the public. The RtS included additional justification to the noise assessment and conducted further traffic analysis of nearby intersections. The RtS also included additional assessment of the heritage values of the site, the visual impact of the proposed building envelope, social impacts with clarification regarding the methodology of assessment and mitigation measures. The RtS included measures to reduce impacts on the nearby residents due to noise and dust during demolition works by proposing to enclose the concrete crusher to be installed on the site.

The Department received a total of nineteen submissions, in response to the RtS, including:

- nine from public authorities providing comments on the development
- one submission from Council maintaining its objection to the development
- four submissions from members of public including three objections
- five submissions from organisations and community interest groups including four objections.

The key issues raised in the submissions relate to noise, waste and dust management of the site during demolition works, management of traffic and noise during the operation of the future stadium including inadequate traffic analysis and noise analysis, impacts on Moore Park due to increased frequency of events, inadequate information regarding the evacuation timing for the new stadium.

In response to outstanding issues raised in the submissions and the Department's request for additional information, the Applicant provided several supplementary responses to submissions (SRtS) in September and October 2018. The SRtS included the final proposed mitigation measures during demolition works and during the operation of the future stadium, revised SIDRA modelling of nearby intersections, additional information regarding the noise management framework for the future stadium and during demolition works, additional waste management, air quality management and water quality management measures, and additional heritage assessment for the site.

Assessment Summary

In its assessment, the Department identified the key issues as: justification for the proposal; built form and urban design (Concept Proposal); heritage; traffic, transport and parking; noise impacts; and social impacts.

Following a detailed assessment of the proposal, the Department concludes the proposal to demolish and rebuild the SFS is consistent the State's strategic planning objectives for the site as set out in the NSW State Priorities and A Plan for Growing Sydney.

Public submissions raised concerns regarding the 'opportunity cost' of the expenditure on the project compared to other public infrastructure projects such as hospitals or schools. These are not matters for the Department to assess under the EP & A Act. It is a matter for Government to determine its investment priorities.

Built form and urban design

The existing SFS has varying roof levels due to the shape of the roof and the masts on top. The Department notes that the building envelope of the new stadium would be taller and larger than the highest points of the existing stadium, especially along the northern and southern edges, to accommodate the additional functional parameters within the stadium structure. The setting of nearby heritage items, including the SCG and the Moore Park Heritage Conservation Area in general, would also be altered by the proposed stadium footprint.

The Applicant's assessment has argued that the proposed building envelope would not have an unreasonable impact on the nearby residential areas, the heritage items and the parklands, both visually and in terms of overshadowing. The Department considers that additional visual impacts due to the additional height and footprint would not significantly impact on the available iconic views or solar access to residences in the locality or the public open spaces. The Department is also satisfied that the future building envelope would have negligible adverse impact on the setting or historic significance of nearby heritage items or archaeological resources.

The Department notes that the detailed design of the future stadium is required to be finalised through a competitive design process and therefore must demonstrate design excellence. Any identified adverse visual impacts associated with the larger building envelope would need to be minimised during the future detailed design of the stadium and in accordance with the Applicant's Urban Design Guidelines (UDG) and Design Excellence Strategy, which was endorsed by the NSW Government Architect. Additionally, the Department considers that the proposed design of the stadium includes opportunities for creating public spaces around the stadium which improves publicly accessibility compared to the existing fenced stadium. The Department has recommended the following conditions, to ensure that the Stage 2 application achieves design excellence and minimises impacts on surrounding areas:

- that a Design Competition be undertaken prior to the lodgement of the Stage 2 application
- that the Stage 2 development application demonstrates design excellence and be consistent with the UDG
- that the Stage 2 development application includes visual impact assessment, heritage impact assessment and solar access diagrams to demonstrate that the proposed enlarged building height and footprint does not unreasonably impact on the views available to the locality and does not overshadow or have adverse impacts on the SCG or the adjoining parklands
- that the public spaces around the stadium maximise access and useability
- that pedestrian connections through and around the site are maximised.

Demolition Impacts

The Department notes that the existing SFS is not listed as a heritage item under a statutory instrument. The Applicant's Heritage Impact Assessment Report (HIA), as refined by the RtS indicates that the site within which the SFS is located, has continued to evolve and improve since its informal use as a sporting and recreation ground in mid-1800s. The HIA concludes that the values of the existing SFS are related to its social and cultural significance rather than the physical fabric. Therefore, demolition of this stadium and replacement with a well-designed stadium is considered acceptable.

The Department has carefully considered the concerns raised regarding the demolition of the SFS and acknowledges that this will have negative short-term amenity impacts in terms of noise, dust due to the concrete crushing activities and traffic. However, the Applicant has proposed a comprehensive list of mitigation measures

and the Department has recommended appropriate conditions to mitigate the residual impacts. The recommended conditions include:

- establishment of a Community Consultative Committee (CCC) prior to commencement of demolition works to ensure that the community is consulted with during the demolition phase as well as prior to and during the Stage 2 development application process
- archival photographic recording the existing SFS, prior to its demolition to retain a record of the existing stadium for the community
- full enclosure of the concrete crusher to manage impacts of noise, dust and air quality on the surrounding residents, business owners and visitors to the area, during demolition
- specification of noise management levels to limit noise related impacts including requirements for regular noise monitoring
- requirements to protect archaeological relic Busby's Bore, located partly within the site
- vibration management methods to protect sections of the SCG that have heritage significance.

Traffic, transport and parking

The Applicant's assessment of the traffic impacts in relation to the future operation of the stadium identified a broad array of potential traffic impacts associated with the demolition works and the operation of the future stadium, notwithstanding that the overall capacity of the stadium would not change. The application relies on the use of public transport and alternate modes of transport to offset the traffic impacts on the locality and the wider region and aims to reduce the private vehicle usage in the future. The Department has reviewed the Applicant's traffic assessment and notes that there would be increased impacts on the nearby intersections, if both SCG and SFS operate concurrently at full capacity (double headers). The Department considers that this scenario would be rare and upgrading intersections to cater for such events is not feasible. The Department also considers that any additional parking is not appropriate for the site or for Moore Park, given its location and the opportunities for active transport. Having regard to the above and the submissions from Government agencies and the community, the Department has recommended the following conditions to effectively manage traffic impacts in relation to the future operation of the stadium:

- the total number of events and concerts be estimated with the Stage 2 application and be supported by a detailed traffic impact assessment considering the worst-case scenario
- no alterations to the existing car parking at MP 1
- provision of adequate bicycle parking spaces within the site
- preparation and implementation of Green Travel Plans to maximise the usage of public transport and active transport
- assessment of the suitability of the pedestrian routes connecting the site to the major transport nodes
- appropriate bus / car / coach drop-off and pick-up areas within the site
- assessment of pre-event and post-event scenarios considering closure of Driver Avenue after events
- consultation with Sydney Coordination of the Transport Management Centre, Transport for NSW, Council CCC and other key stakeholders in the preparation of the plans and traffic analysis.

Operational Noise Impacts

The Department has recommended that the future operations of the stadium must comply with the noise limits and time restrictions set by the Notice of Prevention Action in place for the existing stadium, unless a suitable alternate noise assessment methodology is agreed to by EPA and the Department as part of the Stage 2 development application.

Social Impacts

The Department recognises that the proposed stadium has the potential to result in social issues including exacerbating adverse impacts on Moore Park due to increased events and resultant use of the on-grass parking areas. The Applicant has provided measures to improve the security of the patrons during the future events at the stadium. The Department has recommended conditions to ensure that the Stage 2 application demonstrates wider social benefits by improving the security arrangements within the site, managing anti-social behaviour as well as contributes positively towards the recreational and landscape value of Moore Park:

- identification and assessment of time restrictions of all events within the site and the likely impacts
- provision of an anti-social behavioural strategy for surrounding areas including increased surveillance policy
- provision of a security risk assessment of the site specially in the areas of public congregation and hostile vehicle management strategy
- provision of a pedestrian connection strategy which demonstrates that any proposed pedestrian connections through the site would not adversely impact on the surrounding community due to traffic, noise and anti-social behaviour
- provision of a strategy to address how the development can support the Moore Park Masterplan 2040, contribute towards the recreational values of Moore Park and provide wider social benefits to the community.

Conclusion

The Department is satisfied that the impacts of the future proposal and the Stage 1 works have been addressed in the EIS, RtS and SRtS and the residual impacts can be adequately managed through the recommended conditions, as stated above.

The new stadium is expected to deliver social and economic benefits for the community. This includes a new state-of-the-art stadium and public domain, a sporting, tourist and entertainment precinct, boost sport participation, the creation of up to 600 construction jobs over three years as well as approximately 300 additional operational jobs per annum. The Department has considered the merits of the proposal in accordance with relevant matters under section 4.15(1), the objects of the *Environmental Planning and Assessment Act 1979*, the principles of Ecologically Sustainable Development, and issues raised in all submissions as well as the Applicant's response to these. The Department concludes the proposal is in the public interest and recommends that the application be approved subject to conditions.



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1. Introduction

This report provides an assessment of a State significant development (SSD) application lodged under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), for the redevelopment of Sydney Football Stadium, located at 40 - 44 Driver Avenue, Moore Park within the City of Sydney Local Government Area (SSD 9249).

Infrastructure NSW (the Applicant) on behalf of NSW Office of Sport and Sydney Cricket and Sports Ground Trust (SCGT) proposes a concept development application for the redevelopment of the existing Sydney Football Stadium comprising:

- the Concept Proposal for maximum building envelope, design and operational parameters for a new rectangular stadium with up to 45,000 seats (55,000 patrons in concert mode)
- Stage 1 works including the demolition of the existing Sydney Football Stadium down to the slab / existing ground level, associated works and identification of the demolition and the construction compound.

1.1 Site description

The Sydney Football Stadium (SFS) is located in the northern corner of the property at No. 40–44 Driver Avenue, Moore Park. The project area (site) comprises the northern half of this property and is legally described as part Lots 1528 and 1530 DP 752011 and Lot 1 DP 205794. The site is located within the City of Sydney Local Government Area (LGA), approximately 3 kilometres (km) south-east of the Sydney Central Business District (CBD), as identified in **Figure 1**.

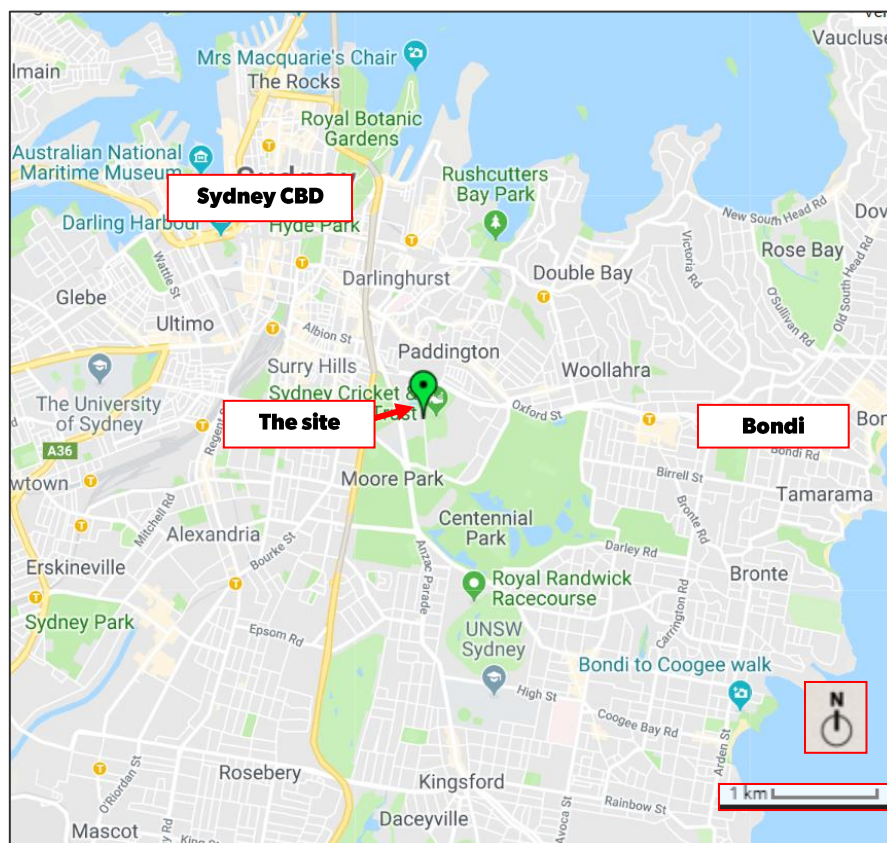


Figure 1 | Regional Context Map (Source: Nearmap 2018)

The site has an area of 8.7 hectares (ha) and is Crown land, with the SCGT designated as the sole trustee under the *Sydney Cricket and Sports Ground Act 1978*. The site has a frontage to Moore Park Road to the north, Paddington lane to the east, Driver Avenue to the west. The Sydney Cricket Ground (SCG) abuts the site to the south. The site forms part of a larger entertainment and recreation precinct shared with Centennial and Moore Parks, Fox Studios, and the Entertainment Quarter (**Figure 2**).

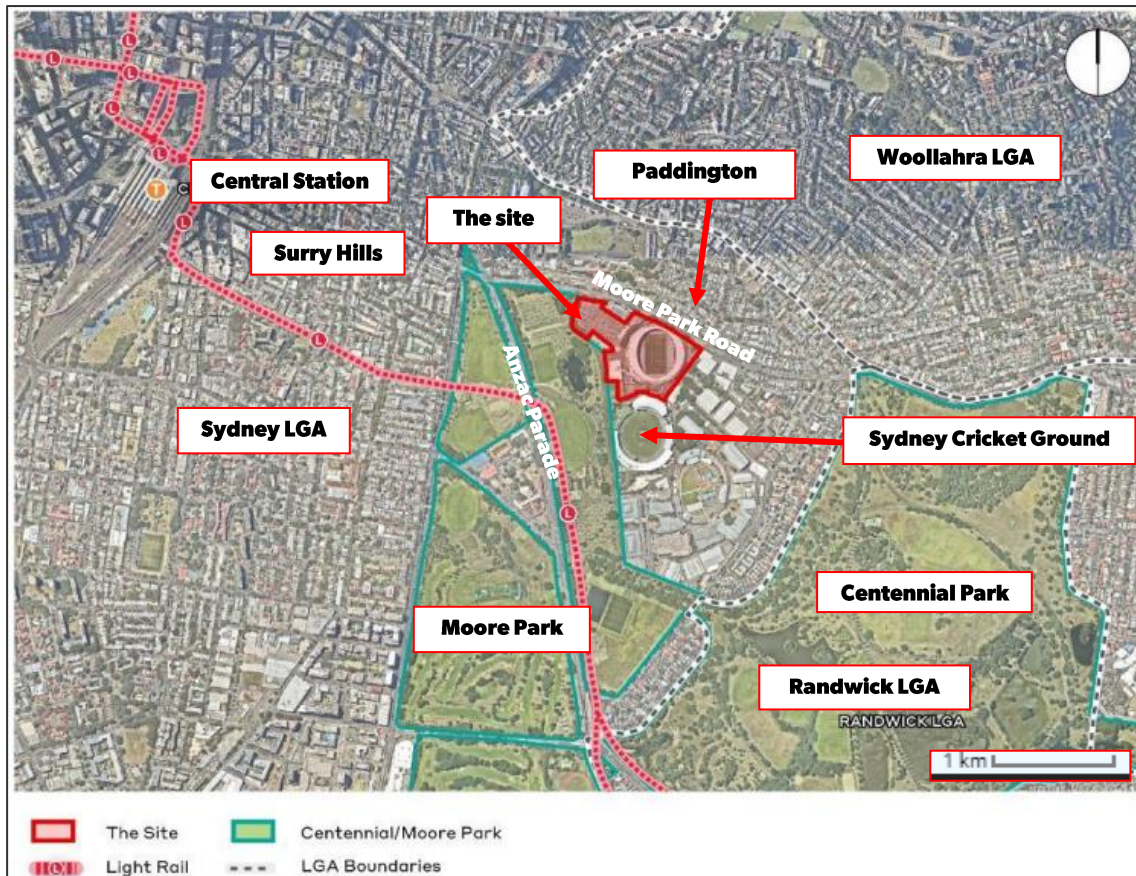


Figure 2 | Local Context Map identifying the site and the surrounding local government areas (Source: Applicant's EIS)

There are significant level differences across the site, with a general fall from the north-east to the south-west. The level difference between frontages is approximately 13 metres (m), falling from Moore park Road to Driver Avenue. At the Moore Park Road frontage, there is a retaining wall, dropping from street level to a plaza level similar to the stadium concourse level. From Driver Avenue, the ground ramps up towards the SFS, with stairs included at stadium entrances to reach concourse level.

The site currently accommodates the following structures and associated facilities:

- The existing SFS
- the Sheridan Building that is located at the corner of Moore Park Road and Driver Avenue, and included medical facilities and offices for the Sydney Swans and Sydney Football Club (FC)
- the SFS Forecourt that fronts Driver Avenue, to the south of the Sheridan Building, and includes the headquarters for the Sydney Roosters and Waratahs as well as the stadium store
- the Cricket NSW Headquarters, venue services building, and the indoor wickets that front Driver Avenue and the entry plaza to the SFS

- the Stadium Club that is located immediately south of the SFS and comprises a gymnasium, a 25m long outdoor pool, four synthetic tennis courts, two squash courts, large group exercise studio, spa, sauna, steam room, crèche, two massage rooms and a café (for exclusive use of the members of the SFS)
- the members' car park (also known as Moore Park Carpark 1 or MP1), being the only permanent publicly accessible car park on the site located to the north-west of the stadium. The car park is predominantly used by employees of the Trust and patrons of the members-only Stadium Club and accommodates approximately 600 spaces. Vehicular access to MP1 is available from Driver Avenue only.

The SFS (also known as the Allianz Stadium) was opened on 24 January 1988 as a bicentenary project. The SFS was designed by eminent Sydney based architect Philip Cox. The venue has undergone alterations over the years including minor renovations in 2006. The features of the existing stadium are **(Figure 3)**:

- capacity for up to 45,000 patrons including a total of 28 seats for persons in wheelchairs
- a seating bowl sunk into the ground to reduce the overall bulk and scale
- a wave-like roof structure that shields approximately 55% of the available seating from the 'drip line' (edge)
- an uncovered lower bowl with back of the tiers exposed through openings in the roof line
- food and beverage kiosks that are restricted in nature due to spatial constraints
- two change rooms and 48 ladies' toilets
- a non-continuous ring at the main concourse level comprising a narrow circulation core for the stadium
- servicing accommodated in back of house areas with one single goods lift for the entire stadium
- large scale LED screens at the northern and southern ends of the stadium.

Access to the stadium and surrounds are controlled by fences, with entry / exit to the site available from two locations, being Driver Avenue and Moore Park Road. The Moore Park Road entry is only accessible via stairs to manage the change in levels. A vehicular access to the site is available via Paddington Lane (on the eastern boundary). Currently there is no loading area at the basement level to provide for separation of loading activities from public/operational spaces. The movement of goods, staff and waste around the venue routinely leads to a cross-over between operations and patrons, including the movement of waste and goods through internal patron circulation spaces during events.

A tall brick wall with limited permeability exists on the eastern boundary, at the interface of the site with the Fox Studios. The site is also fenced along the northern and eastern boundaries.



Figure 3 | Aerial photo of SFS (Source: Applicant's EIS)

The property at No. 40–44 Driver Avenue, Moore Park also accommodates the following additional key existing buildings, structures and facilities, which do not form a part of the site (project area):

- The Rugby League Central Building and Australian Rugby Development Centre (ARDC), located along the north and south of the MP1 carpark respectively
- The SCG, comprising a mix of stands, buildings, paved and landscaped spaces, with a capacity for 48,000 spectators.

Figure 4 identifies the key buildings, facilities and associated structure on the property at No. 40–44 Driver Avenue, controlled by the SCGT, as well as the surrounding key land uses and the informal parking area within Moore Park.



Figure 4 | Aerial view identifying the site features and adjoining buildings and features with a table listing the key buildings within an outside the land controlled by SCGT (Source: Applicant's EIS)

Items within the SCGT Boundary

1. MP1 Carpark
2. Rugby Australia
3. The Sheridan Centre
4. National Rugby League (NRL) Headquarters
5. Sydney Roosters
6. Allianz Stadium Forecourt
7. Stadium Store
8. Allianz Stadium
9. Moore Park Road Entrance
10. Paddington Lane
11. Venue Services
12. Cricket NSW
13. The Stadium Club
14. Cricket NSW Outdoor Wickets
15. Tennis Courts/Flexible event spaces
16. Back of House servicing zone for Allianz Stadium
17. Tennis Courts
18. Sydney Cricket Ground Members Gate
19. Heritage Stand
20. Sydney Cricket Ground

Items outside the SCGT Boundary

1. Moore Park West
2. Moore Park East
3. Victoria Barracks
4. Tibby Cotter Walkway
5. Kippax Lake Field
6. Kippax Lake
7. Tramway Oval Field
8. Bus Loop and Bus Stops
9. Driver Avenue
10. Imperial Hotel
11. Fox Studios
12. Entertainment Quarter and Moore Park Showground
Clock Tower

1.2 Events

The SFS hosts Australia's international sporting teams such as the Kangaroos, the Wallabies and the Socceroos, with the longer term and more permanent tenants being the Sydney Roosters (since 1988), the NSW Waratahs (since 1996) and Sydney Football Club (since 2005).

1.3 Existing staffing for SFS

Staffing levels at the SFS vary depending on the type of event and the scale of expected attendance, and include customer service, crowd safety, catering, and on-site contractor personnel. The typical number of staff for events are:

- up to 15,000 patrons: 600 staff
- 15,000 to 30,000 patrons: 830 staff
- 30,000 to 45,000 patrons: 1,200 staff
- no event: 130 staff.

1.4 Car parking

SFS is located at the junction of two significant State and regional roads. Anzac Parade is the key north / south road, with three lanes in each direction and provides access to the Eastern Distributor tunnel as well as other key destinations. Moore Park Road is the key east /west road, with two lanes in each direction and also provides access to the Eastern Distributor. The other vehicular routes are Lang Road and Driver Avenue, which provide access to the four car parking areas that support the SFS and SCG during events. These parking areas are as follows (**Figure 5**):

- informal car parking areas within Moore Park East, located to the south and west of the site, providing in the order of 4100 parking spaces, shared with the Entertainment Quarter and SCG
- an additional 750 parking spaces available in the Sydney Girls and Sydney Boys High School Grounds (available during key events)
- the on-site carpark, MP1, with a parking capacity of 600 spaces.

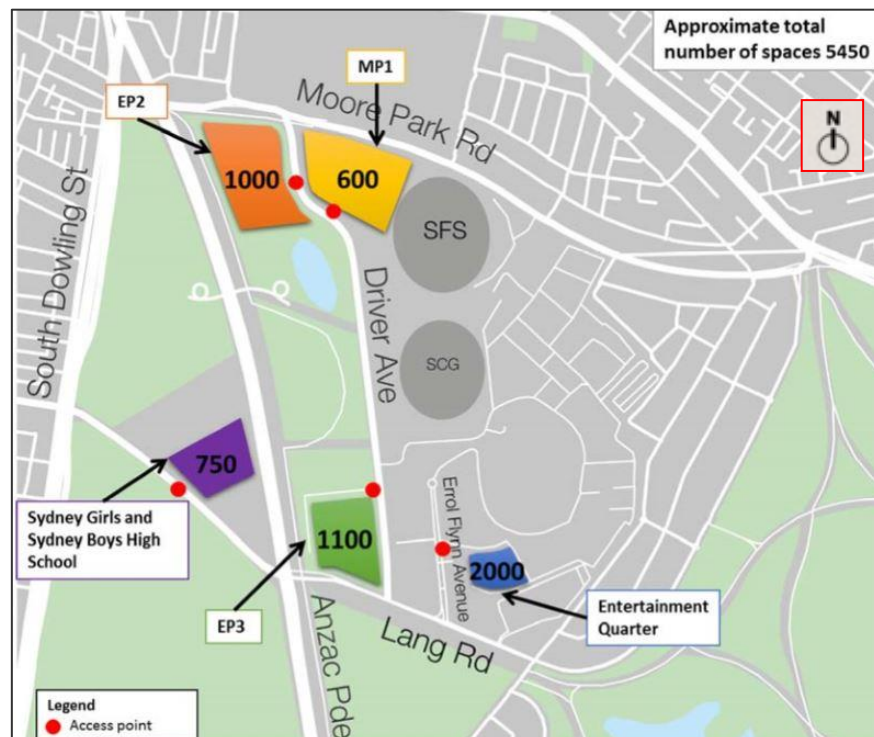


Figure 5 | Event day car parking arrangements (Source: Applicant's EIS)

1.5 Public transport and access

The Sydney CBD and South East Light Rail, currently under construction. Once completed, the 12km route would feature 19 stops, including a dedicated light rail stop for the stadium precinct. Services are expected to commence in 2020.

Event buses currently run from Central Station and carry people directly into the Moore Park precinct, using the event bus loop located to the west of the SFS. The loop has a turnaround facility with the capacity to accommodate 26 buses at one time, with these dedicated buses typically operating for an hour after events. Anzac Parade, Moore Park Road and Oxford Street are also major bus routes, with a number of stops available in proximity of the site. Buses along Anzac Parade also benefit from a bus only road that bypasses peak hour traffic.

The main pedestrian thoroughfares from Central Station comprise Foveaux Street and Fitzroy Street, Cooper Street and Arthur Street, Devonshire Street and Cleveland Street. The travel distances vary between 1.5km – 2.4km. There are local streets on the northern and eastern side of the stadium which can be utilised for walking. The recently opened Albert Tibby Cotter Walkway pedestrian bridge (**Figure 4**) assists pedestrians accessing the stadium from the west via Moore Park West and Surry Hills.

The site is located within an extensive local and regional bicycle network. This includes off-road shared paths along Anzac Parade, Lang Road, Cleveland Street and Fitzroy Street, and an on-road dedicated bicycle lane on Moore Park Road and Greens Road.

1.6 Heritage Context

The SFS is not listed as an item of local or State heritage significance. However, the site is located within the locally listed Sydney Cricket Ground Heritage Conservation Area. The heritage items in close proximity are:

- Busby's Bore (State heritage listed archaeological item)
- SCG Members Stand and Lady Members Stand
- Centennial Park, Moore Park, Queens Park
- Moore Park Heritage Conservation Area
- Victoria Barracks (Commonwealth Heritage List, and local heritage item and heritage conservation area).

1.7 Biodiversity and trees

The site does not include a significant number of trees or identified significant vegetation. However, the site itself is located within an identified parkland area of the Sydney CBD. There are rows of existing trees (71 in total) surrounding MP1 that create a landscaped curtilage to Moore Park Road and Driver Avenue. These trees comprise a mix of native species and are all mature and in good condition. There is also a cluster of trees within the existing forecourt area adjacent to the Driver Avenue forecourt.

A cluster of 19 trees are located in the southernmost point of the site, just north of the Cricket NSW Building. These trees comprise a mix of native and exotic planted species. A further cluster of 10 trees are located near the intersection of Moore Park Road and Regent Street. These trees comprise a mix of native and exotic species. A Moreton Bay Fig tree, classified as a significant tree, fronts on to Moore Park Road.

1.8 Surrounding development

The site is located between the larger entertainment and recreation precinct at the eastern edge of the Sydney CBD. It is characterised by a parkland setting to the west, sporting and entertainment uses to the south and east, and surrounding residential and mixed-use areas including (**Figure 6**):

- Fox Studios, incorporating a production and filming studio precinct with several buildings accommodating sound stages, office space, workshop, located immediately east of the site and separated by a brick wall

- The Entertainment Quarter, incorporating a range of contemporary and heritage buildings including the Hordern Pavilion, Royal Hall of Industries, Show Ring and Comedy Store, to the south-east of the SCG
- the suburb of Paddington, to the north of the site, characterised by predominantly medium density terrace houses, with commercial, food and beverage venues around Oxford Street and Moore Park Road
- Moore Park, to the west of the site with an area of approximately 115ha, extending on both sides of Anzac Parade and comprising a mix of active and passive recreation opportunities including the ES Marks Athletics Field, a Group One championship public golf course and driving range, tennis courts and netball courts. Moore park has two sections, Moore Park East (immediately adjoining Driver Avenue) and Moore Park West (western side of Anzac Parade). Moore Park East accommodates a significant water body, Kippax Lake in close proximity to the site and is utilised for on-grass parking during event days at the SFS.
- Sydney Boys and Sydney Girls High School premises are located on the western side of Anzac parade, in the near vicinity of the site.
- Surry Hills, a suburb to the north-west of the site, with a character similar to Paddington, incorporating a range of business premises, restaurants, bars and cafes, medium density terraces, with the density typically increasing closer to Central Station and the Sydney CBD (**Figure 2**).



Figure 6 | Site context and surrounding land uses (Source: Applicant's RtS)



2. Project

The key components and features of the proposal, as refined in the Response to Submissions (RtS) and the supplementary Response to Submissions (SRTs), are provided in **Table 1** and are shown in **Figures 7 to 12**.

