

16 July 2018

# Sydney Football Stadium Replacement Concept proposal and Stage 1 Demolition (SSD 9249)

## 1.0 Executive summary

The City of Sydney *objects* to the concept development application for redevelopment of the Sydney Football Stadium and concurrent Stage 1 works including demolition of the existing stadium.

The City seeks refusal of the application. If the Department of Planning and Environment (DPE) assessment report supports the development, the City requests the Minister for Planning delegate determination to the Independent Planning Commission.

### Overview

1. **Cumulative impacts have not been taken into account** when determining effects. The new stadium envelope must not be assessed in isolation.
2. **Demolition consent must not be granted concurrently with any concept plan approval.** Demolition should only be considered following a detailed design assessment or a site-specific DCP. Planning risks of proceeding are high with a petition of more than 200,000 people against demolition and without bipartisan political support. The development is not in the public interest.
3. The established evidence of low attendances for most sporting matches compared to stadium capacity, builds in the **risk of increased concerts and major entertainment events**, not covered in the Environmental Impact Statement (EIS). There is a substantial risk that the primary operation of the venue as a sports stadium will expand to accommodate broader uses and generate return on investment.
4. **There is insufficient public transport capacity to support enhanced attendance.** The light rail has effectively replaced buses and offers little net additional capacity given the extent of route served. Tier 1 stadium investment of this scale needs dedicated rail like Homebush. This broad concern was expressed in the 2012 Stadia Strategy.
5. The parkland associated with Moore Park must remain free of vehicles and be enhanced with landscaping and tree canopy to improve its appeal. It is unacceptable that surrounding land owners such as the Centennial and Moore Park Trust must cope with **increased car parking demand generated by the development.**
6. **Traffic congestion has been incorrectly modelled.** The traffic study is grossly inadequate and seriously underestimates the volume of traffic generated by the size and the expected events of the proposal.
7. **Disruption effects for the surrounding community are unacceptable.** Noise exceedances, hours of operation and the request that the DPE create a discretionary arrangement to vary those hours are unacceptable.

## 2.0 Background

### 2.1 The value of green spaces

Twenty million people visit the Centennial and Moore Parklands annually, while two million attend the Sydney Football Stadium and the Sydney Cricket Ground. Given that three out of every four people in the City of Sydney now live in an apartment, Moore Park is essential in supporting an ever increasing and denser residential population.

Despite an existing high population density, Inner Sydney continues to undergo significant growth in population and employment, particularly in urban renewal areas such as Green Square. As the ability to provide new open space is highly constrained, existing parkland must be protected and enhanced to serve the needs of the current and future populations.

The nearby Green Square Urban Renewal Area will be home to more than 60,000 residents and 20,000 workers by 2030. It is essential that the combined Centennial Park and Moore Parklands be protected as valuable high quality green space rather than suffering the ongoing negative effects of development and event intensification.

### 2.2 The current stadium

The existing Sydney Football Stadium, known as Allianz Stadium, is located between Moore Park Road and 40-44 Driver Avenue, Moore Park. The stadium was built on former Department of the Army land and No. 2 Oval site in 1986-88, and the MP1 car park is built on the former Sydney Sports Ground (1899) site.

The stadium was designed by Philip Cox, Richardson Taylor & Partners and Ove Arup & Partners to accommodate 40,000 spectators. It is estimated that the current maximum capacity for a rectangular pitch is 42,000. However, the maximum capacity is rarely achieved. The stadium adjoins the Sydney Cricket Ground, Fox Studios and Moore Park including Kippax Lake, Victoria Barracks and the residential suburb of Paddington.

### 2.3 The proposal

The proposal seeks concurrent approval for **demolition of the existing stadium and concept approval for a new stadium envelope**, specifically:

- demolition of the existing stadium, including the existing Sheridan, Roosters, Waratahs buildings and Cricket NSW administration building
- removal of 28 trees
- use of the Moore Park Car Park 1 (MP1) as the demolition and construction compound
- planning envelope for a new stadium with a capacity of up to 45,000 seated patrons and 55,000 people in concert mode
- design excellence strategy setting out a competitive design process involving a stadium reference design
- submitted urban design guidelines (SJB Urban) in lieu of a site-specific Development Control Plan (DCP)

- administration, food and beverage, loading/unloading facilities, various corporate suites and function areas
- public domain works and landscaping works
- flood lighting, video screens and ancillary uses.

The State Significant Development (SSD) application has been made by Infrastructure NSW (INSW) which the NSW Government has authorised to undertake the planning, procurement and delivery of a new stadium. It is unclear if another agency has been appointed the independent review and evaluation role usually undertaken by INSW for major infrastructure projects, as in this instance, INSW is the applicant.

The rationale for the project is 'security, safety, compliance shortcomings and poor patron experience' with the existing stadium, which the Baird Government had elected to address through refurbishment of the existing structure.

Comments on the proposed Urban Design Guidelines (SJB) may be found within **Attachment A** to this submission.

