

03 | ACCESS & CIRCULATION

Access to the Multipurpose Stadium is discussed in this chapter, with consideration for patron arrival pathways and vehicle circulation within and around the venue.

MODES OF ACCESS

Drawing from the experience of other stadia projects recently delivered in Sydney, Perth and Adelaide, the ensuing benefit from an inner-city Stadium is a natural outcome from ease of access that supports increased visitation, increased patronage at local businesses, and an uplift in bookings at city hotels. More importantly, the civic pride that stems from the establishment of a landmark public building is invaluable and brings enormous social benefit to the community.

The situation of the new Macquarie Point Multipurpose Stadium in a central activity precinct adjacent to the Hobart CBD is ideal to support multi-modal access to the venue. The majority of patrons attending the Stadium will arrive on foot, from nearby parked cars or from the new Bus Plaza.

This chapter provides an overview of access to, and circulation within, the new Stadium. The following modes are addressed:

- Patrons on Event Day
- Vehicles on Event Day (Broadcast and Medical)
- Vehicles on a Week Day (typical servicing)
- Emergency Access



View toward the Stadium showing the new Bus Plaza

OPEN SPACE AND PATRON ARRIVAL

Surrounding the new Macquarie Point Multipurpose Stadium is a public concourse to support the safe movement of people arriving at, and leaving from, the venue. The concourse has a clear purpose in managing circulation, but also provides desirable public open space and a 360-degree pathway from which the Stadium building can be experienced. It allows sunlight to fall on all sides of the Stadium, and promotes outward views from the internal spaces.

The configuration of the new Stadium proposes four (4) public entries, one for each quadrant. The entries have been located to take advantage of pedestrian flow from the expected arrival pathways. The entry forecourts provide an ideal opportunity for landscape treatments that give character to each distinctive space:

- Gate 1 to the South-East: the Port-side Live Site for fan activation on Game Day
- Gate 2 to the South-West: addresses the Davey Street and Evans Street intersection and faces local landmarks including the Federation Concert Hall and the decorative brick flue of the old Hobart Gas Company.
- Gate 3 to the North-West: facing the Queens Domain Escarpment, Gate 3 will receive patrons arriving on foot from Brooker Avenue, and the future Davey Street pedestrian bridge.
- Gate 4 to the North-East: in close proximity to the Bus Plaza, patrons arriving by public transport will approach Gate 4 on arrival. This entry will also be the first on approach from the inter city bikeway.



SECURE BOUNDARY

On a typical day, the secure boundary to the venue aligns to the Stadium facade. As the building is located in a publicly accessible area, people will be able to walk all around the building unencumbered. If arriving at the Stadium for a mid-week function, conference, or to work, the point of entry will be the doors into the venue at Gate 2.

During a major event at the Stadium, the Brief requires that an allowance of up to 30 metres in front of the entry gates should be made for bag and patron searching. Whilst this boundary will be formed with temporary overlay, it becomes the effective secure line beyond which people cannot pass without first being screened.

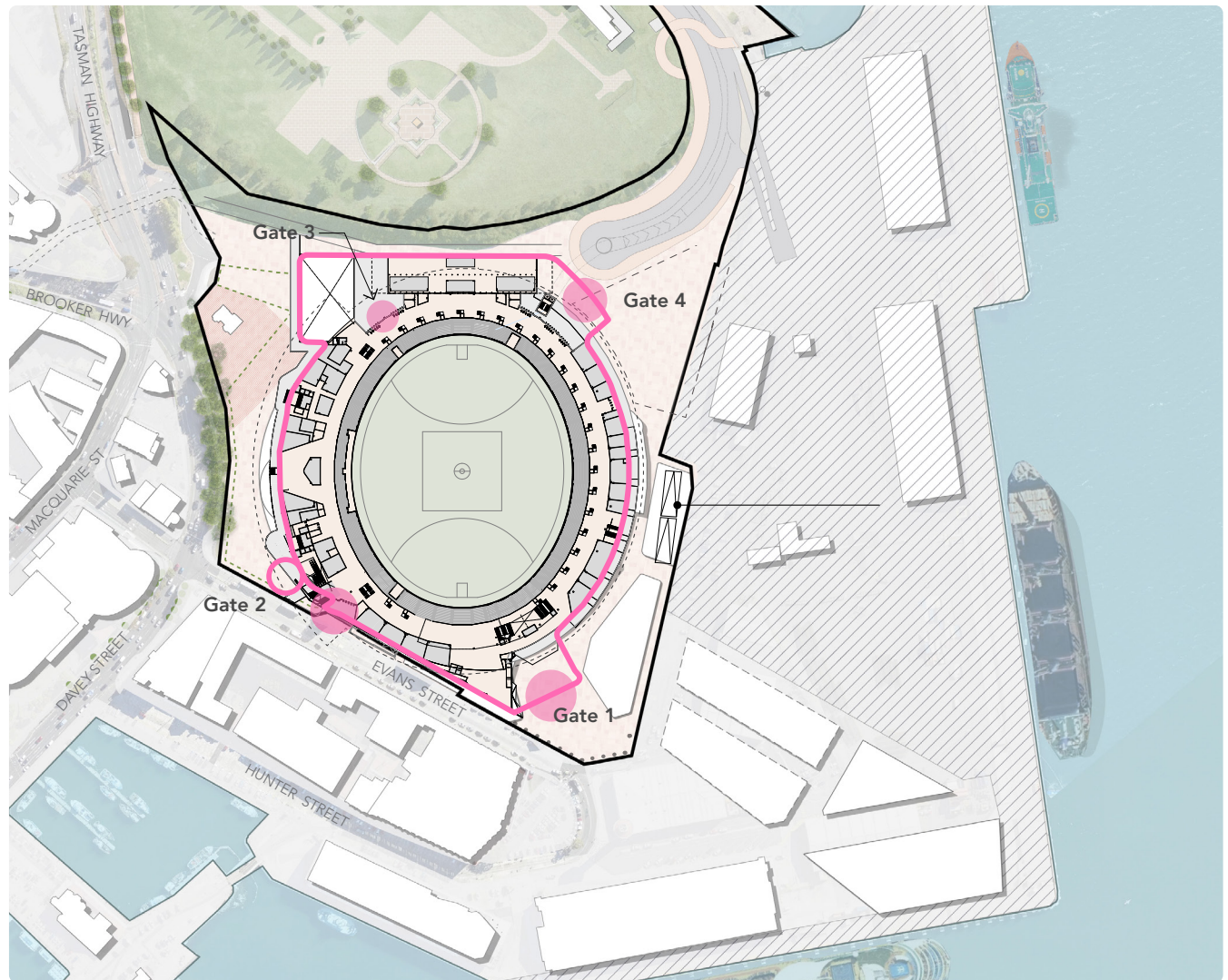


Figure 15: Event Day secure line

● Mag and bag ○ VIP Mag and bag — Secure line

PATRONS ON AN EVENT DAY

On an event day, the majority of patrons attending the Stadium will arrive on foot. It's expected that in addition to local traffic, some people will park around Queens Domain and in the Hobart CBD utilising existing car parking, and will walk the remainder of the distance to Macquarie Point.

A Bus Plaza will be developed as part of the Northern Access Road immediately north of the Stadium and adjacent to the Regatta Point escarpment. Dedicated event-day bus services will be able to deliver patrons in close proximity to Gate 4.

The configuration of the new Stadium proposes four (4) public entries, one to each quadrant. The entries have been located to take advantage of pedestrian flow from the expected arrival pathways. The expected arrival pathways are:

- Along the waterfront and approaching from Hunter and Evans Streets
- Along Davey Street from the Hobart CBD
- Along Brooker Avenue from the North-Western suburbs
- From Queens Domain to the north of the site
- From the bus plaza at the North-East of the Macquarie Point site.

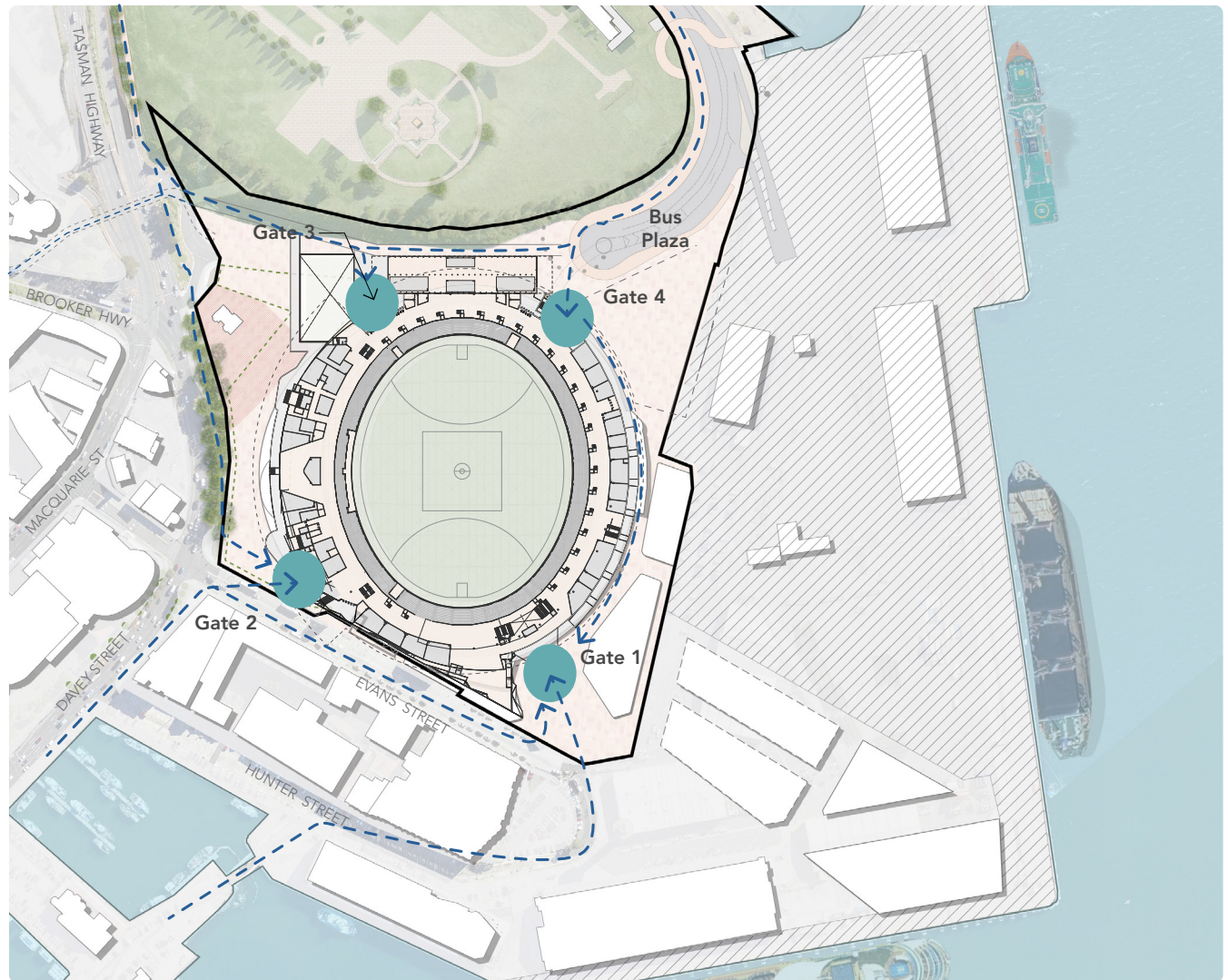


Figure 16: Patron entry points on game day

● Entry Gate ➔ Pedestrian route

0 25 50 100m

CROWD MODELLING

Key Inputs and Assumptions

The key inputs and assumptions to undertake the crowd modelling analysis are as follows:

- Capacity: 24,500 (including 1,500 standing)
- Peak Hour Arrival %:
68% based on other stadium studies
- Peak 15 min Arrival %:
29% based on other stadium studies
- Peak Hour Departure %:
100% based on other stadium studies
- Peak 15 min Departure:
61% based on other stadium studies
- % of stair users is based on the upper tier capacity and the total capacity
- Assuming people use the same access point to and from the stadium
- Trip distribution is based on the WSP Study undertaken as part of this PoSS submission
- The 1 min arrival and departure flows are based on an even spread over the 15 minutes

Access Points	Percent	Capacity
Gate 1	36	8,820
Gate 2	17	4,165
Gate 3	23	5,635
Gate 4	24	5,880
Total	100%	24,500

Access Points	Arrival Flow	Departure Flow
Gate 1	1,739	3,380
Gate 2	821	2,541
Gate 3	1,111	3,437
Gate 4	1,159	3,587
Total	4,831	14,945

Security and Stair Capacity Requirements

Results of the initial analysis for security and stair capacity at the busiest access point are summarised in the tables below:

Access Points	1 min Arrival Flow	Minimum no. Lane Required	Total Width
Gate 1	116 ppl/min	14	30.8 m
Gate 2	55 ppl/min	7	15.4 m
Gate 3	74 ppl/min	9	19.8 m
Gate 4	77 ppl/min	10	22.0 m

The security checks for each gate shall be placed in areas which provide the required width as shown in Table 3.

The security checks shall be placed not too close to the concourse stairs so that pedestrians have enough time and space to decide which stairs to use without causing overcrowding after the security check.

Movement Ways and Evacuation

A place of safety is defined as a place where a person is no longer in danger from effects of fire, such a place may be a road, walkway, or within the boundaries of the sports ground. For a limited period, people will have protection from the effects of fire and smoke or other threats, before continuing their escape to a place of safety, a place of reasonable safety will normally be:

- An exit route that is protected by a construction having a fire resistance.
- A stairway that is in the open air and protected from fire breaking out onto or below it.
- The pitch or area of activity, only in certain circumstances where the threat is localised to a particular area of the Stadium, and only after consultation.

At sports grounds with large or multi-tiered stands with levels that have no direct access to a final exit, it may be necessary for concourse areas to serve as part of the evacuation routes.

For more information on emergency procedures, refer to the accompanying Emergency Management and Incident Response Report.

ARRIVAL FOR PEOPLE WITH SPECIFIC ACCESS NEEDS

The Bus Plaza situated to the North-East of the Stadium incorporates a mobility drop-off/ pick-up point to facilitate easy access for buses and coaches, and will prioritise assistance for individuals with accessibility needs. An additional mobility drop-off/pick-up location is proposed for the South-West corner of the Stadium, close to Gate 2, and will be specifically designated for Australian Disability Parking Permit holders, taxis, and private vehicles to ensure separation from the main Bus Plaza.

These proposed mobility drop-off points are conveniently positioned to connect easily with precinct pathways, minimizing travel distances for individuals with accessibility needs. Each mobility drop-off/pick-up point will be within direct sight of the Stadium and will include provision for shade/shelter, as well as signage and wayfinding, seating, and lighting located near the entry gates.

Principal pathways through the Site will be designed to support gradual level changes with travel pathways that do not require undue exertion. The design will create an accessible environment that facilitates linkages for pedestrians, cyclists and electric scooters, and families with strollers.

Within the Stadium, accessible seating is provided throughout the seating bowl. See pages 86-87 for more information.

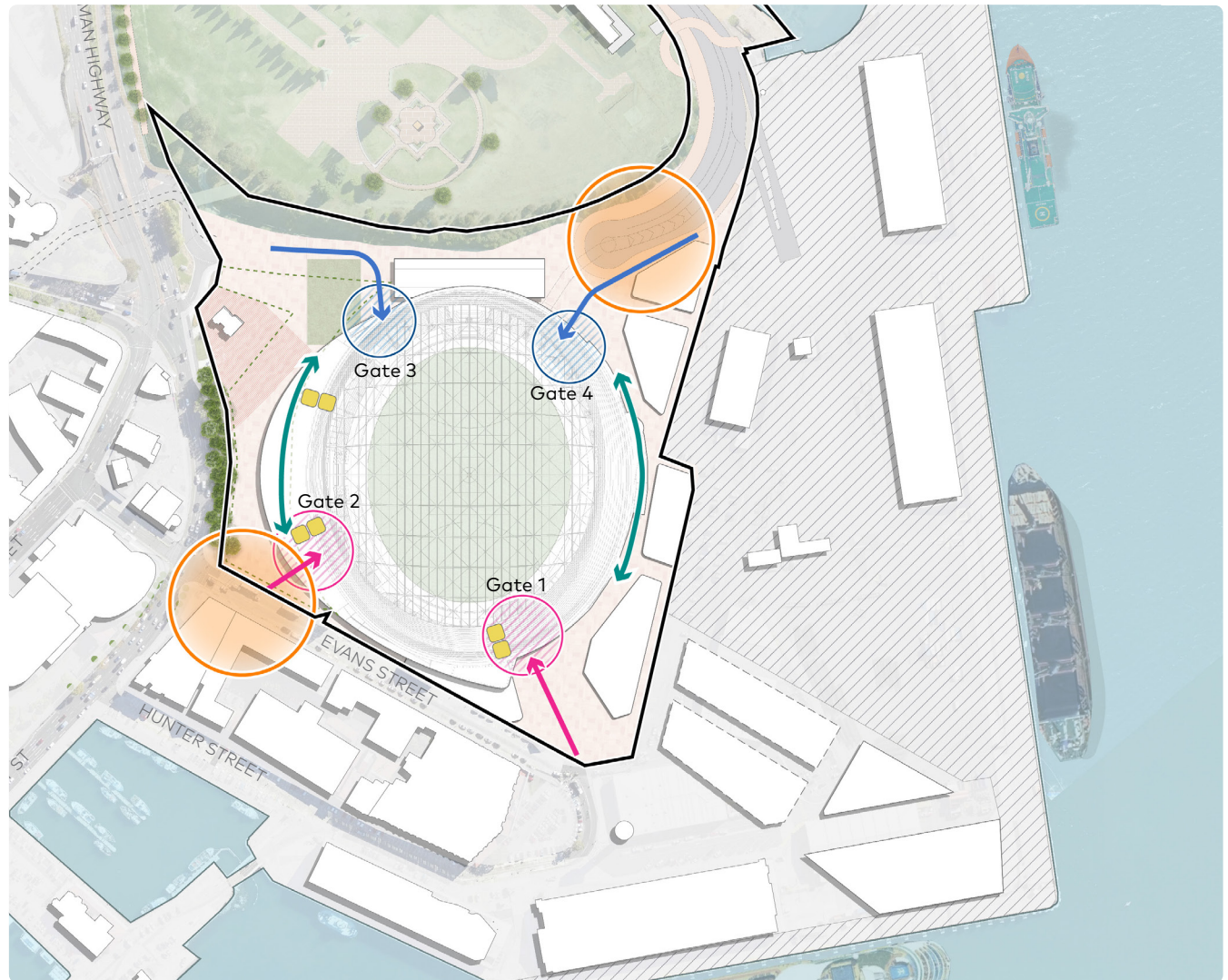


Figure 17: Drop-off locations for people with specific access needs





The approach to Gate 1 of the Multipurpose Stadium

EVENT DAY VEHICLES

MEDICAL ACCESS

During a major event at the new Stadium, some vehicles will need to have direct access into the venue. Medical support is essential for the wellbeing of staff and patrons attending the venue, as well as athletes and performers on the field.

When an event is underway, an ambulance will be permanently stationed near the South-West pitch access vomitory (PAV) to facilitate immediate access onto the field if needed.

More typically, an injured player or performer will be stretchered off the field to the team medical rooms associated with each Change Room. From here they will be assessed, and if needed, a medi-cart will transfer them along the internal service road to the waiting ambulance, which will then egress onto Evans Street and transport the patient directly to the hospital.