Table 1 | Main Components of the Project

Aspect	Description
Project Summary	Concept development application for the redevelopment of the Sydney Football Stadium (SFS), including Concept Proposal for the building envelope, development and operational parameters, and Stage 1 early works for demolition of the existing SFS.
Concept Proposal -	Future stadium development
Site area	8.7ha.
Development components	- Maximum building envelope. - Maximum stadium capacity of 45,000 seats (55,000 patrons in concert mode) and 1,500 staff. - Urban Design Guidelines establishing the principles for the detailed design of the new stadium, including the building architecture and public domain and landscape architecture. - Design Excellence Strategy for the detailed design of the new future stadium. - Use of the site as a 'recreation facility (major)' with ancillary uses. - Outline of the staging of the development.
Built envelope	- The proposed building envelope location (Figure 9). - Maximum building height of RL 85m Australian Height Datum (AHD). - A new basement and the stadium bowl of RL 39.3m AHD (as existing). - Maximum corner to corner length of 270m. - A new internal concourse floor height of RL 47m AHD. - A mezzanine entrance level floor height of RL 50.5m AHD.
Stadium capacity	Capacity of up to 45,000 patrons seated and 55,000 for concert mode.
Urban design guidelines and design excellence	- Urban Design and Public Realm Guidelines to guide the future detailed design of the new stadium and public domain works. - Design Excellence Strategy prepared by INSW to guide the future stadium design parameters.
Stadium design and	Rectangular playing pitch and 100% drip-line roof coverage for all seats.

features	• 360-degree pedestrian circulation zone within the stadium structure. • Purpose built media and broadcasting facilities. • Four change rooms and ancillary team facilities. • Member areas, function lounge and corporate suite operations. • Flood lighting, stadium video screens and ancillary fittings. • Wayfinding signage strategy and circulation areas.
Events	• Stadium use for sporting events. • Up to six concerts or entertainment events per year. • Ancillary uses including food and retail premises within the site.
Pedestrian access and movement	• Provision of upgrades to Driver Avenue forecourt. • New access points on Moore Park Road. • Pedestrian access management measures during event days.
Vehicular access and parking	• A new basement ring road to provide for loading. • Provision of 40 to 50 restricted parking spaces for use by stadium administration, officials and stadium hirers only under the stadium. • Retention of Paddington Lane access primarily for emergency vehicles. • Reinstatement of MP1 and no increase in car parking capacity above existing.
Bicycle parking	• Provision of 100 bicycle parking spaces.
Public domain and landscaping	• Removal of existing fences to Moore Park Road. • Enhancement of existing public domain / arrival areas at Moore Park Road and Driver Avenue. • New arrival plaza adjoining Moore Park Road. • Accessible concourse that integrates with the internal stadium concourse levels. • Soft landscaping and plantings. • Integration of wayfinding and signage. • Tree removal.
Operational jobs	• Up to 1500 staff during a peak event. • Up to 130 staff during non-event days.
Hours of operation	• Sporting events: 8am – 11pm. • Concerts: 10am – 11pm (maximum length 5 hours). • Rehearsals: 10am – 7pm. • Sound tests: 10am – 7pm. • Other outdoor events with sound amplification: 10am – 8pm (days preceding working days). • Other outdoor events with sound amplification: 10am – 10:30pm (days not preceding working days).

Staging	• Stage 1 – Demolition of existing stadium down to the slab or existing ground level and associated works. • Stage 2 – Bulk earthworks, detailed design, construction and operation of the new stadium (not a part of this application).
CIV	• \$674,00,000.
Stage 1 works	
Development Components	• Demolition of the existing Sydney Football Stadium and ancillary structures, including the existing Sheridan, Roosters, Waratahs and Cricket NSW Cricket NSW administration buildings and indoor wickets, down to existing slab level. • Site and construction management, including use of the existing MP1 car park for demolition/construction staging, management and waste processing, including concrete crushing and provisions for temporary pedestrian and vehicular access management. • Protection and retention of 100 trees including a Moreton Bay Fig tree and existing street trees. • Removal of all other vegetation within the proposed building footprint including 26 trees.
Gross floor area (GFA)	• Demolition area: 56,400 square metres (m²).
Hours of Demolition	• Demolition hours would be undertaken between the following hours: ○ 7am and 6pm Monday to Friday ○ 8am and 1pm Saturday ○ No works on Sundays or public holidays.
Jobs	• Up to 30 jobs.
CIV	• \$11,080,000.

2.1 Demolition Works (Stage 1)

Demolition works would include de-commissioning of utility infrastructure services of the identified buildings and any diversions / relocations required to ensure that utility supply to surrounding facilities or buildings within the precinct to be retained are not disrupted.

The demolition of SFS could involve crushing of up to approximately 100,000 tonnes of concrete on the site. Only concrete that is likely to be recycled at the site would be crushed. The demolition would involve generation of 11,050 tonnes of steel, bitumen and glass.

The Applicant indicated that the majority of the crushed concrete would be recycled or reused (target of 90%) and estimates that 250 tonnes of demolition waste would be generated after re-cycling or re-use.

Apart from heavy and light vehicles, demolition activities include the use of a variety of equipment and plant, including (but not limited to): mobile (approx. 50 tonnes) and temporary crane (approximately 250/450 tonnes); excavators and bobcats; jackhammers, rock breakers; concrete crusher; mulcher/chipper; hand tools; chainsaw; water tank trucks; generators and boom lifts. The concrete crusher is likely to be located on the southern

boundary of the MP1 car park which is identified as a demolition compound. The crusher and stockpiles are proposed to be enclosed. The Demolition Plan is provided in **Figure 8** and the concrete crusher location is shown in **Figure 7**.

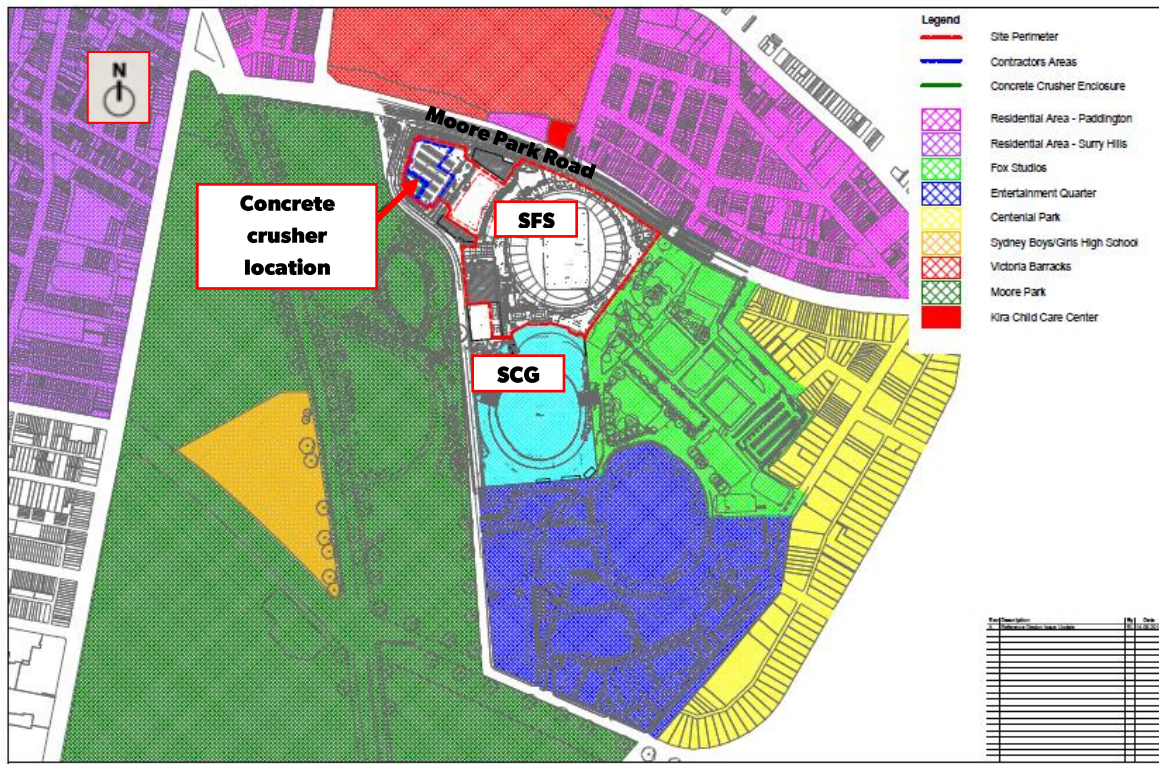


Figure 7 | Indicative location of the concrete crusher (Source: Applicant's RtS)

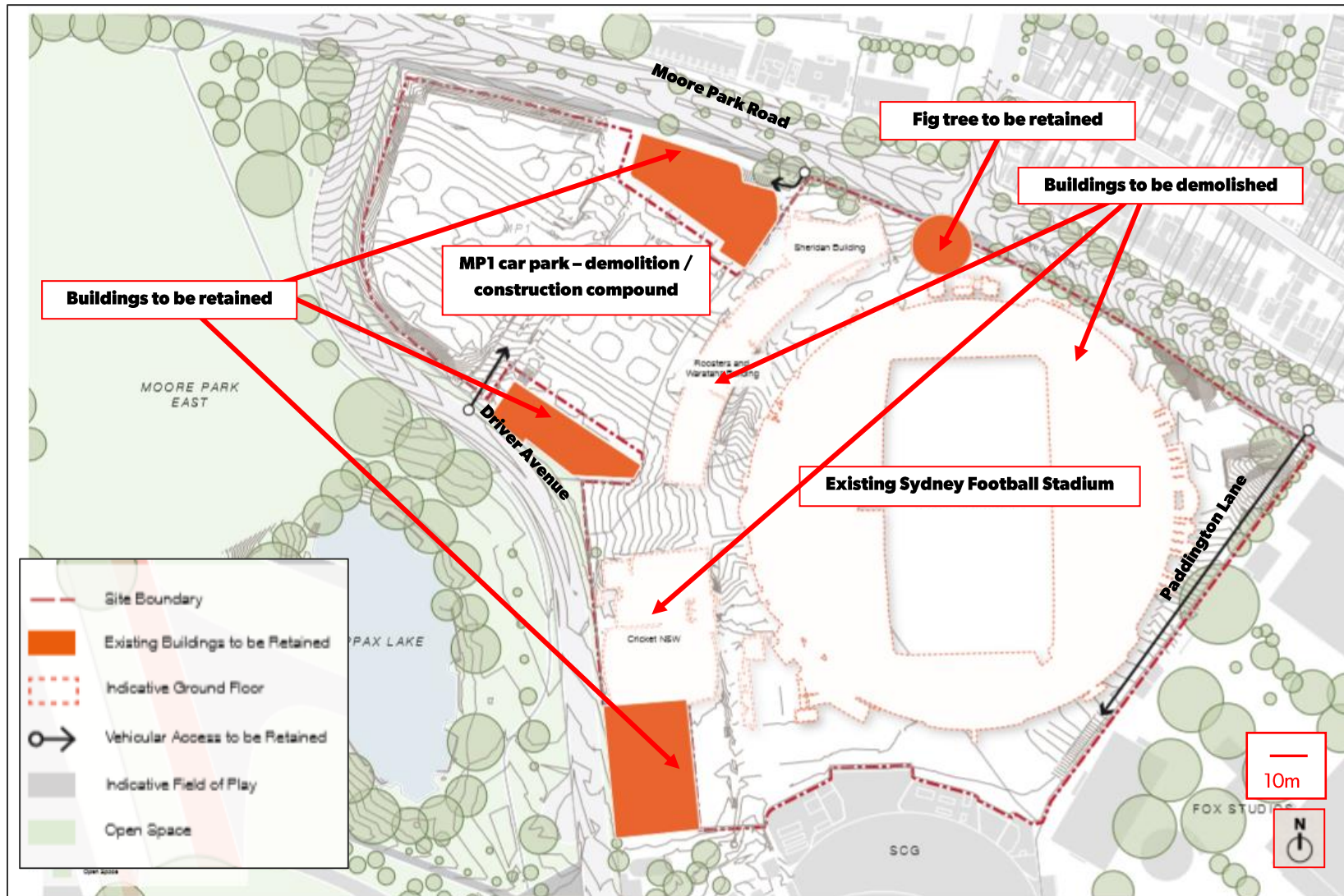


Figure 8 | Demolition Plan (Source: Applicant's EIS)

2.2 Concept Plan

The building envelope has been informed by, and developed in conjunction with, the development of a reference design prepared by Cox Architecture (the architect firm responsible for the existing SFS) that incorporates all of the functional and operational requirements of a Tier 1 stadium with a seated capacity of 45,000 persons (55,000 for concert mode with 10,000 additional standing capacity in the field of play).

The building envelope arising from this reference design process has been enlarged to provide a 'loose-fit' maximum building envelope that would accommodate not only the reference design, but also other possible architectural and structural design responses to the functional brief for the stadium. The final detailed building envelope, including compliance with the maximum building envelope, would be detailed further in the Stage 2 Development Application.

The proposed building envelope would be located closer to the Driver Avenue frontage, than the existing footprint, and would have a larger footprint than the existing stadium to accommodate the functional parameters. This would require the demolition of the adjoining Sheridan, Waratahs, Roosters and Cricket NSW buildings. The overall proposed envelope would also be higher than the existing stadium.

A ring road would be provided for internal patron circulation within the stadium structure, maximizing accessibility and distribution of crowds and reducing potential pinch-points. Lifts and vertical circulation would be provided to meet modern design and accessibility standards to allow for equitable access throughout the stadium and to provide access to a range of seating types.

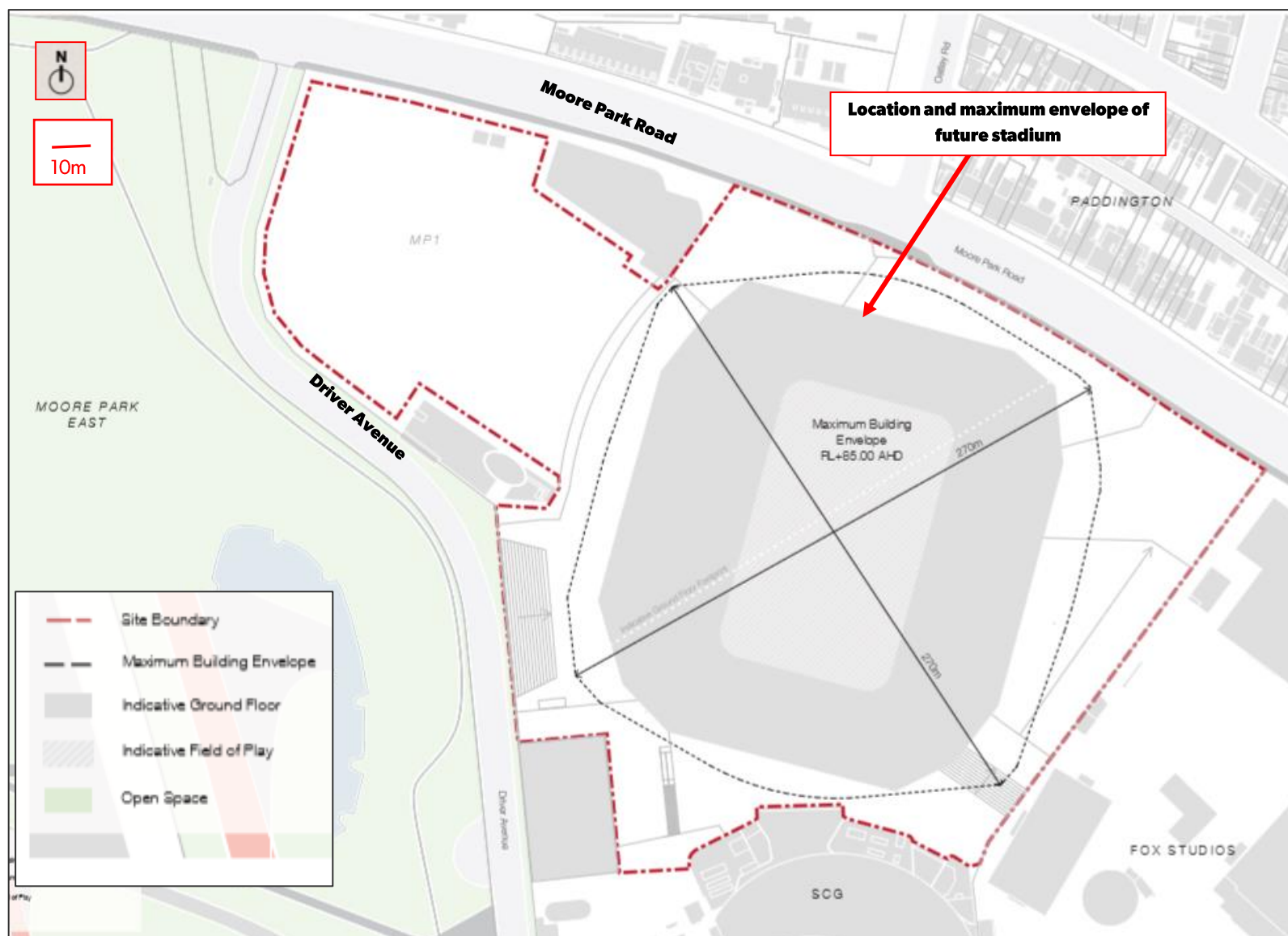
The Applicant's EIS states that the potential loose fit envelope would have a setback varying between 10.2m – 12.3m from the Noble Bradman Stand of the SCG (to the south).

Flood lighting is proposed to be integrated into the roof structure of the future stadium and would be detailed as a part of the Stage 2 Development Application.

Figures 9 to 12 identify the extent of the maximum building envelope in the context of the site and the surrounding development, the proposed landscape strategy and public domain strategies for the site.

2.3 Stage 2 application

The Applicant proposes to lodge a separate application for Stage 2 works which would comprise the detailed design and operational parameters for the future stadium. The Stage 2 application would be informed by the design guidelines and functional parameters proposed under the Concept Proposal.



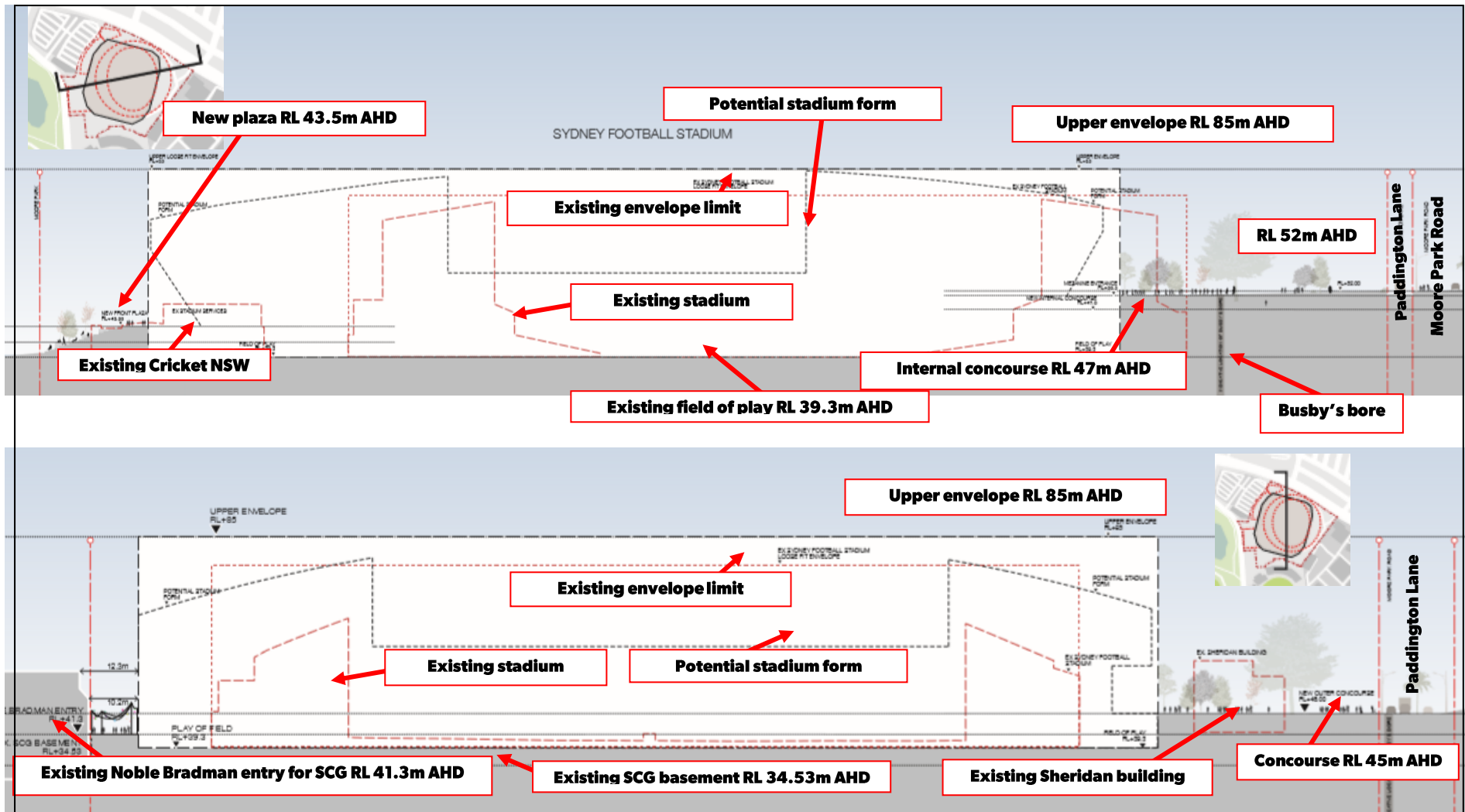


Figure 10 | Sections through the proposed building envelope identifying the height and depth and associated levels of concourses in comparison to SCG (Source: Applicant's RtS)

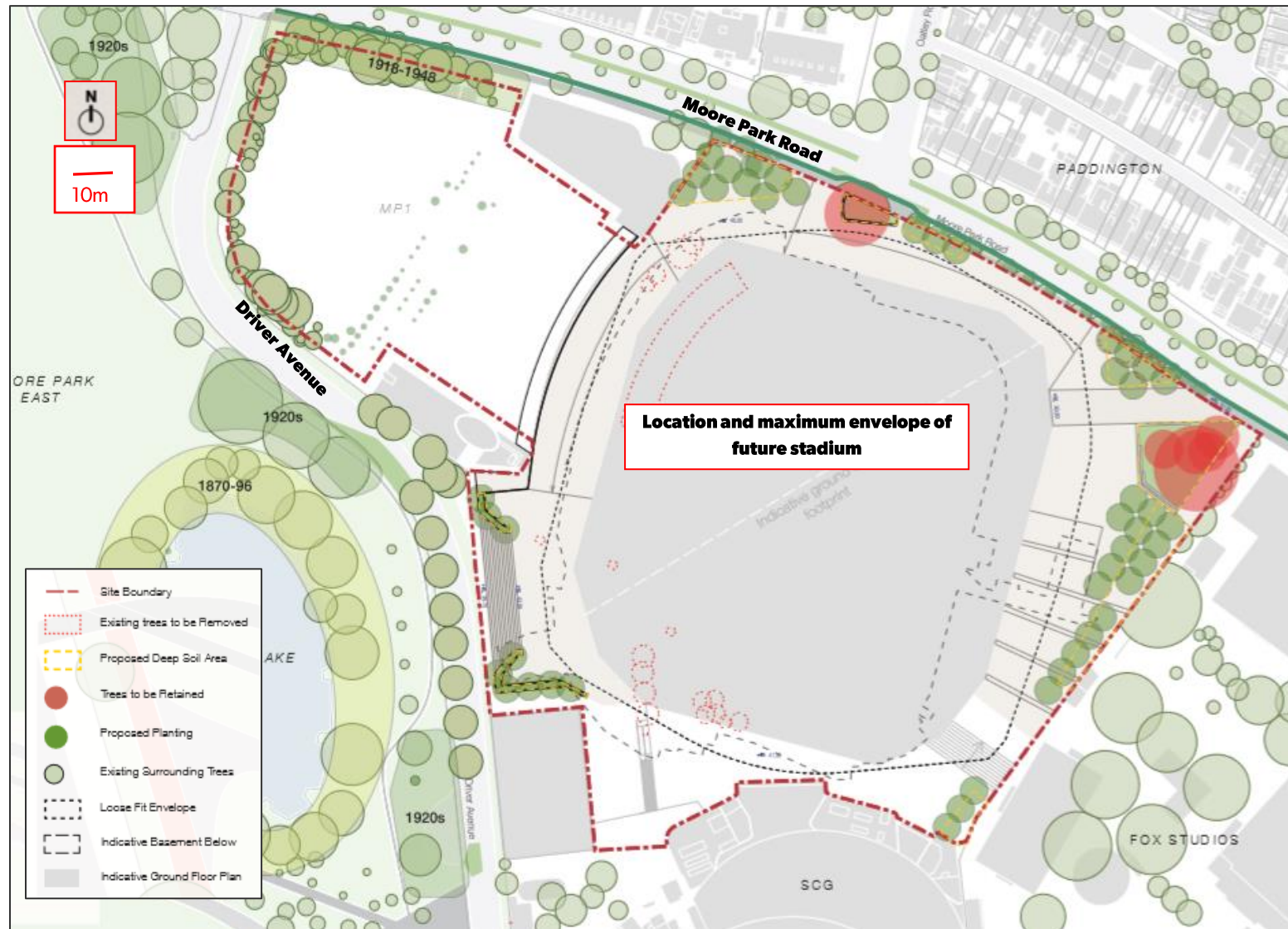


Figure 11 | Landscape strategy plan (Source: Applicant's RtS)

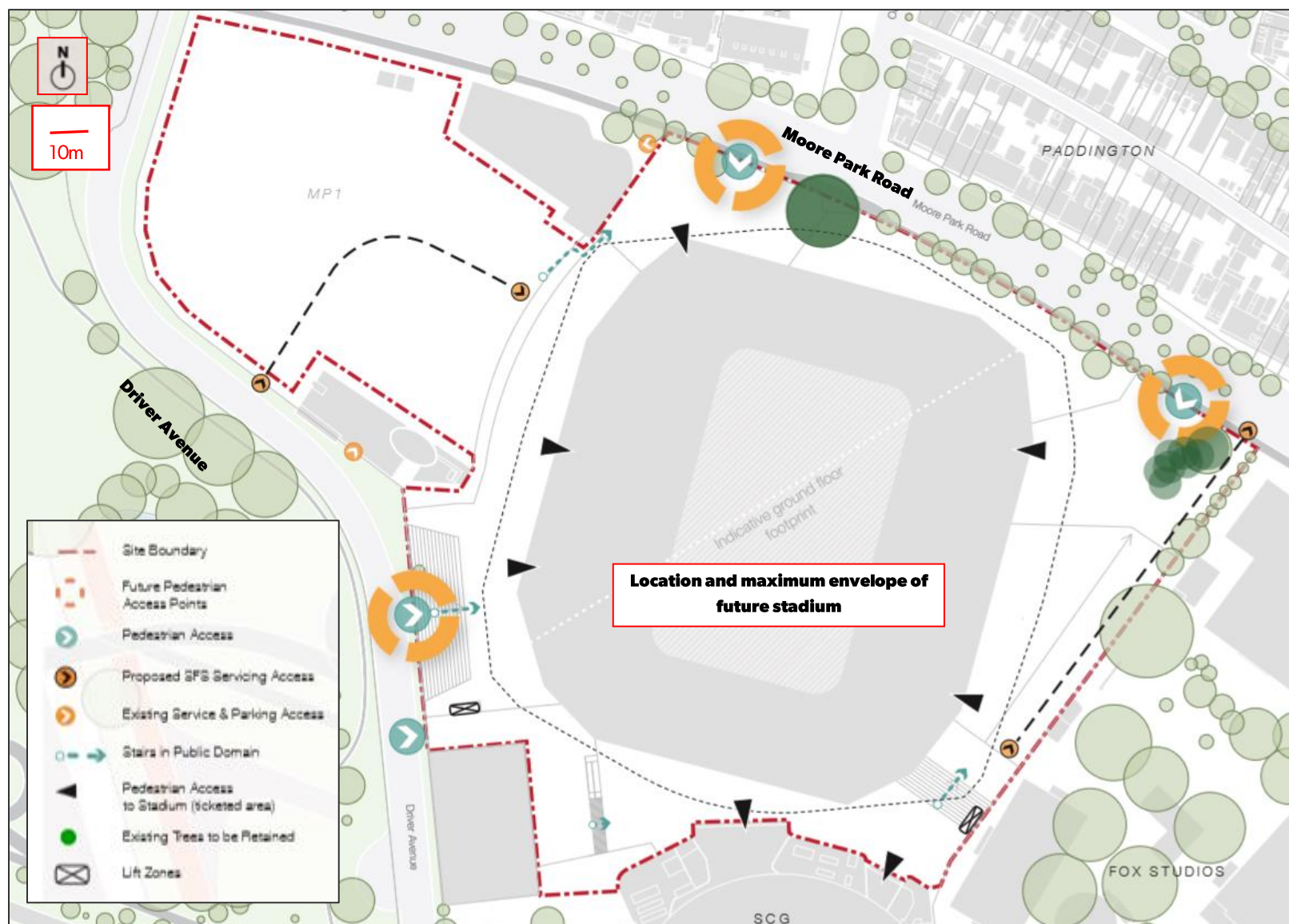


Figure 12 | Proposed access points and public domain areas (Source: Applicant's RtS)

2.4 Uses and facilities (Concept Proposal)

The Applicant's EIS states that it is anticipated that there would be between 49 - 52 events per year. The consent does not seek approval for an upper limit for events during any year.

Under the terms of existing noise restrictions that relate to the site, a maximum of six concerts/ entertainment events per annum, with no more than an average of four such events per annum over any rolling five-year period at both the SCG and SFS is currently applied. This limit on concerts would be maintained for the new stadium.

A range of seating types are proposed to be provided, including general admission, active supporter zones, members seating and corporate seating and seating for disabled people in accordance with relevant standards.

Food and beverage facilities would be integrated into the stadium structure, with purpose-built spaces providing the capacity to prepare and serve the intended maximum occupancy of the stadium. Capacity to accommodate dining and function spaces, box and terraces, and function / lounge for corporate suites would also be incorporated.

The future stadium would also incorporate purpose-built and adaptable media and broadcasting facilities to meet the requirements of national and international-standard sporting events. Four change-rooms would be provided, providing increased flexibility to host double-header matches. Dedicated coaching/administration and stadium safety facilities would also be provided.

2.5 Design Excellence

A Design Excellence Strategy has been prepared by the Applicant in collaboration with the NSW Government Architect (GANSW) to ensure that the future stadium achieves design excellence by following a competitive design process in accordance with the City of Sydney Council's Competitive Design Policy (2013). This strategy has been endorsed by GANSW. In addition, the Urban Design Guidelines for the Concept Plan include measures to guide the detailed design in a variety of areas.

2.6 Timing

The demolition is anticipated to be undertaken in 8-12 months. The Applicant intends to lodge the Stage 2 SSD application in 2019. The overall staging timeframe is shown below in **Figure 13**.

