



Morris Goding  
Access Consulting

Infrastructure NSW

Stadium Australia  
Redevelopment

**SSDA Access Review**

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REPORT REVISIONS		
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This report prepared by:

A handwritten signature in black ink, appearing to read 'John Ward'.

John Ward  
Senior Access Consultant  
Morris Goding Access Consulting



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## 1. Executive Summary

The Access Review Report is a key element in the design development of the refurbishment of Stadium Australia located at Olympic Park NSW 2127, and an appropriate response to the AS1428 series, Building Code of Australia (BCA), DDA Access to Premises Standards (including DDA Access Code) and ultimately the Commonwealth Disability Discrimination Act (DDA).

Morris Goding Access Consulting has prepared the Access Report to provide advice and strategies to maximise reasonable provisions of access for people with disabilities.

The review will ensure that ingress and egress, paths of travel, circulation areas, and sanitary facilities comply with relevant statutory guidelines, and in addition, compliance with a higher level of accessibility and inclusiveness benchmarks set by the project.

In general, although the scheme is conceptual in nature at this time, the review reveals a high degree of technical compliance (or capability of compliance) with all statutory requirements and SOPA Access Guidelines and SOPA Disability Inclusion Action Plan.



## 2. Introduction

### 2.1 Background

Infrastructure NSW has engaged Morris Goding Access Consulting, to provide a design review of the refurbishment proposal for Stadium Australia, located at Olympic Park NSW 2127.

The development consists of a major refurbishment to the existing stadium with the following key spatial features as part of the proposal:

- rebuild of the lower and mid-tiers for a dedicated rectangular configuration for 70,000 spectator capacity
- stands on all four edges brought closer to the field of play
- new general public entrances and vertical circulation at the north and south end of the stadium
- new amenities and food and beverage outlets
- refurbishment of existing amenities and food and beverage outlets
- new and refurbished corporate and members areas suites
- refurbished player facilities
- refurbished dining, media and broadcast studio box

The proposed development falls under the following BCA classification:

- Class 9b (assembly building)

The requirements of the investigation are to:

- Review supplied drawings of the proposed development;
- Provide a report that will analyse the provisions of disability design of the development; and
- Recommend solutions that will ensure the design complies with the Disability Discrimination Act (DDA), Building Code of Australia (BCA), relevant Australian Standards, and enhanced benchmark requirements set by the project.

### 2.2 Objectives

The Report seeks to ensure compliance with statutory requirements and enhanced benchmark requirements set by the project. The Report considers user groups, who include staff, and members of the public. The Report attempts to deliver equality, independence and functionality to people with a disability inclusive of:

- People with a mobility impairment (ambulant and wheelchair);
- People with a sensory impairment (hearing and vision); and
- People with a dexterity impairment



The Report seeks to provide compliance the Disability Discrimination Act 1992. In doing so, the report attempts to eliminate, as far as possible, discrimination against persons on the ground of disability.

### **2.3 Limitations**

This report is limited to the accessibility provisions of the building in general. It does not provide comment on detailed design issues, such as: internals of accessible/ambulant toilet, fit-out, lift specification, slip resistant floor finishes, door schedules, hardware and controls, glazing, luminance contrast, stair nosing, TGSIs, handrail design, signage etc. that will be included in construction documentation.

### **2.4 Accessibility of Design**

The proposed design will utilise the Federal Disability Discrimination Act (DDA), Disability (Access to Premises – Buildings) Standards 2010, BCA/DDA Access Code, Universal Design principles, the AS 1428 Series, and other design guidelines, to develop appropriate design documentation, to provide reasonable access provisions for people with disabilities.

The design will be developed to ensure the principles of the DDA are upheld. Under the DDA, it is unlawful to discriminate against people with disabilities in the provision of appropriate access, where the approach or access to and within a premise, makes it impossible or unreasonably difficult for people with disabilities to make use of a particular service or amenity.

### **2.5 Statutory Requirements**

The statutory and regulatory guidelines to be encompassed in the developed design to ensure effective, appropriate and safe use by all people including those with disabilities will be in accordance with:

- Federal Disability Discrimination Act (DDA);
- Disability (Access to Premises – Buildings) Standards 2010;
- Building Code of Australia (BCA) 2019 Part D3, F2, E3;
- AS 1428.1:2009 - (General Requirement for Access);
- AS 1428.4.1:2009 - (Tactile Ground Surface Indicators);
- AS 2890.6:2009 - (Parking for People with Disabilities);
- AS 1735.12:1999 - (Lift Facilities for Persons with Disabilities);
- SOPA Access Guidelines – Fifth Edition 2017

