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Our Reference: NCA/1/2017
Contact: Myfanwy McNally
Telephone: 9806 5447

13 April 2017

Peter McManus
Department of Planning and Environment
22-23 Bridge Street Sydney
NSW 2000

Dear Mr. McManus

**Re: Western Sydney Stadium (Concept & Stage 1 Demolition), 11 - 13
O'Connell Street, Parramatta NSW 2151**

Thank you for the opportunity to comment on the proposal currently on exhibition. The City of Parramatta Council welcomes the opportunities that the stadium redevelopment presents and looks forward to working with the project team as the design progresses.

The Council's submission forms two parts, this letter which serves as an executive summary and our detailed comments by discipline provided as an attachment.

Key Issues

Future Development Site

Council raises serious concerns in relation to a 'future development' located on the Stadium site as it fundamentally prevents the integration of the Stadium into Parramatta City Centre. Council believe that it is critical to the Parramatta City's identity that visual prominence of the stadium from O'Connell Street is safe guarded. Council recommends that it is removed from the proposal.

Built Form and Urban Design

The proposal fails to satisfactorily terminate the view from Victoria Road. The axis of Victoria Road terminates with a services core and not the Ticket gates and 'Media Mesh' as recommended in the Guidelines. The location of the stadium as presented in the DA material has an extremely poor visual relationship to Victoria Road, and the parklands and river beyond.

The public domain and O'Connell Place have been designed as a place to only "sit and relax" with suboptimal levels of activation. A more sophisticated

program of external activation is required for this area, as shown in previous iterations for the use of this space.

The publicly accessible curtilage around the stadium is currently shown as a series of disconnected spaces that are often separated by significant level changes with poor pedestrian legibility. It is recommended that this space is reconsidered, with an aspiration to create a pedestrian precinct that is seamlessly integrated into the context and provides continuity of access to the stadium perimeter.

Traffic and Transport

The Traffic Impact Assessment indicates that there will be very poor conditions for pedestrians surrounding the stadium in peak periods indicating the need for infrastructure improvements that are not currently part of the proposal. An Event Traffic Management Plan is required prior to determination so that appropriate infrastructure improvements can be identified and included with the application.

The intersection of O'Connell Street and Victoria Road should be converted to a T-intersection by relocating the stadium access to either the north side or south side of the proposed future development site on the north east corner of the site and be via a left in/left out driveway. This would reduce conflict and improves the efficiency of the intersection.

Equity of Access

Further work needs to be undertaken to ensure that there is equitable access to all areas of the stadium.

Heritage

Appropriate conditions should be included requiring the development of a heritage interpretation plan.

Public Art

Appropriate conditions requiring the development of an Arts plan, stipulating a particular value and requiring Council sign off, should be included in any future consent.

Open Space and Natural Resources

The current lighting strategy is not considered to be adequate and needs to be reworked to ensure that there is no harm to the existing Grey Headed Flying Fox colony. The current proposal does not adequately respect the 40m vegetated riparian zone requirements for Parramatta River.

Ecologically Sustainable Development

The application does not adequately address the Secretary's Environmental Assessment Requirement (SEAR) No. 12 – Ecological Sustainable Development (ESD) and should be amended to demonstrate integration of urban heat mitigation measures and energy efficiency.

Next Steps

It is considered that many of these issues can be worked through with further collaboration between the project team and Council and it is suggested that a series of meetings be organised to facilitate further design development.

The Council would also appreciate the opportunity to comment on any proposed conditions of consent at the appropriate time.

We look forward to working with the department and the project team as the project continues.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Sue Weatherley', with a long, sweeping horizontal stroke extending to the left.

Sue Weatherley
Director Strategic Outcomes and Development

ATTACHMENT ONE

Detailed Comments

Future Development Site

The Landscape Drawings and the Environmental Impact Statement provides for “a maximum GFA of approximately 20,000sqm for future development of ancillary uses within the northern corner of the site”. Council raises serious concerns in relation to a ‘future development’ located on the Stadium site as it fundamentally prevents the integration of the Stadium into Parramatta City Centre.

Council believe that it is critical to the Parramatta City’s identity that visual prominence of the stadium from O’Connell Street is safe guarded. The placement of a building in the curtilage of the Stadium, and as viewed from the main street entry is contrary to the broad design principles of the Guidelines and the strategic response to the Stadium project as outlined in the NSW Government endorsed Parramatta Strategic Framework (April 2016).

The Guidelines broad design principles are to:

- *“Develop a stadium with a visual identity and presence of place, utilising the available desire lines from primary approaches and extended context”* and
- *“Express the architectural design of the stadium to embody a world class venue when viewed from the city and in contrast a complementary, sympathetic structure when viewed from within Parramatta Park.”*

The Parramatta Strategic Framework states *“that the stadium needs a clear and uninterrupted connection to the fine-grained walkable spine and its ease of connection to the station or perimeter parking”*.

The current location of a future development site is contrary to the principles outlined in the endorsed documents above, and should be removed from the proposal.

Furthermore, the 2014 State Significant Site rezoning proposal from UrbanGrowth NSW for Parramatta North included a Sports and Leisure sub precinct, requesting a rezoning to B4 Mixed Use. The sub-precinct was later deferred from the rezoning by the Department of Planning *“to allow for master plan to be prepared to determine the most appropriate future use of the land”* (DPE Assessment Report July 2015). Council’s formal submission on the rezoning raised concern in relation to a B4 mixed use zoning along O’Connell Street, which allows for residential development, recognising that it is an inappropriate and incompatible land use in close proximity to the stadium.

Council maintains these concerns and does not support the inclusion of the ‘future development site’ in the extent of works boundary.

Recommendations

- That DPE request the applicant remove the ‘Future Development site’ from the proposal and planning for this area to be designed to be integrated into the O’Connell Street area of public domain.

Built Form and Urban Design

The following is Council's assessment of the proposal as it responds to Secretary's Environmental Assessment Requirement (SEAR) No. 4 - Built Form and approved *Western Sydney Stadium Urban Design and Public Realm Guidelines* (Guidelines).

Stadium Design

The Guidelines undertook a detailed analysis to understand the most appropriate siting of the development so that it would become "*a landmark addition to the built fabric of Parramatta*". The Guidelines further states:

- *The North-East corner of the site both terminates Victoria Rd and is the key entry for visitors arriving from the East and North.*
- *The South-East corner of the stadium has a dynamic aspect back to the city and river setting, and similarly is the key entry for visitors arriving from the CBD and Parramatta Station.*
- *The Stadium must "address the termination to Victoria Road".*

Council raises significant concerns that the Stadium has not adequately responded to the Guidelines. The Stadium has been shifted north and fails to satisfactorily terminate the view from Victoria Road. The axis of Victoria Road terminates with a fire staircase and not the Ticket gates and 'Media Mesh' as recommended in the Guidelines. The location of the stadium as presented in the DA material has an extremely poor relationship to Victoria Road, and the parklands and river beyond. There is no spatial continuity from Victoria Road into the Park. It is recommended that this portion of the stadium is reconfigured and/or shifted so that one of the key organising principles of the siting of the stadium (relating to height, bulk and scale) is not lost by this proposition.