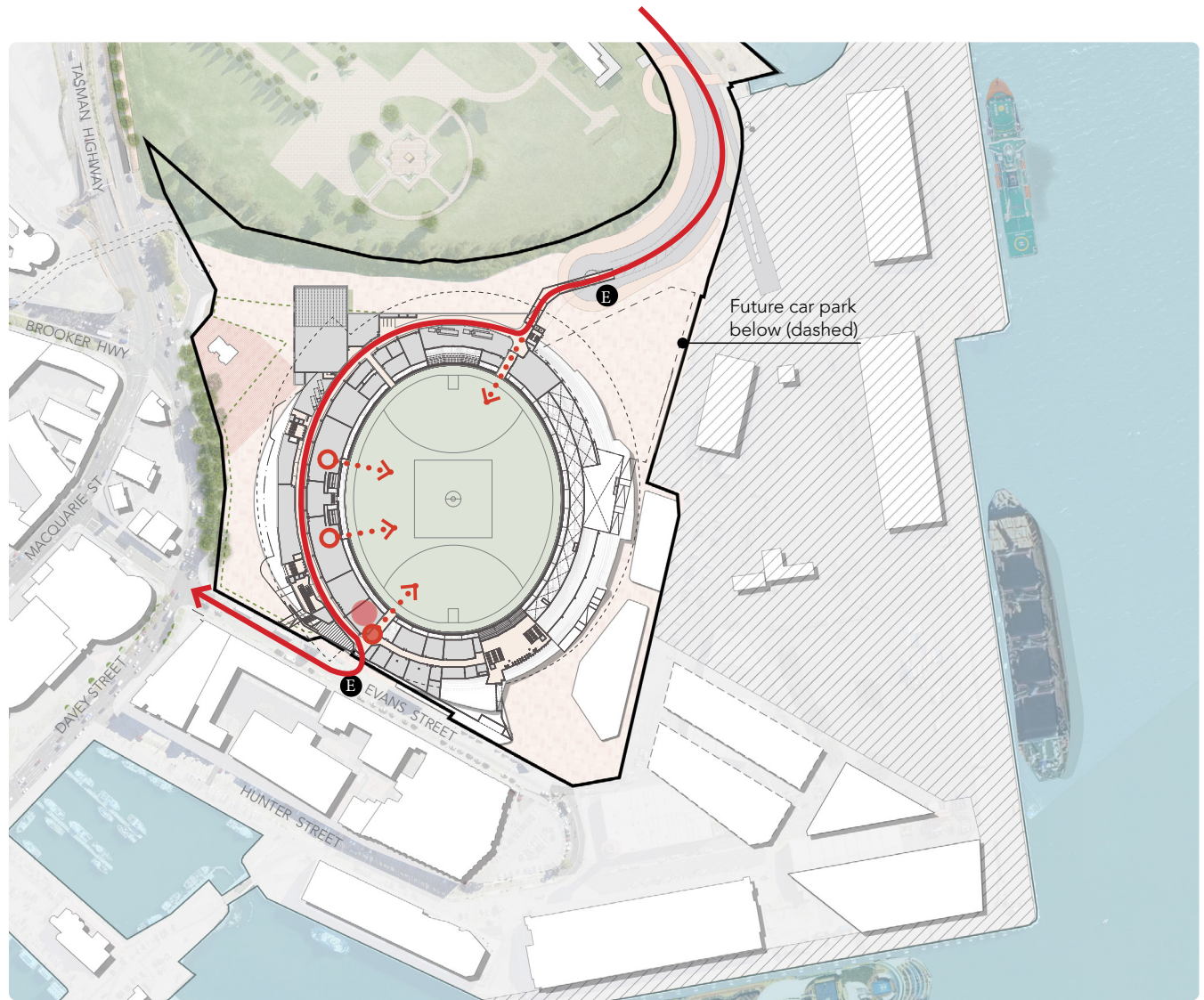


Figure 18: Medical response site access

- ⓔ Entry/ Exit
- Ambulance route
- ⋯ Medical access to field
- Medical room on players race
- First Aid Room on LG
- Ambulance waiting bay

EVENT DAY VEHICLES

BROADCAST VEHICLES

The Stadium's ability to attract high-profile events necessitates provision for media and broadcasting providers. At stadia generally, a zone is designated for use during an event for the set-down of broadcast vehicles. This Outdoor Broadcast (OB) compound typically needs to accommodate vans or 15 ton trucks that require a space where they can 'drive in and drive out' with minimal manoeuvring.

At the new Macquarie Point Multipurpose Stadium, the OB compound will be located internally and at field level, beneath the plaza area to the north of the Stadium. Given the site constraints and the public nature of the venue, locating the OB compound away from areas of patron circulation supports the public benefit and provides better security for broadcasters.

Broadcasting vehicles will arrive from the northern access road, and once screened, will enter the Stadium via the access ramp. At the completion of the broadcast, the vehicles will leave via the internal service road that egresses onto Evans Street.

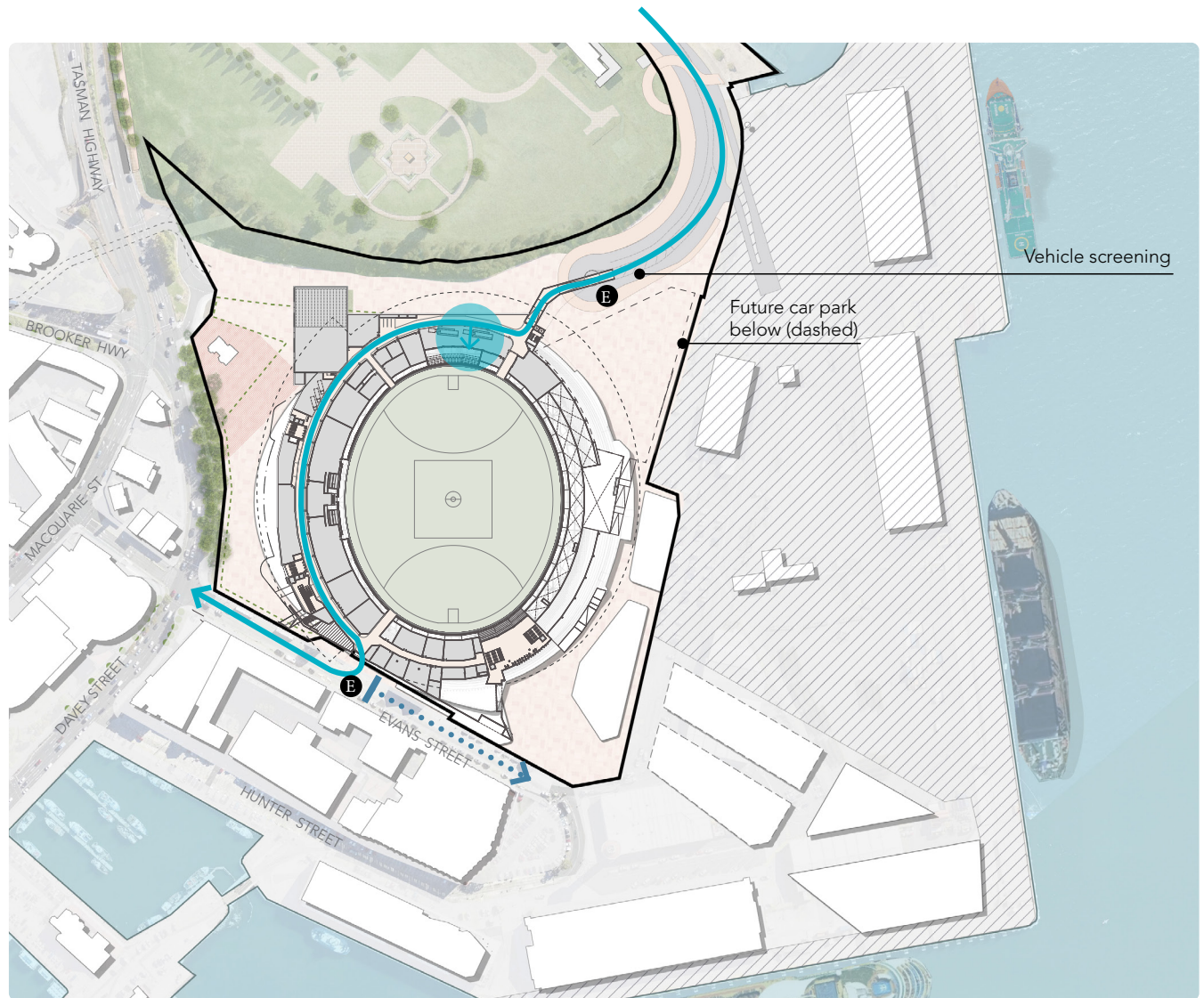


Figure 19: Media site access

ⓔ Entry/Exit

→ Broadcast route

● Broadcast compound

⏏ Event road closure

TYPICAL VEHICLE SERVICING

The principle for servicing of the Stadium is that delivery or maintenance vehicles will arrive via an entry ramp off the northern access road, circulate along an internal service road beneath the stands, and then egress onto Evans Street. The semi-circular service road allows good access to all the main hospitality and tenant spaces on the western side of the venue. Typical delivery and maintenance services will happen outside the hours of an event.

All vehicles arriving at the Stadium will need to be screened before gaining entry to the venue. If an unauthorised vehicle attempts to gain entry, access will be denied, and they will need to proceed to the bus loop and return back via the northern access road.

On a typical weekday, the types of vehicles that may gain entry to the venue include:

- Grounds maintenance vehicles
- Delivery vehicles
- Waste collection trucks

There is no visitor car parking located beneath the Stadium.

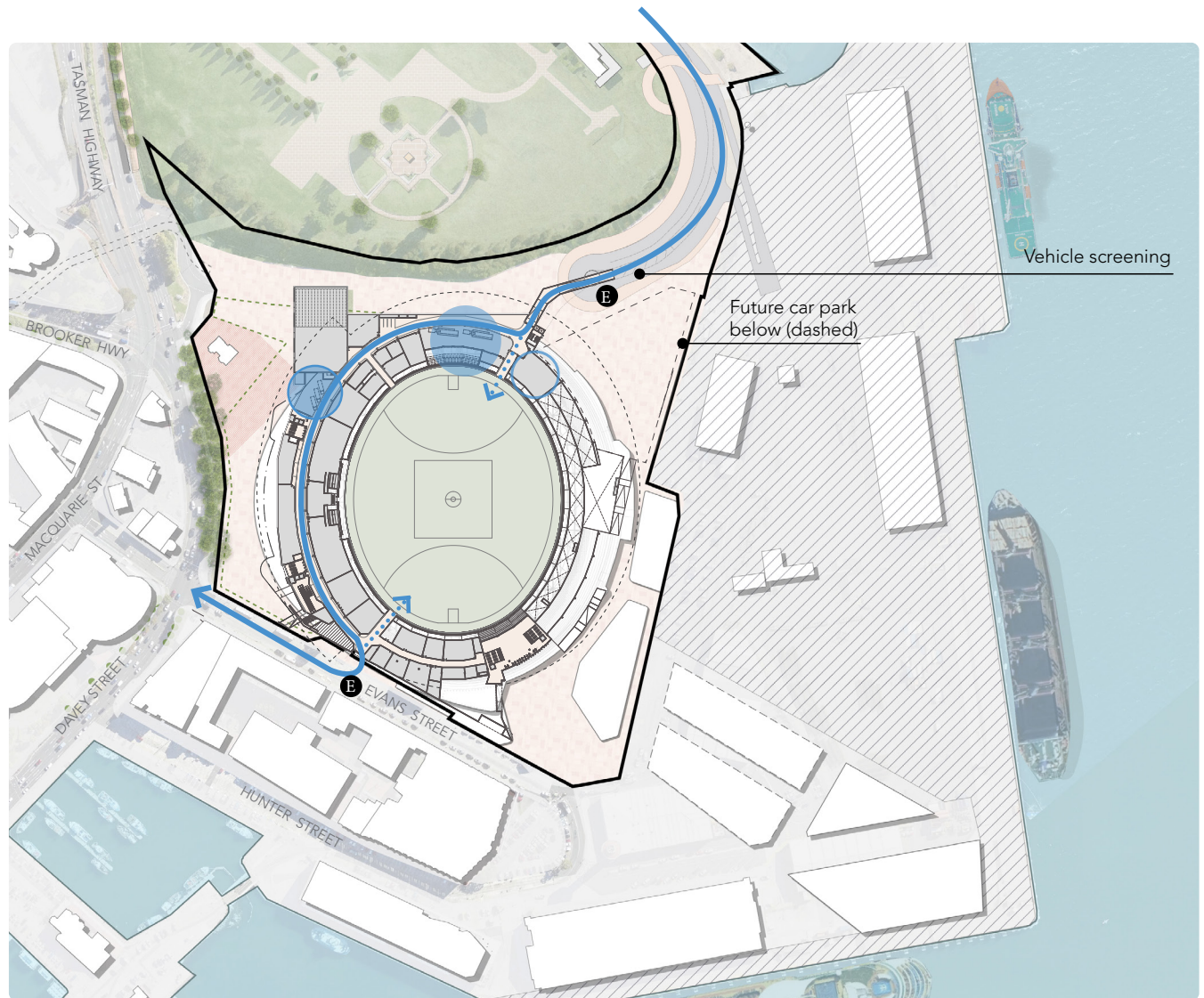


Figure 20: Vehicle servicing site access

- | | | |
|---------------|------------------------|--------------------------|
| ⓔ Entry/ Exit | ➔ One way service road | ➔ Pitch access |
| ○ Grounds | ● Boneyard | ● Waste Store/ Compactus |

WASTE COLLECTION

Waste collection will occur outside the hours of an event and will operate as per the vehicle servicing principle previously described. Waste trucks will arrive via an entry ramp off the northern access road, circulate along an internal service road beneath the stands, and then egress onto Evans Street.

A large waste store room is provided at Level Ground of the Stadium directly off the internal service road. It has been sized to allow waste collection trucks to reverse into the space to facilitate loading of the vehicles.

For more information on waste management procedures, refer to the accompanying Solid Waste and Hazardous Material Management Report.



Figure 21: Waste truck serving site access

- Entry/ Exit
- Waste store
- Waste truck route
- Grounds

CRICKET WICKET TRANSPORTER

A drop-in wicket transporter is a large, articulated truck used for transporting the cricket wickets from an off-site nursery onto the field at the Stadium. The cricket wickets are transported in one slab, typically 25m long, 3m wide, and 200mm deep. Due to the size of the vehicle and its cargo, minimal manoeuvring should be facilitated.

At Macquarie Point Multipurpose Stadium, the wicket transporter will arrive from Davey Street and enter off Evans Street where it can gain direct access onto the field via the pitch access vomitory (PAV). Vehicle turning will be accommodated on the field, and the wicket transporter will leave via Evans Street - the same way it arrived.

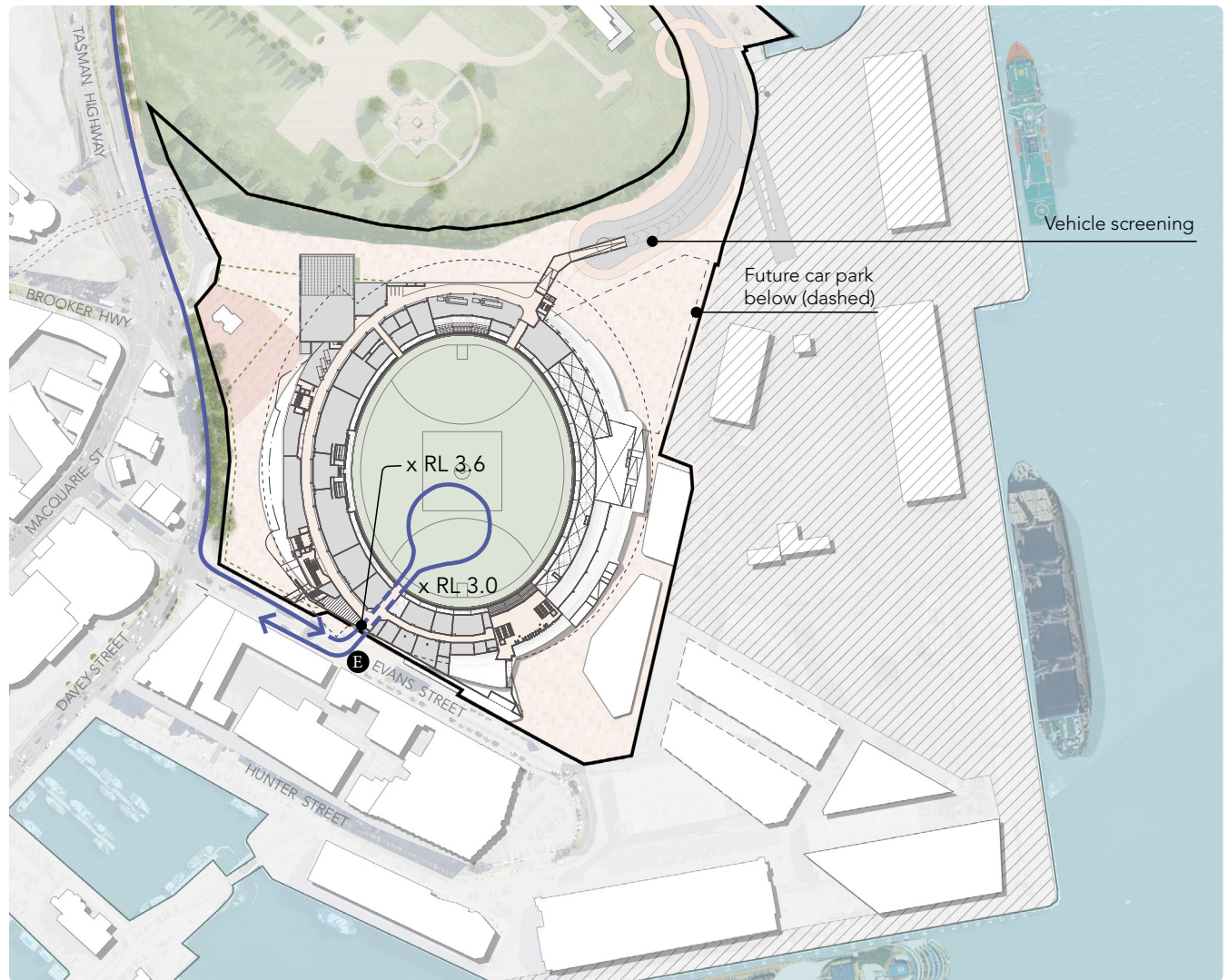


Figure 22: Wicket Transporter site access

ⓔ Entry/Exit

➔ Wicket Transporter site access - - - Max 1:30 grade

0 25 50 100m

EMERGENCY ACCESS

FIRE TRUCK

In the event of a fire at the Stadium, a fire truck will need to gain 360-degree access around the venue. The external concourse provides sufficient clear width to allow a fire truck to circulate around the full circumference of the Stadium. At its minimum, it provides 6 metres clearance.

Depending on the location of the incident, an emergency vehicle may gain access from the northern access road, from Evans Street, or via the north-eastern forecourt that connects to Davey Street.

