Independent review of the Macquarie Point Stadium

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Overview

Tasmania is a proud state that, for too long, has given far more to the AFL than it has received. Tasmania deserves an AFL team and must have it at the right cost. But not at any cost. Tasmania is not a wealthy state and it must meet substantial social and economic challenges.

The central conclusion of this review is that the projected costs associated with the stadium at the Macquarie Point multipurpose precinct have been significantly understated.[1] At the same time, the benefits have been overstated. Accordingly, the projected benefit-cost ratio has been significantly overstated. I find that the costs of the stadium development can reasonably be estimated to exceed $1 billion, with a benefit-cost ratio of 44 cents in every dollar invested by Tasmania. It also seems likely that the wrong site has been selected.

The project is already displaying the hallmarks of mismanagement with much of that mismanagement stemming from officials' attempts to deliver the project within the Tasmanian Government's commitment to limiting the stadium's impact on state debt to $375 million. This commitment cannot be met.

Even assuming the Government can find private partners to fund some revenue-generating investments it has excluded from the cost of the stadium, I find this would still leave $1.019 billion to be financed by other means. The Government could choose to sell additional land to private partners (above the $85 million of land sales already planned), but this is functionally equivalent to borrowing since the proceeds of land sales could otherwise pay down government debt (or fund other state priorities).

1 The terms of reference for this review are presented in Appendix 1.

Substantial costs can be avoided simply by not proceeding with the stadium and seeking to renegotiate the establishment of a Tasmanian AFL team on more reasonable terms in the future. I do not recommend such a course because it would be foolish to suggest that such a decision should be based on technical analysis alone, without further recourse to the Tasmanian community.

However, the analysis presented in this report does suggest that, should the current process continue, its course could be corrected to lower costs and risks, increase benefits and reduce community division.

The central deficiencies of the current process are as follows:

1. A hasty process

The decision to locate the new stadium at Macquarie Point was effectively made by two parties — the Tasmanian Government and the AFL. The site selection analysis released was hasty and partial and gives the strong impression of being crafted to support conclusions already made. I think it likely that the site selection process rejected sites that would have generated lower costs and higher benefits while receiving greater community support.

2. Minimal effective consultation

Community consultation leading to the selection of the Macquarie Point site selection was meagre. This has meant that important non-economic costs of the Macquarie Point site — most particularly the impact on the Hobart Cenotaph and the wider social, economic and environmental amenity value of the Hobart waterfront — have not been properly assessed and incorporated into the analysis supporting the proposal.

3. Inadequate and over-optimistic cost-benefit analysis

The cost-benefit analyses supporting the Macquarie Point site have generally paid insufficient heed to the costs and risks of the project and have been too optimistic in assessing its benefits. They have taken little or no account of the opportunity cost of the site and have overstated economic spillover benefits from additional tourism.

4. Little joined-up planning

Beyond direct benefits like event revenue and employment, infrastructure investment on this scale should take place within wider planning frameworks to ensure it catalyses broader economic, social and cultural benefits for the surrounding urban environment. Although some wider plans are available, for instance, the 1997 Sullivans Cove Planning Scheme which was integral to planning Macquarie Point Precinct until 2022, it was paid little heed in the decision to locate the stadium.

I expect that the Government and the AFL believe they have been acting in good faith to deliver a big project despite the inevitable naysayers. But their haste has undermined the prospects to minimise costs and maximise benefits and for different parties to craft constructive and well-informed compromises. The decision to locate the stadium at Macquarie Point is already dividing some of the AFL's core constituencies: veterans, Indigenous Australians, and heartland football supporters in Tasmania. This is creating needless reputational risk for the AFL.

In the remarkable story of the JackJumpers, Tasmania has shown how positive such projects can be — and, in so doing, what the Tasmania Devils might be able to contribute to the state. They galvanise community action and, as they succeed, community pride. They can become an ornament to

Tasmania and Australia's national game. In signing over 200,000 introductory paying members already (even at the reduced rates charged) the Devils promise the same for the AFL.

Tasmanians, and all who wish to see a Tasmanian AFL team succeed, need to take the time to get the stadium right. That can be done by returning to the original timetable for the stadium proposed in Tasmania's 2019 AFL Taskforce report, namely that the "first 5-7 seasons" be played at UTAS and Ninja Stadium at Bellerive while a proper process is put in place to locate, design, cost and build a new stadium.

Findings

1. The agreement between the AFL and the Tasmanian Government is overspecified and imposes needless costs and restraints on the realisation of a Tasmanian team. These costs and restraints are contributing significantly to the poor cost-benefit ratio of the proposed Macquarie Point stadium.

   The AFL has a legitimate interest in insisting that, should it enter the competition, a Tasmanian team is viable and competitive and not an undue burden on other teams.

   However, the AFL's agreement with the Tasmanian Government goes well beyond this. It contains terms that are of marginal significance for the AFL but which impose substantial costs on all Tasmanians. These include:

   - The site on which the stadium is located.
   - The speed with which the stadium is completed.
   - Whether it has a roof or not.

Whatever its preferences, the AFL should have no strong interests in these matters and they should be left to the Tasmanian community. The AFL's core interest of ensuring the Tasmanian team is financially viable can be directly protected by the Tasmanian Government committing to ongoing subsidies should agreed financial metrics not be met.

2. The agreement sets an unrealistic timeline for the project. This is particularly the case for the first two stages of the process — project definition (particularly site selection) and full design specification. Yet taking the time to get these two stages right is the ultimate precondition for minimising the risk of cost-overruns and efficiently delivering the costly construction stage of the project.

3. The site selection process for the Hobart stadium was flawed by its failure to prioritise community consultation, properly account for opportunity costs, and address critical urban planning trade-offs. This has likely led to the wrong site being selected.

4. The Government's current $775 million estimate of the stadium's cost significantly understates the true expected cost. Based on our analysis of the current stadium proposal and project scope, we estimate the total project cost will exceed this amount by $321 million bringing the total cost to over $1 billion.

   Cost blowouts and unacknowledged costs mean that it is already clear that the Government's undertaking to build the stadium without borrowing more than $375 million cannot be responsibly met (Table A).

Table A. Impact of stadium construction on Tasmanian Government finances

Item	$ million
Cost estimate - original	***715***
Additional costs in WT Partnership July 2024 costing	60
Cost estimate - POSS	***775***
Additional contingency based on QS peer review	79
Necessary costs (currently excluded) - Goods Shed & precinct-related costs	186
Necessary costs (currently excluded) - revenue generating facilities	57
Total costs (excl. interest during construction)	***1,096***
Less external contributions	
Commonwealth	240
AFL	15
Left to fund	*841*
Revenue generating facilities	57
Left to fund	*785*
Land sales	85
Borrowing	700
Total funded by Tasmanian Government	***785***

Note: Does not include the opportunity cost of 156 million associated with allocating government land to the project. Row values may not add precisely to the total due to rounding.

5. **Not withstanding the details above, the Government continues to insist that its fiscal cap of $375 million can be met. This is already having two adverse effects which will intensify over time.**

    - **Official reporting on the progress of the project is not candid. This undermines the community's trust in the process. Various means are being used to disguise the true cost of the project. Their impact is escalating over time.**

These means include:

- Using land sale as a ‘magic asterisk’. In the initial accounting for the project, the sale of land was to raise $85 million towards the cost of the stadium, though we are unaware of any detail as to what land was being sold and how it had been valued. As estimated costs have risen, the breaching of the $375 million cap has been further disguised by assuming that the value of land sales will rise by over 50% to $145 million to absorb the shock. Again, I am unaware of any real developments in the land being prepared for sale or its valuation that would justify such a treatment. If this gap is to be funded by identifying additional government land to sell, such proceeds would of course reflect incremental Government contribution.
- Risks of cost-overruns — which would further compromise the $375 million cap — are not being candidly recognised by the project.
- Certain aspects of the project have been excised from the calculation such as the relocation of the Goods Shed even though they are necessitated solely by the building of the new stadium.
- Apparently ignoring the interest that must be paid on the $375 million additional borrowing.[2]

- In addition to impairing the probity of the project, disguising its true costs is also a driver of mismanagement. To meet the $375 million cap on outlays, certain facilities within the stadium have been carved out of

[2] As KPMG’s Financial Impact Report comments (2024, p. 27) the asset owning entity, i.e. MPDC, “will borrow to make up any funding shortfall.” This will increase debt on the Government’s total balance sheet to an amount that is over its $375 million capital debt.

the Government's capital budget for the project. These include the car park, kitchens and food and beverage facilities, CCTV system, LED ribbon board advertising, and AV and PA systems. Because these facilities will earn revenue, private investors can likely be induced to fund their capital cost in return for some right to that revenue.

While such partnerships should be explored, the motive to do so should always be to optimise the net benefits from the project for Tasmania. Here the motive is simply to move these costs off the Government's books. This lowers capital costs to the Government, but it is likely to do so only by lowering the stadium's capacity to generate revenue by a greater amount measured in net present value terms. In other words, this apparent saving is very likely to be penny-wise and pound-foolish, costing the government more than it saves.

6. The involvement of the private sector in the Macquarie Point stadium project falls well short of satisfactory practice. It lacks transparency and seeks to minimise government outlays even where this compromises getting the best deal for Tasmanians.

It is not too late to achieve an AFL-ready stadium at lower cost, with lower technical risk, and with less community division. To do so we recommend these key changes.

Recommendations

1. Should a new stadium be built, the timeline to do so needs to be extended. The current stadium timetable will drive needless risk to construction costs and is precluding necessary debate about alternative stadium proposals. The Government should negotiate with the AFL to extend the deadline to complete the stadium build, with the Tassie Devils playing games at Ninja Stadium and UTAS

Stadium for a longer transition period. Given the circumstances, I think it would be unreasonable for the AFL not to agree to extend the timeframe by — say — four years without penalty. Even in the absence of the appropriate goodwill from the AFL, the existing agreement provides that Tasmania can buy more time by paying a penalty of $4.5 million per year in the event of its stadium not being ready by the time of the deadline agreed.

2. Planning for the stadium should be joined up with a broader plan for the future of Hobart. It is insufficient to plan for the Macquarie Point Precinct site alone. To realise the full benefits of stadium investment, a plan for Greater Hobart should be developed assessing how the stadium will interact with and support the city's future urban environment, including surrounding community and green spaces, historic sites, ports, transport infrastructure, tourism, events, and housing. This should be underpinned by the development of a shared vision for the future economic, social and cultural characteristics of the greater Hobart area, which today is absent.

3. The Government should provide an itemised and candid reanalysis of the amount the stadium will cost the government. The report should be done now and co-signed by the Auditor General with the process being repeated regularly.

4. The delivery of the stadium and all its component parts should be driven solely by optimising its value for money to the Tasmanian community. Any commitment to cap the Government's capital contribution compromises this goal and could force the adoption of inefficient Public-Private Partnerships. All arrangements for partnerships with the private sector should only proceed consistently with the principles set out in the National PPP Policy and Guidelines

including the use of a realistic Public Sector Comparator. In addition to this mechanism being self-administered by government officers, it should be overseen by someone independently appointed by and reporting to the Parliament.

This recommendation has ‘micro’ and ‘macro’ aspects:

a. Decisions to bring in private funding for any of the capital expenditure on facilities of the stadium should not proceed except according to the safeguards above.
b. The Government should introduce competitive tension between projects by committing to consider alternative unsolicited stadium proposals.

Table of contents

Structure of this report

In accordance with our terms of reference to review the existing analysis and assess the overall costs and benefits of the Macquarie Point Precinct, this report examines the proposed development across eleven chapters:

1. **The AFL agreement's fitness for purpose** – Analyses how the agreement between Tasmania and the AFL constrains the optimisation of costs and benefits to Tasmania through unnecessary requirements.

2. **Planning, delivery and stakeholders** – Evaluates the adequacy of consultation and planning processes against best practice, drawing particularly on the experience of successful stadium developments elsewhere in Australia.

3. **The site selection report: a flawed foundation** – Outlines the flaws in the site selection process. They have likely led to the wrong site being selected.

4. **The visual impact of the stadium** – Considers analysis of the stadium's impact on Hobart's waterfront and heritage areas.

5. **Transparency in managing projects** – Examines how fiscal targets have compromised proper assessment and management of the project's true costs and risks.

6. **Involving the private sector** – Analyses proposed public-private partnership arrangements, focusing on their implications for the overall costs and benefits to Tasmania.

7-9. **Costs, Benefits and Net Benefits** - Presents the comprehensive cost-benefit analysis required by our terms of reference, incorporating proper accounting of opportunity costs and realistic assumptions about benefits.

10. **Financial impacts –** Models the impact on Tasmania's finances under different delivery scenarios (as specified in our terms of reference regarding financial modelling of the precinct).

11. **Economic impact assessment –** Examines the broader economic impacts while highlighting limitations in previous analyses, addressing the socio-economic assessment requirements of our terms of reference.

1. The AFL agreement's fitness for purpose

Finding 1: *The agreement between the AFL and the Tasmanian Government is overspecified and imposes needless costs and restraints on the realisation of a Tasmanian team. These costs and restraints are contributing significantly to the poor cost-benefit ratio of the proposed Macquarie Point stadium.*

The AFL has a legitimate interest in insisting that, should it enter the competition, a Tasmanian team is viable and competitive and not an undue burden on other teams.

However, the AFL's agreement with the Tasmanian Government goes well beyond this. It contains terms that are of marginal significance for the AFL but which impose substantial costs on all Tasmanians. These include:

- *The site on which the stadium is located.*
- *The speed with which the stadium is completed.*
- *Whether it has a roof or not.*

Whatever its preferences, the AFL should have no strong interests in these matters and they should be left to the Tasmanian community. The AFL's core interest of ensuring the Tasmanian team is financially viable can be directly protected by the Tasmanian Government committing to ongoing subsidies should agreed financial metrics not be met.

In any complex, multi-party project, it is important for stakeholders to focus in a hard-headed way on their core interests. In this regard it is important to distinguish between reputational and financial risks and rewards.

Reputational and financial risks and rewards

Reputationally for the AFL, Tasmania's participation is potentially both high risk and high reward. The potential reward is nothing less than the destiny of Australian rules football as a national game. Despite its proud and passionate history as one of the foundation states of Australian rules football, and despite numerous eventually unsuccessful overtures to the AFL in the past going back at least to 1987 if not before, Tasmania is the only original Australian rules state not to have a team in the AFL.

If that is the prize, the risk is that integrating Tasmania into the AFL is looking like being a reputationally bruising experience for the AFL (for example in relation to military veterans and the impact on the Cenotaph).

As one prominent Tasmanian I consulted — Saul Eslake — observed, a Tasmanian AFL team offered something that might have been even more inspirational and unifying for Tasmanians than the establishment and success of the JackJumpers has been. Instead it risks becoming another futile battle within the community of the kind that have often characterised major policy debates in Tasmania.

A widespread sentiment on the situation was echoed by Colin Carter (despite him having no direct ties to Tasmania), in his report to the AFL Commission, under the heading "**Context: 'Fairness' and Under Threat**".

> There is a widely held view, even on the mainland, that Tasmania "deserves" an AFL team. No argument is being made that the ACT, Cairns or Auckland 'deserve' a team. The 'deserve' case is because of Tasmania's long history with our game and the AFL's stated 'purpose' that all football followers be supported. As well, our position in that heartland market is threatened.