The interface of stadium podium and the ground level creating extensive level changes and extensive use of stairs creating lack of equality of access at all entry points, contrary to Guidelines statement that "*all areas shall be designed to provide equality of access for persons with disabilities*".

In addition, the site has a natural 2.5% slope down from north to south. The stadium relies on an internal level podium for primary circulation. To make the connection between the outside and inside, the public domain is heavily manipulated with extensive use of stairs to the east, south and west edges, only the north edge is level with the internal podium.

Recommendations

- That the design be revised to better respond to the termination axis of Victoria Road; and
- That Council would welcome further collaboration between the project team and Council and it is suggested that a series of meetings be organised to facilitate further design development.

Landscape and Public Domain

Council has reviewed the Landscape Drawings prepared by Aspect and raise the following key concerns with the proposed design.

The proposed 'Boulevard of Legends' seems to act first as a buffer to the car parking road and parking area and second as a link. The termination of this 'link' is tenuous as it does not have strong or clear termination devices. The Boulevard has the potential to be a major east-west axis linking the Western Carpark and River terrace to O'Connell Street. Unfortunately, the design of each end/anchor of the boulevard is weak and does not satisfy the urban requirements of being called a Boulevard. Any successful boulevard should have a generous scale that prioritises pedestrian movement, be aligned along a rational axial alignment, and be connecting two nodes/points of interest.

The Western and Southern car parking areas do not have WSUD technologies, unlike the Northern Car Parking area.

Lawns at O'Connell Street will be subject to significant use, especially during the winter overshadowing, and may not recover sufficiently after each event. This feature could become a maintenance issue for the operators in the future. As detailed in this submission, the lawn area should form part of an integrated activated public domain.

The Grid of Shade Trees seems like an infill space with a lack of real purpose. The location of the Grid is separated from the main entry by the vehicle road, which will make it a less desirable space to access and use.

Council is concerned that the River Terrace is visually isolated from O'Connell Street and it is not clear if it is seeking approval as part of this application, or if it will be publically accessible at all times. Due to the poor connectivity and visibility to this precinct from the south-east (City and River foreshore), where no continuous pedestrian paths from O'Connell Street to the western edge of the stadium is provided, it is unlikely that visitors will 'wander' across this space and casually gather for an event without prior notice/planning.

Council would like to see this area as part of the public domain and designed integration with the foreshore access to the public, and opportunities to link both with events days and non-event days.

Recommendations

- All publically accessible public domain improvements must be consistent with the requirements of the Parramatta Public Domain Guidelines. All detailed public domain alignment plans must be developed in collaboration with Council;
- That the proponent and DPE confirm the site will not have a perimeter fence and that there will be 24/7 public access to the curtilage / public domain;
- That Water Sensitive Urban Design be applied to the car parking areas, similar to the Northern car parking area;
- That the design consider improving pedestrian connections through the southern car parking area between parklands and O'Connell Place to facilitate the 'peoples loop'; and
- Reconsider inclusion of lawns at O'Connell Street with paved areas, integrated multiuse sport courts and other dynamic uses that make this space a 'destination'.

Stadium Activation

The SEARs requires the preparation of a Stadia Precinct Activation Strategy. The Guideline *“Design the precinct to become an integral and vital part of Parramatta as well as Western Sydney 7 days a week with the ability to operate as a world class event place on game days.”*

Council has concern that the public domain along O’Connell Street has been designed as a place to only sit and relax, with few activation opportunities. There is one proposed tenancy of external activation of the stadium being the café at the south-eastern corner, the remaining precinct relies on landscaping and terracing to create a sense of activity, visual interest and diversity.

As raised in Council’s formal submission for Stage 1 DA, children and young people in particular have low provision of informal active recreation opportunity in the City. Active recreation opportunities, such as outdoor courts and water play features, could be incorporated into these areas.

Furthermore, O’Connell Street has the potential to become a major events space for the City, it is recommended that a more sophisticated program of external activation of the stadium is considered by the applicant. Recent examples include AAMI Park, where the external edge of the stadium facing Olympic Boulevard is activated by sports medicine and sporting club tenancies.

Recommendations

- Consistent with the SEAR, the proponent must prepare a Stadia Precinct Activation Strategy in consultation with Council that demonstrates a greater activation of the public realm, especially outside of event days.

Traffic and Transport

Pedestrian Access to/from the Site

The following comments relate to how the proposal has responded to Secretary’s Environmental Assessment Requirement (SEAR) No.3 – Western Sydney Operations *“Provide details of proposed strategies to mitigate risks at points of crowd swell (i.e. pedestrian crossing/refuge points, circulation around the stadium, and approach and departure points).”*

Council has reviewed the documentation and raise concerns in relation to the current strategy for dispersing egress crowds after events or emergencies, specifically mitigating potential conflicts between pedestrians and vehicles.

The design of the pedestrian access should reflect both mass movements of people on match days and the range of other important opportunities for residents, workers and visitors to access important connections within this precinct on a day-to-day basis. A key aspiration of the Western Sydney Urban Design and Public Realm Guidelines is that the *“stadium is located to reconcile complex site constraints while achieving a vastly improved relationship to the City of Parramatta, O’Connell Street, Old Kings Oval and Parramatta River”*.

The current stadium address and the path alignment does not demonstrate an improved relationship with its surrounds. The pedestrian approach and public domain experience need to be better articulated from all key access points surrounding the precinct including:

- The North-West Parramatta River bridge crossing and access path to Parramatta Park
- The Southern Parramatta River bridge crossing to Parramatta Park
- The Leagues Club
- O'Connell Street North and South
- The Parramatta River adjacent the western side of O'Connell street

Stadium access and the resulting public domain treatment should be considered from all sides. Pedestrian access and direct connectivity should always be prioritised, this should be demonstrated at the scale of stadium and the relationship with the car park not just the location or width of a pedestrian path. Pedestrian network design should prioritise precinct/ park desire lines to better integrate with the setting (i.e. not parking operation).

The precinct wide connections diagram (page 5 of Design Report) should include O'Connell Street as a primary link provided other origins such as PNUT and the leagues club. This should be reflected in the public domain design.