Please note that there are also additional advisory standards (not currently referenced by BCA or DDA Premises Standards) as well as other relevant guidelines that will be considered, as



relevant to promote equity and dignity in line with over-arching DDA principles and aspirational objectives. These include:

- Universal Design Principles;
- Human Rights Commission (HEREOC) Advisory Note February 2013 on streetscape, public, outdoor areas, fixtures, fittings and furniture;
- AS1428.2:1992 Enhanced and Additional requirements;
- AS1428.4.1 Draft Way-finding Standard;
- AS3745:2010 – Planning for Emergencies in Facilities (to assist with design strategies for provision for escape for people with disability that may require assistance);
- SOPA Disability Inclusion Action Plan 2019-22

## 2.6 Affected Part

The proposal, consisting of both the additions and refurbishment scope, although extensive, is technically a *new part* of an existing building. As such, under the Disability (Access to Premises – Buildings) Standards 2010, the mandatory accessibility requirements for the project include the new work and the *affected part* (which is defined as the principal entrance of the building and the path of travel from this entrance to the *new part*).

However, given the extensive nature of the scope, the prestige and prominence of the site, and the objectives under SOPA Disability Inclusion Action Plan, a more logical approach is to assess the building for compliance and best practice, *in its entirety*, with isolated areas (such as back of house and the like) which are not subject to refurbishment then excluded from access review on a case by case basis. This has been the chosen approach with this particular access review report.



### 3. General Access Planning Considerations

The Disability Discrimination Act 1992 (DDA) is a legislative law that protects the rights of all people. The Act makes disability discrimination unlawful and promotes equal rights, equal opportunity and equal access for people with disabilities. The Australian Human Right Commission is the governing body who control and enforce DDA compliance.

Nevertheless, building elements that provide insufficient accessible provisions for people with disabilities remain subject to the DDA. The improvement of non-compliant building elements and areas to meet current access requirements will mitigate the risk of a DDA complaint be made against the building owner.

Since the 1st May 2011, the Commonwealth's Disability (Access to Premises – Buildings) Standards 2010 (DDA Premises Standards) apply to all new building works and to affected parts of existing buildings.

The DDA Premises Standards' requirements (DDA Access Code) are mirrored in the access provisions of the BCA. New building work and affected parts must comply with the DDA Premises Standards and AS1428.1-2009 in the same manner as they would comply with the BCA by meeting deemed-to-satisfy provisions or by adopting an alternative solution that achieves the relevant performance requirements.

By utilizing AS 1428 suite of Standards, the overall aim is to provide continuous accessible paths of travel to connect the proposed development to and through public domain areas and between associated accessible buildings in accordance with the DDA Access Code.

MGAC supports the use and consideration of universal design (UD) principles into the design to maximize access for all people. We will assist the design team to incorporate UD principles where possible within the project, while still meeting mandatory compliance requirements.

Universal design principles consider the needs of a broad range of people including older people, families with children and pushing prams, people from other cultures and language groups, visitors in transit and people with disability. By considering the diversity of users, the design will embed access into and within it, so that benefits can be maximised, without adding on specialised 'accessible' features that can be costly, visually unappealing and may perpetuate exclusion and potential stigma.

The seven key Universal design principles to consider in the on-going design include:

- Principle 1: Equitable Use
- Principle 2: Flexibility in Use
- Principle 3: Simple and Intuitive Use
- Principle 4: Perceptible Information
- Principle 5: Tolerance for Error
- Principle 6: Low Physical Effort
- Principle 7: Size and Space for Approach and use





## 4. Ingress & Egress

### 4.1 External Linkages

The BCA and DDA Premises Standards contain requirements for site approaches for the use of persons with disabilities. These requirements can be summarised as follows:

- An accessible path of travel from main pedestrian entry points at the site allotment boundary to all building entrances compliant with AS1428.1:2009.
- An accessible path of travel between buildings (or parts of buildings) that are connected by a pedestrian linkage, within the site allotment boundary, compliant with AS1428.1:2009 is also required.
- An accessible path of travel to building entrances (required to be accessible) from associated accessible car-parking bays, compliant with AS1428.1:2009 is required.

#### *Assessment*

MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

The line of site allotment boundary is somewhat open to interpretation due to Stadium Australia existing within the greater precinct of Olympic Park. Notwithstanding this Sydney Olympic Park is renowned as one of the most accessible environments in Australia. The proposal makes no change to the existing external linkages serving Stadium Australia, be these from the train station, bus stops and taxi ranks, and parking stations. All access requirements in this regard already achieve compliance.

