

Sport Venue Review

Independent Review of Brisbane 2032 Olympic
and Paralympic Venue Infrastructure



18 March 2024
FINAL REPORT

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Letter to the Minister

18 March 2024

The Honourable Grace Grace MP
Minister for State Development and Infrastructure,
Minister for Industrial Relations and Minister for Racing
1 William Street
BRISBANE QLD 4000

Dear Minister

I am pleased to submit the findings of the independent Sport Venue Review Panel which has concluded its assessment of potential 2032 Olympic and Paralympic Games venue infrastructure in Queensland.

In 60 days, the Review was charged with assessing the suitability of a range of new and upgraded sports venue infrastructure proposed in the Master Plan for the Brisbane 2032 Olympic and Paralympic Games.

We trust that the findings and recommendations in this report will assist the Queensland Government to target its investment in sports venues that are affordable, fit-for-purpose, deliverable, and create a substantial legacy for the benefit of our communities.

As the world's biggest sporting event, the Brisbane 2032 Olympic and Paralympic Games are set to draw international attention to the Brisbane region, Queensland and Australia and the hundreds of submissions received during the Review demonstrate the intense interest that exists across the community.

This diligent assessment of the proposed venue infrastructure demonstrates a strong commitment to the Brisbane 2032 Olympic and Paralympic Games being a model for a sustainable and resilient Games and recognises the Olympic and Paralympic Games as a powerful catalyst for social and economic growth.

I wish to acknowledge the contribution of my co-panellists Mrs Michelle Morris and Mr Ken Kanofski for their expert input and support.

We thank you for the opportunity to contribute to Queensland's future growth and prosperity.

Yours sincerely,

Graham Quirk
Chair, Sport Venue Review
2032 Olympic and Paralympic Games

Contents

Terms of Reference	3
Preamble	3
The Independent Review	3
Further information	4
Executive Summary	5
Summary Recommendations and Findings	8
1.0 Stadium	17
1.1. The Gabba	17
1.2. Queensland Sport and Athletic Centre (QSAC) Stadium	24
1.3. Carrara Stadium	29
1.4. Victoria Park	30
2.0 Brisbane Arena	35
2.1. Roma Street Carpark and Maintenance Depot Development Site.....	38
3.0 Indoor Sports Centres	42
3.1. Brisbane Indoor Sports Centre*	44
3.2. Moreton Bay Indoor Sports Centre.....	46
3.3. Logan Indoor Sports Centre	47
3.4. Sunshine Coast Indoor Sports Centre	48
3.5. Chandler Indoor Sports Centre.....	49
4.0 Sleeman Sports Complex (Chandler)	50
4.1. Precinct activities and works	50
4.2. Chandler Indoor Sports Centre.....	51
4.3. Brisbane Aquatic Centre	52
4.4. Anna Meares Velodrome and BMX Supercross	53
4.5. Brisbane International Shooting Centre	53
5.0 Rowing and Canoe Venues	55
5.1. Wyaralong Flat Water Centre.....	55
5.2. Redland Whitewater Centre	58
6.0 Regional Stadiums	60
6.1. Sunshine Coast Stadium.....	60
6.2. Barlow Park, Cairns.....	61
6.3. Toowoomba Sports Ground.....	62
7.0 Other Minor Projects.....	63
7.1. Sunshine Coast Mountain Bike Centre	63
7.2. Queensland Tennis Centre.....	64
8.0 General Observations and Matters for Government Consideration	65
8.1. A multi-track approach to project development and delivery.....	69
Appendix – List of Meetings	73
Appendix – List of Sites Visited.....	75
Appendix – Summary of Key Themes from Submissions	76
Appendix – Sport Venue Review Panellists.....	78

Terms of Reference

Review of the Brisbane 2032 Olympic and Paralympic Venue Master Plan

Preamble

The Premier of Queensland, the Honourable Steven Miles MP, has announced a 60 day Independent Review (the Review) to assess the suitability of current sports venue projects identified in the Master Plan for the Brisbane 2032 Olympic and Paralympic Games (Brisbane 2032 Master Plan). The Review will assist the Queensland Government in ensuring investments made in sports venues for the hosting of the Games are affordable, fit-for-purpose, deliverable, and create a substantial legacy with benefits for our communities.

The Independent Review

The Review will examine the Brisbane 2032 sports venues with a focus on the new and upgraded sports venues.

The Review will assess the suitability of current sports venue projects, being affordable, fit-for-purpose, deliverable, and creating a substantial legacy with benefits for our communities, having regard to existing documents and studies including:

- The Olympic Host Contract including the final response and commitments for new and upgraded venues to the International Olympic Committee's (IOC) Future Host Questionnaire and the operational requirements related to event delivery and venues
- The International Olympic Committee's "New Norm" with a focus on affordability, sustainability, and long-term development objectives in the delivery of Brisbane 2032
- The sports venue relevant recommendations of the International Olympic Committee Games Optimisation Group created in 2022 to identify savings and efficiencies in the delivery of the Games
- The Elevate 2042 Legacy strategy and policy commitments
- The Intergovernmental Agreement of February 2023 between the Commonwealth of Australia and the Queensland Government which provides a framework to fund key projects and initiatives to support the successful delivery of Brisbane 2032
- Project validation reports and joint business cases
- The deliverability of projects in the current market and macroeconomic conditions.

The Review will also be informed by targeted consultation and relevant advice from stakeholders.

The Review will provide a final report to the Minister for State Development and Infrastructure, Minister for Industrial Relations and Minister for Racing 60 days after commencement of the Review. The Review may also provide earlier findings or outcomes for Government consideration, ahead of submission of the final report.

Further information

Any proposed change of sporting venue resulting from the review will also require the approval of the Australian Government (where it is a funding partner), and (via the Organising Committee for the Olympic Games (OCOG)) the following bodies:

- International Olympic Committee and the relevant international federations for sports included on the Olympic program
- International Paralympic Committee and the relevant international federations for sports included on the Paralympic program.

The Review will not consider:

- temporary sports venues and overlay of venues (for example, temporary seating) or training venues
- the International Broadcasting Centre and Main Press Centre
- athlete villages, other than to accommodate venue requirements
- minor upgrades which may be necessary for existing sports venues
- other infrastructure projects outside of the sports venues program
- the impact on the Brisbane 2032 Master Plan of potential new sports which may be proposed by the Organising Committee for the Olympic Games.

Executive Summary

An independent Sport Venue Review was announced by Queensland Premier the Hon. Steven Miles, in December 2023 and on Thursday 18 January 2024, the Premier announced the composition of the Review Panel. The Panel comprises former Brisbane Lord Mayor Mr Graham Quirk, Mrs Michelle Morris, who has expert knowledge in the planning and delivery of complex multi-faceted major event projects, and Mr Ken Kanofski, who brings a wealth of experience in the assessment of infrastructure projects.

In the past 60 days, the Panel has analysed the technical assessments, business cases and community response to all proposed new and upgraded venues that would require significant public investment. It has considered more than 900 public submissions, met with 130 stakeholders, sporting groups and community organisations (Appendix – List of Meetings), and inspected 28 proposed venue sites (Appendix – List of Sites Visited).

The following recommendations summarise the findings of this Review based on the four essential criteria stipulated in the terms of reference above. These are:

- Value for money
- Fitness-for-purpose
- Deliverability
- Community legacy.

The Review builds on previous commitments for new and upgraded venues and has carefully considered a number of alternatives proposed by the community. Specifically, it concentrates on new and upgraded facilities that would be funded by the Queensland Government, or as part of Queensland's Intergovernmental Agreement with the Australian Government, which has agreed to make a sizeable contribution to the overall construction costs.

Each venue investment has been critically assessed to ensure that the community realise lasting advantage from the public infrastructure. Great care has been taken to prioritise legacy venues that deliver long term community dividend and are suitable for community and sporting activities beyond the temporary needs of Olympic and Paralympic Games competition.

The Review does not specifically consider non-competition venues, such as the International Broadcast Centre, athlete villages or related transport projects.

The Review Panel came to the overall view that the \$7 billion Games Sport Venue Program provides an opportunity to deliver:

- A stadium that will fully meet the brief of an international standard stadium to replace the end-of-life Gabba
- A modern, inner-city arena which has been in the pipeline for almost a decade
- Five multi-sport indoor sports centres to address chronic facility shortages
- Regional stadium upgrades
- Dedicated facilities for rowing and canoe sports.

Providing new and upgraded facilities as venues for the Games has afforded Queensland a unique opportunity to harness an almost 50% funding contribution from the Australian Government, reducing the total cost to Queenslanders to half of one percent of state revenue over the next 8 years.

Brisbane needs a world class stadium and arena.

A greenfield stadium at Victoria Park (up to 55,000 seat capacity in legacy and 50,000 seat capacity during the Games) would likely cost between \$3.0 and \$3.4 billion depending on scope options chosen, however it provides an opportunity to deliver the best outcome and overcomes many of the shortcomings faced at the Gabba due to its space restrictions. The Gabba rebuild (up to 55,000 seat capacity in legacy and 50,000 seat capacity during the Games), costed on a comparable basis, is likely to now cost around \$3.0 billion (plus \$185 - \$360 million in displacement costs for AFL and cricket). A new stadium at Victoria Park enables a smooth transition, for cricket, AFL and other major events, from the Gabba to the new stadium. The Review has been advised that the minimum cost to keep the Gabba operational until 2032 is around \$400 - \$500 million, the cost to extend the life of the Gabba beyond 2032 and upgrade the venue to modern code compliance is around \$1 billion.

Due to the cost of a new stadium, the Panel carefully considered an option to upgrade QSAC Stadium to 40,000 seats for the Games, with 14,000 seats in legacy mode, at a cost of \$1.6 billion and keep the Gabba operational and compliant beyond 2032 at a cost of \$1 billion. The combined cost of upgrading QSAC plus keeping the Gabba operational and compliant beyond 2032 is comparable to building a new stadium. However, it delivers significantly less legacy and commercial benefit. A \$1 billion spend at the Gabba does not increase capacity or improve functionality for spectators, players, staff and hirers. Further, the Gabba works would be maintenance, rather than being part of the Sport Venue Program and under the terms of the Intergovernmental Agreement would likely reduce the Australian Government's overall financial contribution to the Sport Venue Program.

Brisbane has long needed a city centre entertainment arena to replace the aging Brisbane Entertainment Centre at Boondall. This project has been on the public agenda for nearly a decade.

The Roma Street over-rail option is the superior site for an arena, however it has become cost prohibitive and will have significant impact on rail commuters for a prolonged period. The next most viable site is the Roma Street carpark and maintenance depot development site, 500 metres to the north of Roma Street Station, adjacent to College Road.

Indoor sports centres provide a great legacy outcome for community sport. The current program to build five centres should be maintained, however the proposed Albion centre should be relocated to another site in the northern suburbs of Brisbane due to the site constraints at Albion.

Proposals to develop a whitewater centre, rowing facility and upgrade regional stadiums are supported, with the exception of the Toowoomba Sports Ground upgrade, which appears to offer limited legacy benefits.

This report reflects the challenging and complex choices that need to be made for government partners to meet their commitments to the Brisbane 2032 Organising Committee and the International Olympic Committee, delivery partners, and to provide real and sustainable legacy benefit for the Queensland community.

The Review Panel urges the Queensland Government to adopt the venue recommendations and, in doing so, set a clear direction that will enable investment and development decisions to be made in an effective and timely fashion.

- As a matter of urgency, the Panel encourages the Queensland Government to clarify and confirm funding arrangements with the Australian Government to ensure, subject to appropriate due diligence processes, that the resources are available to facilitate the revised portfolio of works.
- The Panel endorses the Queensland Government's plans to establish a dedicated delivery authority to provide appropriate governance and oversight for major projects and reiterates the importance of having this agency operational as soon as practicably possible in 2024.
- Venue projects that have been thoroughly planned, with completed Business Cases or Project Validation Reports, should be enabled to immediately progress to procurement.
- The Queensland Government is encouraged to consider a multi-track approach to project development and consider a delivery partner approach to project delivery in order to complete the builds in the shortest possible time, noting that, at this time of high-cost escalation, quicker delivery means much lower cost.

It is expected that not everyone will agree with the findings of this Review and community debate will continue. However, it is imperative that projects that have been recommended by the Review Panel can go ahead with confidence and that all focus is on delivering much needed legacy sporting venues for the Queensland community and a Games that Queensland and Australia can be proud of, and benefit from, for decades to come.

Summary Recommendations and Findings

Stadium	
Finding 1.1	Public perception of the Gabba is very different to the reality regarding its current condition.
Finding 1.2	The experience for most spectators in the stands of the Gabba represents a good experience.
Finding 1.3	In 2018 the Stadium Taskforce Report found that the Gabba is a 'tired' venue and would reach the end of its useful life by 2030.
Finding 1.4	The Panel undertook a detailed inspection of the Gabba's back-of-house facilities and questioned the operators about the stadium's accessibility for all patrons. The Panel found that the stadium is an ageing asset requiring substantial upgrading. It is no longer fit-for-purpose and falls significantly short of the quality of facility enjoyed by spectators in almost all other oval stadiums in Australia.
Finding 1.5	The Gabba structure has not had any major upgrades or capital enhancements for nearly 25 years and many changes to the building code have occurred in that time.
Finding 1.6	The stadium is not compliant with current Disability Discrimination Act (DDA) requirements or with modern building codes. Any significant upgrades will trigger a requirement to meet current codes. For example, if the shade cover sails need to be replaced, the structures to which they are affixed would also need to be replaced because of changes to the Australian Building Code.
Finding 1.7	The Gabba's back-of-house operations are severely compromised by poor connectivity and lack of space and facilities for stadium hirers, staff, athletes and other stadium users are in many cases appalling.
Finding 1.8	The Panel observed that the Gabba's ageing facilities and operational inefficiencies have reduced its ability to compete with many stadiums in other cities around the country. As a result, the Gabba cannot attract new content or events, decreasing its ability to generate revenue and attract visitors to the city.
Finding 1.9	Accessibility at the Gabba is poor. It has 200 fewer accessible seats than is required to meet today's standards and no accessibility to the field of play for patrons in wheelchairs. At the conclusion of AFL matches when the kids run on to the field to have a kick of the football or a play, they cannot be joined by any kids in wheelchairs.
Finding 1.10	The Gabba sits on an island land parcel constrained on all sides by Vulture Street, Stanley Street, Mains Road and Wellington Road, all major inner-city roads. This restricts the stadium's footprint and the ability to redevelop or expand.

Stadium	
Finding 1.11	The Gabba was originally designed with a capacity of 42,000 seats, however, the operational capacity is significantly less due to the installation of video boards, coaches' boxes and accessible seating. The Gabba currently has an operational capacity of 33,000 seats for cricket and 37,000 seats for AFL events.
Finding 1.12	Partial redevelopment of the Gabba will not resolve the operational inefficiencies and moreover will restrict future development of the Gabba (such as seating increases above 40,000). The development of a new western stand was explored along with structural upgrades to the remaining stadium, with total project cost estimated at approximately \$2 billion. Any upgrade will have an impact on the number of seats available during the works.
Finding 1.13	The full Gabba rebuild will likely cost around \$3.0 billion (plus \$185 - \$360 million in displacement costs for AFL and cricket). Given the limited opportunity to expand the Gabba beyond the land parcel it sits on, a full Gabba rebuild will not deliver to the full brief of an international standard stadium. These issues cannot be designed out or resolved in a new stadium in the current location.
Finding 1.14	On inspection of the QSAC Stadium, the Panel found a solid existing stadium and training facilities on a large site constrained by significant changes in topography.
Finding 1.15	QSAC Stadium is comprised of temporary aluminium seating from the 1982 Commonwealth Games and a western stand. Both the temporary grandstands and existing western stand do not meet current DDA accessibility requirements and the temporary grandstands are at the end of their useful life.
Finding 1.16	In the event of a redevelopment of QSAC Stadium, a number of high-performance athletes preparing for world championships, or an Olympic, Paralympic or Winter Olympic Games, would be displaced from the high-performance training facilities at QSAC, and alternative facilities of the same level would need to be made available.
Finding 1.17	Transport and access to the QSAC Stadium during the Games will be extremely challenging and costly to facilitate. Site topography makes this challenge even harder, noting significant Games operational requirements to safely support the number of spectators, athletes and officials. Griffith University would need to be used for bus access, and as a result, bushland would need to be cleared and the pathway to the QSAC Stadium widened.
Finding 1.18	The cost of an upgraded 14,000 seat QSAC Stadium is expected to be around \$600 million and would meet legacy requirements.
Finding 1.19	The challenging topography of the QSAC site results in a substantial podium and other permanent structures being

Stadium	
	required solely to support Games' operations. In addition to the legacy upgrade, a further \$1 billion investment is required to support the Games' operations and increase the seating capacity to 40,000 seats.
Finding 1.20	The Panel formed the view that while existing users would benefit from an improved experience, there was a very limited broad community legacy from this significant expenditure at QSAC and that the cost did not represent value for money.
Finding 1.21	An upgrade of the QSAC Stadium does not represent value for money and has limited legacy opportunities given the current QSAC Stadium is able to meet the existing high demand for community use.
Finding 1.22	Given the limitations of a Gabba rebuild in its current location, the Panel formed the view that a better legacy investment for a Stadium would be realised by considering a greenfield site.
Finding 1.23	Victoria Park, largely zoned for Sport and Recreation was identified as a potential greenfield site for a stadium. The exact location of a stadium within Victoria Park should be subject to further analysis, including exploring existing built upon and previously disturbed areas.
Finding 1.24	A stadium in Victoria Park would have great transport connectivity when Cross River Rail and Brisbane Metro services are operational.
Finding 1.25	The cost of a stadium in Victoria Park (\$3.0 – \$3.4 billion) is likely to be marginally more expensive than the full Gabba rebuild (more than \$3.0 billion) with better operational efficiencies and outcomes that would deliver a true international standard venue enabling Brisbane to compete with other top stadiums in Australia and generate additional premium seating revenue.
Finding 1.26	The construction of a stadium on an inner-city greenfield site allows a smooth transition with no displacement for cricket and AFL while a new stadium is constructed.
Recommendation 1.1	The Gabba be maintained to a minimum standard until a new stadium is constructed at a different location allowing the current stadium to be demolished and the site repurposed.
Recommendation 1.2	QSAC Stadium should not be used as an Olympic and Paralympic Games venue to host the track and field events.
Recommendation 1.3	The option for a stadium in Victoria Park proceeds to Project Validation Report stage as a matter of priority.