## 3.0 Detail of City objection

### 3.1 Cumulative impacts

The stadium proposal cannot be considered in isolation when assessing community and environmental impacts in the Moore Park area and City surrounds. A credible assessment of these impacts must also consider:

- protection of open public green space, trees and heritage
- expansion and encroachment of stadium events onto Driver Avenue, Kippax Lake and the ANZAC memorial
- commercialisation of public land
- local traffic congestion, use of off-site car parking facilities and the follow on impact into the City of Sydney and surrounding communities during events
- public transport capacity
- precinct character
- amenity
- economic and environmental sustainability.

Other proposed projects in the Moore Park precinct include the leased use of the Hordern Pavilion and the Royal Hall of Industries, muted proposals to redevelop the Entertainment Quarter and the Alexandria to Moore Park Connector. The cumulative impact of these approved and proposed uses need to be considered in any assessment of a new stadium.

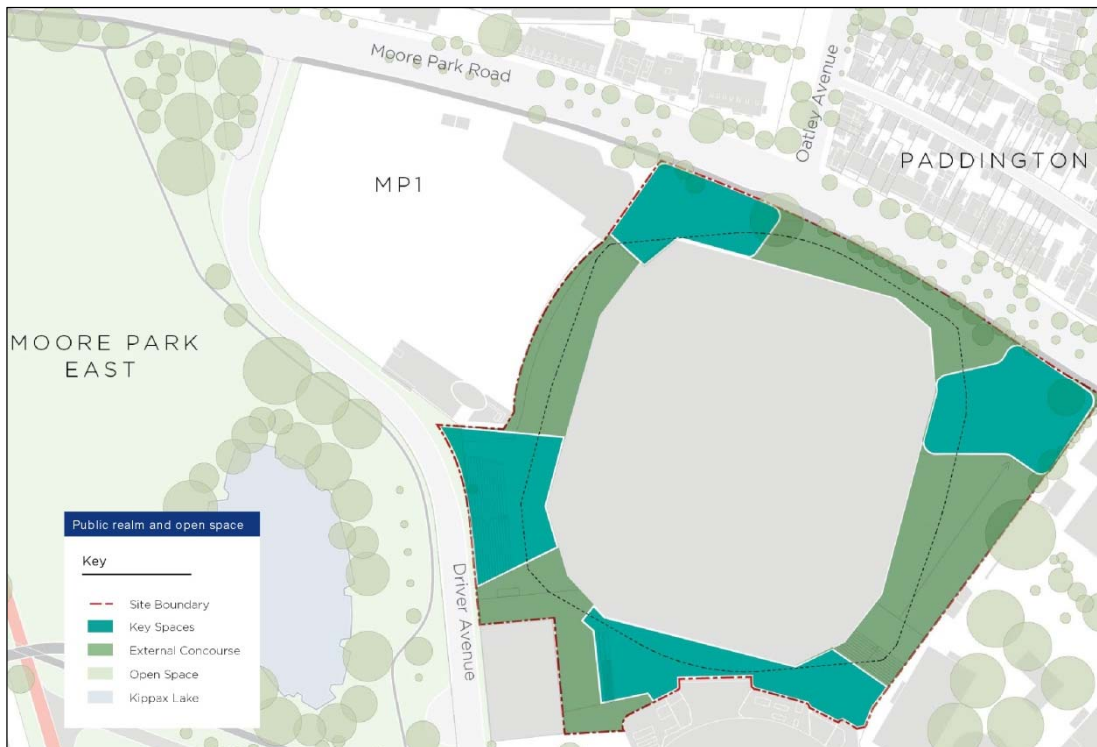
An expanded event calendar will result in sections of Moore Park continuing to be frequently used for patron car parking. This reduces access and usability of open space for wider public recreation.

The Urban Design Guidelines propose 'activation' of Driver Avenue during events, prompting crowds to gather across Driver Avenue and into the parklands. There is insufficient information in the EIS regarding the scale and type of 'activation' and whether this strategy will require redesign of the Kippax Lake parkland to accommodate event mode usage (as opposed to the community parkland usage that is proposed in the Moore Park Master plan).



**Figure 1:** Sydney Football Stadium relative to Driver Ave, Kippax Lake the Sydney Cricket Ground, Hordern Pavilion, Fox Film Studios, former Showground Ring and Entertainment Quarter

As illustrated in Figure 2, the proposed stadium footprint is too large for the site to contain the full range of enhancements; and compliance and security requirements generated by the proposed use.



**Figure 2:** Sydney Football Stadium relative to the site boundary and showing public areas (from INSW EIS overview)

### 3.2 Demolition must not be approved

The planning, social and amenity risks of approving early demolition of the Sydney Football Stadium are unacceptably high. ***Demolition should not occur before the impacts of the final development can be fully evaluated and publicly disclosed.***

Early demolition of the existing concrete and steel structure would be highly disruptive to the community as well as the clubs and teams that use the existing stadium without the certainty of a detailed design and its impacts. Prior to and during consultation, a significant level of community dissatisfaction was registered with the demolish-and-replace proposal, evidenced by a 208,000 signature community petition against a new stadium on change.org.

***The City asks the DPE to consider the significance of the public interest under Section 4.15(1)(e) of the Environmental Planning and Assessment Act 1979 given that a public infrastructure project, funded by public money, has produced such strong community opposition.***

### 3.3 Risks of increased concerts and entertainment events

According to the EIS, “*the existing stadium currently limits itself to six (6) concerts/entertainment events per annum, which will not change. There will also be no change to the existing time limits for sporting, concert and other events*”.