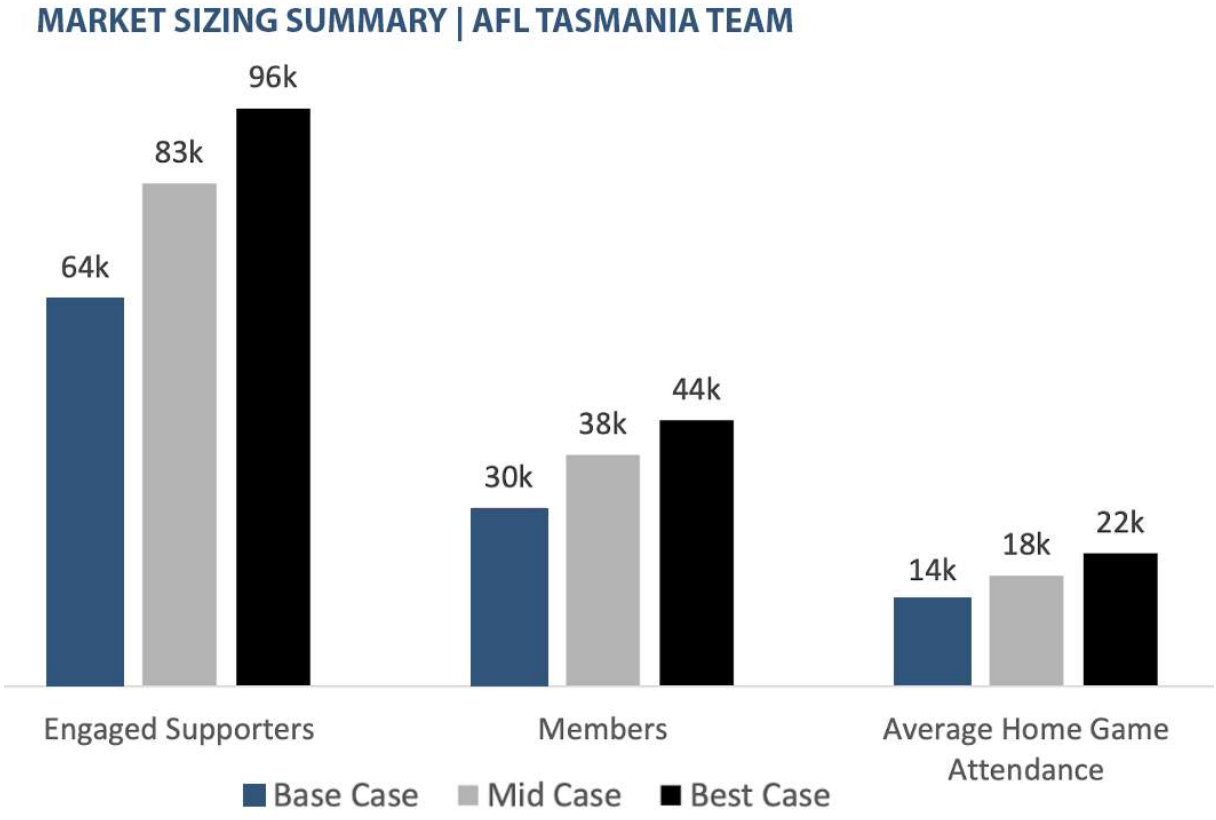
> **A Long History, But Under Threat:** Our game has only survived for 150 years because of the commitment of people living in the four southern states of Australia. Three of those four states are represented in our 'national competition' but Tasmania is not. Our so-called 'national competition' now includes teams from all states, except Tasmania.
>
> Being excluded is a recent experience for Tasmanians. For most of the 20th Century, the pinnacle of our game was the state team playing interstate competition. Tasmania was always included, but interstate football was replaced in the 1980s by the club-based national competition.[3]

Indeed before the club-based national competition, Tasmania hosted the interstate competition on several occasions.

However, if the reputational risks and rewards of the project are high, Tasmania's status as a heartland state dramatically reduces the financial risks of establishing a team there. Thus for instance, the Gemba report estimated in 2019 that Tasmania could expect to attract around 38,000 full paying members.

[3] Carter, Colin, 2021. "A licence for a Tasmanian team? A Report to the AFL Commission", July, p. 6.

Figure 1: Estimates of market size from 2019

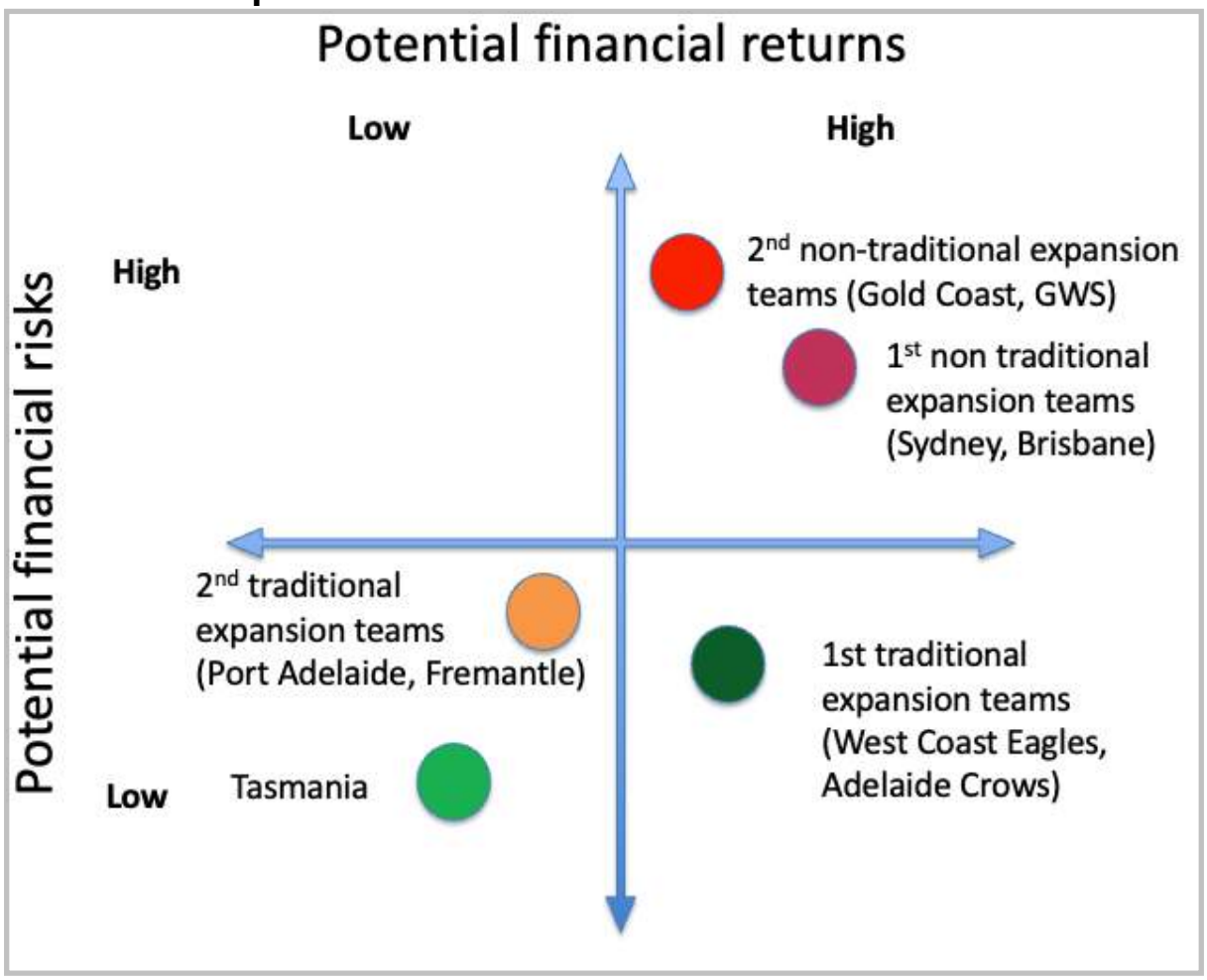


Source: Gemba Review, 2019. Tasmania AFL Taskforce, September.

The contrast with teams in putative AFL growth markets is evident. In 2023, after more than a decade in the competition, GWS and the Gold Coast Suns memberships stood at 33,036 and 23,359 respectively substantially below the 2019 midpoint estimates of The Gemba Group. On the other hand because Tasmania is a small state, Tasmania does not offer the upside that expansion clubs have offered — even if AFL experience has shown it is a long, hard and uncertain grind to realise that promise.

Figure 2 offers an indicative illustration of the relationship between financial risk and reward for different expansion teams.

Figure 2: Potential financial risks and rewards for different expansion teams



Source: Lateral Economics. Positions on the chart are indicative only.

It is precisely for this reason that — providing the AFL's core interests are met — Tasmania should be given more freedom regarding where, when and how to invest in an additional stadium. As Colin Carter put it:

> Tasmania is deserving of a team to represent the state on historic and fairness grounds and most economic arguments can be overcome as long as Government funding is secured.

This recognition of Tasmania's unique position should have guided the proper identification of both Tasmania's and the AFL's legitimate interests in relation to the establishment of a Tasmanian team, and in turn the principles on which

the Club Funding and Development Agreement between them should have been founded.

Instead, the agreement negotiated between the AFL and the Tasmanian Government imposes prescriptive requirements around stadium specifications, location and timing that would be more appropriate for a high risk expansion team from a non-traditional AFL state. The approach embodied in the agreement fails to recognise both Tasmania's demonstrated existing support base and the interest both parties have in investing in an AFL team in a manner which optimises overall community benefits.

There is a mismatch between the AFL's own interests and the terms of the agreement

The AFL's core interests in a Tasmanian team include:

- that Tasmania be a competitive team, and not be seen as a failure either on the field or financially if the latter involves endless excessive subsidies from the AFL; and
- that Tasmania's home ground(s) be safe to play on, reasonably easily accessed by players and interstate visitors and generate high-quality broadcasting feeds.

These interests can be protected through direct financial metrics — with ongoing subsidies from the Tasmanian government where financial performance falls below required metrics — and basic facility standards.

Instead, the agreement negotiated imposes terms that bear only indirectly on the AFL's core interests. These include:

- The stadium location at Macquarie Point.
- Specific design requirements including a roof and seating capacity.
- The speed with which the stadium and the high-performance centre must be planned and built.

Creating unnecessary risks

This prescriptive approach paradoxically creates new, unnecessary risks for both parties:

- By rushing development timeframes and mandating specific configurations, the agreement increases the likelihood of poor financial and reputational outcomes that could compromise the team's long-term success. These risks are discussed below.
- The overspecified requirements prevent Tasmania from optimising the project within broader urban planning and community consultation frameworks, damaging best outcomes and community support.
- The AFL risks its social license in one of its heartland states by being seen as high-handed rather than an equal and enthusiastic partner with Tasmanians.

Nothing succeeds like success

In fact the Tasmanian community and the Tasmanian Government share the AFL's core interest in having a successful, competitive and financially viable team. And it is as that success is generated that many of the anxieties that have driven the agreement are best addressed. For instance, as Colin Carter observed in 2021:

> If the club is successful, the 'retention' argument fades because the evidence is that players will stay at a good club. … Some argue that Tasmania will be an unattractive destination for players and staff because Hobart is small and cold! However, the evidence in other codes as well as our own is that well-functioning clubs will attract and retain athletes regardless of the climate or how small is the town. And

> ironically, retention issues in the AFL have been most pressing in locations where climate and lifestyle are said to be attractive.[4]

As we cite him below, Carter made similar comments about states' desire for good facilities to support their teams. The more one believes that the Tasmanian community and its Government wish the team to succeed and will do what is necessary to make this happen, the less the AFL needs to force its hand in the way it has. Providing the Government is committed to success, which seems very clear, Tasmania should have wide latitude to determine what infrastructure is required for success. The pity of this situation is that in the expansiveness of its demands, the AFL risks undermining the Tasmanian community's support for the process.

Insistence on a particular configuration of assets can be described as micro-managing, (and it is the reason many who are keen for Tasmania to have its own team have described the AFL's stance as "bullying"). To the extent that such assets are indeed necessary for the Tasmanian team's success, the extent to which the state has already been prepared to invest demonstrates that Tasmania will make the necessary investments.

Representing the people of Tasmania, the Tasmanian Government's legitimate interests lie in optimising the opportunities for Tasmania in having a Tasmanian team in the AFL including:

- optimising the net benefit to Tasmanian in economic, social and environmental amenity terms; and
- doing so within a wider context of developing Tasmania in sympathy with community-supported principles and urban plans and in that context, consulting widely and comprehensively to give the community and its various interests the time to surface facts and ideas that should be considered, to express their views and arrive at the best compromises

[4] Colin Carter, 2021. A licence for a Tasmanian team? A Report to the AFL Commission, July, https://footyindustry.com/docs/Carter_Review_Tasmania_Licence_2021.pdf, pp 5, 17.

that can be made and, as a result of all this, to feel heard and part of the process of contributing to Tasmania's success.

That logic should place the decision on when to build a stadium and at what specification with Tasmania.

Protecting the AFL's interests directly

The AFL's core interests could have been more directly protected — without creating the risks to the AFL's social license that have now been created — by:

- Focusing agreement terms on team viability metrics and direct financial subsidies rather than prescriptive infrastructure requirements;
- Allowing Tasmania to determine optimal timing and specifications for facilities based on proper community consultation and planning; and
- Converting specific requirements into performance-based standards that preserve flexibility in how objectives are met.

A reset based on these principles and Tasmania's status as football heartland would better serve the shared goal of a successful Tasmanian AFL team with strong community support.

However given the unlikelihood of starting again from these preferred principles, and with the current timetable increasing the risk the project will become a disaster, it is in the interests of both the AFL and the Tasmanian people to extend substantially the period Tasmania is given to locate and build the stadium.

The penalties built into the existing AFL agreement for delivering the stadium late are modest and by far preferable to rushing into a disaster, but it is to be hoped that the AFL would waive these fees as a gesture of goodwill.

2. Planning, delivery and stakeholders

Finding 2: *The agreement sets an unrealistic timeline for the project. This is particularly the case for the first two stages of the process — project definition (particularly site selection) and full design specification. Yet taking the time to get these two stages right is the ultimate precondition for minimising the risk of cost-overruns and efficiently delivering the costly construction stage of the project.*

The siting of a major stadium is one of the most complex and transformative decisions a city can undertake. Not only does it redefine the physical landscape, it also significantly influences the social, economic, and environmental aspects of urban life. A well-planned stadium has the potential to become an iconic landmark that fosters community identity and catalyses urban development, while a poorly integrated facility can unnecessarily divide the community and burden public infrastructure and the surrounding neighborhood for decades into the future.

For these reasons it is a difficult thing for leaders to get right. Yet Australia is home to a number of stadiums of which their host cities are deservedly proud. This includes the capital cities of each of the traditional AFL mainland states. In each case the leaders involved took difficult decisions, including balancing the needs of different sporting codes and clubs and managing the inevitable objections of those who would prefer the investment to be made in someone else's backyard. As a consequence, Australia's most successful stadiums — particularly Optus Stadium in Perth, Adelaide Oval and the MCG — provide some of the best experiences for mass audiences anywhere and have been quick and efficient in their embrace of new technologies to enhance those experiences. In other English speaking countries with whom we compare ourselves there is often fragmentation between stadiums and codes. This

depresses investment in stadiums and so the fan experience, which then depresses attendance and so on.

From an urban planning perspective, major stadiums are what planners refer to as "high-impact nodes." These nodes are not merely functional buildings but rather key hubs that can alter the flow of people, goods, and capital within a city. Such interdependencies mean that the stadium's location must carefully consider accessibility, existing and alternative land uses, patterns of economic activity and the needs of urban communities. For instance, research on the economic and urban form impacts of stadiums shows that their success often hinges on integration with comprehensive urban redevelopment strategies.[5] These factors interact in intricate ways, making it crucial that all relevant stakeholders, from local businesses to residential communities, are consulted to understand the views of different members of the community, to test the strength of those views and to minimise the extent to which important perspectives and information is overlooked.

But siting a new stadium is usually a fraught business. Even where the wider community is supportive of a new stadium siting it is often subject to strong NIMBY tendencies. As Ahlfeldt and Maennig put it:

> The typical attitude of the residents runs along the lines of 'A stadium? OK, but not in my backyard!'. This attitude was impressively revealed in the 2001 referendum on location and subsidies for the Munich Allianz Arena, where the share of yes votes near to the projected site was almost 50% lower than the average for Munich.… In the case of Prince George's County, Maryland and its FedEx Field (the home of the Redskins) … only at the fourth serious attempt, after countless sites had been assessed and 8 years had passed, could a site be found, and even

[5] Buckman, S., & Mack, E. (2012). The impact of urban form on downtown stadium redevelopment projects: a comparative analysis of Phoenix and Denver. Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 5, 1 - 22. https://doi.org/10.1080/17549175.2012.659071.

then construction was pushed through against the wishes of the inhabitants.[6]

Community engagement is therefore not a mere formality but a central component of the siting process. Each stakeholder — from neighborhood residents and small businesses to environmental groups and transport authorities — has a distinct perspective on what a new stadium will mean for their quality of life. Participatory planning, as advocated by experts in urban governance, suggests that community input should be sought early and continuously throughout the project to foster a shared vision and minimise potential conflicts.[7]

This aligns with best practices in urban governance, which emphasise transparency, inclusivity, and shared decision-making in projects with long-lasting public impact. Only by engaging deeply with the various interdependencies of urban life—and by ensuring that all voices within the community are heard—can such a project truly become a source of pride and benefit for the entire city.