The Traffic Impact Assessment Report provides limited information on the impacts of walking infrastructure beyond Zone 2. In addition the mode share assumptions do not add up to 100%, and should be reviewed. The basis for the stated assumption of 20% walking mode-share for zone 3 should be further clarified. Limitations around pedestrian count data associated with the Stage 1 DA data collected and the assessment of the key pedestrian lines should be clarified under 4.1.3 Pedestrian Networks.

The Traffic Impact Assessment for the proposal indicates that there will be very poor conditions for pedestrians in the peak periods. This includes a Level of Service (LoS) F departing the stadium on Victoria Road. A LoS F is described as '*a complete breakdown of traffic flow with many stoppages*'. Furthermore, this does not take into account the effect of traffic signals along the pedestrian routes (refer to Section 5.3 of the TIA). Therefore, essentially the application fails in regards to pedestrian movement surrounding the stadium.

There is also inconsistency between the Landscape Drawings prepared by Aspect, which indicate that the main pedestrian links are Church and Marsden Streets, whilst the Traffic Impact Assessment indicates that the main links are O'Connell and Church Streets. These reports need to be reconciled.

An Event Traffic Management Plan (ETMP) will be required for events at the stadium as part of the solution. Improvements to infrastructure that are not part of the application will also be required. The ETMP may include changes that adversely affect other aspects of the TIA. For example, if the ETMP includes a lane closure or road closure for pedestrians then the traffic modelling for the intersection of O'Connell Street and Victoria Road would show further deterioration. So the ETMP

may show the need for further infrastructure upgrades. Accordingly, it is recommended that an ETMP be prepared as soon as possible so that additional infrastructure requirements can be identified.

The southern access to the stadium will become of greater importance as the Victoria Road footpath becomes overcrowded. More people will also use the southern accesses because the new stadium will have gates at this end of the site. The pedestrian facilities in this area are particularly poor, lighting and path widths require upgrading.

Required Upgrades

- A pedestrian and bicycle pathway 3m wide from the stadium to the river between the southern car park and O'Connell Street with lighting (currently pedestrians walk through the car park) subject to agreement with Parramatta Park;
- Lighting of the path under O'Connell Street bridge at Parramatta River;
- Lighting of the path along the north side of Parramatta River between O'Connell Street and Marsden Street (subject to Heritage Council approval);
- Widening (to 3m) and realignment of the path from the east side of O'Connell Street, opposite the Southern Car park access, to the river path;
- Widening of the path (to 3m) on the west side of O'Connell Street between the bridge over the river and the stadium;
- Upgraded lighting of the Southern car park is required, subject to agreement by Parramatta Park; and
- All lighting upgrades are to be to Australian Standards.

Recommendations

- That the proposal adequately develops strategies that cater to the safe egress of mass crowds using Victoria Road and O'Connell Street and associated mitigation works.

The TIA identifies potential mitigation measures but makes no recommendations. Some of these measures are critical to pedestrian movements and are discussed below.

Pedestrian Circulation throughout the Site

A central guideline of the Western Sydney Stadium Urban Design and Public Realm Guidelines is the provision of “a continuous 15m (min) curtilage clear of the stadium envelope” and “curtilage to have flat pedestrian-friendly surfaces and finishes” (refer Section 6.1 Guidelines). Council considers the current design is not consistent with the Guidelines as the continuous 15m wide curtilage of the stadium is broken at the southern and western portions of the stadium and does not demonstrate a continuous, open, flexible, flat, pedestrian –friendly surface.

Pedestrian circulation is moved away, separated from the stadium podium, service access and delivery road, VIP car parking, and vehicle access road to western car park. Pedestrian path (plan item #44) has an awkward alignment and takes pedestrians away from stadium and anticipated activation activities. This same path does not connect back to O'Connell Place and therefore does not provide the continuous ‘peoples loop’.

The public realm is not designed as an 'integrated whole', but is a series of disparate spaces separated by roads, car parking and services ways. This does not support the requirement for a continuous curtilage and lacks of activation outside of event/game time and does not invite public uses year round with a 'rich layering' of facilities that promote social diversity.

In addition the western perimeter paths (Reference 24 and 44 on Landscape Drawings) awkwardly skirt the new boundary instead of engaging with the stadium and is inconsistent with the Guideline requirement for 'continuous curtilage' or 'peoples loop'. Pedestrian connection between the southern parklands and river and the proposed Grasses Area for Informal Activities to O'Connell Place are non-existent. It is not clear how the pedestrian and cycle path (Ref 44) takes people to and from the stadium and surrounding public realm.

The application has not adequately demonstrated how crowds will be managed at the southern entrance. There is concern that the stairs and turnstiles are too cramped and potentially dangerous as on arrival crowds will build up on stairs while waiting to be searched or go through the turnstile; with the line potentially extending into the plaza space, people will be crisscrossing and cutting through lines. It is not clear how persons with access challenges, once arriving on podium, join the line to the turnstiles, which extends down the stairs.

On egress, mass crowds would hurry (in emergency mode) toward stairs located just beyond turnstiles, which can be dangerous as they do not anticipate stairs in front of them in a crowd. There are safety concerns where emergency exit relies on stairs only at southern exit and at eastern edges and ramps may be a safer design option.

Recommendations

- That the design be revisited to be consistent with the Guidelines, namely a 'continuous 15 metre wide curtilage' that seamlessly connects to the public domain at all sides of the stadium;
- That the design considers the location of the top of stairs to the turnstiles and provides significantly more space for gathering, queuing and possibly emergency assembly point; and
- That a plan be submitted demonstrating how all pedestrian (and cycle) routes proposed sit within the broader regional connections through the parkland and along the river foreshore in Parramatta LGA.

Vehicular Access

There are other developments, projects, and infrastructure upgrades in the area that will benefit the stadium. For example, the Parramatta Light Rail and intersection upgrades associated with PNUT and the Ring Roads will improve conditions in the area.

The Parramatta Stadium contribution to these improvements should be to convert the intersection of O'Connell Street and Victoria Road to a T-intersection by relocating its access to the north. This reduces conflict and improves the efficiency of the intersection.

The conversion to a T-intersection will be necessary during events in any event, to manage conflict between vehicles and pedestrians and to store pedestrians prior to crossing at the traffic signals. This stadium access should be relocated to either the north side or south side of the proposed future development site on the north east corner of the site and be via a left in/left out driveway.

The other recommended change to access is to signalise the southern car park access and relocate the existing pedestrian signals (at the pool) to this signalised Southern car park access.

The traffic signals at the intersection of Victoria Road and Marist Place should also be upgraded to provide a wider pedestrian crossing across the southern leg of the intersection (by increasing the vehicle setback for northbound motorists).