Brisbane Arena	
Finding 2.1	Brisbane Arena is a much-needed community facility that will have a legacy that will last for decades. It is also very suitable as an Olympic and Paralympic venue.
Finding 2.2	While the Roma Street over-rail site is viewed as a superior site, the development of the joint business case found that there are significant program and cost risks associated with developing the Brisbane Arena at this site.
Finding 2.3	The Panel's considered assessment is that the construction and subsequent flow-on costs of an arena, partially built over the railway line on the Roma Street over-rail site, would be in excess of \$4 billion.
Finding 2.4	In addition to the construction cost, it is expected that construction activity will result in a significant and costly impact on the rail signalling system.
Finding 2.5	The Panel was advised that 40% of rail services passing through Roma Street Station would have to close for more than two years. It is calculated that around 200 additional buses, not included in the current \$2.5 billion budget, would be required to provide a rail replacement service along with the construction of temporary bus set down bays.
Finding 2.6	The construction timeline presented to the Panel projected a completion date at the end of 2031, leaving very little room for unanticipated delays that can invariably arise on complex construction sites.
Finding 2.7	The Review Panel explored the current carpark and maintenance depot development site, to the north of the Roma Street Parklands around 500 metres from the Cross River Rail and Metro Stations, as the next most suitable site.
Finding 2.8	To facilitate the development of the Arena, site connections would need to be addressed, including vehicular and accessible pedestrian linkages. Provision for underground car parking also needs to be part of the design.
Recommendation 2.1	The Brisbane Arena as originally proposed at the Roma Street over-rail site does not proceed at that location.
Recommendation 2.2	The Brisbane Arena be built on the carpark and maintenance depot development site north of the Roma Street Parklands, adjacent to College Road, and this option should proceed to Project Validation Report stage as a matter of priority.
Recommendation 2.3	Works need to be undertaken to ensure the existing internal pathway between the new Arena site and Roma Street Station is widened and redesigned to meet modern accessibility standards.

Brisbane Arena

Recommendation 2.4

Appropriate connections and the provision of car parking are included in the detailed design to properly meet the commercial and operational needs of such a facility.

Indoor Sports Centres

Finding 3.1

Two indoor sports centres at Coomera and Carrara, built for the Gold Coast 2018 Commonwealth Games, have been extremely well utilised, are almost cost neutral to operate, and have been very popular with the Gold Coast community.

Finding 3.2

There is a significant and well documented deficiency in the number of community indoor courts across South East Queensland to meet existing and growing demand for community indoor sport and active recreation.

Finding 3.3

The number and capacity of indoor sports venues identified in the Master Plan is appropriate and should be maintained. Further capacity could be added which would provide more flexibility for the Brisbane 2032 Organising Committee and provide a strong legacy benefit for South East Queensland.

Finding 3.4

Delivery of an indoor sports centre at Albion Park Raceway has significant site constraints, program delay risks, and precinct and displacement costs that far exceed the current project budget.

Finding 3.5

Alternative venue locations in the Albion precinct have an even greater level of constraint, costs and program delay risks compared with the Albion Park Raceway site.

Finding 3.6

An indoor sports centre servicing northern Brisbane is required from a community demand perspective.

Finding 3.7

As per the commitment in the Future Host Questionnaire response, a community and high-performance para-sport facility will be an important legacy venue in the lead-up to, and after, the Games.

Finding 3.8

Moreton Bay Indoor Sports Centre is located in a high growth corridor, has great transport connectivity, will address some of the indoor court deficiencies in the region, and provide significant legacy outcomes and benefits for the Moreton Bay community.

Finding 3.9

The Logan Indoor Sports Centre will service one of the fastest growing areas in South East Queensland. It will help to address the significant current and projected shortfall in indoor courts and provide great legacy benefits for the Logan community.

Indoor Sports Centres

Finding 3.10	The Sunshine Coast will continue to experience significant growth, and a new indoor sports facility will address some of the indoor court deficiencies in the region and has a strong legacy case.
Recommendation 3.1	Do not proceed with building an indoor sports centre at the Albion Park Raceway site.
Recommendation 3.2	Complete the site selection process for a new indoor sports centre site at Zillmere, or Boondall, to deliver a much-needed indoor sports centre to service Brisbane's northern suburbs.
Recommendation 3.3	Maintain provision for a para-sports centre at either the alternative Brisbane Indoor Sports Centre venue location, Sleeman Sports Complex or other facility in consultation with relevant stakeholders.
Recommendation 3.4	Proceed with the Moreton Bay Indoor Sports Centre project and increase the size of the centre to allow for greater crowd capacity and increase flexibility of sports that could be allocated for the Games and attracting future events to the venue.
Recommendation 3.5	Continue with planning and delivery of the Logan Indoor Sports Centre.
Recommendation 3.6	Progress the investment decision for the Sunshine Coast Indoor Sports Centre as a priority to maximise the legacy benefit for the community.
Recommendation 3.7	Include sufficient storage and support spaces in the design of indoor sports centres to allow for use by multiple sporting organisations before and after the Games.
Recommendation 3.8	All indoor sport centres should proceed to procurement as soon as possible to maximise the legacy benefit for the community.

Sleeman Sports Complex

Finding 4.1	The inclusion of additional land into the Sleeman Sports Complex could be used for additional sports facilities, provide room for future expansion of the precinct, or accommodate temporary facilities to support Games operational requirements.
Finding 4.2	The Chandler Indoor Sports Centre will provide significant legacy outcomes for community sport across southern Brisbane and will benefit from co-location opportunities for high-performance programs in the broader Sleeman Sports Complex.
Finding 4.3	An upgraded Brisbane Aquatic Centre will provide legacy benefits and is considered value for money. However, refurbishment works may create challenges for high-performance sports (diving, water polo, artistic swimming and aerial jumps) and could impact

Sleeman Sports Complex	
	training preparation for the Los Angeles 2028 and Brisbane 2032 Games and other competitions.
Finding 4.4	The Anna Meares Velodrome and BMX Supercross are both high quality facilities. Subject to the proposed minor works, these facilities are fit-for-purpose for hosting Games events and represent good value for money.
Finding 4.5	Subject to the proposed minor works upgrade, the existing Brisbane International Shooting Centre is fit-for-purpose for hosting Games events. The opportunity should be there to explore further legacy outcomes for this venue including change facilities and storage.
Recommendation 4.1	Explore opportunities to acquire additional land around the Sleeman Sports Complex to provide room for further expansion of the precinct and help with the Games operational requirements.
Recommendation 4.2	Proceed with building the Chandler Indoor Sports Centre as scoped in the Project Validation Report.
Recommendation 4.3	Continue with the Brisbane Aquatic Centre upgrade project as scoped.
Recommendation 4.4	The Queensland Government works with impacted high-performance sports to minimise disruption during the Brisbane Aquatic Centre upgrade.
Recommendation 4.5	Continue with the Anna Meares Velodrome and BMX Supercross minor works project as scoped.
Recommendation 4.6	Continue with the Brisbane International Shooting Centre minor works project as scoped and explore legacy opportunities.

Rowing and Canoe Venues	
Finding 5.1	Wyaralong Dam is a rowing facility that will provide a very scenic advertisement as part of the Games. It is currently the site for Rowing Queensland competitions.
Finding 5.2	The Review Panel examined several alternatives to the Wyaralong Dam proposal. These included Lake Kurwongbah, an existing gravel quarry in the Moreton Bay Region, and other potential greenfield sites. The gravel quarry and greenfield sites were found to be cost prohibitive while Lake Kurwongbah was expected to have significant environmental impacts.
Finding 5.3	The Panel found that the Redland Whitewater Centre proposal and the Penrith Whitewater Stadium in Sydney were the two most plausible options for whitewater sports.

Rowing and Canoe Venues	
Finding 5.4	The Penrith Whitewater Stadium experiences poor weather conditions (wind and temperature) at the equivalent time when the Games will be held. In previous years, the venue has been closed between June and September.
Finding 5.5	The Redland Whitewater Centre proposal presents a compelling case. The Review Panel saw a range of advantages to building the facility including strong legacy outcomes: ○ There is a sound financial model for the facility ○ The facility provides a regional attraction which could have broader benefits to the Redlands ○ The centre would provide a convenient training facility for State Emergency Service, Queensland Surf Lifesaving and other first responder agencies
Finding 5.6	Environmental issues raised by community members were examined, however the Panel formed the view that these issues can be managed and will be subject to the Environment Protection and Biodiversity Conservation Act approval.
Recommendation 5.1	Proceed with the Wyaralong Flatwater Centre, however more work needs to be undertaken to consider locating the rowing centre on the eastern bank of Wyaralong Dam where the Queensland State Rowing Centre is currently located.
Recommendation 5.2	Proceed with the Redland Whitewater Centre project as scoped.

Regional Stadiums	
Finding 6.1	The Sunshine Coast Stadium will have a strong legacy outcome and benefit, achieving operational efficiencies in a precinct with existing venues, and providing capacity for the growing region.
Finding 6.2	A stadium at Barlow Park, in Cairns, will have a strong legacy outcome and benefit, leveraging existing venues and providing capacity for a growing city.
Finding 6.3	There is minimal identified legacy resulting from the proposed upgrades to the Toowoomba Sports Ground and it is unclear what additional content would be attracted to Toowoomba as a result of an upgrade.
Recommendation 6.1	Progress the investment decision for the Sunshine Coast Stadium as a priority to maximise the legacy benefit to the community.
Recommendation 6.2	Continue with the Barlow Park project as scoped.
Recommendation 6.3	Do not proceed with the Toowoomba Sports Ground project. Instead, explore other opportunities to host Games events in the Toowoomba Region which align to the region's desired legacy outcomes.

Minor Projects	
Finding 7.1	The proposed upgrade to the Sunshine Coast Mountain Bike Centre will provide value for money. It leverages existing uses, provides more capacity, and creates a tourism and commercial benefit.
Finding 7.2	The Queensland Tennis Centre is the only logical site for the staging of Games tennis events. The Games are likely to see an additional 30% more players and 44% more matches played compared to a Brisbane International. The Review could not satisfy itself whether sufficient facilities are available and further examination of the requirements of the facility for the Games is required.
Recommendation 7.1	Continue with the Sunshine Coast Mountain Bike Centre upgrade project as scoped.
Recommendation 7.2	The Brisbane 2032 Organising Committee should examine what other works, if any, need to be undertaken to ensure the Queensland Tennis Centre is fit-for-purpose for the Games.

General Observations and Matters for Government Consideration	
Recommendation 8.1	The Queensland Government works with the Brisbane 2032 Organising Committee to confirm sports as early as possible.
Recommendation 8.2	The Queensland Government considers a multitrack approach to project development and considers a delivery partner approach to procurement and delivery.

1.0 Stadium

1.1. The Gabba

The Gabba, known more formally as the Brisbane Cricket Ground, has been home to sport for 128 years including AFL and cricket games, and has previously hosted major concerts in the past like Adele and Taylor Swift. The Gabba is owned and operated by Stadiums Queensland.

There is no doubt that the Gabba has a significant place in the hearts of Queenslanders and that, for many spectators, the facilities are adequate and the viewing experience is good once spectators are in their seats.

However, this view is not shared by venue hirers, operators, athletes and sports administrators. While the Gabba has an official capacity of 42,000 seats, the number of seats lost due to site screens, scoreboards and other upgrades has reduced the capacity to 33,000 seats for cricket and 37,000 seats for AFL events. This renders the stadium small in comparison to world class oval stadiums in Australia (Melbourne Cricket Ground 100,000, Optus Stadium Perth 60,000, Adelaide Oval 53,500, Sydney Cricket Ground 48,000).

The Panel observed that all major international standard oval stadiums in Australia are located in parkland settings. This creates operational efficiencies and a smoother transition of patrons into and out of the venue.

As other states take steps to improve stadium infrastructure (including most recently in Adelaide, Perth, Geelong and soon in Hobart), the Gabba will struggle to attract major sporting events and concerts without significant improvement and investment. Indeed, this is already starting to emerge in Test Cricket where the Gabba is no longer the preferred venue for the first test of the summer series (with the first test now being played at Optus Stadium in Western Australia).

The Review Panel, therefore, views the decision on the future of the Gabba as a pivotal question for Queensland that goes beyond the Games. A more important consideration is the question of legacy outcomes for the community and Queensland's place in the sporting hierarchy.

Asset condition

The current Gabba was built in a series of stages from 1995 and, by 2032, it will be an ageing stadium with parts of the structure past the end of its design life.

The original Gabba design was intended to have a 50 year design life with a tolerance of +/- 20% (40 years minimum). At the low end of that range, the Gabba will reach this milestone in 2035. Unless there is much earlier intervention, this will create significant structural and operational issues (as described in this report).

In addition, the 2018 Stadiums Taskforce Review identified that the Gabba is a tired venue that, without significant replacement or enhancement, had a remaining useful life of approximately 11.6 years (page 124), taking the remaining useful life of the Gabba to the early 2030s.

The Review Panel has been advised that the minimum cost to keep the Gabba operational until 2032 is around \$400 - \$500 million.

Through its investigations, the Review Panel understands that a range of work is required to resolve the following issues with the stadium including:

- The roof structure (especially the tensioned fabric construction) is coming to the end of its design life, noting that some of the roof failed in 2008 and required replacement and strengthening.
- There is localised degradation in sections of the steel structure which will need to be further assessed and addressed.
- Steel structure corrosion protection is at the end of its protective life with areas of surface corrosion needing repair as part of regular maintenance.
- Cooling and ventilation plant and equipment is at the end of its life and requires replacement.
- Lighting and services infrastructure needs upgrading to meet changes in sporting requirements.
- Lifts and vertical transport suffer from performance and reliability issues.
- Fire life safety systems will require upgrading to meet changes in standards following further assessment.

None of these issues create an insurmountable problem on their own, and many may be considered typical in a stadium of this age, but there is clearly a significant volume of work required to address known issues with the structure and fabric of the Gabba.

Taken together, and as part of a wider maintenance and refurbishment program, it is highly likely that these works will trigger building code compliance issues, noting that building codes have been updated and have significantly changed since the Gabba was originally built. Code changes have occurred in numerous areas including in relation to wind and earthquake resistance, resilience and accessibility, among many others.

This in turn creates very significant cost exposure for the state if it embarks on the scale of works likely to be needed.

To put this in context, the Review Panel has identified that a code compliant refurbishment program at the Gabba would cost in excess of \$1 billion. It is important to note that this investment would not improve the capacity or functionality of the stadium, nor would it materially enhance spectator or stadium user experiences.

Finding 1.1 - Public perception of the Gabba is very different to the reality regarding its current condition.

Finding 1.2 - The experience for most spectators in the stands of the Gabba represents a good experience.

Finding 1.3 - In 2018 the Stadium Taskforce Report found that the Gabba is a 'tired' venue and would reach the end of its useful life by 2030.

Finding 1.4 - The Panel undertook a detailed inspection of the Gabba's back-of-house facilities and questioned the operators about the stadium's accessibility for all patrons. The Panel found that the stadium is an ageing asset requiring substantial upgrading. It is no longer fit-for-purpose and falls significantly short of the quality of facility enjoyed by spectators in almost all other oval stadiums in Australia.

Finding 1.5 - The Gabba structure has not had any major upgrades or capital enhancements for nearly 25 years and many changes to the building code have occurred in that time.

Finding 1.6 - The stadium is not compliant with current Disability Discrimination Act (DDA) requirements or with modern building codes. Any significant upgrades will trigger a requirement to meet current codes. For example, if the shade cover sails need to be replaced, the structures to which they are affixed would also need to be replaced because of changes to the Australian Building Code.

Functionality

The Review Panel undertook a detailed inspection of the Gabba's back-of-house facilities and questioned the stadium operators on the functionality of the stadium more generally.

The operations of the stadium are largely invisible to the paying spectator and a recurring theme was that a chronic lack of space, combined with poor adjacencies between key facilities, made the operations highly inefficient and ineffective. Given the age of the Gabba, a number of temporary operational and management plans are in place to ensure the safe and effective operation of the stadium on event days. This adds to the complexity of operating the Gabba and subsequently increases operating costs. Some specific examples (by no means exhaustive) include:

- An ambulance is unable to enter the field of play because the structure is too low for the height of ambulances. Due to the narrowness of back-of-house corridors, even the much smaller Medicab cannot take players all the way to medical rooms. Instead, injured players must be carried by stretcher because of the narrowness of spaces.
- AFL player facilities for the home team, including warm up spaces, fall well short of being acceptable. The facilities for visiting teams are appalling, with rooms too small for players, no air conditioning and the need for makeshift ice baths outside toilet cubicles.
- There are no female change or WC areas in the current stadium which means female athletes are required to change in men's changing and WC/shower areas.
- Facilities for catering staff are second rate. Lack of dedicated 'break out' space at the venue often means that staff do not get breaks simply because it is too far for them to walk to the single staff rest area.

- Moving food and drinks to various outlets around the stadium is challenging, not in keeping with modern expectations and highly inefficient. This issue is compounded by a lack of storage spaces, which means food outlets have to be restocked several times during events. This is made worse by the fact that there is no back-of-house circular delivery system which results in staff using the general public concourse to transfer goods.
- There is generally little access to the field of play. Any large items requiring installation need to be located in advance of event operations and require the removal of part of the concourse floor, making it inaccessible for patrons and staff to move around the venue.
- The loading dock is too small and inefficient and removal of waste from the site is difficult.
- Lounges and corporate suites are ageing and are not considered in line with contemporary stadiums nationally.

As a result of these and many other deficiencies, the Gabba is an expensive stadium to operate which is creating concerns for stadium hirers, noting the wide range of fit-for-purpose stadiums of comparable size available elsewhere across Australia.

Finding 1.7 - The Gabba's back-of-house operations are severely compromised by poor connectivity and lack of space and facilities for stadium hirers, staff, athletes and other stadium users are in many cases appalling.

Finding 1.8 - The Panel observed that the Gabba's ageing facilities and operational inefficiencies have reduced its ability to compete with many stadiums in other cities around the country. As a result, the Gabba cannot attract new content or events, decreasing its ability to generate revenue and attract visitors to the city.

Accessibility

The Panel's site inspection also considered accessibility, which covered access for spectators to and from the stadium and within the stadium itself.

Anyone who has attended the Gabba on a busy event day will be aware that the stadium location is surrounded by four very busy roads. Road closures occur to allow spectators to enter and leave the stadium. During events, a significant number of traffic management operations are in place to ensure spectators arrive to the stadium safely. This adds a significant cost to event running costs.

The volume of spectators departing the venue often results in long queues to access buses in the local area. It is anticipated that the Cross River Rail Station and proposed Metro Station will increase accessibility to and from the stadium once they are operational, however this is still a few years away.