Haste and cost overruns

Perhaps the world's foremost authority on infrastructure cost overruns is the Danish academic Bent Flyvbjerg.[8] He manages a database of mega projects that now contains more than 16,000 projects from 20-plus different fields in 136 countries on all continents except Antarctica, and continues to grow. Only 8.5 per cent of projects in that sample have been on time and on budget, though that falls to 0.5 per cent of projects that deliver all the benefits they

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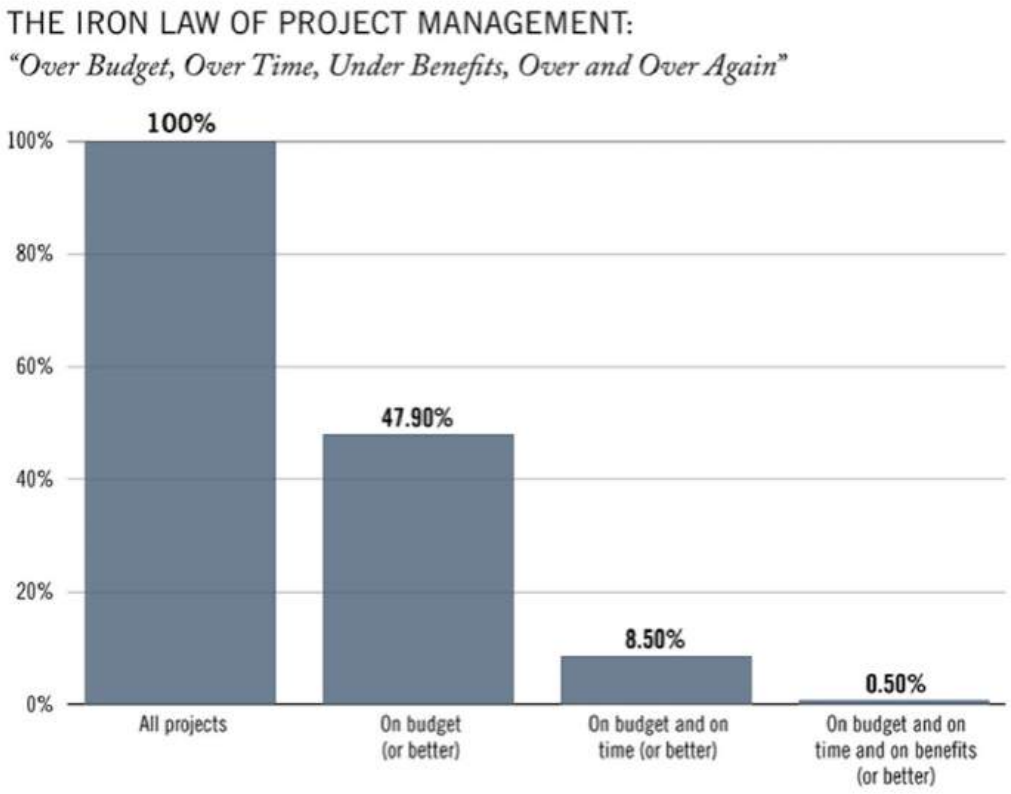
[6] Ahlfeldt, G., & Maennig, W. (2010). Stadium Architecture and Urban Development from the Perspective of Urban Economics.. International Journal of Urban and Regional Research, 34, 629-646. https://doi.org/10.1111/J.1468-2427.2010.00908.X.

[7] Healey, P. (1997). Collaborative Planning: Shaping Places in Fragmented Societies. Macmillan Press.

[8] See eg. Flyvbjerg, B. and Gardner, D., 2023. How big things get done: The surprising factors that determine the fate of every project, from home renovations to space exploration and everything in between. Signal.

were intended to deliver at the outset — often because they are scaled back to meet time or budget constraints (See Figure 3).

Figure 3: The Iron Law of Project Management



Source: Bent Flyvbjerg and Dan Gardner, How big things get done.

Making haste slowly

Flyvbjerg sees the delivery of major projects as having two distinct phases: planning and execution. Deliberate preparation comes first, followed by implementation. Flyvbjerg extends his vision to projects well outside the production of physical structures or manufactures. The critical point is that the planning phase is low-cost and, so, low-risk. Time taken to get things right at this stage is generally handsomely rewarded by saving time, money and mishaps in delivery.

Execution, by contrast, is where the stakes rise dramatically. In this phase, significant resources are committed, and the risks of delay or failure increase.

Planning is a secure harbor where ideas can be explored and refined with modest financial exposure. Execution, by contrast, is akin to venturing into unpredictable, stormy seas. As Flyvbjerg puts it, the key to delivering complex projects lies in this simple mantra: Think slow, act fast.

Box 1: The need for speed

How do we get a project done as quickly as possible? The obvious answer — and certainly the most common one — is to set severe timelines, get started right away, and demand that everyone involved work at a furious pace. Drive and ambition are key, goes the conventional wisdom. If experienced observers think a project will take two years, say you will do it in one. Commit to the project, heart and soul, and charge ahead. And in managing others, be fierce. Demand that everything be done yesterday. Like the drummer on a Roman galley preparing to ram a ship, beat the drum at a furious pace.

This thinking is as misguided as it is common. There is a monument to it in Copenhagen.

The Copenhagen Opera House, the home of the Royal Danish Opera, was the vision of Arnold Maersk Mc-Kinney Møller, the CEO and chairman of Maersk, the Danish shipping giant. In the late 1990s, Møller, who was then in his late eighties, decided he wanted a grand building situated prominently at the harborside as his very visible and permanent legacy. And he wanted it designed and built quickly. The queen of Denmark would attend the opening, and Møller had no intention of missing his big night. When Møller asked the architect, Henning Larsen, how long it would take, Larsen said five years. "You'll get four!" Møller curtly responded.[25] With much beating of galley drums, the deadline was met, and Møller and the queen opened the opera house together on January 15, 2005.

But the cost of that haste was terrible, and not only in terms of cost overruns. Larsen was so appalled by the completed building that he wrote a whole book to clear his reputation and explain the confused structure, which he called a "mausoleum."

Source: Bent Flyvbjerg and Dan Gardner, How big things get done.

Learning from history

There are great success stories of new or re-developed stadiums making transformative contributions to city life and in doing so contributing to community pride. For example I found near uniform admiration of the Adelaide Oval redevelopment. Though it was arguably delivered somewhat over budget, it has enhanced spectator experiences and substantially increased attendances.[9] It has also successfully pioneered for Australia the integration of a stadium with a high end hotel and stimulated nearby hospitality businesses. Accessed via a brief scenic walk from the city, over the river and adjacent to a park, it contributes to Adelaide's sense of space and vibrancy.

However, the main potential 'brownfields' sites to redevelop in Hobart have been ruled out — namely Bellerive (now Ninja) Stadium, Tasmanian Cricket Association Ground and North Hobart Oval. Accordingly, the redevelopment of Adelaide Oval offers fewer lessons for Hobart than two major 'greenfields' stadiums in recent history — Optus Stadium in Perth and Docklands Stadium (currently Marvel Stadium) in Melbourne.

The Journey to Optus Stadium: Haste made slowly

Discussions about a new major stadium in Western Australia began in the mid-2000s, driven by the need to replace the aging Subiaco Oval as a home for the AFL. These discussions gained momentum with the establishment of a Major Stadia Taskforce in 2004 to evaluate the need for a new stadium and potential sites.

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[9] While the economic literature suggests that, at least in general, new stadiums do not generate large economic spillover benefits, they do tend to increase local attendances. As Jakar observes:

> The construction of new stadiums for professional sports teams is often associated with an increase in attendance at the facility: the so-called Honeymoon Effect. Drawing on a sample of English professional soccer clubs between 1997-2016, we find no tendency for the Honeymoon Effect to disappear, even 18 years after a stadium is built.

See Jakar, G.S., 2020. Private and Public Sports Venue Development Dilemmas: Economic Geography, Sport Venue Development, and Public Finance (Doctoral dissertation).

The Taskforce's final report, The Stadium and the City[10], published in June 2007, found the existing venues in Perth could not compete with those in the eastern states in terms of size and facilities.

It recommended that the state government develop within the next four to eight years a 60,000-seat multi-use outdoor stadium incorporating a reconfigurable lower tier of seating to allow the field to be configured for oval and rectangular sports.

It examined six locations: the East Perth power station, Kitchener Park, Burswood Peninsula, and upgrades to the Members Equity Stadium, the WACA and Subiaco Oval itself.

It found both the East Perth and Burswood Peninsula sites provided outstanding opportunities for the development of a landmark stadium which had the potential to greatly enhance the national and international reputation of the city of Perth, but that the Burswood site came at a large cost – mainly due to the significant upgrade in transport infrastructure required and the costs of building on reclaimed land as the site previously used as an industrial waste dump.

It estimated the cost of the Burswood site including car parking and transport infrastructure and cost escalation at $1.147 billion.

Site selection and planning

In June 2011, Premier Colin Barnett announced that the new stadium would be built on the Burswood Peninsula and scheduled for completion in 2018.[11]

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[10] Perth Stadium Feasibility Report, The Stadium and the City, May 2007, accessed from Wayback: https://web.archive.org/web/20080723044539/http://www.majorstadiataskforce.com.au/getfile.aspx?Type=document&ID=825&ObjectType=3&ObjectID=215

[11] Colin Barnett media release, Major new stadium to be built on Burswood Peninsula, 28 June, 2011 https://www.wa.gov.au/government/media-statements/Barnett%20Liberal%20National%20Government/Major-new-stadium-to-be-built-on-Burswood-Peninsula-20110628

The announcement followed an analysis led by the then Department of Sport and Recreation and Strategic Projects that has not been made public, and a later special inquiry found existed solely "within a Cabinet submission for the approval of the stadium site".

Stating that the final cost would be determined after the design process had been completed, the Premier said that the indicative cost for the stadium itself was approximately $700 million, excluding costs associated with upgrades to transport infrastructure which were to be about $300 million, making it a "$1 billion project".[12]

In September 2012 the government released a Project Definition Plan in order to confirm the parameters of the project, including the brief, the budget, the schedule by which key milestones should be achieved, key design elements (although not the final design), the procurement strategy and the project's governance.[13]

The 2018 special inquiry into WA government programs and projects found that, at about that time (in 2012, one year after the Premier's announcement) the budget to construct the stadium had climbed to $918.4 million, which along with the transport infrastructure costs of $358.6 million, increased the total projected cost to $1.28 billion.[14]

Delivery

Work to prepare the site began in May 2013. Westadium (a consortium comprising Brookfield Multiplex, John Laing and Brookfield Johnson) was

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[12] WA Government. Special Inquiry into Government Programs and Projects Final Report Volume 2, February 2018 https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4011151a84d314a2dbd75d1e4825823d0009ccfe/$file/1151.pdf

[13] WA Government, The new Perth Stadium Project Definition Plan, September 2012 https://www.parliament.wa.gov.au/intranet/libpages.nsf/WebFiles/Perth+Stadium+Project+Plan/$FILE/Perth+Stadium+Project+Plan.pdf

[14] WA Government. Special Inquiry into Government Programs and Projects Final Report Volume 2, February 2018 https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4011151a84d314a2dbd75d1e4825823d0009ccfe/$file/1151.pdf

chosen as the stadium, plaza and sports precinct project contractor in April 2014. Westadium commenced construction in December 2014 under a design, build, finance and maintain arrangement, a form of public-private partnership.[15] Westadium was responsible for the construction of the stadium and sports precinct, financing 40 per cent of the project capital cost; and certain aspects of facilities management for 25 years once the stadium was operating under a contract with a net present cost of $1.212 billion over 28 years.[16]

Westadium was to:

> maintain and refurbish the Stadium and Sports Precinct during the 25-year Operating Phase as necessary to ensure it continues to meet the fit for purpose warranty, including at hand-back to the State after 25 years, in such a condition that no major maintenance or refurbishment work will be required for a further period of five years after hand-back.

A report prepared for the state government by PricewaterhouseCoopers in June 2013 found that, were the state government to deliver and maintain the stadium itself, the risk-adjusted net present cost would have been $1.54 billion over 28 years.[17]

The 2018 inquiry commended the adoption of the "fan first" objective which informed the decision-making for most aspects of the project and also the " one-team" approach whereby both the state government and Westadium project teams were co-located on-site from an early stage. From the pouring

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[15] WA Government. Special Inquiry into Government Programs and Projects Final Report Volume 2, February 2018 https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4011151a84d314a2dbd75d1e4825823d0009ccfe/$file/1151.pdf

[16] Department of Treasury (Strategic Projects and Asset Sales), Perth Stadium Project Summary – Addendum Annual Payments to Westadium: https://www.wa.gov.au/system/files/2020-01/new-perth-stadium-addendum-to-project-summary-annual-payments-to-westadium.pdf

[17] WA Government. Special Inquiry into Government Programs and Projects Final Report Volume 2, February 2018 https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4011151a84d314a2dbd75d1e4825823d0009ccfe/$file/1151.pdf

of the first concrete slab in mid-2015 to the installation of the facade and seats in 2016 to the laying of grass in mid-2017, the entire build took less than three years.[18]

The stadium was opened to the public on 21 January 2018, two months ahead of the originally projected completion date of March 2018.

Assessment

The special inquiry reported that by October 2017, the cost of building the stadium had climbed to $955.4 million and the cost of the associated transport and pedestrian infrastructure had climbed to $418.2 million, producing a total construction cost of $1.37 billion, 7% more than the cost estimated in 2012 and about 37% more than the "$1 billion project" promised by the Premier in 2011.[19]

The government would also be up for maintenance costs of $447 million, being the ongoing maintenance costs beyond the first 25 years which were to be paid by Westadium.

The special inquiry found the key to the project's success in being delivered on time and as envisioned was the twelve-month planning period which fed into the project definition plan. It said the Perth Stadium project "should become a case study in how this process must be undertaken".

The benefits included minimal design and scope variations in the construction phase and a budget outcome that was close to the target announced with the project definition plan.[20]

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[18] Optus Stadium construction fact sheet https://optusstadium.com.au/the-stadium/fact-sheets/construction-fact-sheet

[19] WA Government. Special Inquiry into Government Programs and Projects Final Report Volume 2, February 2018 https://www.parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/4011151a84d314a2dbd75d1e4825823d0009ccfe/$file/1151.pdf

[20] WA Government. Special Inquiry into Government Programs and Projects Final Report Volume 1, February 2018 https://apo.org.au/sites/default/files/resource-files/2018-02/apo-nid135381_11.pdf

Docklands stadium

The development of Melbourne's Docklands stadium (now Marvel Stadium) provides an insight into the ways in which what seem like good ideas may not work out.

First proposed in the early 1990s as a replacement for Waverley Park for AFL games, the stadium was to be built and operated by a private consortium led by the Seven Network with initial partners Baulderstone Hornibrook, Merril Lynch, Westpac and News Limited.

While the Victorian government did not directly finance the stadium, it provided the land on which it was built and spent about $71 million upgrading transport infrastructure including the LaTrobe and Bourke Street bridges. Like much land that has been redeveloped in waterfront locations in Australia's capital cities, the site was largely underutilised but extremely promising for alternative use, not least residential and office use.

With the government funded infrastructure upgrades the site offered good access to existing public transport and road access, as well as significant space for car parking.

The stadium was estimated to cost $385 million when announced in 1997. By the time it was completed in March 2000 it had cost $450 million, an increase of 17%.[21] The AFL contributed $30 million in 1997 and obtained an option to buy the stadium from the owner after 25 years for a nominal fee of just $30.

From the moment it opened there were problems with the turf and the retractable roof, exacerbated by the unusual orientation of the stadium which is closer to north-south than the more common east-west.

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[21] Docklands Stadium (Marvel), Sports Industry AU, accessed 25 November 2024 https://www.footyindustry.com/stadiums/docklands/

The north-south orientation and the compactness of the design mean that parts of the northern end of the field receive very limited exposure to direct sunlight during the year.[22] This has led to uneven grass cover and poor durability, leading to frequent replacement of damaged sections and the use of synthetic turf around the perimeter.