### 4.2 Entrances

The BCA and DDA Premises Standards contain requirements for building entry for the use of persons with disabilities. These requirements can be summarised as follows:

- Access through at least 50% of entrances, including the principal pedestrian entrance/s to all buildings or parts of buildings (i.e. when they have a separate function and/or use e.g. external retail tenancy). Note it is preferred that all entrances are accessible.
- A non-accessible entry located no more than 50m distance from an accessible entry (for buildings greater than 500m<sup>2</sup>).
- All accessible doors with 850mm min. clear width opening and suitable door circulation area, compliant with AS1428.1:2009.
- An accessible path of travel e.g. ramp or lift provided adjacent (or in reasonable proximity) to any stair access. Note: providing choice of access route directly adjacent so that people can start and finish in the same location/travel similar route promotes inclusion and UD principles.

#### *Assessment*



MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

A key component of the proposal is the establishment of new public entrances at the north and south end of the stadium. The existing main entrances under the east and west stands are retained for corporate and member patronage of the facility, as well as some general admission.

On the basis of the current level of detail all access requirements appear capable of achieving compliance. Further work will be required during design development stage to ensure appropriate outcomes are achieved.

### **4.3 Emergency Egress**

Due to the reduction in spectator capacity as part of the proposal it is understood that there will be no major change to the emergency egress provisions in place at the existing building. Accordingly there is an assumption that refurbishment scope will not extend to existing emergency egress paths. If however there is some modification to stairs, or new stairs for emergency egress then there are access considerations to be assessed.

BCA 2019 Part D2.17 has requirements for all fire-isolated egress stairs from areas required to be accessible (not communication stairs) to include at least one continuous handrail designed to be compliant with AS1428.1 Clause 12. Provision of an off-set tread at the base of stair flights or an extended mid-landing that will allow a 300mm extension clear of egress route is considered appropriate for achieving a consistent height handrail (without vertical or raked sections).

There is currently no mandatory requirement within BCA or DDA Premises Standards for provision of independent accessible egress for people with a disability in accordance AS1428.1 and this remains an important DDA issue. Consideration of an accessible egress strategy with emergency evacuation plan will be needed as a minimum starting point.

It is noted that SOPA Access Guidelines contain requirements for fire-isolated refuges for wheelchair users.

Consideration of management systems and fire wardens for emergency egress for people with disabilities.



## 5. Paths of Travel

### 5.1 Circulation Areas

The BCA and DDA Premises Standards contain requirements for circulation areas for the use of persons with disabilities. These requirements can be summarised as follows:

- Wheelchair passing bays (1800mm width x 2000 length) when a direct line of sight is not available and are to be provided at 20m max. intervals along access-ways.
- Turning spaces (at least 1540mm W x 2070mm L) within 2m of every corridor end and at 20m.max intervals along all access-ways. This is needed for wheelchairs to make a 180 degree turn, compliant with AS1428.1:2009.
- All common-use doors (i.e. not excluded under Part D3.4) with 850mm min. clear width opening (each active door leaf) and suitable door circulation area, compliant with AS1428.1:2009.
- All common-use corridors and accessible paths of travel with at least 1000mm min. width when travelling in linear direction Note: Increased clear width paths of travel required for doorway circulation, turning areas etc.

#### *Assessment*

MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

Circulation through public areas is expected to readily comply with the requirements owing to generous width path of travel throughout, befitting a building of this scale with a large population and wide aggregate egress width requirements. Less certain is the layout of other areas of the building, such as player facilities, club areas, suites, exclusive dining etc. which at present are identified as areas for refurbishment as a zone with no layouts proposed.

Notwithstanding this all access requirements are capable of achieving compliance. Further work will be required during design development stage to ensure appropriate outcomes are achieved.

### 5.2 Passenger Lifts

The BCA and DDA Premises Standards contain requirements for passenger lifts and circulation areas for the use of persons with disabilities. These requirements can be summarised as follows:

- Passenger lifts with min. internal size at floor of 1400mm width x 1600mm depth, compliant with BCA/DDA Access Code Part E3.6 and AS1735.12.
- All lift lobbies and main corridors on each level with 1800mm min. clear width to allow two wheelchairs ability to space pass each other.

#### *Assessment*



MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

The proposal for new cores, to the four corners of the building, is understood to contain passenger lifts and is expected to mostly serve the general public to access all levels of the building (except the upper tier which contains no wheelchair seating in any case). Existing passenger lifts within the east and west stand are to be retained to serve the corporate and membership patronage of the facility, as well as some general admission. The extent of upgrade required to these lifts is unknown at this stage however compliance is expected to be readily achievable.