There is well-established evidence of low attendance numbers for most sporting matches at the stadium (excluding grand finals and one-off matches). Some estimates put the average attendance levels at just 40% or 17,000 of the maximum 42,000 capacity.

According to the INSW Business Case summary, the assumed total annual attendance increase, with the 6 event restriction continuing, is in the order of 250,000 to 300,000 patrons.

Based on the recent trends and a changing media landscape, the estimated patronage for sporting fixtures are overly optimistic. Continuing low patronage (in the face of potential ticket price increases) for sporting matches heightens the risk that a revised program of major entertainment events will be necessary to prop up the business case. This risk and development potential is intentionally omitted from the EIS and therefore cannot be assessed.

### **3.4 Transport and access**

#### **3.4.1 Insufficient Mass Transit**

The 2012 Stadia Strategy noted, *“Many stadia are compromised by poor public transport. Stakeholders noted that public transport accessibility is important to the success of stadia and this is difficult with a large number of decentralised venues”*. Given the level of investment in the project, and the co-location of two Tier 1 stadiums (the stadium is situated next to the Sydney Cricket Ground), the proposal requires a much improved transit solution.

Light rail is an effective neighbourhood public transit solution. However, for the Sydney Football Stadium, the light rail is proposed to replace major bus services with little net increase in capacity. It also has many other high volume passenger generators to serve such as Randwick Racecourse and the University of New South Wales. Given that INSW estimates an increase in annual attendance of 250,000 to 300,000 over a 49-52 annual event calendar, there is insufficient mass transit to meet the ‘world class’ experience envisaged by the Business Case and avoid an unacceptable increase in road congestion and continued car parking on the Moore parklands.

#### **3.4.2 Traffic Movement**

##### ***Vehicular traffic***

The estimated traffic generation by the new stadium is unacceptable and unsustainable. The redevelopment of the new stadium does little to reduce reliance on private vehicle journeys or encourage a modal shift to active and public transport. The ongoing availability of existing car parking spaces will continue to attract people to drive to the stadium (as reflected in the survey statistics of the submitted traffic report). In essence, the redevelopment predicts and plans for the status-quo.

The traffic report provides an overview of current travel behaviours as a means of understanding how people arrive at the stadium. The results confirm that driving is the dominant mode of travel to the Sydney Football Stadium, with approximately 66% of respondents arriving by car as a driver or passenger. This is an unsustainable level of private vehicle reliance for a Tier 1 stadium in a dense urban setting - even without the anticipated increased patronage. Nevertheless, the application proposes 55,000 patrons during event mode, which will attract greater peak numbers and increased traffic movements.

With 43% to 66% of people arriving by private vehicle and an average car occupancy of 2.7 persons (as indicated in the traffic report), a standard event will generate vehicle demand for approximately 8,750 to 13,400 parking spaces. This significantly exceeds the car parking capacity of the site and gives rise to the permanent reliance on surrounding sites to absorb parking including local residential streets as far as Surry Hills and Bondi Junction.

Although the Sydney Football Stadium Redevelopment Transport and Accessibility Strategy (May 2018) proposes no increase in the on-site car parking, the City predicts significant risks of future car parking increases. The enhanced redevelopment may necessitate car parking increases as envisaged by the Moore Park Master Plan 2040 without the convenience of mass transit. There is significant and long-standing community objections to on-grass car parking and the Centennial Park and Moore Park Trust's plans proposals for expanded permanent car parks.

Most concerning is that the Centennial Park and Moore Park Trust has shown a long-standing desire to provide more formalised parking on the site. In 2011, the Trust proposed a new 2,500 car parking structure, followed in 2015 with some 6,000 additional permanent parking spaces. Two large underground parking stations were proposed on the western side of Moore Park (between the Eastern Distributor and Anzac Parade) with collective car parking for 3,000 vehicles. And, four-storey car parks were proposed for Moore Park Road and the southern end of Moore Park.

In view of the above points, **the traffic study is grossly inadequate and significantly underestimates the volume of traffic generated by the size and frequency of events. Moreover, the intentions of the Centennial Park and Moore Park Trust to expand vehicular parking within the precinct. As such, the study must be rejected.**

Any additional permanent parking around the stadium will encourage more people to drive across the greater metropolitan area towards Moore Park, contrary to best practice. During an event, the site is served by some 6,000 car parking spaces. Most of this parking will load and unload within a two hour window before and after the event. This equates to some 3,000 trips per hour, or four saturated traffic lanes.

Event traffic already congests busy major road corridors such as Oxford Street, Anzac Parade, Moore Park Road, Cleveland Street as well as the Eastern Distributor and Sydney Harbour Tunnel and Bridge. This has flow on effects on a number of major bus routes. People living and working in the areas surrounding the stadium experience the impacts of event traffic, which often brings local roads in Surry Hills, Redfern, Waterloo, Zetland, Kensington, Paddington, Darlinghurst and the City Centre itself to a gridlocked standstill.