During 2000, a St Kilda Hawthorn match was moved from the stadium because the turf was deemed a workplace hazard.[23] In 2015, then Fremantle coach Ross Lyon described the surface as "dangerous" saying "the left-hand side is as dry as a chip, the other side people are slipping and sliding and slipping over like sprinklers have been on an hour before the game".[24]

The retractable roof, a selling point when the project was announced in 1997, has proved difficult to operate. Occupational health and safety rules prevent it

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[22] Docklands Stadium, aflfandom.com https://afl.fandom.com/wiki/Docklands_Stadium

[23] We're in trouble': 20 years ago on a hot chaotic night, the AFL changed forever at 'Colonial Stadium' Tom Morris, Fox Sports 9 March 2020 https://www.foxsports.com.au/afl/were-in-trouble-20-years-ago-on-a-hot-chaotic-night-the-afl-changed-forever-at-colonial-stadium/news-story/94cd171517c501b2f248bd8fb0fe18f6

[24] Etihad Stadium surface 'quite dangerous' says Ross Lyon after win over Dogs, Jason Phelan, AAP 17 May 2015. https://www.afl.com.au/news/202412/etihad-stadium-surface-dangerous-says-freo-coach-ross-lyon-after-win-over-bulldogs. Former Brisbane Lions footballer Michael Close took legal action against the stadium, the AFL and his former club in 2018 over a career-ending knee injury sustained when his foot slid from the grass onto the synthetic turf surrounding the boundary. He settled for an undisclosed sum the following year. See — Close case set to present a legal headache for the AFL, Liam Elphick, The Conversation, March 1, 2018 https://theconversation.com/close-case-set-to-present-a-legal-headache-for-the-afl-92418 and Former Brisbane Lion settles legal claim over knee injury, Peter Ryan, 6 April 2019 https://www.theage.com.au/sport/afl/former-brisbane-lion-settles-legal-claim-over-knee-injury-20190405-p51bbq.html. At various times the surface has been described as a "patchwork quilt", "absolutely putrid", "like a carpark", "like a cake of soap", "laughable", and a "fiasco". We're in trouble': 20 years ago on a hot chaotic night, the AFL changed forever at 'Colonial Stadium' Tom Morris, Fox Sports 9 March 2020; 'Treated with contempt': 'Disappointed' Ross hits out at call to leave Marvel Stadium roof open overnight, Fox Sports, 21 July 2023 https://www.foxsports.com.au/afl/teams/st-kilda-saints/afl-2023-ross-lyon-criticises-decision-to-leave-marvel-stadium-roof-open-condition-of-the-ground-postmatch-press-conference-video-st-kilda-saints-v-north-melbourne-kangaroos/news-story/c99f23a68dd9f0da9f142d3f2aa0256a 'Absolutely putrid': Why the AFL world is fuming over this photo, Yahoo Sport Australia, 7 July 2019 https://au.sports.yahoo.com/absolutely-putrid-afl-world-fuming-photo-062318190.html

being closed while people are inside the stadium meaning it has to remain open during unexpected storms.[25]

But shutting the roof harms the turf by reducing sunlight and airflow. To overcome this in 2007 the stadium installed an elaborate lighting and heating system to help the grass grow all year round.[26]

In March 2016 Collingwood president Eddie McGuire pushed for the stadium to be demolished and replaced with investment near the MCG.[27] Instead, in October 2016 the AFL bought the stadium from its owners for $200 million nine years before it was due to pass to it for free in order to improve the financial deal for clubs that use it and to make savings by amalgamating back-office functions such as marketing, ticketing, human resources and event management.[28]

Two years later the AFL persuaded the Victorian government to fund a $225 million redevelopment including new and upgraded internal spaces, bars and restaurants and a new "town square" capable of hosting public events.[29] The taxpayer-funded redevelopment of the Docklands stadium opened in March 2024.[30] The AFL's ownership of the stadium coincides with a dramatic rise in

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[25] Docklands Stadium (Marvel), Sports Industry AU, accessed 25 November 2024 https://www.footyindustry.com/stadiums/docklands/

[26] Docklands Stadium (Marvel), Sports Industry AU, accessed 25 November 2024 https://www.footyindustry.com/stadiums/docklands/

[27] Melbourne's Etihad Stadium should be demolished, says Eddie McGuire, AAP, 9 March 2015 https://www.theguardian.com/sport/2016/mar/09/melbournes-etihad-stadium-should-be-demolished-says-eddie-maguire Eddie McGuire's plan to sell Docklands, build new stadium would 'plunder' parkland, expert says, ABC News, 9 March 2006 https://www.abc.net.au/news/2016-03-09/dump-docklands-stadium-build-a-new-one-eddie-mcguire-tells-afl/7232038

[28] AFL agrees to purchase Etihad Stadium, Michael Gleeson, The Age, 7 October 2016 https://www.theage.com.au/sport/afl/afl-agrees-to-purchase-etihad-stadium-20161007-grx220.html

[29] $225m Marvel Stadium redevelopment plans revealed, Cameron Voss, 29 November 2020 https://www.austadiums.com/news/859/225m-marvel-stadium-redevelopment-plans-revealed

[30] Marvel Stadium redevelopment officially opens, Austadiums, 23 March 2024 https://www.austadiums.com/news/1373/marvel-stadium-redevelopment-officially-opens

the number of concerts it hosts, rising this year to 15 from around one or two a year two years ago.

Involving the public

One of the consequences of the hastiness and lack of consultation with which the process has been conducted so far has been that the Tasmanian community is now divided. By its very nature, in such circumstances the adversarialism of electoral politics is likely to exacerbate these divisions. Electoral competition translates the preferences of large populations into decisive outcomes, but it does so at a cost. To win the competition, each political party must ‘cut through’ in their communications to have their views heard by voters who may not be able to give complex matters much attention. In such circumstances different sides of the debate generally seek to caricature the views of those who disagree with them. A simple reading of Hansard shows this process well under way in Tasmania on the matter of the stadium.

While there are various mechanisms available for meaningful community consultation - from citizens' juries to deliberative polling to community reference groups - the key is that they allow time for participants to properly understand complex issues and trade-offs, hear different perspectives, and work toward solutions that balance competing interests. The contrast between this kind of genuine engagement and the current "announce and defend" approach is striking, particularly given the stadium's long-term significance for Hobart's development.

3. The site selection report: a flawed foundation

Finding 3: *The site selection process for the Hobart stadium was flawed by its failure to prioritise community consultation, properly account for opportunity costs, and address critical urban planning trade-offs. This has likely led to the wrong site being selected.*

A stadium large enough to host Australian rules football and cricket, will redefine the physical landscape on which it sits. It will have powerful social, economic, and environmental impacts not just in the immediate neighbourhood in which it is located, but much more widely. It must integrate with or be integrated with transport infrastructure, and its visual impact is likely to dominate its immediate environs and even the view from many kilometres away. Such facilities shape not just their immediate surroundings but the broader urban fabric. Given this, it is not surprising that proposals to build stadiums often provoke strong community reactions — both for and against. That has been so in this case.

In such circumstances, finding an appropriate site for a new stadium is a complex undertaking. It might begin with consultancy studies, but should also involve substantial consultation to understand community values, concerns and the 'red lines' or non-negotiable parameters of important stakeholders. Unfortunately in this case, it appears that the Macquarie/Regatta point site emerged early in the considerations as a site that would meet the needs of the two most important players — the Government and the AFL.

As my discussions with the AFL revealed, from the AFL's perspective, Macquarie Point was an excellent site given its proximity to the city. It was also clear the AFL did not deliberate on how the decision to locate the stadium at Macquarie Point might affect other stakeholders. In a sense it was

reasonable to assume that taking these things into account was more the job of the State Government. From this point on, the process does not appear to have been very open. Key groups were consulted, as one would expect, but with the location decision effectively having been made, consultation could only really be about any matters that might be addressed by varying the stadium design.

This represents a fundamental misconception of what selecting a site for major urban infrastructure requires. Rather than recognising site selection as a complex process requiring deep community engagement and careful consideration of long-term urban planning implications, it was conducted as a simplified technical exercise. Rather than ‘consult and deliberate’ over the selection of the site, the Government chose an "announce and defend" strategy. As is being demonstrated, such a choice involves high risks, financially and reputationally. The contrast with Optus Stadium in Perth is instructive. There, the Major Stadia Taskforce spent considerable time consulting with the community before proposing a shortlist of proposals to Government in June 2007. The Government announced its decision a full three years later in June 2011 though I am not suggesting it need take quite as long as that. I discussed the project with the chair of the Major Stadia Taskforce, John Langoulant who echoed the points highlighted above by Bent Flyvbjerg, namely the critical role of preparation and planning in delivering a successful project. Community consultation was extensive as was the architectural and engineering work on planning of the stadium itself.

If one's sole objective was to find a stadium that would meet the AFL's needs, the site chosen demonstrably did that, (especially given that parties other than the AFL would meet the construction risk). But this reasoning is profoundly incomplete for a simple reason. Prime waterfront land is very scarce. No other Australian capital city has such land. As such, it is exceptionally valuable — whether it is used for commercial or for public purposes. Thus, whatever the

accounting cost of using the land for the stadium, doing so imposes an additional cost. The site cannot be used for other purposes.

This is the concept referred to by economists as ‘opportunity cost’ and in this case it is large. Yet, despite its being raised several times in Parliamentary Accounts Committee hearings, opportunity cost has been more or less completely absent from the official processes and analyses by which the site was originally selected and subsequently justified.[31]

MCS Management Consulting and Philp Lighton Architects conducted a site selection process and reported in February 2022. However, it was surprisingly cursory as the principal document supporting such a decision. Further, its methodology reveals flaws which are so fundamental that it should never have been proposed as a foundation for such a consequential decision.

First, the analysis attempted to reduce complex community values and impacts to simple numerical scores with predetermined linear weightings. The problem with doing so can be illustrated by reference to heritage. The extent to which siting the stadium might promote or damage heritage values might be fairly unimportant for most sites but hugely important for others. Yet 'heritage' is predetermined to count for 30 per cent of the 'Cultural' dimension which itself counts for only 20 per cent of the overall score.

This mechanical scoring approach fundamentally misunderstands how communities value their heritage and other critical aspects of urban life. Some impacts cannot simply be traded off against other factors through numerical scoring. Questions about the relative weight of heritage versus accessibility, or visual impact versus construction cost, should emerge from community consultation and deliberation.
Second, it is evident that the criteria were heavily skewed against the idea of opportunity cost. The analysis concludes that the Regatta and Macquarie

[31] See for instance the proceedings of 28 April and 31 March 2023.

point sites are advantaged by their having "limited *current* users" (my italics). This illustrates a failure to recognise that the relevant question is not how few people currently use the site, but what alternative uses might be precluded by placing a stadium there. No serious attempt was made to value the land in terms of its highest and best use, or to consider the public or private value of the development potential being foregone. The approach treated vacant or underutilised land as a positive rather than considering the opportunities such land represents.

Third, as demonstrated in my comments below on the criterion on "buildability" the ratings are qualitatively inconsistent and often arbitrary. Fourth, the methodology assumes smooth, linear relationships between impacts and scores, when there are threshold effects for many criteria or "red lines" that might be decisive for decision makers. By fixing in advance the relative importance of different factors, it preempts the very discussion that should be at the heart of the site selection process.

These are not merely academic points. As I illustrate below, the site selection report's methodology leads directly to profoundly counterintuitive results. Had methodology been better designed and conducted with greater care, it is likely it would have recommended a different site for the stadium. This problem is well illustrated by comparing the Site Selection Report's treatment of the criterion "Heritage" for two locations — the TCA Oval and Macquarie Point.

Consider the heritage impact of building the stadium by redeveloping the TCA ground. In some ways this represents the most prospective site for following the precedent set by the redevelopment of Adelaide Oval. It scores 1 out of a possible 5 (unacceptable) and generates the site 0 points out of a possible 6 points for the sub-criterion of "Heritage impacts". The report comment explaining this rating is "Impact on current buildings significant". The TCA ground has a small number of old buildings, but the deft handling of such

matters can often make a positive contribution to a development as in the case of the 1911 scoreboard at Adelaide Oval or the replication of aspects of the Members Stand at the MCG.

By contrast, Macquarie Point is rated at 4 out of a possible 5 points which translates into a score of 4.5 points of the available 6 against this comment "Limited however some due to Cenotaph". Yet siting the new stadium at Macquarie Point crosses a critical red line for veterans.

The failure to address the economic dimensions of site selection appropriately extends even to dimensions that can be regarded as more or less purely economic. Thus for instance 10 of the 100 points in the consultants' multi-criteria analysis are given for "Buildability". This is, presumably, a purely economic criterion. So it would be good to know how the buildability of the stadium would affect the total financial cost of building the stadium at the different sites. (This might then be combined with the financial cost of other matters that receive much higher weightings regarding "location". This counts for 40 of the 100 points.) Instead, the 10 points for buildability at the different sites are allocated according to their own mini multi-criteria analysis as set out in Table 1 below.

The result produces assessments that mystify rather than enlighten. Thus according to this methodology, the buildability of a stadium on Lower Domain Road rates just 2.5 points out of the available 10 for buildability. Yet Macquarie Point rates the full 10 out of 10. The site selection report thus glosses over the risks that the Macquarie Point site may require substantial geotechnical work on account of its riverfront location and its history as a prior site of both landfill and land reclamation. Against the criterion "Cost to develop (Civil works required — Complexity of site preparation on existing topography)" the site selection report notes "Minor works required" giving Macquarie Point the highest possible score 5/5 which is described as "exceptional". This scores Macquarie Point 3 of the available 3 points out of 100 for this sub-criterion. By

contrast Lower Domain Road is rated 0 out of 100 with the report noting "Major cut and fill required to prepare site". Yet what matters is simply the expected cost and risks of this work, compared with the costs and risks of the corresponding work at Macquarie Point.

Table 1: Buildability of the stadium in the site selection report

Item	Weight	Lower Domain Road		Macquarie Point	
		Rating (out of 5)	Points	Rating (out of 5)	Points
Cost to develop (civil works required)	30%	1	0	5	3
Cost to develop (minimising project costs)	10%	3	0.5	5	1
Opportunities for functional integration with nearby infrastructure	30%	3	1.5	5	3
Services capacity (existing availability and/or capacity of services)	30%	2	0.75	5	3
Total			**2.5**		**10**

Source: MCS Consulting and PhilpLighton: Architects: Hobart Stadium – Site Selection Process

Looking at these general inadequacies and the very large gap in scoring the sites in the domain compared with those on the waterfront, I find it hard to dismiss the prospect that the site selection process and the resulting report were designed more to validate a predetermined outcome than to conduct a genuine exploration of alternatives.

Indeed, what else could explain the fact that, having scored Macquarie Point slightly higher than Regatta Point in their own analysis, they nevertheless recommended the latter site on the following grounds?

> Macquarie Point has been touted for other uses and throughout our project we have gained an understanding that the chances of using this site are more or less non-existent.

Be that as it may, the methodology could not capture fundamental urban planning questions about how different sites might shape Hobart's future, and it bypassed rather than engaged with complex trade-offs and community values.

A genuine site selection process would have taken a very different path. It would have:

- Started with extensive community consultation to understand values and non-negotiable parameters;
- Engaged deeply with urban planning frameworks and future city visions;
- Considered each site's unique character and potential, and explored the best case that might be made for it as the site of the project rather than applying one-size-fits-all criteria;
- Recognised that some impacts cannot be traded off against others through simple scoring;
- Treated opportunity costs seriously, using appropriate economic and financial metrics to do so, especially for scarce inner-city land;
- Built community support through genuine engagement rather than justification after the event.

The inadequacies of the process are evident in the depth and breadth of community opposition to the chosen site.

4. The visual impact of the stadium

In May 2024 the Macquarie Point Development Corporation, through Cox Architecture, commissioned SLR Consulting to conduct "an objective analysis of the visual impacts of the stadium on the surrounding area".

The report was one of many sought by the Tasmanian Planning Commission to help it prepare its own integrated assessment of the proposed project.
The report considers the project's impact on:

- the landscape and townscape values and characteristics of the project site and broader area;
- spatial and physical use and enjoyment; and
- specific views in, to and out of the site, and the general visual amenity experienced by people and the likely significance of visual effects.[32]

In addition, SLR Consulting undertook to examine the bulk, height, scale of the stadium with regard to:

- the degree of visual change within the surrounding visual environment;
- whether this change has an adverse impact on the character of the area within the immediate local context of the site; and
- whether this visual change is acceptable for the location.

The report, delivered on 30 August 2024, included photos of views from locations including the Rosny Lookout, the Cenotaph Bridge, Brooker Avenue and the MONA ferry along with mockups of what the views would look like if the stadium was built.[33]

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[32] Tasmanian Planning Commission guidelines for the Macquarie Point Multipurpose Stadium project of State significance, 16 February 2024 https://planning.tas.gov.au/__data/assets/pdf_file/0010/750358/Final-Guidelines-Macquarie-Point-Stadium-16-February-2024.pdf

[33] Visual Impact Assessment Report of Macquarie Point Multipurpose Stadium for Macquarie Point Development Corporation, SLR Consulting, 30 August 2024 https://www.planning.tas.gov.au/__data/assets/pdf_file/0005/781313/Appendix-J-Visual-Impact-Assessment-Report-SLR-Consulting-30-August-2024.PDF

MONA FERRY

SLR Consulting found the stadium would have “a much larger and broader form than the existing CBD built forms that typically present as a collection of taller, narrower and more diverse elements”.