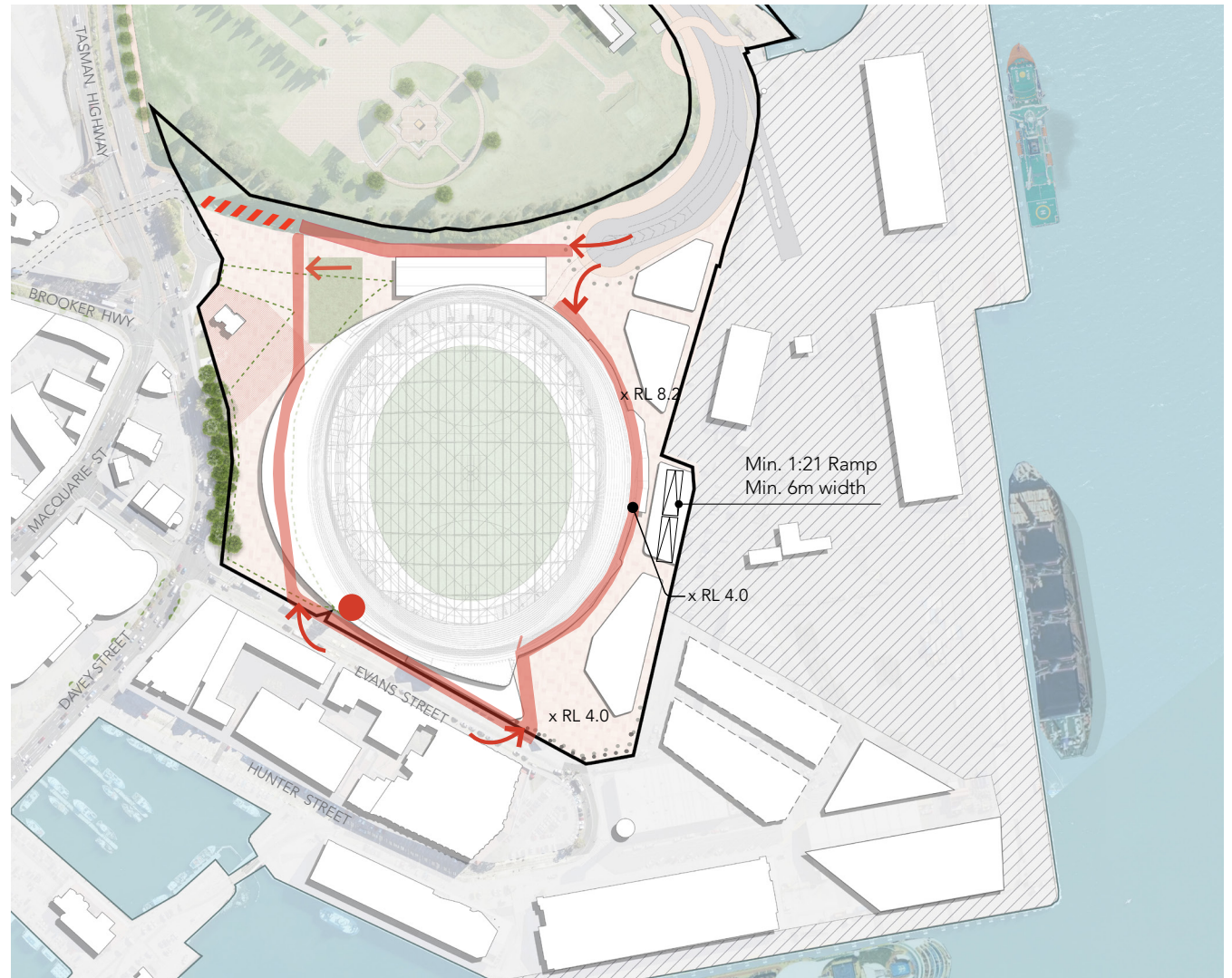


Figure 23: Fire truck site access

- Fire truck access
- Fire Indicator Panel (FIP)
- 6m clear fire truck route
- Retractable bollards
- /// Temporary route

VEHICLE ENTRY, EGRESS AND LOADING ZONES

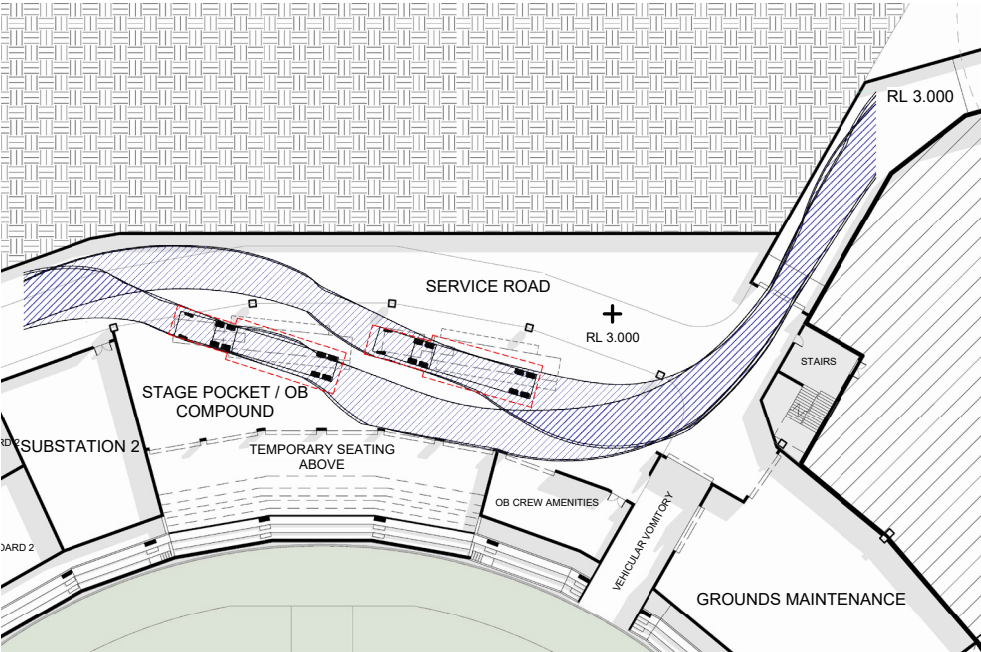


Figure 24: Vehicle access into the Stadium and the Broadcast Compound

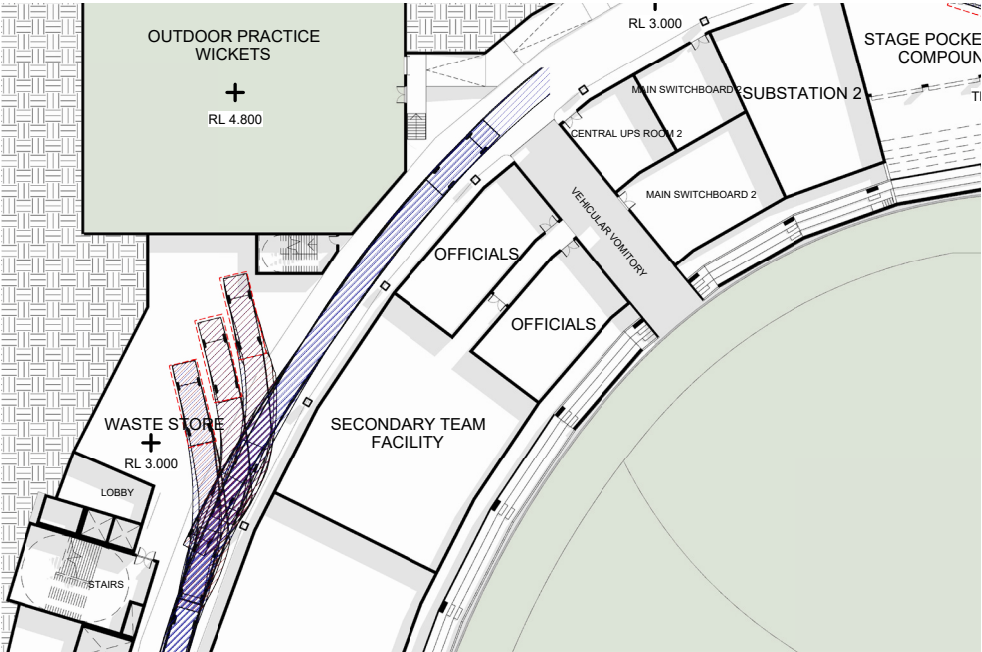


Figure 25: Vehicle access into the Waste Store

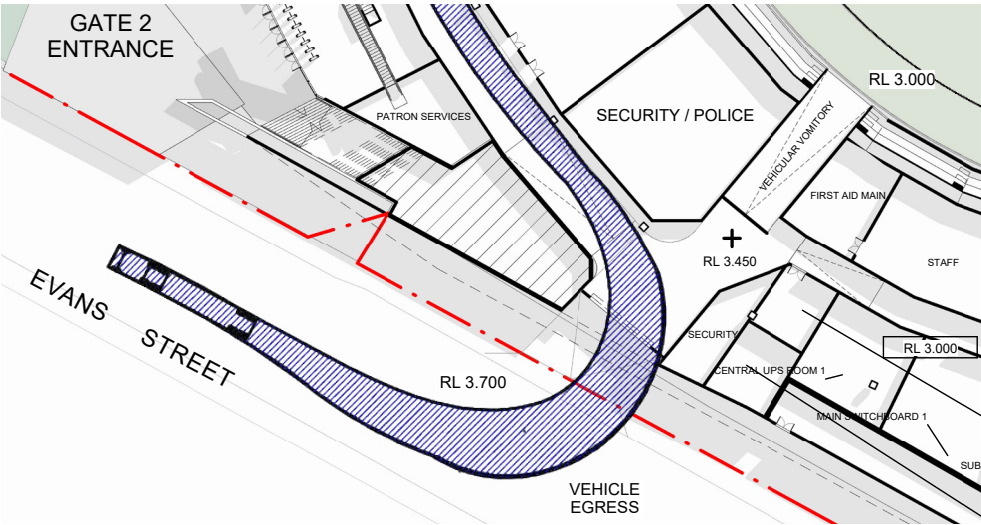
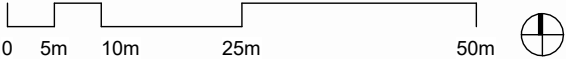
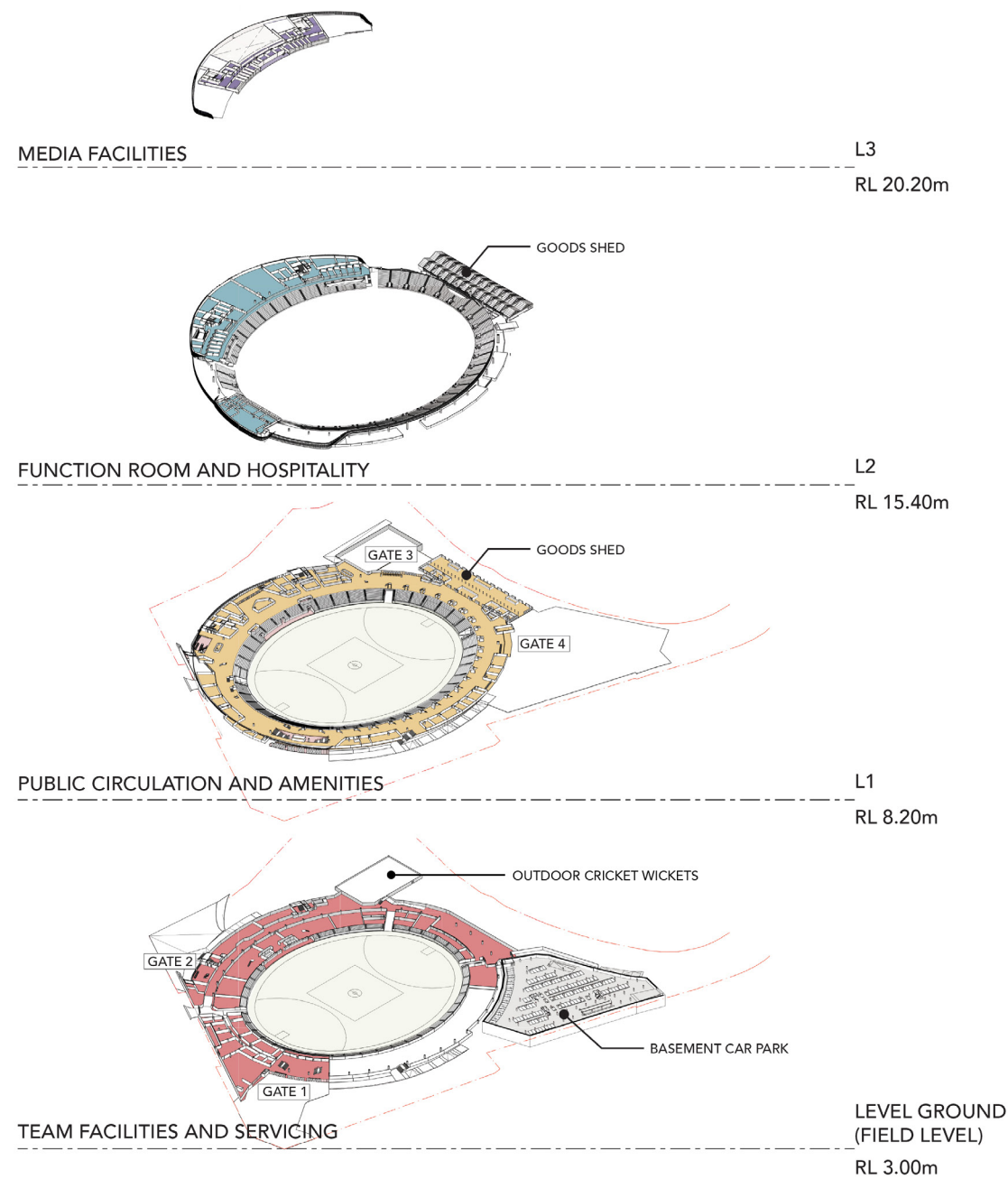


Figure 26: Vehicle egress onto Evans Street



FLOOR LEVEL OVERVIEW



UNDERGROUND CAR PARK

Precinct Car Park

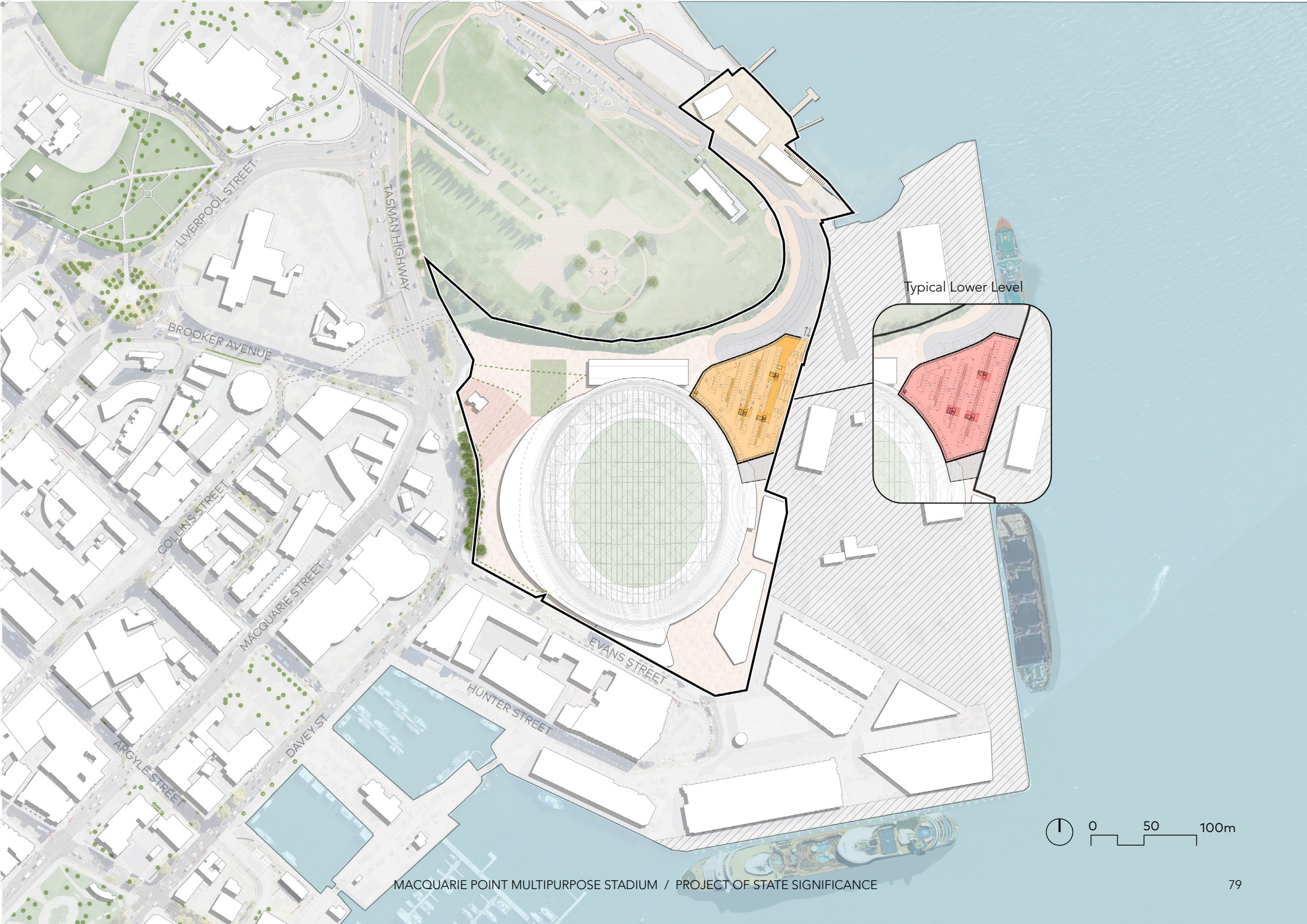
As part of the Project of State Significance an underground car park will be developed to meet the vehicular access requirements for the broader precinct, including future developments for the Antarctic Facilities. The car park will be located between the Stadium and the site boundary shared with TasPorts. It will be accessed via a ramp off the Northern Access Road.

The car park will have the flexibility to convert from standard parking mode to accessible parking mode where the central car parking space in a bay of three (3) can convert to a shared zone to support DDA access requirements. This is provided in addition to shuttle services from existing car parking facilities and drop-off options. The upper level of the car park will have sufficient clear height to allow access for cars with roof-mounted wheelchairs.

The car park will provide:

- Up to 560 parking spaces including as well as dedicated accessible parking bays
- Up to 10 motorcycling parking spaces.
- Stairs and lifts for direct pedestrian egress to the public domain above.

The car park is intended to be constructed and operational concurrently with the Stadium.