Notwithstanding the limited level of detail available at this time all access requirements are capable of achieving compliance. Further work will be required during design development stage to ensure appropriate outcomes are achieved.

### **5.3 Stairs & Ramps & Escalators**

The BCA and DDA Premises Standards contain requirements for stairs and ramps for the use of persons with disabilities. These requirements can be summarised as follows:

- Ramps maximum 1:14 gradient with landings at no more than 9 metre intervals
- Ramps with handrails on both sides with minimum 1 metre clearance in accordance with AS1428.1
- Landings 1200mm length with 1500mm length at 90 degree turns
- Stairs handrails on both sides in accordance with AS1428.1
- Stairs and ramps with offset to ensure no encroachment of handrail extensions into from transverse path of travel at top and bottom of stair/ramp

#### *Assessment*

MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

The proposal includes new stair and escalators associated with the general public building entrances north and south of the stadium. It is not yet clear if refurbishment scope will extend to existing communications stairs however if required then compliance is expected to be readily achievable.

Notwithstanding the limited level of detail available at this time all access requirements are capable of achieving compliance. Further work will be required during design development stage to ensure appropriate outcomes are achieved.



## 6. Facilities & Amenities

### 6.1 Sanitary Facilities

The BCA and DDA Premises Standards contain requirements for sanitary facilities suitable for the use of persons with disabilities. These requirements can be summarised as follows:

- For Class 9b: At least 1 unisex accessible toilet, adjacent to every bank of toilets (where provided) on each storey, compliant with AS1428.1 under BCA/DDA Access Code part F2.4. If more than 1 toilet bank provided on each level, accessible toilet is required at 50% min. of toilet banks at each level.
- For Class 9b: If common-use change facilities provided (i.e. both toilets and showers) a separate combined accessible WC/shower adjacent to male and female change rooms is required, compliant with AS1428.1 under BCA/DDA Access Code Part F2.4.
- An even number of left hand (LH) and right hand (RH) transfer WC pans (accessible toilets) within the building. Alternating LH/RH layouts on each subsequent level is the most appropriate and inclusive approach.
- Accessible WC with 2300mm x 1900mm around the pan with the basin to sit outside this area in accordance with AS1428.1.
- An ambulant cubicle within every standard toilet bank adjacent to an accessible toilet under DDA Access Code Part F2.4 compliant with AS1428.1:2009.
- For Class 9b sports venue: A unisex accessible adult change facility must be provided where design occupancy is not less than 35,000 spectators.

#### Assessment

MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

At present new amenities and refurbished existing amenities are defined as zones, with no detail yet available at this stage.

Notwithstanding this all access requirements are capable of achieving compliance. Further work will be required during design development stage to ensure appropriate outcomes are achieved.

### 6.2 Wheelchair seating areas

The BCA and DDA Premises Standards contain requirements for wheelchair seating areas which are applicable to this project. These requirements can be summarised as follows:

- Class 9b development: 108 wheelchair seating spaces for 10,000 fixed seats and one additional space for each additional 200 fixed seats in excess of 10,000.
- Class 9b development: Grouping of wheelchair seating spaces to conform to a specified mix, being distributed alongside fixed (companion) seating.



- Class 9b development: Location of wheelchair seating spaces to be representative of the range of seating provided.

### *Assessment*

MGAC has reviewed the drawings and documentation in relation to the aforementioned requirements.

Although final numbers and configuration of wheelchair seating areas is yet to be determined the design makes a spatial allowance for these requirements across all levels, noting that there are also other areas of the stadium that could serve this function if required (as yet these areas have no allocated function). The requirement for Enhanced Amenity Seating (EAS) under SOPA Access Guidelines is also noted and is expected to be readily introduced into the scheme. Further analysis is required of the distribution of wheelchair seating areas and EAS with consideration to the segregation of patrons e.g. there must be a reasonable distribution of wheelchair seating and EAS within each patronage group (general public, corporate, members etc.) rather than being concentrated and/or unbalanced across the groups.

On the basis of the current level of detail all access requirements appear capable of achieving compliance. Further work will be required during design development stage to ensure appropriate outcomes are achieved.



## 7. Conclusion

MGAC has assessed the proposed scheme for the refurbishment of Stadium Australia. The proposed drawings indicate that accessibility requirements, pertaining to external site linkages, building access, common area access, sanitary facilities, and wheelchair seating spaces can be readily achieved. It is advised that MGAC will work with the project team as the scheme progresses to ensure appropriate outcomes are achieved in building design and external domain design.