However, it said consideration should be given to the “iconic value” of the form and appearance of the stadium in that location.

It referred to what it said were “other iconic buildings such as the Sydney Opera House” that were intended to be noticed and located in highly visible and sensitive locations. Like the Opera House, the proposed stadium at Macquarie Point would come to “act as a focal point within its local setting”.

The report found that on balance the proposal met "the intended outcomes of the Sullivans Cove planning scheme, its amendments, and the guidelines for the Projects of State Significance".

The stadium's visual relationship with the nearby cenotaph erected to commemorate Tasmania's war dead has been of particular concern to the Returned and Services League. RSL Tasmania's chief executive officer John Hardy wrote to Premier Jeremy Rockliff in July 2024 saying "the very essence of the Cenotaph is its sight lines, to destroy these sight lines is to desecrate, humiliate and pay little more than lip service to our sacred place".[34]

The assessment accepted that there were several views where the stadium would impact the Cenotaph "whether it be through the direct obstruction of views or impacting the nature of views in which the Cenotaph is visible".

However, it said the development would create other views to the Cenotaph and opportunities for community interaction with it. Crowds entering the stadium would be able to clearly see the Cenotaph.

"Entering the site for a match or game with the backdrop of the Cenotaph could raise awareness of the two elements together," the assessment said. "The association of the stadium and the Cenotaph could reasonably be seen to strengthen the value and meaning of the local context rather than diminishing the relevance of the Cenotaph."

It is difficult if not impossible to be objective about such matters, however the report seemed to go to considerable lengths not to come to a conclusion as to whether the stadium would be consistent with existing planning rubrics and whether it would make a positive or negative impact on visual amenity. It

[34] RSL says it has been 'deceived and misled' about Macquarie Point stadium proposal by Tasmanian government, Josh Duggan, ABC Online 20 July 2024 https://www.abc.net.au/news/2024-07-20/tas-rsl-slams-stadium-plan-over-impact-on-cenotaph-sightlines/104117632

seemed reasonable to compare Macquarie Point with Bennelong Point, but comparing the stadium to the Sydney Opera House did not.

To get an insight into how a panel of urban design professionals would weigh up these conflicting considerations I conducted a survey of randomly selected Australian landscape and consulting architects. The survey asked for reactions to nine "before" and "after" photos in the report. It was not intended to generate a definitive snapshot of professional opinion, but it successfully shed light on broad professional reactions.

Three of the 20 respondents surveyed lived in Tasmania. The others lived interstate. Only four said they had a reasonable knowledge of the proposed stadium. The others had negligible or slight knowledge.

Participants were shown "before" and "after" views from the report and asked whether the visual impact of the change was

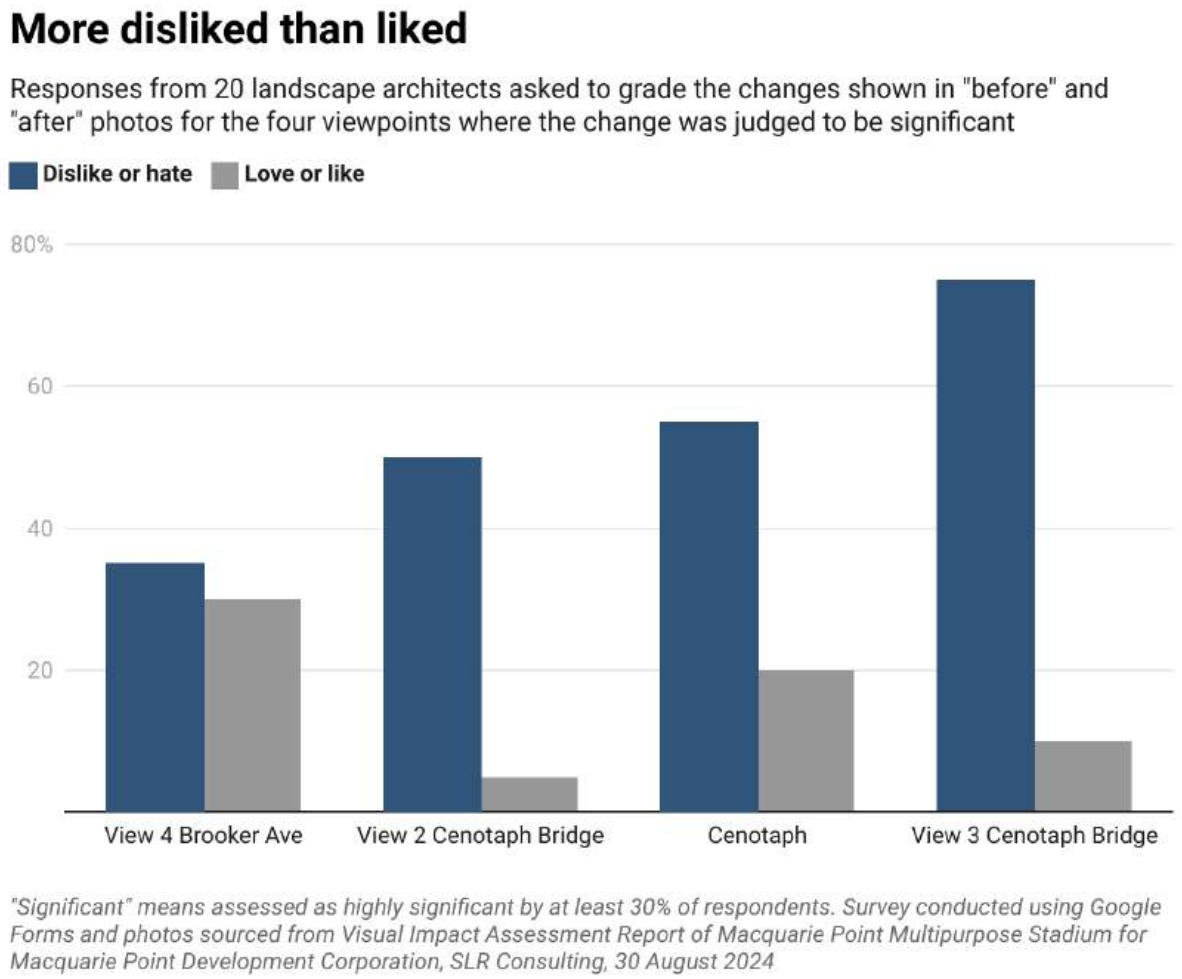
- highly significant
- fairly significant
- of little significance

Four of the before/after views were identified as highly significant by at least 30% of those who took part. These were changes for two views from the Cenotaph Bridge (regarded as highly significant by 65% and 30% of those who took part), the change in the closeup view of the Cenotaph itself (regarded as highly significant by 55%) and the change in the view from Brooker Avenue (regarded as highly significant by 45%).

Participants were asked to rate these changes on a five-point scale of responses ranging from "love" and "like" to "dislike" and hate".

For each of the four changes identified by a significant proportion of respondents as having a significant effect, more disliked or hated them than liked or loved them.

Figure 4: Survey responses to significant visual impacts



Source: SLR Consulting Australia, Visual Impact Assessment Report

For the closeup of the Cenotaph and the views from the Cenotaph Bridge, the differences were dramatic.

For the view the report labelled "View 2 Cenotaph Bridge" half of those surveyed said they disliked or hated the change compared to only 5% who said they liked it and none who said they loved it.

For "View 3 Cenotaph Bridge" three-quarters said they disliked or hated it compared to 10% who liked it and none who loved it.

Explanations described an “alien appearance”, a “disconnect between structure and context”, and that the image demonstrated “how ludicrous the proposal is”.

CENOTAPH BRIDGE

Only two of the 20 participants liked the change in view from the bridge. One said the stadium dome was consistent with the undulating landform. The other said it did not interfere with the cityscape and, if anything, “adds a visually contrasting element whilst not dominating it”.

For the closeup labelled “Cenotaph”, 55% said they disliked or hated the change compared to 20% who said they liked it and none who said they loved it.

CENOTAPH

Participants said the stadium “completely changes the outlook from the Cenotaph”, blocks “the view to the undulating horizon within the view of the memorial”, and “dominates" the cenotaph’s reflective space.

The one positive comment about the change in the closeup view of the Cenotaph was that the stadium “slightly frames the Cenotaph”.

For the view the report labelled “View 4 Brooker Avenue”, 35% of participants disliked or hated the change compared to 30% who liked or loved it.

Among the observations from participants who disliked it was that the stadium dominates the background and seems at odds with the scale and character of its surroundings. One said “Sullivans Cove has been protected for decades from development like this, and for the reason that the visual makes very clear”.

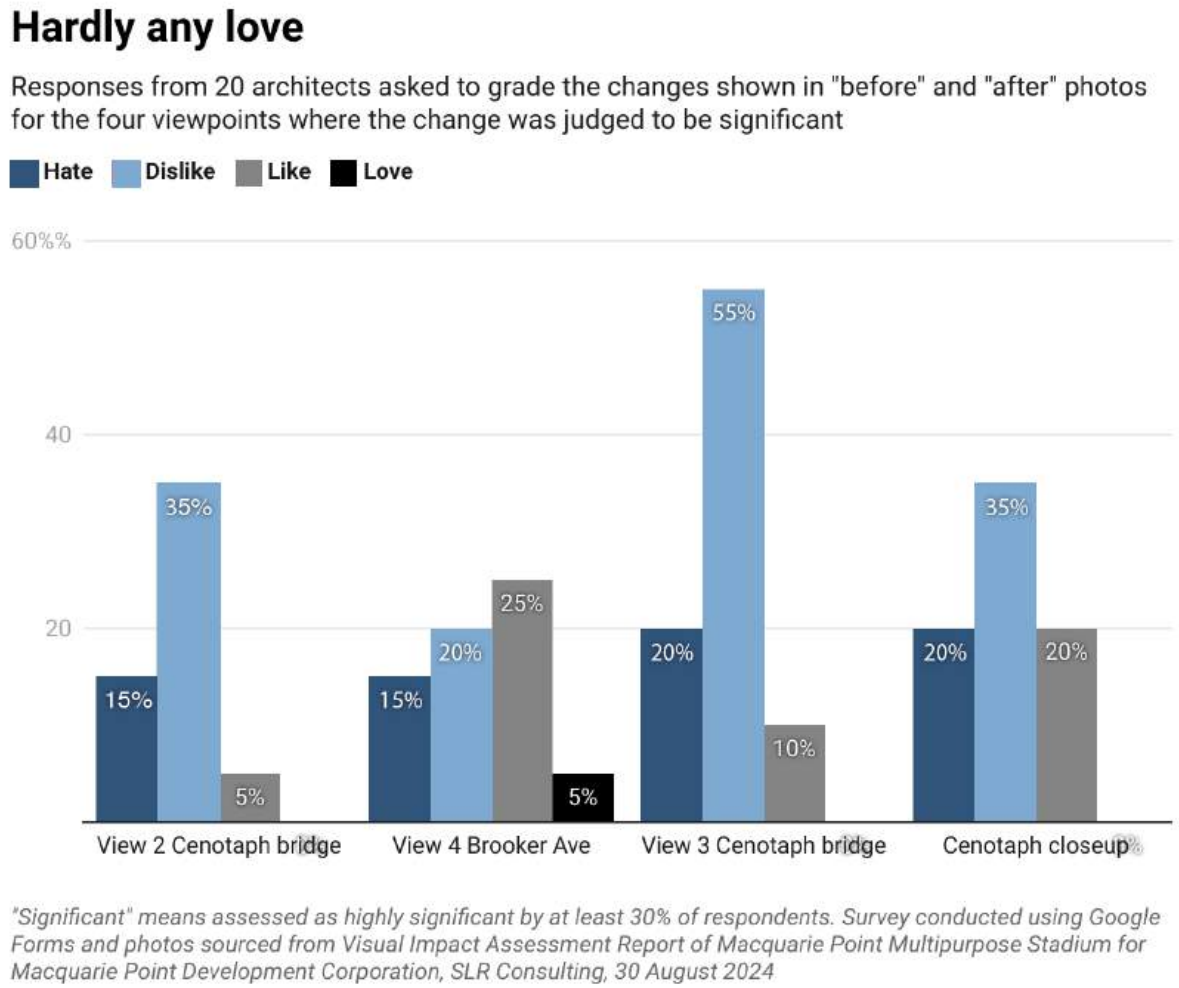
The only participant who loved the change said the stadium “looks like a cloud”.

BROOKER AVE

A striking feature of the responses to the four changes judged to be significant was the number of strongly felt responses in one direction ("hate") and near-complete absence of similarly strongly felt responses in the other direction ("love").

Only one of the respondents loved any of them.

Figure 5: Intensity of survey responses to significant visual impacts



"Significant" means assessed as highly significant by at least 30% of respondents. Survey conducted using Google Forms and photos sourced from Visual Impact Assessment Report of Macquarie Point Multipurpose Stadium for Macquarie Point Development Corporation, SLR Consulting, 30 August 2024

Source: SLR Consulting Australia, Visual Impact Assessment Report

For the four changes regarded as less significant[35], the number of respondents disliking or hating the change was roughly similar to the number liking or loving it.

Negative assessments included the observation that the proposed stadium looks like “an extremely large concrete water tank” and a “concrete structure that covers nuclear waste” and blocks the “exquisite, gentle and natural” colours of the faraway ridges. Positive assessments said the proposed stadium “adds to the skyline of Hobart”, “blends in with the harbour infrastructure and character of the area”, and from particular angles “does not appear out of context or too obvious”.

Although not regarded as a particularly significant change (20% of respondents said it was highly significant, 20% said it was of little significance, and 60% said it was of moderate significance) the change in the view from Wharf 1 near The University of Tasmania had a greater share of likers and lovers (45%) than dislikers or haters or (30%).

The “after” photo shows a dome rising over the ferry terminals.

[35] Note: The survey contained nine before and after images but one of the images (Viewpoint 5) illustrated a change so negligible that even on speaking to the author of the report, I was unable to see any difference between before and after. It was judged of little significance by all respondents and nearly half made specific comments to the effect that they could not see any difference between the ‘before’ and ‘after’ images, one asking if the correct images were displayed. They were, but I removed responses to these images from these reported results.

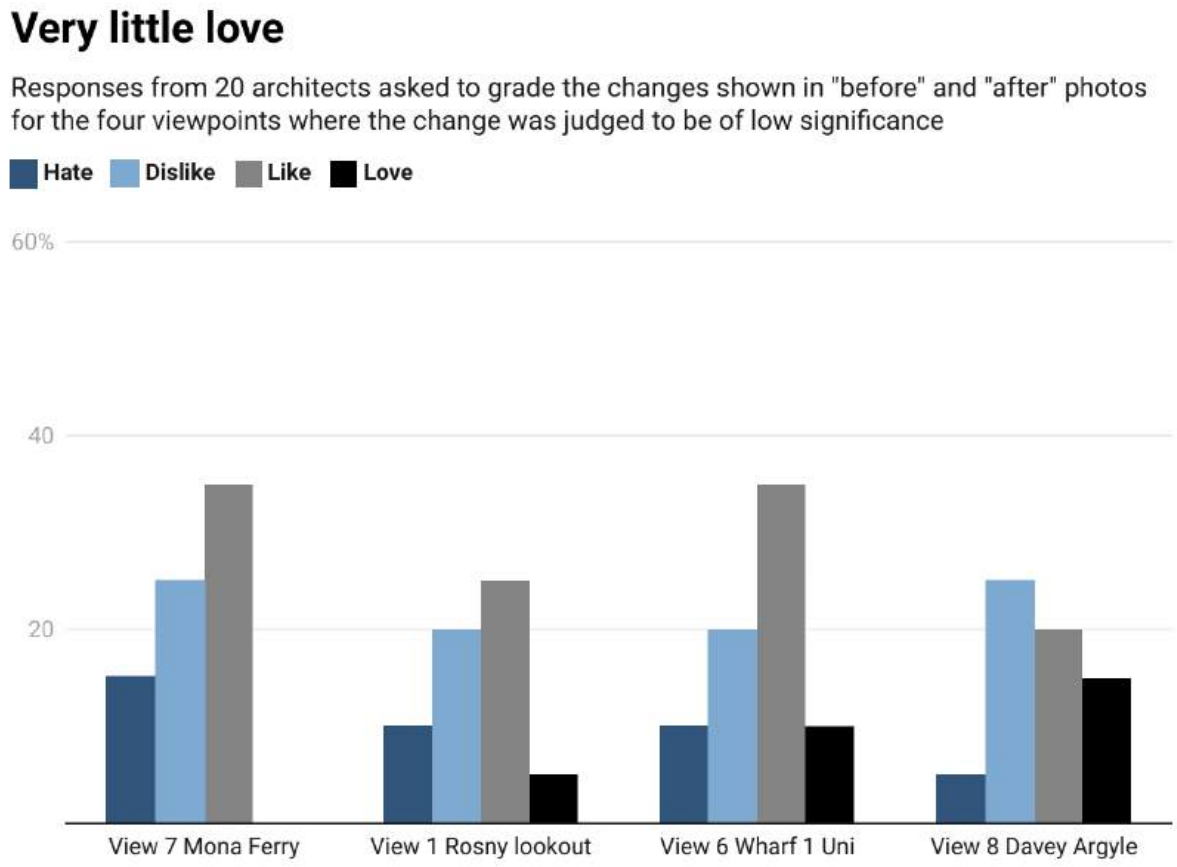
Among the positive comments were that while the dome blocks views of one of the hills, the “skeletal roof design complements the harbour architecture” and “blends in with the windows of the buildings nearby”.