Stage	Indicative Timing
Stage 1: Site establishment	January 2019
Stage 1: Demolition of ancillary buildings (exc. Cricket NSW)	February 2019 – May 2019
Stage 1: Demolition of Cricket NSW building and indoor wickets	September 2019 – October 2019
Stage 1: Demolition of Sydney Football Stadium Roof	January 2019 – July 2019
Stage 1: Demolition of Sydney Football Stadium Structure	January 2019 – December 2019
Stage 2: Construction of new stadium (subject to further detail in Stage 2 planning application)	October 2019 – June 2021
Stage 2: Testing and commissioning (subject to further detail in Stage 2 planning application)	June 2021 – February 2022
Stage 2: Commencement of stadium operation	March 2022

Figure 13 | Anticipated Staging Timeframe (Source: Applicant's EIS)

2.7 Related Development

2.7.1 Development Applications

On 6 September 2018, the SCGT lodged a Development Application (D/2018/1034) with the City of Sydney Council for the alterations and temporary fit-out of Byron Kennedy Hall and adjacent Building 14A, which is located within the Entertainment Quarter of Moore Park. The fit-out is associated with the temporary use as a health services facility and commercial premises for four years. These facilities are those currently located at buildings proposed to be demolished.

The Statement of Environmental Effects (SEE) accompanying the application, notes that the staff re-locating with the facilities would rely for parking on the available 2000 space multi-storey carpark within the Entertainment Precinct which has ample spare capacity.

On 27 August 2018, the SCGT lodged a Development Application (D/2018/991) with the City of Sydney Council for the temporary use of part of the Moore Park Entertainment Quarter for a two storey demountable building for commercial use comprising offices, a gymnasium, a lounge and 44-person theatre, to be used in association with the Sydney Football Stadium redevelopment. The building is proposed to be open between 6am and 11pm Mondays to Sundays.

On 18 July 2018 Milestone Australia Pty Ltd lodged a Development Application (D/2018/819) with the City of Sydney Council for the continued and permanent use of Moore Park as a venue for temporary events and filming including associated car parking for events and erection of temporary structures. This application was consented on 24 October 2018 and allows the continued use of Moore Park as a venue for hosting temporary events, including major events which attract over 2500 people, for 20 days per calendar year for a further five years, such as the Mardi Gras festival and Sydney Running Festival, music concerts, exhibitions, competitions and events. It also consents events with sound amplification equipment, which have a crowd capacity of greater than 5000 people for no more than 8 days per calendar year and the use of Moore Park for filming and photography. The consent lapses on 24 October 2023.

2.7.2 Amendment to State Environmental Planning Policy No. 47

The State Environmental Planning Policy (SEPP) No 47 – Moore Park Showgrounds applies to the Entertainment Quarter, an entertainment precinct located within the Moore Park Showground Precinct adjoining the south-eastern boundary of the site.

The Department has recently proposed an amendment to SEPP 47 to facilitate the following:

- provide temporary facilities for the Sydney Roosters and other businesses operating at the SFS during the stadium's proposed redevelopment.
- introduce a complying development pathway for the installation of a new demountable building and its temporary use, as well as the use of the Byron Kennedy Hall and adjacent building 14A as health services facilities, recreation facilities and commercial premises
- temporarily permit the businesses and activities currently operating in the SFS to operate within the Entertainment Quarter, despite not being related to the film, television and video industry, for a four (4) year period commencing on January 1, 2019.

The proposed amendment to SEPP No 47 would make health service facilities, commercial premises, recreation facilities and temporary demountable buildings both permissible with consent and as complying development in certain areas of the Entertainment Quarter Precinct for four (4) years ending on 1 January 2023.



3. Strategic Context

3.1 NSW Stadia Strategy 2012 and 2015 Preliminary Sydney Cricket Ground Masterplan

In 2012, the NSW Government released the NSW Stadia Strategy which provides a vision for the future of stadia within NSW, prioritising investment to achieve the optimal mix of venues to meet community needs and to ensure a vibrant sports and event environment in NSW. A key action of the strategy included development of master plans for designated Tier 1 stadia and their precincts. SFS was identified as one of the three stadia within NSW, designated to operate as a Tier 1 stadium, in conjunction with Stadium Australia (Olympic Park) and the Sydney Cricket Ground (SCG).

In order to qualify for Tier 1 status, a stadium is required to include:

- Seating capacity greater than 40,000
- Regularly host international sporting events
- Offer extensive corporate facilities, including corporate suites, open-air corporate boxes and other function/dining facilities
- Be the home ground for sporting teams playing in national competitions.

Following release of the NSW Stadia Strategy, the SCGT undertook master planning culminating in the 2015 Preliminary Sydney Cricket Ground Master Plan. This master plan defines the context for future redevelopment of the SCG, SFS and related sports infrastructure to ensure that the precinct continues to meet the needs and expectations of visitors and tenants into the future.

The SSD application for the redevelopment of the SFS was lodged in response to the NSW stadia strategy, the outcomes of the 2015 Preliminary Sydney Cricket Ground Master Plan and the Government's announcement to demolish and redevelop this stadium on 24 November 2017.

3.2 Compliance with the relevant strategic plans

The Department considers that the proposal is appropriate for the site given that it is consistent with:

- Objectives of the 2012 NSW Stadia Strategy for improving sporting facilities and bringing sport back to the city
- Greater Sydney Commission's (GSC) A Metropolis of Three Cities - The Greater Sydney Plan as it would:
 - support the aim of building on the existing social, economic and environmental assets of Sydney to improve the quality of life for all its residents and to uphold its status as one of the top cities of the world
 - support the intention to create "Great places that bring people together"
 - support the growth of the Eastern Harbour City through global competitiveness by designing the stadium equipped to attract international sporting events.
- the vision outlined in the GSC Eastern City District Plan as it would:
 - comply with its objective of "Sustaining communities through vibrant public places, walking and cycling, and cultural, artistic and tourism assets"
 - provide services and social infrastructure to meet people's changing needs
 - foster healthy, creative, culturally rich and socially connected communities

- create and renew great places and local centres and respect the District's heritage.
- the State Infrastructure Strategy 2018 – 2038 Building the Momentum as it would:
 - deliver world class institutions to maintain strong cultural and sporting sectors and support the visitor economy
 - provide a venue to support a strong creative and cultural sector to contribute to NSW's global competitiveness and Sydney's position as a world city.
- the City of Sydney's Sustainable Sydney 2030 plan as it would:
 - create a globally competitive facility
 - target achieving a Leadership in Energy and Environmental Design Gold Rating and promote ecologically sustainable development
 - improved public domain will provide increased integration with Moore Park precinct
 - enable more people to attend sporting and other events
 - accommodate national sporting competitions, international sporting events and concerts.
- the NSW Future Transport Strategy 2056 as it would:
 - provide an upgraded stadium near the CBD, a central public transport node, an established sports precinct and parklands, thus minimising walking and cycling distances and encouraging multi-purpose trips.
- the TfNSW Sydney's Cycling Future 2013 as it would:
 - promote and cater for bicycle use through the provision of bicycle parking provisions
- it would provide direct investment in the region of approximately \$674 million, which would support 30 jobs for Stage 1 demolition works and up to 300 additional operational jobs upon completion.



4. Statutory Context

4.1 State significant development

The proposal is SSD under section 4.36 (development declared SSD) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as the development has a CIV in excess of \$10 million (\$674 million) and is located within the Sydney Sports Stadiums Site in Schedule 2 (Item 7) of the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

The Minister is the consent authority under section 4.5 of the EP&A Act. In accordance with the then Minister for Planning's delegation to determine SSD applications, signed on 11 October 2017, the Executive Director, Priority Projects cannot determine this application as:

- the relevant Council has made an objection
- there are more than 25 public submissions in the nature of objection.

The Application is referred to the Minister for determination, as the Applicant is a public authority.

4.2 Permissibility

The site is identified as being located within the SP1 Special Activities zone that is designated for Recreation Facility (Major) under the Sydney Local Environmental Plan 2012 (SLEP). The proposed stadium is classified as a recreation facility (major) and is permissible with consent within the zone.

The proposed stadium is also expected to incorporate a range of ancillary uses such as food and drink premises, a function centre and kiosks which would operate during stadium operations with the potential for some facilities to operate independently during non-event periods. These uses are ancillary and subordinate to the primary use of the site as a stadium.

4.3 Other Approvals

Under section 4.41 of the EP&A Act, a number of other approvals are integrated into the State Significant Development approval process, and consequently are not required to be separately obtained for the proposal.

Under section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the proposal (e.g. approvals for any works under the Roads Act 1993).

The Department has consulted with the relevant public authorities responsible for integrated and other approvals, considered their advice in its assessment of the project, and included suitable conditions in the recommended conditions of consent (see **Appendix D**).

4.4 Mandatory Matters for Consideration

4.4.1 Environmental planning instruments

Under section 4.15 of the EP&A Act, the consent authority is required to take into consideration any environmental planning instrument (EPI) that is of relevance to the development the subject of the development application. Therefore, the assessment report must include a copy of, or reference to, the provisions of any EPIs that substantially govern the project and that have been taken into account in the assessment of the project.

The Department has undertaken a detailed assessment of these EPIs in **Appendix B** and is satisfied the application is consistent with the requirements of the EPIs.

4.4.2 Objects of the Environmental Planning and Assessment Act

The objects of the EP&A Act are the underpinning principles upon which the assessment is conducted. The statutory powers in the EP&A Act (such as the power to grant consent/ approval) are to be understood as powers to advance the objects of the legislation, and limits on those powers are set by reference to those objects. Therefore, in making an assessment the objects should be considered to the extent they are relevant. A response to the objects of the EP&A Act is provided in **Table 2**.

Table 2 | Response to the objects of section 1.3 of the EP&A Act

Objects of the EP&A Act	Consideration
(a) <i>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</i>	• The proposal involves the demolition and redevelopment of a stadium which currently does not meet modern world class standards. • The proposal has the potential to provide a range of social and economic benefits which align with the NSW Stadia Strategy 2012 and other strategic plans for Sydney. • The proposal would provide for increased operational employment opportunities. • The development would not negatively impact on the economic welfare of the community, or the State's natural resources. • The proposal has been designed to minimise impacts to the State's natural and built resources, where possible.
(b) <i>to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</i>	• The proposal includes measures to deliver ecologically sustainable development which are considered in Section 4.4.
(c) <i>to promote the orderly and economic use and development of land,</i>	• The proposal is an orderly use and development of the land and would facilitate redevelopment of the site for the continued use as a recreational area with fit-for-purpose sporting and associated facilities. • By staging the development approval of the proposed stadium, this application provides for the orderly and economic planning of the new stadium in accordance with established planning parameters, whilst also allowing the Stage 1 demolition works to commence to minimise disruption to Sydney's sporting infrastructure

and facilitate the delivery of the new stadium in a timely manner.

(d) <i>to promote the delivery and maintenance of affordable housing,</i>	• Not applicable
(e) <i>to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</i>	• The proposed Stage 1 works would result in the removal of 26 trees from the site. The site does not include any threatened species, populations or ecological communities. • The proposal would be undertaken within a modified and disturbed environment and would not impact on biodiversity values. • The matters are considered in Section 6.
(f) <i>to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</i>	• The existing stadium is not identified as a heritage item in an environmental planning instrument or under the Heritage Act 1977, however Busby's Bore (State Heritage Register) traverses the site and the site is located within a Heritage Conservation Area under the Sydney Local Environmental Plan 2012 (SLEP). The site is also surrounded by and influenced by a number of heritage items of varying significance. • The Concept Proposal and Stage 1 works would have a negligible impact on European Heritage, Archaeological relics or Aboriginal Cultural heritage associated with the area. These matters are considered in Section 6.
(g) <i>to promote good design and amenity of the built environment,</i>	• The proposal provides Urban Design and Public Realm Guidelines which establish the framework for the future detailed design of the stadium to promote good design and amenity. The detailed design of the new stadium would be the subject of a competitive architectural and landscape architecture design process. • The Concept Proposal promotes good design being consistent with the submitted urban design principles as detailed in Section 6.
(h) <i>to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</i>	• The Concept Proposal does not include any construction works. • The proposed Stage 1 demolition works would promote proper methods and would ensure safety of the workers and the surrounding users subject to recommended conditions of consent in Appendix D.

- | | |
|---|--|
| <p>(i) <i>to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</i></p> | <ul style="list-style-type: none"> • The Department publicly exhibited the proposal as outlined in Section 5.1, which included consultation with Council and other public authorities and consideration of their responses as discussed in Sections 5.1 and 6. |
| <p>(j) <i>to provide increased opportunity for community participation in environmental planning and assessment.</i></p> | <ul style="list-style-type: none"> • The Department publicly exhibited the proposal as outlined in Section 5.1, which included notifying adjoining landowners, placing a notice in newspapers and displaying the proposal on the Department's website and at Council during the exhibition period. |

4.4.3 Environmentally Sustainable Development

The EP&A Act adopts the definition of ecologically sustainable development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle
- inter-generational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.

The Applicant proposes ESD initiatives and sustainability measures, including a target for the future stadium to achieve a Leadership in Energy and Environmental Design (LEED) Gold rating. The LEED certification process is the most widely used green building rating system in the world and has been utilised by other local and overseas stadia development to ensure minimum levels of performance are met across the full spectrum of sustainability initiatives. The key sustainability measures considered for the future stadium design include:

- minimising greenhouse gas emissions from operational energy consumption, onsite emissions and transport to and from the site
- minimising consumption of water and materials through efficient design, rainwater collection, whole life cycle assessment and reuse of existing equipment
- maximising biodiversity on site through selection of native vegetation in landscaping
- working towards true social sustainability by integrating public areas with the stadium site and supporting greater community engagement.

Sustainability initiatives both for the Concept Proposal and the Stage 1 works include:

- diversion of 90% of waste from landfill through the re-use of materials on-site and separation of waste during demolition works
- reuse of materials such as the digital scoreboards and materials like concrete on the site
- investigate the opportunities for using site sheds that include a range of best practice initiatives as outlined by the Green Building Council of Australia
- commitment to providing a combination of LED lighting, smart envelope design by integrating photovoltaic cells with the roof, and the inclusion of an energy generation system on site such as solar panels on the roof of the future stadium
- efficient fittings and fixtures to the future stadium, minimising landscape irrigation needs, rainwater collection and reuse, and expanding bore water facilities at the SCG

- prioritising pedestrian circulation and permeability in the future design, providing bicycle parking for staff and visitors including exploring 'valet bike parking' to assist in game-day peak periods, and other measures to encourage the uptake of sustainable and active modes of transport
- installing electric vehicle charging points in the future stadium site, and prioritising parking for green vehicles
- enhancing planting on site with 95% of the new vegetation to be Australian native species
- installing digital monitoring systems to manage and reduce energy demands real-time.

With regard to the ESD initiatives, City of Sydney Council (Council) objected to the development and commented that the new stadium should not use more energy than the old stadium due to commercial energy efficiency technologies and should include a Greenhouse Gas emissions target. Council also stated that the demolition of the existing stadium does not demonstrate environmentally sustainable measures. In response, the Applicant has committed to designing the stadium to target a minimum LEED Gold rating, or equivalent rating under another recognised standard, such as the Green Star rating through the Green Building Council of Australia.

The Department has considered the project in relation to the ESD principles. The precautionary and inter-generational equity principles have been applied in the decision-making process via a thorough and rigorous assessment of the environmental impacts of the proposed development. The proposed development is consistent with ESD principles as described in Section 6.11 of the Applicant's EIS, which has been prepared in accordance with the requirements of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).

The Department considers that the proposed ESD measures would be satisfactorily addressed through the applicant's commitments and by the Department's recommended conditions, during the Stage 1 demolition works and in the Stage 2 development application for the detailed design of the stadium.

4.4.4 Environmental Planning and Assessment Regulation 2000

Subject to any other references to compliance with the EP&A Regulation cited in this report, the requirements for Notification (Part 6, Division 6) and Fees (Part 15, Division 1AA) have been complied with.

4.4.5 Planning Secretary's Environmental Assessment Requirements

The EIS is compliant with the Planning Secretary's Environmental Assessment Requirements (SEARs) and alongside the Response to Submissions Report and additional information provided by the Applicant (refer to **Appendix A**) is sufficient to enable an adequate consideration and assessment of the proposal for determination purposes.

4.4.6 Section 4.15(1) matters for consideration

Table 3 identifies the matters for consideration under section 4.15 of the EP&A Act that apply to SSD in accordance with section 4.40 of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 6** (Assessment) and relevant appendices or other sections of this report and EIS, referenced in the table.

Table 3 | Section 4.15(1) Matters for Consideration

Section 4.15(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Complies. The Department's consideration of the relevant EPIs is provided in Appendix B .
(a)(ii) any proposed instrument	Not applicable.

(a)(iii) any development control plan (DCP)	Under clause 11 of the SRD SEPP, DCPs do not apply to SSD.
(a)(iia) any planning agreement	Not applicable.
(a)(iv) the regulations <i>Refer Division 8 of the EP&A Regulation</i>	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(a)(v) any coastal zone management plan	Not applicable.
(b) the likely impacts of that development including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	Appropriately mitigated or conditioned – details are discussed in Section 6 .
(c) the suitability of the site for the development	The site is suitable for the development as discussed in Sections 4 and 6 .
(d) any submissions	Consideration has been given to the submissions received during the exhibition period – Details are discussed in Sections 5 and 6 .
(e) the public interest	The proposal is in the public interest - discussed in Section 6 .

4.4.7 Biodiversity Conservation Act 2016

The Applicant's EIS includes a Biodiversity Development Assessment Report (BDAR) in accordance with the requirements of the *Biodiversity Conservation Act 2016*. The report identifies the following:

- No threatened ecological communities were located within or adjacent to the site
- The Grey-headed Flying fox is known to use foraging habitat in the area however, an overall conclusion after thorough assessment was that the project is unlikely to result in a significant impact to the Grey-headed Flying-fox
- No other threatened fauna species are considered likely to occur at the site
- The project would not substantially modify, destroy or isolate an area of important habitat for the migratory species and it would not seriously disrupt the lifecycle of an ecologically significant proportion of a population of migratory birds.

Office of Environment and Heritage (OEH) have reviewed the proposed development in this regard and raised no concerns subject to recommended conditions (discussed in **Sections 5.3 and 6.2.3**).

The impacts of the development on the biodiversity of the locality is discussed in detail in **Section 6**.



5. Engagement

5.1 Department's engagement

The Department has undertaken a wide range of engagement strategies both with the community and the public authorities including local government. The main elements of the Department's engagement are discussed below.

5.1.1 Planning Focus Meeting

A Planning Focus Meeting was held on site on 12 April 2018 as a part of the SEARs process and was attended by key agencies and stakeholders including the Department, Council, Roads and Maritime Services, Transport for NSW, NSW Environment Protection Authority, GANSW, Sydney Water, Office of Sport, SCGT and Infrastructure NSW (the Applicant). The meeting was scheduled to assist attendees provide input into the assessment requirements being prepared by the Department. The meeting included a range of presentations by specialists and a site tour, to better understand the issues and justification for the proposal.

5.1.2 Community drop-in sessions

The Applicant organised community engagement sessions at the SFS venue on Thursday 3 May, Tuesday 8 May and Saturday 12 May 2018 to inform the community about the proposal and the application timelines. The Department representatives attended the sessions and advised the community about the Department's role in the assessment of the application and the assessment process.

5.1.3 Communications Strategy

The Department prepared a communications management strategy to engage with the community during the EIS assessment process. This included:

- a media release on Department's website which appeared on Tuesday 12 June 2018
- a separate landing page on the Department's website with information to assist the community during the EIS exhibition period
- online subscription for interested community members
- inclusion of the information on the NSW Have Your Say website.

5.1.4 Public Exhibition

In accordance with Schedule 1 of the EP&A Act, the Department publicly exhibited the application from 14 June 2018 until 11 July 2018 inclusive (28 days). The application was exhibited on the Department's website, at the NSW Service Centre and at the offices of City of Sydney Council and Woollahra Council.

The Department placed a public exhibition notice in the Sydney Morning Herald, Daily Telegraph, Southern Courier and Wentworth Courier on Tuesday 12 June 2018 and Wednesday 13 June 2018, and notified adjoining landholders and relevant State and local government authorities in writing.

Following the exhibition of the application the Department placed copies of all submissions received on its website and requested the Applicant provide a response to the issues raised in the submissions. The Department has considered the comments raised in the public authority and public submissions during the assessment of the application (**Section 6**) and by way of recommended conditions in the instrument of consent at **Appendix D**.

5.2 Summary of Submissions

The Department received 705 public submissions from 687 individuals, 16 organisations including the National Trust and two local Members of the Parliament (MP) Alex Greenwich and David Shoebridge, during the EIS exhibition.

A total of 672 public submissions (including organisations and MP) were received in respect of the application.

A summary of the total number of public authority and public submissions is provided at **Table 4** below and copies of the submissions may be viewed at **Appendix A**.

Table 4 | Summary of Submissions

Submitters	Number	Position
Public Authority	11	
• Roads and Maritime Services (RMS)	√	
• Transport for New South Wales (TfNSW)	√	
• Environment Protection Authority (EPA)	√	
• Heritage Division Office of Environment and Heritage (Heritage Division)	√	
• Sydney Water	√	
• Botanic Gardens and Centennial Parklands Trust (The Trust)	√	Comment
• Office of Environment and Heritage (OEH)	√	
• Department of Industry (Dol)	√	
• NSW Fire and Rescue	√	
• NSW Police	√	
• Sydney Airport Corporation limited (SACL)	√	
City of Sydney Council	1	Object
Local Members of the Parliament	2	
Alex Greenwich	√	Object
David Shoebridge	√	

	7	Support
	1	Comment
	8	Object
Community (individual submissions excluding duplicates and multiples)	687	
	662	Object
	8	Support
	17	Comment
TOTAL	717	

A breakdown of the public submissions (not including public authority submissions) relation to their distance from the site (approximate) is provided in **Table 5**.

Distance from the site	Number	Percentage
• 1 km	122	17.3%
• 1km – 5km	271	38.4%
• > 5km	185	26.2%
• Unknown location	127	18.0%
Total	705	

5.3 Public Authority submissions

A summary of the issues raised in the public authority submissions is provided at **Table 6** below and copies of the submissions may be viewed at **Appendix A**.

Table 6 | Summary of public authority submissions to the EIS exhibition

City of Sydney (Council)

Council has objected to the proposal on the following grounds:

- the proposal is not in the public interest
- cumulative impacts of the integration of the proposal with Driver Avenue and Moore Park leading to reduction of parklands
- additional on-grass parking due to increased events leading to non-availability of recreational spaces
- encroachment and expansion of the proposed building footprint into the public areas and open spaces especially Driver Avenue, Kippax Lake and Moore Park
- assessment of cumulative impacts and specifically demolition impacts are insufficient
- inaccurate forecasting of stadium capacity during events and traffic modelling and analysis
- insufficient mass transit facilities to cater for the proposed increase in capacity

- inadequate traffic study including servicing, pedestrian movements, parking, access from Driver Avenue and safety/security of pedestrian access
- unacceptable impacts of construction noise, traffic and dust
- concerns with the proposed ESD initiatives and the LEED programme
- removal of trees
- potential impacts from light glare and contaminated material
- potential impacts to Busby's Bore.

Office of Environment and Heritage (OEH)

OEH provided comments and recommended conditions regarding:

- biodiversity
- flooding
- Aboriginal Cultural Heritage.

Department of Industry (Dol)

Dol provided comments and requested additional information regarding:

- dewatering
- groundwater impacts.

Sydney Water

Sydney Water advised that:

- the proposal must meet their requirements for building over and adjacent to stormwater assets
- further consultation is required regarding stormwater assets, waste water and other services prior to the lodgement of the Stage 2 development application and during lodgement of the section 73 application.

Environmental Protection Authority (EPA)

The EPA raised the following concern:

- noise assessment and further information required for the operational phase of the development to comply with the EPA requirements regarding the maximum noise levels for the site.

Additionally, a series of recommendations were provided regarding the Stage 1 works and operational phases of the development as follows:

- demolition and construction management
- hazardous materials survey and hazardous materials handling and management
- site contamination, further assessment and the engagement of an accredited site auditor
- water quality and the management of waste
- noise management during the construction period including parameters for work hours
- dust management, soil erosion control and waste management.

Sydney Airport Corporation Limited (SACL)

SACL provided the following comments:

- the matter be referred to SACL again for comments, in case the Stage 2 application exceeds the height limit proposed under the Concept Proposal including construction cranes and other equipment
- future land uses on the site should take into consideration Australian Noise Exposure Forecast (ANEF) corridors relating to Sydney Airport, in particular avoiding any uses with high population densities.

The Centennial Park and Moore Park Trust (the Trust)

The Trust, responsible for the strategic planning and operational management of Centennial Park, Moore Park and Queens Park, requested that the following matters be addressed:

- a precinct-based approach to security and defense against hostile vehicles
- future linkage opportunities with Fox Studios and the Entertainment Quarter to be included in the detailed design
- consultation during design to take account of/optimize pedestrian linkages and lighting for Moore Park
- impacts on waste management in Moore Park
- impacts on cycling facilities in Moore Park
- input on pedestrianisation of Driver Avenue and removal of event parking on grassed areas
- details of an infrastructure management strategy
- recommendations regarding Design Excellence Strategy
- management of impacts of the demolition and construction works on Moore Park in terms of traffic management, on-going events, groundwater management, erosion and sediment control and prevention of dilapidation resulting from construction.

Transport for NSW (TfNSW)

TfNSW requested the following:

- clarification regarding the traffic assessment data in the EIS in relation to the Light Rail Project
- a Security Risk Assessment for the site in relation to hostile vehicles and internal security
- new traffic surveys to demonstrate how patrons travel to SFS during events
- provision of dedicated drop-off and pick-up areas for coach passengers, as part of the Stage 2 assessment.

Additionally, TfNSW provided recommendations regarding:

- pedestrian routes, cycleways and bicycle facilities
- a Wayfinding and Signage Plan
- addendum to the Moore Park Precinct Traffic and Transport Management Plan
- Travel Demand Management Strategy and Green Travel Plan
- Construction Pedestrian Traffic Management Plan.

Heritage Division Office of Environment and Heritage (Heritage Division)

The Heritage Division requested the following information:

- further assessment of the heritage values of the existing SFS (if any)
- a comparative analysis of similar types of stadium developments in Sydney and NSW and a comparative study of works by Phillip Cox and Partners to further evaluate the significance of the SFS
- comments and recommendations with regard to historic archaeology, and particularly further investigation of Busby's Bore.

Roads and Maritime Service (RMS)

RMS advised that:

- a Construction Pedestrian and Traffic Management Plan is required
- the proposal should not affect the overall local traffic due to the post-event closure of Driver Avenue.

NSW Fire and Rescue

NSW Fire and Rescue provided the following comments:

- fire services and driveway access to the SCG need to be maintained at all times
- details were provided in the submission regarding notification requirements for restriction to these services or access arrangements that may result from the demolition and construction.

NSW Police

NSW Police requested that the following requirements be imposed:

- notification of any road closures during demolition and construction work
- adequate lighting and security of the work site at night
- all engineers, workers, visitors, security guards to follow instructions and warnings
- Police be offered a familiarisation tour of the work site
- notification of any suspicious activity or objects in or around the work site during demolition and construction work
- a list of key contacts on the work site to be provided to NSW Police.

5.4 Public submissions

A summary of the issues raised in the public submissions is provided at **Table 7** below and copies of the submissions may be viewed at **Appendix A**.

Table 7 | Summary of the public submissions to the proposal

Issue	Proportion of submissions
Inappropriate use of taxpayer's money by NSW Government.	63.4%
Increase in traffic congestion and reduced road safety due to the proposed redevelopment and increase in capacity of the stadium.	39.2%

Demolition of the stadium is unnecessary.	37.4%
Adverse impacts on the natural environment due to the removal of trees.	34%
Adverse impacts on the adjoining Moore Park and reduction in the availability of surrounding parklands.	33.4%
Adverse impacts of the demolition and construction works on the amenity of the surrounding residents.	27.4%
Unsatisfactory community consultation process.	25.5%
The proposal cannot be reviewed as detailed design and details of operation of the proposed stadium has not been provided.	25%
The submitted business case does not justify the redevelopment appropriately.	24%
Public transport links to the site is insufficient.	23.6%
Continued usage of the on-grass car parking spaces at Moore Park.	23%
Refurbishment of the stadium would be a better option than rebuilding.	22.3%
Lack of integration with Drivers Avenue and Moore Park.	16%
The existing car parking provisions cannot cater for the proposed increase in the usage and capacity of the stadium.	14.4%
Adverse impacts on the surrounding heritage items and the conservation area.	13%
Adverse social and economic impacts due to the development.	10.8%
Excessive bulk and scale of the building envelope resulting in overshadowing, view loss and adverse visual impacts on the surrounding locality.	10.3%
The development not being ecologically unsustainable and is wasteful.	7.1%
Adverse noise impacts due to the increased capacity of the stadium.	6.7%
Unrealistic timeframe for assessment of the application and commencement of demolition works.	6.6%
The existing building is architecturally significant.	6%
Cumulative dissatisfaction regarding the proposed redevelopment in conjunction with relocation of the Powerhouse Museum and the development of Albert Tibby Cotter bridge.	5%
No provisions for relocating the facilities that would be removed.	3.1%

Unacceptable existing and the proposed access arrangements to the stadium.	2.8%
Adverse impacts on residential amenity due to light spill from the proposed stadium.	2.4%
Capping of the total number of events at the stadium.	1.1%
The Independent Planning Commission should be the determining authority.	1.1%
Adverse impacts on archaeological relics including the Busby's Bore.	0.6%

5.5 Post exhibition submissions and community consultation by the Department

The Department received a further 15 individual submissions objecting to the development after closure of the exhibition period. Additionally, a letter was received from the State MP Ron Hoeing, on behalf of a constituent.

No additional matters were raised in these submissions.

Following the completion of the exhibition period, the Department conducted a series of community engagement meetings with the community and special interest groups in the locality who had made a submission during the public exhibition period. The Department's representatives met with the representatives from six community organisations between 28 and 30 August 2018.

During the community engagement meetings, the Department's representatives provided an overview of the overall SSD assessment process. The community groups expressed their concerns regarding various aspects of the proposed redevelopment of the Sydney Football Stadium project including cumulative traffic impacts, visual impacts and the need to demolish the stadium.

The Department required the Applicant to respond to all additional matters raised by the community during the consultation meetings. The Applicant's response to the additional matters were made publicly available on the Department's website (**Appendix A**).

5.6 Response to Submissions and supplementary information

Following the exhibition of the application the Department placed copies of all submissions received on its website and requested the Applicant provide a response to the issues raised in the submissions.