Access within the stadium is challenging for those who are not able-bodied as the stadium is not DDA compliant. Specifically, the Review Panel noted that in order to be DDA compliant to

current standards, more than 200 wheelchair spaces are required and achieving this number requires substantial upgrades to the structure of the stadium as a whole. There is a view that DDA compliance is difficult and expensive to achieve when trying to retrofit an existing structure.

Access to the field of play for spectators in wheelchairs is also a problem. For example, at the conclusion of AFL matches when children run on to the field to have a kick of the football or to play, they cannot be joined by any children in wheelchairs. There is simply no direct entrance to the field of play that is accessible or safe.

The Review Panel was also made aware that ramp and vertical transportation within the stadium is limited, and that patrons in wheelchairs access various levels of the stadium via a goods lift which is wholly unacceptable and, again, not easily or quickly rectified. Indeed, the Review Panel understands patrons have been trapped in lifts when they break down due to age.

Finding 1.9 - Accessibility at the Gabba is poor. It has 200 fewer accessible seats than is required to meet today's standards and no accessibility to the field of play for patrons in wheelchairs. At the conclusion of AFL matches when the kids run on to the field to have a kick of the football or a play, they cannot be joined by any kids in wheelchairs.

Redevelopment options

It has been well documented that the Queensland Government's preferred option, prior to the appointment of the Review Panel, was to address deficiencies in the Gabba with a full demolition and rebuild of the stadium ahead of the Games.

The Panel reviewed a variety of alternative stadium options which would deliver at least some of the requirements for the Games with particular emphasis on track and field events.

These options included an expansion of the western plaza of the Gabba, to enhance connectivity and accessibility from the Cross River Rail precinct, and to enhance access for people in wheelchairs. In addition, an option to demolish and rebuild the entire western stand was also explored to help address several of the functional issues outlined earlier in this report.

In both cases, the costs would be prohibitive (\$1.5 to \$2.0 billion), noting that neither option would address the many operational issues faced by the stadium, although both would address the structural and code compliance issues. Further, delivery of either of these options would constrain any future upgrade of the Gabba and would maintain capacity at (broadly) current levels thereby compromising the prospect of a value for money outcome from the investment. In summary, the proposals for partial redevelopment did not fully address the shortcomings with respect to capacity, connectivity, access and operational efficiency.

It is also noted that while a partial redevelopment may allow the Gabba to continue to operate throughout the construction period, it was considered a sub-optimal approach that would significantly impact the patron experience. The benefits of continuing to host events during the construction period did not outweigh the challenges, significant operational issues, and risk to stadium operators and hirers.

Finding 1.10 – The Gabba sits on an island land parcel constrained on all sides by Vulture Street, Stanley Street, Mains Road and Wellington Road, all major inner-city roads. This restricts the stadium’s footprint and the ability to redevelop or expand.

Finding 1.11 The Gabba was originally designed with a capacity of 42,000 seats, however, the operational capacity is significantly less due to the installation of video boards, coaches’ boxes and accessible seating. The Gabba currently has an operational capacity of 33,000 seats for cricket and 37,000 seats for AFL events.

Finding 1.12 - Partial redevelopment of the Gabba will not resolve the operational inefficiencies and moreover will restrict future development of the Gabba (such as seating increases above 40,000). The development of a new western stand was explored along with structural upgrades to the remaining stadium, with total project cost estimated at approximately \$2 billion. Any upgrade will have an impact on the number of seats available during the works.

Demolition and rebuild option

It became apparent during the Review that a complete demolition and rebuild was the only Gabba option that would provide the community with a fit-for-purpose stadium and provided best value for money compared to partial rebuilds of the Gabba.

The Review Panel noted that the reported cost of the rebuild of the Gabba (\$2.71 billion) has been subject to independent peer review and, in the opinion of the Review Panel, is broadly consistent with benchmark stadium projects in recent years (including Optus Stadium). It is noted that an exact comparison is very difficult given the different scope and construction timing plus many other factors.

The Review Panel was advised that this cost will likely grow due to further cost escalation prior to the start of construction. The Review Panel also noted that some costs, such as displacement costs and the warm up track cost, are not included in these estimates. The Review Panel concluded that a cost of around \$3.0 billion (plus \$185 - \$360 million in displacement costs for AFL and cricket) should be used for comparison purposes.

However, the Review Panel noted that even with this level of investment, the constraints of the Gabba site would result in some operational compromises and a stadium which could not be considered a true international standard stadium when compared to the best stadiums in Australia and internationally.

Specific challenges included:

- Reductions in premium and corporate facilities limiting income generation for hirers
- Inability to achieve optimal adjacency, or overcome the existing disconnect between key functional areas within the stadium
- Pinch points occurring in circulation spaces around the concourse, and challenges in these areas with vertical transport
- Lack of efficient servicing of food and beverage outlets within the venue
- Sub-optimal traffic controls for trucks and other service vehicles.

None of these issues would detract from the very significant enhancements to spectator, athlete, operator and hirer experiences at a new Gabba Stadium. It would be a modern and building code compliant stadium albeit with a number of compromises given the Gabba's location and site constraints.

Finding 1.13 - The full Gabba rebuild will likely cost around \$3.0 billion (plus \$185 - \$360 million in displacement costs for AFL and cricket). Given the limited opportunity to expand the Gabba beyond the land parcel it sits on, a full Gabba rebuild will not deliver to the full brief of an international standard stadium. These issues cannot be designed out or resolved in a new stadium in the current location.

Stadium construction implications

The Review Panel noted that displacement of both AFL and cricket from the Gabba in 2025 is a matter of serious concern to both sports. At the time of writing, no agreement has been reached on funding for replacement facilities or potential displacement costs to both sports for loss of amenity and income. The Review Panel understands that the costs of displacement could range from at least \$185 to \$360 million while providing no legacy benefit.

In addition, the Review Panel became aware of the long-term significant disruption to commuter traffic using the Vulture Street and Stanley Street arterial roads that would occur during demolition and construction of the stadium. Demolition and construction works could take up to five years.

Finally, in order for the Gabba to host the track and field events for the Games, Raymond Park north of the Gabba was designated as the location for the athletes' warm up facility.

The Review Panel met with and reviewed the implications of this decision for the local community in and around the park and understands community concern about the level of amenity loss.

Conclusion

Due largely to its age, the Gabba stadium is in poor condition, is operationally inefficient, inaccessible and offers very poor amenities for athletes and staff. There is evidence that the

condition of the stadium is a deterrent to attracting new content, and to some degree, retaining current content. The operational capacity of the stadium is 33,000 seats for cricket and 37,000 seats for AFL events. This is insufficient for a premier cricket and AFL venue in Australia.

Rebuilding the ageing Gabba requires substantial investment and, even when complete, will still not deliver a truly international standard stadium due to the constraints of the site. There is no alternative partial redevelopment option that will provide value for money or substantially avoid the need for a total rebuild in the long term.

Rebuilding the Gabba will also be disruptive to hirers, spectators, commuters and the local community, and will require a significant outlay to make alternative arrangements for displaced sports and to build a new school.

The current facility requires significant maintenance and upgrades to allow for medium term use and is inadequate to host Games track and field events.

It is recommended that, when an alternative stadium becomes available, the existing structure be demolished and the site be repurposed. If the Gabba is not demolished and rebuilt it will still require very substantial expenditure in the medium term to remain operational and compliant without delivering any additional functionality or capacity.

Recommendation 1.1 - The Gabba be maintained to a minimum standard until a new stadium is constructed at a different location allowing the current stadium to be demolished and the site repurposed.

As a result of the Panel's recommendation that the Gabba be demolished, alternative sites for legacy stadium locations have been considered.

Sites, including the RNA Showgrounds, Albion, Toombul, Carrara Stadium and Suncorp Stadium, were all considered and assessed as a legacy stadium option and for their ability to host Games events.

These sites did not provide a viable alternative venue for the Games, nor as a long-term legacy for AFL and cricket, noting that issues relating to stadium fit, accessibility, cost, flooding, security and operational concerns mitigated against their use to greater or lesser degrees.

1.2. Queensland Sport and Athletic Centre (QSAC) Stadium

The Queensland Sports and Athletics Centre (QSAC), originally called the QEII Stadium, is a major sporting facility operated by Stadiums Queensland located in the suburb of Nathan. The Queensland Sports and Athletics Centre was constructed in 1975 and was the venue for the 1982 Commonwealth Games.

The stadium was renamed ANZ Stadium in 1993 (to 2003) and was home to the Brisbane Broncos during this period.

The QSAC Stadium is an athletics stadium with capacity for 48,500 spectators and features a 10 lane Rekotan Athletics track. The majority of the seating in the main stadium is made up of temporary grandstands erected for the 1982 Commonwealth Games. Situated next to the main stadium is the State Athletics Facility, with a capacity of 2,100 seats, and a 10 lane World Athletics Class 2 athletics track, a purpose built throws facility, and supporting accommodation including gym, sports administration and rehabilitation facilities. Queensland Sports and Athletics Centre is the only venue in Australia with two ten lane tracks.

The Queensland Sports and Athletics Centre hosts national track and field events and a significant number of community and school sports events each year. It has also hosted rock concerts, tennis matches, soccer matches and the State of Origin rugby league series.

The Queensland Sports and Athletics Centre attracts in excess of 780,000 visitors per year, across all of the facilities such as Nissan Arena, Queensland Academy of Sport high-performance centre and Sandstorm beach volleyball venue. Approximately 690,000 of these visitors come from community, schools or sports groups.

The Queensland Sports and Athletics Centre is also the home to the Queensland Academy of Sports (QAS), National Throws Centre of Excellence, Queensland Athletics, Little Athletics Queensland, Softball Queensland, AFL SportsReady and Special Olympics Queensland.

Finding 1.14 - On inspection of the QSAC Stadium, the Panel found a solid existing stadium and training facilities on a large site constrained by significant changes in topography.

Asset condition and use

The seating at QSAC Stadium consists of a permanent west stand of solid structure and temporary stands which were installed for the 1982 Commonwealth Games, which are now at the end of their useful life.

QSAC Stadium is therefore a product of its time and would not be considered fit for purpose for major international sporting events such as the Olympic and Paralympic Games without substantial refurbishment and improvements to the venue.

The west stand is home to a recently upgraded high performance centre for the Queensland Academy of Sport athletes and administrative headquarters. The west stand would require a substantial redevelopment to accommodate the Games operational requirements to host a major track and field event and to comply with relevant accessibility requirements set out in the Disability Discrimination Act (DDA).

The Queensland Sports and Athletics Centre plays an important role in supporting the training and development of high-performance elite athletes in Queensland. The Queensland

Academy of Sport high-performance centre supports Queensland's high-performance athletes to access targeted and integrated services as the athletes prepare for World Championships, Olympic games and Winter Olympics. High-performance training for numerous sports take place on the track, in the gym and in the adjacent national throws centre and rehabilitation facilities.

In the event of a redevelopment of the Queensland Sports and Athletics Centre, there will be significant disruption and impact to athlete training in the lead up to competitions (notably the Los Angeles Games, Winter Olympics and Commonwealth Games). Given that academies are decentralised and training facilities are based on the athlete's home base, there will need to be consideration of temporary training facilities or alternative facilities to be made available so as not to displace athletes.

Finding 1.15 - QSAC Stadium is comprised of temporary aluminium seating from the 1982 Commonwealth Games and a western stand. Both the temporary grandstands and existing western stand do not meet current DDA accessibility requirements and the temporary grandstands are at the end of their useful life.

Finding 1.16 - In the event of a redevelopment of QSAC Stadium, a number of high-performance athletes preparing for world championships, or an Olympic, Paralympic or Winter Olympic Games, would be displaced from the high-performance training facilities at QSAC, and alternative facilities of the same level would need to be made available.

Accessibility

The Queensland Sports and Athletics Centre is in the suburb of Nathan approximately 13 kilometres from the Brisbane CBD.

The facility is poorly served by public transport, with no direct rail or busway access. Although bus services run along Mains Road the nearest bus transit hub is approximately 3 kilometres away (South East Busway) while the nearest rail stations are approximately 2 kilometres away (Banoon Station or Altandi Station).

The Queensland Sports and Athletics Centre is bounded by Kessels Road and Mains Road. Kessels Road forms part of an urban arterial road corridor and is a significant regional road within the state's strategic road network and regional road network. Both Kessels Road and Mains Road meet at a busy intersection next to the site. The Queensland Sports and Athletics Centre is also located adjacent to the Griffith University's Nathan campus, which itself is located within bushland. Nissan Arena is also on adjoining land.

The site has very poor accessibility when compared to the alternative stadium sites reviewed by the Panel and when compared to most other Stadiums across Australia. Even with significant transport investments, the site would still have relatively poor connectivity to broader South East Queensland communities.

Upgrading QSAC Stadium

The Review Panel considered preliminary pre-concept designs and cost estimates for an upgraded QSAC Stadium that was capable of hosting track and field events with a capacity of 30,000 and 40,000 spectators respectively. It was assumed that QSAC Stadium could be the location for track and field events for the Games.

This work identified a need to demolish and rebuild the west stand in order to meet building code requirements, including disability access, and to provide a modern, fit-for-purpose stadium that could host Olympic and Paralympic standard track and field events. The west stand would accommodate 8,000 spectators, with permanent seating for a further 6,000 spectators around the perimeter of the track. Under both these options, all remaining seats would be temporary in nature (noting that the significant increase in temporary seating would also require substantial sub-structures and podiums to be erected).

The pre-concept design work highlighted significant difficulty in providing adequate holding areas and spatial allowances given the topography and constrained nature of the site. The Review Panel noted that a substantial area would be required during the Games to carry out the necessary security screening for arriving spectators, and, separately, to provide safe and secure passage for athletes and officials and other Games Family.

To address the challenge of limited space on the site, the pre-concept design identified the need to construct a large concrete podium to the east of QSAC Stadium at a significant height and cost. To the west, the Griffith University campus could be used for athlete entry, however clearance of significant bushland would be needed to allow this to happen safely.

The Review Panel noted that this infrastructure was only required given the proposed increased capacity to host the track and field events at QSAC Stadium for the Games. The legacy capacity of 14,000 seats would not trigger the need for such permanent infrastructure.

Given the lack of direct public transport, access to QSAC Stadium during the Games could only be facilitated by bus shuttles. In order to ensure a secure level of access for the Games it would be necessary to construct permanent bus hubs capable of handling more than 380 bus trips for each ticketed session with capacity to site up to 150 buses at each.

Delivering the track and field events with a capacity of 40,000 spectators would be by far the lowest capacity for any Games held in recent history and would potentially leave little opportunity for the general public to attend major finals.

A lower capacity stadium (30,000) would alleviate the need for some (but by no means all) of the infrastructure elements required to safely support a crowd of more than 15,000. But this reduced capacity lowers the ambition for the Games even further and would severely limit admission for the general public to the events being hosted there.

Travel to the stadium for athletes would be from the athlete village at Northshore, Hamilton. The distance to QSAC Stadium from the village is approximately 20 kilometres. Travel time

would be significant without road closures and police support and would need much further consideration than has been possible to date.

Finding 1.17 - Transport and access to the QSAC Stadium during the Games will be extremely challenging and costly to facilitate. Site topography makes this challenge even harder, noting significant Games operational requirements to safely support the number of spectators, athletes and officials. Griffith University would need to be used for bus access, and as a result, bushland would need to be cleared and the pathway to the QSAC Stadium widened.

Legacy outcome

On completion of the Games, the Review Panel notes that temporary seating is likely to be removed and QSAC Stadium will be left with a modern, fit for purpose athletics stadium with a capacity of 14,000.

The Review Panel also notes that this legacy outcome essentially returns QSAC Stadium to its current functional state, albeit with a more modern western stand and with the current temporary seating (from the Commonwealth Games 1982) removed. The Panel did not consider there was a need, or demand, to increase capacity to 14,000 as the current capacity sufficiently serviced the demand.

The concrete podium structure built to support the Games operational requirements would be retained and has potential to form part of broader sport and recreational facilities at the site.

Value for money

The indicative cost range for the redevelopment of QSAC Stadium is in the range of \$1.4 billion to \$1.6 billion depending on capacity.

Approximately 60% of the costs of the 40,000 seat option are attributed to the Games operational requirement works (podium, transport, temporary seating etc) with the remainder being allocated to the legacy outcome (improvements to western stand, new permanent perimeter seating etc).

This suggests that the state would need to invest approximately \$600 million to obtain lasting legacy benefit delivered at QSAC under this option. However, due to the Games operational requirements the investment required is nearer \$1.6 billion.

Finding 1.18 - The cost of an upgraded 14,000 seat QSAC Stadium is expected to be around \$600 million and would meet legacy requirements.

Finding 1.19 - The challenging topography of the QSAC site results in a substantial podium and other permanent structures being required solely to support Games'

operations. In addition to the legacy upgrade, a further \$1 billion investment is required to support the Games' operations and increase the seating capacity to 40,000 seats.

Finding 1.20 - The Panel formed the view that while existing users would benefit from an improved experience, there was a very limited broad community legacy from this significant expenditure at QSAC and that the cost did not represent value for money.

Conclusion

The Panel's view is that the investment of up to \$1.6 billion in QSAC does not demonstrate value for money and is very hard to justify.

When accessibility challenges are then considered alongside a variety of other compromises needed to stage the track and field events, the QSAC option becomes less attractive --and with minimal additional benefits to the current facility for a lasting legacy when compared to the demand and use currently.

Finding 1.21 - An upgrade of the QSAC Stadium does not represent value for money and has limited legacy opportunities given the current QSAC Stadium is able to meet the existing high demand for community use.

Recommendation 1.2 - QSAC Stadium should not be used as an Olympic and Paralympic Games venue to host the track and field events.

1.3. Carrara Stadium

In considering options for hosting athletics, the Review Panel also considered Carrara Stadium.

Carrara Stadium could be upgraded to achieve a temporary capacity of 40,000 to host athletics at a cost of \$461 million. While this is substantially less than QSAC, the Review Panel was also advised it would require the relocation of 2,250 beds from the Brisbane Athlete Village to the Gold Coast Athlete Village. This relocation is unlikely to be feasible and the cost is not known as there are no current options to achieve it.

The upgraded Carrara Stadium would have large temporary stands and would be a lower quality stadium than other options considered with a lesser experience for spectators and athletes. The train link is unlikely to have sufficient capacity and would need to be supplemented with buses. The distance from the rail station to the stadium would also require substantial use of shuttle buses and extensive road closures.

If T20 Cricket is added to the Games as one of the locally added sports, Carrara Stadium will be required to host cricket matches.

Upgrading Carrara Stadium provides no legacy benefits, and the Review Panel favours other options for hosting athletics.