Among the negative comments were that the structure “is overbearing and appears to be completely inconsiderate of the built heritage context of the waterfront”.

Again, a striking feature of these responses was the near absence of love. Only one respondent loved the view from the Rosny lookout, only two loved

the view from Wharf 1 by the university, and only three loved the view from Davey and Argyle streets.

Figure 6: Intensity of survey responses to less significant visual impacts



Low significance means assessed as highly significant by less than 30% of respondents. Survey conducted using Google Forms and photos sourced from Visual Impact Assessment Report of Macquarie Point Multipurpose Stadium for Macquarie Point Development Corporation, SLR Consulting, 30 August 2024

Source: SLR Consulting Australia, Visual Impact Assessment Report

Table 2: Summary of survey responses to visual impacts

Survey of 20 architects asked to grade the changes shown in "before" and "after" photos prepared by SLR consulting

Results for the four viewpoints where the change was judged to be significant

	Love	Like	Neither	Dislike	Hate
View 2 Cenotaph bridge	0	1	9	7	3
View 3 Cenotaph bridge	0	2	3	11	4
View 4 Brooker Ave	1	5	7	4	3
Cenotaph closeup	0	4	5	7	4

Results for the four viewpoints where the change was judged to be of low significance

	Love	Like	Neither	Dislike	Hate
View 1 Rosny lookout	1	5	8	4	2
View 6 Wharf 1 Uni	2	7	5	4	2
View 7 Mona Ferry	0	7	5	5	3
View 8 Davey Argyle	3	4	7	5	1

Significant means assessed as highly significant by at least 30% of respondents. Low significance means assessed as highly significant by less than 30% of respondents. Survey conducted using Google Forms and photos sourced from Visual Impact Assessment Report of Macquarie Point Multipurpose Stadium for Macquarie Point Development Corporation, SLR Consulting, 30 August 2024

Source: SLR Consulting Australia, Visual Impact Assessment Report

I suggest that an appropriate analysis should be commissioned of the views of professionals in architecture and landscaping regarding the impact of the stadium on visual amenity of the site and its consistency with existing planning frameworks. The views of residents of Hobart should also be gauged with surveys, focus groups and deliberative polling.

This work should be funded and commissioned by a party that has no institutional interest in the findings and recommendations that result.

5. Transparency in managing projects

Finding 4: *The Government's current $775 million estimate of the stadium's cost significantly understates the true expected cost. Based on our analysis of the current stadium proposal and project scope, we estimate the total project cost will exceed this amount by $321 million bringing the total cost to over $1 billion.*

Cost blowouts and unacknowledged costs mean that it is already clear that the Government's undertaking to build the stadium without borrowing more than $375 million cannot be responsibly met.

Finding 5: *Notwithstanding the details above, the Government continues to insist that its fiscal cap of $375 million can be met. This is already having two adverse effects which will intensify over time.*

- *Official reporting on the progress of the project is not candid. This undermines the community's trust in the process. Various means are being used to disguise the true cost of the project. Their impact is escalating over time.*

  These means include:

  - *Using land sale as a 'magic asterisk'. In the initial accounting for the project, the sale of land was to raise $85 million towards the cost of the stadium, though we are unaware of any detail as to what land was being sold and how it had been valued. As estimated costs have risen, the breaching of the $375 million cap has been further disguised by assuming that the value of land sales will rise by over 50% to $145 million to absorb the shock. Again, I am unaware of any real developments in the land being prepared for sale or its valuation that would justify such a treatment. If this*

gap is to be funded by identifying additional government land to sell, such proceeds would of course reflect incremental Government contribution.

- *Risks of cost-overruns — which would further compromise the $375 million cap — are not being candidly recognised by the project.*
- *Certain aspects of the project have been excised from the calculation such as the relocation of the Goods Shed even though they are necessitated solely by the building of the new stadium.*
- *Apparently ignoring the interest that must be paid on the $375 million additional borrowing.*[36]

- *In addition to impairing the probity of the project, disguising its true costs is also a driver of mismanagement. To meet the $375 million cap on outlays, certain facilities within the stadium have been carved out of the Government's capital budget for the project. These include the car park, kitchens and food and beverage facilities, CCTV system, LED ribbon board advertising, and AV and PA systems. Because these facilities will earn revenue, private investors can likely be induced to fund their capital cost in return for some right to that revenue.*

  While such partnerships should be explored, the motive to do so should always be to optimise the net benefits from the project for Tasmania. Here the motive is simply to move these costs off the Government's books. This lowers capital costs to the Government, but it is likely to do so only by lowering the stadium's capacity to generate revenue by a greater amount measured in net present value terms. In other words, this apparent saving is very likely to be penny-wise and pound-foolish, costing the government more than it saves.

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[36] As KPMG's Financial Impact Report comments (2024, p. 27) the asset owning entity, i.e. MPDC, "will borrow to make up any funding shortfall." This will increase debt on the Government's total balance sheet to an amount that is over its $375 million capital debt.

Optimism bias

Another critical lesson from infrastructure development more generally is the need to guard against optimism bias. Those in charge of delivering the project need to be honest with themselves and honest with those they report to. Yet there are usually numerous incentives — both subtle and otherwise — which reward optimism, and so store up the bad news until well into the delivery stage with large projects.

Optimism bias often begins early, well before the project is defined as in this case where it became the handmaiden of mission creep. Thus we can see Tasmania's 2019 AFL Taskforce talking itself into the idea of a stadium by suggesting that, while it might be seen as an indulgence it might cost just $300 million and that it would be a 'silver bullet' for Tasmania's bid for an AFL team.

Whether within a corporate structure or in a more open environment, those delivering the project often become advocates for it. And it's rarely easy for them to candidly set out the possibility of cost overruns. We've seen this at the political level where the Government has committed to a particular target for outlays. This has meant that those providing analysis of the project have been loath to analyse the project in ways that make the difficulty of meeting this target more transparent. Because of the various formal processes that are gone through, the bad news that the project will actually cost more than hitherto admitted tends to emerge only once the difficulties of denying it have risen sufficiently for it to be conceded.

As the next section shows, this phenomenon is well illustrated in this case.

Box 2: Optimism bias in infrastructure planning in the UK

In 2002 consultants Mott MacDonald were commissioned to carry out a study for HM Treasury into the outcome of large public sector procurement in the United Kingdom during the past 20 years. The project sample included 80 projects, evenly spread across government departments with values exceeding £40 million based on 2001 prices; it included some PPP projects. The study concentrated on the approach by the public sector in assessing the feasibility of projects and the techniques that were used.

The report did not detect any wilful deceit on behalf of project sponsors although it did note that: 'Once a project has gained momentum (especially political), it is sometimes difficult to consider an alternative and so ultimately, the project goes ahead despite knowingly underestimating project costs and time (see Figure 3.2). The Mott MacDonald report highlighted more – a lack of skill and awareness on the part of those concerned with the planning and development of large-scale public projects and of the effects of their optimism (read naivety), when appraising the project.

Source: Cartlidge, Duncan, 2006. Public Private Partnerships in Construction, pp. 75-6

Public reporting on the stadium's cost

> [T]here is often a theoretical budget that is given because it is the sum that politically has been released to do something. In three out of four cases this sum does not correspond to anything in technical terms. This is a budget that was made because it could be accepted politically. The real price comes later. The politicians make the real price public where they want and when they want.
>
> Jean Nouvel, winner of the Pritzker-Prize for architecture.[37]

As professionals estimated the cost of building the stadium at $715 million, a way was found to report this publicly in a way that minimised the apparent cost. Thus the Federal Government's commitment of $240 million dollars was deducted from the total, which along with the AFL's contribution of $15 million brought the figure down to $460 million.

The target figure was then reduced further — to $375 million — by proposing that $85 million would come from borrowings against land sale or lease for commercial uses. I am unaware of any specific land that was identified for sale or lease, nor of any process of valuing it. Indeed the expression "borrowings against land sale or lease" seems to contemplate that the government would indeed fund the full $460 million on its balance sheet but would secure $85 million against land it owned.

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[37] Flyvbjerg, Bent, 2021, "Top Ten Behavioral Biases in Project Management: An Overview," Project Management Journal, vol. 52, no. 6, pp. 531–546. Accessed from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3979164.
First BT Professor and Inaugural Chair of Major Programme Management University of Oxford's Saïd Business School
Villum Kann Rasmussen Professor and Chair of Major Program Management IT University of Copenhagen
Professorial Fellow, St Anne's College, University of Oxford
Project Management Journal, vol. 52, no. 6, 2021, pp. 531–546

Even at this point there is a further discrepancy between what has been said and what will transpire. Thus, even if the $375 million cap were adhered to, because the Government is a net debtor, it will carry an interest charge bringing the total government cost above this figure. Yet this is obscured in the POSS documents.[38] By the calculations below, the public debt interest impact of $375 million of borrowings will be significant, amounting to something like $36 million over the construction period.[39] Furthermore, because the debt will very likely not be paid down, but instead refinanced for years to come, when fully drawn the $375 million of borrowings implies an ongoing interest expense of $18 million annually.

There are also a range of costs that are made necessary by the building of the stadium that are not included in this costing for the stadium. Thus for instance the Goods Shed will have to be moved. The MPDC reports that it can do so for $6.5 million whereas my discussions with several parties suggest a cost of around $18 million. But whatever the figure is, it is a cost of building the stadium and should be publicly accounted as such.

All up my discussions lead me to conclude that the public costing of building the stadium has been understated in this manner by around $167 million dollars. These are costs necessitated by building the stadium, and which will be funded from the Government's balance sheet thus increasing Government net debt, but which the Government has not attributed to the stadium.

By the time of the MPDC's application to have the Tasmanian Planning Commission approve the stadium as a Project of State Significance (POSS) the estimated cost of constructing the stadium had risen to $775 million.

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[38] In Appendix G–Financial Impact Report (p. 28) Table 20, which presents the financial impacts on the Government, there is no separate line item for interest expenses. That said, a footnote (fn 25) to the line item for "Impact on net operating balance" notes that it incorporates interest expenses.

[39] The calculation assumes an interest rate (i.e. the ten-year Tasmanian Government bond rate) of 4.87% consistent with KPMG's Financial Impact Report (p. 24). The interest rate is applied to the level of accumulated debt associated with the construction costs each year, based on the time profile of capital expenditures assumed by KPMG (see Table 11, p. 22 of the Financial Impact Report).

Though a substantial portion of this should be sheeted home to post-COVID inflation, the process continued on as previously. The POSS documents now assumed that the additional $60 million in cost would not end up on the Government's balance sheet as new borrowing. Rather the project continued to be accounted for as something that could be funded by increasing Government borrowing by $375 million.

This was effected by making the amount expected from "borrowings against land sale" take on a life of its own as a 'magic asterisk'. Thus in KPMG's financial analysis of the project as part of the POSS application, the imputed value of this item rose accordingly by more than half to $145 million. This is the amount necessary to cancel out the $60 million rise in the nominal cost of the project. Again, I'm unaware of any official statements clarifying the land involved or how this transaction would proceed. Such practices clearly undermine the community's confidence in the project.

The costs of structural optimism bias

One can distinguish two different kinds of costs that arise from this situation. The first of these is that it becomes inconvenient for risks to be properly acknowledged because they compromise the putative fiscal parameters to which the Government has committed.

Properly acknowledging costs and risks

To properly understand the risks being run in a project, they must first be acknowledged. However the acknowledgment of the risk of a cost overrun is an acknowledgement that the putative $375 million cap on borrowing will be breached. The first cost of this cap is that risks are not being acknowledged. Thus for instance, in the Public Accounts Committee, the former Treasurer was asked how he could continue to honour the Government's fiscal

commitments “in light of those comments on cost escalations, workforce shortages and the like”:

> Mr FERGUSON — All I can really do is reinforce the position of the Government. Which is, that we will be managing this project, to quote the Premier, 'within an inch of our lives'. To really closely manage, scrutinise and ensure that it follows best practice in terms of the assurances that need to be obtained at each step on the way through, so that risks are identified and then mitigated at the earliest possible stages. … That is the position of the Government. That is, with really strong project management, the Secretary discussed how a senior member of Treasury sits within the steering group to provide those inputs as well. That is the position of our Government.

We received similar responses from the CEO of the MPDC when we sought to identify the extent to which the MPDC was independently assessing risks associated with the project. Our concerns focused on, but were not limited to three specific concerns:

- The early stage of the design, which as I understand it, remains well short of being completely specified.
- Geotechnical risks associated with the site.
- The ambitious design of the roof, including it being of a span that has not hitherto been built.

It may be that the treatment given the last two of the points above is appropriate, but at the same time it is worth noting that the best laid plans can go wrong. Regarding the second point, substantial geotechnical work has been done on the Macquarie Point site over a number of years. This may hold the project in good stead, or new difficulties may arise. Regarding the last point, as Bent Flyvbjerg and Dan Gardner put it: “If decision makers valued experience properly, they would be wary of a technology that is new, because it is inexperienced technology. And anything that is truly ‘one of a kind’ would

set off alarm bells. But all too often, "new" or "unique" is treated as a selling point, not something to avoid. This is a big mistake. Planners and decision makers make it all the time. It's a main reason that projects underperform".[40] We will have to see. Worst cases may not be likely, but they are possible and should be allowed for. See Box 3.

We commissioned a peer review of the key document on which MPDC was relying in arguing that these risks were being appropriately handled. It focused largely on the first three of these concerns and concluded that the project should have a contingency of $86.1 million over and above the one proposed by WT. See Appendix 4.

Box 3: Optimism and 'worst cases'

In 2015, a business case for the Melbourne to Brisbane Inland Rail project estimated it would cost $9.9 billion, and that in a 'worst case' scenario it could cost $10.7 billion – that is, eight per cent more.

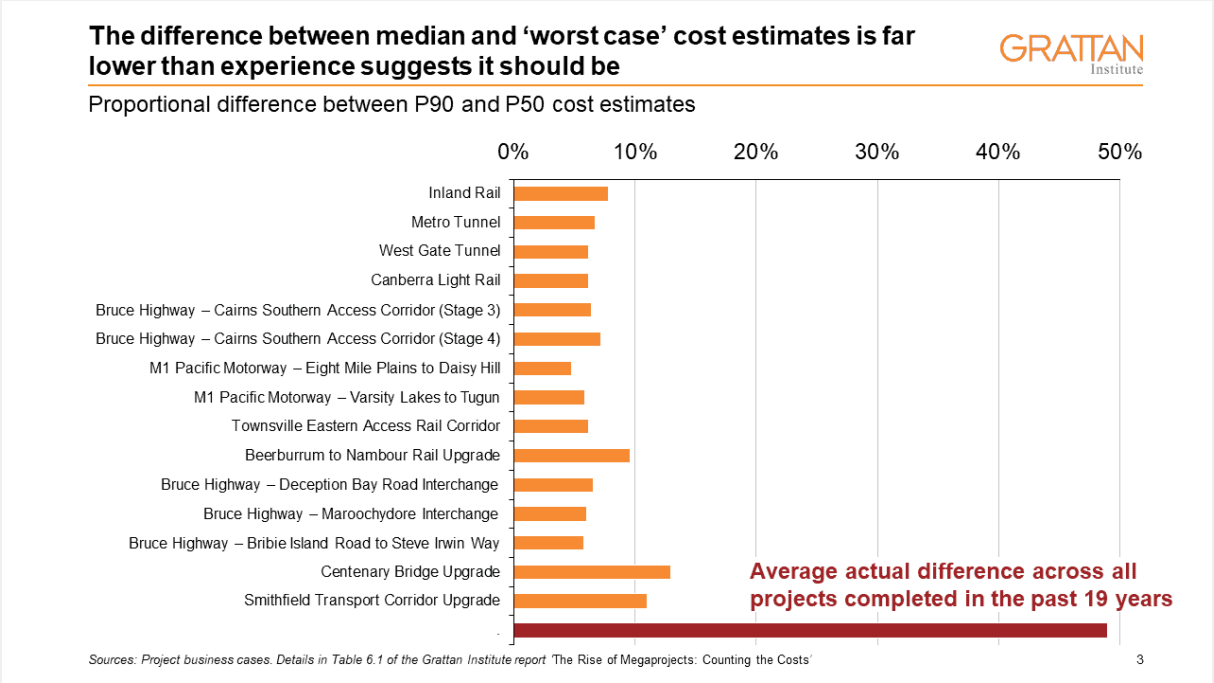
Fast forward to now, and the Federal Government says the 1,700km freight rail project is now expected to cost $14.5 billion, after design changes to improve safety and overcome community objections. That's not eight per cent more, it's 46 per cent more.