On 14 September 2018, the Applicant provided a Response to Submissions (RtS) (**Appendix A**) on the issues raised during the exhibition of the proposal. The RtS outlined responses to the key issues raised in the submissions from both agencies and the public, as well as details on further consultation undertaken and a summary of additional technical data provided in response to submissions. These included responses to issues including urban design, traffic and transport, heritage, and demolition impacts.

The RtS documentation submitted comprised:

- final urban design guidelines: these were amended in response to issues raised including providing for future pedestrian connections through the site and activation of the public domain
- addendum Transport Impact Statement: additional data and assessment was undertaken in response to matters raised, SIDRA modelling for pre- and post- event traffic scenarios, and revised mitigation measures.
- addendum Noise and Vibration Impact Assessment: additional assessment of potential noise and vibration impacts was carried out, and mitigation measures amended
- addendum Heritage Impact Assessment: measures for archival recording of the stadium prior to demolition were prepared, along with amended mitigation measures

- methodology statement for working near Busby's Bore: this was prepared to ensure damage to the structure does not occur, which will also be reviewed and updated where necessary for stage 2
- addendum Social Impact Assessment: an amended assessment of social impacts was prepared based on DPE comments and the findings of the other components of the RtS
- final erosion and sediment control plans: amendments were made to detail measures for the stage 1 demolition to manage water quality and runoff
- an Air Quality Impact Assessment Report: this assessment was prepared to assess the potential dust impact associated with demolition works, including potential impacts from the concrete crusher, along with mitigation measures
- addendum Visual Impact Assessment: further public domain viewpoints were carried out to consider the visual impacts of future development.
- A Private View Impact Analysis: this provided further impact on the proposed building envelope from private properties
- additional information on dewatering, a Groundwater Monitoring Plan, Groundwater Assessment Report, and provision of ground contours.

5.7 Summary of submissions to RtS

The RtS was made available on the Department's website. The website landing page was updated and the Department notified all relevant online subscribers.

The Department received a total of 19 submissions from community and public authorities including Council regarding the RtS. A summary of the issues raised in the submissions is provided at **Table 8** below and copies of the submissions may be viewed at **Appendix A**.

Table 8 | Summary of Submissions to RtS

Submitters	Number	Position
Public Authority	9	
• Roads and Maritime Services (RMS)	√	
• Transport for New South Wales (TfNSW)	√	
• Environment Protection Authority (EPA)	√	
• Heritage Division Office of Environment and Heritage (Heritage Division)	√	
• Sydney Water	√	Comment
• Office of Environment and Heritage (OEH)	√	
• Department of Industry	√	
• NSW Fire and Rescue	√	

• NSW Police	√	
Council	1	Object
Special Interest Groups and Organisations	5	
	1	Comment
	4	Object
Community (individual submissions excluding duplicates and multiples)	4	
	3	Object
	1	Comment
TOTAL	19	

5.8 Public Authority RtS comments

A summary of the issues raised in the public authority submissions is provided at **Table 9** and copies of the submissions may be viewed at **Appendix A**.

Table 9 | Summary of public authority submissions to the RtS

Council

The City of Sydney maintained its objections to the proposal and raised the following additional concerns:

- inadequacy of the revised traffic SIDRA modelling as it does not capture events of up to 95,000 attendees at combined events and does not provide a vehicle occupancy rate to inform crowd numbers.
- lack of information and addressing the on-site parking provisions
- lack of information regarding improved walking, cycling and public transport options, including improved pedestrian access from Kings Cross Station as well as Central Station
- air quality impacts from dust, especially from the concrete crusher, with recommended conditions provided.
- the design competition process does not meet the design intent or objectives of the Competitive Design Processes in the SLEP
- more energy usage due to significant technology improvements.

Council recommended conditions regarding removal of the underground petroleum storage tanks as part of the Stage 1 Early Works and noise management measures during demolition works.

OEH

OEH did not raise any concerns and recommended conditions regarding flora and fauna management.

Dol

Dol did not raise any further concerns regarding the proposal.

Sydney Water

Sydney Water reiterated their comments regarding the proposal.

EPA

The EPA maintained a number of concerns about the proposal, especially about noise impacts from demolition activities, and operational noise. Other concerns related to soil and groundwater contamination, waste management, air and water quality. The EPA provided conditions to address these concerns.

TfNSW

TfNSW recommended the following conditions of consent:

- Sydney Light Rail Project – to ensure the development does not adversely impact the completion of the Sydney Light Rail project’s program of works
- Hostile Vehicle Mitigation – to ensure the development eliminates exposure to hostile vehicles
- Public and Active Transport Infrastructure – to support improved pedestrian and bicycle access to the site
- Wayfinding and Signage – for a strategy to improving wayfinding between public transport nodes to and within the Moore Park Precinct, including lighting
- Event Traffic and Transport Management – to ensure that event traffic and transport is safely and efficiently managed
- Construction Pedestrian and Traffic Management Plan – to address the cumulative impact of construction traffic on the locality and during events.

Additional conditions were recommended by TfNSW for the following:

- point to point transport passenger pick-up and drop-off
- coach passenger pick-up and drop-off and layover – for adequate dedicated coach passenger pick-up/drop off and layover facilities to support the development
- public and active transport infrastructure – for an assessment of key routes between public transport nodes to ensure the capacity, condition and directness of pedestrian facilities adequately supports the development
- travel demand management strategy and Green Travel Plan – to increase the mode share of public transport and active transport to the site.

Heritage Division

The Heritage Division raised no further concerns regarding the proposal.

Roads and Maritime Services (RMS)

RMS did not provide any further comments

NSW Police

NSW Police reiterated their earlier comments.

NSW Fire and Rescue

No additional comments were provided.

5.9 Public submissions to RtS

A summary of the issues raised in the public submissions in response to the RtS is provided at **Table 10** and copies of the submissions may be viewed at **Appendix A**.

Table 10 | Summary of public submissions to the RtS

Issue	Proportion of submissions
Increase in traffic congestion and reduced road safety due to the proposed redevelopment and increase in capacity of the stadium.	50%
Unsatisfactory community consultation process.	50%
Inappropriate use of taxpayer's money by NSW Government.	25%
Excessive bulk and scale of the building envelope resulting in overshadowing and adverse visual impacts on the surrounding locality.	25%
Demolition contracts have been signed before the approval, work has already started.	25%
Timely evacuation measures in place for the stadium.	12.5%
Terrorism security should be incorporated into the design.	12.5%
Capacity of the light rail network to accommodate the number of visitors.	12.5%
Request for the repurposing of materials.	12.5%
A pedestrian management plan should be prepared for the demolition and construction phases.	12.5%
Inadequate heritage assessment.	12.5%

5.10 Supplementary response to submissions

Following comments received after the lodgement of the RtS, the Department met with the Applicant and EPA to discuss the concerns and the possible solutions.

In response to submissions to the RtS and the Department's request for additional information, the Applicant provided several supplementary RtS (SRtS) in September and October 2018, which provided further clarifications regarding:

- final Mitigation Measures: provided the measures to mitigate potential impacts relating to the concept design and Stage 1 demolition, updated to reflect the comments raised in response to the RtS and the SRtS documentation.

- response to traffic and transport related issues: provided revised SIDRA modelling, and additional information about model shift.
- response to EPA comments: provided additional information including details about the use of the concrete crusher, management of noise, waste vehicle monitoring and air and water quality.
- response to additional Issues Raised by the Heritage Division including the draft SCG Conservation Management Plan, and visual impacts.

5.11 Public authority submissions to SRtS

All the SRtS were made publicly available on the Department's website and was referred to the relevant public authorities. In response, the Heritage Division raised no further concerns regarding the supplementary response.

5.12 Community consultation after lodgement of RtS by the Department

The Department continued to undertake community engagement meetings after the lodgement of the RtS including a face to face meeting with one community interest group. The Department also met with Randwick City Council representatives and briefed the Council officers regarding the potential traffic impacts associated with the development.

The Department received a submission from SCGT after receipt of the SRtS providing information about the relocation of the facilities prior to commencement of demolition works on the site.



6. *Assessment*

The Department has considered the EIS, the issues raised in submissions and the Applicant's RtS and SRTS in its assessment of the proposal. The Department considers the key issues associated with the proposal are:

- justification for the proposal
- built form and urban design (Concept Proposal)
- heritage
- traffic, transport and parking
- noise impacts
- social impacts.

Each of these issues is discussed in the following sections. Other issues were taken into consideration during the assessment of the application and are discussed at **Section 6.7**.

6.1 Justification for the proposal

The Department notes that justification for the proposal was the issue with the highest rate of public interest in assessing the proposal (refer to **Section 5**). The key issues of concern for the community were:

- the cost to the taxpayer due to the redevelopment of the stadium and alternate usage of the budget in other infrastructure, such as schools, hospitals or public transport
- the need for demolishing the stadium as compared to refurbishment.

The Applicant's EIS states that the existing SFS is currently facing serious commercial and operational challenges in remaining relevant and competitive for existing and future hirers and patrons. Owing to the age of SFS (opened in 1988), there are a number of deficiencies in the provision of facilities that are required to function as a Tier 1 stadium. The Applicant's EIS suggests the SFS does not meet modern patron experience due to the following reasons:

- only a total of 28 seats are available for persons in wheelchairs (0.06% of total seats)
- the wave-like roof structure shields only 55% of the available seating from the 'drip line', which means the lower bowl is uncovered and the back of the tiers are exposed through openings in the roof line
- the Moore Park Road entry is only accessible via stairs, to manage the 12m change in level
- circulation within the stadium is relatively narrow, non-continuous ring at the main concourse level
- food and beverage kiosks are available, however, due to spatial constraints there is very limited opportunity for food preparation, restricting the nature and quality of food offerings
- there are currently only two change rooms, limiting the ability of the stadium to host double-headers or development events (e.g. W-League and A-League double-headers, reserve and junior grade games)
- only 48 women's toilets are available within the stadium
- servicing is accommodated in back of house areas with only a single goods lift for the entire stadium and no basement loading area to provide for separation of loading activities from public/operational spaces
- the movement of goods, staff and waste around the venue routinely leads to a cross-over between operations and patrons, including the movement of waste and goods through internal patron circulation spaces during events.

Additionally, the stadium was designed and constructed to meet the requirements of sports during the 1980s and has not kept pace with the modern sports landscape in terms of the standard of facilities and user experience

required. The Applicant's EIS also states that the nature of sport in general has changed significantly with implications for how modern stadiums operate. This includes:

- a shift from local amateur based sporting events to professional national and international events
- a shift from activities predominantly being male-based to include more female players and spectators
- a shift in timing of games which has influenced design factors and food and beverage amenities
- an increase in event variety beyond the traditional football codes including increased day-long and multi-day events with a different and higher standard of facilities required to accommodate this usage pattern
- a shift in user-expectation for all weather protection and modern leisure and entertainment options integrated with the sporting experiences in the stadiums
- a shift in building standards and accessibility for all.

The above elements have resulted in the existing SFS operating inefficiently, including the user experience and logistical back-of-house operations. This also impedes the SFS's ability to function as a competitive national and international facility and meet the requirements of a Tier 1 stadium, such as described in the NSW Stadia Strategy.

To justify the current proposal of demolishing and rebuilding the Sydney Football Stadium, the Applicant's EIS includes a detailed 'Alternative option analysis' summarised as follows:

- Option 1: Do nothing - This option was considered to be inappropriate due to the existing shortcomings of the stadium as discussed above. The option analysis concluded that the SFS will cease operation over a short to medium term, for safety reasons.
- Option 2: Base case (minimal investment) - This option would involve undertaking minimal capital works to refurbish the SFS. The refurbishment works would improve the immediate safety and security issues but would not achieve full compliance in areas of disability access or the provision of adequate number of toilets. While the refurbished SFS can maintain majority of its existing physical fabric, it would not meet the criteria for a Tier 1 stadium in relation to the number of toilets, disabled access or corporate facilities and user experience. It may result in a decline of attendance over time. This would result in the loss of potential economic, social and cultural opportunities due to the loss of major events to other stadia beyond NSW. The Applicant concludes that this option is only viable for short to medium term and is not preferred due to the above reasons.
- Option 3: Refurbishment - Under this option, the proposed works required were anticipated to be substantial involving significant cost. A proposal to refurbish the stadium would require the venue to be closed for an extended period of time with similar construction impacts to those outlined in Option 4 for the development of a new stadium. The Business Case Summary prepared by the Applicant, demonstrates that the total project costs for a full stadium refurbishment would only be marginally lower than demolition and rebuilding.
- Option 4: New stadium – The option to redevelop the stadium was seen to be mitigating the shortfall in design that prohibits the stadium from functioning as a Tier 1 stadium, as well as creating a new and modern internationally competitive facility. The business case, prepared by the Applicant concludes that this would be the best outcome for the site.

The 'Alternative option analysis' also concludes that the demolition of the existing stadium and the construction of the new stadium would appropriately respond to the objectives of the NSW Stadia Strategy and would meet the current and anticipated future requirements of a modern stadium. The design lifespan of a new stadium is anticipated to be 50 years, in the analysis submitted by the Applicant.

While recognising the level of community concern, the Department concludes that the proposal is justified in relation to the functional improvements. The Department is also satisfied that the proposal responds to the NSW Stadia strategy and the strategic framework of NSW, as discussed in **Section 4**.

Functionally, there are issues which currently prohibit the stadium from operating as a modern facility that meets basic needs (such as sufficient female amenities, changing rooms, wheelchair-accessible seating and back-of-house operations) as well as user expectations in attending a large-scale sporting event (including weather protection, food and beverage and leisure amenities). The capital expenditure for a new stadium that meets these functional needs, user expectations and a future growth, on the basis of a marginal additional cost (additional 5% compared to a significant refurbishment). The proposed redevelopment of SFS would result in a new stadium which would include state of the art facilities 45,000 seats (55,000 patrons in concert mode) through a range of seating styles and corporate facilities. The stadium would include state of the art technology with digital screens throughout to improve the user experience. Sightlines would be improved and facilities including catering, amenities and accessibility would be designed to service future needs, creating a competitive customer experience.

Issues were raised in many public submissions around the ‘opportunity cost’ of the expenditure on the project compared to other public infrastructure projects such as hospitals or schools. These are not matters for the Department to assess under the EP & A Act. It is a matter for Government to determine its investment priorities.

6.2 Built form and urban design (Concept Proposal)

The site comprises part of the SCGT land that is zoned SP1 Special Activities under the SLEP 2012 provisions with no specific building height or floor space related development controls applying to the site. **Figures 14** identifies the zone that applies to the site and the surrounding properties.

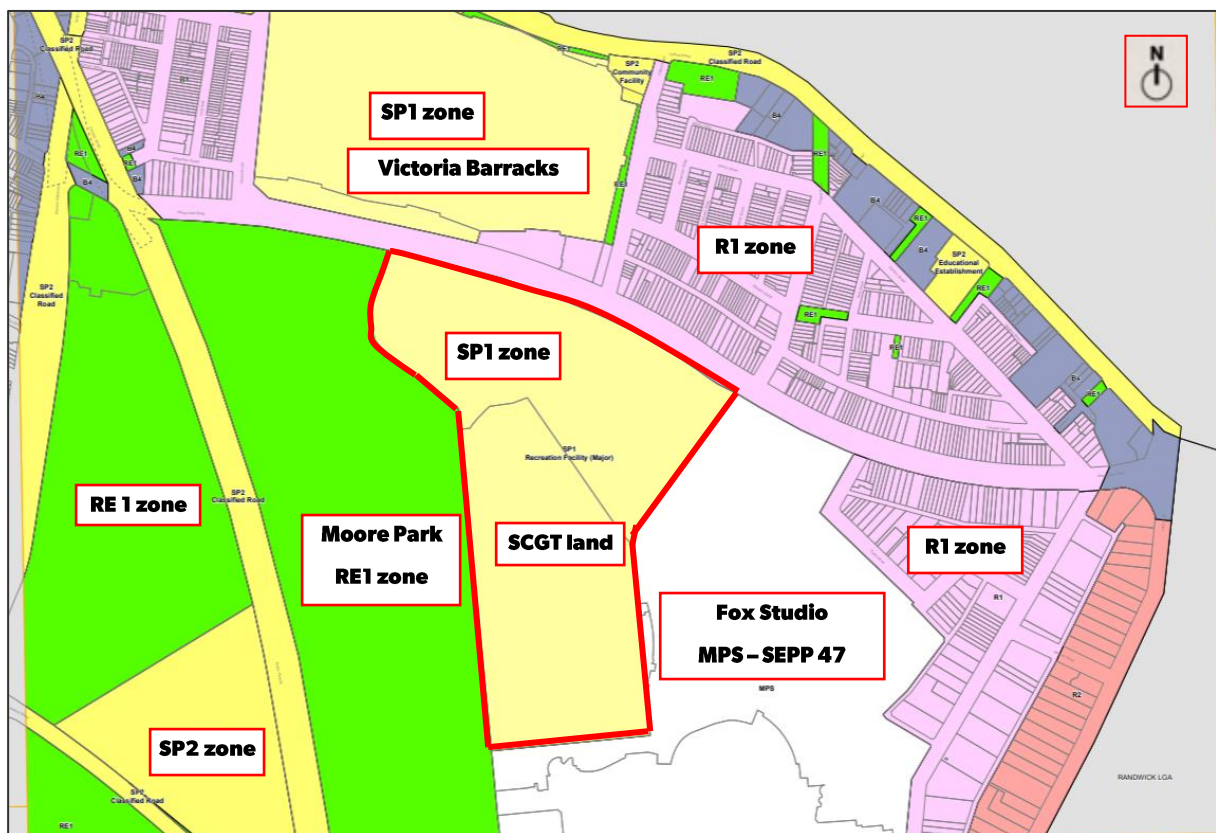


Figure 14 | Boundaries of land controlled by SCGT (including SFS site) overlaid on the Zoning Map (Source: SLEP 2012)

The Department considers that the following aspects of the Concept Proposal are the key assessment issues in determining the appropriateness of the built form and spaces in this prominent location:

- design excellence
- building envelope location
- public realm and permeability
- visual impacts
- overshadowing
- landscaping.

The proposal includes the creation of the maximum building envelope for a new stadium with a maximum 45,000 seating capacity and a maximum height of RL 85m AHD. As discussed in the “Project” section, the proposal would create a variety of public concourses around the proposed building envelopes at various levels to integrate the public domain with the built form and provide equitable access within the site.

The existing stadium has a saddle awning. The information submitted by the Applicant notes that the highest point of the roof varies between RL 73m – 78.9m AD (east and west) and RL 50m – 54m AHD (north and south). The existing SFS also includes masts that form an integral part of the physical fabric. The top of the masts vary between RL 59m – RL 84.9m AHD. The field of play for both the existing and proposed stadiums is located at RL 39.3m AHD. The loose fit envelope for the proposed stadium is proposed to be higher and wider than the existing stadium. The proposed loose-fit building envelope would also be located closer to the SCG and Moore Park Road (**Figures 15, 16 and 17**).

The proposal would include a 360-degree oculus or a ring-road within the stadium structure to accommodate the services. The built form would be complimented by new urban plazas which would be accessible to the public. The future building envelope would include the opportunity for ground level tenancies.

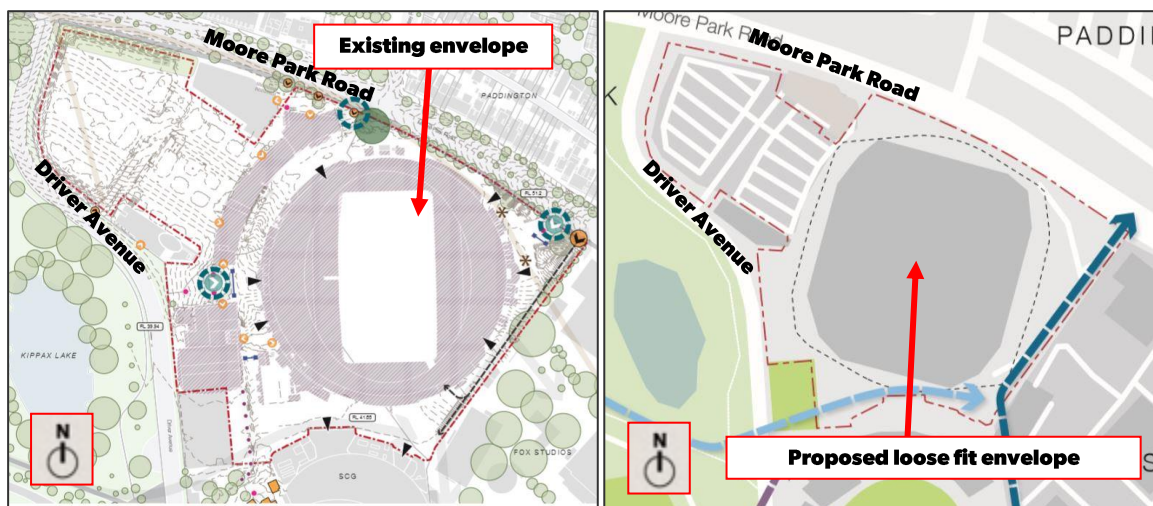
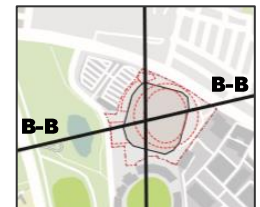
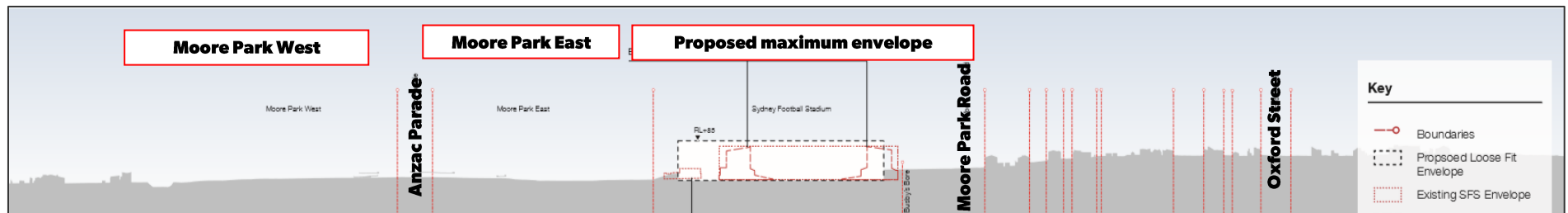
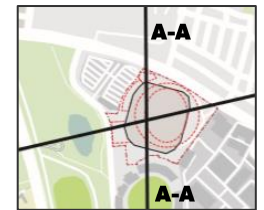
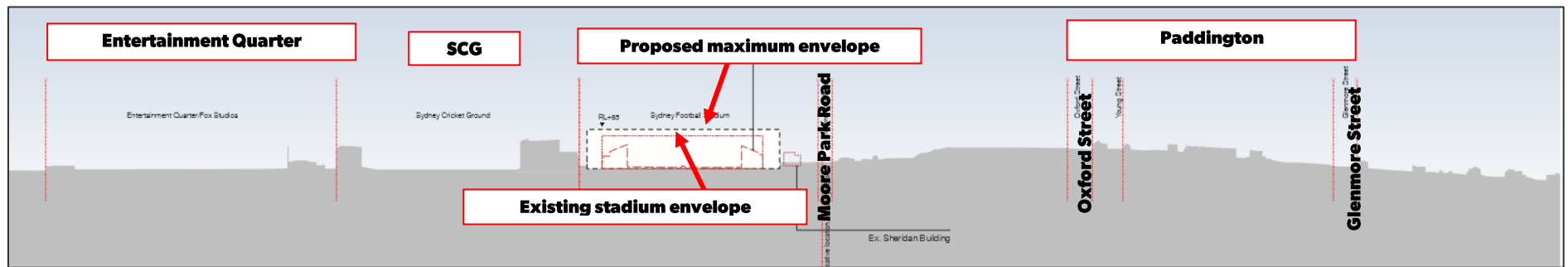


Figure 15 | Comparison of the existing and the proposed building envelope locations (Source: Applicant’s RtS)

The proposed location and built form strategy is supported by a comprehensive Urban Design Guidelines (UDG) that set out the guidelines for the future detailed design of the new stadium including: key moves and design intent; access and movement; building height and massing; public realm and open space; security and safety; activation; wayfinding, signage and interpretation; architectural expression; sustainability; cultural and heritage significance.



6.2.1 Design excellence

The Department acknowledges that the site's location and size make it a prominent and important site within the heritage significant locality. Its relative proximity to existing heritage items and the SCG, means that the built form must be sensitively and appropriately designed.

The future stadium design would need to demonstrate design excellence in accordance with the requirements of clause 6.21 of the SLEP. These provisions require that the Applicant would be required to undertake a competitive design process for the detailed stadium design in accordance with SLEP and architectural design competition procedures approved by the Planning Secretary.

In response to the above requirements, the Applicant's EIS includes a Design Excellence Strategy in addition to the UDG, which has been prepared in collaboration with, and endorsed by, the GANSW to ensure that the future stadium achieves design excellence by following a competitive design process in accordance with the City of Sydney Council's Competitive Design Policy (2013).

The Design Excellence Strategy indicates that a competitive design process would need to be undertaken prior to the lodgement of the future application(s), with the Design Competition Jury typically retained as a Design Integrity Panel (DIP) for the life of the project, to ensure key design elements are retained and design excellence is delivered through the development.

To support the assessment framework of future development application(s) for the site, the Applicant's UDG outlines objectives and performance-based controls which future buildings and spaces should respond to. The intention is to guide the detailed design of the future Stage 2 development application(s) and to provide flexibility for the design of the stadium and ancillary buildings and spaces. Specifically, the UDG seeks to achieve:

- integrate SFS into its parkland setting and reinforce the stadium's unique location
- integrate with existing and proposed transport infrastructure and surrounding pedestrian paths
- no design element that precludes the delivery of pedestrian links identified in the Moore Park Masterplan 2040
- support active transport uptake through the design and integration of the stadium into its surrounds
- vehicular access and servicing requirements to both the SCG and Fox Studios through Paddington Lane
- create an inviting space that stitches into its surrounding context
- accommodate the functional requirements of a Tier 1 stadium within the loose fit envelope, located and oriented on-site to allow for external circulation and public domain spaces
- a robust design for the public realm and open space integrating the future stadium to its context
- facilitate a heightened event day experience for patrons
- facilitate enhanced access and use of Moore Park and the surrounding areas
- create multipurpose spaces, inviting entry points and event spaces that provides the public with new passive and active recreation opportunities to take advantage
- high quality soft and hard landscape to extend the surrounding suburbs and context in to the stadium site
- include a variety of permanent active tenants to promote the day to day use of the site
- a high-quality stadium that satisfies the complex highly functional requirements of a Tier 1 stadium as well as create a unique and distinctive destination which responds to its setting
- a stadium designed to be viewed in the round, from multiple locations and heights
- the choice of materials responding to the immediate context and creation of a sustainable environment
- the upgrade of the public domain, landscaping and access pathways to allow for integration of meaningful, yet playful interpretation of the site's cultural and heritage value.

During exhibition of the EIS, Council raised concerns regarding the substantial building mass and height when compared to the existing stadium as well as the associated wayfinding strategies, security strategies and the architectural expression of the future stadium. A number of public submissions raised concerns that the Concept Proposal cannot be reviewed without an appropriate appreciation of a detailed design of the stadium.

A number of public submissions raised concerns regarding the visual scale of the overall proposed built form and its impact on the locality and on Kippax Lake. The National Trust, in its submission during the EIS exhibition, noted that the original stadium was designed specifically with reference to the surrounding Moore Park Conservation Area and residential housing. This has not been recognised in the Urban Design Guidelines and the proposed concept-built form.

The Applicant's RtS and amended UDG acknowledged the issues raised in the public submissions and indicated that the loose fit envelope provides the maximum envelope for the site. As described in the Design Excellence Strategy, the design of the stadium would be through a competitive design competition and the matters raised in the submissions would be incorporated in the Stage 2 detailed design. **Figure 18** identifies the development of the proposed architectural expression through the design excellence process.

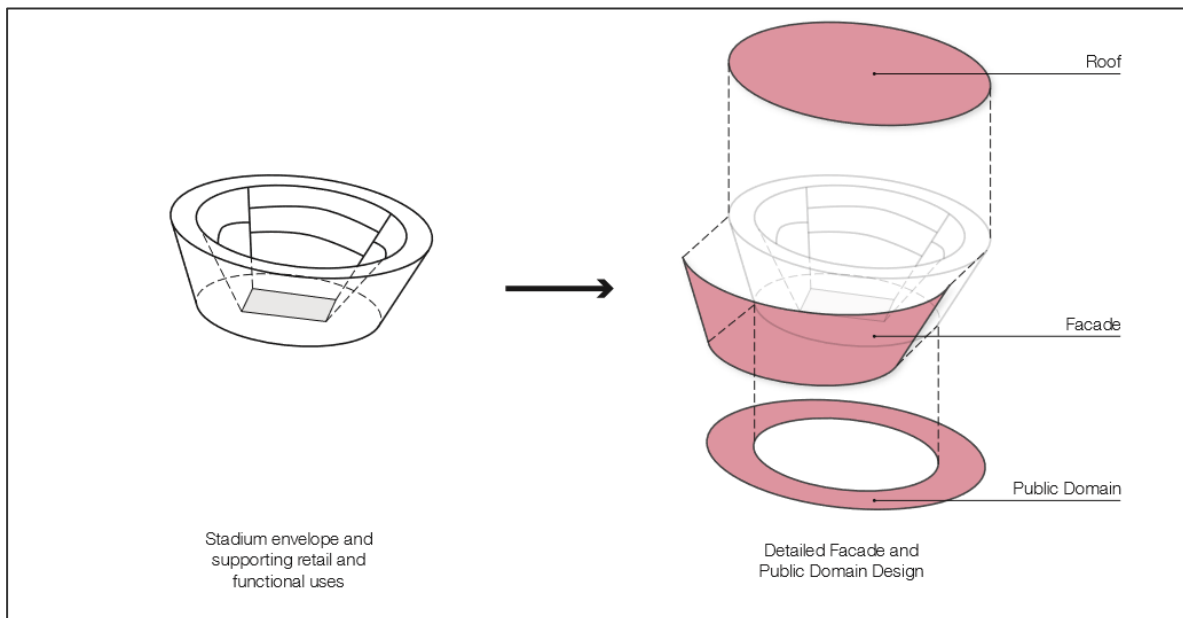


Figure 18 | The design excellence process in Stage 1 (left) and Stage 2 (right) (Source: Applicant's RtS)

The GANSW reviewed the Applicant's RtS and advised that the urban design principles for the built form should demonstrate innovation by including more details in relation to specific frameworks for the proposed public spaces, details of levels of access, increased permeability, wayfinding strategies, landscaping opportunities and sustainability. However, GANSW indicated that the principles can be refined and detailed during the design competition process and be assessed in detail in the Stage 2. Council raised concerns that the proposed design competition does not meet the objectives of the competitive design processes in the SLEP.