UNDERGROUND CAR PARK

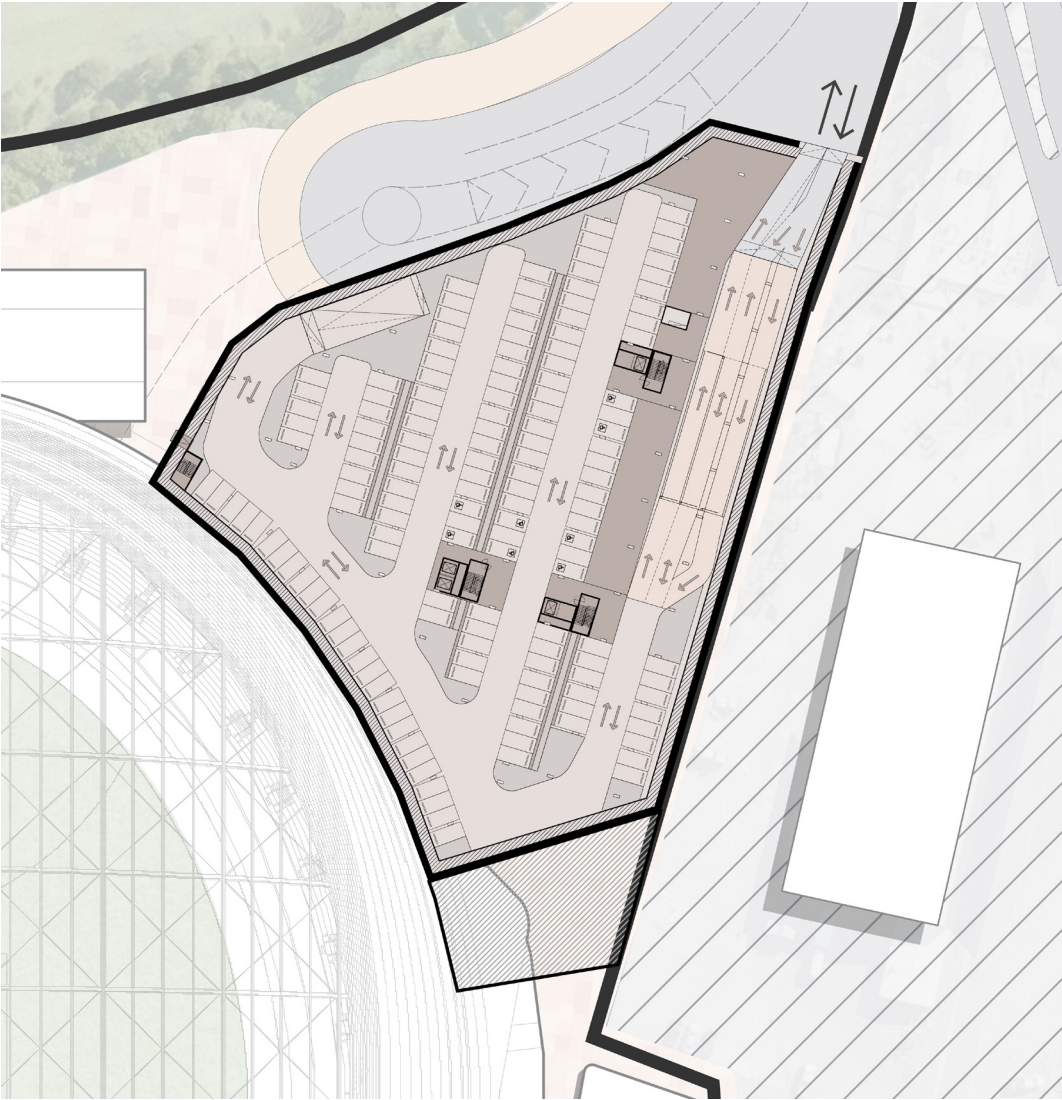


Figure 27: Upper level layout of underground car park

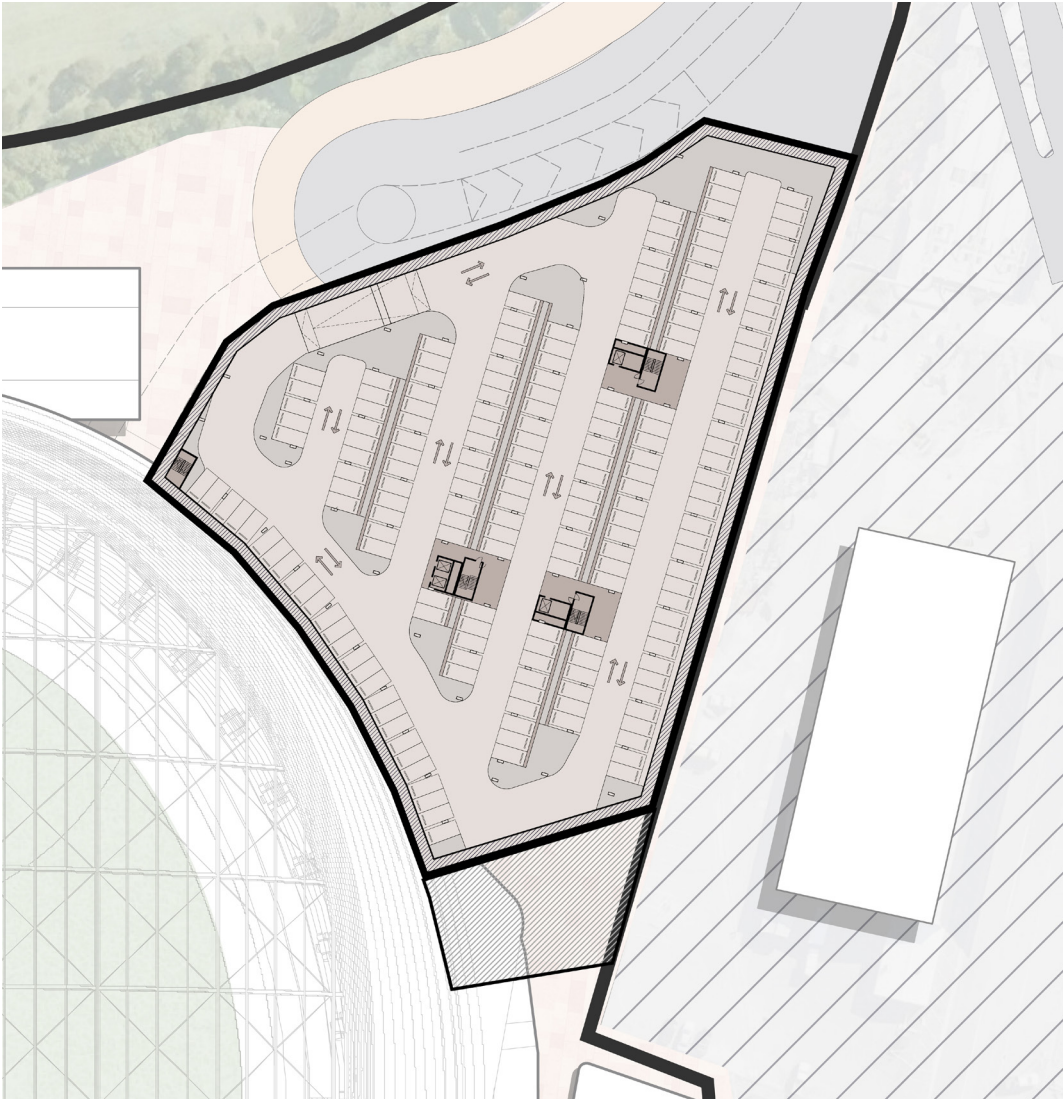
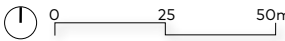
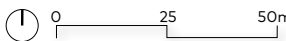


Figure 28: Typical lower level car park layout



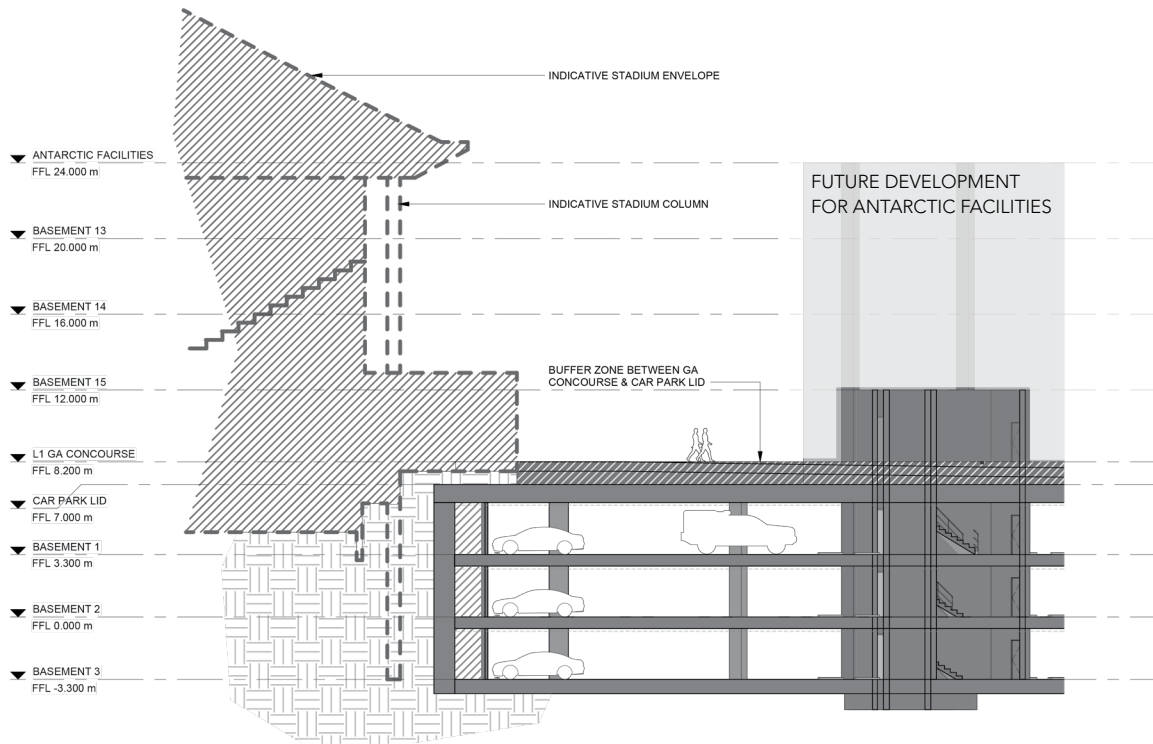


Figure 29: Section through Car Park and Stadium interface

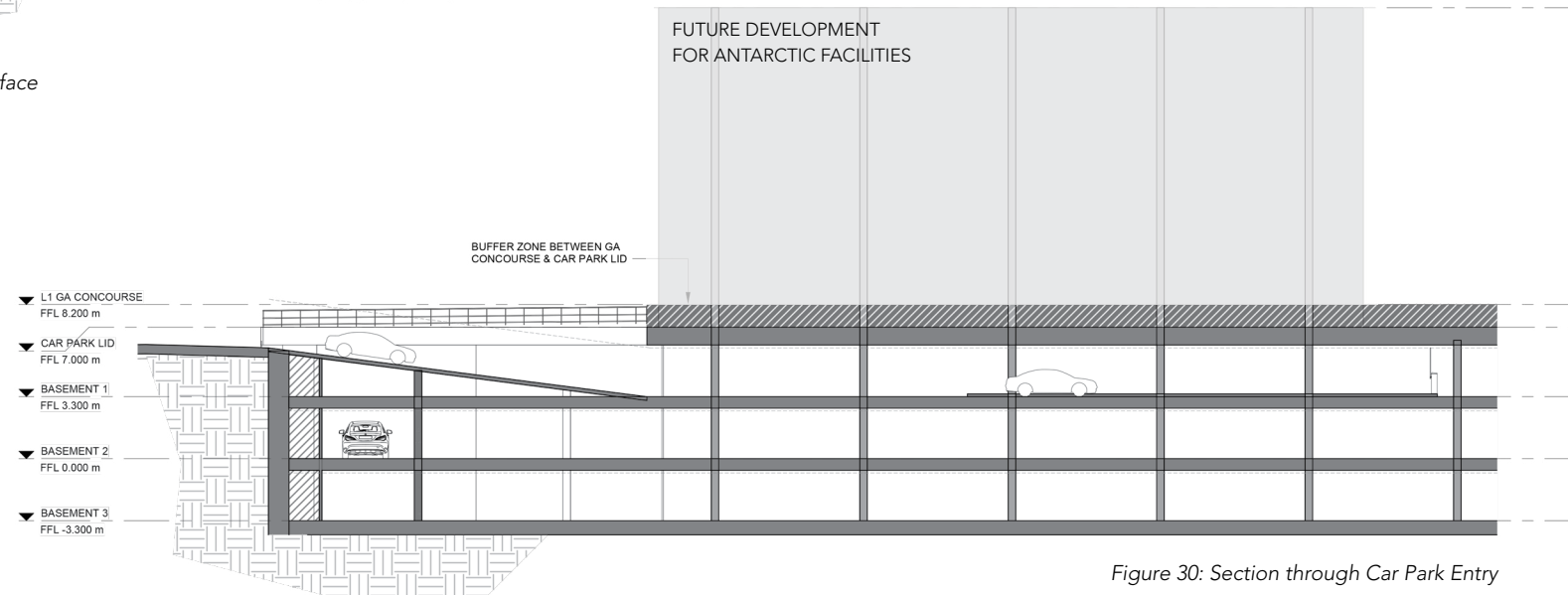


Figure 30: Section through Car Park Entry

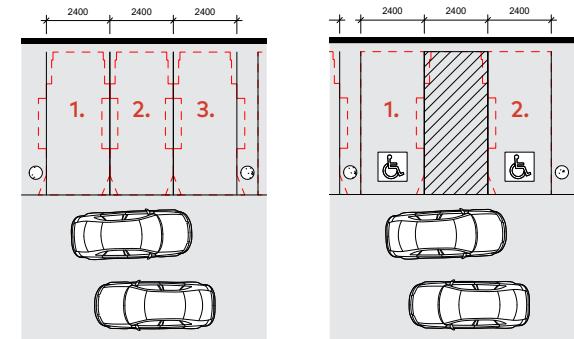


Figure 31: Standard parking configuration shown left (3 x spaces between columns), and DDA mode parking shown right (2 x spaces between columns with central shared zone)

04 | PERFORMANCE

As a Multipurpose Stadium, this chapter outlines the requirements of various codes and how the design will deliver a 'fan first' experience.

THE SPECTATOR EXPERIENCE

The spectators in the stands are at the heart of the design brief for this new Stadium. The decision to pursue a fully roofed venue was driven by a desire to provide shelter from the harsher elements of the weather, and guarantee patron comfort. Reducing visual glare, providing protection from the wind, and optimising thermal comfort are all advantages that derive from full-roof coverage at the Stadium at Macquarie Point.

In addition to the internal climate, other aspects of the design are fundamental to promoting the best experience for spectators. These include:

- A safe and protected environment for visitors with a diversity of needs;
- Sightlines to the field to ensure unobstructed views and proximity to the ground so that fans feel part of the action;
- Comfortable seats;
- An intimate seating bowl that contains the atmosphere and amplifies the roar of the crowd;
- Well-positioned and sized screens and speakers to ensure none of the action is missed; and
- A variety of different product and hospitality offerings to ensure a diversity of experiences.

All these objectives have been synthesised into the concept design for the new Stadium to ensure a truly 'fans first' experience at a *ground for all*.



Internal perspective of the new Stadium

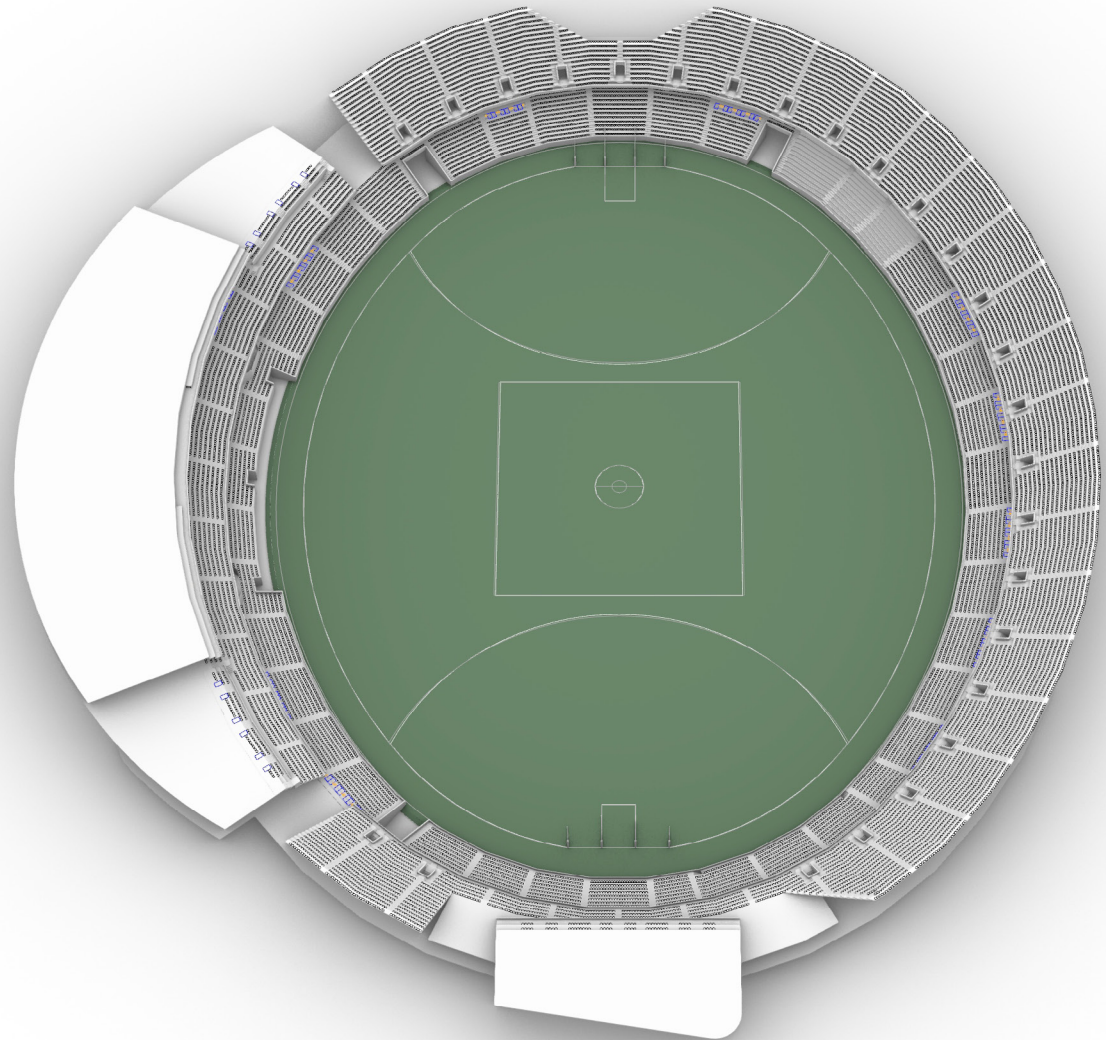
BOWL DESIGN PRINCIPLES

The Macquarie Point Multipurpose Stadium seating bowl has been carefully crafted to prioritise a fan-first experience, create an engaging experience for all, optimising sightlines for a range of events, and responding to the site.

The lower bowl is defined by a universal concourse, a 360 degree experience that visually connects fans to the field, creating opportunities for fan engagement throughout the concourse area. The continuous relationship between the lower bowl and concourse supports a distributed layout of seating for all abilities, with prime viewing of the field of play.