The worst case scenario in that 2015 business case was way out, and recent Grattan Institute analysis shows that business cases for big transport projects in Australia are way out way too often.

Typically such business cases include an estimate of the expected cost, or 'P50', and the worst case, or 'P90'. In business cases produced in recent years, the difference between P50 and P90 cost estimates has generally been about seven per cent (as shown in the below chart).

[40] Bent Flyvbjerg and Dan Gardner, 2023. *How big things get done*, New York: Currency, p. 98.

But our analysis of projects completed over the past two decades shows that the actual difference between the P50 and P90 costs was on average 49 per cent. That is, ten per cent of projects went over their estimated costs by 49 per cent or more.



Source: Grattan Institute, 2021, "The Rise of Megaprojects: Counting the Costs".

Even deducting the initial $85 million for "borrowings against land sale or lease", on the basis of all the factors covered in this chapter so far, I estimate the true burden the project will place on the Tasmanian budget according to the following table as $785 million.

Table 3. Impact of stadium construction on Tasmanian Government finances

Item	$ million
Cost estimate - original	***715***
Additional costs in WT Partnership July 2024 costing	60
Cost estimate - POSS	***775***
Additional contingency based on QS peer review	79
Necessary costs (currently excluded) - Goods Shed & precinct-related costs	186
Necessary costs (currently excluded) - revenue generating facilities	57
Total costs (excl. interest during construction)	***1,096***
Less external contributions	
Commonwealth	240
AFL	15
Left to fund	*841*
Revenue generating facilities	57
Left to fund	*785*
Land sales	85
Borrowing	700
Total funded by Tasmanian Government	***785***

Note: Row values may not add precisely to the total due to rounding.

Distorting project management to meet fiscal targets

The $375 million debt target has strongly intensified tendencies that are already common in many infrastructure projects to keep costs off government books by inviting private investment. I take this matter up in the next chapter.

6. Involving the private sector

Finding 6: *The involvement of the private sector in the Macquarie Point stadium project falls well short of satisfactory practice. It lacks transparency and seeks to minimise government outlays even where this compromises getting the best deal for Tasmanians.*

Public Private Partnerships (PPPs) are long-term arrangements between the public and private sectors for the development, delivery, operation, maintenance, and financing of services including the provision of public assets and public infrastructure. In Australia, PPPs have gained prominence as a method for delivering large-scale infrastructure projects, while in the United Kingdom, a similar concept was known as the Private Finance Initiative (PFI).

PPPs are characterised by several key features, including the provision of service-enabling infrastructure that leverages private sector skills, risk sharing between public and private sectors, and/or government contributions through land, capital works, or other supporting mechanisms. The private partner typically makes a capital investment entirely or partially replacing the need for the government to invest in return for a revenue stream. The revenue stream typically involves payments from the government or from users.

Potential Benefits of PPPs

PPPs offer several potential advantages that can improve project outcomes. When done well they access the benefits of the division of labour. Each sector brings particular capabilities to the project. Some potential benefits include:

- **Risk allocation:** These partnerships provide an effective mechanism for allocating project risks to the party best able to manage them, whether it's the private or public sector.
- **Cost containment:** By transferring certain risks to the private sector, PPPs can help governments contain costs throughout the project lifecycle.
- **Maintenance standards:** PPPs often include contractual arrangements that ensure infrastructure is maintained to agreed performance standards throughout its planned life.[41]
- **Innovation and efficiency:** The private sector's involvement can bring innovation and efficiencies in design, construction, and operating phases of the project.
- **Timely and on-budget delivery:** The PPP model incentivises contractors to achieve on-time and on-cost delivery, as payments typically don't commence until the asset is commissioned.[42]

Potential Pitfalls and Criticisms

Despite their potential benefits, PPPs pose risks and have faced criticism. In some cases these considerations offset or outweigh the benefits. Further these downsides not only reflect dilemmas that are inherent in managing complex projects — though this is sometimes the case. Often they also reflect the ways in which PPPs distort the incentives on major decision makers both for politicians and their senior officials.

Inherent limitations of PPPs include:

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[41] The Queensland Government claims to have delivered all the benefits listed above through PPPs involved in building 17 public schools. See https://alt-qed.qed.qld.gov.au/programs-initiatives/department/partnerships.

[42] The ACT Government claims to have delivered these benefits through PPPs — see https://www.treasury.act.gov.au/infrastructure-and-commercial-advice/ppp.

Loss of flexibility: PPPs can result in reduced flexibility for governments due to long-term contractual commitments. This can be a particular problem with large infrastructure projects (such as those entered into for major toll-roads in Victoria and NSW).

High transaction and financing costs: The complex nature of PPP arrangements can lead to significant transaction costs and potentially higher financing costs compared to traditional procurement methods.

Private funding costs generally exceed public funding costs: Governments have inherent advantages over the private sector in raising funds. This is most fundamentally because their options for meeting funding shortfalls exceed those of the private sector. Thus a government not meeting its liabilities retains the ability to raise taxes.

This last feature of PPPs means that, in general, PPPs should not proceed unless there are benefits that offset the prospect that they will bear a somewhat higher cost of capital.[43] However a proper understanding of the role of PPPs requires some consideration of the ways in which they can be used to further presentational and political objectives at the cost of the wider public interest.

The structure of PPPs typically involves governments avoiding up front costs for projects in return for costs met by governments later. This can involve regular 'payments' to the private partner by government as has occurred in

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[43] Based on 10-year bond yields averaged over two years, KPMG reports a borrowing cost for Tasmania of 4.87% as of 1 July 2024 (see p. 21 of the Financial Impact Report). This is significantly lower than a comparable corporate bond rate of 5.72%. This is calculated as the average over the 2022-23 and 2023-24 financial years of the yield on Non-financial corporate A-rated bonds for a 10 year target tenor published by the RBA in its Aggregate Measures of Australian Corporate Bond Yields – F3 statistical table. Note that the spread could be even wider if the PPP's debt is rated as BBB+ rather than being A-rated. As Tim Boreham put it in the *Australian Financial Review* last year, "PPPs need to overcome the inherent disadvantage of higher funding costs, relative to the governments' AAA or AA+ sovereign credit ratings. Most PPP special purpose vehicles (SPVs) are rated only at investment grade (BBB+) which means borrowing costs are higher. https://www.afr.com/companies/infrastructure/public-private-partnerships-to-ease-the-burden-20230711-p5dndc.

the ‘availability payments’ made as part of the Optus Stadium or the Victorian desalination plant. It can also involve allowing the private partner to access some or all of the benefits of owning the asset that has been built.

Thus Australia’s PPP road investments are funded from the tolls collected on them. Yet, though there may be some exceptions, by and large Australia’s PPP funded toll-roads have not been a success. In addition to tying up governments in inflexible arrangements, they have seen toll roads built at substantially higher cost to government than it would have faced by borrowing the money directly from the debt markets.[44] See Box 4 for a worked example provided by Sydney’s toll roads.

[44] See for instance Lateral Economics, 2010. Getting Western Sydney Going: Financing the infrastructure needs of Western Sydney, October.

Box 4: Penny wise and pound foolish PPPs

What if some or all of the privately funded roads in NSW had been funded by State borrowing with tolls equivalent to those that obtained under private stewardship? Lateral Economics produced an indicative simulation of such a counterfactual. We conclude that, had the NSW Government borrowed to invest in Sydney's toll roads rather than the private sector, in 2009-10 dollars, over the course of building these roads it would have acquired ownership of a stream of revenue with a net present value which we estimate at $12.8 billion,[45] at the cost of increasing its borrowing by $7 billion.

The difference between these two figures is $5.8 billion. NSW has taken on more risk to be in this position and it would be appropriate for it to assess the value of the asset using a somewhat higher rate of return than the bond rates it is paying lenders. The economic literature is not conclusive about how to account for the appropriate return for risk. We would argue that the appropriate figure should be, as Grant and Quiggin (2003) suggest,[46] at around 0.5% and if this were the case the state's net worth could be regarded as having increased by just $4.6 billion for having funded the roads.[47]

Source: Lateral Economics, 2010. Getting Western Sydney Going: Financing the infrastructure needs of Western Sydney, October.

Substantial policy development has taken place to address the kinds of problems highlighted in the box above. Australian Governments have

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[45] This is the sum of the revenues of all projects expressed as a net present value at the commencement of each project in constant 2009-2010 dollars. The discount rate used is a real discount rate of 4.1 per cent corresponding to a nominal rate of some 6.60% which in turn was derived from NSW 10-year government bond rates weighted according to when the various toll roads were completed (and assuming that the various debts involved were regularly refinanced at 4-yearly intervals at then-prevailing bond rates)

[46] Grant, Simon and Quiggin, John, 2003. "Public Investment and the Risk Premium for Equity" *Economica*, New Series, Vol. 70, No. 277, Feb. pp. 1-18: Stable URL: http://www.jstor.org/stable/3548814

[47] The expected net value of the project remains $5.8 billion but a charge of 0.5% of the borrowings is being imposed on the project to cover the insurance cost of things not working out. By the same token, things may work out better than expected.

developed approaches designed to ensure that PPPs are adopted only where their adoption does in fact generate net benefits compared with a counterfactual case of funding the project in the traditional way from the government balance sheet.

Central to this process is the Public Sector Comparator (PSC), a tool used to assess the value for money of proposed PPPs.

The PSC serves as a benchmark against which the costs and benefits of a PPP project can be evaluated. It estimates the hypothetical, whole-of-life cost of delivering a project through traditional public procurement methods. This includes all capital and operating expenses adjusted for risks associated with the project, thus providing a comprehensive view of what the project would cost if undertaken by the government itself.

However, done properly this approach requires a great deal of care and application. Volume 4 of Infrastructure Australia's *National Public Private Partnership Guidelines* which provide "Public Sector Comparator Guidance" run to 165 pages. And the very complexity of the approach requires numerous judgements to be made. In this context it is critical that those judgements be made on the merits in the public interest rather than to achieve some outcome which has been aimed at for appearances' sake. Unfortunately that does not always happen.

In this regard there are concerning signs that the dominant consideration in configuring the PPP or PPPs to deliver the Macquarie Point stadium is meeting the fiscal target of $375 million. Thus the WT Report on which stadium costings were based for the purposes of the POSS documentation identified the following exclusions from the cost of the stadium:

- Goods Shed Relocation and Fitout
- External Infrastructure Services
- Kitchens and F&B Fitouts beyond service connection points

- AV Services incl TV's and Brackets, Wifi, DAS, Cellular Services, Scoreboards
- PA System & CCTV
- LED Ribbon Advertising to fences
- Whole of precinct costs
- Fitout to Venue Control Room
- Accelerated Programme / Site Restrictions
- Delay and Prolongation Allowances
- Operational specific items
- Information Technology, computing equipment

Some of these items are items that are not being treated as costs of the stadium even though they are necessitated by the stadium — for instance the relocation of the Goods Shed. These are clearly costs of building the stadium and should be treated as such. Be that as it may, it seems clear that the rationale for removing a large number of the items from the costings is that the project managers are interested in funding them privately. These items include the following items:

- Kitchen and F&B fit out
- AV Services
- PA System
- CCTV System
- LED Ribbon Board Advertising

However, whether or not this strategy is successful in drawing in private sector finance in return for some or all of the revenue streams such assets would generate, not accounting for these costs on the Government's balance sheet seems patently premature. The decision to seek full private funding of these assets should follow a process in which this emerges as a plausible way by which the public interest can be optimised.

Given these concerns I put the following questions to the CEO of the MPDC, Anne Beach:

a. How were these facilities chosen, and what analysis was conducted to ensure that the arrangements proposed will generate as great or greater net benefits for the state than would be generated if the Government funded them directly?
b. Were the decisions made to leave the funding of these facilities to other parties in a manner that was consistent with the National PPP Policy and Guidelines? If so, I'd appreciate seeing any supporting analysis that was done.[48]

Ms Beach responded that government had "committed to considering any proposals received through a market testing process on a value for money basis, which will include considering alternative funding sources". If such matters are simply under consideration subject to private funding proposals representing good value for money, this concedes the prospect that those proposals may fall short of the appropriate value benchmark. Yet the costings presented to the POSS simply assume that the capital cost will not be funded by government.

In the particular circumstances of the Macquarie Point stadium at this stage in its development, I think it very unlikely that private proposals will come forward that will represent good value in funding all these facilities. So does KPMG who offered the following comment in their Financial Impact report:

> In this capital cost estimate, these items are assumed to be funded by third parties (i.e. a caterer will undertake the fitouts in return for a long term contract). There is little precedent (at the quantum of costs for allocated items), for such an approach being attractive to caterers within the Australian context, particularly given the expected activity levels of the new Stadium. As such, the revenue streams associated

[48] Email to Anne Beach, CEO, MPDC.

> with these items will be subject to a commercial structure that favours the third-party installer. It is unclear whether a supplier retaining such revenue streams would be sufficient to attract the necessary third party capital investment in the Stadium to meet the 'below the line' capital shortfalls.[49]

At some stage it will almost certainly be appropriate to involve the private sector in these facilities in some way. Judging from commercial contracts entered into by the AFL with specialist providers for LED ribbon board advertising, there are circumstances where it is appropriate for private specialty providers to contribute to the capital cost of some facilities. But the precedents to which we are referring relate to grounds which have an established and dependable practice of hosting around 50 or more major sporting events a year.

Given the uncertainty and low utilisation involved at least early in the life of the new Hobart stadium, it seems ill-advised to expect the private sector to have a strong appetite to invest in the capital cost of such assets at least until a dependable pattern of patronage has been established. As KPMG is intimating above, one needs a strong appetite if bids to fund the capital cost of these assets are to offer the State Government anywhere near its own cost of capital to fund them itself.

PPPs for alternative projects to maintain competitive tension

Ironically, at the same time as assuming that the items above should be privately funded, the project has been strangely dismissive of alternatives to the project it is proceeding with at Macquarie Point. Thus for some time Stadia Precinct Pty Ltd has proposed a project very near the one being prepared by the MPDC which it has called "Mac Point 2.0". At least according to Stadia,

[49] KPMG, 2024. Financial Impact Report: Macquarie Point Multipurpose Stadium, p. 17

their proposal addresses many of the concerns that have been raised by the current plans.

Stadia claim that, because they will reclaim land on the Derwent, and also build other assets as part of the project, they can make their project viable on payment of the $375 million figure nominated by the State Government.
I am not in any position to either endorse or criticise the development. Should the Government proceed to negotiate with Stadia, no doubt the precise terms of the project would emerge into sharper focus. However if it can be delivered for the payment claimed, with adequate assurances that the project will be delivered at an acceptable environmental cost, it should be considered.

Moreover if it were actively considered this would bring a certain competitive tension on other proposals for the stadium. People might ask, if Mac Point 2.0 generates synergies between a hotel and the stadium, how could the existing plans do the same? If they can deliver facilities of a certain specification for a given cost, why can't others?

Because it involves land reclamation, it displaces less prime waterfront land at Mac Point, leaving it more open for the kinds of development planned before the Government decided to site the stadium there, though it must be conceded it compromises the existing "Cove Amphitheatre" framed by the two headlands of Macquarie Point and Queens Domain to the east, and Battery Point to the west.[50] That having been said, it is much more acceptable to the RSL because it interferes far less with the Cenotaph's historic sightlines.

However the proposal has generally been ruled out of consideration, including on the grounds that it is not consistent with the agreement with the AFL. Yet

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[50] The "Cove Amphitheatre" is described in these terms in the Visual Impact Assessment Report on the Stadium prepared by SLR Consulting Australia for the POSS.