The Department has reviewed the Applicant's EIS, RtS and the community and public authority submissions in relation to the proposed built form. The Department notes that the concept design and UDG have been prepared in consultation with the GANSW and with Cox Architects, to ensure the preliminary design is compatible with the desired future character of the precinct. The Department is satisfied that the UDG and the Design Excellence Strategy, as refined by the RtS, embody the principles of design excellence and are an appropriate tool to guide the future development of the precinct.

The Design Excellence Strategy provides an opportunity to further develop the planned goals through competitive process and the Stage 2 Detailed Design Development Application process would allow for further consultation and input. This would allow for a holistic and detailed approach to functional elements of the new stadium, as well as general design philosophies compatible with the surrounding context and character of the area.

The Department considers that the location size and importance of the site warrants adherence to a design excellence process, and the establishment of a DIP (comprising experienced architects and other qualified professionals) is an appropriate mechanism to ensure that future buildings on the site achieve the highest possible standard of design. The Department also notes that future development application(s) and the design of the stadium would be subject to future public exhibition and consultation.

The Department has recommended the following conditions to ensure that the future detailed design is aligned with the concept design and that a high standard of design is delivered:

- a design competition process to be undertaken prior to the lodgement of the Stage 2 application
- the Stage 2 development application to demonstrate design excellence and be consistent with the UDG
- the Stage 2 development application to include visual impact assessment, heritage impact assessment and solar access diagrams to demonstrate that the proposed enlarged building height and footprint does not unreasonable impact on the views available to the locality and does not overshadow or have adverse impacts on the SCG or the adjoining parklands (details discussed below)
- the public spaces around the stadium to be identified and strategies for use of these spaces be provided to allow community engagement within the site on event and non-event days
- strategies for pedestrian connections and the suitability of such connections to be provided to allow access through the site without impacting on the amenity of the surrounding residents and business owners.

6.2.2 Building Envelope location and footprint

The proposed relocation of the stadium building envelope closer to Moore Park Road and Driver Avenue, would require the demolition of many of the existing ancillary facilities within the site.

The Applicant's EIS notes that the provision of a larger stadium footprint would ensure that the new stadium can meet necessary modern stadium design standards, including strict security, access and international competition requirements; ensure that the optimum amount of stadium seating can be accommodated within the new stands; allows for the inclusion of ancillary ground floor tenancies and the establishment of the sporting, tourist and entertainment precinct and provide scope for innovation in the façade design as part of the competitive design process.

Council raised concerns that the building footprint is too large to include satisfactory public areas as proposed in the UDG.

The Department has carefully assessed the proposed location of the building envelope with a larger footprint. The Department notes that while the existing stadium has a smaller footprint, it does not accommodate the required functionalities of a Tier 1 stadium. Further, the site boundary is currently fenced and does not allow for any public activities or community engagement on non-event days. While the footprint of the stadium is proposed to be increased, the UDG does not propose a fenced boundary for the site, specifically to Moore Park Road and Driver Avenue. The open spaces around the stadium have been identified for public congregation with a range of opportunities and activities that would be identified in detail in the Stage 2 development application **(Figure 19)**.

The Department considers that this would provide a strong street-edge to Moore Park Road and Driver Avenue allowing the future stadium to better engage with the public realm, activating the street and creating an

environment in which ground level uses are viable seven days a week. It would also result in the creation of the two public areas, indicated in **Figure 20**, that would provide for a high standard of design and functionality and increase the appeal of the sporting, tourist and entertainment precinct for public.

The impacts of the proposed building envelope on the nearby heritage items or the available solar access or views to private and public areas are discussed later.

Overall the Department considers that the location and footprint size of the proposed stadium will provide for the optimum location and the best outcomes for the site, the design of the future stadium and its relationship to the surrounding area, the sporting, tourist and entertainment precinct and the broader community.

6.2.3 Public realm, landscape, tree removal and permeability

Currently, there is minimal public access to the site with the secured and fenced area extending to the site boundary at Moore Park Road. The stadium acts as a barrier to pedestrian movement between Paddington and Moore Park, leading pedestrians presently to navigate poor quality and illegible paths of travel through the MP1 car park. The EIS stated that a key design principle for the new stadium would be to enhance the pedestrian accessibility within and through the site.

At a precinct level during non-event periods, public access is proposed to be available throughout the Moore Park Road frontage and through to Driver Avenue via the north-western edge of the stadium, with the south-eastern area being inaccessible to accommodate the operational bump-in and bump-out of stadium activities. This public access would be maintained during SFS-only events (except for special events) and SFS / SCG double-header events, with the potential for increased public access to the entire external circulation area of the SFS during smaller events when the SCG is not in operation (**Figure 19**).

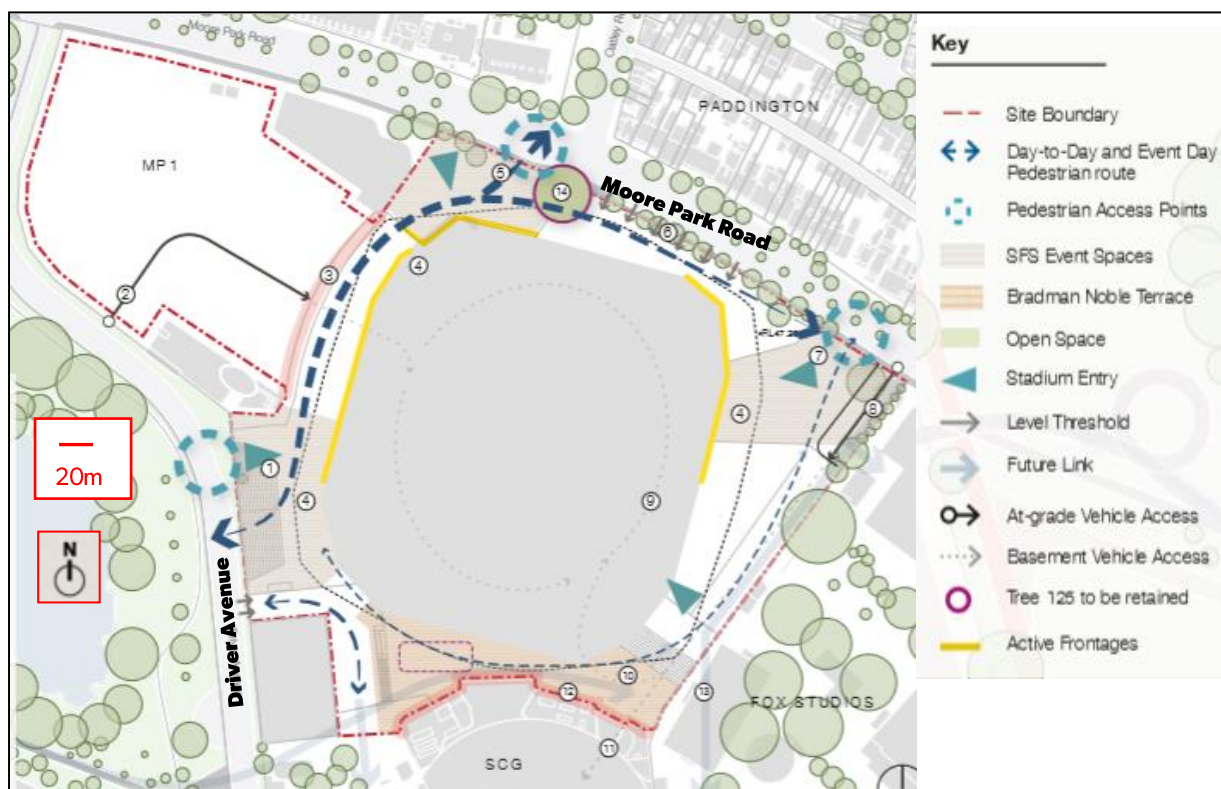


Figure 19 | Identified pedestrian routes and access points within the site (Source: Applicant's RtS)

The UDG have identified four main public spaces (**Figures 20, 21 and 22**) being:

- Driver Avenue Terraces (1 in **Figure 20**)
- Moore Park Road Plaza (2 in **Figure 20**)
- Oatley Road Place (3 in **Figure 20**)
- Sydney Live Plaza (4 in **Figure 20**).



Figure 20 | Identified public realm and open spaces (Source: Applicant's RtS)

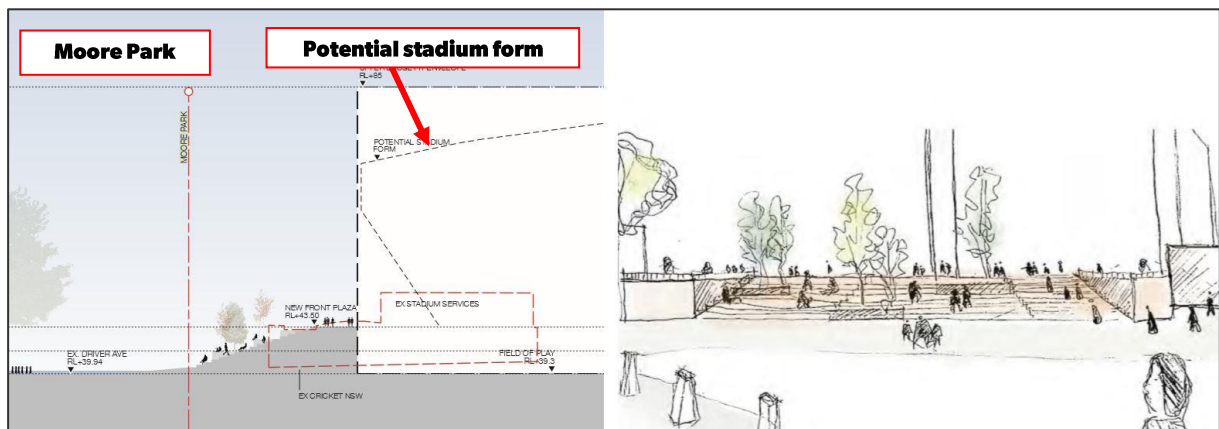


Figure 21 | Potential use of Driver Avenue terrace (Source: Applicant's RtS)

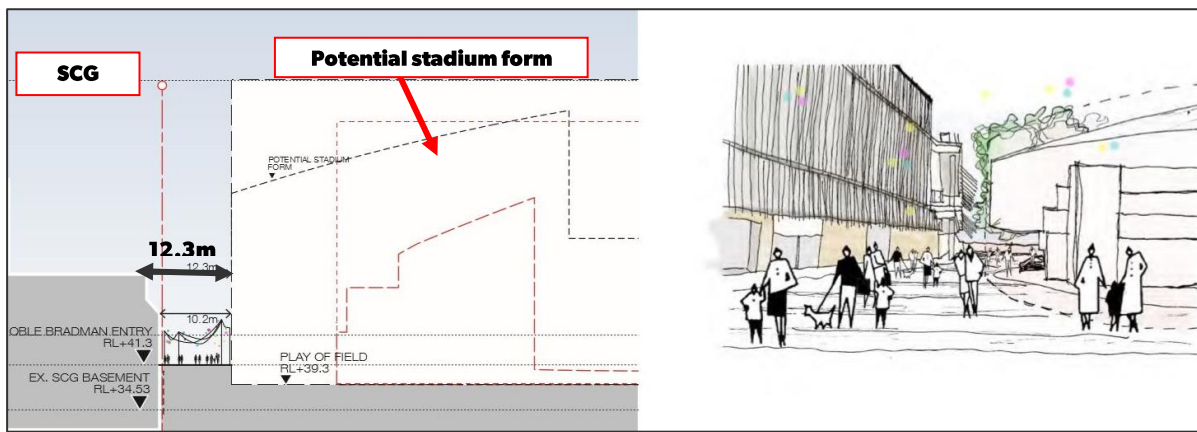


Figure 22 | Potential use of Sydney Live Plaza (Source: Applicant's RtS)

Potential uses and activities have been assigned to the identified public areas for event days as well as on a day-to-day basis. The UDG states that the open spaces fronting Moore Park Road Plaza and Oatley Road Place would provide spaces that can be utilised by public on a day to day basis. Driver Avenue terrace would frame the stadium on the event days and would be the main link to Moore Park. The Sydney Live Plaza would assist in wayfinding for patrons accessing the Bradman Noble Stand (SCG).

The Urban Design Guidelines propose potential future links to and from the site a number of areas including Moore Park, the Light Rail station and to the Fox Studios through the site. The design options for these links would be considered at Stage 2 as identified in **Figure 23**.



Figure 23 | Future pedestrian links through the site to the nearby areas (Source: Applicant's RtS)

The maximum building envelope would require the removal of 26 trees from the site (proposed to be removed prior to demolition of the existing stadium). The UDG includes a landscape strategy which includes retention of a significant Moreton Bay fig tree, street trees along Moore Park Road, allocation of deep soil zones and also additional planting opportunities at the ratio of 1(tree lost): 1.5(trees replaced). The Department notes that due to

the topography of the site, these public spaces and plazas would be at different levels and connected by ramps and stairs providing equitable access between all areas of the site.

During the exhibition of the EIS, the Trust commented that future designs should explore future links with Fox Studios, Moore Park and create a safe environment for vehicles and patrons per the Moore Park Master Plan 2040. Council provided comments and concerns regarding security and safety, wayfinding, signage and pedestrian connections. Council also indicated that the EIS does not include sufficient information to analyse or understand the extent of public use and commercial activities.

OEH reviewed the BDAR submitted as part of the EIS and recommended that 95% of replacement planting should comprise endemic species, and that the trees should be suitable for the foraging of Grey-headed Flying fox, including installation of a microbat roost structure. Council raised concerns regarding the extent of tree removal and commented that significant trees are proposed to be removed as part of the future stadium development.

Several public submissions were received raising concerns regarding the impacts of the pedestrian linkages and connections to Moore Park and Centennial Park including that the proposed design would result in the loss of green space. The submissions also raised concerns regarding the impact of the permeability and the increased pedestrian activities on Moore Park as well as the negative impacts of the tree removal on the local flora and fauna species. The public submissions also indicated that the Moore Park and other areas of the park close to the stadium should be included in the analysis of 'public domain', in particular Kippax Lake.

The Applicant's RtS included the following in response to the submissions:

- commitment to implementing security measures to create a safe environment for pedestrians and vehicles
- additional UDG describing future links which more clearly reflect the Centennial Parklands aspirations for these links as outlined in Moore Park Masterplan 2040
- commitment to the replacement planting as recommended by OEH
- a commitment to establish a working group with the Trust to advance the design of a variety of areas, including public realm treatment of the northern portion of Driver Avenue adjacent to the redeveloped SFS entry and cycle infrastructure within the precinct.

During community consultation meetings held by the Department, residents of Poete Road, Cook Road and Furber Lane (on the eastern side of the SFS site adjoining the Fox Studios) raised concerns the proposed future links would increase permeability between the residential and non-residential uses (which are currently separated by closed gates and a high boundary wall). This in turn would have adverse impacts due to increased traffic-flow, pick-ups and drop-offs, illegal car parking as well as anti-social behavior within the residential areas to the east of the site. A further public submission in response to the RtS raised concerns that any pedestrian/cycle links proposed close to Kippax Lake would reduce the amenity of people using this area.

The Department has reviewed the public realm and open space plans, the landscape strategy, permeability proposals as well as the submissions from the public authorities and the community. The Department is satisfied that the UDG supporting the Concept Proposal provides the Department with an appropriate level of understanding of what may be expected due to operation of the redeveloped SFS. The Department acknowledges that the public use of the spaces adjoining the future stadium and the resulting permeability between the site, the parkland and the nearby residential areas may result in positive opportunities for the users and the local residents as well as potential negative environmental impacts. The Department requires that the Applicant undertake investigations into opportunities of the public domain / realm works as well as linkages as part of the Stage 2 development application for the detailed design and operation of the stadium.

The Department has recommended the following conditions for the Stage 2 development application:

- a comprehensive review of the proposed pedestrian connection between the site and the adjoining lands on the eastern and south eastern boundary of the site be undertaken to address the concerns raised by the community regarding the proposed future pedestrian links and integration of Driver Avenue with Moore Park
- a future pedestrian connection strategy or future restrictions between the site and the adjoining eastern properties, be developed, based on the results of the review to minimise impacts on the surrounding community as a result of additional pedestrian connections and access points through the site
- an assessment, identifying opportunities for providing shared community facilities, dedicated spaces for community use, and enhancement of the public domain and open spaces within the site and integrating such elements with the design of the future stadium, be provided
- strategies that confirm the extent of usage of the site as public areas and the methods by which commercialisation of these areas would be reduced, be provided
- a comprehensive review of the Moore Park Masterplan 2040 to identify specific principles, moves, opportunities and strategies within the plan which can be supported either directly or indirectly by the development and an implementation plan for delivering on these opportunities.

The Department has also reviewed the tree removal proposal and notes that the trees are proposed to be removed to accommodate the future building footprint. Notwithstanding the proposed tree removal, approximately 100 trees are proposed to be retained throughout the site. The proposed landscape strategy regarding replacement planting would further enhance the landscaping of the site in the future. To ensure the submission of an appropriate landscape strategy with the Stage 2 application, the Department recommended the following conditions:

- a comprehensive landscape strategy be provided identifying hard and soft landscape areas
- replacement planting be provided in a ratio of 1:1.5
- artificial microbat roost structures be provided as required by OEH.

6.2.4 Visual impact

The height and footprint of the proposed envelope is larger than the current stadium. The roof height of the existing stadium varies due to its shape and the existing masts which form an integral part of the physical fabric of the stadium. The approximate height of the saddle shaped roof awning of the existing stadium varies between RL 54m – RL 78.9m AHD whereas the masts vary in height between RL 59m AHD – RL 84.9m AHD. The proposed maximum height of the loose fit envelope would be at RL 85m AHD. A comparison of the heights is provided below (**Figure 24**).

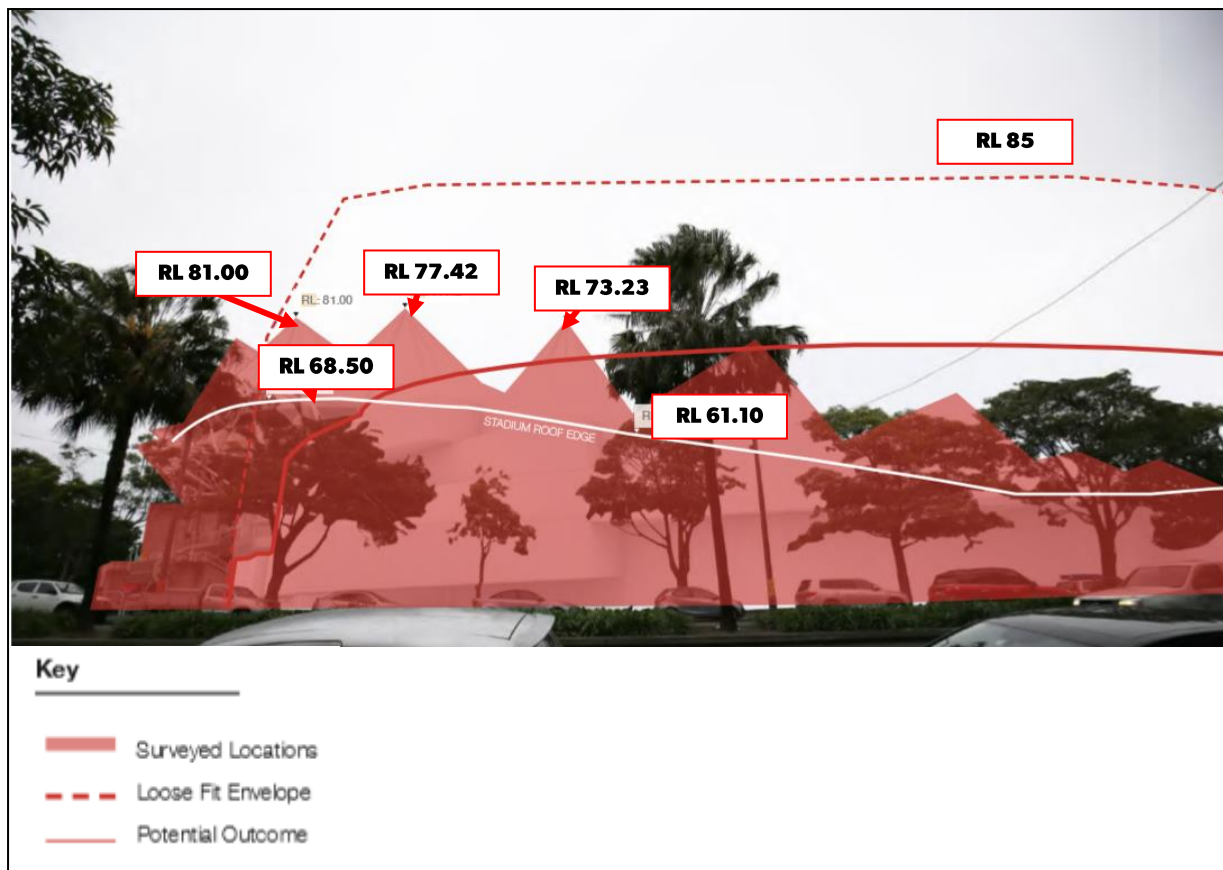


Figure 24 | Comparison of the roof heights of the existing SFS and the loose fit envelope as viewed from Moore Park Road (Source: Applicant's RtS)

The EIS indicates that the site's visual catchment encompasses a large part of Sydney's inner eastern suburbs. The fundamental scenic character of this visual catchment is of an urban landscape within a natural setting. From some locations, this overall character is punctuated by views to iconic landscape features, specifically the Sydney CBD skyline. The Applicant has provided a Visual Impact Assessment (VIA) which identifies key views surrounding the site and quantifies the likely impacts of the building envelopes.

During the exhibition of the EIS, a number of submissions raised concerns regarding the adverse visual impacts building envelope on the public domain. In response, the Applicant's RtS provided view assessment from 10 additional locations and from within the SCG playing field.

The VIA, as refined by the RtS, included an assessment of the visual impact of the proposal against relevant planning instruments in six identified criteria being cultural landscape; height, bulk and scale; heritage; amenity; view sharing; and significant view corridors. The VIA concluded that:

- the proposal would have a low to medium visual effect on the existing visual catchment due to the complex interrelationship of topography, built form and landscape, the distance of the proposal from viewpoints and its emphasis on horizontality
- the proposal is compatible with the dominant visual character of eastern Sydney being an urban landscape sitting within a natural setting
- the proposal does not impede existing views of scenic and cultural landscapes from the public domain
- the proposal does not obscure views of iconic landscape (the Sydney CBD skyline) or any view corridors identified in SLEP

- the proposal would have medium level impact on the residential towers on Cook Road or on the dwellings fronting Oatley Road
- the proposal would have medium visual impact from within the Sydney Cricket Ground grandstands and surrounds.

In testing the reasonableness of the visual impacts of the proposed building envelope, the VIA states that the proposal is for an internationally competitive stadium which naturally requires substantial scale, bulk and height. While the proposal has a greater volume than the existing stadium, this increase is not considered unreasonable from a visual perspective, in particular, considering its location as part of a readily perceived major sporting complex and elements in the existing landscape that mitigate its visibility. Whilst the proposal would become more prominent in viewpoints from Moore Park East and Moore Park Road, the visual impacts are mediated by the considerations above and the presence of intervening built form and vegetation which would not be impacted by the proposal.

Additionally, the EIS recommended a number of mitigation measures to ameliorate the adverse visual impacts due to the increased height and bulk of the loose fit envelope. These include retention of the mature fig tree within the site adjacent to Moore Park and aligned with the termination of Oatley Road; retention of the mature figs and other associated vegetation around Kippax Lake, retention of street trees on both sides of Moore Park Road and vegetation in the centre median of Moore Park Road in the vicinity of the site; and an indicative planting strategy for the site proposing to plant new trees to further screen the development. A comparison of the existing and proposed views is provided in **Figures 25 to 28**.



Figure 25 | Existing (left) and proposed (right) view of the stadium from Moore Park Road (Source Applicant's RtS)



Figure 26 | Existing (left) and proposed (right) view of the stadium from Tibby Cotter Bridge (Source Applicant's RtS)



Figure 27 | Overlay of proposed stadium alignment on SCG playing field (Source Applicant's RtS)



Figure 28 | Existing (left) and proposed (right) view of the stadium from Driver Avenue (Source Applicant's RtS)

The Department has assessed the submitted VIA and the RtS, the public authority submissions and the community views on the visual impact of the proposed loose fit envelope of the stadium. The Department concludes that there would be additional visual impacts on the surrounding area due to the proposed increase in the bulk and scale of the stadium. While the Department acknowledges that the proposed envelope would replace an existing structure which is a dominant feature of the landscape for two decades, consideration should be given as to whether the residual impacts due to the increased bulk and scale are acceptable. In assessing the residual impacts, the Department has considered the planning principles established by the Land and Environment Court in the judgement for *Tenacity Consulting v Warringah [2004] NSWLEC 140* - Principles of view sharing: the impact on neighbours as a guide (the planning principles are applicable to private views only).

The Tenacity case provides three key steps to assessing impacts (which are referenced in the EIS). The fourth step is to "assess the reasonableness of the proposal that is causing the impact". In assessing whether the visual impact of the proposal is reasonable, the Department notes that as the future stadium design is guided by the functional parameters and would not be able to accommodate all the facilities if the footprint is reduced.

Based on the view analysis submitted by the Applicant, the Department notes that the future stadium is not substantially taller than the existing SFS at all points, specifically the eastern and western edges where the masts of the existing SFS are located at RL 84.9m, AHD. The loose fit envelope is the worst-case scenario of the

proposed building envelope and it is anticipated that the final design outcome would be lower than this level, as identified in **Figure 24**. Notwithstanding, the height and the width, the comparative visual analysis diagrams (**Figures 25 to 28**) demonstrate that the proposed building envelope would not have an unreasonable additional impact on the locality and the wider region. The proposed stadium envelope is sufficiently separated from the street frontages which would provide an appropriate threshold to both future developments. In addition, the setback would allow for the inclusion of an activated public domain. The Department is satisfied that the proposed building envelopes would not have a detrimental impact on any iconic heritage item or the significant parklands surrounding the site (discussed in **Section 6.2**). Additionally, the landscape strategy and planting of mature trees would assist in mitigating adverse visual impacts to some extent.

The Department agrees with the Applicant's conclusions in the assessment of the proposed visual impact assessment. The Department is satisfied that the management of potential visual impacts for any Stage 2 can be suitably mitigated, subject to the appropriate design which would be guided by the design competition and the UDG. The Department has recommended conditions of consent requiring that the Stage 2 development application be supported by a Visual and View Impact Assessment to ensure that the future stadium design does not have unreasonable impact on the views available to the private and the public areas.

6.2.5 Overshadowing

The proposal has the potential to overshadow significant public buildings and parklands due to the increased building envelope. A number of public submissions raised concerns regarding overshadowing impacts of the increased building envelope on the public domain and specifically on Kippax Lake, as well as on the playing field of SCG.

In response, the Applicant provided additional detail regarding overshadowing during winter solstice, which concluded that impacts were minor and acceptable given that:

- Between 9am and 10am at mid-winter, there is some overshadowing of Moore Park East in the area between Driver Avenue and Kippax Lake. The lake would not be overshadowed during this period.
- At 10am, only a very small area of Moore Park East is overshadowed by the maximum envelope, being a slither of the park approximately 7m in depth from Driver Avenue. Between 10am and 11am, the shadow moves further to the east such that there is no overshadowing of Moore Park.
- Between 10am and 1pm the shadow is largely contained within the SCGT land, with some overshadowing of the Fox Studios site which is predominately limited to the roof of buildings and paved areas.
- At 2pm and 3pm there is additional overshadowing of the Fox Studios site, including some grassed areas. The majority of the grassed areas within the Fox Studios site would continue to receive sunlight.
- There is no overshadowing of the SCG playing field.

The Department has assessed the shadow diagrams and is satisfied that the proposed stadium envelope would have negligible impacts on SCG and the surrounding parklands. A condition of consent requires that the Stage 2 application be supported by solar access diagrams to demonstrate that the proposed stadium would not overshadow the playfield of SCG, the adjoining parklands any residences.

6.3 Heritage

The SFS is located within a Heritage Conservation Area (HCA) of local heritage significance listed under the SLEP. A section of the State listed archaeological item, the Busby's Bore (SHR #00568, LEP #I1) is located within the site. Busby's Bore is also listed on Sydney Water section 170 Heritage and Conservation Register. A Mature Moreton Bay Fig tree on Moore Park Road (adjacent to the Moore Park Road entrance to the SFS) is listed on Council's 'Register of Significant Trees (2013)'.

No other statutorily listed heritage items are located within the site but there are several HCAs and individual heritage items in the immediate vicinity:

- The State heritage listed 'Sydney Cricket Ground Members Stand and Lady Members Stand' (SHR 0353)
- Victoria Barracks Group at 75 Oxford Street/Moore Park Road (SLEP #I1086)
- Victoria Barracks HCA (SLEP C49)
- Paddington South HCA (SLEP C48)
- Moore Park HCA (SLEP C36)
- Centennial Park, Moore Park, Queens Park (SHR #01384)
- Terrace house "Verulam" including interior and front fence at 284 Moore Park Road (SLEP #I1078)
- Olympic Hotel including interior at 308 Moore Park Road (SLEP Heritage Item #I1079).

The site was listed as a significant heritage item by the National Trust in 2015. While this holds no statutory weight in the assessment of the application, it does identify that the site is considered by the community to have value.

The HCAs and the heritage items are identified in **Figure 29**.