The Old Kings oval sits adjacent to the site and future access and for pedestrians, vehicles and service vehicles should be maintained and improved where possible.

Recommendations

- O'Connell Street and Victoria Road are to be converted into a T-intersection with the stadium access relocated to the north east corner as a left in / left out driveway;
- Signalise southern car park access;
- Upgrade traffic signals at Victoria Road and Marist Place to provide wider southern pedestrians crossing;
- Provide a study of existing parking opportunities beyond the site up to and no less than a 15 minute walk of the stadium. Provide a pedestrian movement study to determine crowd numbers and behaviour and propose options to better access and utilise these parking options and where new opportunities could occur; and
- Demonstrate continues access to Old Kings oval.

Road Network Impacts

Council is currently investigating, at the request of Transport for NSW, the impacts of increased parking on traffic in the Parramatta CBD as part of the Parramatta CBD Planning Proposal. Preliminary investigations indicate O'Connell Street may need to accommodate the projected traffic increases.

The Parramatta North Urban Transformation (PNUT) program is likely to require an upgrading of the intersection of Victoria Road and O'Connell Street, which may impact on Stadium operations.

Furthermore, the planned Parramatta Light Rail envisages diverting a large volume of traffic from Church Street into O'Connell Street, which may require changes on O'Connell Street. The Stadium project should work with Transport for NSW and Council to ensure that planning in this area is integrated and well thought out.

Recommendations

- Council recommends that DPE contact Transport Strategy Division of Transport for NSW in relation to potential impacts relating to O'Connell Street due to both light rail, PNUT and future road network improvements in the Parramatta CBD.

Impacts on surrounding medical and care facilities

There is a concentration of medical facilities close to the proposed Western Sydney Stadium, particularly along Grose and Fennell Streets. Some of the facilities include: Parramatta Medical Centre, Regency Medical Centre, Frontline Medical Centre, NIB Dental Care, Southern Cross Community Healthcare, Uniting Lillian Wells North Parramatta, Hope Hostel and Southern Cross Care Marian Nursing Home.

Many of the people accessing medical facilities in the North Parramatta area will require parking access, or pick up and drop off facilities, for medical appointments, and for visits to nursing homes and medical centres. Although the SIA notes that the main mode of transport to and from the stadium is likely to be pedestrian movement from the Parramatta Train Station, many visitors to nearby medical centres will be older people, people with disabilities and people with illnesses. These visitors will not necessarily be able to easily access public transport, and their ability to access their medical appointments may be negatively impacted by the increase in traffic in the area.

Recommendations

- The proposal, through the Traffic Impact Assessment, needs to quantify and respond to the impact of increased traffic on medical facilities and residential care in North Parramatta area.

Equity of Access

Council considers that the proposal does not achieve equity of access throughout the development with dignified routes for people with a disability as required by SEAR 4 - Built Form and Urban Design, the Site Circulation Guidelines and the WSSUD and Public Realm Guidelines.

The Site Circulation Guidelines states that “*all areas shall be designed to provide equality of access for people with disabilities*” and that “*the layout should facilitate easy movement from the Stadium Precinct into the greater parkland precinct*”. The Guidelines states the “*most pedestrians will arrive from the south-east (O’Connell Street and the river foreshore) or from the north-east (Victoria Road and O’Connell Street)*”.

For visitors with small children in prams or persons with a disability there is a 5.64m level change from the base of the Entry Stairs to the Concourse Level. Adjacent to the Entry Stairs a single lift is provided which is the sole means of accessible access to the main concourse for those arriving from the south-east, which is considered the primary entry to the stadium for people arriving from the Parramatta City Centre.

In addition, the design of O’Connell Place (plaza space parallel to the stadium and O’Connell Street) does not provide any accessible entry to the Concourse level until one reaches the north-eastern corner (Victoria Road and O’Connell Street).

The proposed level changes across the site have not been properly integrated into the design of the new Western Sydney Stadium. There is a significant concern that the future long term success of the stadium as a dynamic civic and entertainment precinct will be compromised because of the poor integration between the

programmatic requirements of a stadium and the existing and proposed external ground levels.

Council is concerned that there is no accessible parking provided at the Western or Southern car parks.

Recommendations

- Revise the design to demonstrate compliance with SEARs No. 4 and Guidelines relating to equity of access;
- The Southern and Western Car parks should include accessible car parking spaces with associated equitable access paths of travel; and
- The design should include integrated ramps that offer equally celebratory access between the lower public domain and the upper exterior stadium podium.

Integration of Services

The Service access road separates Parklands, Kings Oval and the southern car park from the southern entry and O'Connell Place. Council is concerned that there is no dedicated and direct pedestrian access route and that one must traverse the southern car park. The service turnaround area uses valuable space that could otherwise be used to achieve the Guidelines aim for '*continuous curtilage*' for pedestrian circulation around stadium. Furthermore, access to the western car park is via both the northern car parking and the southern car parking and stadium service. It is unclear how much of the site and car parking will be fenced preventing public access at all times.

Recommendations

- The design be revised to better integrate the loading dock/service area under the southern end of the stadium to lessen the impact on parklands and pedestrian circulation opportunities; and
- Consideration be given to inclusion of an upper podium. The overhang, with good architectural detailing, could be used to hide the service areas when viewed from the car parking and parkland to the south.

Community use of proposed facilities

Council has reviewed the Social Impact Assessment (SIA) prepared by JBA Planning. The SIA is a detailed assessment, however fails to address the following issues.

The proposed Western Sydney Stadium and surrounding public domain will include several facilities that could be used by the community when the Stadium and surrounding public domain is not being used for events. In particular, the stadium is proposed to include a function centre and kitchen facility, player and coaching facilities, sportsgrounds, and the public domain is proposed to include outdoor sporting and recreation facilities, public plazas and entertainment areas.

The City is currently undergoing rapid population growth and high density redevelopment, and this additional demand will place pressure on existing social infrastructure, which is already at capacity. Preliminary findings from social infrastructure audit and needs analyses that are currently underway suggest a significant undersupply of community facilities, open space and recreation facilities

across the City of Parramatta. New stadium facilities could be made available for hire by the local community to expand the range of community and recreation facilities available in the City of Parramatta, and help address the social infrastructure needs of the community.

There is a deficit of recreation and community facilities for young people across the City of Parramatta. The Parramatta PCYC site (12 Hassall Street, Parramatta) has been sold, and will shortly cease operation. Recent research commissioned by the City of Parramatta found that although the Parramatta CBD is a major hub for young people (due to the large number of retail, entertainment and educational facilities in the area) increasingly, the Parramatta CBD is not a place designed for young people (Cred Consulting, 2016).