1.4. Victoria Park

As described in section 1.1 - *The Gabba*, Victoria Park has been identified as a potentially feasible and attractive venue for a new stadium development. The site was previously a golf course, is zoned for sport and recreation use and will deliver a lasting legacy as South East Queensland's premium oval.

Integrating a new stadium within Brisbane City Council's revitalised Victoria Park parklands has significant potential to create something truly unique in Queensland and to rival iconic parkland stadiums, such as the MCG in Melbourne. As well as creating an extraordinary legacy for Queensland sport, a stadium set within regenerated parklands, with the Brisbane City skyline, Brisbane River and Mt Coo-tha in the background, will create a stunning backdrop for the Games.

A stadium development of this nature is attractive relative to other potential stadium options because it addresses the weaknesses identified by the Review Panel in the Gabba redevelopment proposal. A stadium development unconstrained by site dimensions will deliver an unfettered opportunity to provide a true international standard oval stadium, enhancing accessibility and connectivity for all, and avoiding disruption to AFL and cricket.

Finding 1.22 - Given the limitations of a Gabba rebuild in its current location, the Panel formed the view that a better legacy investment for a Stadium would be realised by considering a greenfield site.

The Panel considered early pre-concept designs that tested the feasibility of building a new oval stadium within Victoria Park and its indicative costs. During the review period and to assist its deliberations, the Review Panel also took submissions from a small number of industry participants. They also viewed Victoria Park as a feasible and desirable location for a new oval stadium. Preliminary assessment of transport options for the stadium were also positive.

Victoria Park

Victoria Park is a heritage listed park located in the Spring Hill and Herston districts of Brisbane. It is close to the city centre, Fortitude Valley and has good transport links to South Bank and other recreational sites in the centre of Brisbane City. The site is well served by the Busway network and adjacent Brisbane Metro stations and is close to the Exhibition Cross River Rail Station.

The site has a rich history and has an important place in First Nations culture as a gathering place and extensive campground. In recent history, the site was a golf course and was converted back to parkland by Brisbane City Council in June 2021, as part of Council's Master Plan for the development of Victoria Park, with approvals and early works occurring from 2023 onwards.

Victoria Park is bounded by Kelvin Grove Road, Herston Road and the Inner City Bypass. It falls within the Herston Quarter redevelopment precinct and is adjacent to Royal Brisbane and Women's Hospital and the Queensland University of Technology Kelvin Grove Campus. The park is currently zoned Sport and Recreation (Metropolitan) under Brisbane City Plan 2014.

The Review Panel understands that the historical significance of the site and the various uses that have occurred in the park over time are important in considering how a potential stadium could best respond to the site's unique context and the intended Master Plan.

Stadium proposal

The Review Panel considered options, on various locations within Victoria Park, for a new oval stadium of similar scope to the proposed redeveloped Gabba Stadium. The test-fit allowed for an oval stadium with up to 55,000 seat capacity in legacy and 50,000 seat capacity during the Games (consistent with the Gabba redevelopment). It would incorporate the same features, functionality and product but without the constraints of the Gabba site.

The intent for a Victoria Park option would be to design a stadium that has the potential to be a true international standard stadium to rival any in Australia. A redevelopment of the Gabba into a truly international standard stadium is simply not possible given the constraints at the Gabba site. In particular, the Panel sought options that would:

- Allow the stadium to be integrated into the Victoria Park Master Plan
- Enhance spectator experience compared to the Gabba through improved stadium design and layout
- Allow for premium product to be embedded more effectively throughout the stadium rather than being concentrated in specific areas
- Enhance functional efficiency and operational effectiveness
- Enhance the activation and use of the stadium and site on non-event days
- Meet current International Olympic Committee requirements and address any constraints and limitations
- Match the current functional brief for the new Gabba Stadium proposal.

Feasibility testing outcome

The Panel has had limited time to complete this review, so it is important to note that significantly more work is required to truly understand the opportunities at Victoria Park as the home for a new oval stadium. Therefore, while initial indications are positive, the findings presented here are preliminary in nature and need more work to be validated before they can be relied upon properly.

Initial test fitting of a stadium that meets the core functional requirements suggests that Victoria Park provides significant capacity for a stadium in legacy and for the Games. Initial test fits suggest 12% to 13% of the park would be used by the stadium footprint. Further design work to integrate the infrastructure will provide innovative opportunities to limit adverse impact to the park.

The actual location of the stadium will also need very careful analysis and planning to ensure the best outcome for both park and stadium users. There will be a need to balance the outcomes of the Victoria Park Master Plan and the needs of a major sports stadium, which brings with it significant connectivity, accessibility and security requirements.

Finding 1.23 - Victoria Park, largely zoned for Sport and Recreation was identified as a potential greenfield site for a stadium. The exact location of a stadium within Victoria Park should be subject to further analysis, including exploring existing built upon and previously disturbed areas.

Development of a stadium within Victoria Park would also leverage the current public transport network. The connectivity opportunities are significant and some early design ideas include creation of an enhanced walkway from the Exhibition Cross River Rail Station, bridge connections over the Inner City Bypass to connect to Fortitude Valley, and new pedestrian pathways to more effectively connect the stadium and park with surrounding districts.

Finding 1.24 - A stadium in Victoria Park would have great transport connectivity when Cross River Rail and Brisbane Metro services are operational.

Given Victoria Park does not have the same site constraints as the Gabba, a stadium at Victoria Park allows for a different orientation from the Gabba to an optimal North/South configuration. This configuration optimises the functional relationships inside and around the stadium, and enhances premium product offerings, which are of great significance to stadium hirers, especially in the long term when trying to attract new content to Brisbane from rival stadiums around Australia.

Initial indications from a transport and security operational perspective are positive and the site addresses a number of challenges in Games mode that were associated with the Gabba stadium. A warm-up facility can be designed and located close to the stadium (with much less impact to community relative to the Gabba). More work is needed to ensure International Olympic Committee requirements can be met appropriately in this regard.

Games operational requirements are met well by the Victoria Park site, depending on site location for the stadium, with significant space available to accommodate the security and other operational requirements.

The Review Panel notes that an alternative location is likely to be required for a temporary BMX freestyle venue and for the equestrian and cross country events. Equestrian events at the RNA Showgrounds would also likely need to be relocated to enable the Exhibition Cross River Rail Station to remain open to service spectators attending events at the stadium.

Potential equestrian and cross country sites have been identified at the Toowoomba Showgrounds, Queensland State Equestrian Centre at Caboolture, and the Aquis Farm/Elysium Fields Equestrian facility proposal at Canungra.

Value for money

The preliminary cost estimate for a stadium in Victoria Park if based on similar scope of work and construction timetable, is likely to be around the same cost as the Gabba. However, construction at Victoria Park would start later than planned at the Gabba, therefore additional escalation would be incurred. It is also likely that the opportunity to improve the scope and outcomes, to address the shortcomings inherent with the constrained Gabba site, would also mean marginally higher costs.

The Victoria Park stadium, although marginally more expensive, would provide a full international standard stadium whereas the Gabba will not, and better design of premium areas is expected to generate more revenue for the long term.

The Review Panel notes that the assumptions and costings have been peer reviewed to ensure the figures are appropriate. The outcomes of the peer review validate the initial costing exercise.

Finding 1.25 - The cost of a stadium in Victoria Park (\$3.0 – \$3.4 billion) is likely to be marginally more expensive than the full Gabba rebuild (more than \$3.0 billion) with better operational efficiencies and outcomes that would deliver a true international standard venue enabling Brisbane to compete with other top stadiums in Australia and generate additional premium seating revenue.

Further work is required to validate the cost estimates once a site location is identified within Victoria Park. The cost of connections, plaza works and bridges will also need careful review and would typically sit outside an assessment of stadium cost.

Importantly, however, the Review Panel notes that the development of a stadium at Victoria Park may also allow for a range of costs to be saved. Specifically, costs of between \$185 million and \$360 million, which would be needed to address the displacement of cricket and AFL if the Gabba were to be redeveloped.

Finding 1.26 - The construction of a stadium on an inner-city greenfield site allows a smooth transition with no displacement for cricket and AFL while a new stadium is constructed.

Conclusion

The Review Panel is clear that a greenfield development of an international standard stadium to house AFL and cricket will demonstrate a better value for money outcome for Queenslanders than any other option assessed. The investment in a greenfield stadium is desirable, defensible and deliverable when compared to the proposed Gabba redevelopment project or QSAC Stadium redevelopment.

Victoria Park has the potential to provide an extraordinary location for a new oval stadium to rival any in Australia. Its central location, stunning views across the city and siting within a regenerated and hugely exciting master-planned park will give Queensland a real cause to believe an opportunity has arisen that should excite everyone, especially in the lead up to the Games. An international standard stadium at Victoria Park will showcase the best of Brisbane on the world stage.

There may be other greenfield sites available but if so the Review Panel in their 60 days were not able to identify them. Any other site would need to be located in close proximity to the city, have good transport connectivity and be available (i.e vacant) for construction within an 18 month timeframe to ensure its availability for the Games.

The Review Panel is confident that the stadium cost is similar to other stadium benchmarks in Australia including the Gabba stadium rebuild cost. The Panel notes that a greenfield location would ultimately mean savings in many sunk costs associated with displacement and disruption, along with resultant benefits for the communities and stakeholders otherwise affected.

Clearly, in the limited time the Panel has had, the conclusions presented in this report are preliminary and additional work needs to be undertaken to rapidly validate the feasibility and identify a specific location for the stadium within the parkland. Further, consultation with the community and interested stakeholders is recommended to address community concerns and create a shared vision for the future.

Recommendation 1.3 - The option for a stadium in Victoria Park proceeds to Project Validation Report stage as a matter of priority.

2.0 Brisbane Arena

Brisbane Arena, commonly known as Brisbane Live, has long been viewed as an integral piece of community infrastructure for Brisbane and the region. Many Queenslanders will make the trip to Brisbane to see an event, act or performance of interest to them.

It is planned to have an Olympic and Paralympic Games use, however, the concept and need for a central arena in Brisbane has been on the drawing board for around a decade.

There has consistently been long term and broad community support for the development of an inner-city arena in Brisbane as a potential replacement for the Brisbane Entertainment Centre. Not since Brisbane's Festival Hall staged performances from The Beatles to the Beach Boys have we had a city centre based facility.

Currently the majority of performances are relegated to the Brisbane Entertainment Centre at Boondall. Suncorp Stadium and the Gabba have hosted large concerts, however, these have been limited to 12 concerts per calendar year in 2023 and 2024.

It was intended that the Brisbane Arena would replace the Brisbane Entertainment Centre (BEC) at Boondall as Brisbane's primary entertainment arena. The Brisbane Entertainment Centre is considered to be difficult to get to and is an ageing venue that does not offer a contemporary arena experience. The Brisbane Entertainment Centre will be almost 50 years old by the time the Games are held in 2032. The detailed business case found that the lack of an inner-city indoor entertainment arena with seating capacity above 15,000 limited the ability to create a precinct catalyst that would attract premium live events and visitors to Brisbane.

Brisbane Arena has long been earmarked for construction in Roma Street above the existing rail lines, close to the Cross River Rail and Metro Stations.

It will revitalise an underutilised city-west inner-city precinct close to the city's most important public transport hub, served by suburban and interstate rail and bus, Brisbane Metro and Cross River Rail. The Arena's suitability to host a cross section of major event styles means it will bring significant economic and social benefits to Brisbane, Queensland and nationally.

Finding 2.1 – Brisbane Arena is a much-needed community facility that will have a legacy that will last for decades. It is also very suitable as an Olympic and Paralympic venue.

Project cost and schedule

In February 2023, the Queensland Government and the Australian Government signed the Brisbane 2032 Olympic and Paralympic Games Intergovernmental Agreement. The Intergovernmental Agreement provides that the Australian Government would commit up to \$2.5 billion capped funding towards the development of the Brisbane Arena subject to the outcomes of a joint business case.

Roma Street Station is the major South East Queensland passenger transport network hub connecting people to urban rail, bus, long-distance passenger rail, and coach services that service Brisbane and beyond. It is set to be the busiest rail station on the network with significant increased passenger demand and movements following the opening of Cross River Rail. Through the joint business case process, the project team identified the following key interfaces (but by no means exhaustive) that would require resolution before construction of the Brisbane Arena could commence:

- Completion of Cross River Rail (due to open in 2026)
- Track reconfiguration required to ultimately cater for more services from growth areas including Ipswich and Springfield
- Possible replacement of the rail signalling system which is nearing the end of its design life
- Planning for Roma Street Station upgrades to align with Brisbane Arena requirements and future rail requirements (e.g. provision for essential accessibility and vertical transport upgrades for safe access)

Each of these projects are in addition to the work required to develop the Brisbane Arena. In the case of the Cross River Rail project, some track reconfigurations and changes to the rail signalling system must be completed before construction of Brisbane Arena can commence. This puts significant pressure on the Brisbane Arena construction program to ensure that it can be completed in time for the Games.

The Review Panel understands that there is significant program risk attached to the construction of the Brisbane Arena at the Roma Street over-rail site given the interface with the works required to be completed at Roma Street. Unlike other projects, the Games provides a “hard date” for completion which cannot be moved.

The Review Panel also understands that at the time the \$2.5 billion project budget for Brisbane Arena was agreed with the Australian Government, the consequential costs associated with the additional works, such as the Roma Street Station upgrades, track realignment, signal system replacement, and bus replacement services, had not been calculated. These costs are significant and likely to mean that the cost is anticipated to be in excess of \$4 billion. These costs will ultimately be borne by the Queensland Government and will not be covered by Australian Government funding under the Intergovernmental Agreement.

Finding 2.2 – While the Roma Street over-rail site is viewed as a superior site, the development of the joint business case found that there are significant program and cost risks associated with developing the Brisbane Arena at this site.

Finding 2.3 – The Panel’s considered assessment is that the construction and subsequent flow-on costs of an arena, partially built over the railway line on the Roma Street over-rail site, would be in excess of \$4 billion.

Construction and commuter impacts

A range of options for the construction of the podium over the rail corridor has been considered as part of the development of the joint business case. The Review Panel notes that meeting the construction timelines would involve partial closure of rail lines affecting around 40% of services at Roma Street Station for a period of more than two years. The affected rail services would need to be replaced with buses. Construction of the podium would require the removal and replacement of existing rail lines due to the age and reduced accessibility for future maintenance of the tracks.

The installation of the large foundations and structural supports between the rail lines would clash with the rail infrastructure that runs between the rail lines, including the signalling system that coordinates safe operation of the trains. This means that prior to the start of podium construction, a lengthy enabling works program would be required to replace and re-commission these systems in other positions that do not clash with Arena requirements.

Finding 2.4 – In addition to the construction cost, it is expected that construction activity will result in a significant and costly impact on the rail signalling system.

Finding 2.5 – The Panel was advised that 40% of rail services passing through Roma Street Station would have to close for more than two years. It is calculated that around 200 additional buses, not included in the current \$2.5 billion budget, would be required to provide a rail replacement service along with the construction of temporary bus set down bays.

The joint business case has confirmed that the delivery program is challenging, and it is not considered safe to assume that the Brisbane Arena can be built and open in time for the Games. Any delays to the construction of the Brisbane Arena over rail would mean it is highly likely the venue is not available in time for the Games. The chance of significant construction delays are high given the complexity of building a podium over active rail lines and requirements to replace both rail and signalling system components.

Finding 2.6 – The construction timeline presented to the Panel projected a completion date at the end of 2031, leaving very little room for unanticipated delays that can invariably arise on complex construction sites.

Recommendation 2.1 – The Brisbane Arena as originally proposed at the Roma Street over-rail site does not proceed at that location.

Alternative Arena sites

The Review Panel has been made aware that a number of alternative sites have been proposed and considered for the Arena as part of the development of the joint business case, including:

- Roma Street carpark and maintenance depot development site
- Parmalat (South Brisbane)

- Visy (South Brisbane)
- Queensland Police headquarters (Roma Street)
- River Stage Precinct (Botanic Gardens)
- Spring Hill (adjacent to Centenary Pool)
- Victoria Park Precinct (the area of the former Victoria Park Golf Course).

While all of these locations have merit in legacy, the majority of these sites were found to be unviable for a range of reasons including program risk, cost and the size of land available.

Risks and issues associated with several of the potentially more viable sites are outlined below:

- Parmalat – land acquisition cost and time required, decanting of existing operations creates program risk, constrained site and flooding related issues
- Visy – decanting of existing operations creates program risk, flooding related issues, proximity to mass transit
- Queensland Police headquarters - decanting of existing operations creates program risk (build a new Police headquarters, watchhouse and community health centre) and the site is too small for the needs of the Arena.

Based on the advice provided, the Review Panel considers that the Roma Street carpark and maintenance depot development site is the only viable site option that can deliver an Arena in time for the Games. In addition, this site offers the opportunity to develop an Arena that will connect significant elements of the surrounding urban realm and offer a solution that may surpass the Roma Street over-rail site option in many respects. An investment decision is needed by early 2025 in order to complete the Arena by early 2031, allowing time for test events prior to the Games.

2.1. Roma Street Carpark and Maintenance Depot Development Site

The Roma Street carpark and maintenance depot development site is located in the north-west corner of the Roma Street development precinct near the Normanby Fiveways, closed in by College Road, the Inner Northern Busway/Rail and Parkland Boulevard. The site is approximately 500 metres from Roma Street Station and the Cross River Rail Station. It is located within the Roma Street Priority Development Area and owned by the Queensland Government. This elevated site is the current location of a public carpark and a maintenance depot operated by Brisbane City Council which maintains Roma Street Parklands under contract to the state.

The new Arena can be designed to respect the cultural qualities and significance of Roma Street Parkland, be sensitive to local residents and incorporate vegetation into the design.

To ensure the ongoing operation of Roma Street Parklands, the design of the Arena will need to incorporate the carpark and a relocation of park maintenance services will be required.

Parkland connection

The Brisbane Arena will attract up to 17,000 visitors to the venue on a regular basis, with the majority arriving from Roma Street and the city centre. Improved pedestrian and cycle access will be required to link the Arena through Roma Street Parklands to Roma Street Railway Station.

A new universal access pathway will be required through the parklands to enable visitors to conveniently and safely access the Arena.

This new pathway would create a spine through the upper parklands, taking the majority of crowds into the underutilised upper parklands, funnelling Arena visitors away from the lower parklands and lake, so that park visitors and residents can continue to enjoy the park largely undisturbed.

Due to the significant level difference between the lower and upper parklands, lifts and escalators would be needed near the current Parklands administration building to take patrons from the Roma Street Station entry to the upper parklands level. From this point a disability access compliant path would largely follow the existing pathway alignment along the hillside to a public plaza outside the Arena.