The applicant's SIDRA modelling result suggests that, "intersections were found to generally perform acceptably during the surveyed periods". However, this analysis was based on survey data for particular occasions only. Critically, the generated traffic, such as the traffic demand from the new stadium, was not included in the model. Therefore, the traffic impact from the stadium was not properly analysed. **The submitted traffic analysis is deficient and therefore unacceptable.**

Based on current mode share reported in the applicant's traffic report (around 66% arriving by car), the SIDRA modelling results underestimate and misrepresent the true traffic/congestion scenarios in the adjacent network. To be precise, the traffic modelling reflects traffic arriving before the event - when there is usually a broader timeframe for visitors entering the stadium.

Departure traffic after the game is more critical than the traffic on arrival as this is when a huge traffic volume is injected into the network from a single source in a short period of time. Therefore, to understand the network performance accurately a similar traffic modelling exercise and analysis must be based on after-sports events.

**In conclusion, the submitted traffic modelling is grossly inadequate and does not pick up and/or predict the probable traffic/transport consequences from the stadium redevelopment. Given the scale and context of the site, the transport impact study needs to be completely reviewed and re-modelled in order to properly understand the traffic impacts.** This includes both Traffic Network Modelling around the subject site and Microsimulation/Intersection Modelling.

### ***Servicing***

The application lacks adequate detail regarding the number of parking spaces, size of the largest vehicle, time of day for the service operation, and frequencies to allow a proper assessment of the proposal. A Road Safety Audit and Management Strategy has not been provided to manage the proposed interaction between pedestrians and vehicles on Paddington Lane and access from Driver Avenue to the stadium. Consequently, an assessment of impacts arising from the new stadium cannot be properly understood.

### ***Bicycle facilities***

The traffic reports suggests that bicycle parking will be provided for 5% of permanent stadium staff with approximately 100 visitor bicycle parking spaces for patron use, equating to 175 spaces. Nevertheless, the proposal seeks a maximum capacity of 55,000 patrons and 1,500 staff. As such, the indicative bicycle parking rates represent 0.3% of the overall stadium capacity. This is unacceptably low in view of the extensive regional and local bicycle network in which the stadium is located. Further, the commitment by the applicant to “take advantage of this good connectivity by ensuring cycling is better promoted as a mode of transport to the venue”.

The lack of bicycle facilities proposed by the applicant is evidence of their intention to maintain the status-quo for travel to the stadium and support the continuation of unsustainable transport modes.

### ***Walking***

The pedestrian access strategy is based around shifting the majority of access from Central Station (via Foveaux and Fitzroy Streets) to Devonshire Street. The report suggests the Devonshire Street route might be preferred as it has less conflict with traffic and will be associated with the new light rail route. Nevertheless, it is a 1.8km travel distance compared to the 1.5km Foveaux/Fitzroy Street route, and the lone established pattern of access will be difficult to overcome. Pedestrian access from Kings Cross station (distance of 1.8km) is ignored.

Further analysis is required to determine how people currently walk (via Foveaux), the existing barriers (South Dowling lights), and what improvements are planned (via Devonshire) or should be planned. The City is also concerned that despite public domain improvements to Devonshire Street associated with the light rail, the new footpaths are not designed to accommodate the increased pedestrianisation generated by stadium crowds. The application fails to plan for walking connections between the new stadium and Central on both Devonshire and Foveaux which will be used by pedestrians.



Works required to improve pedestrian access to the stadium from Central Station and Kings Cross station have not been proposed or funded. Therefore, the DPE should consider a cautious approach to predictions of increased pedestrian movements made within the traffic report as this mode of travel is less likely where there is insufficient infrastructure to support it.

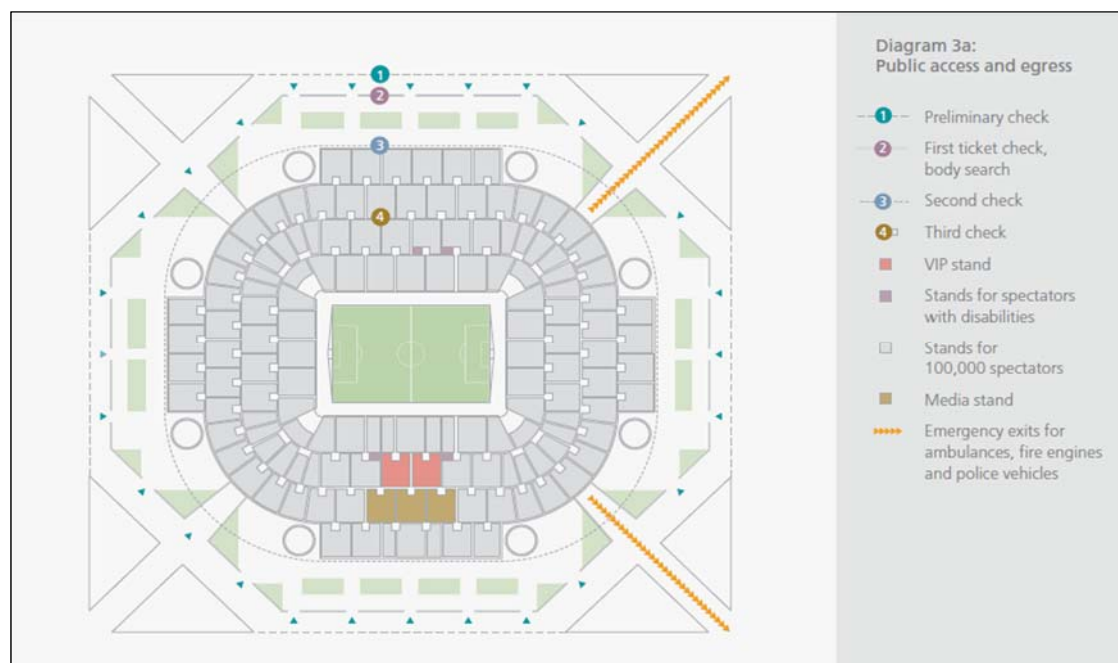
### ***Safety and security of people movement***