The redevelopment of Western Sydney Stadium could provide an opportunity to address the lack of youth facilities in the Parramatta CBD, by offering spaces, programs and facilities that connect with young people. This has not been considered in the SIA. However, the Parramatta Eels and Western Sydney Wanderers both have youth outreach programs, and it may be possible to expand these programs through a partnership with the Stadium.

Recommendations

- The proposed Western Sydney Stadium facilities are made available for hire by the City of Parramatta and its community; and
- The proposal explores opportunities to provide youth programs and facilities.

Environmental Health

Council consider that the applicant's proposed management of contaminated land, acoustics, waste, and air pollution to be generally acceptable.

Recommendations

- Further information should be required prior to CC stage that details the fit out of the food and beverage service areas to ensure compliance with AS4674 and the Food Standards Code.

Arboriculture

Recommendations

- Considerations be made for the retention of existing mature trees where possible;
- The engagement of an AQF Level 5 Arborist ('Project Arborist') to provide an Existing Tree Management Plan to incorporate tree protection measures in accordance with AS4970-2009;
- The Project Arborist must supervise all constructions works, including demolition and site management, within five (5) metres of any existing tree to be retained; and
- Species selection should consider predominantly native species in preference to exotic for tree replenishment.

Heritage

As the site of proposed development is listed in the State Heritage Register (SHR), the consent authority in heritage matters is the NSW Heritage Council (represented by the NSW Office of Environment and Heritage – NSW OEH).

Given the significance of the Park to the wider community, it is recommended that the applicant consider any matters that may arise out of public consultation, primarily with the Parramatta City Council's heritage advisory committee, and the Local Aboriginal Land Councils.

Council encourages the proponents of this development to include world class Heritage Interpretation at this important, large site. It is located in a bend in the river, through which a Darug trade route may have passed.

It is important to ensure that Parramatta's rich and diverse stories are embedded into the new fabric of the city. This will be achieved through a variety of heritage interpretation interventions, in the public domain and in publically accessible spaces inside and outside new buildings.

The heritage team look forward to working with the project team at an early stage to deliver a quality outcome on this important site. Appropriate conditions requiring this should be included in any future development consent.

Public Art

Council consider that Council's Public Art Guidelines for Developers should be used to guide the inclusion of public art in the development.

These Guidelines outline a process for the development of locations for public art and possible themes for public artworks. In general, such a process ensures a good result, being work that has been considered by some independent and expert opinion, work that is site specific that is sensitive to history, and relates to the "story" of the site and its development.

The Guidelines also propose a budget calculation, which in this case, due to the scale of the development, would produce a budget of half of one percent of the construction budget. If this is, once calculated, seen as excessive, Council may be willing to negotiate a reasonable but still substantial fund set aside in the project for public art. Once agreed, this should form a condition of the project.

While not part of the Guidelines, Council suggests the inclusion on this site of an Indigenous War Memorial. Such a proposal is already in front of Council, from the local RSL and Indigenous community. It would allow the "Memorial" aspect of the swimming pool to be honoured and carried forward, and draw a link to the river, being important for Aboriginal people.

It should be noted that artworks on the site should not automatically be assumed to need "sporting themes", and equally it should be noted that an avenue of champions, with bronze images of past sportspeople, should not be assumed to qualify as "public art". Council would expect to see draft submissions at an early stage of the "Arts Plan" and to make comment on the submissions. This should be a condition of progressing the project.

The site will serve many community and cultural needs in its life; it occupies an important historical site, and will have diverse social functions. As such, the role of public art can be to enlarge and expand our understanding of the site, adding value and making the site accessible and engaging for residents and visitors at all times of day.

Public art can also carry other burdens - it can add to interpretive information about the past, be active in data gathering, or play equipment, it can be passive as furniture or water stations or even bike parking. Public Art can serve functional ends, but must be always make clear and powerful statements as itself.

Council Officers with expertise in this area stand ready to meet the proponent and discuss the development of an Arts Plan as part of the development consent.

Operation, Safety and Security

Council has reviewed the Crime Prevention through Environmental Design (CPTED) Assessment Report prepared by JBA and the Draft Operational Management Plan and provide the following comments.

CPTED Design Principles

Council refers to the Secretary's Environmental Assessment Requirements No. 4 - Built Form and Urban Design and the Western Sydney Stadium Urban Design and Public Realm Guidelines (the Guidelines).

The CPTED report states that *"the celebration of stadium entrances through the proposed signage zones and the public domain design will enable visitors to clearly understand the urban environment"*, and that *"the proposed landscape concept is considered to be carefully designed with CPTED principles in mind and once executed will ensure surveillance opportunities are maximised and key sightlines are preserved"*.

The aspiration of the Guidelines was to create *"an activated urban park, that gives purpose to the stadium precinct for non-game days"*. In addition, the guidelines promote that the detailed design of the stadium *"embed uses within the stadium façade that address and activate the space"*.

Based on a detailed review of the ground level interface and public domain surrounding the stadium, it is considered that the proposal does not achieve sufficient activation, and passive surveillance (on non-game days). The proposed level changes across the site has resulted in the following compromised design issues:

- A single café spaces of less than 40sqm, located in a recessed portion of O'Connell Place (plaza). This is located at the south-eastern corner and is the only external part of the stadium that is activating the park. This is not consistent with the vision for an *"urban activated park, that gives purpose to the stadium precinct for non-game days"*.
- The entire southern elevation of the proposal does not comply with the requirement for a 15m 'stadium curtilage'. The intent of this curtilage was to

create a continuous accessible pedestrian link around the stadium perimeter that provides clear, legible access to the stadium. The southern elevation, which is also the primary façade to the parklands, Parramatta River and Parramatta City Centre is poorly defined truck / service zones and the internal access road that does not have any footpaths to protect pedestrians from vehicular conflicts.

- With a 5 metre level change between the concourse and the southern carpark, there will be minimal opportunities for activation or surveillance along the southern edge of the stadium.
- The application is unclear in documenting the type and extent of fencing required around certain edges of the stadium (Loading Dock, Western/Northern Carpark). There is a serious concern that these spaces, including the river terrace may present an unsafe environment due to their isolation, disconnection from the stadium edge through poor resolution in levels and inappropriate programming (i.e. western carpark and river terrace in everyday mode is unlikely to be a successful piece of urban infrastructure due to its lack of visibility and poor connections to the river.

Recommendations

- That DPE request the applicant to adequately address CPTED principles as detailed above.

CCTV

The CPTED Assessment Report notes that the lack of CCTV surveillance currently in place will be addressed when the stadium is completed. During construction phase, however, there is a high risk of theft and break and enter incidents from the construction site and neither documents address that particular issue. There is also potential of linking the stadium CCTV to the City of Parramatta Council CCTV network to enable monitoring staff to view the external stadium cameras, particularly on non-match days.