Specialist landscape architectural advice would need to be sought to minimise the path's impacts on the park and vegetation, by integrating the path alignment and design into the original landscape plan for the site as much as practical. Elevated path sections could be used in some parts to minimise the path footprint and to retain key trees.

The path could become an experience in its own right, with the potential to become symbolic for the Roma Street Parklands like the Arbour is for South Bank. It would also provide greater capacity and improved visitor experience.

Precinct connectivity

An Arena at the Roma Street carpark and maintenance depot development site presents a city-shaping opportunity to improve connectivity by linking the city centre with Caxton Street and Suncorp Stadium through Victoria Park.

To achieve these connections, the Arena would need to include a new bridge from Roma Street Parklands to the Victoria Barracks that extends over Countess Street, busway and railway infrastructure. This connection would link the park to Caxton Street and Suncorp Stadium.

The existing Normanby Bikeway link connecting Victoria Park to Parkland Boulevard through this site would also need to be protected and enhanced, facilitating greater separation of pedestrian and cyclists.

If a new stadium is built in Victoria Park, significant upgrades to the connections along and across the Exhibition line rail corridor would be required to connect the stadium and Arena

and accommodate the significant number of pedestrians who would be expected to travel between the two parklands.

Legacy and impacts

The Roma Street carpark and maintenance depot development site has been identified as a future development site under the current Roma Street Priority Development Area and previous plans for the precinct. Rather than developing the site with commercial and residential uses, an Arena on this site would provide a major piece of social infrastructure.

Importantly, delivery of an Arena on the Roma Street carpark and maintenance depot development site would retain all existing publicly accessible green space, provide a new entry forecourt plaza and improve accessibility within and outside the parklands. Although the land is already disturbed, the development would have some impact on existing mature vegetation. Design teams would be encouraged to retain as much vegetation as possible, transplanting trees to another location within the parklands if feasible or providing offset plantings.

Cost and program

The Review Panel has had very limited time to assess the merits of the proposal outlined in this report, but notes early indications are very positive that an Arena can be developed on the site and deliver a first-class outcome for the city.

Significantly more work needs to be undertaken to develop designs and assess cost and program estimates. Preliminary cost estimates for a new 17,000 seat arena built on the Roma Street carpark and maintenance depot development site indicates that it is likely to be achievable at around the current \$2.5 billion budget, if based on a similar scope of work and construction timetable.

Legacy aquatic centre

The Brisbane Arena is currently planned to host swimming and some other aquatic events for the Games using temporary drop-in pools. A stand alone aquatic facility with a legacy outcome has also been canvassed. The cost of developing a permanent Aquatic Centre capable of hosting aquatics competition is estimated at approximately \$619 million. The cost includes an enclosed three pool complex with 6,000 permanent and 9,000 temporary seats. Possible locations for the facility raised in stakeholder sessions include adjacent to the Brisbane Entertainment Centre at Boondall or the Sleeman Sports Complex at Chandler.

Finding 2.7 – The Review Panel explored the current carpark and maintenance depot development site, to the north of the Roma Street Parklands around 500 metres from the Cross River Rail and Metro Stations, as the next most suitable site.

Finding 2.8 - To facilitate the development of the Arena, site connections would need to be addressed, including vehicular and accessible pedestrian linkages. Provision for underground car parking also needs to be part of the design.

Recommendation 2.2 – The Brisbane Arena be built on the carpark and maintenance depot development site north of the Roma Street Parklands, adjacent to College Road, and this option should proceed to Project Validation Report stage as a matter of priority.

Recommendation 2.3 – Works need to be undertaken to ensure the existing internal pathway between the new Arena site and Roma Street Station is widened and redesigned to meet modern accessibility standards.

Recommendation 2.4 - Appropriate connections and the provision of car parking are included in the detailed design to properly meet the commercial and operational needs of such a facility.

3.0 Indoor Sports Centres

Indoor sports currently account for 12 of 28 Olympic sports and 11 of the 22 Paralympic sports in the Games. The scale and capacity of indoor stadiums in previous Olympic cities across Europe, Asia and America is considerably larger than the facilities available in South East Queensland.

In aligning with the International Olympic Committee's "New Norm" principle of fitting the Games to the city and the desire to ensure new indoor venue builds have community legacy facilities, the Games will require up to 10 Olympic and 9 Paralympic indoor sports centres across South East Queensland to host events. Existing venues currently proposed to host indoor sports include the Brisbane Convention and Exhibition Centre, Brisbane Entertainment Centre, Coomera Indoor Sports Centre, Gold Coast Sports and Leisure Centre and the Gold Coast Convention and Exhibition Centre.

Community demand

There are significant and well documented deficiencies in indoor court provision across South East Queensland when it comes to meeting existing, latent and growing demand for community sport and active recreation. Investment in new indoor venue facilities is critical for meeting community demand and to host the Games.

Planned investment in new indoor sports centres, through the Games Sport Venue Program, will provide at least 50 additional courts into the South East Queensland community indoor sports network a number of years prior to the Games. Even with this extra provision, there will continue to be a substantial unfulfilled demand for courts.

The Coomera Indoor Sports Centre, and the Gold Coast Sports and Leisure Centre at Carrara, built for the Gold Coast 2018 Commonwealth Games, have been extremely well utilised, are almost cost neutral for the City of Gold Coast to operate and have been very popular with the community.

The Review Panel and many stakeholders consider the provision of new indoor sports centres as the best and most cost-effective pieces of legacy infrastructure to be delivered as part of the Games Sport Venue Program. Key messages from stakeholder engagement include:

- High-performance use is important, but this only represents a very small portion of the population. The new indoor sports centres should prioritise community use in order to improve sport participation, fitness and health outcomes in the broader population
- Access to court time should be fair and equitable, balancing the needs of sports with high and low membership numbers, and financial ability to pay reasonable court hire fees
- Inclusion of adequate storage and support spaces for multiple sports is important in supporting community and high-performance use.

Given the importance of these indoor facilities to the community and hosting the Games, in addition to multiple deep dives with project teams the Review Panel sought technical advice from Olympic and Paralympic Games specialists to assist with the Panel's consideration related to indoor sports centres.

All indoor sports centres have been designed so that they can accommodate a range of sports. Generally, two sizes have been proposed for development. Smaller centres are designed to host a wide range of sports (field of play) with temporary capacity for 5,000 to 7,000 temporary seats. Larger centres, with a capacity of more than 10,000 seats, will be able to accommodate larger sports such as gymnastics (field of play and ceiling height) and basketball (crowd size).

Venue sports allocation

The Review Panel has focused on venue legacy outcomes, with Olympic and Paralympic sport allocation decisions resting with the International Olympic Committee, International Paralympic Committee and the Brisbane 2032 Organising Committee. This is of key importance as the International Olympic Committee is not expected to confirm the Olympic Sport Program until 2025, with disciplines not anticipated to be confirmed until 2027.

The Review Panel notes the challenges and issues raised by stakeholders concerning which sports will be hosted at each venue. However, it is beyond the Review Panel's role to recommend which sports are allocated to existing and planned venues. The Brisbane 2032 Organising Committee is ultimately responsible for engaging with the International Olympic Committee and other international federations to finalise the location of proposed indoor sports.

The number and capacity of existing and new indoor venues identified in the Brisbane 2032 Master Plan provides the absolute minimum capacity of facilities needed to host the Games. It is important to ensure that the amount of indoor sport venue capacity proposed in the Future Host Questionnaire response is maintained, at a minimum, to ensure sufficient flexibility for the Brisbane 2032 Organising Committee. Ideally, this capacity will be expanded through new venues such as the Logan Indoor Sports Centre. As stated earlier, the proposed number of indoor facilities meets only part of the community demand for these facilities.

Further assessment of the Gold Coast Convention and Exhibition Centre has identified challenges in hosting two separate sports in the venue at the same time, primarily due to security and transport operational requirements conflicting with the surrounding dense Broadbeach urban precinct.

Although the venue has hosted netball and basketball at the Gold Coast 2018 Commonwealth Games, security and transport issues experienced during those Games would be compounded by the enhanced security requirements and larger crowd sizes of an Olympic and Paralympic Games.

Finding 3.1 - Two indoor sports centres at Coomera and Carrara, built for the Gold Coast 2018 Commonwealth Games, have been extremely well utilised, are almost cost neutral to operate, and have been very popular with the Gold Coast community.

Finding 3.2 - There is a significant and well documented deficiency in the number of community indoor courts across South East Queensland to meet existing and growing demand for community indoor sport and active recreation.

Finding 3.3 - The number and capacity of indoor sports venues identified in the Master Plan is appropriate and should be maintained. Further capacity could be added which would provide more flexibility for the Brisbane 2032 Organising Committee and provide a strong legacy benefit for South East Queensland.

3.1. Brisbane Indoor Sports Centre*

**NOTE - Review Chair Graham Quirk was not involved in reviewing the Brisbane Indoor Sports Centre due to his role on the Board of Racing Queensland, which owns the Albion Park Raceway site.*

The new Brisbane Indoor Sports Centre venue is proposed to be a 12-court, high-performance, community and para-sport facility. Located on the site of the existing Albion Park Raceway near Breakfast Creek, the indoor sports centre has been designed to be suitable for sports such as basketball, netball, volleyball, wheelchair rugby, wheelchair basketball and badminton, including hosting local, national and international sports events all year round.

A Project Validation Report for the venue has been drafted and is currently on hold pending the outcomes of this Review.

The venue is currently earmarked to host the Olympic Basketball and Paralympic Wheelchair Basketball in a main competition hall, with two temporary warm up courts adjacent to the competition hall. There are 12,000 temporary spectator seats planned to be installed.

Albion Park Raceway site constraints

The Project Validation Report, broader precinct planning and the Review, have identified a number of significant constraints to the delivery of an indoor sports centre on the Albion Park Raceway site.

These constraints include impacts to Racing Queensland and the timing of decanting from site, land remediation expenses, geotechnical constraints, the cost of broader precinct enabling works and associated program delays aligning these issues. Other factors that have been fully considered through the Project Validation Report process include riverine flooding from both the Brisbane River and Breakfast Creek waterways, and poor proximity and accessibility to mass transit options. Although the reference design has sought to manage these constraints it has added considerable extra cost to the project, well beyond the initial budget estimates.

Racing Queensland was initially supportive of moving to a new facility and had been seeking to sell the Albion site to fund its relocation. However, while the value of the Albion site is increasing, the cost to move to another location has been increasing at a higher rate. Racing Queensland now considers that the value of the Albion site will not adequately cover the costs associated with relocation and it wishes to retain the Albion site.

Precinct master planning and alternate venue placement

During the preparation of the Project Validation Report an alternate proposal was put forward by Brisbane City Council to locate the indoor sports centre towards the north of the precinct on land (fields) owned by the Council and leased to Brothers Rugby Club.

This option was assessed using a multi-criteria analysis and was determined by the Queensland Government to have similar, if not greater, challenges to the Albion Raceway site. In addition to similar flooding, contamination and geotechnical constraints, this northern location would also involve significant mature tree loss and the construction of new facilities for the Brothers Leagues Club.

All of these factors add significant cost and program delay risks to the project. From a Games delivery perspective, the northern location lacks sufficient operational space and would involve greater disruption to surrounding residents and businesses than the southern precinct.

Alternate venue location

The need for a venue of this size to service Brisbane's inner city and northern suburbs is without question, from both a community demand and Games delivery perspective. The opportunity to deliver a new indoor sports centre is still being explored by the Queensland Government which is currently assessing alternate sites against a range of event and legacy criteria.

This assessment has identified a number of viable alternate sites for detailed assessment and consultation, with a final location decision expected to be presented to the Queensland Government in 2024. The sites undergoing further investigation include Zillmere (which would require the purchase of industrial land and extensions to the existing Northside Wizards Basketball facility), or Boondall (with a new indoor sports centre on the site of the Brisbane Entertainment Centre). Sites identified will still accommodate a new venue being built well ahead of 2032.

Para-sport facility

In its Future Host Questionnaire response, the Queensland Government has committed to the Brisbane Indoor Sports Centre being a landmark facility for community, high-performance and, importantly, para-sport programs. The commitment to establishing a lasting legacy facility as a community and high-performance centre for para-sport. This commitment to a para-sport facility should be retained in either the alternate site proposed for the Brisbane Indoor Sports Centre or another identified site.

Other site options could include incorporating the para-sport facility into the Sleeman Sports Complex, which has proximity to a wide range of high-performance accessible sport facilities within the complex. There may also be opportunities to align with the proposed Paralympic Centre of Excellence at the University of Queensland's St Lucia campus. The University of Queensland and the Queensland Government have already committed \$44 million each in funding for the project.

Finding 3.4 - Delivery of an indoor sports centre at Albion Park Raceway has significant site constraints, program delay risks, and precinct and displacement costs that far exceed the current project budget.

Finding 3.5 - Alternative venue locations in the Albion precinct have an even greater level of constraint, costs and program delay risks compared with the Albion Park Raceway site.

Finding 3.6 - An indoor sports centre servicing northern Brisbane is required from a community demand perspective.

Finding 3.7 - As per the commitment in the Future Host Questionnaire response, a community and high-performance para-sport facility will be an important legacy venue in the lead-up to, and after, the Games.

Recommendation 3.1 - Do not proceed with building an indoor sports centre at the Albion Park Raceway site.

Recommendation 3.2 - Complete the site selection process for a new indoor sports centre site at Zillmere, or Boondall, to deliver a much-needed indoor sports centre to service Brisbane's northern suburbs.

Recommendation 3.3 - Maintain provision for a para-sports centre at either the alternative Brisbane Indoor Sports Centre venue location, Sleeman Sports Complex or other facility in consultation with relevant stakeholders.

3.2. Moreton Bay Indoor Sports Centre

The Moreton Bay Indoor Sports Centre will provide a nine-court indoor sports facility with change rooms, amenities and functional spaces. During the Games, the venue is earmarked to host boxing, with 7,000 seats, two temporary warm up areas and boxing rings.

Located near Petrie Railway Station, this community indoor sports centre is located in the 'The Mill' Priority Development Area within the city of Moreton Bay. 'The Mill' sits centrally within a high growth corridor and has great transport connectivity with the wider Moreton Bay Region. Importantly the site offers ample opportunities for future expansion.

The City of Moreton Bay is providing the land and intends to contribute to the project to maximise the legacy opportunities this project can offer for the Moreton Bay and South East Queensland communities.

The planned additional funding from the City of Moreton Bay will enhance the scope of the facility and ensure the venue is suitable for a broad range of community uses, which could help to attract events to the region.

Planning undertaken through the Project Validation Report has indicated that 'The Mill' Priority Development Area has the capacity and transport infrastructure to accommodate a larger venue than currently planned, as well as the capacity to manage an incremental increase in spectator numbers. This is based on having sufficient available space for increased spectator screening and loading requirements, Games operational space, and proximity to mass transit, with the Petrie Railway Station directly adjacent.

The size of the Moreton Bay Indoor Sports Centre could be increased to 10,000 seats for the Games, with a warm-up hall. Subject to further project validation, this will increase the legacy capacity to a 12-court indoor sports centre with supporting change facilities, amenities and functional spaces, suitable for a range of indoor sports and community use.

The addition of three extra courts will assist the City of Moreton Bay to meet demand for court sports now and into the future and expand the region's capacity to host major events post 2032. This would be a major legacy outcome for the growing Moreton Bay region that has an existing need for 30 additional indoor sports courts that is expected to grow to 44 courts by 2041.

Finding 3.8 - Moreton Bay Indoor Sports Centre is located in a high growth corridor, has great transport connectivity, will address some of the indoor court deficiencies in the region, and provide significant legacy outcomes and benefits for the Moreton Bay community.

Recommendation 3.4 - Proceed with the Moreton Bay Indoor Sports Centre project and increase the size of the centre to allow for greater crowd capacity and increase flexibility of sports that could be allocated for the Games and attracting future events to the venue.

3.3. Logan Indoor Sports Centre

Logan is one of the fastest growing regions in South East Queensland and is predicted to have a population of more than 500,000 people by 2036.

Although not included in the Brisbane 2032 Master Plan, the provision of an indoor sports centre in Logan was under consideration by the Queensland Government during the development of the Future Host Questionnaire response.

The proposed Logan Indoor Sports Centre is currently the subject of a detailed business case being prepared by the Queensland and Australian Governments. This process will confirm the venue design, budget and delivery program.

A site options analysis is also currently underway to identify the preferred location and Logan City Council has offered land adjacent to Logan City Council chambers as a feasible option.

The venue will have provisions for a nine-court multipurpose indoor community centre with supporting facilities including café, kiosk, function rooms and an administration office.

The Logan Indoor Sports Centre will significantly improve community access to indoor courts and could be used as a training or competition venue during the Games. The venue will be designed to host Olympic and Paralympic sport/s with a Games capacity of up to 7,000 seats.

This additional facility will provide flexibility for the Brisbane 2032 Organising Committee to accommodate changes to indoor sport locations, particularly if currently identified venues are not able to be used for indoor sports due to other changes in the Brisbane 2032 Master Plan.

Finding 3.9 - The Logan Indoor Sports Centre will service one of the fastest growing areas in South East Queensland. It will help to address the significant current and projected shortfall in indoor courts and provide great legacy benefits for the Logan community.

Recommendation 3.5 - Continue with planning and delivery of the Logan Indoor Sports Centre.

3.4. Sunshine Coast Indoor Sports Centre

The Sunshine Coast has a population of approximately 350,000 people and is forecast to grow to over 500,000 people by 2041 (*Projected population and dwellings*, Sunshine Coast Council website, 2024). Like other growing areas of South East Queensland, the Sunshine Coast has a distinct lack of indoor courts to service its current population, with this shortfall only projected to increase without new facilities.

The new Sunshine Coast Indoor Sports Centre will be co-located with the Sunshine Coast Stadium within the Kawana Sports Precinct. It will have 11 courts and multifunctional areas with the ability to host sports including basketball, netball, volleyball, pickleball, futsal and badminton. Precinct efficiencies will be created by co-locating with Sunshine Coast Stadium which will benefit the Games. Delivery of heavy rail to Caloundra, that connects with bus services to Kawana, will enhance accessibility during the Games and provide a lasting transport legacy for the region.

Sunshine Coast Council is providing the land for the Sunshine Coast Indoor Sports Centre and has written to the Review Panel confirming its support for the facility to be delivered as soon as practical along with reiterating Council's commitment to operating the venue for its community in legacy. Additional funding from Sunshine Coast Council will enhance the scope of the facility and make it suitable for a broader range of community uses, helping to attract more events to the region.

The Sunshine Coast Indoor Sports Centre is earmarked to host the Olympic basketball preliminaries with 6,000 temporary seats. The Project Validation Report for the venue is

complete and displacement of existing sporting clubs is being managed by Sunshine Coast Council.