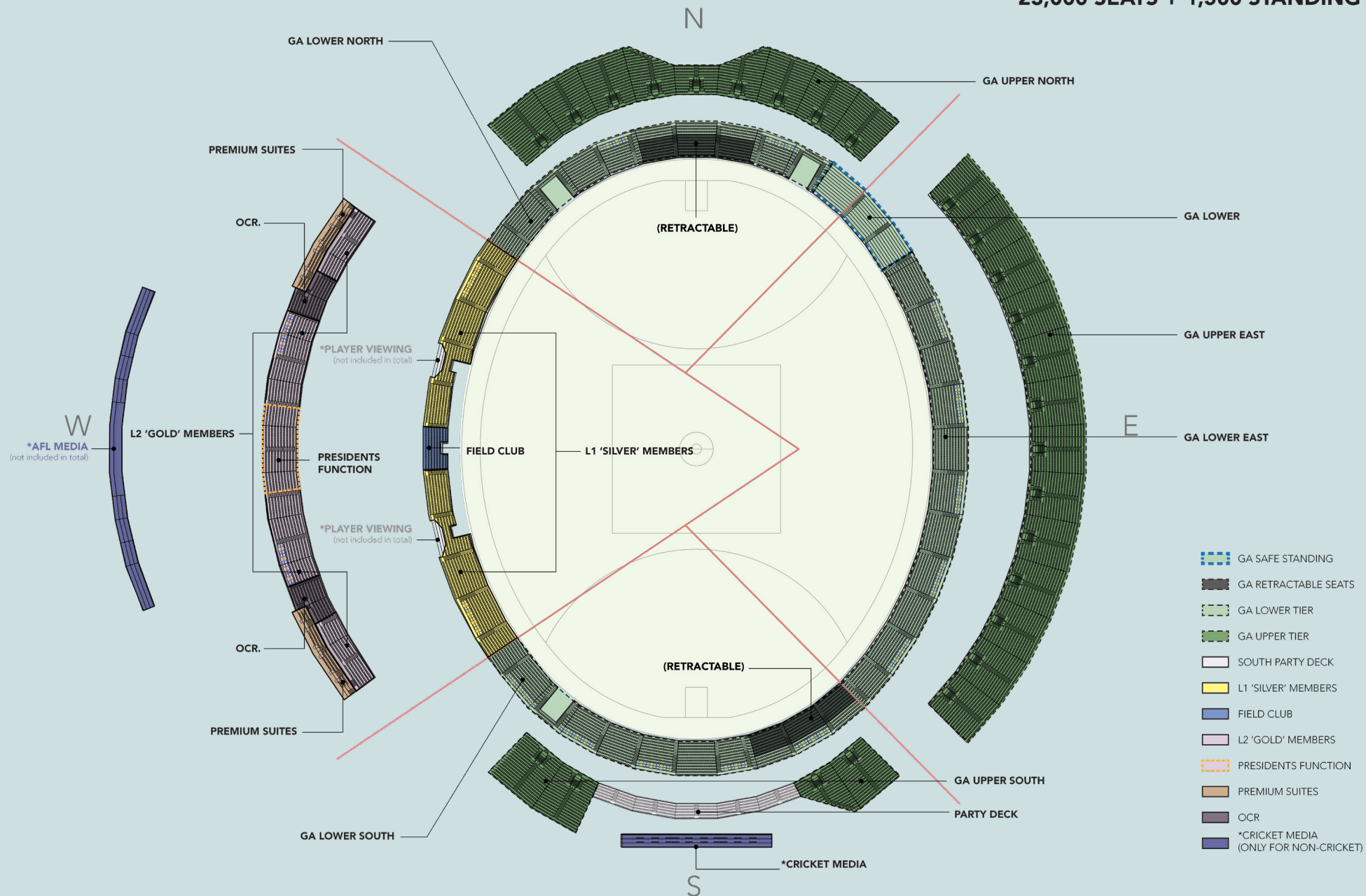
The lower bowl also features an elevated front row, that optimises uninterrupted sightlines for all sporting codes supported by the venue. Both the lower and upper seating bowl have been defined with a variable sightline (C60-C90) and focal point, allowing the cross section of the seating bowl to bring fans closer to the action.

The seating bowl features cutouts aligned with the south-east entry and the north. These have been utilised to create views throughout the seating bowl to the Cenotaph.

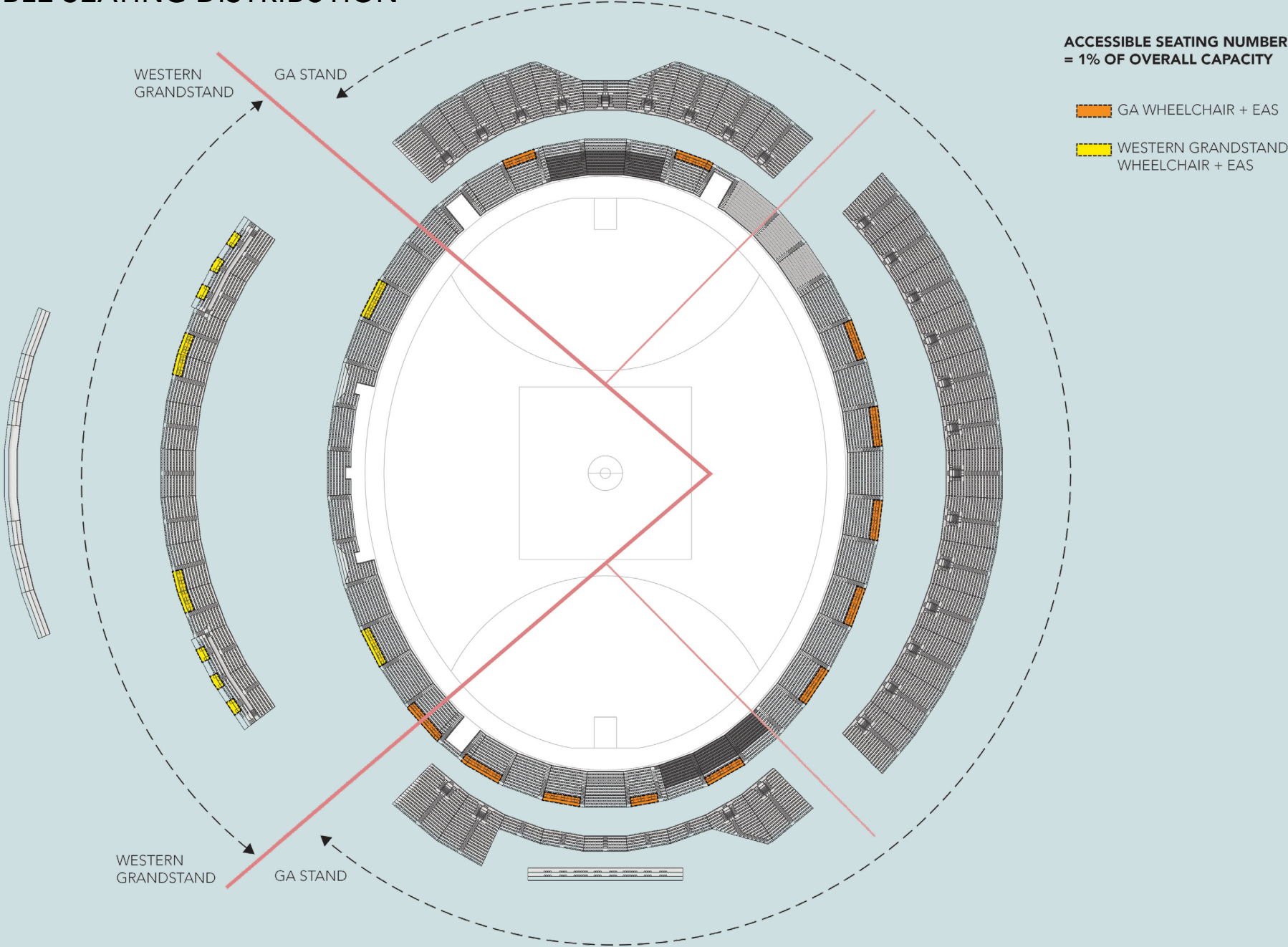


SEATING BOWL MANIFEST

23,000 SEATS + 1,500 STANDING



ACCESSIBLE SEATING DISTRIBUTION



UNIVERSAL DESIGN PRINCIPLES

The new Multipurpose Stadium will adopt Universal Design (UD) initiatives to ensure that this major public venue will exceed the minimum legislative and technical requirements of the NCC, and promote efficient access for people with various needs. One of the key initiatives is to incorporate accessible seating including dedicated wheelchair spaces and enhanced amenity seating (EAS) around the entire concourse level (Level 1).

Wheelchair spaces are typically dedicated platforms at concourse level that are elevated above the seating row immediately in front to allow other patrons to stand or circulate without obstructing the view from a wheelchair behind them.

Enhanced Amenity Seating are seats that provide extra leg room and clear widths to support ease of access and manoeuvring for those with limited mobility. They also provide space for people attending events with support animals. At the new Stadium, the approach is to co-locate cluster of EAS seats to allow groups with people requiring EAS positions to be seated together.

Accessible seating will be dispersed across the bowl to offer patrons with accessibility needs different options for views and experiences within the Stadium. The location of accessible seating will also take into consideration various ticket price points and experience categories. Companion/ EAS seating will be located adjacent to the wheel-chair seating to allow family, friends, of companions to sit together.

The design of the Stadium will comply with the following requirements for universal access:

- All wheelchair and EAS spaces will meet the requirements of AS 1428, including the width, length and availability of adjacent seating for companions.
- Wheelchair and EAS spaces will collectively be provided at 1% of the total public spectator capacity for the venue.
- At a minimum, each wheelchair and EAS space shall provide an adjacent companion seat. In an ideal design, additional companion seats shall be provided adjacent to the accessible seating for family, friends, associates or carers (companion seating) noting that on average a wheelchair patron brings 2.4 companions when attending a sports event.
- Accessible and EAS seating should provide sightlines that still allow vision should someone stand up in front during the sport.

At the discretion of the venue operator, the following initiatives will be considered:

- Accessible seating types shall reflect the differing categories, grades, or costs of ticket price.
- All wheelchair and enhanced amenity seating areas shall have a Spectator Services assistant to coordinate seating and ticket checks.
- Audio description and hearing loops to be available for the hearing impaired.

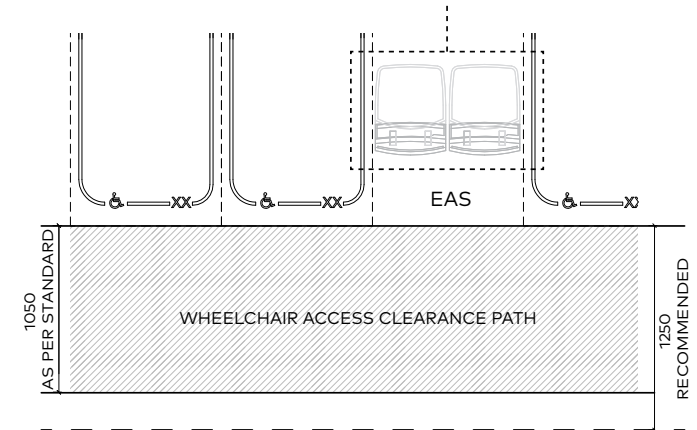


Figure 32: Wheelchair spaces co-located with an EAS seat that can be converted to two (2) standard seats

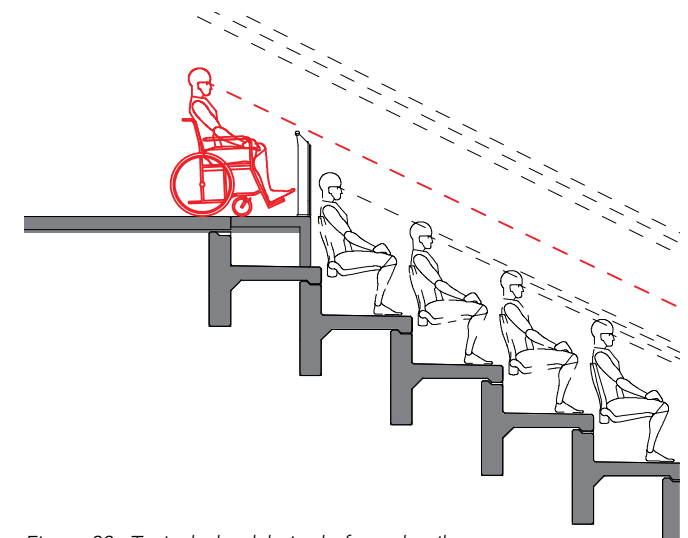


Figure 33: Typical wheelchair platform detail

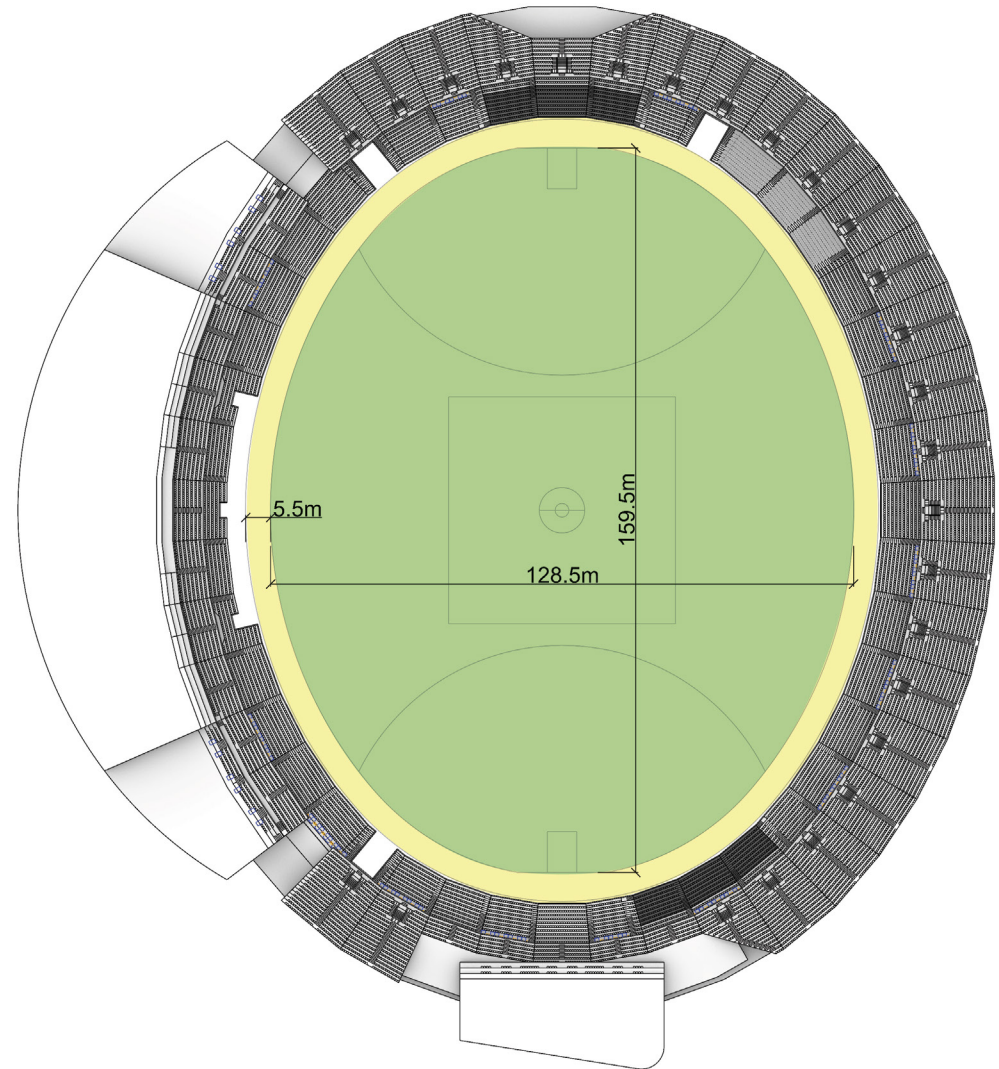
AFL CORE REQUIREMENTS

Australian Rules Football (AFL) is the most attended sport in Australia. Tasmania has historically had high participation in the game, and has produced some of the greatest champions the league has known. For this reason, an exemplary home ground for the inaugural Tassie Devils team is befitting of our long and proud footy tradition.

The AFL is a stakeholder in the Macquarie Point Multipurpose Stadium having launched the Tasmania Devils Football Club as the 19th team, with men's and women's teams in preparation to join the league in 2028.

The new Stadium will be designed to comply with the AFL Venue Guidelines Tier 2 requirements.

Field Configuration Diagram



2024 AFL Venue Guidelines (Tier 2 Requirements)

Selected requirements as nominated in the User Brief

Table 4: Selected Criteria from the AFL Venue Guidelines 2024	
Stadium Component	
Field and Roof	
Field of Play Size	159.5 x 128.5m minimum (to boundary lines) (Stadium Agreement)
Roof Coverage	Fixed, translucent roof stadium providing full coverage. (Stadium) Min. 38m central clearance to min. 32m over boundary
Players Interchange Bench	Minimum of 22 players over 2 rows of 1000mm wide each. (2024 AFL Venue Guidelines)
Umpires & Officials Bench	Minimum room of 10 officials over 2 rows of 1000mm wide each. (2024 AFL Venue Guidelines)
Spectator Facilities	
Seating Bowl	All seats to have uninterrupted views of playing surface and video boards. (Stadium Agreement)
Corporate, Hospitality and Premium Spaces	At least 1,500 corporate / premium spaces which must include capacity of at least 500 hundred spaces in corporate suites (or similar facilities), with the suites to be of varying capacities but at least 12 of which must have a capacity of at least 16 persons (Stadium Agreement)
Toilets (GA and Corporate)	Toilet Facilities including disabled facilities in line with BCA (Building Code of Australia) requirements. (Stadium Agreement)
Food & Beverage Outlets	Food and beverage outlets in line with FSADC (Football Stadia Advisory Design Council) guidelines. (Stadium Agreement)

Player and Match Officials Facilities	
Players Changerooms	Minimum 4 change rooms gender neutral (Stadium Agreement) Minimum size of 85sqm. Seating and lockers for 40 players min. (2024 AFL Venue Guidelines). • Players Changeroom Wet Areas • Medical Room • Massage Room • Property Room • Team Meeting Room • Drug Testing Room
Warm-Up Room/Facilities	Minimum of 2. 120sqm each(2024 AFL Venue Guidelines)
Umpires & Officials Change Rooms	Umpire changeroom facilities gender neutral. (Stadium Agreement). Minimum size of 45sqm. Seating and lockers for 14 officials min. as per 2024 AFL Venue Guidelines
Media Facilities	
Television / Radio Broadcast	• Commentators rooms • Broadcast studio • Minimum of 6 boxes • Free TV Australia Operational Practice OP – 33
Press Room & Facilities	• Written Press Room • Press Conference Room • Photographers Room
Outside Broadcast Compound	Hardstand area is in the order 30 x 15m (2024 AFL Venue Guidelines)
Stadium Operations	
Bus Parking	• Team bus parking space for each team • Team bus parking space for the Umpires

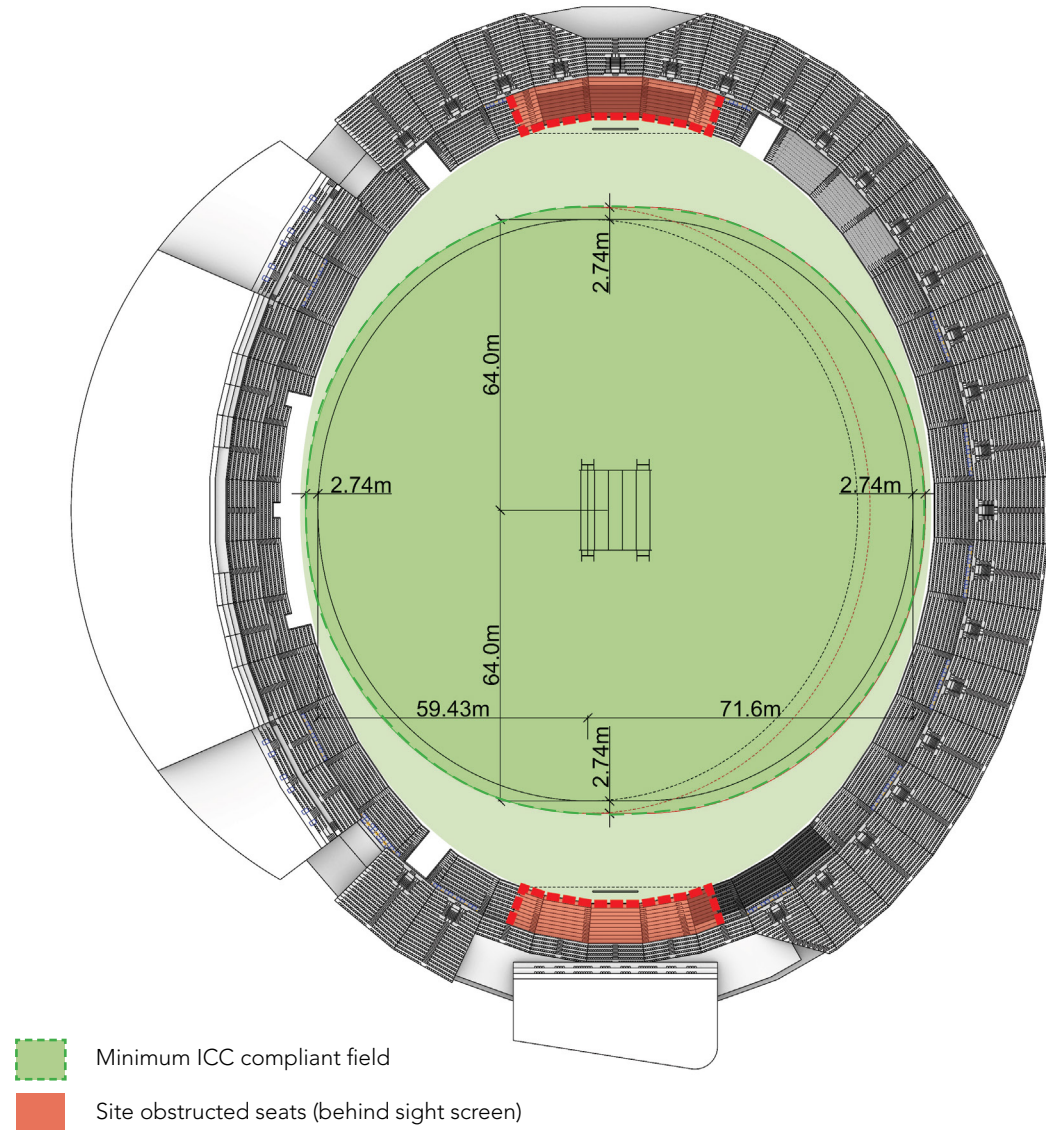
CRICKET CORE REQUIREMENTS

Cricket is the original game played on an oval field, and the driver for the height parameters of the new Stadium roof. It's recognised that cricket at the new Macquarie Point Multipurpose Stadium could be a pioneer of the game under a fixed roof.