Recommendations

Provision of on-site security during non-construction hours and temporary CCTV installed during the construction phase to mitigate the risk of theft; and

- That Venues NSW and Council enter into discussions in relation to linking CCTV networks.

Open Space and Natural Resources

Open Space and Natural Resources previously indicated in-principle support for the proposed stadium which is relocated towards O'Connell Street away from the environmentally sensitive Parramatta River corridor containing Endangered Cumberland Riverflat Eucalypt Forest, and a 'nationally significant' Grey-headed Flying Fox (GHFF) camp. Advice provided in relation to Stage 1 identified the need for a 40m vegetated riparian zone (VRZ) along the Parramatta River, and the need to ensure that noise and lighting, during both construction and operation, is designed to minimise impacts on the GHFF, particularly during their breeding period.

It is noted that Stage 1 (Concept Plan and Demolition) conditions of approval for the project require that future development applications include;

- *'A Biodiversity Assessment that considers the detailed construction and operational impacts of the development and includes and necessary*

mitigation measures to minimise any potential adverse impacts on the existing Grey-headed Flying Fox Camp' (B16).

- *'A Lighting Strategy that considers ... impacts on endangered and threatened flora / fauna adjoin the site' (B17).*

Stage 2 (Detailed Design & Construction) of the stadium development has been assessed in accordance with the following planning controls and best-practice guidelines:

- *Parramatta Development Control Plan 2011*
- *Guidelines for Riparian Corridors (NSW Office of Water)*
- *'Life in Our City' Parramatta Biodiversity Strategy 2015-2025*
- *Biodiversity Impact Assessment (AMBS Ecology & Heritage)*
- *Noise Impact Assessment (Acoustic Logic)*
- *Stormwater Management Plan (Aurecon)*
- *Lighting Assessment (Stowe Australia)*
- *Construction Management Plan (Aurecon)*
- *Landscaping and Public Domain Plans (Aspect Studios)*

Grey-headed Flying Fox Camp

The Biodiversity Impact Assessment (BIA) prepared by AMBS Ecology and Heritage confirms the presence of a 'nationally significant' GHFF camp approximately 150 metres from the existing stadium. This assessment found that there is the potential for indirect noise and lighting impacts relating to both construction and ongoing operation, particularly during the breeding period and at dusk / dawn when the camp is most active.

Whilst the Biodiversity Mitigation Measures outlined in the Environmental Impact Statement (EIS) prepared by JBA (March 2017) are considered to adequately address potential noise impacts; no lighting measures are included. Furthermore, the letter provided by Stowe Australia is deficient and is not considered to meet the consent requirement for *'A Lighting Strategy that considers ... impacts on endangered and threatened flora / fauna adjoin the site'*. Subject to implementation of the EIS Biodiversity Mitigation Measures and implementation of a lighting strategy that ensures lighting is directed away from the GHFF Camp, the project would be less likely to result in a significant impact on the GHFF.

River-flat Eucalypt Forest (EEC) and Habitat Trees

The BIA also confirms the presence of River-Flat Eucalypt Forest Endangered Ecological Community (including hollow-bearing trees) along the western boundary of the site within the Parramatta River riparian corridor. The Stormwater Management Plan (SMP) prepared by Aurecon has identified that the existing stadium does not provide on-site attenuation or treatment of run-off into the Parramatta River. It proposes that carpark run-off will predominantly flow into bio-swales that will capture, detain and filter / treat environmental flows, with water from greater run-off flows to be conveyed to a conventional pit and pipe system. This is considered to result in a low potential for the River-flat Eucalypt Forest to be significantly affected by the changes to surface water run-off.

Whilst no significant trees are to be removed; it is noted that one large hollow bearing tree is located inside the boundary fence installed for Stage 1 demolition

works. An internal tree protection fence should be installed to ensure that no works are undertaken within the critical root zone of any EEC trees (with any works inside the primary root zone to be undertaken by hand under the supervision of a qualified arborist). Subject to the implementation of appropriate tree protection, erosion and sediment control measures, I am satisfied that there will be no likely significant impact on River-Flat Eucalypt Forest Endangered Ecological Community.

Parramatta River Riparian Corridor

The Parramatta River forms the western boundary of the site and is a 4th Order Watercourse (Strahler stream ordering system) requiring a minimum 40m vegetated riparian zone (VRZ) from the 'top of bank' in accordance with the NSW Office of Water '*Guidelines for riparian corridors*'. This VRZ provides an important buffer zone to ensure:

- i. bed and bank stability and reducing bank and channel erosion;
- ii. water quality protection by trapping sediment, nutrients and other contaminants;
- iii. diversity of habitat for terrestrial, riparian and aquatic flora and fauna;
- iv. connectivity between wildlife habitats;
- v. an interface or buffer between developments and waterways.

However, the proposed 'river terraces' (Aspect Studios) significantly encroach into the required 40m VRZ. To maximise the ecological functionality of the Parramatta River VRZ, the western boundary of the proposed 'river terraces' requires realignment to ensure a 40m VRZ is achieved.

Reconfiguration of the existing carparks and the removal of existing facilities within the 40m VRZ provides an important opportunity for restoration and re-vegetation of the corridor (where regeneration is not feasible). This would also assist in reducing visual impacts of the proposed development from Parramatta Park through creation of a vegetated buffer. These bushland restoration works should be undertaken in accordance with a Vegetation Management Plan prepared by a qualified ecologist, to be funded for implementation by a specialist bush regeneration team over a 5 year period. This will ensure that the Parramatta River riparian corridor is in a satisfactory condition prior to transfer under Parramatta Park responsibility.

The SMP and BIA assume that the existing Parramatta River stormwater discharge pipe is to be used without the need to otherwise disturb the riparian corridor. However, it is acknowledged that minor excavation along the existing pipe route will be required if it is found to be unsuitable for re-use. To facilitate a stable transition from a constructed drainage system to a natural flow regime, and minimise potential erosion from peak flows, the existing stormwater outlet should be upgraded in accordance with the Office of Water '*Guidelines for Outlet Structures*'.

Recommendations

- Amend landscaping plans to ensure a minimum 40m VRZ between proposed 'River Terraces' and the Parramatta River;
- A qualified ecologist is to prepare a Vegetation Management Plan for the Parramatta River riparian corridor to be funded for implementation over a five year period;

- Require a detailed Lighting Strategy that considers impacts on the Grey-headed Flying Fox and other endangered fauna adjoining the site;
- Require Tree Protection Fencing for trees to be retained within the site in accordance with As4970:2009 (Protection of Trees on Development Sites); and
- Upgrade the existing stormwater outlet into the Parramatta River in accordance with the NSW Office of Water '*Guidelines for Outlet Structures*'.