Finding 3.10 - The Sunshine Coast will continue to experience significant growth, and a new indoor sports facility will address some of the indoor court deficiencies in the region and has a strong legacy case.

Recommendation 3.6 - Progress the investment decision for the Sunshine Coast Indoor Sports Centre as a priority to maximise the legacy benefit for the community.

Recommendation 3.7 - Include sufficient storage and support spaces in the design of indoor sports centres to allow for use by multiple sporting organisations before and after the Games.

Recommendation 3.8 - All indoor sport centres should proceed to procurement as soon as possible to maximise the legacy benefit for the community.

3.5. Chandler Indoor Sports Centre

Chandler Indoor Sports Centre will be considered as part of the Sleeman Sports Complex (Chandler) and will be covered in section 4.2 Chandler Indoor Sports Centre.

4.0 Sleeman Sports Complex (Chandler)

The Sleeman Sports Complex in Chandler was originally built for the Brisbane 1982 Commonwealth Games and has been a community and event venue for 40 years.

Managed by Stadiums Queensland, the Sleeman Sports Complex hosts many sports facilities including the home of Gymnastics Queensland and includes an Olympic standard BMX Supercross track, the Brisbane Aquatic Centre and the international standard Anna Meares Velodrome.

Under the Brisbane 2032 Master Plan, the broader Chandler Sports Precinct is earmarked to host:

- Olympic Gymnastics and Wheelchair Basketball during the Paralympics with 10,000 spectator seats at the proposed new Chandler Indoor Sports Centre
- Olympic Diving, Artistic Swimming, Water Polo and Paralympic Aquatics, with 4,300 spectator seats at the Brisbane Aquatic Centre
- Olympic and Paralympic Track Cycling and BMX Racing, with up to 5,000 seats at each venue (some temporary) adjacent to the Velodrome.

4.1. Precinct activities and works

The co-location of several events in the Sleeman Sports Complex will require movement of large volumes of spectators through the site during the Games. The works proposed at each of the venues varies from minor works to new builds and is discussed in further detail in the respective sections in this report. However, significant works are also proposed to be carried out in the broader Chandler Sports Precinct to improve connection and accessibility to all venues including:

- Increased equitable access throughout the site
- Improvements to lighting, CCTV, signage etc to enhance safety/visibility and connectivity throughout the precinct
- Significant hard landscaping to create new gathering and meeting spaces within a green hub
- Improvements to services and inter-building connectivity to provide capacity to manage concurrent events
- New footpaths to support the movement of large crowds.

In addition to works to improve connection and accessibility to all venues in the Sleeman Sports Complex, options related to scheduling and programming events need to be explored to minimise transport and logistics pressure at the Complex during the Games. Minor upgrades are also required to the Anna Meares Velodrome and BMX Supercross track to bring them up to international competition standards.

As noted previously, all indoor sports centres are designed to accommodate a wide range of sports, which will allow the Brisbane 2032 Organising Committee to move sports around as needed.

Using the Chandler Indoor Sports Centre for high-capacity events with multiple daily sessions may cause crowding issues, so having alternative sites available (with the flexibility to move sports) will be important to maximise the opportunities for Brisbane 2032 Organising Committee to move sports during the Games.

The biggest challenge for the Sleeman Sports Complex is the significant number of sports, spectators and sessions that will be accommodated during the Games. This currently includes gymnastics, track cycling, BMX racing and the aquatic sports of water polo, artistic swimming and diving. This intensity of multiple sports hosting multiple sessions a day may create transport and crowd flow issues.

The Brisbane 2032 Organising Committee may wish to consider replacing the gymnastics competition at the venue with lower capacity sport(s) (i.e. capacity up to 7,000) to improve the spectator experience and better manage Games related activities occurring within the Sleeman Sports Complex.

Finding 4.1 - The inclusion of additional land into the Sleeman Sports Complex could be used for additional sports facilities, provide room for future expansion of the precinct, or accommodate temporary facilities to support Games operational requirements.

Recommendation 4.1 - Explore opportunities to acquire additional land around the Sleeman Sports Complex to provide room for further expansion of the precinct and help with the Games operational requirements.

4.2. Chandler Indoor Sports Centre

The existing indoor sports centre and gymnastics facility at the Sleeman Sport Complex was built for the 1982 Brisbane Commonwealth Games and will be reaching its end of useful life by 2032.

A new indoor sports centre with 10 legacy courts and specialist gymnastics spaces is proposed in the Sleeman Sport Complex on the site of the outdoor velodrome, a derelict facility which was replaced by the Anna Mears Velodrome. The facility will provide for community and high-performance sports uses across southern Brisbane and the Redlands.

The Chandler Indoor Sports Centre is currently identified to host Olympic Gymnastics and Paralympic Wheelchair Basketball with 10,000 spectator seats.

The Project Validation Report for the Chandler Indoor Sports Centre project has been completed. Key project health indicators of budget, program and risk are within nominal dollar ranges.

Finding 4.2 - The Chandler Indoor Sports Centre will provide significant legacy outcomes for community sport across southern Brisbane and will benefit from co-location opportunities for high-performance programs in the broader Sleeman Sports Complex.

Recommendation 4.2 - Proceed with building the Chandler Indoor Sports Centre as scoped in the Project Validation Report.

4.3. Brisbane Aquatic Centre

Under the Brisbane 2032 Master Plan, the Brisbane Aquatic Centre is earmarked to host Olympic Diving, Artistic Swimming, Water Polo, and Paralympic Aquatics, with 4,300 spectator seats.

Previously known as the Chandler Aquatic Centre, the venue has been a swimming stronghold since hosting the Brisbane 1982 Commonwealth Games and other high-profile events over the past 40 years. The centre is one of the most heavily used of all the Stadiums Queensland venues, providing community access and high-performance facilities.

An upgrade to the centre is proposed to deliver improvements and prepare the centre for the Games. The proposed works include upgrades of the venue to improve acoustics, safety, seating, lighting, amenities and equitable access, as well as adjustments to the dive tower to meet competition requirements.

The venue has such high use by community and high-performance users, that any investment (particularly refurbishment and prolonging the life of the venue) would be value for money and deliver positive legacy outcomes. However, refurbishment works at the venue will create challenges for high-performance activities, particularly in athlete preparation for World Championships and the Los Angeles 2028 Games.

Diving facilities require an upgrade to contemporary standards which will displace the Diving Australia high-performance diving program. Water polo and artistic swimming users will also be disrupted. Stadiums Queensland and the project team will need to continue to work with incumbent sports to minimise impact where possible.

Proposals from the National Diving and Water Polo Centre and Swimming Aquatic Centre to deliver a purpose-built facility were considered but, as they were designed primarily for training venues, were not considered fit-for-purpose for the Games.

The Gold Coast Aquatic Centre was also considered for hosting aquatic events for the Games but was found to be a less favourable option due to a number of factors, including:

- The need to construct a large, expensive roof over the existing venue
- Aquatic events are typically hosted over two venues, due to the number of disciplines and events, so a second suitable aquatic venue on the Gold Coast would need to be identified.

Finding 4.3 - An upgraded Brisbane Aquatic Centre will provide legacy benefits and is considered value for money. However, refurbishment works may create challenges for high-performance sports (diving, water polo, artistic swimming and aerial jumps) and could impact training preparation for the Los Angeles 2028 and Brisbane 2032 Games and other competitions.

Recommendation 4.3 - Continue with the Brisbane Aquatic Centre upgrade project as scoped.

Recommendation 4.4 - The Queensland Government works with impacted high-performance sports to minimise disruption during the Brisbane Aquatic Centre upgrade.

4.4. Anna Meares Velodrome and BMX Supercross

The Anna Meares Velodrome is earmarked to host Olympic and Paralympic Track Cycling, with up to 5,000 seats (some temporary) and the adjacent site will host BMX Supercross.

The Anna Meares Velodrome is an international competition standard cycling track that was built for the Gold Coast 2018 Commonwealth Games. It is owned by the Queensland Government and operated by Stadiums Queensland, has provision for a mixed-use indoor sports court in the infield, such as futsal, and is highly used by the community.

Only minor works are proposed on the venue to provide a mid-life refresh in preparation for the Games, though more significant work will be carried out in the broader precinct to improve connection and accessibility to all venues.

Finding 4.4 - The Anna Meares Velodrome and BMX Supercross are both high quality facilities. Subject to the proposed minor works, these facilities are fit-for-purpose for hosting Games events and represent good value for money.

Recommendation 4.5 – Continue with the Anna Meares Velodrome and BMX Supercross minor works project as scoped.

4.5. Brisbane International Shooting Centre

The Brisbane International Shooting Centre is earmarked to host the Olympic and Paralympic shooting, providing 2,000 spectator seats (some temporary).

The Brisbane International Shooting Centre is a world-class venue with four international level pistol shooting ranges (10 metres, 25 metres, 50 metres and finals). Owned by the Queensland Government and operated by the Queensland Rifle Association, the facility was redeveloped for the Gold Coast 2018 Commonwealth Games and is now highly used by the community.

Once the shotgun range is upgraded, along with minor facility upgrades to further modernise the venue, the facility will be ready to host Games events and will also be the only venue in the southern hemisphere able to host all shooting disciplines in one place.

Finding 4.5 – Subject to the proposed minor works upgrade, the existing Brisbane International Shooting Centre is fit-for-purpose for hosting Games events. The opportunity should be there to explore further legacy outcomes for this venue including change facilities and storage.

Recommendation 4.6 – Continue with the Brisbane International Shooting Centre minor works project as scoped and explore legacy opportunities.

5.0 Rowing and Canoe Venues

5.1. Wyaralong Flat Water Centre

Since completion in 2011, Wyaralong Dam in the Scenic Rim has been the home of the Queensland State Rowing Centre and hosted numerous rowing competitions up to a State level. The current rowing centre faces challenges holding larger events and regattas due to small spectator viewing locations, limited parking and basic amenities. It also lacks suitable flat areas for Games operational requirements.

The Wyaralong Flat Water Centre is earmarked to host the Olympic canoe sprint and rowing events, with seating for 10,000 to 14,000 spectators and with 1,000 spectator seats in legacy. The hinterland around Wyaralong Dam provides for an amazing broadcast backdrop during the Games.

The nearly complete Wyaralong Flat Water Centre Project Validation Report has identified several issues and challenges in delivering a legacy international standard rowing venue at Wyaralong Dam.

Location

Although the venue is suitable for local and regional events, Wyaralong is a long distance from populations in Brisbane and Sunshine Coast who would be the most frequent users of the venue. Stakeholder engagement in the Project Validation Report noted that the long travel time to Wyaralong was a key reason the site is not favoured by a number of rowing stakeholders in Queensland.

During the Games, Wyaralong Dam would be too far from the main athlete villages in Brisbane and Gold Coast and require the establishment of a dedicated satellite athlete village a 35 minute drive from the venue. Games spectators would also need to be transported a long distance from park and ride facilities, with the closest town being Beaudesert (15 minute drive) and the closest rail connection being Beenleigh (55 minute drive).

Legacy use

In the next decade, Wyaralong Dam will become part of the operating South East Queensland water grid. Seqwater has guaranteed that water levels will be maintained for the Games, however with the connection of Wyaralong Dam to the water grid, water levels in the dam will fluctuate. Rowing Queensland will need to work closely with Seqwater to achieve legacy rowing outcomes and work together to operate and maintain the venue.

Finding 5.1 – Wyaralong Dam is a rowing facility that will provide a very scenic advertisement as part of the Games. It is currently the site for Rowing Queensland competitions.

Alternative sites

The Review Panel is aware that analysis was undertaken on numerous sites prior to the selection of Wyaralong Dam as the proposed location for rowing and canoe (sprint) events, including:

1. Lake Kurwongbah (Moreton Bay)
2. Lake Samsonvale (Moreton Bay)
3. Coomera Lake (Gold Coast)
4. Hinze Dam (Gold Coast)
5. Larapinta/Oxley Gravel Pits (Brisbane)
6. Brisbane River (Brisbane)
7. Lake Kawana (Sunshine Coast)
8. Wyaralong Dam (Scenic Rim)
9. Sydney International Regatta Centre

Criteria considered when selecting the preferred site included:

- Rowing course criteria (2.2 kilometre course length including finishing area, 6-10 lanes, water quality, wind, current, and depth)
- Venue capacity (6-7 hectares of open area for Games operational requirements)
- Environmental (impact on flora and fauna, waterways, approvals)
- Supporting infrastructure (roads, access roads and pathways, accommodation and proximity to the Athlete Village)
- Transport (spectator and workforce access, transit mall operations)
- Security
- Legacy opportunity (tourism, sporting experience, environmental).

Through this analysis, issues were identified with all sites, however Wyaralong had the least issues and has the benefit of being the location of the existing State Rowing Centre.

Lake Kurwongbah

During the Review, Lake Kurwongbah was proposed by Rowing Queensland as a potential alternate site to Wyaralong for a 2.2 kilometre international rowing centre.

Although there were several positive elements to the proposal, the Review found several issues with the Lake Kurwongbah proposal including:

- Significant earthwork and dredging required to remove headlands and banks to achieve a 2.2 kilometre course length
- Significant vegetation impacts in a core koala habitat area due to clearing of headlands for the course and boat launch area
- Adverse impacts on existing power craft and water ski users
- Course would enter the dam wall restricted area
- Complex land tenure with over 20 affected properties
- Security concerns for Games operations due to multiple entry points.

Sydney International Regatta Centre (Penrith)

The Sydney International Regatta Centre in Penrith, Sydney, has been considered as a potential site for rowing events for the Games.

The centre could host rowing and paddle events, however, the Review considered a number of issues prior to identifying a preferred option, including the:

- Reduced athlete experience of being located a significant distance away from all other competition
- Marginally colder and windier conditions that could affect competition results
- Cost of duplicating organisational services away from the core Games services that will be provided in South East Queensland
- Potential cost of updating the venue to meet current expectations
- Lack of any legacy outcomes for Queensland.

The Review Panel concluded that using the Sydney International Regatta Centre would be an inferior outcome compared to continuing with the current proposed development and use of Wyaralong Dam.

New greenfield or brownfield legacy facility

The delivery of a purpose-built legacy facility, similar to facilities built for the London and Sydney Games, had not previously been considered in great detail prior to the Review. Given some of the issues associated with the Wyaralong venue, the Review Panel sought to investigate the merits and cost of building the proposed rowing centre on a greenfield or brownfield site.

A brownfield site at Moreton Bay quarry near Petrie Station and several similar greenfield sites were briefly considered, however initial cost estimates suggested that the cost of these options would be significantly more than the current Wyaralong budget.

It is clear to the Review Panel that a purpose-built rowing centre on a greenfield site would be the best outcome, from a range of perspectives including location of the facility, transport and the ability to use existing services (e.g power and water). However, a purpose-built rowing centre on a greenfield site was found to be cost prohibitive.

Finding 5.2 – The Review Panel examined several alternatives to the Wyaralong Dam proposal. These included Lake Kurwongbah, an existing gravel quarry in the Moreton Bay Region, and other potential greenfield sites. The gravel quarry and greenfield sites were found to be cost prohibitive while Lake Kurwongbah was expected to have significant environmental impacts.

Wyaralong options

The current planned project includes the building of new boat sheds, a facilities block, pontoons, finish tower, access road and vehicle parking areas on a peninsular of land opposite to the rowing course that is not connected to the existing dam access road (the west option).

As part of the development of the Project Validation Report, an option is being developed to leverage the existing dam access road, and other services and infrastructure on the eastern side of the Wyaralong Dam near where the existing modest rowing facilities are located (the east option).

The eastern side of Wyaralong is hilly and significant earth works would be required to establish a rowing centre with sufficient operational space for regional, state, national and international regattas. The existing road would be used to access the facility and link to existing community day use areas potentially making for a better legacy outcome.

Initial capital cost estimates developed as part of the Project Validation Report suggests that the cost of the east option may be equal or slightly cheaper than the west option.

Under either option, temporary infrastructure would still need to be installed by the Brisbane 2032 Organising Committee to operate the venue and both options share similar remote location, transport and village challenges.

One potential benefit of the east option is that the course would be located in a deeper part of the dam, increasing the reliability of the venue.

Recommendation 5.1 – Proceed with the Wyaralong Flatwater Centre, however more work needs to be undertaken to consider locating the rowing centre on the eastern bank of Wyaralong Dam where the Queensland State Rowing Centre is currently located.

5.2. Redland Whitewater Centre

The proposed Redland Whitewater Centre is an international standard whitewater venue set within the Birkdale community precinct which is being developed by the Redland City Council.

The venue will be a unique addition to sport and recreation facilities for the Redland and South East Queensland community, providing year-round kayaking, canoeing, rafting and tubing with varying types of rapids and levels of difficulty. It would also be the only purpose-built swift water training facility in Queensland for emergency services personnel.

During the Games, the Redland Whitewater Centre is earmarked to host the canoe slalom and will see 8,000 spectator seats.

The Redland Whitewater Centre will be built on Redland City Council land, leverage the supporting infrastructure (sewer, water, power, carparks, roads, etc) being built by the Redland City Council for the precinct, and will be operated by the Redland City Council. Therefore, the ongoing support of the Redland City Council is critical to the success of the project. Significant attention has been given to design of the venue to be cost neutral and to achieve long term legacy outcomes.

Some active community opposition has been noted during the Review, with those opposed to the development of the venue due to predominantly environmental concerns.

The Redland Whitewater Centre itself does not directly impact protected areas and will have minimal impact on vegetation, there are nearby koala habitats and parts of the roads providing access around the precinct that overlap with heritage boundaries.

The Review Panel understands requirements relating to koala habitats will be followed as part of the statutory planning process and that the project will also be referred to the Australian Government to ensure it does not impact matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999*.

Penrith Whitewater Stadium

Built for the Sydney 2000 Games, the Penrith Whitewater Stadium in Sydney has also been considered as a potential site for Games whitewater events. Weather conditions in Sydney during July and August (when the Games will be held) are less conducive to international competition with marginally colder minimum temperatures and slightly higher wind speeds. Due to these conditions, in previous years the venue has been closed between June and September.

Finding 5.3 – The Panel found that the Redland Whitewater Centre proposal and the Penrith Whitewater Stadium in Sydney were the two most plausible options for whitewater sports.

Finding 5.4 – The Penrith Whitewater Stadium experiences poor weather conditions (wind and temperature) at the equivalent time when the Games will be held. In previous years, the venue has been closed between June and September.