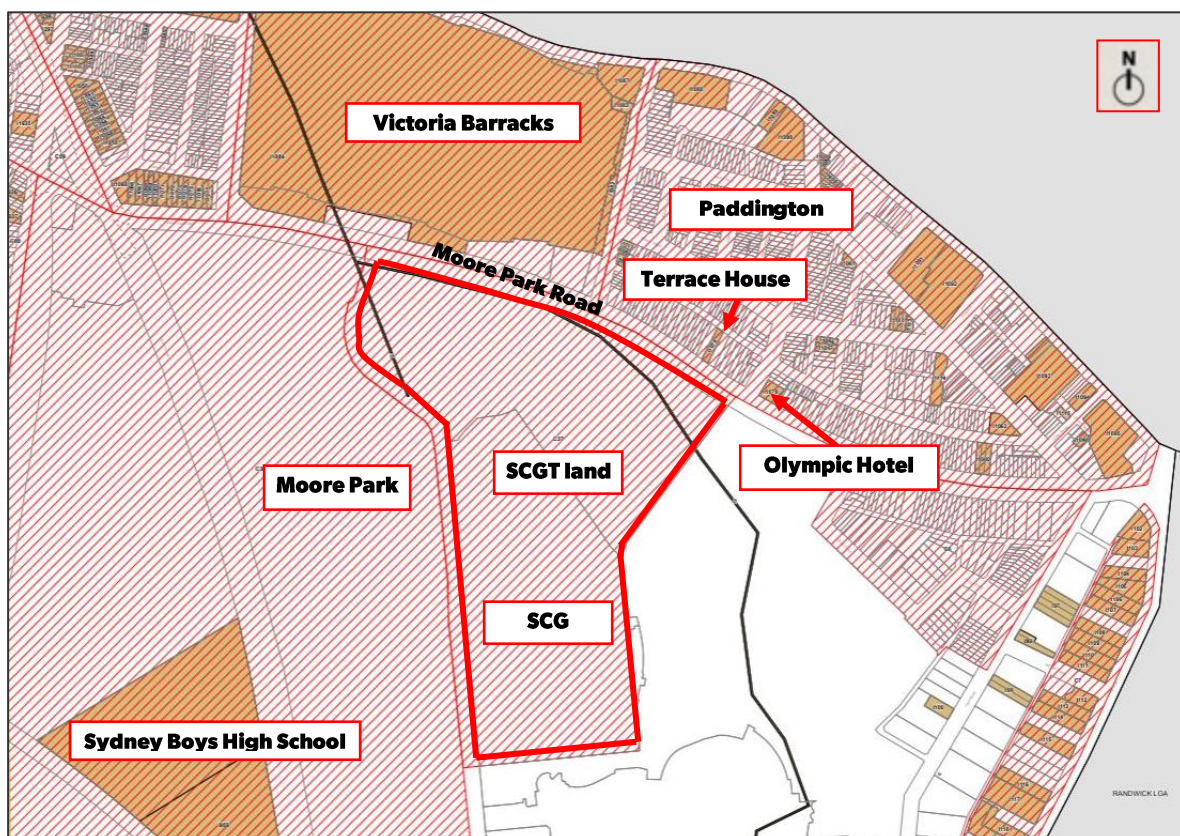


Figure 29 | Boundaries of land controlled by SCGT (including SFS site) overlaid on the Heritage Map (Source: SLEP 2012)

6.3.1 Demolition of existing SFS (Stage 1 works)

The proposed Stage 1 works involve demolition of the existing SFS. The impacts of the demolition of the stadium are assessed and justified in a supporting Heritage Impact Assessment (HIA) prepared by Curio Projects, which outlines the heritage values of the site and the surrounding items. The HIA concludes that the demolition of the stadium would have no impacts on the archaeological relics or elements of significant Aboriginal cultural heritage values in the immediate vicinity, as demolition will occur to ground level only. The demolition of the existing

stadium would have the potential to impact on the heritage values of the locality and the wider region, as discussed below.

The HIA notes that a draft Sydney Cricket and Sports Ground Conservation Management Plan (SCG CMP) was prepared by Godden Mackay Logan in 2013 for SCGT land including the SFS site. The report is currently draft and has not been finalised or submitted to the Heritage Division for formal approval. The draft SCG CMP identifies several views toward the SFS of moderate to high significance and considers that some of the significance of the site is related to the physical fabric of the SFS. The HIA contends the conclusions of the draft SCG CMP in this regard and concludes that the physical fabric of the stadium was built entirely with modern materials, and therefore the SFS itself does not have intrinsic heritage significance.

The HIA indicates that the significance of the existing stadium relates to its presence within the surrounding landscape, its distinctive and innovative architectural design. The site has substantial significance as a key sporting and recreation venue within the SCGT land. The physical fabric of the stadium itself, whilst of architectural merit, and representative of innovation at its time of construction, does not include any heritage values. The HIA categorises the existing SFS as a landscape feature with an aesthetic significance. It also categorises SFS as a distinctive element along the Moore Park Road streetscape, as well as within views from further afield including from the Paddington South HCA, Moore Park and the Entertainment Quarter.

The HIA concluded that the significance of the SFS relates to the site's cultural and social values rather than physical values, because its significance is embedded in the continuity of use of the site and the social history of the site and events at the site in this location. The site has undergone continual improvements since the mid-1800s. Given that the existing SFS is not listed as a heritage item in a statutory instrument, its demolition and replacement by a well-designed stadium would not result in any detrimental impact in the heritage values of the site. It would improve the user experience and the overall social and cultural value of the site.

A number of public submissions raised concerns that the demolition of the stadium is inappropriate as the structure is architecturally significant. The submissions also raised concerns regarding the adverse impact of the demolition works on Busby's Bore part of which is situated underneath the stadium. The Heritage Division reviewed the HIA and requested submission of a detailed comparative analysis of similar types of stadium developments in Sydney and NSW along with a comparative study of works by Phillip Cox and Partners to further evaluate the significance of the SFS building at State and local levels.

The National Trust, in their submission, highlighted the architectural significance of the site and raised an objection to its demolition. In addition, Council objected to the demolition of the existing stadium, being an award-winning design by architect Philip Cox.

In response, the Applicant's RtS included an addendum to the HIA. The addendum provided an assessment of compliance against the draft Busby's Bore Conservation Management Plan 2004, an impact assessment of the significant views identified in the draft SCG CMP, a comparative analysis (prepared by Cox Architecture) and additional review justifying the earlier conclusions of the HIA regarding demolition of the existing SFS.

Additionally, the Applicant made a commitment to further investigate the location of Busby's Bore in accordance with a 'Methodology Statement – Working Near Busby's Bore'. The Statement includes the requirements for vibration monitoring and corrective action, to be protective of Busby's Bore from indirect impacts during the demolition.

The National Trust, in their submission to the RtS, raised further concerns indicating that the HIA does not include sufficient information to justify the demolition of the SFS, having regard to heritage, as the impacts on Busby's Bore. The Heritage Division raised no further concerns with regard to the demolition of the existing SFS.

The Department has reviewed the Applicant's EIS, RtS and the public submissions. The Department considers that the Applicant has satisfactorily addressed the impacts of the demolition of the existing SFS on the heritage values of the site, the surrounding areas and the relevant archeological items of significance. The Department agrees with the Applicant's conclusions that the predominant significance of the existing SFS lies in the social values rather than the physical fabric.

The Department considers the impact of the demolition to be acceptable as the existing fabric would be replaced by a new sporting venue and so there will be an unbroken continuity of use. The loss of the stadium as an iconic landmark in the local landscape would be temporary before it is replaced with a new stadium which would be a community landmark. To ensure that the community have a record of the existing SFS, the Department has recommended a condition requiring photographic recording of the SFS prior to its demolition.

The Methodology Statement – Working Near Busby's Bore provides an overarching list of managing and mitigating measures to avoid and manage the potential impacts of the Stage 1 demolition works on the Busby's Bore. Conditions of consent require that procedures be formulated to manage the impacts, if unexpected Aboriginal or archaeological relics are found during Stage 1 works.

6.3.2 Heritage impacts (Concept Proposal)

The Concept Proposal includes the maximum building envelope of the future stadium which would replace the existing SFS. The design, construction and operation of the stadium would have the potential to impact on the heritage values of the surrounding heritage items, the State significant heritage item Busby's Bore and other archaeological resources.

The Applicant's EIS indicates in respect to the design, that the key memorabilia and moveable items (i.e. Walk of Fame) would be retained and reinstated as part of the detailed design where appropriate.

Public submissions raised concerns regarding the visual impact of the maximum building envelope on the surrounding heritage items and conservation areas. The National Trust noted that the existing stadium was specifically designed to minimise impacts on the historic Moore Park Conservation Area and the surrounding residential housing. The National Trust raised concerns regarding the imposing building envelope of the proposed stadium.

The Heritage Division noted that the draft SCG CMP includes policies for the retention and conservation of the high heritage significance of the SFS and recommends that an Specific Elements Conservation Policy be prepared for the stadium to guide any future management and adaptive works. The Heritage Division indicated that the maximum building envelope may have adverse impacts on the significant historic view lines within and to the SCG. Council also provided comments relating to the retention of memorabilia and appropriate heritage interpretation.

In response, the Applicant's RtS included an assessment of the historic view lines identified in the draft SCG CMP. The assessment of the visual impacts along the identified view lines identified that the impacts on the maximum building envelope are deemed to be neutral or negligible. The visual impact of the maximum building envelope on the HCAs are identified in **Figures 30 and 31**.



Figure 30 | View of the envelope from Paddington HCA (left) and north west of Moore Park (Source: Applicant's EIS)



Figure 31 | View of the envelope from SCG Member's stand (Source: Applicant's EIS)

The Heritage Division did not raise any further concerns regarding the visual impacts of the maximum building envelope and advised that an Aboriginal Cultural Heritage Assessment Report be undertaken in consultation with local Aboriginal stakeholders as part of the Stage 2 development application. The National Trust raised further concerns regarding the detrimental impact of the building envelope on Busby's Bore located below ground within the site.

The Department is satisfied that the building envelope does not represent a significant impact to the surrounding heritage landscape. The Department also considers there is an opportunity to incorporate design cues and other design elements in the Stage 2 design, to allow the detailed design to be sympathetic to and/or promote the heritage values of the site and surrounding area. As discussed in **Section 6.2**, the design is required to demonstrate design excellence and it is anticipated that the final design of the stadium would be smaller than the proposed loose fit envelope.

In addition, more specific impacts resulting from design and construction (including excavation works that have potential to impact the archaeological resource) can appropriately be assessed during the Stage 2 Development Application. Conditions to this effect have been recommended.

6.4 Traffic, transport and parking

6.4.1 Existing traffic scenario

The site is located approximately 3km from the Sydney CBD and approximately 1.8km to Central Station. The site is connected to Sydney's transport network through existing bus routes. The site would also benefit from a dedicated stop on the soon to be completed Sydney CBD and South East Light Rail.

Key bus stops for SFS patrons are located along Anzac Parade, Lang Road and Oxford Street and the bus station at Moore Park East is for event shuttles. The SFS also sits within an extensive bicycle network with on-road bicycle lanes and also off-road bicycle paths.

The Applicant's EIS notes that event shuttle bus services operate to link patrons to the wider Sydney public transport network – in particular Central Station. Event buses use the Moore Park bus loop to pick up and drop off. The bus loop has a turnaround facility and has the capacity to host 26 buses at one time and would continue to operate with a reduced capacity after completion of the light rail project. Coaches currently use Moore Park Road and the southern end of Driver Avenue on event days to drop off and pick up passengers.

The application is supported by a Traffic Impact Assessment report (TIA). The TIA notes that public transport is included in the price of admission for events hosted by the NSW Waratahs and Sydney FC. Other codes such as the Sydney Roosters and Sydney Swans are required to negotiate terms of potential integrated ticketing arrangements directly with TfNSW.

Currently, Traffic Management Plans are developed prior to specific special events to manage vehicle and pedestrian movements before, during and after the event. These are prepared by the SCGT in consultation with key stakeholders including the NSW Police and Sydney Coordination Office of TfNSW.

A number of traffic and mode share surveys have been conducted by the Applicant's TIA which indicate that approximately 70% of people arrive to the match in the hour immediately prior to the start time. Pre-event set down spaces for taxis and private vehicles are currently provided in the north and south, on the eastern side of Driver Avenue and are monitored by event staff.

Figure 32 identifies the public transport facilities, drop-off and pick-up areas and bus loops that currently service the site. There are approximately 5,450 car parking spaces in the precinct for events days as indicated in the 'Proposal' section of this report.

Event day surveys conducted as part of the TIA notes that currently about 43% to 66% of patrons utilise private vehicles during major event days such as Rugby Union, Rugby League, Football / Soccer with an average vehicle occupancy of 2.7 persons per car. The TIA shows that the nearby intersections currently operate within the capacity with the exception of the Anzac Parade / Lang Road intersection. On event days vehicles access the site via Moore Park Road / Driver Avenue and exit via Lang Road to the south and east).

Post-event vehicles that are picking up passengers are not allowed to enter Driver Avenue. The only dedicated post event private vehicle pick-up area is on Errol Flynn Avenue adjacent to the Entertainment Quarter. The TIA in the EIS note that a source of congestion following major events is the flow of traffic out of Driver Avenue and the Entertainment Quarter car park to the west (towards Anzac Parade). Due to current traffic movement restrictions, vehicles departing the Entertainment Quarter must turn right onto Lang Road towards Anzac Parade, with left turns not permitted until after 10pm in the evening. The impact of the operation of the future stadium on the local traffic is discussed below, based on the above existing scenario.

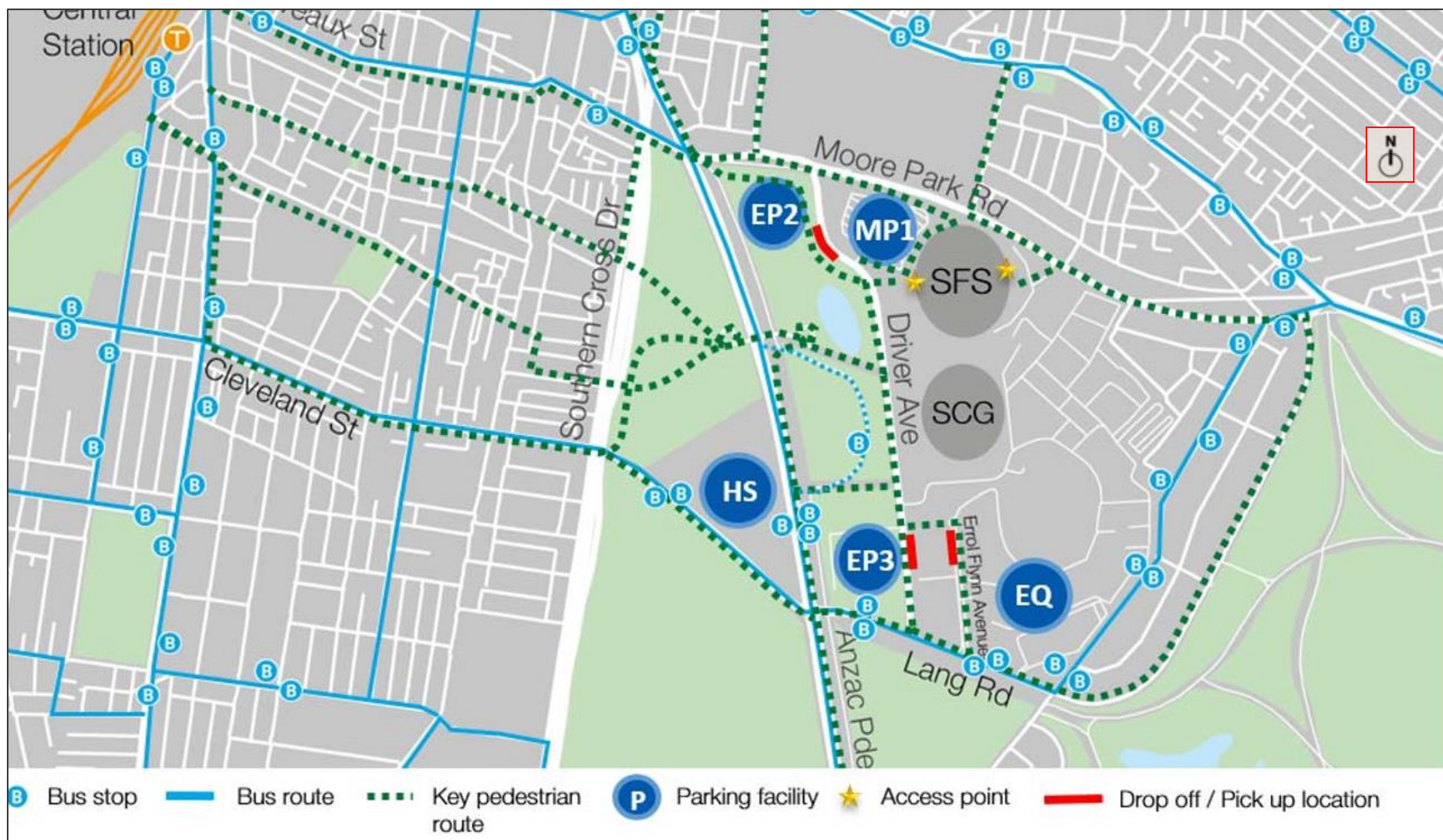


Figure 32 | Integrated public transport map for the site (Source: Applicant's EIS)

6.4.2 Operational traffic impacts (Concept Proposal)

The following components of the proposal are relevant to the impacts of the future stadium operation on the local traffic:

- while it is noted that crowd sizes vary, there is no proposed increase in the overall seating capacity as a part of the redevelopment of the site
- there is no proposed increase in the MP1 carpark capacity or car parking provisions on the site
- there is no proposed increase to the current maximum number of concert events per year
- the new Light Rail would be operational by the time of completion of the future stadium. This is expected to reduce the number of event buses in the local traffic network on event days.

The TIA and Urban Design Guidelines include the following measures:

- secure undercover bike parking, lockers, showers and change facilities for 5% of regular and event staff
- 100 bicycle parking spaces for patrons in a visible location(s) (the current bicycle spaces available is 50)
- improved pedestrian access and linkages through the creation of a 'front door' to the stadium
- wayfinding (both natural and signage) to promote pedestrian access
- safety in design principles including a lighting strategy to be adopted for the safety and comfort of patrons
- a Transport Access Guide and Green Travel Plan to be submitted as part of Stage 2 of the proposal.

During the exhibition of the EIS, public submissions raised concerns regarding the existing traffic operations of the stadium, post-event traffic congestion as well as the anticipated negative impacts due to the increased number of events as a result of the redevelopment. A number of submissions also requested that an increased number of car parking spaces be provided. Submissions from an MP and Council also identified that increased numbers of events would lead to additional use of the recreational areas for the purposes of parking. Council expressed concerns over the proposal as a major traffic generator in the area and questioned the TIA's emphasis on pre-event traffic rather than post-event traffic. Council also raised concerns regarding insufficient public transport capacity to cater for the development.

TfNSW indicated that the data used in the TIA is not representative of a larger event crowd and the data for the Light Rail project were not correct. TfNSW also raised concern about the adequacy of passenger or coach passenger drop-off and pick-up facilities.

TfNSW agreed with the Applicant's plans to improve pedestrian access through the stadium to Moore Park, wayfinding and signage plans and lighting plans, subject to recommended conditions regarding further consultation with relevant stakeholders as a part of the Stage 2 development application. TfNSW recommended that the Moore Park Precinct Traffic and Transport Management Plan should be reviewed in conjunction with the proposed measures, as a part of the Stage 2 development application. RMS raised concerns regarding the post-event activation of Driver Avenue. RMS also required a traffic analysis of post-event management of Driver Avenue.

In response, the Applicant's RtS agreed to the majority of the requirements of TfNSW and RMS. The Applicant also provided an addendum to the TIA with further analyses of pre and post-event scenarios for three events including a double-header. This included SIDRA modelling of nearby intersection performances based on data collected on the event days (three events) and comparing the pre-event scenario with the post event scenario on the site for the existing stadium (**Figure 33** and **Figure 34**). The analysis demonstrates that the intersections were found to generally perform acceptably during the surveyed periods during all of the three surveyed events.

TfNSW did not raise any concerns regarding the intersection performances and advised that issues such as drop-off and pick-up and a Green Travel Plan should be addressed as part of the Stage 2 development application. Council raised concerns regarding the revised SIDRA modelling and vehicle occupancy rates, and the need to reduce the demand for on-site parking by actively promoting walking, cycling and public transport access. Council also raised concerns regarding the basis for the modal split (which assume that only 17% of the patrons would utilise private vehicles) used by the TIA to assess double-header events.

One public submission expressed concerns over post-event traffic impacts including traffic gridlock on Cook Road, traffic safety issues on Moore Park Road, Lang Road and Errol Flynn Boulevard.

Date	Saturday 23 June				Saturday 4 August				Saturday 4 August			
Scenario	Pre-event		Post-event		Pre-event		Post-event		Pre-event		Post-event	
Performance measure	DoS	LoS	DoS	LoS	DoS	LoS	DoS	LoS	DoS	LoS	DoS	LoS
Moore Park Road & Driver Avenue	0.88	B	0.81	A	0.84	B	0.88	B	0.63	A	0.73	B
Moore Park Road & Regent Street	0.73	A	0.73	A	0.79	A	0.82	A	0.66	A	0.77	A
Anzac Parade, Cleveland Street & Lang Road	0.91	C	0.87	C	0.87	C	0.91	C	0.87	C	0.91	C
Lang Road & Driver Avenue	0.86	B	0.74	B	0.70	B	0.45	A	0.68	B	0.83	B

DoS- Degree of Saturation LoS - Level of service (A - free flow, excellent conditions to F - long delays, queues are not clearing each cycle)

Figure 33 | SIDRA modelling of intersection performances based on data collected during events (Source: Applicant's RtS)



Figure 34 | Intersection locations and existing pre-event performance (Source: Applicant's RtS)

In response to the further concerns raised by Council, public submissions and the Department, the Applicant provided a SRtS. The SRtS included further justification regarding the predicted modal shifts for patrons travelling to the stadium and traffic assessments using SIDRA modelling for pre and post-game scenarios during a 'worst

case' double header scenario. The modelled pre-game 'worst case' scenario for the proposed stadium (95,000 people for SCG / SFS) was compared against the traffic survey results from the 4 August 2018 where there were 50,000 people in Moore Park precinct (**Figure 35**).

<i>Scenario</i>	4 August 2018 (50,000 people)		Theoretical 95,000 people in precinct	
	DoS	LoS	DoS	LoS
Moore Park Road & Driver Avenue	0.63	A	0.94	C
Moore Park Road & Regent Street	0.66	A	0.87	B
Anzac Parade, Cleveland Street & Lang Road	0.87	C	0.89	C
Lang Road & Driver Avenue	0.68	B	0.83	B
Moore Park Road Rd & Anzac Parade & Flinders St, Fitzroy St, M1	0.76	B	0.83	B

Figure 35 | Comparison of intersection performance for real and worst-case scenario (Source: Applicant's RtS)

The SRtS stated that following the conclusion of the event no vehicles are permitted to access Driver Avenue to pick up passengers. Therefore, post-match pick - up occurs over a more dispersed area compared to drop - off. Notwithstanding, the Applicant noted that the full double header scenario was extremely unlikely with the highest ever combined attendance for a double header in the Moore Park precinct of approximately 78,000 people in January 2017.

The results of SIDRA modelling indicate that during the most congested 30 minutes of the pre-game peak hour:

- The Anzac Parade / Lang Road / Cleveland Street, Driver Avenue / Lang Road and Moore Park Road / Anzac Parade / Flinders St intersections continue to operate at acceptable levels of service
- The Moore Park Road / Driver Avenue and Moore Park Road / Regent Street intersection performance are forecast to slightly deteriorate with additional drop off movement but continue to operate at acceptable levels of service.

The Applicant conducted further surveys of two large scale sporting events including a double header within the Moore Park precinct in consultation with TfNSW. The survey results, provided in the SRtS, indicated the private vehicle mode share reduced significantly to 34.9% for the double header event on Saturday 4 August 2018 (double header) where 50,000 people were in the precinct. Based on the additional survey results, the Applicant's TIA concludes that the private vehicle mode share reduces with the increase of patrons due to the restricted parking environment in the precinct. Based on the survey information and consultation with TfNSW, the TIA derived that 17% of the patrons would utilise private vehicles as the primary mode of transport for a worst-case scenario double header event with 95,000 people in the precinct.

Figure 36 provides a comparison of percentages of modal share during various event scenarios a the SFS and SFS / SCG double headers based on traffic data collected during surveys, for the existing SFS and the proposed future stadium.

Game Details	Stadium	Existing Stadium						Proposed Stadium							
	Scenario	Half Full		Peak Event		Concert		Half Full		Peak Event		Concert		Double header	
	Year	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
	Attendance	22,500		45,000		55,000		22,500		45,000		55,000		95,000	
Mode Choice	Driver / passenger	48.0%	10,800	34.9%	15,705	33.0%	18,150	46.0%	10,350	33.0%	14,850	31.0%	17,050	17.0%	16,150
	Dropped off in private vehicle	3.0%	675	3.0%	1,350	8.0%	4,400	3.0%	675	3.0%	1,350	8.0%	4,400	3.0%	2,850
	Taxi/Uber	13.0%	2,925	17.0%	7,650	16.0%	8,800	13.0%	2,925	17.0%	7,650	16.0%	8,800	13.0%	12,350
	Train to Central & walk	7.0%	1,575	9.0%	4,050	12.0%	6,600	5.0%	1,125	8.0%	3,600	7.0%	3,850	21.8%	20,710
	Special event Bus	8.0%	1,800	14.5%	6,525	7.0%	3,850	0.0%	-	0.0%	0	0.0%	-	5.0%	4,750
	Light Rail	0.0%	-	0.0%	-	0.0%	-	12.0%	2,700	17.4%	7,830	15.8%	8,690	13.5%	12,825
	Walk Only	14.5%	3,263	15.0%	6,750	17.0%	9,350	14.5%	3,263	15.0%	6,750	17.0%	9,350	18.5%	17,575
	Bus/ coach	6.3%	1,418	6.4%	2,880	6.8%	3,740	6.3%	1,418	6.4%	2,880	5.0%	2,750	8.0%	7,600
	Cycle	0.2%	45	0.2%	90	0.2%	110	0.2%	45	0.2%	90	0.2%	110	0.2%	190
Total		100.0%	22,500	100.0%	45,000	100.0%	55,000	100.0%	22,500	100.0%	45,000	100.0%	55,000	100.0%	95,000

Figure 36 | Current and forecast for future mode share split for spectators (Source: Applicant's RtS)

The Department has reviewed a range of traffic information submitted by the Application, the comments from public authorities and the matters raised in the public submissions. The Department considers that in terms of the SFS meeting the criteria of a Tier 1 stadium under the NSW Stadia Strategy, traffic and transport management is a key factor. If the future stadium is to host international sporting events and national competitions, it must be accessible and have the capability to safely move 55,000 patrons (in event mode) with minimal environmental impacts on the local community in terms of traffic and transport.

The Department considers that the increased events within the stadium precinct would result in increased impacts on the traffic network and the nearby intersections (considering worst-case scenarios). However, all events at the SFS are heavily managed by TfNSW and the Transport Management Centre, with strong communication provided to the patrons and the local drivers prior to the match informing people to arrive earlier and leave their cars at home if possible. Equally the Applicant has committed to a number of measures to manage the potential traffic impacts. Given the nature of the events at the stadium and the rarity of events larger than 50,000 attendees in the precinct, the Department agrees that it is not feasible to upgrade roads to accommodate demands for an event that would occur very infrequently.

The Applicant has committed to work with key stakeholders including TfNSW, Transport Management Centre and Council as part of the Stage 2 DA (should the Stage 1 application be approved), to update the event management plan for Moore Park. This work would consider measures to improve the operation of the transport network prior to and following the conclusion of events, including for major double headers.

The Department has incorporated all conditions recommended by TfNSW and included the following conditions required to be addressed as part of the Stage 2 development application:

- the total number of events and concerts be estimated with the Stage 2 application and be supported by a detailed traffic impact assessment considering the worst-case scenario
- no alterations to the existing car parking at MP 1 be undertaken to discourage private vehicle usage
- adequate bicycle parking spaces be provided within the site
- a Green Travel Plan be prepared and implemented to maximise the usage of public and active transport
- the suitability of the pedestrian routes connecting the site to the major transport nodes be assessed and improved if necessary

- appropriate bus / car / coach drop-off and pick-up areas within the site be provided
- assessment of pre-event and post-event scenarios considering closure of Driver Avenue after events be conducted
- consultation with Sydney Coordination of the Transport Management Centre, Transport for NSW, Council CCC and other key stakeholders be undertaken in the preparation of the plans and traffic analysis.

As noted earlier in this report, the provision of on-grass parking around the SFS site and specially on Moore Park during events is a subject of concern in many submissions including Council.

The Department notes that the Centennial Park and Moore Park Trust manage parking outside the boundaries of the SFS site. However, since the on-grass parking occurs as a result of patrons attending events at the SFS, it is reasonable to take a collaborative approach to traffic management and parking within the precinct. This matter is discussed in detail in **Section 6.6** of this report.

In summary, the Department is satisfied that the TIA supporting the application, identifies the broad array of potential impacts during the operation of the future stadium. The current assessment provides the Department with a reasonable assessment of what may be expected as a result of the redeveloped SFS in operation. However, it would be appropriate to undertake further analysis to inform the detailed design and then to support management of operations, and this is incorporated into a recommended condition for the Stage 2 application.

The Department also considers that the proposal to not provide any additional parking is appropriate for the site, given its location and the opportunities for active transport. The light rail, when operational, would likely be a more convenient mode of transport for the patrons. The additional use of active transport in the future and implementation of the Green Travel Plan would likely improve the impacts on the on-grass parking on More Park and other parklands surrounding the site.

6.4.3 Traffic impacts of Stage 1 works

The Applicant's EIS states that the demolition works would be undertaken over a 8 -10 month period with 30 construction staff anticipated to be on site at any one time. The proposed construction hours for the demolition and associated works are proposed to be during: weekdays 7:00am to 6:00pm; Saturdays 8:00am to 1:00pm; and no works on Sunday and public holidays.

The initial stages of the development, involving readying the site and demolishing structures, are expected to generate in the order of 5 light vehicle movements a day and up to 40 heavy vehicle movements a day. This represents a traffic generation rate of less than 10 vehicles per hour.

The Applicant proposed that all demolition traffic enter and exit the site from Moore Park Road using existing vehicle access points at Paddington Lane and Driver Avenue. Demolition traffic would travel to and from the site utilising main roads only in order to access the regional road network. This would involve demolition vehicles primarily utilising Moore Park Road, South Dowling Street and Oxford Street (**Figure 37** and **38**).