As large numbers of people enter and exit a stadium in a relatively short period of time, it is crucial that these movements are provided for with sufficient well designed space for their safety and security. The FIFA Football Stadiums Technical recommendations and requirements [FIFA requirements] states clearly that *“the safety of all those using a football stadium must take priority over all other considerations in the design and management of the stadium”*.

The FIFA ‘public access and egress diagram’ (Figure 3) clearly illustrates that large spaces are required around stadiums for secure and safe movement. As evidenced in Figure 2, the proposed envelope significantly constrains these essential movements. Separated access is required for various groups including: spectators, players and officials, media, emergency vehicles and VIPs. The site restrictions only allow three entry points only. However, these are not evenly distributed around the stadium. It is clear that the full range of separated entry conditions would be difficult if not impossible to provide.

The proposed stairs to Driver Avenue present a safety hazard for patrons entering and leaving the stadium. The movement on stairways particularly the downward movement poses a potential risk to crowds both in normal circumstances, such as at the end of an event or in an emergency.

The effects of pushing and congestion are potentially dangerous if the crowd suddenly surges forward for any reason or an individual suddenly changes direction. The site planning has placed the major entry to the stadium as a stair entry with a rise of over four metres contrary to the UK Guide to Safety at Sports Grounds Spaces for barriers are required at the head of the stair and adequate space to control flow is required at the base of the stairs.



**Figure 3.** FIFA requirements Public Access and Egress Diagram

The drawings (Figure 3) illustrate inadequate space for the stairs (i.e. no space is provided at the base of the stairs) and that the space required for safety and security and cannot be provided.

### ***Driver Avenue steps and universal access***

There is a four metre level difference between Driver Avenue up to the concourse via a wide set of stairs. Universal access is via a secondary lift zone, details for which are not described.

A precedent study for best practice design and evidence of existing stadiums where stairs are used at the main access should be prepared and submitted for consideration. Stairs must provide generous landings and gathering spaces including compliance with AS1428, and ensure the design and delivery of universal and dignified path of travel for people with disability (both during an event and on a day-to-day basis).

## **3.5 Disruption**

### **3.5.1 Construction noise**

The submitted Construction Noise and Vibration Management Plan (CNVMP) notes that there will be exceedances of the noise management level during the demolition of the stadium. The highest levels are predicted to occur during the early works and during the use of equipment including the mulcher, concrete crusher, excavator and rock breakers. The childcare centre noise management levels are set at 70dB<sub>L</sub>A<sub>eq</sub>, 15 minute. This is considered excessive and will impact on the ability for centres to provide outdoor play and 'rest' times for children.

A sufficiently detailed CNVMP must be submitted to the DPE and Council's Health and Building specialists for review in order to understand the extent of construction noise impacts.

### **3.5.2 Construction hours**

The application proposes construction hours between 7am to 6pm, Monday to Friday and 8am to 1pm on Saturdays. No work is proposed on Sundays or public holidays. The proposed construction hours are outside the standard hours permitted outside the CBD by the City of Sydney and will impact upon adjacent residential uses. The application further proposes that the DPE create a discretionary arrangement to vary construction hours under 'extenuating circumstances'. This is intended to circumvent the standard planning process which requires preparation of an acoustic assessment, public consultation and submission of a planning application.

### **3.5.3 Dust**

The City is concerned about the proposed method for assessing dust impacts generated by the demolition. The Construction Demolition Management Plan acknowledges that dust emission will occur through the duration of work with on-site concrete crushing the main cause of these emissions. However, the 'effective management' proposed to mitigate emissions and maintain acceptable dust levels includes "daily and weekly **visual** surveillance". This is completely unacceptable. The plan must include detailed methodology for the mitigation of dust impacts generated by concrete crushing and complaint management procedures.

### 3.6 Ecologically Sustainable Development

The switch from the previous position of retrofit and upgrade to full demolition of the stadium announced in November 2017, is the most unsustainable and carbon intensive course of action justifiable in ecological terms. The City has expectations of a commitment to a “better than current” performance for the redevelopment of the SFS, this is best understood in terms of:

- *Will this development increase or decrease total energy demand, carbon emissions and mains potable water use compared to existing development at the site? (utility bills will exist for the site so this data will be confirmed)*
- *How does this proposal move NSW towards its Net Zero by 2050 aspirational target?*

Wherever the LEED method proposes to model against a “reference building’, the proponent must use the existing development as the reference building, not a hypothetical reference point. This is the most robust way to assess whether the new proposal is moving NSW toward or away from sustainability.