Finding 5.5 – The Redland Whitewater Centre proposal presents a compelling case. The Review Panel saw a range of advantages to building the facility including strong legacy outcomes:

- There is a sound financial model for the facility
- The facility provides a regional attraction which could have broader benefits to the Redlands
- The centre would provide a convenient training facility for State Emergency Service, Queensland Surf Lifesaving and other first responder agencies

Finding 5.6 – Environmental issues raised by community members were examined, however the Panel formed the view that these issues can be managed and will be subject to the Environment Protection and Biodiversity Conservation Act approval.

Recommendation 5.2 – Proceed with the Redland Whitewater Centre project as scoped.

6.0 Regional Stadiums

The Future Host Questionnaire response identified four regional stadiums in Queensland that could be used for preliminary football games, with three of these stadiums identified for upgrade. This is similar to the model adopted for the Sydney 2000 Olympic Games which held football preliminaries at stadiums across Australia, including two smaller boutique stadiums in Canberra and Adelaide.

Investment into regional stadiums must be linked to greater capacity requirements for growing populations, legacy opportunities and content opportunities to offset investment, and community support.

6.1. Sunshine Coast Stadium

The Sunshine Coast Stadium is a multi-sport venue located at the Kawana Sports Precinct, hosting sport, leisure and entertainment events throughout the year including expos, festivals, and music concerts such as Cold Chisel and Sir Elton John. Since 2007, the sports fields have hosted many local and national soccer, rugby league and rugby union games, elite training camps, and community sports. The venue is owned and operated by Sunshine Coast Council.

Under the Brisbane 2032 Master Plan, the Sunshine Coast Stadium is earmarked to host football preliminary events, with 20,000 spectator seats (8,500 of those to be temporary seats). This will be delivered through an upgrade to the existing facility.

The Sunshine Coast Stadium upgrade was a project being pursued by Council prior to Future Host Questionnaire response. With the Sunshine Coast's growing population being the second highest forecast population growth rate in Queensland through to 2041, the size of the Stadium does not meet current community demand and needs to grow.

Increasing the capacity of the Sunshine Coast Stadium has widespread support, having previously secured \$20 million from the Queensland Government and \$17 million from Sunshine Coast Council for earlier iterations of the project prior to the announcement of the Games.

The current western grandstand was built on a tight budget and not designed to be expanded. Rebuilding the western grandstand is considered to provide better integrated facilities and flood immunity at a lower cost, compared to extending the current stand. The Sunshine Coast Council is providing the land, contributing \$17 million to the project and managing the operation of the venue, making the project cheaper and better value for money.

The Stadium is adjacent to the proposed Sunshine Coast Indoor Sports Centre and will be leveraged for cost savings, both during construction and operation, and legacy opportunities for holding additional sports and entertainment events.

The site is also close to proposed rail and bus transport nodes and will leverage future mass transit investment by the Sunshine Coast Council and Queensland Government. Delivery of heavy rail to Caloundra, connecting with bus services to Kawana, would enhance accessibility during the Games and provide a lasting transport legacy for the region.

Planning underway before the Review had the Sunshine Coast Council managing the relocation of existing tenants to an alternative facility, and the Project Validation Report already completed and ready for an investment decision by the Queensland Government.

Sunshine Coast Council has written to the Review Panel confirming their support for the venue to be delivered as soon as practical and have reiterated their commitment to operate the venue for their community in legacy.

Finding 6.1 – The Sunshine Coast Stadium will have a strong legacy outcome and benefit, achieving operational efficiencies in a precinct with existing venues, and providing capacity for the growing region.

Recommendation 6.1 – Progress the investment decision for the Sunshine Coast Stadium as a priority to maximise the legacy benefit to the community.

6.2. Barlow Park, Cairns

Under the Brisbane 2032 Master Plan, Barlow Park is earmarked to host football preliminaries with 20,000 spectator seats (15,000 of those to be temporary seats).

Barlow Park in Cairns is owned and operated by Cairns Regional Council. The venue has an international standard athletic track, useful for a range of sports, and plenty of surrounding space for operational requirements, as well as other venues located nearby that could leverage investment in the stadium.

There has been long-term interest and strong support from Cairns Regional Council in Barlow Park receiving major upgrades to sporting and spectator facilities to meet the needs of the growing community. This includes the upgrade of the existing stadium, increase seating capacity to 5,000, sustainability features, improved amenities and better equipment for athletes and the public.

The major upgrades will support Cairns in attracting major events in the future, such as NRL matches. It is speculated that it could underpin a proposal to host a Papua New Guinean rugby league team in Far North Queensland. With no other facilities of this quality in the region, an upgraded Barlow Park would provide Cairns and the surrounding region with a legacy stadium that could be used for national and international sporting and entertainment content.

Finding 6.2 – A stadium at Barlow Park, in Cairns, will have a strong legacy outcome and benefit, leveraging existing venues and providing capacity for a growing city.

Recommendation 6.2 – Continue with the Barlow Park project as scoped.

6.3. Toowoomba Sports Ground

Under the Brisbane 2032 Master Plan, Toowoomba Sports Ground is earmarked to host football preliminaries with 15,000 spectator seats (10,000 of those to be temporary seats).

Commonly known as Clive Berghofer Stadium, the Toowoomba Sports Ground is owned and operated by the Queensland Government and has been the home ground for local sporting clubs for many years, as well as host to a small number of higher-profile events.

The proposed upgrades to the Toowoomba Sports Ground include modern facilities, broadcast quality lighting, and an increase in permanent spectator seating capacity from 2,400 to 5,000. The Toowoomba Regional Council is not providing land, financial support or operational support for the project.

The proposed upgrades would require the permanent relocation of an existing tennis club, bowls club and croquet club, all of which have a long association with the current site.

Due to the location of the Toowoomba Sports Ground in a residential neighbourhood, there would be significant impact on local residents during the Games including security, transport and operational requirements. As a result, significant opposition to using the ground for Games events has been received from the adjacent clubs and local residents due to the impact of the upgrades and use of the venue for the Games on the local community.

There are also differing views within Toowoomba Regional Council on the merits and legacy benefits of the project. The Review was not presented with any evidence that additional legacy content would be attracted to the stadium after the proposed upgrade.

Finding 6.3 – There is minimal identified legacy resulting from the proposed upgrades to the Toowoomba Sports Ground and it is unclear what additional content would be attracted to Toowoomba as a result of an upgrade.

Recommendation 6.3 – Do not proceed with the Toowoomba Sports Ground project. Instead, explore other opportunities to host Games events in the Toowoomba Region which align to the region's desired legacy outcomes.

7.0 Other Minor Projects

A range of smaller infrastructure projects identified in the Future Host Questionnaire response in May 2021 have been considered by the Review Panel in accordance with the Terms of Reference.

These are smaller projects to be delivered later in the construction program, at a relatively lower cost compared to other projects. They provide value for money by leveraging and upgrading existing venues and creating venues that provide long-term legacy outcomes and are suitable for the Games.

7.1. Sunshine Coast Mountain Bike Centre

Under the Brisbane 2032 Master Plan, the Sunshine Coast Mountain Bike Centre is earmarked to host mountain bike events, with 8,000 standing spectators and temporary seating for 2,000 spectators.

The Sunshine Coast mountain bike trails at Parklands are already a destination for local participants and attract tourism visitors. Demand for mountain biking facilities has increased rapidly in South East Queensland and is forecast to continue to grow significantly.

Sunshine Coast Mountain Bike Centre is a planned upgrade situated adjacent to the Parklands Conservation Park, that supports the Sunshine Coast Council's long-term tourism and economic plans.

The Parklands Conservation Park currently has no trail head facilities and does not meet the required course layout standards for large scale international mountain biking events. The proposed Sunshine Coast Mountain Bike Centre will develop a trail hub adjacent to the Parklands area including an Olympic standard mountain bike course, supporting amenities (e.g. a cafe, convenience store) and facilities (e.g. bike hire and repair). Proposed works are relatively small in nature and therefore deliverable well in advance of the Games.

Once integrated into the broader Parklands trail network, the Centre will present a key legacy opportunity to host mountain biking, trail running, bushwalking, horse riding and multi-sport events at the site, creating a network of adventure experiences across the region.

The Sunshine Coast Council is providing the land, delivering the project and managing the operation of the venue, making the project cost effective and better value for money. Council is also working through tenure and operational management matters related to Parklands Conservation Park with Queensland Parks and Wildlife Service.

Finding 7.1 – The proposed upgrade to the Sunshine Coast Mountain Bike Centre will provide value for money. It leverages existing uses, provides more capacity, and creates a tourism and commercial benefit.

Recommendation 7.1 – Continue with the Sunshine Coast Mountain Bike Centre upgrade project as scoped.

7.2. Queensland Tennis Centre

The Queensland Tennis Centre is expected to host the Olympic Tennis and Paralympic Wheelchair Tennis, with 5,500 seats in the international standard main court arena.

The Queensland Tennis Centre has 22 match and training courts including clay, grass and cushion acrylic surfaces, catering to all three Grand Slam surfaces. The international standard main court arena with a roof has seating for around 5,500 people and two outdoor show courts. The site also contains player facilities, corporate suites, administrative offices, and meeting and function facilities.

Owned by Stadiums Queensland and operated by Tennis Queensland, the state-of-the-art complex is the home of the Brisbane International tennis tournament and training for professional tennis athletes, as well as a community use venue with coaching for all ages, social games, and competitions.

The Review Panel considered a proposal from Tennis Queensland to upgrade the centre to include a new show court two, show court three and extra courts, which would provide an ongoing legacy benefit.

Currently only minor works, including some earthworks, are planned for the Queensland Tennis Centre prior to the Games. The Brisbane 2032 Organising Committee will need to consider if the facility is fit for purpose and what additional works, if any, are required for the Games.

Finding 7.2 – The Queensland Tennis Centre is the only logical site for the staging of Games tennis events. The Games are likely to see an additional 30% more players and 44% more matches played compared to a Brisbane International. The Review could not satisfy itself whether sufficient facilities are available and further examination of the requirements of the facility for the Games is required.

Recommendation 7.2 – The Brisbane 2032 Organising Committee should examine what other works, if any, need to be undertaken to ensure the Queensland Tennis Centre is fit-for-purpose for the Games.

8.0 General Observations and Matters for Government Consideration

The Brisbane 2032 Olympic and Paralympic Games will turn the eyes of the world to Brisbane as an outstanding visitor destination and centre of sporting excellence.

It offers a once-in-a-lifetime opportunity to get ahead of the needs of Queensland's growing population by attracting investment in landmark infrastructure that has lasting benefits for the state.

The world expects Queensland to deliver an outstanding experience for elite athletes and their fans. The community expects long-term value and the best possible return on taxpayer dollars.

The Future Host Questionnaire response identified more than 37 competition venues across the state that would be needed to accommodate 28 Olympic and 22 Paralympic sports. These facilities included:

- 6 new sports venues
- 8 upgraded sports venues
- 16 existing sports venues
- 5 temporary sports venues
- 2 interstate sports venues.

Every option has a potential financial, social or environmental cost. The Sport Venue Review has been charged with weighing up these costs and making tough decisions about where and how best to invest billions of dollars in public funds to maximise the legacy opportunities they offer and deliver the right facilities for the Games.

Community legacy

By comparison to other Olympic cities including Los Angeles, Paris, London and Sydney, Brisbane and South East Queensland are relatively small by comparison to host an Olympic and Paralympic Games.

While the “New Norm” promote the use of existing venues, Queensland needs more infrastructure to support its growing population. Bringing forward this investment means that the community can benefit from the legacy of these venues in the lead up to and after the Games. Opportunities have been identified as part of this review. A small amount of funds has been earmarked in the Games Sport Venue Program for these facilities, but they may require greater scrutiny, and potentially a greater investment than has currently been allocated.

Any opportunity to identify and build facilities that meet the growth projections of the region is critical for South East Queensland.

Acknowledging the importance of appropriately designed training and warm up facilities to support the Games, any facilities that are operational prior to the Games will also provide the additional benefit of being available for pre-Games training and could be utilised as warm up training venues at Games time.

Where temporary facilities are to be built for the Games, consideration should be given to whether permanent facilities could be built for a similar cost by providing a permanent legacy. For example, change rooms and storage facilities at the shooting complex could become a permanent build.

Delivering a legacy for South East Queensland

One of the great things about the Games coming to Brisbane is that so many people feel ownership of the Games which leads to the generation of so many positive ideas.

Many thought-provoking and carefully considered proposals have been submitted by individuals and organisations for alternative venues including Perry Park, Sunshine Coast University, Victoria Park, Gold Coast, and Ipswich. These have been assessed by the Review Panel and most of these proposals were found to have had merit and legacy outcomes for Queensland. Some of these submissions, for instance those related to Victoria Park, have led to recommendations ahead of existing proposals as suitable development options.

A positive legacy that a Games can trigger is improvements in infrastructure, and for some sports there is currently no legacy in new or improved venues currently planned as a result of the Games. It has already been identified that South East Queensland has chronic shortages in indoor court space, and this shortage affects not only sports like basketball and volleyball for example, but also reduces opportunities for other sports including judo and taekwondo to access multi-sport facilities for training and competition.

The Review Panel also received a representation that aquatic sports are in need of new facilities to service not only the swimming population, but provide dedicated space for water polo, diving and artistic swimming disciplines who are often displaced for swimming activities.

The Panel reviewed proposals from Toowoomba Showgrounds, Rowing Queensland, Rugby Queensland, and Tennis Queensland for upgrades to their venues that would deliver lasting legacy to South East Queensland and ensure participants and community would have access to world class facilities for equestrian, rowing, field sports and tennis respectively. The desire of Hockey Queensland for a state hockey facility to meet the growing needs of the sport in the region is also noted. All these proposals had merit and a clear vision for legacy.

On balance, the venues that were identified in the Brisbane 2032 Master Plan provide great legacy outcomes and it is considered reasonable to continue with most of the currently proposed venues.

Value for money

Governments often have many different competing interests and objectives - not all of them are economic and not all can be assigned a monetary value required to develop a Benefit Cost Ratio. The Benefit Cost Ratio is a helpful tool for comparing like projects which meet similar objectives (site or project option comparisons) but is not useful or intended to compare different types of projects such as comparing an Arena with a road or hospital.

If Governments had relied on a strict Benefit Cost Ratio, Queensland would never have built some of its most treasured and hardworking facilities, like South Bank, City Hall, the Story Bridge, the Botanic Gardens, Suncorp Stadium, or the existing Gabba stadium.

The price to build a venue may also overlook its running costs, or the expenditure needed to provide essential supports to make it work. Optus Stadium is often used as a comparator or reference project as it is the most recent example of an international standard stadium being built in Australia. As Optus Stadium demonstrates, the headline price can look attractive until you take into account critical connectivity add-ons, like public transport and precinct infrastructure.

The argument that Government venue spending should be channelled into essential services, such as schools and hospitals, can also be an easy position to take. But, if this was the case, Governments would never invest in sports, the Arts, or the many other community amenities that add immeasurable value to culture, health and lifestyle.

History shows that communities expect Government to spend money on facilities that enrich lives and promote innovation and creativity. While it is expected that the lion's share of public money should go to essential services, the investment in other social infrastructure needs to be proportionate.

Project costings

This review has been conducted in a very short timeframe which limits the degree of detailed cost scrutiny and validation that can be undertaken on newly conceived projects.

The Review Panel has confidence in the Gabba cost estimate. It has been through the full project validation process, and the Panel had further peer review and benchmarking undertaken as part of this Review. The development of an Arena on the Roma Street over-rail site, while not having the benefit of a final joint business case, has also been subject to extensive costing work over more than one year.

New projects discussed in this report have not been subject to the same level of cost scrutiny and they should be subject to the project validation process if the Queensland Government chooses to pursue them. Having said that, the high level work conducted for this review indicates:

- The preliminary cost estimate for a stadium in Victoria Park, if based on similar scope of work and construction timetable, is likely to be around the same cost as the Gabba.

- However, construction at Victoria Park will start later than was planned at the Gabba, therefore additional escalation will be incurred. It is also likely that the opportunity to improve the scope and outcomes to address the shortcomings inherent with the constrained Gabba site would also mean marginally higher costs.
- The Victoria Park stadium, although marginally more expensive would provide a full international standard stadium whereas the Gabba will not and will generate more revenue for the long term through better design of premium areas.
- An Arena located at the Roma Street carpark and maintenance depot development site north of Roma Street Parklands is likely to be achievable at around the current \$2.5 billion budget, if based on similar scope of work and construction timetable.
- A QSAC Stadium redevelopment of 14,000 permanent seats and a 40,000 temporary games seating capacity is likely to cost around \$1.6 billion.

Affordability

The Games Sport Venue Program has expenditure of \$7 billion, including the Arena, the Stadium and the minor venues program. This means a net cost of approximately \$3.65 billion for Queensland after the Australian Government contribution. A net cost to Queenslanders of \$456 million per year for eight years, represents half of one percent of total state revenue of \$86 billion per annum.

Under the existing Intergovernmental Agreement between the Queensland and Australian Governments, the Australian Government will fund up to \$2.5 billion for the Brisbane Arena. This investment is subject to the Queensland Government building a stadium which maintains the 50/50 funding arrangement. It follows that if the Queensland Government does not proceed with a stadium rebuild or new stadium, the total spend will be reduced and Queensland will most likely lose the benefit of significant Australian Government funding, due to the 50/50 funding arrangement.

Sport program

Brisbane is committed to supplying top quality sporting venues although it will be some time before sports and disciplines are confirmed for the Games. By 2025 it is anticipated that there will be clarity regarding the Games sports program, noting that Los Angeles has recently confirmed their final sports just four years ahead of their Games.

By 2027 there should be clarity regarding the disciplines that might be held at Brisbane 2032 and, by 2029, there should be clarity regarding the program and timing of events.

The investment decisions that will be made now need to be focused on the legacy need for the growing community but ensuring maximum flexibility for Games time operations.

Recommendation 8.1 – The Queensland Government works with the Brisbane 2032 Organising Committee to confirm sports as early as possible.

Confirming the national partnership

The Brisbane Olympics are a win for the whole of Australia, and the Australian Government has pledged to make a sizeable contribution to major venues proposed in the Future Host Questionnaire response. This arrangement may need to be revisited if venues change.

It is assumed that if venue changes are required, the Queensland and Australian Governments will be able to reach equitable agreement to restructure their financial agreement, as long as the revised projects represent good value for money. It is important to ensure that Queensland does not lose the support of funds that have been committed, noting this may involve funding arrangements outside of the Games.

Next steps

Venue construction cannot be delayed if Brisbane is going to be ready to deliver an inspiring 2032 Olympic and Paralympic Games, particularly demanding projects like the Stadium and Arena.