Primary hirers will be the Hobart Hurricanes (BBL) and other cricket associations including Cricket Australia (CA) and Cricket Tasmania (CT). The stadium will also meet international Cricket (ICC/Cricket Australia) standards. Whilst international limited-overs cricket, and BBL cricket content have been played under a roof at Marvel Stadium, Test cricket has not been trialled under these conditions.

The ability to host cricket triggers the provision of additional infrastructure to service the game, including outdoor practice wickets, and access to a turf nursery to support the curation of the wickets.

Field Configuration Diagram



ICC International Cricket Venue Guidelines 2020

Cricket Australia Tier 2 Venue Guidelines

Table 5:
Selected Requirements as nominated in the Stadiums Tasmania User Brief

Stadium Component	
Field and Roof	
Field of Play Size	Boundaries a minimum of 59.43m from the centre of the pitch (IICVG2020)
Sports Lighting requirements	Where artificial lighting is used there must be minimum lux levels of
Player & Match Officials Facilities	
Players Changerooms	Two (2) separate change rooms, should be positioned in an area with easy and secure access to the field of play. Each change room should measure a minimum 70 m² to accommodate: 20 players and support staff at a minimum (CA Tier 2 Guidelines) • Players Changeroom Wet Areas • Medical Room • Massage Room • Property Room • Team Meeting Room • Drug Testing Room
Team Viewing Area	Provision of an exclusive area, secure from spectators/ patrons, is to be provided for each team to accommodate 20 players sitting down (CA Tier 2 Guidelines)
Warm-Up Room/Facilities	Minimum of two (2) at 150sqm
Umpires and Officials Change Rooms	Secure room, capable of holding up to 6 officials. (IICVG2020) Minimum size of 25sqm. Seating and lockers for 4 umpires min. as (CA Tier 2 Guidelines)

Training Practice Wicket	External Practice Pitch, minimum 4 active pitches per match, with full run ups and sightscreens. The facility should provide secure access for the players and ideally be situated as close as possible to the Dressing Rooms (Cricket Australia Facility Guidelines)
Media Facilities	
Television / Radio Broadcast	• Commentators rooms (north or south) • Broadcast studio • Radio box is 3.5m x 3.5m with clear sight line to the field of play and to the main scoreboard. (CA Tier 2 Guidelines) • Free TV Australia Operational Practice OP – 35 • The camera platform should be a minimum of 8 metres wide and 2.5 metres deep to locate the main cameras. The platform should be positioned to provide a clear line of sight to mid pitch over the bowler's end umpire for each "centre-line" camera
Press Room & Facilities	• Written Press Room • Press Conference Room • Photographers Room
Outside Broadcast Compound	Hardstand area is in the order of 500 square metres. Provision is to be made to site a satellite uplink vehicle within the Compound, adjacent to the compound or within the venue area with clear line of sight to the north eastern sky for the majority of Australian broadcasters and to the western sky for a number of international broadcasters is a location requirement. (Free TV OP35)
Stadium Operations	
Bus Parking	• Team bus parking space for each team • Team bus parking space for the Umpires

CRICKET CORE REQUIREMENTS

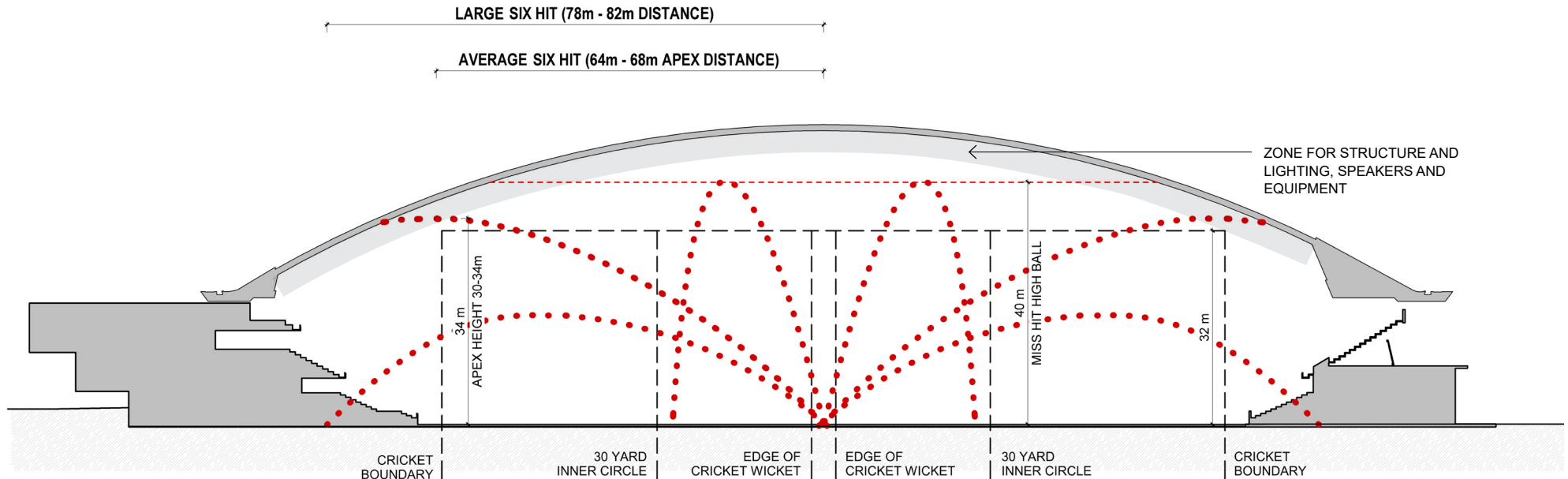
Cricket Ball Trajectory Study

The cricket ball trajectory is a key consideration in establishing the clear height required under the roof. The Brief stipulates minimum clear heights to support football, and exceed existing benchmarks for cricket in covered venues.

To refine the design development, we have reviewed data available from Hawk-Eye camera systems that visually track and map the trajectory of a ball. This reveals typical patterns of play in a cricket match, and indicates the likelihood of a ball coming into contact with adjacent structures.

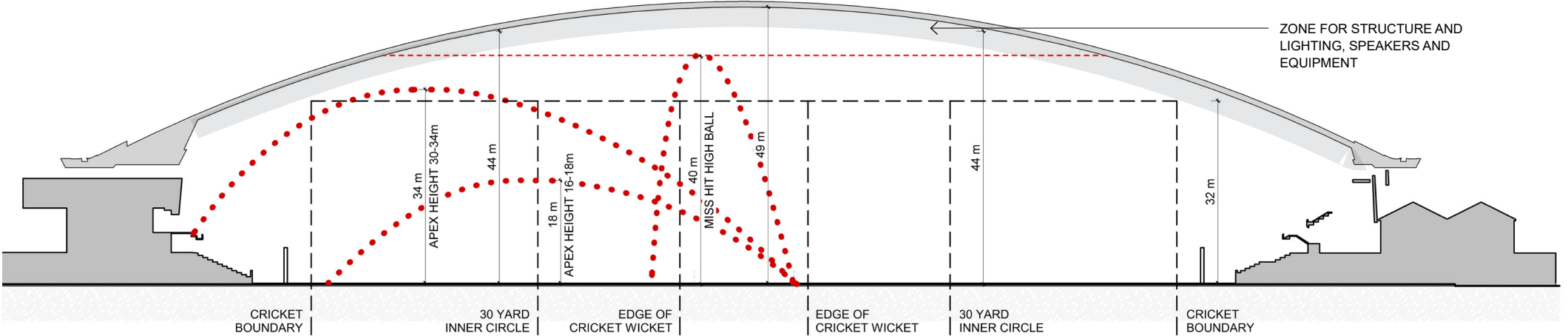
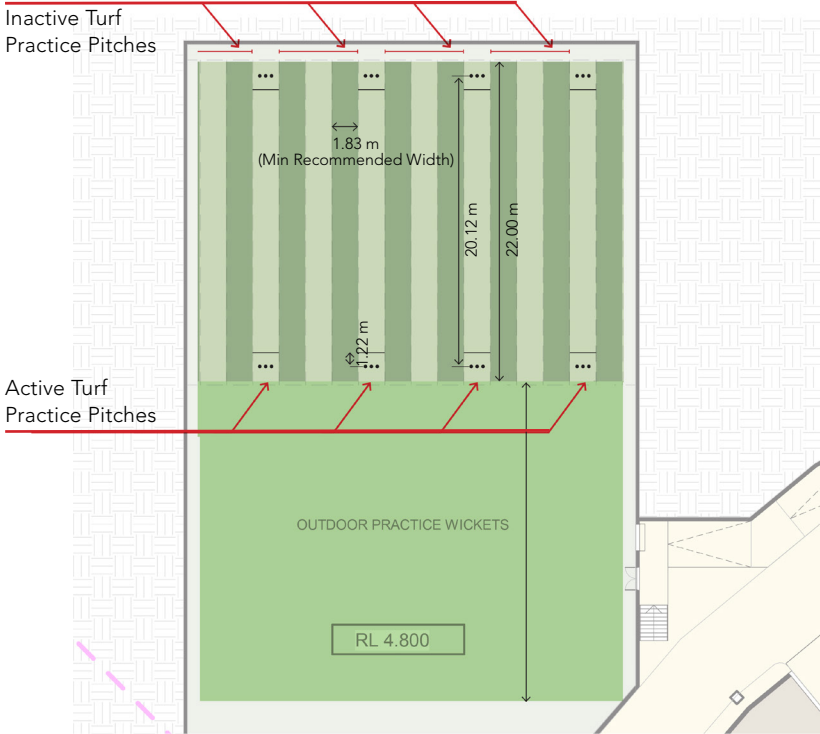
The sections below illustrates the cricket ball trajectory informed by Hawk-Eye data, and how it is accommodated under the proposed roof form.

In addition to responding to ball movements, the underside of the roof needs to make allowance for structural elements as well as suspended lighting, speakers, and fans to support the patron experience within the Stadium.



East-West section study of cricket ball trajectory

Training Practice Wickets Turf Wickets General Arrangement Cricket Australia Facility Guidelines



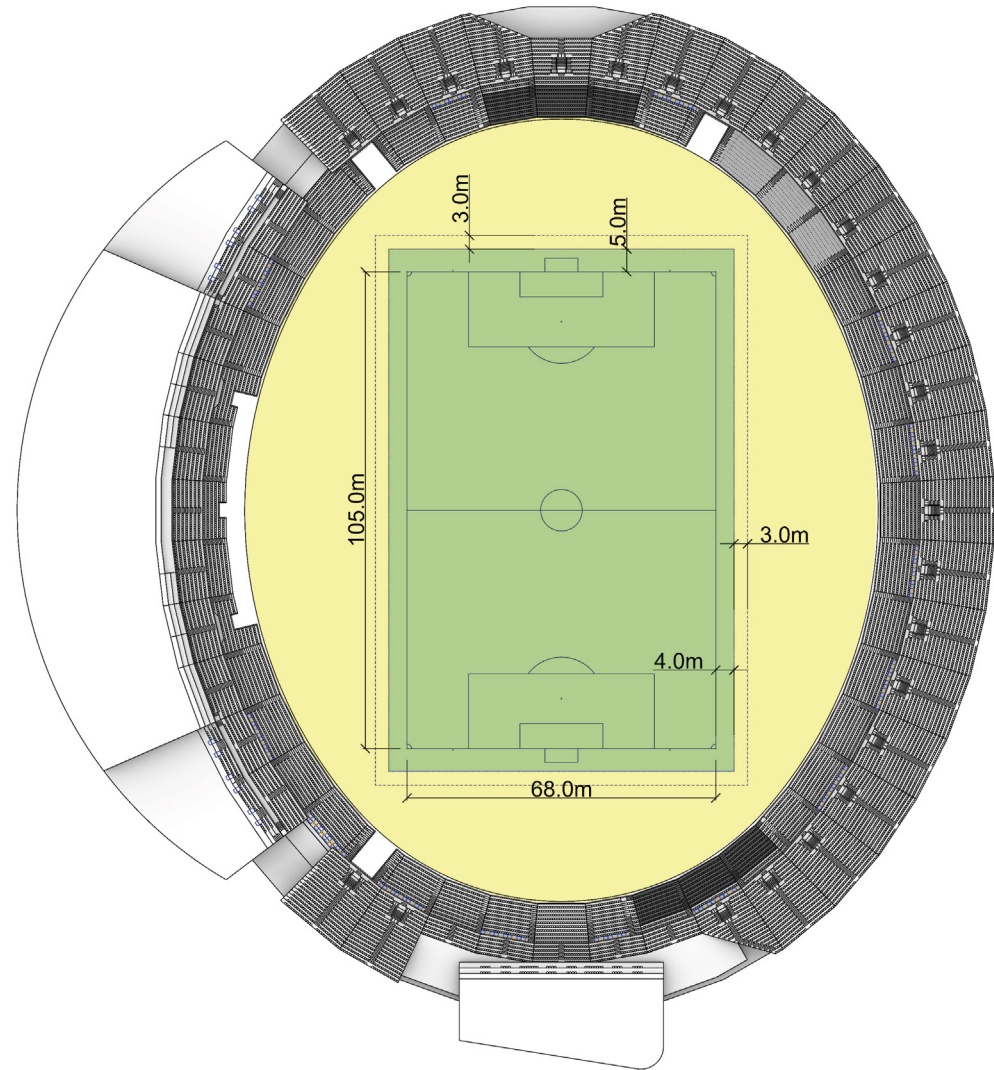
North-South section study of cricket ball trajectory

SOCCER CORE REQUIREMENTS

Soccer – the ‘World Game’ – will be an exciting addition to the Stadium events calendar. A potential attraction to the new Stadium is the Socceroos and Matildas (Australian national teams) qualifiers or friendly games, likely one match every two years.

The Stadium will be designed to accommodate the requirements outlined in the FIFA Football Stadiums Guidelines, as well as those in the APL Events and Venue Operations 2023-24.

Field Configuration Diagram

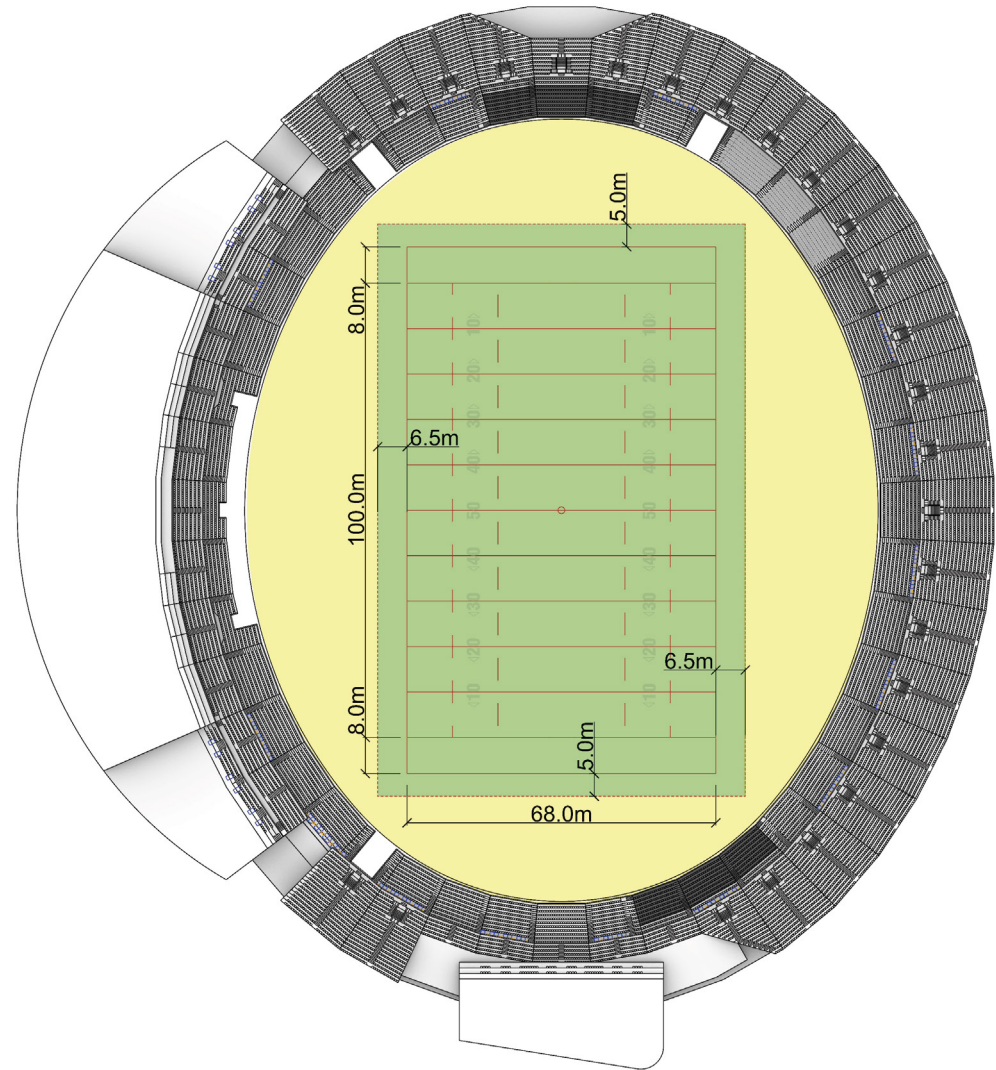


RUGBY CORE REQUIREMENTS

The two types of Rugby – Rugby Union and Rugby League – can be hosted at the Stadium, adding to the rich diversity of events that can be held at the venue.