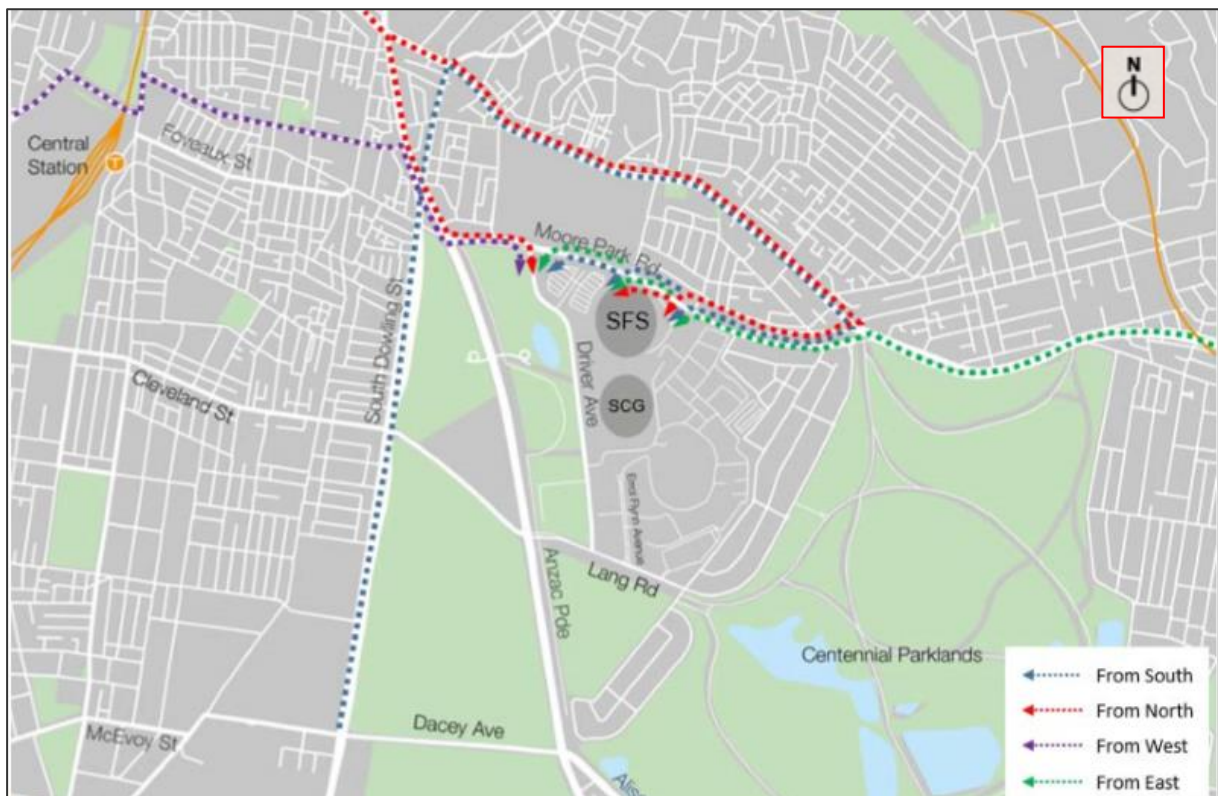


Figure 37 | Inbound routes for vehicles for Stage 1 works (Source: Applicant's EIS)

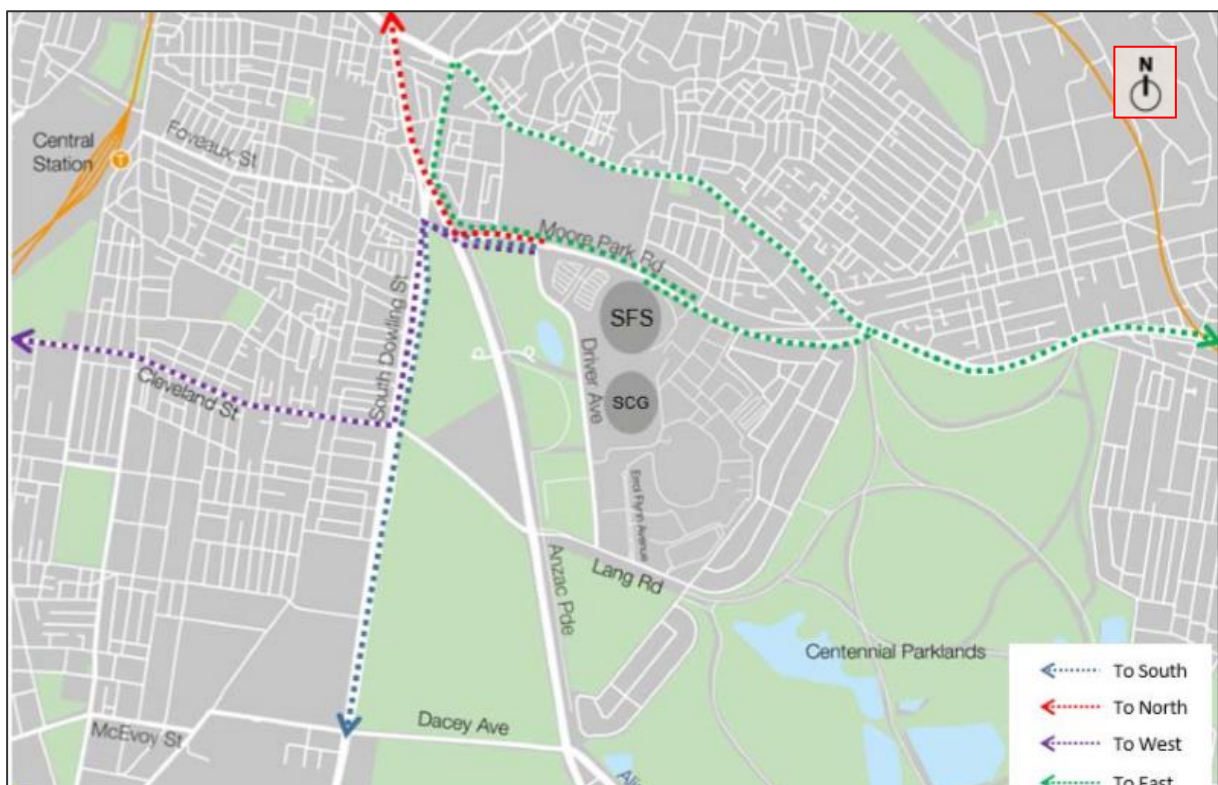


Figure 38 | Outbound routes for vehicles for Stage 1 works (Source: Applicant's EIS)

MP1 would be closed as a carpark and utilised throughout the Stage 1 works and then during the future Stage 2 works as a demolition and construction compound. This carpark would not be available for events or the

members during the period of demolition and construction. The TIA concluded that this would reduce the quantum of vehicles seeking to access the site, resulting in a potential net reduction in traffic.

The TIA also concludes on this basis that the demolition phase, traffic generation is minimal in the context of the of the established road network.

The TIA further notes that the overlap of the proposed Stage 1 works with the construction of the light rail and cycle path on Moore Park Road would be minimal and not result in significant cumulative impacts. However, SCG and other events at Moore Park would still be ongoing during the demolition phase of the proposal and so cumulative effects could arise. The EIS noted that the extent of work to be conducted on days with events held at the SCG may be reduced to manage the movement and safety of pedestrians in the precinct.

The TIA in the EIS presents a range of mitigation measures specific to the demolition (and construction) phase of the project, including a Construction Pedestrian and Traffic Management Plan (plan).

RMS reviewed the proposal and requested that a more detailed plan be prepared including an assessment of the cumulative impact on traffic and road safety of the development and the immediate locality. Council raised concerns regarding the construction traffic impact on the roads. TfNSW provided recommendations for the detailed plan which ensures that the delivery of this project does not interfere with the delivery of any stage of the light rail. Several public submissions raised concerns regarding the Stage 1 demolition / construction work traffic and requested the preparation of the plan.

In response, the Applicant provided additional clarification regarding construction traffic and agreed to the comments from RMS and TfNSW. No further concerns were raised by the public authorities, subject to the implementation of recommended conditions.

The Department is satisfied that the predicted construction vehicle movements can be accommodated within the existing road network, subject to recommended conditions restricting the construction vehicle movements to arterial roads / regional roads only (as specified in the plan) and the submission of updated Traffic Control Plans. However, the Department considers it appropriate that the plan include detailed discussion of the demolition impacts on traffic, pedestrian and cycle access as well as the potential cumulative impacts on the surrounding road network. Accordingly, a condition is recommended requiring the Applicant to prepare an updated plan prior to the commencement of works and taking into consideration cumulative impacts of the construction traffic due to other projects in the locality including the Sydney Light Rail.

In addition, other conditions have also been included to manage potential traffic and access impacts during demolition, including limiting access to the construction site to Driver Avenue, conditions to ensure that construction workers do not park on local streets or Moore Park and required consultation with the relevant regulators regarding truck routes to and from the site.

The Department has reviewed the information provided within the EIS, RtS, SRtS and TfNSW submissions and considers that subject to the implementation of recommended conditions, construction traffic impacts in the locality would be appropriately managed.

6.5 Noise Impacts

6.5.1 Existing noise scenario

The site is located on the periphery of the Sydney CBD and is surrounded by a mix of residential, commercial and education uses. The EIS notes that the key noise sources around the site are: road traffic along Moore Park Road and Anzac Parade; Sydney CBD 'urban hum'; aircraft noise; general activity noise from users of the existing facilities; and infrequent event noise from Allianz Stadium and the SCG.

The site is near an established residential zone, with residential areas located to the north and north-east in Paddington, east and south-east in Centennial Park, as well as west along South Dowling Street in Surry Hills and Redfern. A child care centre is located on the opposite side of Moore Park Road. The University of Technology (UTS) Sport Sciences Faculty Building is also located in close proximity to the MP1 car park.

The design of the existing SFS allows for a high level of noise spillage from the stadium to the surrounding noise receivers.

Noise limits from the 'outdoor entertainment activities' held at the SCG and the existing SFS are the subject of a statutory Notice of Prevention Action No 1003904 (by the EPA) under the *Protection of Environment Operations Act 1997* (POEO Act) which sets limits on the nature, number and frequency of various types of 'outdoor entertainment activities' and the noise level limits for those activities. The EPA has confirmed that the statutory Notice of Prevention Action prescribes the following:

- LA_{max} and LC_{max} noise level limits for concerts, sound tests, rehearsals and concerts held at the existing SFS and at the SCG
- an LA_{max} noise level limit concerning noise from sound amplification equipment used during sporting events held at the existing SFS and at the SCG.

The application is supported by a Noise and Vibration Impact Assessment Report (NVIA) which identifies six noise catchment areas that would be impacted by the development and the Stage 1 demolition works. Both long term and sort term noise measurements were undertaken at representative locations in each of the noise catchment areas identified in **Figure 39**.



Figure 39 | Noise catchment areas and location noise loggers (Source: Applicant's EIS)

6.5.2 Operational Noise Impacts (Concept Proposal)

The future stadium on the site would have the same seating capacity as the existing SFS. The Applicant proposes that the existing limitation on the number of concerts would be maintained (there is no existing limit on the number of sporting events).

The NVIA proposes to replace the existing Notice of Prevention Action(s) with a new noise management framework utilising an alternate noise assessment approach with the LAeq,5minutes noise descriptor. A review of the current noise limits set by the Notice of Preventive Action, as well as a wider review of noise levels at similar venues across Australia was presented in the EIS. The EIS states that events within the stadium complex would be completed by 11pm.

The NVIA notes that the potential noise generated by the stadium on non-event days, would comprise mechanical plant and equipment, staff car parking activities, the operation of the loading dock on site, and the collection of waste and recycling. The detailed design of the stadium and associated services has not been determined at this Concept Proposal stage and the potential noise impacts from components of the stadiums design and operation has not been assessed. The NVIA recommended that the future Stage 2 development

application examine these ancillary operational noise sources and detail associated mitigation and management strategies.

Based on the alternate noise management methodology, the NVIA presented a quantitative assessment of the key noise sources that are influenced by the building envelope and location of the new stadium. Overall, this assessment concluded that the proposed changes to the shape of the stadium, namely from the 'saddle' shape to a more traditional 'bowl' with a higher façade at the north of the stadium, would likely result in slight reduction of current noise levels from the stadium to the surrounding receivers. Therefore the noise emitted from the future stadium during sporting events is expected to be largely similar or slightly less than the existing ambient noise levels.

The predicted noise emitted during concerts is generally within 5dB of ambient noise levels during the day from road traffic, and 10dB during the night. According to the NVIA, the maximum noise emissions comply with the established noise criteria at every location during concert events, when speakers are facing south. Alternative speaker locations are therefore not recommended in the NVIA, without prior noise monitoring and testing occurring at the nearest receivers on Moore Park Road. The NVIA noted that noise management in relation to post-event crowds would also be subject to the future Stage 2 development application.

The Applicant's EIS concluded that the proposed approach for the noise management framework is a justified and contemporary revision to the noise management levels outlined in the Notice of Prevention Action.

Public submissions raised a number of concerns regarding the operational noise of the future stadium and the resultant adverse impacts on the amenity of the surrounding residents. Public submissions were received regarding increased noise during events, from existing and future crowds leaving the precinct after an event and from an increase in events.

The EPA's submissions raised concerns regarding the following aspects:

- noise monitoring used to establish the background noise levels used in the assessment
- inadequate justification to use an alternative noise management framework with LAeq,5minutes noise descriptor replacing the LA_{max} and LC_{max} noise descriptors
- insufficient information and assessment of noise from sporting and concert events to enable consideration of this alternative to the current Notices of Prevention Action
- insufficient level of assessment of associated activities such as mechanical services, plant and equipment, bump in and bump out, delivery of goods, waste collection services and ground maintenance
- no information regarding the impact of the noise generated by the outdoor entertainment activities within the SCG, after demolition of the existing SFS (which currently acts as a noise shield) and prior to construction of the new stadium (that is when the site would be vacant).

To further discuss the proposed noise management framework, the Department organised a meeting between the EPA and the Applicant on 26 September 2018. Further discussions were then held between the Applicant and the EPA and the Department. The Department sought clarification regarding the proposed event noise limits whilst the EPA reiterated that further work would be required to be able to accept the proposed new noise management framework.

In response to the submissions and the post exhibition discussions, the Applicant's RtS and SRtS indicated that the SFS is to be constructed in largely the same location and would have a larger envelope with higher facades, thereby providing greater acoustic shielding to Moore Park Road receivers. An addendum to the NVIA advised that the alternate approach to the noise management framework would not result in any adverse impacts on the

adjoining sensitive receivers and concluded that the project would not result in any worsening of noise impacts from stadium operations on event and non-event days.

Additional noise monitoring data was also provided in the RtS which did not result in a change to the background noise levels used in the original assessment.

The Applicant's SRtS included additional assessment of a worst case, double header scenario of 60,000 patrons and a maximum attendance of 95,000 at the at both the SFS / SCG. The addendum to the NVIA noted that concerts at SFS are not scheduled to coincide with sporting events at the SCG. It concluded that a full capacity double-header would not result in any significant cumulative impacts beyond those considered in the assessment of noise impact under the EIS, primarily due to the low contribution of noise emanating from the SCG to the closest sensitive residential receivers.

In reviewing the RtS, Council considered that the contribution from events at the SCG during a double header scenario, as presented in the addendum to the NVIA, was acceptable. The EPA agreed to the following noise assessment aspects:

- the operation of the new SFS and associated facilities together with the operation of the SCG would not result in increased noise impacts
- a reduction in cumulative noise impacts would be achieved through contemporary acoustic design and improved noise monitoring and communication technologies.

Notwithstanding the additional noise monitoring and the justification to the noise management framework, the EPA did not agree to the proposed noise assessment methodology and the noise framework. The EPA outlined that a number of factors need to be considered in the Stage 2 application. These include cumulative noise impacts of the new SFS and SCG and impacts of pyrotechnics displays and associated activities such as bump in and bump out, and sound testing during concerts prior to agreeing to the noise management framework. In this regard the EPA recommended that noise mitigation and management for outdoor entertainment activities would need to be consistent with the requirements of the Notice of Prevention Action.

EPA's submissions included recommendations to manage noise during the operation of the future stadium, such as noise emissions from events, sounds tests and rehearsals, waste collection and grounds maintenance.

The Department has carefully reviewed the proposed development, including the noise management measures proposed to be implemented in the design and operation of the future stadium. The Department agrees with the EPA in that the applicable noise limits (as varied from time to time) of the Notice of Prevention Action have been practically tested demonstrating that the adherence to the limits would prevent adverse noise impacts on the noise sensitive receivers surrounding the site. Consequently, the Department considers that additional detailed noise assessment of various activities in relation to 'outdoor entertainment activities' and sporting events are required to be undertaken by the Applicant prior to the lodgement of the Stage 2 application to support the alternate noise management methodology. Acoustic design criteria are required to be established and integrated within the detailed design of the physical fabric of the future stadium, as well as through additional noise mitigation and management measures management framework, to demonstrate that the noise management levels established using the LA_{eq} descriptor can appropriately replace the noise limits within the existing Notice of Prevention Action using LA_{max} and LC_{max} .

The Department has recommended conditions of consent requiring the design and operation of the future stadium to comply with the noise limits of the Notice of Prevention Action which applies to the site unless the Stage 2 application demonstrates that the alternate noise management framework can achieve the same or equivalent level of ambient noise levels that would have no additional impacts on the surrounding residents and other sensitive receivers. This assessment must be prepared in consultation with the EPA.

The Department has also recommended conditions imposing restrictions on the use of the event times and day to day operation of the stadium (as recommended by the EPA) which should form part of the Stage 2 application unless satisfactory alternative provisions are proposed.

6.5.3 Noise and vibration impacts (Stage 1 works)

The NVIA has established noise criteria for the site during Stage 1 works in accordance with the Noise Policy for Industry (NPI) for residential and non-residential receivers. The noise assessment noted that there were predicted exceedances of up to 9dB at the most affected receivers located along Moore Park Road and the local streets of Paddington. No residences are predicted to be 'highly affected' i.e. experience noise levels of 75dBA $L_{Aeq}(15 \text{ minutes})$ or above.

As noted earlier, the proposed demolition works in Stage 1 would involve the crushing of approximately 100,000 tonnes of concrete on the site. This would require a concrete crusher to be located on the site. The highest levels of noise are predicted to occur during the early works, during use of equipment such as the mulcher, concrete crusher, excavator and rock breakers. These items are typically used over short durations and therefore may not be in operation concurrently as assumed in the predictions. Therefore, the noise levels predicted are expected to represent a conservative worst-case 15 - minute period of each demolition stage.

Marginal exceedances are predicted at other non-residential receivers. Exceedances are conservatively predicted to be within 2 - 3dB of Noise Management Levels. As noise predictions are considered to be conservative with respect to a number of concurrent operating plant and durations, the EIS concludes that significant disturbance to these locations is not expected.

Considering the existing traffic volume on Moore Park Road (approximately 20,000 vehicles per day) and the small number of vehicles generated during the Stage 1 works, the additional traffic is predicted to increase noise levels by less than 1dB, and therefore represents an insignificant short-term effect on the ambient noise environment.

The location of heritage listed structures potentially directly beneath the demolition works may result in adverse vibration impacts. Vibration mitigation measures in the NVIA and a *Methodology Statement – Working Near Busby's Bore*, have been prepared to protect the surrounding heritage items during vibration generating works.

Other potential effects of vibration (such as any rock breaking in proximity to the UTS / Rugby Australia building), the EIS concluded, can be minimised and avoided through implementation of the recommended management measures.

During the EIS exhibition, EPA requested the following information with regard to potential noise impacts during the demolition stage:

- clarification regarding the duration of certain noise generating activities
- clarification regarding the continued use the NRL and UTS / Rugby Australia buildings during demolition and the classification of one building in close proximity to the site
- additional noise mitigation measures for the rock breaking and concrete crushing activities
- information regarding construction hours, intra-day respite periods, vehicle access to the site
- consideration of methods other than "beeper" alarms.

The Centennial Park and Moore Park Trust raised a concern over heavy vehicles idling and queuing along Driver Avenue, as well as noise impacts to the Hordern Pavillion, Royal Hall of Industries, Entertainment Quarter and Fox Studios. In addition, Council objected to the noise level exceedances during the proposed Stage 1 works, particularly in relation to the local child care centre.

A large number of public submissions objected to the application on the basis of adverse noise impact during demolition works, location of the concrete crusher and impacts due to the use of MP1 as the demolition compound.

In response, the Applicant's RtS included an addendum to the NVIA. The Addendum re-assessed the UTS / Rugby Australia Building as an educational establishment, and additional mitigation measures were proposed including:

- unattended noise monitoring during works to identify if an exceedance of 75dBA occurs
- unattended noise monitoring at the Kira Child Care Centre during demolition works
- consultation with stakeholders of surrounding receiver buildings, including the UTS / Rugby Australia and the NRL, when developing a construction schedule, with particular focus on noise sensitive periods and intra-day respite periods
- inclusion of hydraulic pulverisers as a mitigation measure and use of "quacker" style reversing alarms
- location of noise generating equipment at the furthest practicable location from sensitive receivers
- prohibition of trucks arriving outside of standard construction hours.

The Applicant's RtS identified that the concrete crusher may be enclosed in an acoustic shed or enclosure to mitigate noise and dust (discussed in **Sections 6.7**). However, the RtS indicated that that an enclosure is not considered reasonable and can be avoided by implementing the above noise mitigation measures.

In response to the RtS, the EPA raised concerns that the application does not provide satisfactory information regarding noise mitigation for concrete crushing activities, requirements for 'least noise methods' of demolition and construction activities and requirements for a regime of intra-day respite periods. Council recommended measures to management noise during the Stage 1 works. Public submissions raised further concerns regarding the location of the concrete crusher and recommended that this should be moved to another location to reduce noise impacts on both residences and visitors using Moore Park.

The Applicant's SRtS indicated that the concrete crusher would be enclosed and would achieve an acceptable level of noise reduction. The Applicant's SRtS has also committed to adopting the least noisy equipment where feasible and reasonable, and to undertake respite periods as required by EPA and the Department in consultation with the relevant stakeholders.

The Department has reviewed the EIS, RtS, SRtS and the submissions with regard to noise impacts of the Stage 1 works. The Department is satisfied that the assessment of the noise impact is adequate in identifying the impacts of the proposal during demolition. Any residual impacts can be addressed through appropriate conditions of consent as detailed below.

To mitigate any residual impacts due to the noise generated by the concrete crushing activities, the Department has recommended a condition requiring the full enclosure of the concrete crusher for the duration of works. Additional conditions require unattended and short-term noise monitoring, stop work procedures for construction noise louder than 75dB (A) L_{Aeq} (15 minutes), working hour restrictions during event days at SCG, regular consultation with nearby sensitive receivers, vibration criteria and management mechanisms to protect surrounding heritage items and confirmation of final noise mitigation.

Subject to the implementation of the recommended conditions, the noise impacts of the Stage 1 works would not result in adverse impact on the locality, the visitors and patrons of the SCG during the Stage 1 works and the wider region.

6.6 Social impact

The redevelopment of the SFS has the potential to have a very high level of social and economic impact on the locality as well in the wider catchment. The Applicant's EIS includes a Social and Economic Impact Assessment Report (SIA) which provides a community profile of the area and the social factors assessed in relation to potential impacts are: people's way of life; community cohesion and character; access to services and facilities; local environment; community health and well-being; people's personal and property rights; and people's fears and aspirations.

6.6.1 Social impacts (Stage 1 works)

The SIA specifically addressed the social impacts of Stage 1 demolition works. The identified impacts were considered in categories as:

- amenity impacts on surrounding residents and users: low to high (with noise being the highest)
- accessibility: high (restricting pedestrian access through the site during demolition)
- built environment: moderate (for loss of trees) and High (loss of ancillary buildings for site users and the MP1 carpark)
- community: low (temporary impacts to local business and impacted recreational users) to moderate (access to professional sporting and entertainment events)
- traffic and transport: moderate (cumulative traffic impacts)
- cultural and heritage values: very low to moderate (in case of unexpected finds relating to relics of Aboriginal cultural heritage)
- environment and biodiversity: no direct impact.

The SIA recognises that the current environmental context of the site is already a busy recreational and economic area with Moore Park and Fox Studios and various other cultural and commercial entities. The business and environmental context of the site needs to be protected during the demolition of the current facility.

Mitigation measures are drawn from across the technical studies in the EIS (noise, heritage, traffic) to support the amelioration of impacts to the local community. It is also noted that social and economic benefits had been identified, including the creation of up to 600 jobs during the demolition (and construction) stages of the proposal.

A variety of submissions were received on issues of social impact during the demolition stage, including loss of the trees, noise and dust related impacts, and adverse impacts of demolition traffic and contractor parking.

During the exhibition of the EIS, Council raised concerns regarding the negative social impacts of the demolition of the existing stadium and the EPA noted likely community concern with early arrival (and idling) of construction vehicles. The National Trust noted the wider social value that the existing stadium represents, and public submissions raised concerns regarding the reduction of usability of the nearby recreational areas due to proposed increase in activities. In addition, the Department sought clarification regarding the methodology used to identify issues in the SIA.

In response to the submissions, the Applicant provided an addendum to the SIA that re-assessed impact ratings on the basis of the original International Association for Impact Assessment (IAIA) Guidance for Assessing and Managing the Social Impacts of projects. Some impact ratings were amended on this basis, and in cases where the risk level increased, associated mitigation measures were proposed in supporting technical documents. In the case of dust and air quality impacts, where a high-level of negative social impact was identified, the Applicant committed to enclosing the concrete crusher to control dust and noise (discussed in **Section 6.7**).

In response to the RtS, a public submission requested that a Community Consultation Committee (CCC) be established to ensure meaningful community consultation be undertaken for the redevelopment of the SFS, to assist in addressing community concerns about issues relating to the demolition and the construction of the future stadium.

During the assessment of the application, the Department conducted a number of meetings with the interested residents and community groups in the locality. During the community consultation meetings, a majority of the community groups raised concerns regarding the adverse impacts of the demolition works on the nearby residents due to noise and dust.

The Department's assessment of the EIS and RtS considers that the main social impacts of the Stage 1 works relate to the amenity of the community. The Department is satisfied that the amenity impacts can be managed via recommended conditions of consent regarding demolition traffic, noise and dust control as follows:

- formation of Community Consultative Committee (CCC) prior to commencement of demolition works to allow consultation with the community and feedback on the management of works during the demolition process
- full enclosure of the concrete crusher for the duration of works to manage noise, dust and air quality during demolition and specifically concrete crushing works
- specify noise management levels during demolition works with regular noise monitoring requirements
- intraday respite periods for the noisy demolition activities in consultation with the CCC and the sensitive receivers such as a nearby child care centre and the UTS building
- submission of a Construction Management Plan (CMP) including sub-plans for construction traffic management, noise management, air quality management, waste management and soil and water management.

The Department also notes that the loss of the proposed trees can be offset by the inclusion of an intentionally planned planting strategy in the detailed design. In addition, in recognition of the proximity of residents, businesses and sensitive receivers, as well as recreational users, the Department considers that the efficacy of mitigation and any residual or unforeseen effects can be adequately managed via the instigation of a CCC. A CCC would be an important engagement body to inform the demolition process and speak for the local community to be protective of the business, recreational and environmental context of the proposal.

6.6.2 Social impacts (Concept Proposal)

The character of the local area encompasses residents, local business and recreational use. The Department acknowledges that the precinct is intensively used by the public for both day to day activities as well as major events. A number of social impacts are anticipated to be associated with the design and operation of the future stadium.

During the EIS exhibition and after submission of the RtS, the Department received many public submissions that raised concerns regarding intensification of the use of the site, anti-social behavior, adverse impacts on Moore Park due to frequency of use of the on-grass parking and adverse impacts of the proposed pedestrian linkages leading to permeability between the existing uses and the proposed stadium activities.

The key impacts are discussed below.

Security, Safety and Anti-social behaviour

The EIS stated that a Security Principles Report has been prepared which identifies the key security threats and identifies measures which have been adopted in the Concept Proposal and/or would be reflected in the final

detailed stadium design, to reduce safety risks associated with the future stadium. The Applicant also committed to working and consulting with the key stakeholders and public authorities such as the Trust, Counter Terrorism agencies, TfNSW and NSW Police, to ensure that the stadium is designed and operated in accordance with best-practice security and public safety protocols.

The EIS proposed the following management and mitigation measures with regard to security of the site:

- establishing an effective barrier to unauthorised or uncontrolled entry beyond the secure line of the building, pedestrian and vehicle access points
- segregate and protect restricted spaces from the public including critical infrastructure
- implementing expandable, temporary fencing to prevent leakage around screening points
- minimising vehicle access points
- completing a detailed analysis of the vulnerability of the stadium to vehicle ramming, noting that the intention to raise the concourse level to be above the road level reduces the exposure of pedestrians to vehicles
- completing a detailed assessment against the principles of Crime Prevention Through Environmental Design to reduce the opportunities for crime
- completing a risk-based blast analysis that nominates proportionate treatments targeted in the right areas and locations that reflect the credible assessed risk.

During the EIS exhibition and during post-exhibition consultation meetings, many public submissions raised concerns in relation to anti-social behavior and security measures to prevent such behavior during the future operation of the site. Additionally, the Trust and TfNSW required that a security assessment report and framework be developed for security solutions, counter terrorism provisions and hostile vehicle management.

In response to these concerns, the Applicant included in the RtS a commitment that the Stage 2 development application would include a CPTED Assessment and additional details of operational measures intended to reduce anti-social behaviour associated with the existing operation of the stadium. It would outline relevant security measures to maximise patron, worker, pedestrian and public safety.

In response to the RtS, public submissions identified the need for terrorism security measures to be planned through the entertainment quarter, and for evacuation measures for the stadium to be addressed.

The Department has reviewed the EIS and RtS and the public submissions and notes that majority of the concerns raised by the community are based on the operation of the existing stadium. The Applicant has committed to working with the relevant key stakeholders to provide a security and anti-social behavior management plan as a part of the Stage 2 application. The Department is satisfied that the matter can be assessed in detail in conjunction with the detailed design and operational parameters of the stadium.