As a matter of urgency, the Queensland Government needs to reconvene with its partners in the Australian Government to clarify and confirm funding arrangements to enable these projects to proceed. Any new projects or significantly amended project will need to develop a Project Validation Report or Business Case to support a future investment decision. The need for urgency needs to be balanced against the requirement to undertake appropriate due diligence.

A broad range of locations and facility options have been tested which provides a clear understanding of the cost, timeframes, impact on the community and expected legacy benefits.

Many of these proposed developments are ready to progress to procurement and development timeframes need to be expedited. Business Cases and Project Validation Reports are being prepared, or have been completed, to support informed decisions.

8.1. A multi-track approach to project development and delivery

Time is of the essence to deliver sports infrastructure projects that will deliver strong legacy outcomes and suitable Games venues. The Games event date is not moveable but, more importantly, due to current high levels of cost escalation, projects that are delayed cost substantially more.

The project development phase of a project includes:

- Business Case or Project Validation Report – need justification, options assessment, financial and economic case and assessment of risks including sustainability, community and stakeholder impact
- Approvals – planning consent and a raft of other approvals from various government entities (typically transport, environment and planning)
- Site selection and property acquisition

- Procurement
- Project assurance throughout the above processes
- Government decision making.

History shows that the vast majority of significant delays in projects occur during the project development phase rather than in the delivery stage. Once construction contracts are signed most projects proceed quickly unless there is either a contract dispute or a major unexpected event or occurrence (e.g. a pandemic or an unexpected environmental issue). Therefore, the key to timely delivery rests in fast tracking the project development phase.

The traditional project development process is prone to time delays because:

- It is linear and sequential in approach, with many hold points and approvals
- There are many “approval” stakeholders, and they engage with the project on an intermittent basis
- It is a one-size-fits-all approach which considers all issues at every hold point whether or not all issues are relevant risks for this particular project
- It requires clear risk transfer at various hold points, which requires parties to undertake substantial diligence to proceed.

Substantial time savings can be made if an approach is used that:

- Runs various streams of work in parallel rather than sequentially
- Assurance and approvals remain independent but are embedded in the project or program and take place on a continuous basis rather than a fixed hold point basis
- A program wide approach to procurement is used rather than a project-by-project approach
- Risks are shared on an agreed basis throughout the project lifecycle rather than allocated and locked in at hold points.

The Queensland Government’s commitment to a delivery authority approach and special enabling legislation to fast-track approval processes is a step in the right direction, however, there are a range of complementary measures that should be considered to ensure delivery in the shortest possible timeframes, thus minimising cost.

Parallel processing

There are numerous processes that can be completed concurrently rather than sequentially, for example:

- Approvals parallel with business case or project validation work
- Delivery Partner or Managing Contractor Procurement parallel with business case or project validation
- Approvals parallel with Business Case or project validation.

Bespoke processes

Instead of a one-size-fits-all approach to processes such as Business Cases or Project Validation Reports, an upfront risk assessment should narrow down the range of issues to be explored in these reports, substantially reducing the time to produce and assess the report.

Continuous assurance and approvals

Assurance processes and approval processes (planning consent and other government approvals) need to be independent. This is achieved in a business-as-usual project by having hold points where the project must prepare the project or prepare an application, then wait while it is independently assessed.

An alternative approach is that people providing assurance and assessing the project approvals remain independent but are involved in the project on a continuous basis and provide their assurance or assessment on an ongoing real time basis.

Delivery Partner

Public works in Queensland are generally delivered via a two-stage managing contractor approach. This approach is mature, robust, well understood and accepted by the market and provides good outcomes in a business-as-usual environment. It combines the collaborative elements of an alliance in the first stage and the fixed price assurance of a design and construct contract model in the second phase.

It is a good process; however, because risk is transferred and locked in between stage one and stage two, there are substantial processes, diligence and hold point approvals that must be undertaken in stage one to ensure that both parties (the state and the contractor) are prepared to enter into the stage two contract.

There are a range of different delivery partner models. All of the models provide an opportunity to leverage private sector skills to assist government entities to bring projects to market more quickly.

The delivery partner approach can also allow some packages of work to be procured across the whole program rather than on a project-by-project basis. This will save time and likely create cost benefits from economies of scale.

The delivery partner approach needs to be accompanied by more flexible procurement processes and rules that are flexible but continue to ensure probity, transparency and value for money.

The benefits

The approaches outlined in this section could deliver:

- Substantial time savings
- Substantial cost savings due to program wide procurement and early delivery thus avoiding escalation.

The risks

There are risks with these approaches that will need to and can be managed:

- Maintaining the independence of embedded and continuous approvals and assurance assessors
- Additional costs for assessment and assurance agencies due to continuous engagement
- The Government client needs more commercially skilled resources to manage the more flexible processes
- Higher sunk costs if projects are ultimately not approved or do not proceed.

Recommendation 8.2 – The Queensland Government considers a multitrack approach to project development and considers a delivery partner approach to procurement and delivery.

Appendix – List of Meetings

- Advance Cairns
- Aecom
- Archery Queensland
- Archipelago
- Artistic Swimming Australia
- Artistic Swimming Queensland
- ASM Global
- Athletics Australia
- Aurecon Group
- AusCycling
- Australian Constructors Association
- Australian Contractors Association
- Australian Council of Recycling
- Australian Football League (AFL)
- Australian Government
- Australian Industry Group
- Australian Olympic Committee
- Australian Sailing Limited
- Australian Sporting Alliance for People with a Disability
- Basketball Queensland
- Besix Watpac
- Bevan Lynch
- Blight Rayner
- Brisbane 2032 Organising Committee
- Brisbane Bullets
- Brisbane City Council
- Brisbane Convention and Exhibition Centre
- Brisbane Economic Development Agency
- Brisbane Lions
- Business Chamber Queensland
- Cairns Regional Council
- City of Gold Coast
- Committee for Brisbane
- Community Alliance for Responsible Planning Redlands Inc
- Council of Mayors (South East Queensland)
- Cox Architecture
- Cricket Australia
- Department of State Development and Infrastructure
- Department of Tourism and Sport
- Department of Transport and Main Roads
- Diving Australia
- Diving Queensland
- Dr Paul Sparshott
- East Brisbane State School P&C
- Economic Development Queensland
- Engineers Australia
- Equestrian Queensland
- Football Queensland
- Friends of Raymond Park
- Gabba Business Association
- Gold Coast Suns
- Golf Australia Limited
- Handball Qld (Qld Team Handball Ass)
- Herston & Kelvin Grove Residents Action Group
- HKS
- Hockey Australia
- Hockey Queensland
- Hon Catherine King MP (Australian Government)
- Hon Grace Grace MP (Queensland Government)
- Infrastructure Association of Queensland
- Ipswich City Council
- John Coates AC, Vice-President, International Olympic Committee
- Judo Queensland
- Laing O'Rourke Australia
- LendLease Development
- Logan City Council
- Master Builders Queensland
- Moreton Bay Regional Council
- Morris Godding
- National Rugby League

- NAUTA
- Normanby Action Group
- NRA Collaborative
- Paddle Australia
- Paddle Queensland
- Paralympics Australia
- Piston Shooting Queensland
- Property Council of Australia
- Queensland Academy of Sport
- Queensland Athletics
- Queensland Clay Target Association Inc
- Queensland Cricket
- Queensland Cricketer's Club
- Queensland Farmers' Federation
- Queensland Fencing Association Inc
- Queensland Government
- Queensland Government Architect
- Queensland Gymnastics Association Inc
- Queensland Indigenous Business Network (QIBN)
- Queensland Major Contractors Association
- Queensland Rail
- Queensland Rifle Association Inc
- Queensland Rugby Union
- Queensland Social Enterprise Council
- Queensland Target Sports Inc
- Queensland Tourism Industry Council (QTIC)
- Queensland Weightlifting Association Inc
- Racing Queensland
- Redland City Council
- Re-Think the Gabba
- Robert Bird Group
- Rowing Australia
- Rowing Queensland
- Royal Agricultural Society Queensland (Toowoomba)
- Royal National Agricultural and Industrial Association of Queensland (RNA)
- Royal Qld Golf Limited
- Scenic Rim Council
- Seqwater
- Sports Taekwondo Qld Inc
- Spring Hill Community Group
- Stadiums Queensland
- Steve Wilson
- Sunshine Coast Council
- Swimming Australia
- Swimming Queensland
- Table Tennis Queensland Inc
- Tennis Australia
- Tennis Queensland
- Toowoomba and Surat Basin Enterprise
- Toowoomba Regional Council
- Townsville City Council
- Townsville Enterprise Limited
- Trade and Investment Queensland
- Triathlon Qld Limited
- University of Queensland
- Victoria Park Action Group
- Volleyball Queensland
- Wagner Corporation
- Water Polo Australia
- Water Polo Queensland

Appendix – List of Sites Visited

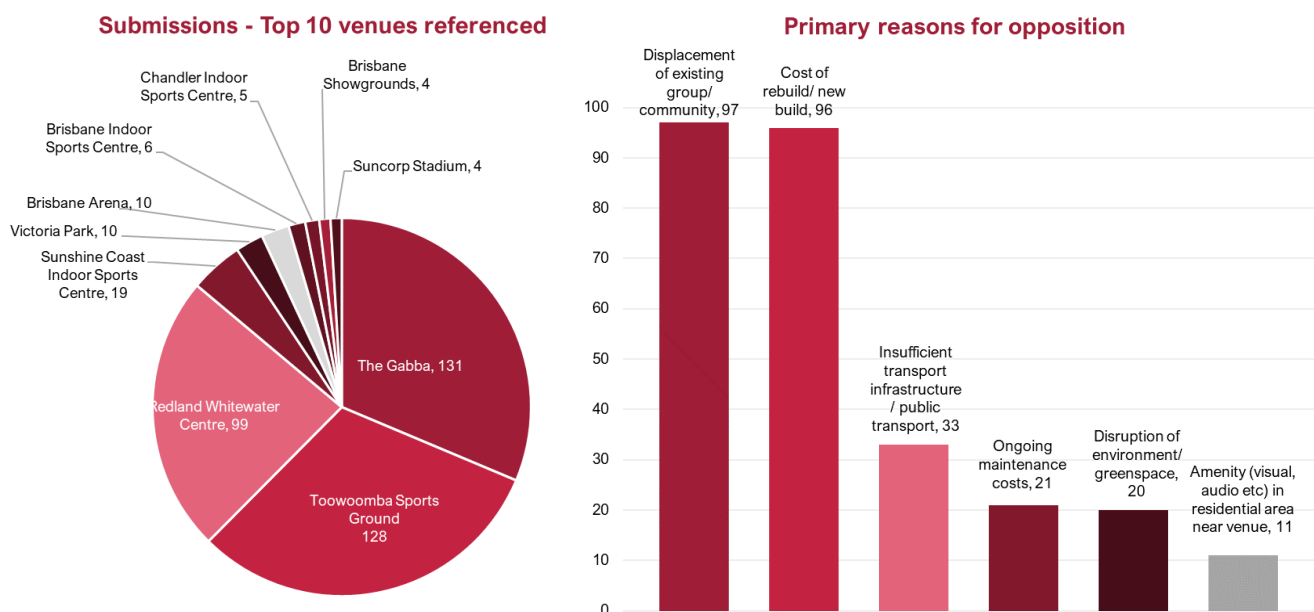
- Ballymore Stadium
- Brighton Homes Arena, Springfield
- Brisbane Arena (proposed)
- Brisbane Entertainment Centre, Boondall
- Brisbane Convention and Exhibition Centre
- Brisbane Indoor Sports Centre (proposed)
- Carrara Stadium
- Coomera Indoor Sports Centre
- Gold Coast Aquatic Centre
- Gold Coast Athlete Village, Robina (proposed)
- Gold Coast Sports and Leisure Centre, Carrara
- Lake Kawana
- Manly Boat Harbour
- Moreton Bay Indoor Sports Centre (proposed)
- QSAC Stadium, Nathan
- Queensland Tennis Centre, Tennyson
- Redland White Water Centre (proposed)
- RNA Showgrounds
- Sleeman Sports Complex, Chandler
- Sunshine Coast Athlete Village, Maroochydore (proposed)
- Sunshine Coast Indoor Sports Centre (proposed)
- Sunshine Coast Mountain Bike Centre (proposed)
- Sunshine Coast Stadium
- The Gabba
- Toowoomba Showgrounds
- Toowoomba Sports Ground
- Victoria Park
- Wyaralong Dam

Appendix – Summary of Key Themes from Submissions

During the Review period, 475 unique stakeholder and community submissions were received to the *Venue Review Feedback* email inbox and considered as part of the Review.

Feedback on 22 venues was received, however the vast majority of submissions related to three venues – the Gabba, Toowoomba Sports Ground, and Redland Whitewater Centre (see figure below).

Two pro-forma campaigns (i.e. campaigns that had coordinated language and contents, potentially copy and pasting the exact language) were received, with one for the Redland Whitewater Centre and one for the Toowoomba Sports Ground. The purpose of this summary is to capture each unique submission received by the Review Panel. A single instance from each pro-forma campaign has been included as part of this analysis. Similarly, duplicated submissions are counted once in figures, not each time the same submission has been received.

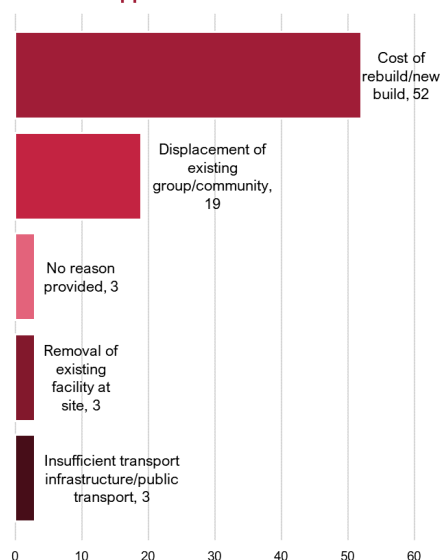


- Opposition/support breakdown, generally a high level of opposition from submissions.
- Most common reasons for opposition as above, but vast majority of reasons given fell into two categories - venues displacing communities or groups at the site, or because of the costs associated with the rebuild or new-build of a venue.

The Gabba

- Tied for largest number of submissions related to the Gabba, 128 received
- 64% of submissions were opposed, 21% support, and the remainder were neutral or mixed (e.g. supported part but opposed other parts)
- Majority of submissions for the Gabba were primarily concerned with the cost, with displacement of existing groups or communities (e.g. the East Brisbane State School) the secondary concern.

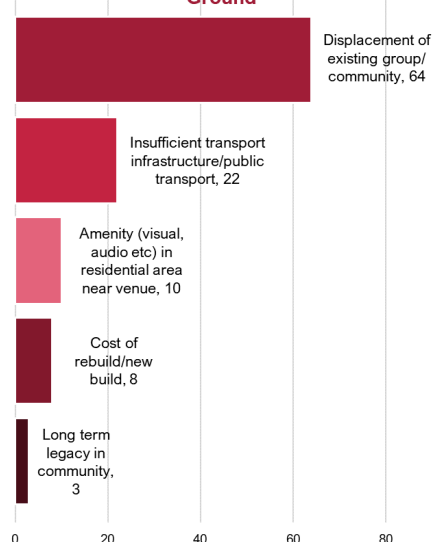
Opposition to The Gabba



Toowoomba Sports Ground

- Tied for largest volume of submissions, also 128 received
- 92% of submissions for Toowoomba were opposed to the venue, and only 6% supported or had mixed views on the venue
- Displacement of community groups (e.g. current tenants at the sports ground) was the main concern for submitters, with the impacts of an upgraded venue on transport, parking and local roads the second most common concern.

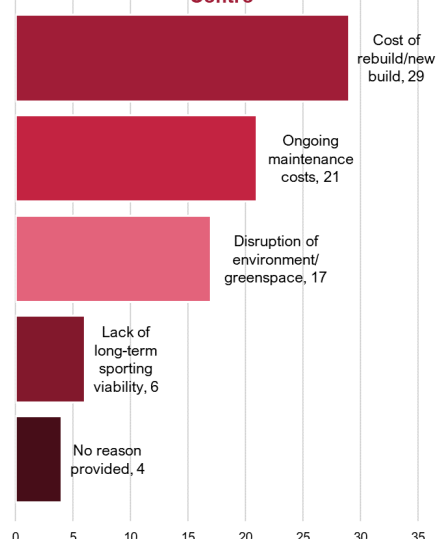
Opposition to Toowoomba Sports Ground



Redland Whitewater Centre

- Third highest number of submissions, 98 received, noting a large-scale pro-forma submission campaign was also received
- Note that over 400 pro-forma submissions were received, however have been captured as one unique instance within this summary
- Majority of submissions were opposed, accounting for 86% of those received. 9% supported the venue, while the remaining 5% indicated mixed or neutral view of the venue
- Costs associated with the venue, including the new build itself and the ongoing maintenance costs post-Games, were the top two concerns from Redlands-related submissions.

Opposition to Redland Whitewater Centre



Appendix – Sport Venue Review Panellists

Graham Quirk

Mr Quirk served as Lord Mayor of Brisbane from 2011 to 2019. During this time as Chair of the Council of Mayors (South East Queensland) he oversaw the development of the Prefeasibility and Feasibility Studies for the Brisbane 2032 Olympic and Paralympic Games. He had previously served as Deputy Mayor and Infrastructure Chair in Brisbane City Council. Mr Quirk has previously been a member of the Infrastructure Australia Board and is currently a Member of the Board of Racing Queensland and Racing Australia. Among other roles he is also a Board Member of Unity Water.

Michelle Morris

Mrs Morris is a Principal and Director of MI Global Partners which specialises in leading and partnering to deliver events, sport and place projects. MI Global's Olympic partnerships have included Tokyo 2020, Rio 2016, Sochi 2014, London 2012, Beijing 2008, and Athens 2004. Their sport partners include the International Olympic Committee, World Rugby, Cricket Australia and Basketball Australia. Mrs Morris has led and delivered technical bids for major internal events, such as securing the ICC T20 World Cup 2028 bid for Australia and New Zealand and the FIBA Women's Basketball World Cup 2022 bid for Australia.

Ken Kanofski

Mr Kanofski is a board chair and independent adviser to governments and the corporate sector, he is currently Chair of Sydney Olympic Park Authority, Tellus Holdings Ltd and Placemaking NSW. He is a director of Western Sydney Airport and an Independent Planning Commissioner in NSW. Mr Kanofski has 20 years of experience as a Chief Executive Officer in the NSW Government, including as CEO of Roads and Maritime Services and the NSW Land and Housing Corporation. Mr Kanofski led the Independent Strategic Infrastructure Review for the NSW Government in 2023.

Sport Venue Review

Independent Review of Brisbane 2032 Olympic
and Paralympic Venue Infrastructure

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