The inclusion of Rugby at the venue has the potential to host matches for the upcoming Women's World Cup (2029) and to attract future international test matches and World Series Rugby 7's tournament. The Stadium design will be informed by the requirements outlined in the World Rugby Venue Regulations and the NRL Preferred Facility Guidelines.

Field Configuration Diagram



CONCERT MODE REQUIREMENTS

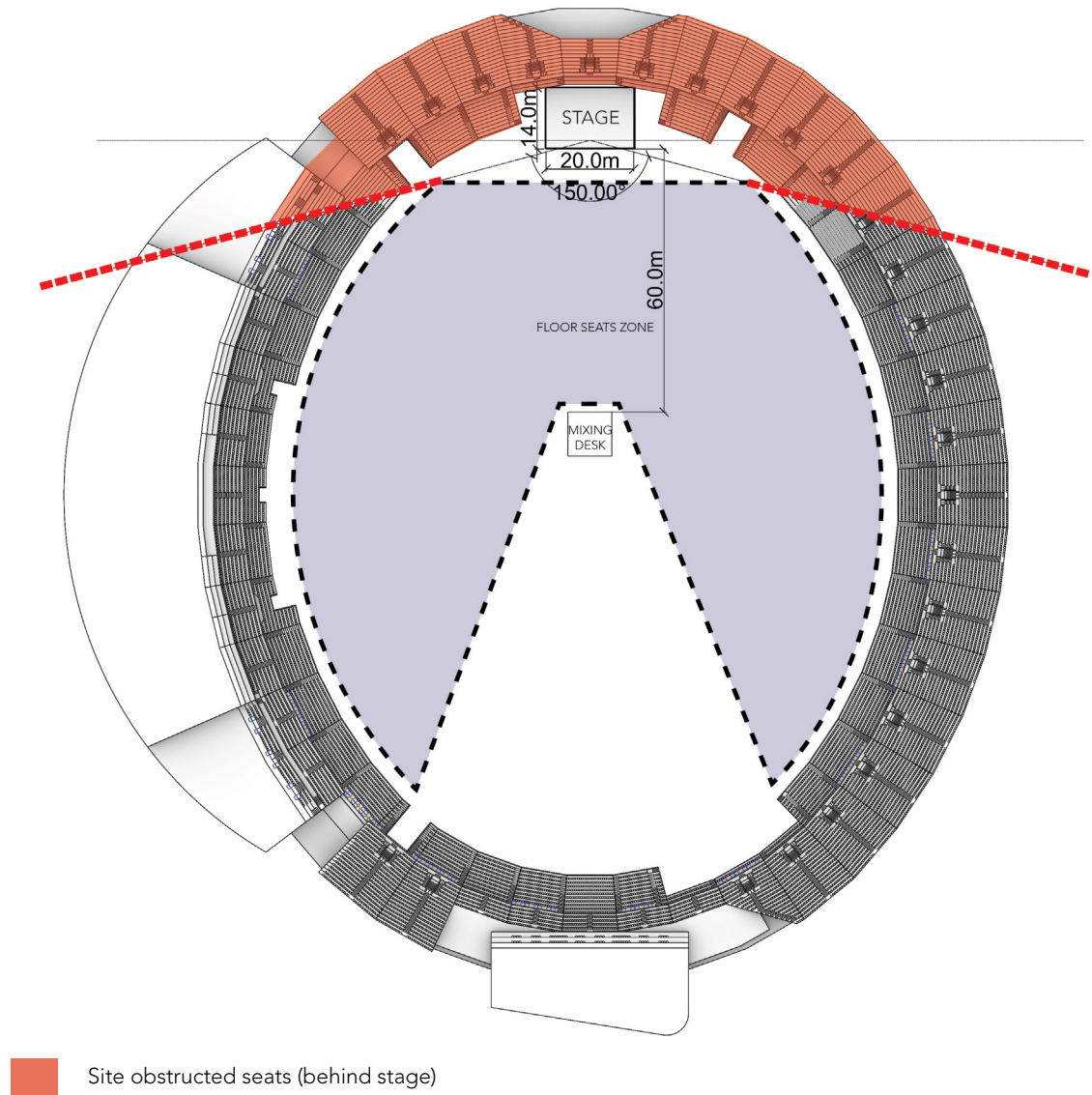
The experience economy is swiftly gaining momentum across the globe. This trend is dominated by the entertainment segment, and driven by Millennials and Gen Z with their increased spend on events and hospitality. Curating a variety of live performance experiences has never been more important or competitive than now.

Music and entertainment venues must be designed with consideration for long-term flexibility, and the ability to offer a range of experiences to appeal to a broad audience cross-section. The Brief for the new Macquarie Point Multipurpose Stadium anticipates one (1) major concert per annum (noting in any given year there are only 2-4 bands undertaking stadium tours in Australia), as well as smaller concerts/festivals as a result of the configuration which supports more intimate seating.

During a concert event at the Stadium, patrons will occupy standing area on the field as well as seats within the stands. The egress strategy therefore needs to account for high volumes of pedestrians moving outward from the field of play. Principally, egress from the field will be via the aisles in the lower bowl and out from the Level 1 concourse through every available gateway.

Segments of the lower bowl in front of Gate 1 and directly behind the stage to the north are comprised of retractable seating that will be removed during Concert Mode to facilitate direct egress from the field and out through the main gateways.

Field Configuration Diagram





Concert at the new Macquarie Point Multipurpose Stadium

05 | SUSTAINABILITY

The Macquarie Point Multipurpose Stadium will be a unique showcase of the best of Tasmania, and this includes sustainability.

SUSTAINABILITY PRINCIPLES

The Stadium will set a leading sustainability agenda, reflecting the ambitions of all levels of government, the Macquarie Point Development Corporation, the Macquarie Point Draft Precinct Plan, and the project's own desire to set a benchmark for responsive and responsible sports stadiums in Australia.

Mac Point Precinct Plan

The Mac Point Precinct Plan identifies five sustainability themes for the broader precinct, namely:

- Climate Positive and Resilient
- Connected and Accessible
- Efficiently Manage Emissions
- Honour the Site's History
- Support Local Enterprises and Economy to Thrive

The first 3 of these speak directly to environmentally sustainable design, and emphasise the following outcomes:

- Maximise energy efficiency in buildings and infrastructure;
- Reduce upfront carbon emissions and supports uptake of low carbon transport;

- Manage water responsibility and encourage recycling and reuse;
- Is adaptable and responsive to current and future climate risk and impacts;
- Provide universally accessible public spaces to gather, celebrate and reflect;
- Prioritise travel by active and public transport;
- Provide well-designed, accessible, affordable housing for key workers;
- Prioritise positive health and wellbeing for visitors, residents and workers;
- Manage the environmental quality of the site and its emissions; and
- Promote environmentally efficient systems for water and wastewater management and reuse.



SUSTAINABILITY RESPONSE

The Macquarie Point Multipurpose Stadium is delivering on the environmental sustainability expectations of the Draft Precinct Plan and the community by targeting the following key themes and initiatives for the development:

Upfront Carbon Reduction

- The Stadium features a unique architectural roof to protect and enhance the playing surface, promoting less replacement of turf. Of multiple designs put forward, the team have selected a profile and height that maximises the reduction in steel support structure, ensuring a low carbon design solution for the unique dome.
- Within the dome structure, secondary steel support members are being replaced with timber supports to further reduce the embodied carbon impact.
- Concrete and steel supplies are being reviewed to understand potential to source low carbon alternatives to standard industry practices. This includes considering if local additives can be used to offset carbon-intensive cement ingredients.
- The existing Goods Shed on site will be protected, relocated and reestablished onsite, reducing the need newly constructed space.
- Paths, concourses, and roadways will use recycled and low carbon alternatives in the concrete and aggregates used.

Operation Energy and Carbon Efficiency

- The Stadium will benefit from provision of heating hot water and cooling chilled water by centralised plant, serving the wider Macquarie Point precinct as a whole. This reduces the number of separate plant installations (and their overall footprint), centralises maintenance for greater efficiency, and takes advantage of diversity of energy demand from the different buildings and uses across the precinct.

- The Stadium will support the decarbonisation of the overall precinct by hosting a photovoltaic array on the roof of the western grandstand. This system will be connected to the precinct wide energy network to ensure that if the power is not required by the stadium, it will be used elsewhere at Macquarie point, ensuring best return on investment.
- The Stadium will be all-electric in design, removing all fossil gas from the design for normal usage, and removing costly switch works from future development upgrades.
- In addition to Tasmania's renewable power generation which is already at 100%, the Stadium will also contribute to local generation through solar photovoltaic panels.
- The Stadium will feature an energy efficient LED sports lighting system, designed to effectively provide multiple lighting scenarios enhancing operational efficiency.
- The Stadium will target insulation levels, plant performance and HVAC/lighting efficiencies beyond the code minimum compliance.

Water Efficiency

- The Stadium will feature a unique, lightweight, transparent roof which will shelter and protect both the Stadiums' users and the pitch alike. Irrigation systems will ensure the pitch receives just as much water as it needs and no more.
- The possibility of a recycled water connection to Self's Point will be reviewed by the development team, although this scenario is dependent on significant external factors outside the projects control.
- All water use fixtures and fittings will be selected with water efficient WELS ratings.

Climate Resilience

- The domed stadium roof is designed to protect both the stadiums' users and the pitch from extreme's a climate today and into the future. It will shield from excessive solar gain and rain fall, protect against storm and drought and decrease the amount of turf replacement required to maintain the high-quality playing surface.
- The roof also helps mitigate and adapt to climate change by solar energy generation through photovoltaic panels.

Other Initiatives

- The Stadium will support alternative forms of travel to matches, with public transport stops, bicycle parking, electric vehicle charging and safe and attractive walking options.
- The Stadium will actively the support the precinct in achieving its targeted Green Star Communities rating by providing on-site energy generation, and urban heat island reduction strategies.
- In conjunction with operational partners, the development team is investigating multiple options to reduce event waste including reusable cup solutions, on-site organic waste treatment (and food rescue) and removing single use plastics.



Onsite organic waste treatment and reduction of single use plastics will reduce site waste movements



Unique transparent dome to protect the pitch and Stadium users, reducing turf replacement



Photovoltaic panels for local energy generation for the stadium and precinct



Vegetation and Water Sensitive Urban Design to the Aboriginal Culturally Informed Zone



An open, safe and attractive public realm promotes alternatives to personal vehicle use



Stadium roof has a profile selected to optimise the balance between visual impact and minimising the amount of supporting steel required



Lightweight ETFE is used for the dome, and timber replacement is used in the structure to further reduce the embodied carbon content



A district energy system will reduce overall plant provision by exploiting the diversity of load profiles across the precinct



Cycling and use of public transit will be supported by appropriate infrastructure provision

06 | OVERSHADOWING

This chapter addresses part 8.2 of the Project of State Significance Guidelines which requires a description of the existing solar access of the project site and adjacent area and an analysis of the effects of shadow impacts from the proposed project.

SOLAR ACCESS TO THE SITE

Macquarie Point Solar Access and Overshadowing

The project site currently experiences good solar access due to the absence of tall buildings or structures on, or immediately adjacent, to the site. The existing Goods Shed casts some shadow on the site and on Evans Street through the winter months.

Solar study diagrams have been prepared to indicate the extent and effects of overshadowing of the proposed Stadium on adjacent streets, properties and within the boundaries of the Stadium precinct. Diagrams compare the current overshadowing conditions of the site with those imposed by the proposed Stadium, associated structures, and future developments.

The form of the roof achieves its highest point above the centre of the playing field, and the gently sloping nature of the dome ensures that this has minimal impact on the shadows cast by the Stadium. The facade underneath the perimeter of the roof, which generally aligns with the back of the stands, casts most of the shadow across the site.

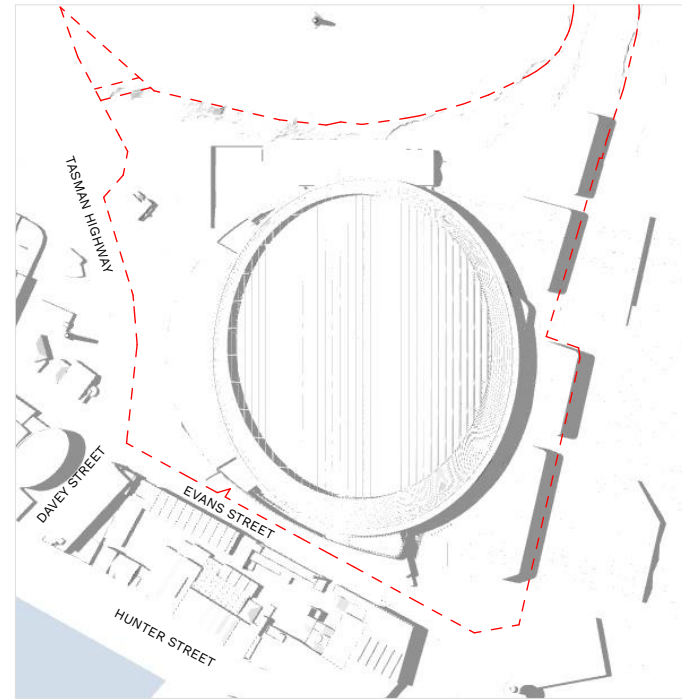
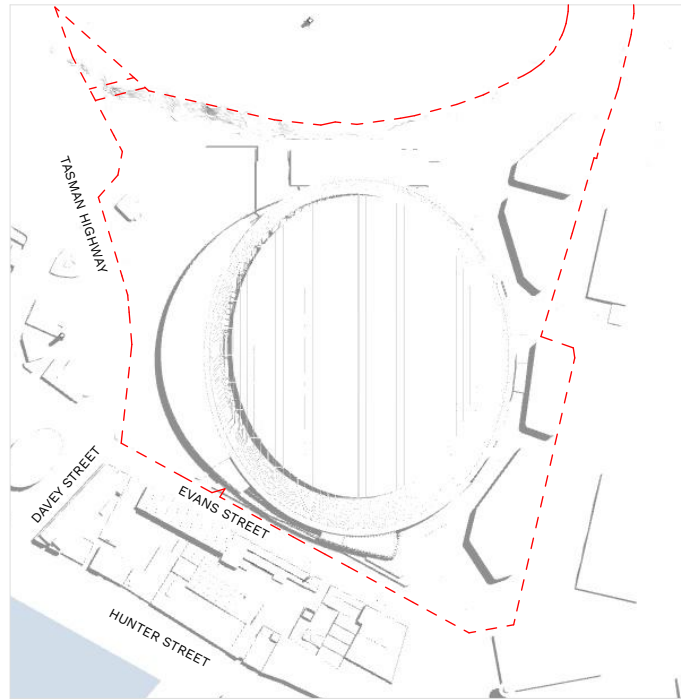
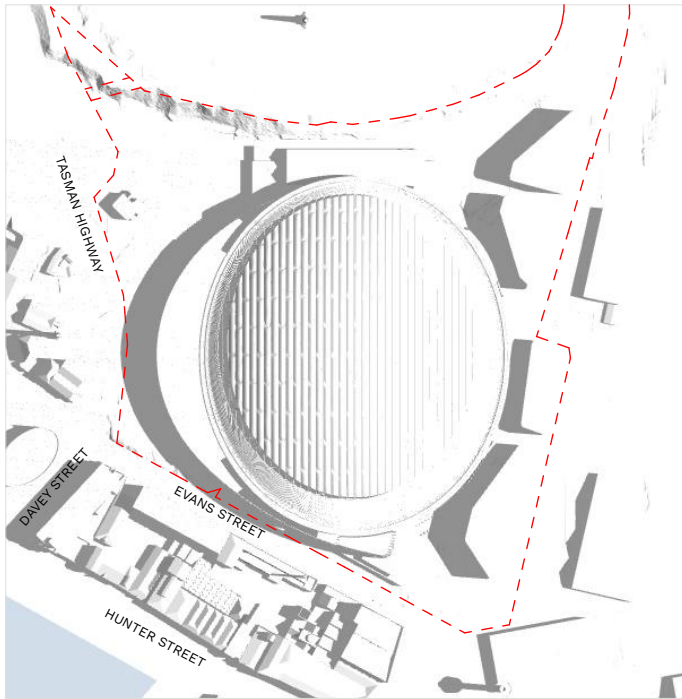
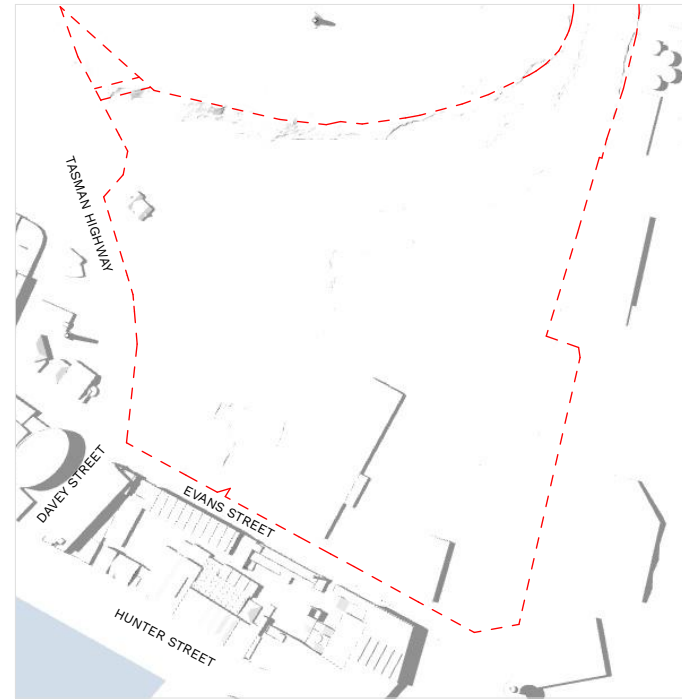
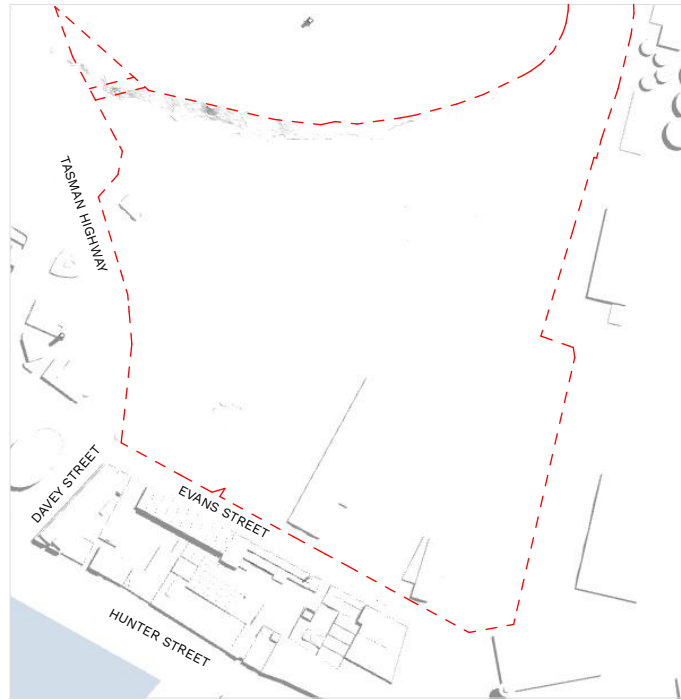
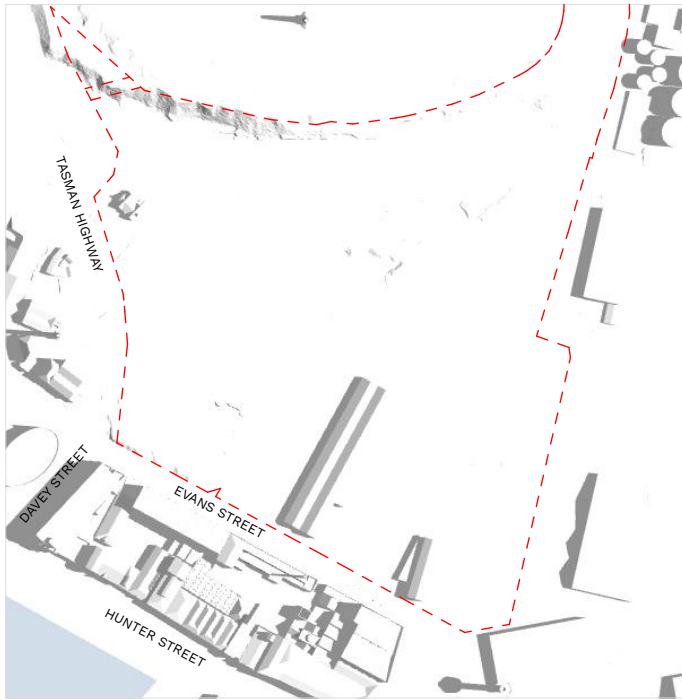
The site consists of several publicly accessible plazas that correspond to the major entry points to the Stadium:

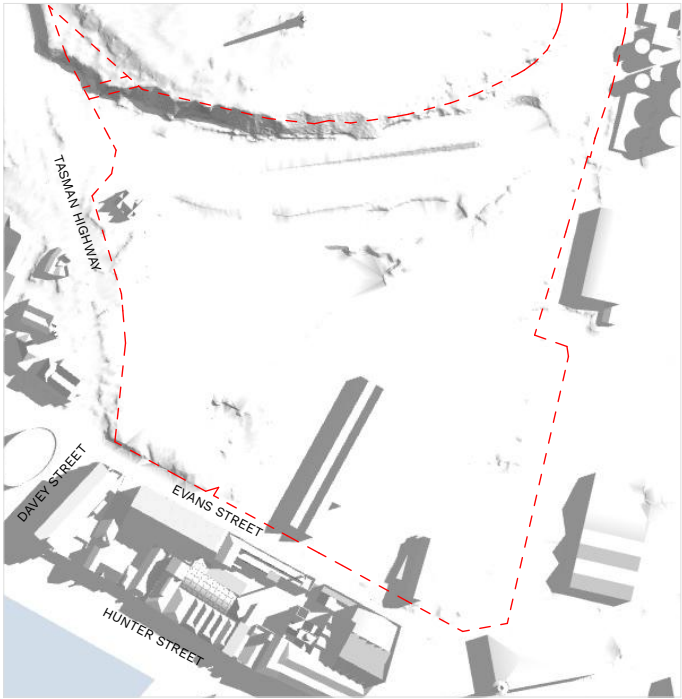
- The North West Plaza at Gate 3 receives very little overshadowing from the Stadium throughout the year. Similarly, the North East Plaza at Gate 4 receives very little overshadowing from either the Stadium or the relocated Goods Shed throughout the year, however it will receive some afternoon overshadowing from the massing of the future development parcel. This area is largely taken up with pedestrian circulation associated with the Bus Plaza.

- The South West Plaza and the Aboriginal Culturally Informed Zone on the western side of the Stadium receive full sun from midday through to the afternoon throughout the course of the year.
- Evans Street is relatively untouched by overshadowing in December. By March, the Stadium begins to cast shadow across the street after midday, and in June there is considerable overshadowing of the street throughout the day.
- The South East Plaza that forms the main arrival space for Gate 1 receives little overshadowing from the Stadium throughout the day in December, although it will receive some overshadowing from the future development massing in the morning. Conditions will be similar through the month of March. In June, the majority of the plaza is in shadow at 9am and 3pm, but retains good solar access in the middle of the day.

The existing site features very little vegetation. Where there are some established trees, these are consolidated along the western boundary on Davey Street. These trees will experience some overshadowing from the Stadium, but only in the morning around 9am.

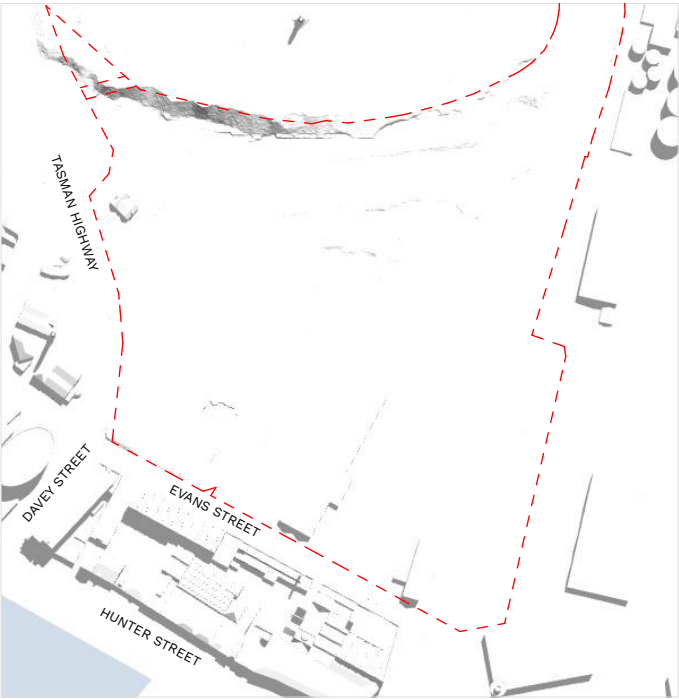
From March and through the winter months there will be some overshadowing of buildings on Evans Street in the morning. There will be no overshadowing of private open space.





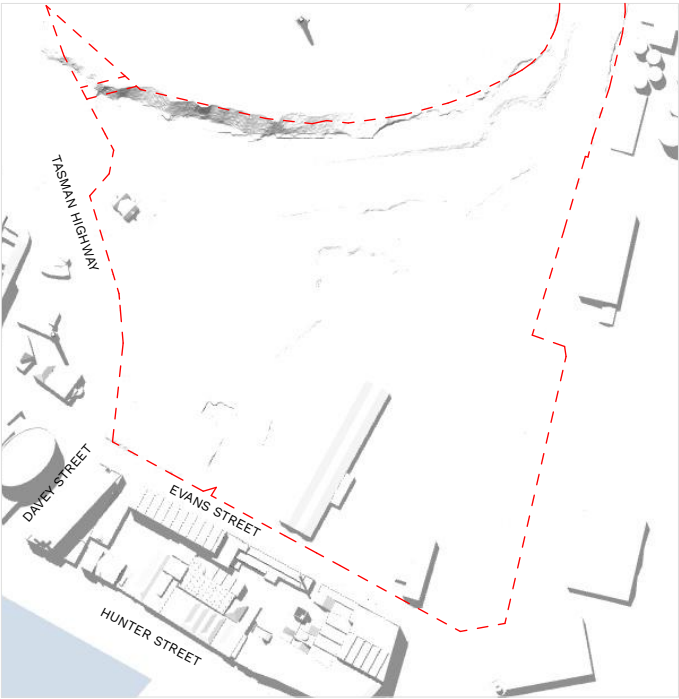
EXISTING CONDITIONS: MARCH 22 - 9AM

1:5000



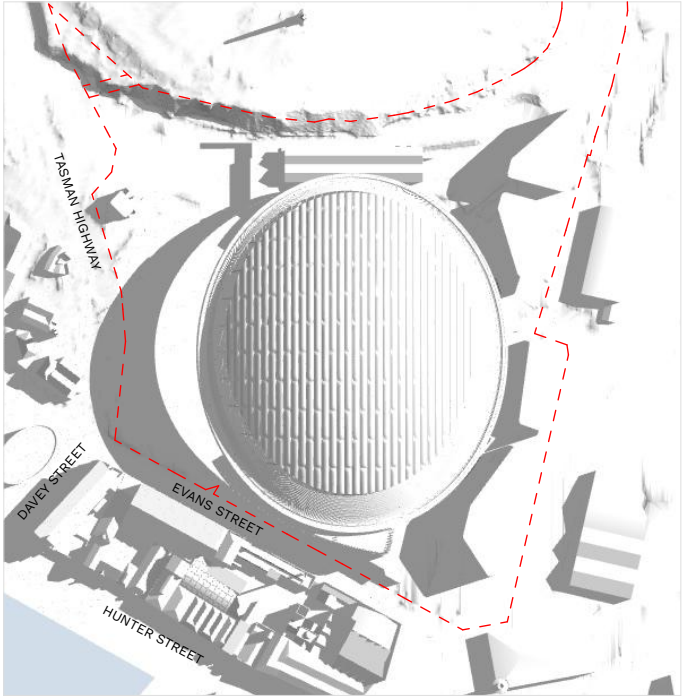
EXISTING CONDITIONS: MARCH 22 - 12PM

1:5000



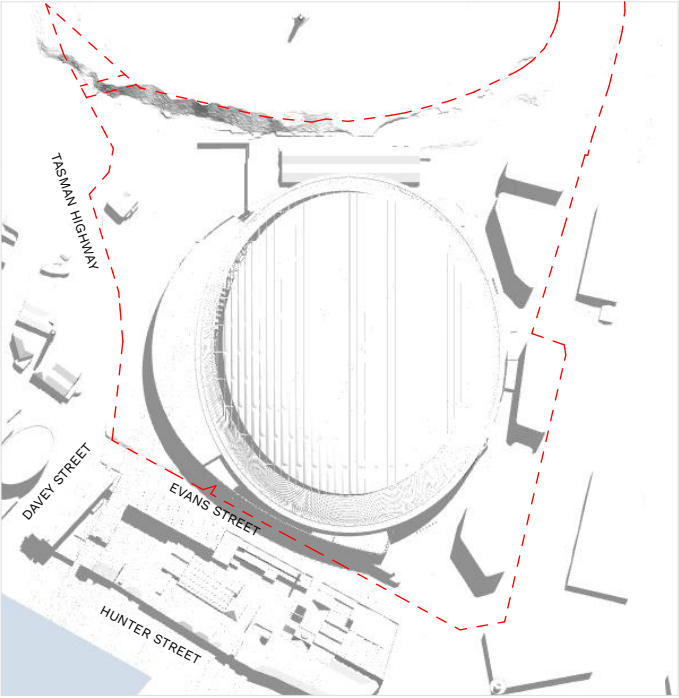
EXISTING CONDITIONS: MARCH 22 - 3PM

1:5000



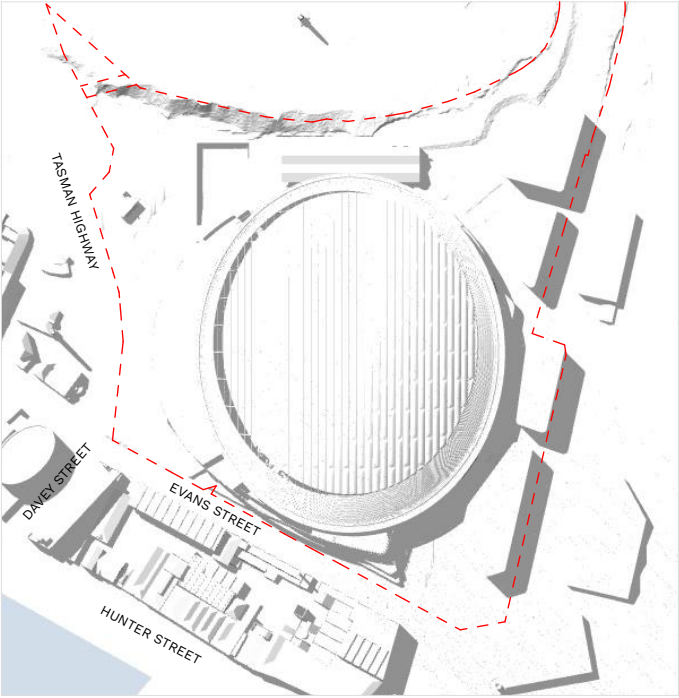
PROPOSED: MARCH 22 - 9AM

1:5000



PROPOSED: MARCH 22 - 12PM

1:5000



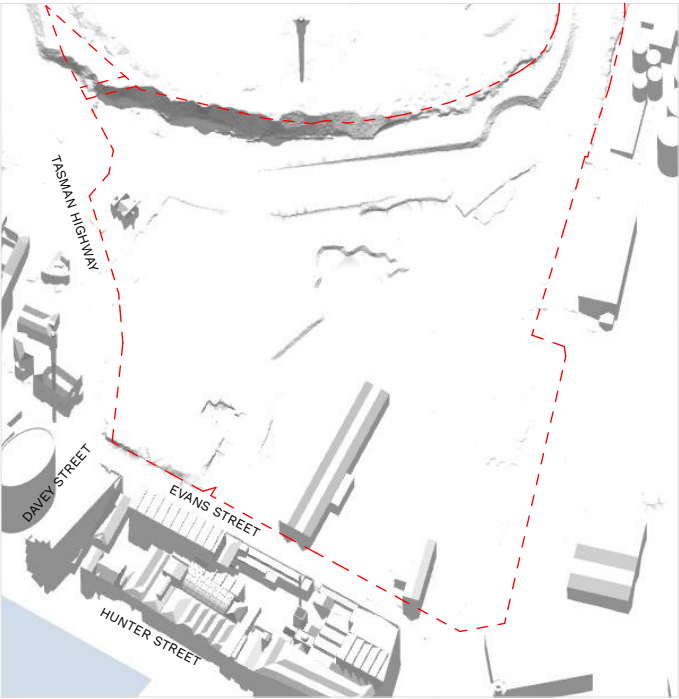
PROPOSED: MARCH 22 - 3PM

1:5000



EXISTING CONDITIONS: JUN 22 - 9AM

1:5000



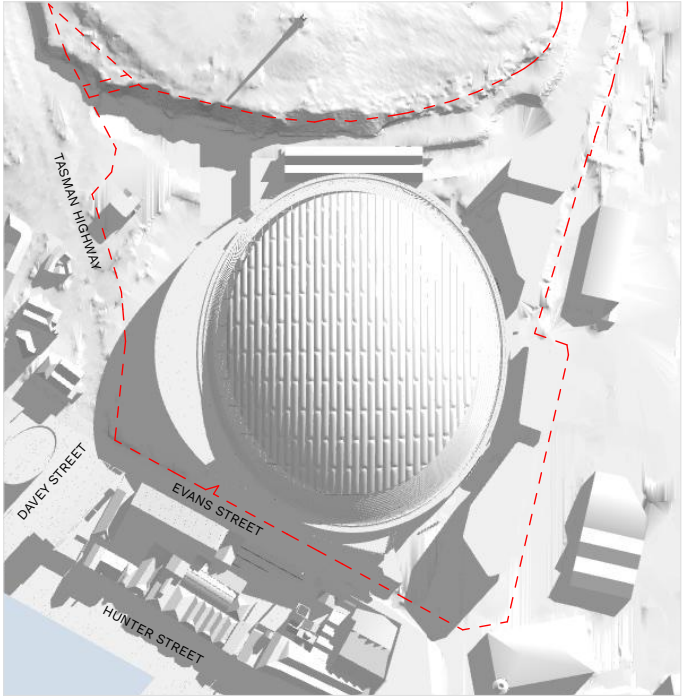
EXISTING CONDITIONS: JUN 22 - 12PM

1:5000



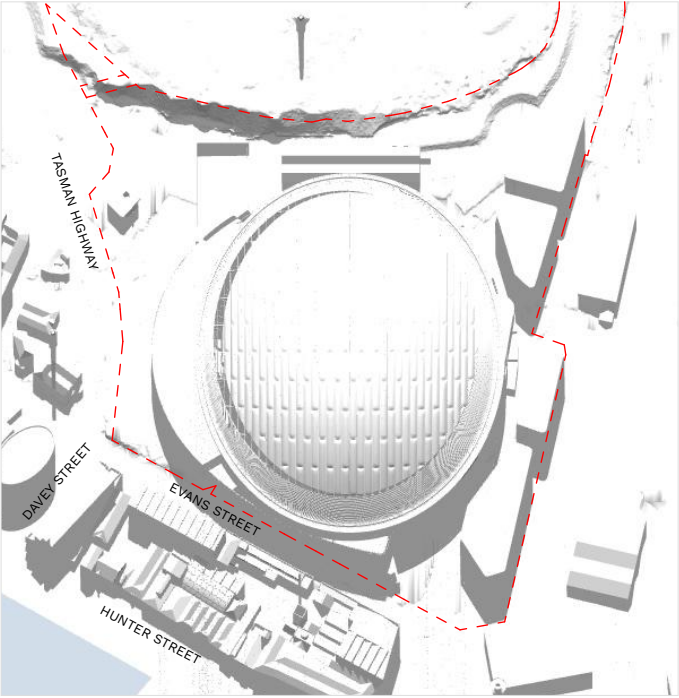
EXISTING CONDITIONS: JUN 22 - 3PM

1:5000



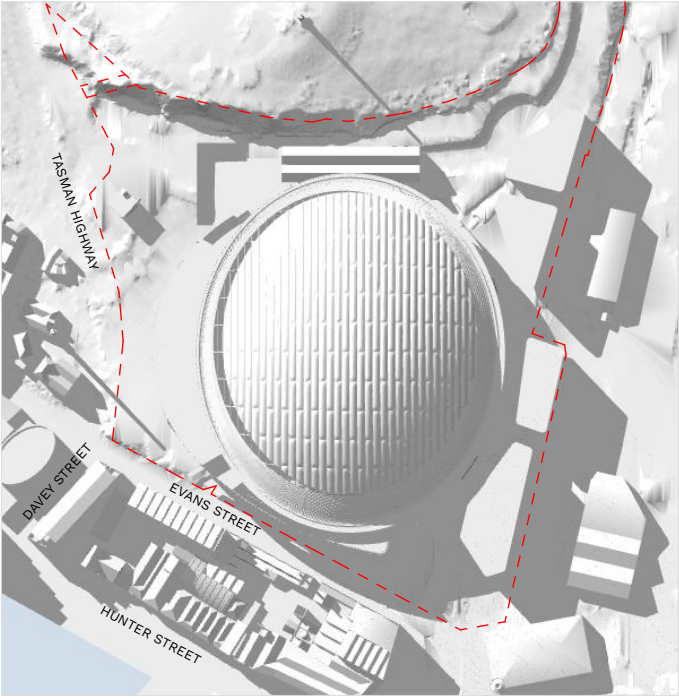
PROPOSED: JUN 22 - 9AM

1:5000



PROPOSED: JUN 22 - 12PM

1:5000



PROPOSED: JUN 22 - 3PM

1:5000

C O X CUMU
LUS

www.cox.com.au | www.cumulus.studio