#### 3.6.1 LEED rating scheme

The proposal to use LEED as the rating framework for the redevelopment of the SFS raises concerns. LEED certification is considerably weaker on energy and related greenhouse gas emissions than established local energy and greenhouse assessment methods. This is due to LEED’s reliance on ASHRAE 90.1 to assess energy efficiency improvements. The fundamental limitation of ASHRAE 90.1 is that it does not measure energy savings by relative greenhouse gas impacts (as per NABERS) or energy demand (as the Section J of per National Construction Code (NCC)), but instead by economic cost. This means that a solution that saves money, such as optimising cost tariff structures, can meet the credit without any actual energy saving being achieved.

On ecological grounds, the application involving demolition should be refused. It fails to specify how LEED will deliver a best practice energy and carbon outcome. A specific Energy Modelling report (comparing existing with proposed) would be more value to the proponent and the City. Over compliance against NCC 2019 minimum standards across all JV3 and /or DTS elements is required but not proposed.

Wherever the LEED method proposes to model against a “reference building’ then the proponent fails to use the existing development as the reference building in favour of a hypothetical reference point. This does not provide a realistic way to assess whether the new proposal is moving NSW toward or away from sustainability.

#### 3.6.2 Environmentally Sustainable Design Strategy Report

The report states that the project is committed to achieving a higher level of energy efficiency than the current stadium. However, it is unclear whether the project will perform better in terms of total per annum energy consumption and greenhouse gas emissions compared to the current usage.

The office space proposed in the stadium is predicted to be less than 2000sqm in total size—it is noted that the NABERS threshold is now 1000sqm for commercial office space. It is appropriate to achieve a 5.5 Star Energy rating in line with anticipated NCC 2019 standards.

The proposed target of 10% of operational energy being derived from onsite renewable energy sources appears to be unsupported by an evidence base. 10% is also low given many days of lower than maximum site operation (i.e. no event days) if solid investment in onsite storage is made. An Energy Model should be provided to predict building performance.

The Water Principle in the report states that the stadium will use 20% less water than a stadium designed to achieve 'standard practice'. The obvious reference is to use the existing building with the 20% saving applied against the existing building. There is no better reference point than the current building and any reluctance to accept this demonstrates a weak sustainability position. If LEED cannot cope with the existing stadium as the reference building then the tool is not considered appropriate for the purpose of this project.

Rainwater harvesting for reuse on the site (i.e. for toilet flushing and non-pitch landscape irrigation) is not addressed within the application. It is also unclear whether there is any intention to capture stormwater.

The significant embodied energy of the relatively recent stadium is lost through the considerable energy used during the lengthy demolition. Further, the embodied energy of significant concrete works will be the most significant material impact of the construction. Statements relating to LEED rating do not answer a key material question – *will emissions from concrete be reduced, compared to the existing situation?*

A clear commitment to reducing the greenhouse gas emissions associated with this very large generation of concrete usage has not been provided. GreenStar Concrete Credit is the minimum ESD expectation.

### **3.7 Tree removal and landscaping**

The EIS and SSD description are misleading in suggesting that only 28 trees are proposed for removal noting that 'Tree 124' consists of a group of 8 individual trees. This should be corrected by both the applicant and DPE to accurately reflect the actual number of trees identified for removal.

#### **3.7.1 Deep soil and landscaping**

The indicative landscape plan sets out the stadium, trees retained and removed for development, and new trees to the perimeter of the site. There is no information on the species, pot size or whether existing trees removed will be transplanted (e.g. Tree 124 group of Ficus).

The proposal includes a "...basement which houses back of house and servicing zones for the stadium above. The footprint of this basement limits deep soil areas available for the planting of mature or large scale trees." (SJB p 93) The indicative landscape plan does not include proposed deep soil areas. There is insufficient information to determine the adequacy of deep soil provision.

A holistic design review is required to determine existing deep soil within the site boundary and the proposed deep soil provision to increase the extent of large plantings and tree canopy.

### 3.7.2 Arborist report and transplanting existing fig trees (Tree 124)

The legacy of tree-lined boulevard on Moore Park Road and Driver Avenue will be eroded and significantly impacted by the proposal to remove more than 28 trees.

Trees recommended for removal include a significant group of eight *Ficus macrocarpa* var. *hillii* (Hills Weeping Figs) with high priority retention value (Tree 124). The group is located between the stadium and buildings to the north-west and should have equal importance to Tree 125. The group of trees provides a dominant and noticeable canopy coverage and shade in the public domain.

The Arboricultural Impact Assessment provides a detailed assessment of existing trees and justification for removal for development. The report notes the following points:

*With exception of Tree 125 there are few outstanding examples of species and tree canopy cover is low. A well-formed and well-managed canopy is an extremely valuable asset to any site, not only from a landscape /amenity perspective, but also due to the broader ecosystem services...which trees provide. The SFS redevelopment provides an opportunity to improve the overall quality and value of its tree population and significantly increase the site's canopy cover. This requires opportunities for new tree planting (and the infrastructure that supports them) to be identified early in the development process. It is understood the landscape design will form part of the Design Excellence process for the detailed design. Tree planting details, locations, species and sizes will be included in the Stage 2 DA. (AIA p 10).*

Tree 124 is considered a significant group of 8 *Ficus macrocarpa* var. *hillii* (Hills Weeping Figs) with high priority retention value. Each tree is 12 metres tall with a crown spread of 7 metres.