Catchment and Flood Engineering

The Department of Planning adopted all Engineering related SEARs recommended by Council, and the applicant has responded thoroughly and well to these requirements. The developer's engineering consultant has been in contact with Councils Development Engineering department throughout the formulation of the stormwater management plan in order to ensure that the final submission was in line with Councils standards and expectations.

Stormwater drainage

The stormwater system has been designed along the major/minor flow theory, incorporating quality treatment measures for run-off up to 4EY flows.

Possible amplification of Council stormwater infrastructure to which connection is proposed (2x connections in O'Connell Street and discharge to the Parramatta River) has not been adequately considered.

OSD is not proposed for this site; a position which is adequately supported in the stormwater management report.

WSUD

The proposed treatment train consists of a rainwater tank, a bio-swale filtration system within the car park area and jellyfish filtration pods. This is very limited, and it is suggested that the applicant consider augmenting it with primary filtration devices such as gross pollutant traps to remove trash prior to finer, tertiary treatment. This would decrease the maintenance burden on the proposed tertiary treatment system and therefore improve water quality outcomes in the long term.

Using potable water to irrigate the playing field on OHS grounds is not considered a valid decision. Rainwater from rooftops that is collected and put through a first flush treatment device is expected to be of sufficient quality that no risk would be posed to health of players or staff. If the developers were still concerned about this issue, it is suggested that they propose further filtration of rainwater prior to use in irrigation.

Flooding

The site lies largely outside of the 5% and 1% AEP flood affected area, but is almost completely inundated during the PMF.



Figure 1: 1% (dark blue) and 5% (light blue) AEP flood affectation



Figure 2: PMF flood affectation.

2D modelling was carried out in Tuflow to quantify possible fluvial flood inundation during the 1% AEP and PMF storm events. The critical storm was found to be the 9hr event, with a 1% AEP level of 5.5m AHD at Charles Street Weir. Overland flooding was also investigated for both pre and post development conditions, with a maximum 1% AEP level at 8.5m AHD. Pluvial flooding is therefore identified as the critical flood method for this site, and the flood planning level should be set 500mm above the overland 1% AEP level at 9m. The playing field has been set at 9m AHD, and the surrounding concourse at 14m AHD, which is acceptable. The landscaped and parking levels are proposed to vary to match the natural topography, which is satisfactory provided that an avenue for egress and emergency access is provided above the FPL.

A Flood emergency access and evacuation plan should be proposed for this site, given the intensity of use and expected PMF flood inundation.

There is no reference to modelling of 200 year and 500 year ARI flood events in regard to climate change as set out in SEARs Point 21. This may have been addressed in the previously issued AECOM Engineers Working Paper as indicated in Appendix Y which also states that Appendix Y largely reflects the strategies adopted by the working paper. However, Council officers were not able to review the AECOM Engineers Working Paper and therefore can make no comment in regard to this climate change aspect.

Fire Engineering

The detailed fire engineering report should be submitted to the NSW RFS for assessment and approval prior to the issue of a construction certificate.

Recommendations

- A Construction phase soil and water management plan should be prepared, including an excavation cavity dewatering plan;

- A Flood emergency access and evacuation plan applicable for all flood events up to and including the PMF must be prepared, and submitted to the SES for assessment and approval;
- Augment the WSUD treatment train with primary filtration devices such as gross pollutant traps to remove trash prior to finer, tertiary treatment.
- Use rainwater collected from rooftops to the rainwater tank to irrigate the playing field. If the developer has OHS concerns, then further filtration of this water is suggested prior to reuse;
- Liaise with Council's Civil Assets department to address the possible need to amplify existing Council stormwater infrastructure to which connection is proposed; and
- The detailed fire engineering report should be submitted to the NSW RFS for assessment and approval prior to the issue of a construction certificate.

Ecological Sustainable Development (ESD)

Council has reviewed the adequacy of the applicant's response to the SEARs relating to ESD and provides a summary in the table below. A detail assessment is provided below.

Ref	SEAR - Ecologically Sustainable Development	Met	Notes
12.(i)	Detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and ongoing operation phases of the proposal.	No	Energy/Climate Change/Urban Heat impacts not addressed. Ongoing operational phase is not addressed outside waste.
12 (ii)	Demonstrate that the proposal has been assessed against a suitably accredited rating scheme to meet industry best practice.	Partially	LEED Gold rating targeted only. Generic reporting only with assessment of project proposal
12(iii)	Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.	No	No description of measures that would be implemented.
Plans & Documents	In addition, the EIS must include the following: - Energy Efficiency Report	No	Energy is not reported on

ESD Principles

The application does not comprehensively address the Secretary's Environmental Assessment Requirement (SEAR) No. 12 – Ecological Sustainable Development (ESD).

The response in the Environmental Impact Statement (EIS) argues that the precautionary principle does not apply as there are no identified 'threats of serious or irreversible environmental damage'. Council considers that both greenhouse gas

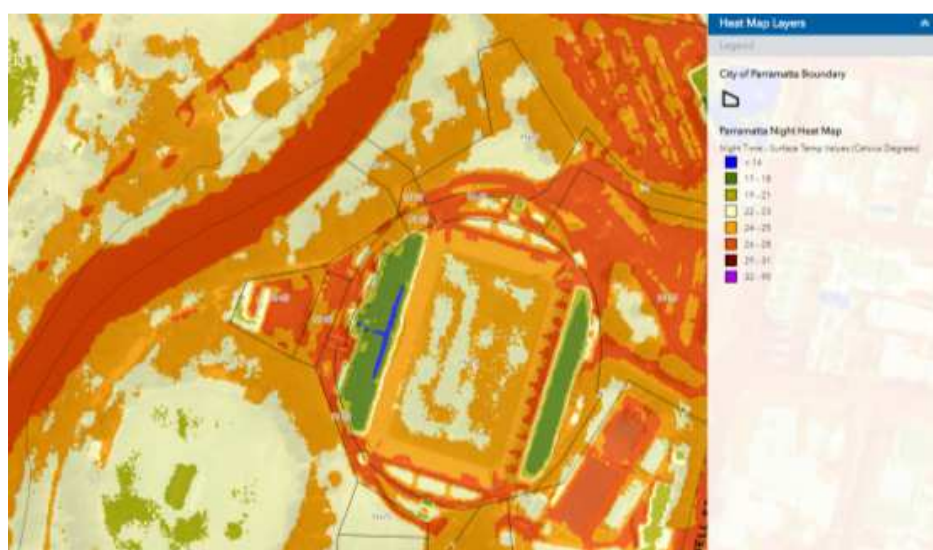
abatement and minimisation of the impacts of urban heat impacts should be treated under the precautionary principle.