To address the concerns of the community, the Department has recommended conditions requiring the following:

- identification and assessment of time restrictions of all events within the site and the likely impacts
- provision of an anti-social behavioural strategy for surrounding areas including increased surveillance policy and regular monitoring of the strategy
- a security risk assessment of the site specially in the areas of public congregation and a hostile vehicle management strategy
- provision of a pedestrian connection strategy which demonstrates that any proposed pedestrian connections through the site would not adversely impact on the surrounding community due to traffic, noise and anti-social behaviour.

Permeability and Moore Park Utility

The Concept Proposal does not seek consent for an upper limit of events to be held on the site. However, the assessment of the future stadium is based on a maximum of 49 – 52 events in any year as well as up to 6 concert events. As discussed earlier, a majority of the event day car parking are located within the grassed area of Moore Park East. Given that the stadium is proposed to be redeveloped with improved facilities, this may result in the intensification of the use of the site with increased number of events, when compared to the exiting scenario. This would, in turn result in additional use of the on-grass car parking areas. Thus, availability of these areas for recreational purpose, to the residents of the locality would reduce.

During the EIS exhibition, a large number of public submissions raised concerns regarding impacts of the increased number of events on the adjoining Moore Park and Centennial Parklands and stated that the proposal would result in a loss of available green space within the locality. Council objected to the development on the basis that the additional use of the stadium site and the potential adverse impacts of the expansion of such use on to Driver Avenue, Kippax Lake, Moore Park and ANZAC memorial. Council also stated that the increased events within the site would result in adverse impacts on the availability of Moore Park as a recreational facility.

In response, the Applicant's RtS stated that they are not responsible for car parking on Moore Park. This land is managed by the Centennial and Moore Park Trust. Notwithstanding this statement, the TIA acknowledges the intent of the Moore Park Masterplan 2040 to gradually minimise and then remove car parking on Moore Park. In this regard, the Applicant has agreed and committed to continue working with the Trust and Council as part of the Moore Park Working Group in the future.

A public submission in response to the RtS raised concerns that any pedestrian/cycle links proposed close to Kippax Lake would reduce the amenity of people using this area for recreation.

In evaluating these issues, the Department considers that there are a number of opportunities to investigate, support and offset these potential concerns regarding the indirect impact of the redevelopment of the site on the recreational areas within Moore Park. Consequently, the Department has requested that the Applicant provide a comprehensive review of the Moore Park Masterplan 2040 to identify the methods by which the future stadium redevelopment can contribute to the delivery of the key moves / principles / plans and programs of the Masterplan. These strategies are to be developed in consultation with the CCC and other relevant stakeholders.

The Department is satisfied that there are opportunities of developing plans and programmes within the stadium site that can indirectly contribute towards the implementation of appropriate aspects of the Moore Park Masterplan 2040. This matter must be assessed in detail in the future Stage 2 application.

6.7 Other matters

6.7.1 Dust control and air quality impacts (Stage 1 works)

The proposed Stage 1 works would involve extensive concrete crushing resulting in dust generation and impacts on the air quality. The EIS included a Construction (Demolition) Management Plan which proposed: limiting or ceasing crushing activities or enacting other dust suppression measures when there are high winds (>30 km/h); and erecting screens and barriers around dusty activities.

During the exhibition of the EIS, many public submissions raised concerns regarding dust generation due to the demolition works. EPA commented on the need for effective dust control, particularly around concrete crushing processes, demolition waste and concrete crushing stockpiles. Council raised concerns regarding the effective management of dust emissions and requested a detailed methodology for the mitigation of dust impacts.

In response to these submissions, the Applicant provided an Air Quality Impact Assessment (AQIA) as part of the RtS. The AQIA identified a high risk of dust soiling impacts and medium risk for health impacts, without mitigation measures. It also concluded that it was unlikely the demolition would result in unacceptable air quality impacts, subject to the implementation of mitigation measures such as: effective stakeholder communication; site management; daily visual monitoring; site maintenance (include screens and fencing); management of construction vehicles; and general measures and specific measures to manage the demolition process and specific measures for the concrete crusher. The SRtS also included commitments to erect an enclosure around the concrete crusher and establish unattended dust monitors at key surrounding sensitive receptors.

EPA did not include any additional comments in response to the RtS. Public submissions commented that the RtS did not adequately address the impacts of the concrete crusher on residents and therefore should be located within the stadium shell, otherwise on the south eastern corner of the site compound, away from residents and visitors using Moore Park.

The Department has reviewed the EIS and RtS, and is satisfied that the application adequately identifies the broad impacts of the dust generation during the demolition stage. The residual impacts can be addressed through appropriate conditions of consent, including a requirement for full enclosure of the concrete crusher to mitigate potential dust impacts and a further assessment of the best location for the crusher with the enclosure to avoid and/or reduce potential amenity impacts.

6.7.2 Demolition impacts (Stage 1 works)

The impacts of the demolition works have been discussed in various sections of the report. The demolition stage would necessarily require management of a variety of potential environmental impacts in order to be protective of the local community and environment, as discussed below.

Erosion and sediment control including wastewater management

An Erosion and Sediment Control map was prepared as part of the EIS and refined by the RtS. This plan has been prepared to ensure that the proposed development does not result in adverse impacts on local water quality and that discharges from the site during the demolition process are acceptable.

During the EIS exhibition, EPA advised that sediment during demolition works and wastewater in relation to dust suppression and stormwater runoff from stockpiles, should be managed to prevent the pollution of local drainage systems and Kippax Lake. The Trust also raised concerns regarding the impacts of the sediment on the ecological health of the ponds in Centennial Park.

The Department notes that Botany Sands underlie the site which are highly permeable and generally recharged via rainfall. However, there would be no excavation below ground surface during Stage 1 works and therefore no direct interaction with groundwater sources are anticipated. However, a rainfall event could wash surface pollutants off site and into the permeable aquifer. The Department considers that appropriate management of the demolition site, materials and water would protect groundwater resources. The Department has recommended a number of conditions to ensure the protection of groundwater resources during the demolition stage, including conditions for erosion and sediment control, storage of materials at the site and stormwater / wastewater management.

Demolition waste management (including hazardous materials)

The demolition would result in the generation of a large amount of waste and building debris, including up to 11,050 tonnes of concrete, bitumen, steel and glass. Waste management, including a process for identifying and handling any hazardous materials during the demolition and transport is an important element for the management of Stage 1.

EPA raised concerns regarding waste management in terms of identification, stockpile management and re-use and recycling (specific to the demolition period) as well as identification and management of hazardous materials (including asbestos containing materials). Council also raised concerns regarding management of hazardous materials during demolition works.

The Department has recommended appropriate conditions incorporating comments from EPA and Council to manage waste generated by the site, including appropriate management of hazardous materials.

Tree Protection

The demolition works would retain all street trees and a significant Moreton Bay Fig Tree fronting on Moore Park Road. The EIS is supported by an Arboricultural Impact Assessment Report which identifies tree retention and protection measures for the Stage 1 works. The Department is generally satisfied with these measures, however additional conditions are recommended to ensure retained trees, including street trees, are protected.

6.7.3 Contamination

The EIS includes a Preliminary Site Investigation (PSI) which identifies that the main contamination risks are associated with previous filling works and the demolition of structures prior to the construction of the existing SFS. The previous laboratory testing results for samples obtained from adjacent sites indicate that the filling contained significant concentrations of polycyclic aromatic hydrocarbons (PAH) which are likely due to the presence of ash. Significant concentrations of heavy metals were also identified in selected samples. It is likely that, at the time of SFS construction, existing filling was mixed with natural soils, as segregation of materials to allow for more efficient disposal was not a major consideration in the 1980s.

Groundwater is understood to be in the order of 3m below the current playing surface and, as it is used for irrigation purposes on both the SFS and SCG playing surfaces, is likely to be of high quality and not significantly contaminated. It should be noted, however, that further testing would be required to confirm the actual contaminant status of the groundwater on site.

The PSI report recommended that prior to any further planning approval permitting the commencement of works that are likely to expose or disturb soils, a Detailed Site Investigation should be undertaken to fully characterise the contamination status of the site. However, on the basis of the investigation undertaken, the PSI report concluded that the risk of significant contamination being present, that prevents the redevelopment of the site without significant remediation, is low.

EPA sought clarification that the demolition works including concrete crushing can be undertaken without disturbance of potentially contaminated soil and potentially contaminated fill material, and disturbance of the existing the Underground Petroleum Storage System under the stadium.

In response, the Applicant reiterated that demolition works would be to ground level only.

The Department has recommended conditions requiring further site investigations to be undertaken prior to the lodgement of the Stage 2 development application and appropriate remediation methods included if contamination is identified. The proposal is assessed as satisfactory with regard to contamination, subject to the implementation of the above conditions.

6.7.4 Construction Impacts (future stadium)

There are a suite of potential impacts that could occur as a result of the construction of the new stadium. These potential impacts will be largely similar to the demolition stage.

In addition, the Stage 2 development application would include excavation activities and construction works below the existing ground level. The Applicant has confirmed that following the demolition works, further

ground investigations would be completed to confirm the ground conditions at the site and understand if any contamination is present in the soil or groundwater.

The impacts associated with the construction (including sub-surface works) and operation of the new stadium, and the management of these impacts, will be addressed as part of the Stage 2 development application. The conditions for the Stage 1 development application include a number of requirements that need to be addressed to identify and understand the potential impacts that may result from the Stage 2 works.

6.7.5 Flooding and stormwater management (Concept Proposal)

The SFS site is subject to flooding due to an overland flow path that runs through the site. The EIS includes a Stormwater and Flood Report. The Flood report includes a flood risk modelling for the site. The report recommends the following with regard to the design of the future stadium:

- maintain existing flows on Moore Park Road and maintain or reduce the existing peak flow rates discharged from the site into downstream areas
- introduce deliberate overland flow paths such that they direct surface drainage in a way that poses as low a risk as possible to people or vehicles in the SFS site
- provide sufficient stormwater storage within the SFS site to contain direct rainfall and runoff
- consider the separation of flows from upstream areas from direct rainfall and runoff within the site for ease of management and opportunities for rainwater reuse
- manage the risk of flood damage to buildings or similar assets within the SFS site and the wider precinct
- seek to reduce overflows from Moore Park Road into Paddington Lane which under the development proposals is likely to become an overland flow path to the existing SCG basement with limited opportunities for overflow
- consider and manage the risk of backflows through pit and pipe infrastructure from the Driver Avenue Sydney Water system into the SFS site during a significant storm which could exacerbate flooding conditions associated with the proposed development.

The submitted flood modelling demonstrates that it is possible to manage the identified flood risks within the SFS site boundary in a manner that does not exacerbate downstream flooding conditions.

The EIS notes that the proposed stadium footprint extends over the current alignment of the Sydney Water "trunk main and that diversion may be required in future. Sydney Water reviewed the proposal and advised that the requirements for building over Sydney Water assets be adhered to, and further consultation be undertaken during the Stage 2 development application in this regard.

The Stormwater and Flooding report also notes that the proposed stadium would require a redesign and modification to the existing on-site detention system within the site. The existing private network draining the current stadium and surrounding public domain areas would likely need to be completely replaced.

The Department has reviewed the EIS in relation to stormwater and flooding and has recommended conditions to ensure that the Stage 2 development application is supported by satisfactory flood studies and associated stormwater management plans demonstrating compliance with the recommended mitigation and management measures.

6.8 Summary of Department's consideration of submissions

A summary of the Department's consideration of the issues raised in submissions is provided at **Table 10**.

Table 10 | Department's consideration of key issues raised in submissions

Issue Raised	Department's Consideration
Need for the redevelopment	The Department is satisfied that the redevelopment of the Sydney Football Stadium is consistent with the NSW Stadia Strategy, the Greater Sydney Region Plan and the Eastern City District Plan.
Demolition of the stadium not needed	The Applicant has undertaken a comprehensive options analysis to demonstrate the need for the demolition and redevelopment of the SFS. The Department agrees with the Applicant's conclusions in this regard.
Built Form and Design Excellence	- The Department has undertaken a comprehensive assessment of the built form and urban design principles in Section 6. The Department is satisfied that the building design envelope is appropriate for the site, with the Design Excellence Strategy providing an opportunity to develop the detailed design at Stage 2. - Conditions of consent require the preparation of the detailed design of the future stadium in accordance with the provisions of Council's competitive design policy (Section 6.2.1).
Detailed design not provided	The detailed design and operational parameters of the stadium would be assessed in a future Stage 2 application which would be informed by the Design guidelines established under the Concept Proposal.
Integration of Driver Avenue and Moore Park	- The Urban Design Guidelines includes opportunities of integrating the stadium site with the adjoining parklands. - The Department has recommended conditions to ensure that such opportunities be explored in the Stage 2 application (Section 6.2.3).
Stadium Capacity	The Department has confirmed the capacity of the proposed stadium with the Applicant and outlined these limits in a condition. The stadium would be designed to host a maximum of 45,000 patrons for all events except concert events where a maximum of 55,000 patrons would be permitted.
Access arrangements	- The Concept Proposal includes detailed guidelines regarding proposed access arrangements to the future stadium. - The Department is satisfied that the guidelines would provide opportunities for public spaces and permeability between and uses which can be further explored during the Stage 2 application.
Heritage Impacts	- The Department considers that the heritage values of the site have been adequately addressed. The impacts of the proposal on surrounding heritage items and conservation areas are not likely to be significant provided that appropriate mitigation measures are implemented. Potential impacts resulting from the design and construction of the new stadium can be appropriately addressed at Stage 2. - The Stage 1 works have the potential to impact on Busby's Bore and SCG member's stand due to vibration. Appropriate conditions are recommended to mitigate such impacts.
Landscape and Visual impacts	- The EIS and RtS are supported by a detailed visual impact assessment report. - The Department's assessment of the visual concludes that although there would be additional visual impacts of the future stadium on sensitive receivers, parklands and

	heritage items in the surrounding area. The proposal is considered to be compatible with the requirements of the relevant strategies, management plans and environmental planning instruments. • The Department is satisfied that the visual impact due to the building envelope is reasonable in the overall context of the functional parameters of the stadium and that further design development would assist in reducing any negative visual impact in the locality.
Traffic Impacts and need for car parking / reduction of car parking	• The TIA identified the broad array of potential traffic impacts due to the operation of the future stadium. These potential impacts would be addressed in more detail in Stage 2, for the design and construction of the new stadium. • The TIA has identified the impacts of the demolition works in Stage 1 on the local traffic network. • The Department has assessed the TIA and considers that there would be some adverse impacts on the performances of the nearby intersections if both SCG and the future stadium operate at capacity at the same time, which is considered to be an unlikely scenario. As such, the application relies on the use of public transport and alternate modes of transport to offset the traffic impacts on the locality and the wider region and reduce the private vehicle usage in the future. To support this approach, no additional parking provisions have been included in the proposal. • The Department has recommended conditions requiring further traffic studies to be undertaken under Stage 2 development application and preparation and implementation of Green Travel Plans (Section 6.4.2). • The Department is satisfied that subject to the recommended conditions, the proposed development would have negligible additional traffic impacts due to intensified operation in the future. • The Department is satisfied that traffic impacts related to the demolition works, including impacts on the local road network and pedestrian amenity, can be suitably managed by the proposed mitigation measures, and the recommended conditions of consent (Section 6.4.3).
Social Issues	• The Department recognises that the proposed stadium has the potential to result in a number of social impacts including adverse impacts on Moore Park due to increased events and resultant use of the on-grass parking areas. The Stage 2 development application would provide an opportunity to investigate, understand and mitigate these impacts, as well as look at options of how the Development can support the Moore Park 2040 Masterplan, reduce anti-social behavior and provide wider social benefits. • The Concept Proposal has identified a number of concerns and put in place a framework to address security and safety issues. The Department has recommended conditions to ensure that the Stage 2 application includes anti-social behavioral strategies, counter terrorism and hostile vehicle management strategies and evacuation principles and timings (Section 6.6.2). • Social impacts of the demolition works are generally associated with the impacts of demolition on the surrounding community. The Department considers that the social impacts of the proposal are acceptable based on the proposed mitigation measures and recommended condition, including the establishment of a CCC (Section 6.6.2).
Economic impacts	• The EIS identifies that the demolition of the stadium would result in temporary impact on the existing retail and commercial activities within and around the site

	• The Department considers that these impacts are temporary and would be mitigated if a new stadium is constructed in the future • The proposal for the new stadium would incorporate a number of hospitality facilities including opportunities for food and beverage along with additional operational jobs and construction jobs. These would cumulatively have a positive economic impact on the locality and the wider region • The stadium would also create up to 600 construction jobs (over years) and up to 300 additional operational jobs per annum.
Environmental Sustainability Impacts	• The Department is satisfied that the environmental sustainability of the proposal can be addressed by the proposed mitigation measures and recommended conditions requiring the incorporation of sustainability strategies in the Stage 2 application.
Demolition Noise Impacts	• The Applicant has included a comprehensive list of management and mitigation measures to reduce adverse impacts on noise during demolition activities. The Department is satisfied that the mitigation measures are acceptable. The residual impacts can be managed via recommended conditions of consent requiring intra-day respite periods, use of less noise intrusive equipment, restricting demolition hours, use of alarms and full enclosure of the concrete crusher.
Operational Noise Impacts	• The EIS includes an alternate methodology to manage operational noise to be generated by the future stadium. However, sufficient information has not been provided to enable a complete valuation of this methodology • The Department has recommended that the future operations of the stadium must comply with the noise limits set by the Notice of Prevention Action unless a suitable alternate methodology is agreed to by EPA and the Department as part of the Stage 2 development application.
Demolition Dust Impacts	• The Department is satisfied that the dust impacts related to the demolition can be adequately managed by the proposed mitigation measures, such as an enclosure around the concrete crusher, unattended dust monitors at key surrounding sensitive receptors, and recommended conditions (Section 6.7.1).
Other Environmental Impacts	• The Department is satisfied that other environmental impacts related to the demolition works, including erosion and sediment control, water and wastewater, and waste management can be adequately managed by the proposed mitigation measures, and recommended conditions (Section 6.7.2).
Tree Removal	• The Department has assessed the proposal in this regard and considers that the proposal retains a significant Moreton Bay Fig tree on the site and the street trees. The impacts of the tree removal would be offset in Stage 2 by the proposed replacement planting strategy.
Insufficient Community Consultation	• The Applicant has provided a community consultation report highlighting consultation methods undertaken prior to the lodgement of the SSD. • The Department has undertaken extensive consultation with the community and public authorities as outlined in Section 5 of this report.
Timeframe of Approval	• The assessment of the application is being undertaken in accordance with the statutory timeframes applicable to SSD applications.
Relocation of Facilities	• Public submissions raised concerns that the application includes no provisions for relocation of existing facilities during demolition works.

	• This does not constitute a part of the SSD application. Separate development applications have been lodged with Council and the Department to relocate existing facilities on other sites. The SCGT has provided a further submission to the Department providing some information regarding the possible locations for the facilities.
Event limits	• The Department has assessed the SSD application on the basis of 49 – 52 events. The Applicant does not seek consent for an upper limit on the events. • Notwithstanding, the Department has recommended conditions which require the Applicant to provide sufficient justification as a part of the Stage 2 application, if additional number of events are proposed. • The proposal does not involve an increase in the number of existing concert events.
Determining Authority	• The application is lodged by a public authority. Pursuant to the provisions of the EP & A Act, the Minister for Planning is the consent authority.



7. Evaluation

The Department has reviewed the EIS, RtS and SRtS, and assessed the merits of the proposal, taking into consideration advice from the public authorities, including Council. Issues raised in public submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed.

The Department considers the key issues associated with the assessment of the proposal relate to:

- justification for the proposal
- built form and urban design (Concept Proposal)
- heritage
- traffic, transport and parking
- noise impacts
- social impacts.

Conditions have been recommended to build on the mitigation measures and to satisfactorily address these and other outstanding, demolition or operational issues.

The application for the redevelopment of the SFS is consistent with the objects of the EP&A Act. The application is also consistent with the State's strategic planning objectives for the site as set out in the NSW Stadia Strategy and the Greater Sydney Plan, as it would improve would result in a new stadium which would include state of the art facilities 45,000 seats (55,000 patrons in concert mode) through a range of seating styles and corporate facilities. The stadium would include state of the art technology with digital screens throughout to improve the user experience. Sightlines would be improved and facilities including catering, amenities and accessibility would be designed to service future needs, creating a competitive customer experience.

The proposal is also considered to be consistent with the vision outlined in the GSC's Eastern City District Plan as it would comply with its objective of "Sustaining communities through vibrant public places, walking and cycling, and cultural, artistic and tourism assets, provide services and social infrastructure to meet people's changing needs, foster healthy, creative, culturally rich and socially connected communities and create and renew great places and local centres and respect the District's heritage".

The Department concludes the impacts of the development are acceptable and can be appropriately mitigated through the implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.



8. Recommendation

It is recommended that the Minister for Planning:

- **considers** the findings and recommendations;
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application;
- **agrees** with the key reasons for approval listed in the notice of decision (see **Appendix C**);
- **grants consent/approval** for the application in respect of SSD 9249; and
- **signs** the attached development consent and recommended condition of consent (see **Appendix D**).

Aditi Coomar

Principal Planner, Social and Other Infrastructure Assessments

Recommended by:

Karen Harragon

Director

Social and Other Infrastructure Assessments

4/12/18

Recommended by:

David Gainsford

Executive Director

Priority Projects Assessments

4/12/18



9. Determination

The recommendation is: **Adopted / Not adopted by:**

The Hon Anthony Roberts MP
Minister for Planning

6/12/18



10. *Appendices*

Appendix A - List of Documents

The following supporting documents and supporting information to this assessment report can be found on the Department of Planning and Environment's website as follows.

1. Environmental Impact Statement
2. Submissions
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=9249
3. Applicant's Response to Submissions
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=9249
4. Applicant's Supplementary Response to Submissions
http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=9249

Appendix B - Statutory Considerations

ENVIRONMENTAL PLANNING INSTRUMENTS (EPIs)

To satisfy the requirements of section 4.15(a)(i) of the EP&A Act, this report includes references to the provisions of the EPIs that govern the carrying out of the project and have been taken into consideration in the Department's environmental assessment.

Controls considered as part of the assessment of the proposal are:

- State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP)
- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)
- State Environmental Planning Policy (State Significant Precincts) 2005 (SSP SEPP)
- State Environmental Planning Policy 47 (Moore Park Showground) 2014
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
- Draft State Environmental Planning Policy (Remediation of Land) (Draft Remediation SEPP)
- Draft State Environmental Planning Policy (Environment) (Draft Environment SEPP)
- Sydney Local Environmental Plan (SLEP) 2012
- Sydney Development Control Plan 2012.

COMPLIANCE WITH CONTROLS

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

The aims of this SEPP are to identify State significant development and State significant infrastructure and confer the necessary functions to joint regional planning panels to determine development applications.

Table B1 | SRD SEPP compliance table

Relevant Sections	Consideration and Comments	Complies
3 Aims of Policy The aims of this Policy are as follows: (a) to identify development that is State significant development	The proposed development is identified as SSD.	Yes
8 Declaration of State significant development: section 4.36 (1) Development is declared to be State significant development for the purposes of the Act if: (a) the development on the land concerned is, by the operation of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and (b) the development is specified in Schedule 1 or 2.	The proposed development is permissible with development consent. The site is specified in Schedule 2.	Yes
Schedule 1 – State significant development—general	The proposed development is for the purpose of a 'recreation facility (major)' with a capital investment value (CIV) in excess of \$30 million, under	

clause 13 (Cultural, Recreation and Tourist Facilities) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011, as in force at the time of lodgement.

Schedule 2 State significant development —identified sites

(Clause 8 (1))

2 Development on specified sites

Development that has a capital investment value of more than \$10 million on land identified as being within any of the following sites on the State Significant Development Sites Map:

Sydney Sports Stadium Site

The proposed development is within the identified Sydney Sports Stadium site and has a CIV in excess of \$10 million.

Yes

State Environmental Planning Policy (Infrastructure) 2007

The Infrastructure SEPP (ISEPP) aims to facilitate the effective delivery of infrastructure across the State by improving regulatory certainty and efficiency, identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure development, and providing for consultation with relevant public authorities about certain development during the assessment process.

The development constitutes traffic generating development in accordance with clause 104 of the ISEPP as it constitutes tourist facilities, recreation facilities, showgrounds or sportsgrounds with capacity for 200 or more motor vehicles, as outlined in Schedule 3. The ISEPP requires traffic generating development to be referred to RMS for comment.

The proposal was referred to the RMS and Transport Coordination Office within the TfNSW who did not object to the proposal, subject to the implementation of a number of recommended conditions. The matters regarding traffic and transport assessment are discussed in detail in **Section 6**.

The proposal is therefore consistent with the ISEPP given the consultation and consideration of the comments from the relevant public authorities. The Department has included suitable conditions in the recommended conditions of consent (see **Appendix D**).

State Environmental Planning Policy 47 (Moore Park Showground)

The State Environmental Planning Policy 47 (Moore Park Showground) (SEPP 47) includes a number of aims and objectives in relation to the redevelopment of the Moore Park Showground and outlines the importance and significance of this precinct.

Clause 3(g) of SEPP 47 notes one of the aims of the instrument is 'to recognise the heritage significance of the Moore Park Showground and protect any archaeological relics'.

Clause 15(j) and (k) of SEPP 47 requires the consent authority, in determining a development application, to consider the provisions of the Conservation Strategy for the Moore Park Showground, views of the Heritage Council and assess the impacts of a proposed development on the heritage significance of the site and any relic known or reasonably likely to be located at the site.

The Visual Impact Assessment supporting the Applicant's EIS notes with respect to SEPP 47 that while the proposal would increase the visual dominance of the SFS on the Moore Park Showground, it is not considered to be unreasonable.

The details of visual impacts and heritage impacts of the proposed concept building envelope of the SFS have been assessed in detail in **Section 6**. The Department is satisfied that the proposed development would not have any unreasonable impacts on the Moore Park Showground. As such, the detailed design of the stadium and its impact on the surroundings and the Showground would be considered in detail under the Stage 2 development application.

State Environmental Planning Policy No. 55 - Remediation of Land

SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. The EIS includes a contamination assessment for the site which concludes that there is the potential for contaminated material from previous filling works and building demolition prior to construction of the stadium in the 1980s. In addition, the EIS notes that the assessment did not identify the site as being at risk of containing acid sulfate soils.

The Stage 1 works would involve demolition down to the existing slab level which largely avoids the potential for disturbance of contaminated material. The Department is satisfied that the Applicant has considered whether the land is contaminated and is also satisfied in its current state, for the land use proposed as part of Stage 1 of the proposed development.

The Department has recommended conditions relating to ensure measures are in place should any unanticipated contamination be found during works. In order to be satisfied that the land is suitable for its final purpose, the Department has also recommended conditions relating to contamination assessment and remediation planning as part of the future Stage 2 development application.

Draft State Environmental Planning Policy (Environment)

The Draft Environment SEPP is a consolidated SEPP which proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property. Once adopted, the Draft Environment SEPP will replace seven existing SEPPs. The proposed SEPP will provide a consistent level of environmental protection to that which is currently delivered under the existing SEPPs. Where existing provisions are outdated, no longer relevant or duplicated by other parts of the planning system, they will be repealed.

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 part of the site is zoned for this purpose at this time, and as such these provisions of the Draft SEPP do not apply.

Draft State Environmental Planning Policy (Remediation of Land)

The Draft Remediation SEPP will retain the overarching objective of SEPP 55 promoting the remediation of contaminated land to reduce the risk of potential harm to human health or the environment.

Additionally, the provisions of the Draft Remediation SEPP would require all remediation work that is to be carried out without development consent, to be reviewed and certified by a certified contaminated land consultant, categorise 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.

The Department is satisfied that the proposal would be consistent with the objectives of the Draft Remediation SEPP, subject to the recommendation of conditions of consent.

Sydney Local Environmental Plan (SLEP) 2012

The SLE aims to reinforce the role of the City of Sydney as the primary centre for Metropolitan Sydney and to support the City of Sydney as an important location for business, educational and cultural activities and tourism. It aims to promote ecologically sustainable development and also to encourage the economic growth of the City of Sydney by.

The SLEP also aims to enhance the amenity and quality of life of local communities, to achieve a high quality urban form by ensuring that new development exhibits design excellence and reflects the existing or desired future character of particular localities and to conserve the environmental heritage of the City of Sydney,

The site is currently zoned SP1 Special Activities for the purposes of recreational facilities (major). The proposed development would result in the continued use of the site as a recreational facility.

The Department has consulted with Council throughout the assessment process and has considered all relevant provisions of the SLEP and those matters raised by Council in its assessment of the development (refer to **Section 5**). The Department concludes the development is consistent with the relevant provisions of the SLEP.

Table B2 | Consideration of the SLEP

SLEP	Department Comment/Assessment
Clause 4.3 Building height	There is no height control for the site under the SLEP.
Clause 4.4 Floor Space Ratio	There is no FSR control for the site under the SLEP.
Clause 5.10 Heritage conservation	The site is not identified as having heritage significance but is in the vicinity of heritage items and conservation areas. Refer to Section 6.2 for an assessment of heritage impacts.
Clause 5.12 Infrastructure development and use of existing buildings of the Crown	This clause applies as the proposed development is to be carried out on behalf of the Crown, noting the SLEP does not restrict or prohibit the carrying out of the proposed development.
Clause 6.21 Design excellence	Urban Design Guidelines have been prepared for this proposal, along with a Design Excellence Strategy to achieve design excellence through a competitive process. The Stage 2 Detailed Design development application will also involve further consultation on design. This will achieve the objectives and outcomes of

the clause.

Clause 7.14 Acid Sulfate Soils	The site is identified as having Class 5 Acid Sulfate Soils. This issue was addressed in the Groundwater Report prepared by Arup for the EIS, and additional information provided in the RtS to address groundwater impacts.
Clause 7.15 Flood Planning	The site is affected by flooding. This issue was addressed in the Stormwater and Flooding Report for the EIS, and additional information provided in the RtS.
Clause 7.20 Development requiring or authorizing the preparation of a development control plan	The Concept Proposal has been prepared to satisfy Section 4.23 of the EP&A Act, which provides for a staged development application to take the place of a site specific DCP.

Other Policies

In accordance with Clause 11 of the State & Regional Development SEPP, Development Control Plans do not apply to State significant development.

Appendix C – Key reasons for determination

Appendix D - Recommended Instrument of Consent/Approval