Removal of the trees will have a negative impact on the site and broader parklands. Moreover, is contrary to the objectives of Eastern City District Plan for increasing the urban tree canopy and expanding the Greater Sydney Green Grid.

## 3.8 Design Excellence Strategy

### 3.8.1 Structure and terminology

Parts 1, 2 and 3.2 of the Design Excellence Strategy are outside of the scope of the matters required for inclusion in a Design Excellence Strategy prepared in accordance with Provision 1.2 of the City of Sydney Competitive Design Policy (the Policy).

Part 1 and 2 is information that would be included in a Competitive Design Process Brief. The following comments are limited to Part 3 of the Strategy which address the relevant matters as stated at provision 1.2 of the City of Sydney Competitive Design Policy (the Policy).

### 3.8.2 Design integrity process

Section 3.2 of the Strategy titled Design Integrity Process states the continuation of the role of the assessment panel (Selection Panel) following the competitive process through the design development phase. As noted above (under structure and terminology), this process sits outside the scope of the matters required in a strategy.

The Strategy should confirm and clarify the proposed Design Integrity Process is in addition to and does not override the requirements of the design integrity provisions at provision 5.1 of the Policy.

### **3.8.3 Urban Design Guidelines**

The Design Excellence Strategy indicates that the future designs submitted as part of the competitive design process will be assessed against the Urban Design Guidelines prepared by SJB Architects (along with the requirements of Sydney LEP 2012 and the principles outlined in the Government Architect's "Better Place – An Integrated Design Policy for the Built Environment of New South Wales). Accordingly, Attachment A contains the City's recommended changes to the Urban Design Guidelines.

### **3.8.4 Public Art Strategy**

It is clear there was no public art input or expertise (e.g. from a public art curator or similar) into the submitted public art strategy.

Public art is not clearly separated from heritage interpretation. The opportunities identified on page 99 of the Urban Design Guidelines (which contains the strategy) all relate to heritage or history. There should be a separate heritage interpretation strategy. While the history of the site could inform the public art, it should be considered separately.

Similarly, the principles outlined are also of concern as they place a functional emphasis ("Security" and "Landmarks and Meeting Places") on public art. These functional objectives are likely to be written into artist briefs and given priority over innovation and artistic excellence. By standards, a Public Art Advisory Committee should have at least one other public art expert.

## **3.9 Site contamination**

The demolition of the existing SFS and ancillary structures including the existing Sheridan, Roosters, Waratahs and Cricket NSW building is proposed to the existing slab level only.

Underground storage tanks (USTs) are located along the eastern site boundary and are used to store petrol and diesel for maintenance vehicles and equipment. It is unclear from the information submitted if the underground storage tanks are to be retained or replaced.

As a hazardous materials register has not been submitted for the existing structure, it is unclear if the building has any asbestos containing materials present. A Detailed Site Investigation must be undertaken to fully characterise the contamination status of the site.

## **3.10 Heritage approvals**

The site is affected by a State Heritage Listing and General Terms of Approval should be obtained from the Heritage Council. There is a potential that the demolition works through vibration could impact Busby's Bore.

### **3.11 Lighting**

A detailed lighting proposal for the streets surrounding the stadium, pedestrian routes, public domain and sports stadium has not been provided. Sports fields lighting for stadia must comply with glare and spill light control provisions of AS4282.

### **3.12 Shadow diagrams**

The application acknowledges that the increased building envelope will generate additional shadow impacts over the parklands. The submitted shadow diagrams prepared by SJB lack sufficient detail to determine the extent of impacts and do not provide a comparison of the existing and proposed overshadowing. The shadow diagrams must be amended to include the appropriate level of detail required to undertake an assessment of environmental impacts including greater site context and separation of diagrams onto single pages.

## **ATTACHMENT A**

### **Response to Urban Design Guidelines**

The Design Excellence Strategy indicates that the competitive design process will be assessed against the Urban Design Guidelines prepared by SJB Architects (along with the requirements of Sydney LEP 2012 and the principles outlined in the Government Architect's "Better Place – An Integrated Design Policy for the Built Environment of New South Wales").

The proposed Urban Design Guidelines (issued 6 June 2018) are unclear in a number of areas and include typographical errors, highlighting the need for further work.