Council is committed to improving community resilience to environmental risks, including extreme weather events such as heat. Parramatta, on average, experiences 15 days over 35 degrees, compared to Sydney CBD, 5 days over 35 degrees¹. Council is developing initiatives to mitigate the potential negative effects of built form on heat in the city, including improving thermal comfort of users in public spaces.

As indicated on Figure 1, below, localised warming occurs between hard infrastructure, such as former Stadium, compared to green spaces and the Parramatta River. Building materials absorb heat, causing surface and ambient temperatures to rise. As Figure 2 shows, the temperature is often greatest at night, when concrete, asphalt and buildings release heat that was absorbed during the day back into the surrounding environment.



Figure 1 – Day time temperature measured during a heat wave in 2013



¹ <https://www.climatecouncil.org.au/uploads/111b148abf6c2b7e08e25cc5f6612fdc.pdf>

Figure 2: Night time temperature measured during a heat wave in 2013

Source: Parramatta City Council Heat Maps <http://coolparramatta.com.au/>

Therefore it is expected that the proposal, which will attract large numbers of the public, incorporate design details to respond to Parramatta's climate.

Recommendations

- The proposal be amended to demonstrate integration of urban heat mitigation measures, including the following design initiatives:
 - All rooftops utilise materials which have a minimum SRI of 82 for horizontal surfaces (less than 15°) and 39 for sloped surfaces (greater than 15°) or are covered with solar photovoltaics.
 - 50% of all external areas (not including the stadium) are covered or shaded by native vegetation within 5 years of planting or shaded by shading structures which meet the rooftop SRI requirements listed above. Shading is calculated at solar noon on the summer solstice.
 - 50% of hard surfaces in the external areas are shaded by native vegetation or shade structures provided that the shade structure has a minimum SRI of 82 for horizontal and 39 when sloped greater than 15° or are covered with solar photovoltaics.
 - Electric vehicle charging for a minimum of 10 parking spots, and conduits for a minimum of 25 electric vehicle charging spots for future expansion. EV parking and conduits should be proportionally distributed amongst the car parks according to their parking capacity (due to the extent of car parking and the associated opportunity to reduce anthropogenic heat from petrol engines.)
 - Air cooled heat rejection is not be used for air conditioning. Ground source heat rejection is to be investigated to further mitigate UHI impacts. A stadium is an ideal development for this well established technology given limited air conditioned area and extensive ground access.
- Condition that the proposal must provide an energy related Greenhouse Gas reduction Report demonstrating 30% GHG saving compared to a building code minimum will be achieved in operation. The report is to be submitted prior to the issue of the construction certification for the relevant works portion and accompanied by certification of compliance by a suitably qualified engineer.

Ratings Scheme – LEED

LEED is considered an appropriate tool to meet industry best practice for this type of development. However, we note some significant limitations in the tools and the application. The proposal provides reporting on LEED v4.0 Gold as only an aspiration. This provides no certainty of outcomes and a commitment should be made to achieve the target certification.

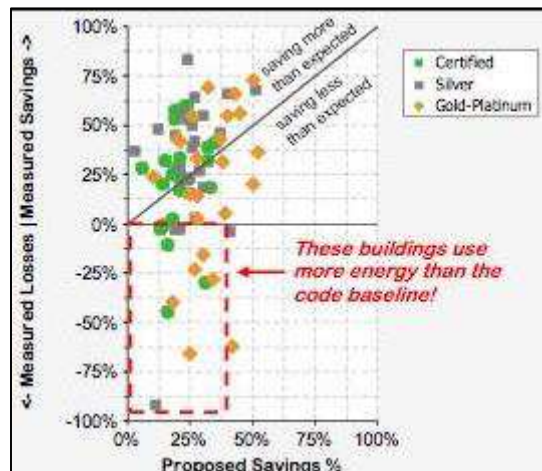
LEED certification is not able to be achieved prior to Occupancy. It is therefore problematic when relied upon in any consent condition. A Pre-certification is offered by the USGBC that provides some independent assurance of application prior to practical completion.

Whilst the report outlines the design initiatives that are to be included in the proposed Western Sydney Stadium, the tracking sheet reveals a high degree of uncertainty and a lack of knowledge of actual design intent suggesting that the

design has yet to be assessed. Example included tracking sheet comments relating to:

- what is required by LEED for open space: *'minimum of 25% must be vegetated (turf doesn't count) - what does this mean.'*;
- what is proposed for the project in areas such as light spill: *'Confirm which pathway to be taken and if current design can comply.'*; and,
- basic requirements that are important to the LEED rating and should be understood prior to any Development Application, such as car parking: *'Don't exceed local council min. Find out what council requirements are and go from there.'*

It is noted that 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 it does not measure energy savings by relative greenhouse gas impacts (as per NABERS) or energy demand (as the Section J of per 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 an actual energy saving being achieved and possibly even increasing energy usage. This, combined with the limitation that ASHRAE 90.1 measures only design potential rather than actual operation performance, contributes to the absence of correlation between certified LEED Gold ratings and energy performance on an individual building basis.



The above diagram shows that measured performance in LEED certified Gold buildings can be significantly worse than minimum code requirements even when significant savings were proposed.² Whilst this study predates LEED v4, the reliance on ASHRAE remains unchanged. The weakness of LEED with respect to energy efficiency requires that a supplementary requirement be added.

Recommendations

² Energy Performance of LEED® for New Construction Buildings , New Buildings Institute Final Report March 4 2008, Prepared for the US Green Building Council

- Consent should be conditional upon LEED v4 Gold certification being achieved and a requirement to achieve LEED v4 Gold Pre-certification prior to issue of the Construction Certificate for the relevant works package.

Minimise consumption of resources, water and energy

No description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy has been provided in the application. There is nothing in any of the material provided as part of the development application to suggest any effort has been made in this regard.

In addition, the EIS has not included an Energy Efficiency Report which is required by the SEAR. The LEED report appears to have also been presented in satisfaction of the requirement to include an energy efficiency report. However, it does not report on energy efficiency and is therefore not able to satisfy the requirement.

It is also clear that the approach to LEED is to achieve the points of best fit to the project, which does not meet the requirement to minimise consumption of resources, i.e. to reduce consumption to the smallest possible amount.

Recommendations

- Prepare an Energy Efficiency Report consistent with SEAR and prior to assessment of the Development Application which details:
 - A description of measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.
 - The measures to include an estimate of energy savings and efficiency and how they contribute to the minimisation of resource consumption.