In the context of the City of Sydney's formal objection to this proposal, the following comments are provided on the draft Urban Design Guidelines:

#### **Key Moves**

- The guidelines propose that, "The redevelopment also provides an opportunity to integrate the SFS into its parkland setting and reinforce the stadium's unique location and proximity to Moore Park and Centennial Park". These guidelines are inappropriately drafted from the perspective of the stadium redevelopment and for its benefit, rather than focused on the best interests of the surrounding parklands and public domain.
- The fundamental purpose of the surrounding public parkland is passive and active recreation. The proposed redevelopment of the stadia is inconsistent with that purpose and includes potential impacts due to increased built form, overshadowing, new hard surfacing and alienation of parkland for event-related activities.
- The stated principle of increased permeability will have undesirable impacts if it leads to hard surfacing replacing landscaping, fragmentation of green space with paths and built form, or the degradation of parkland through event-related impacts.
- The list of 14 locations in this section is unclear and omits guidance to understand what 'guidelines' are being provided for protection and improvement.
- The guidelines need to be rewritten, through a process of effective public consultation, consistent with and respectful of the role and purpose of the parklands.

#### **Access and Movement**

##### **Present Access and Egress**

- The location of routes to and from the stadia depend on neighbouring land owners approving access, which must only be consistent with the objective of the surrounding sites and consistent with the public interest.
- The applicant has not discussed with the City affected public domain under the City control.
- A contribution or funding must be provided for identified offsite improvements, including opportunities to fix existing systemic problems caused by the stadium's location.



### **Active Transport**

- Even with a refurbishment, the Stadium should provide end of trip bicycle parking for both employees and visitors, and shared with neighbouring publicly-owned sites (especially the Sydney Cricket Ground, NRL building and Rugby Australia building).
- Facilities for employees, being personal lockers, showers, change rooms, and bicycle storage areas, should be consistent with section 3.11.3 of Sydney DCP 2012.

### **Vehicular Access and Movement**

- The MP1 carpark is proposed to be reinstated upon completion of construction with access to the new Stadium basement via the MP1 car park. To improve the Moore Park Road interface, vehicle access/egress to the Rugby Australia car park should be consolidated directly via the MP1 carpark. This would remove the existing driveway cutting in the Rugby Australia forecourt to reintegrate space into the public domain.
- To reduce additional vehicle crossovers, new access should not be provided at Oatley Road and the Moore Park Road access should be co-located with the existing adjacent access.
- The guidelines should not dictate that the services only be at grade directly off Moore Park Road. Within the constraints of protecting Busby's Bore and 'Tree 125', better design options should be explored, including the below ground or fully integrated into the building.

### **Circulation within the site**

- During events, provision of a ticket/security check line at Moore Park Road may not be appropriate if expected patron numbers cannot be accommodated safely and comfortably.
- Access for pedestrians and vehicles should be separated.

### **Building Height and Massing**

- The building footprint, height and massing are too large for the constrained site. The guidelines need to eliminate new impacts, including overshadowing, on the parklands.

### **Public Realm and Open Space**

- Design of stairs to Driver Avenue needs to provide generous landings and gathering spaces consistent with AS1428.
- At Driver Avenue, management of overland water flows need to be safely integrated into the proposed approach to building and landscape design.
- The ARUP Stormwater and Flooding Assessment Report (Revision 3) indicates that overland flow down Paddington Lane will be limited by modifying the road levels, with an increase in flow around the Oatley Road entry and adjacent to the western boundary of the Stadium. The likely subsequent increase in the volume and speed of the flow needs to be addressed.
- Any proposals must be co-ordinated with the City of Sydney separated cycleway proposal on the southern side of Moore Park Road.
- To mitigate heat island effects and provide shade and comfort, landscaping should include permanent tree planting and landscaped areas, not moveable planters. The extent of the proposed basement limits deep soil areas and should be designed to allow deep soil zones for mature or large scale trees.

- Tree 125 (Moreton Bay Fig) is listed in the City's Register of Significant Trees. This tree must be retained and protected long-term through required setbacks and sensitive construction methods. Advice must be sought from a qualified Arborist (minimum AQF Level 5) with City confirmation of the design being acceptable.
- Some City comments throughout this appendix apply to principles restated in this section.

### **Security and Safety**

- Australia's Strategy for the Protection of Crowded Places from Terrorism outlines the role of landowners and operators in protecting the health and safety of people within their areas. Any proposed measures should be consistent with this strategy.
- Hostile vehicle barriers, including their required footings, should be solely on Stadium land and integrated with other public domain elements to minimise clutter. Design and operations should consider the possible use of the venue as a mass evacuation centre, as per the State Emergency and Rescue Management Act.

### **Wayfinding, Signage and Interpretation**

- A Wayfinding Signage Strategy must be submitted to the City for review, consistent with the City's Legible Sydney Wayfinding Strategy.

### **Architectural Expression**

- Given the site's parkland setting adjacent to heritage conservation areas, the Stadium facade must not be used as a device for third party advertising or branding.
- The competitive design process should allow for a holistic and integrated design approach. Testing the assumptions of the reference design can reveal opportunities and constraints which were not previously understood.

### **Sustainability**

- GreenStar is preferred to LEED as the nominated Rating Tool. The international marketing aspects that have driven the preference for LEED may weaken performance outcomes.
- Any renovation or redevelopment must demonstrably deliver carbon (GHG) abatement, mains potable water savings and urban greening (revegetation and biodiversity opportunity enhancement), using the existing Stadium operations as the benchmark.
- The site should incorporate a collection point for the NSW Government's Container Deposit Scheme, to align with NSW Government and City of Sydney priorities to reduce waste.