- the Cove Amphitheatre references the layering of landform up from the waterplane to the Cove Floor and adjacent hills; and
- the Cove Amphitheatre is 'bookended' by the two headlands of Macquarie Point and Queens Domain to the east, and Battery Point to the west.

whatever the merits or demerits of the proposal, it is hard to see why the AFL should be concerned with the difference between Mac Point 1.0 and 2.0.

By the same token, as part of a process of slowing down and reconsidering the planning stage of the stadium there should be a general call for other PPPs to be proposed.

However, especially given the circumstances of this situation, this should not occur without specific safeguards to ensure that any PPP that proceeds, does so on the basis of its capacity to increase net public benefits, rather than to deliver some arbitrary debt ceiling. It is notable that even despite its status as a generally successful project, the large scale PPP that delivered the Optus Stadium came with the unpleasant after-effect of the Western Australian Auditor General being unable to subject the PPP to proper public scrutiny. For this reason I have recommended that wherever PPPs are pursued, whether they relate to the stadium itself or to facilities within it or other aspects of the project should only proceed consistently with the principles set out in the National PPP Policy and Guidelines, including the use of a realistic Public Sector Comparator. In addition to this mechanism being self-administered by government officers, it should be overseen by someone independently appointed by and reporting to the Parliament.

Box 5: Getting to the bottom of the Optus Stadium PPP

The Western Australian auditor-general has criticised a decision to block him access to information about the Perth Stadium project, saying it prevented him from completing his job.

The State Government watchdog released a report today criticising the Department of Sport and Recreation (DSR) for not giving it the information required to review decisions relating to the release of details about the stadium project.

Auditor-general Colin Murphy was reviewing Sport and Recreation Minister Mia Davies' decision to not provide details to Parliament about contractual and financial information relating to the stadium due to it being “commercial-in-confidence".

The department maintains it followed all appropriate procedures and advice from the State Solicitor's Office [SSO] in deciding which details could be released.

But Mr Murphy wrote in his report that his review was unable to reach a conclusion on that because of DSR not providing the legal information it relied on in making that decision, prompting him to call for legislative changes to prevent that from occurring again.

"The inability of an auditor to access the information they need to meet their obligation is a serious matter for the auditor, and for those who rely on their opinion," he said.

"This is the first time I have been unable to fulfil my legislative obligations.”

"I will seek every opportunity to pursue the SSO's recommendation to amend the [Auditor-General's] Act.”

Mr Murphy said the DSR reported to him that the Solicitor's Office told it the legal advice was protected by legal professional privilege and it did not have the authority to give access.

The Government has faced repeated criticism over secrecy relating to the financial details of the project and the contract with consortium Westadium to build, design, finance and maintain the 60,000-seat venue.

That contract was worth $1.21 billion, which did not include an extra $359 million in required public transport upgrades.

The Opposition was repeatedly denied access to elements of that contract, such as the value of annual payments made to Westadium and the consortium's expected rate of return.

Source: ABC, 27th August, 2015 see https://tinyurl.com/zkkcu2sf. And see Appendix 3.

7. Costs

Overview

This section presents our estimates and assumptions regarding project costs over the construction period (2024 to 2028) and the operating period (2029 to 2058). We have adjusted some of the cost estimates presented in the POSS process to more realistic figures. Costs are estimated to be significantly higher than presented in the POSS process documentation because:

- We model higher construction costs for the stadium itself — a peer reviewer of WT Partnership's cost estimate has recommended an increase in the costing to reflect excluded items and client (i.e. MPDC) costs;
- The opportunity cost of the land is included in our CBA, although not in the financial or government budget analysis as it does not affect the Government's funding needs, and
- Excluded revenue-generating items are included, and essential precinct-related costs are included.

This does not ignore the income that may be earned from revenue generating items, but rather provides a comprehensive analysis of all costs and benefits. This means that our CBA is independent of the way the project is delivered leaving us free to analyse the potential impacts of a PPP in our later section on the financial effects on the Tasmanian Government.

Net present value (NPV) estimates presented in this section are calculated using a 7% real discount rate, consistent with the assumed discount rate in KPMG and MI Global Partners' CBA studies and with Infrastructure Australia guidance.[51]

[51] Infrastructure Australia (2021) Guide to Economic Appraisal, p. 23.

An overview of the cost items in the CBA model is provided in the sub-sections below. Note the KPMG Cost Benefit Analysis submitted through the PoSS process was focussed more narrowly on the stadium, while the terms of reference for this review (Appendix 1) stipulated the costs and benefits are to be analysed for the precinct in its entirety requiring additional precinct-related costs to be included in the analysis, as I have done. It is unclear to me why KPMG's scope is narrower. Both commonsense and official advice on assessing the impacts of publicly funded projects suggest that the scope of analysis should extend at least to investment that is necessitated by those projects. For example, in its *Guide to Economic Appraisal*, Infrastructure Australia recommends the inclusion in project costs of "Investment required by other agencies due to wider infrastructure/service impacts of the project".[52] It notes further, "These should be included where they are necessary to achieve the project benefits".[53]

The opportunity cost of land

A cost-benefit analysis should recognise the opportunity cost of the land in its best alternative use. Infrastructure Australia notes in its 2021 Guide to Economic Appraisal, "in the case of land, the capital costs should include the opportunity cost of the land used, even where this is currently owned by government".[54] A builder constructing a house on land they own for later sale would factor in the value or opportunity cost of the land when deciding what to build on it and in pricing the house for sale. They would not simply value the house based on their labour and material costs with a profit margin added on. As indicated above, the same logic appears in official guidance on cost benefit analysis and, notwithstanding its having been repeatedly ignored in cost-benefit analysis to date, it remains relevant here.

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[52] Ibid., p. 26.

[53] Ibid.

[54] Infrastructure Australia (2021) Guide to Economic Appraisal, p. 29.

Elders estimated the site's market value at $49 million in a June 2024 valuation report. This is based on the current zoning. For a CBA, the opportunity cost of the site should not be constrained by the current zoning, particularly given the state government could alter that zoning. The *NSW Government Guide to Cost-Benefit Analysis* notes: "For land and buildings, CBA should use a valuation based on the most profitable alternative use…In some cases, this may mean considering realistic changes to zoning that could occur in the near future."[55] The site's market value, and hence what the state government foregoes if it proceeds to develop the site as a stadium, could be many multiples of Elders' valuation if it were developed for mixed uses that include residential.

Consider that the average price per square metre of land in early 2023 was $4,041 in Hobart CBD and $6,599 in Battery Point.[56] Using these figures as lower and upper bounds for value per square metre and multiplying them by the stadium's footprint of 58,500m^2, gives an opportunity cost of $236 million to $386 million. The midpoint of these values is approximately $311 million. We regard this estimate as correct in economic theory and defensible in terms of the guidance quoted above.

However it has generated substantial controversy among those we have discussed it with and in light of that we have halved the figure to ensure our central case was conservative. This gives us an opportunity cost for the land of approximately $155 million.

[55] NSW Treasury (2023) NSW Government Guide to Cost-Benefit Analysis, p. 60.

[56] https://www.domain.com.au/group/media-releases/how-much-does-a-square-metre-of-land-cost-in-your-suburb/

Capital expenditure

Additional contingency to reflect project risk at the concept design stage

We asked an independent Quantity Surveyor with extensive experience in costing sports infrastructure to review the WT Partnership cost estimate for the Stadium. Bob Richardson, Managing Director of Xmirus Pty Limited, concluded that "Our recommended estimate figure to be included in the development cost budget is $861,055,000 subject to the qualifications through this report."[57] This is 11% higher than WT Partnership's cost estimate of $775 million.[58]

Richardson's higher cost estimate is primarily due to a higher contingency allowance for the project, reflecting the early stage of the design and the fact WT Partnership's cost estimate does not include any client (MPDC) contingency (i.e. it assumes MPDC will not experience unanticipated costs). WT Partnership estimated a total contingency allowance of $110.64 million, which is 21% on top of the cost, excluding the contingency allowance, council charges, and Macquarie Point project resourcing, which is presumably costs for MPDC, of $526.86 million.[59] Richardson recommends allowing an additional $79 million in the contingency allowance. This corresponds to a 15 percentage point addition to WT Partnership's 21% contingency allowance, bringing the total contingency allowance to 36%. Based on our consultations,

[57] Richardson, Bob (2024) Peer Review of WT Partnership Costing for Proposed Macquarie Point Multi-Purpose Stadium, p. 8.

[58] The WT Partnership cost estimate quoted here is inclusive of the allowance for price escalation, which is excluded from the CBA conducted in 2024 dollars.

[59] WT Partnership (2024) Macquarie Point Multi Purpose Stadium Concept Design Estimate No. 1 (Revised) - Commercial In Confidence 26 September 2024, p. 1.

this is a fairly conservative application of the rules of thumb applied to designs which are not far beyond the 'concept' stage.[60]

Richardson's estimate also includes an allowance of $7.15 million for items excluded from the WT Partnership, such as the Goods Shed relocation and fitout and F&B fit-outs. He was basing his estimate on the information from the WT Partnership reports and documentation on the Tasmanian Planning Commission website for the project. We have obtained additional information through our consultations, which means we assume a higher cost for excluded items in our CBA (see the next subsection).

Inclusion of additional CAPEX excluded by MPDC in POSS submission

We have included a range of costs excluded from the KPMG CBA. These include stadium costs excluded from the POSS analysis and precinct-related costs (Table 4). To give the Government a complete understanding of the project's economics, whichever way it is delivered, these costs should be included in the CBA model.

[60] For example, Infrastructure Australia (2021, p. 60) in its Guide to Economic Appraisal: Cost-benefit analysis methodology recommended a contingency allowance of 40-70% at the options analysis stage, with 5-20% of the project is designed, and 20-40% contingency at the business case stage where 20-40% of the project is designed. In the view of our independent QS adviser, this project is on the borderline between 5-20% and 20-40% definition.

Table 4. Additional costs not included in KPMG CBA, $ million

Item	2024	2025	2026	2027	2028	Total
Stadium-related costs						
Goods shed relocation		18.5				18.5
Kitchen and F&B fit out					15.2	15.2
AV Services					27.1	27.1
PA System					2.7	2.7
CCTV System					3.5	3.5
LED Ribbon Board Advertising					8.0	8.0
Sub-total	*0.0*	*18.5*	*0.0*	*0.0*	*56.5*	*75.0*
Precinct-related costs						
Event bus plaza				7.5	7.5	15.0
Collins Street Active Transport Bridge				30.0	30.0	60.0
Davey Street footpath expansion (between Evans St and Hunter St)				0.3	0.3	0.5
Southern Campus Transformation – UTAS Pocket Park				1.0	1.0	2.0
Collins Street redesign (Collins Street Vision)				6.1	6.1	12.2
Evans Street redesign (Davey St to Hunter St)				2.5	2.5	4.9
Hunter Street car parking reconfiguration				0.3	0.3	0.5
Increased public transport infrastructure				12.8	12.8	25.6
Site access upgrades				23.3	23.3	46.5
Sub-total	*0.0*	*0.0*	*0.0*	*83.6*	*83.6*	*167.2*
TOTAL	**0.0**	**18.5**	**0.0**	**83.6**	**140.1**	**242.2**

Source: Based on information from LE's consultations. We have made minor changes to some of the numbers to protect the identity of our sources, though in ways that do not produce any substantial deviation in the aggregated costs.

Lifecycle costs

We use the same methodology as KPMG to estimate lifecycle capital costs, namely 0.8% of capital costs,[61] but because our estimate of total capital costs is substantially higher than KPMG's, our estimate of those costs is correspondingly higher.

Operating costs

We explicitly include stadium operating costs in the model. This differs from KPMG's treatment, which does not separately report operating costs but rather an operating subsidy (i.e. revenue less operating costs and lifecycle costs). Operating costs are assumed to be $9.5 million in 2024 dollars, consistent with the estimate used by KPMG.[62]

We include additional OPEX related to food and beverage service in the model. This is based on per-attendee spending estimates from MI Global Partners and an assumed gross margin of 20%. The latter was chosen by calibrating the model to yield net revenue for F&B for the stadium consistent with KPMG's estimate of around $2 million annually.

A slight offset to operating costs is included in the CBA model to reflect the fact that some of the events hosted by Macquarie Point Stadium would otherwise have taken place at other grounds. Those grounds will avoid some food and beverage operating costs alongside the revenue they generate. The level of avoided operating costs is calculated in the same way as the food and beverage OPEX at Hobart Stadium is calculated.

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[61] We were concerned to see a much lower share of capital costs used in the MI Global BCA and so were happy to accept KPMG's correction on this matter.

[62] KPMG (2024) Financial Impact Report, p. 18.

Event attraction costs

We assume incremental event attraction costs of $8 million per annum, compared with KPMG's $1.6 million. This is approximately the mid-point between KPMG's assumption and an assumed upper bound for incremental event attraction costs based on an estimate of $15 million we were provided with during consultations. We think the assumption is conservative.

Tasmanian Government subsidy to the Devils

The $12 million per annum over 12 years operating subsidy to the Devils is included in the CBA model. The model converts this to 2024 dollars by discounting it by future inflation, assumed to be 2.5% per annum (i.e. the RBA target). This is done because the commitment appears to have been made in nominal terms.[63]

Marginal cost of public funds

The stadium has an ongoing negative impact on the Tasmanian Government's operating balance. For a given net operating balance target, this additional negative impact implies additional revenue is required. Raising additional revenue has two effects:

- First, it transfers money from taxpayers to the government. In a cost-benefit analysis this transfer of money from one party to another nets out and no costs are imposed on the economy overall.
- Second, it changes behaviour in the economy — for instance by discouraging investment or labour demand or supply. This second effect is known as the marginal excess burden (MEB). We assume an MEB of 20%, based on KPMG-Econtech CGE modelling.[64] This assumption is

[63] Tasmanian government increases taxpayer funding lure to secure AFL licence - ABC News

[64] Economic Analysis of the Impacts of Using GST to Reform Taxes

generous given that the MEB associated with the taxes states rely on most heavily tend to be well above this figure. We have done so to be conservative, but the decision could be justified in at least two other ways. It is closer to the MEB for Commonwealth revenue raising and Australian states get most of their revenue from the Commonwealth. And there are tax bases available to the states which have substantially lower MEBs than that — namely ~10% for land taxes, though they get more of their state tax revenue from other sources with much higher MEBs — particularly payroll taxes (~30-40%).

Credit rating downgrade

In our pessimistic scenario, we assume that proceeding with the stadium increases the probability of a future credit rating downgrade by 10%. The impact of the credit rating downgrade is modelled as an assumed 20-basis-point increase in total state government borrowing costs. This is partly based on a review of recent spreads between NSW (AA+) and Victorian (AA) bonds, which suggests a spread of at least 10 basis points.[65] Given the warnings in Saul Eslake's recent report, and the lack of concrete Government responses to it, we think that, if there are credit downgrades, they could exceed one notch. Accordingly our pessimistic scenario assumes a 20 basis points increase in borrowing costs. From 2029, the higher borrowing costs are assumed to apply to the projected 2027-28 non-financial public sector level of borrowings of $17.4 billion.[66]

[65] See graph 10 in Recent Developments in the Semi-government Bond Market | Bulletin – January 2024 | RBA

[66] See Table A1.8, 2024-25 Budget Paper 1, p. 187.

Visual disamenity

We model a reduction in visual amenities associated with the stadium. These include but are not limited to the stadium's blocking sightlines from the cenotaph. Without primary data from a survey of residents, we cannot estimate what this could be, as we have been unable to find any studies of stadiums that estimate the value of this negative externality. And, in any case, the circumstances of the Hobart stadium are unique (i.e. on the waterfront in a historical area and near a cenotaph). We assume 5% of Hobart residents aged 15 and over experience an annual disamenity of $100, which results in an annual visual disamenity cost of $1 million in the CBA. Given the level of community concern over the visual impact, we think this highly conservative.

Summary of costs

Table 5 sets out our central, pessimistic and optimistic cost estimates for the Stadium.

Table 5. Specification of central, pessimistic and optimistic scenarios–costs

Item	Central	Pessimistic	Optimistic
The opportunity cost of land	$156 million (50% of pessimistic case assumption)	$311 million based on residential land values for central Hobart and Battery Point	$49 million (based on Elders' valuation)
Capital expenditure	WT Partnership cost estimate uplifted by: • additional contingency advised by independent QS review • Exclusions from current cost estimate, both stadium and precinct-related	Central CAPEX estimate plus additional contingency (to bring total contingency up to 50% from 36% in central case) to allow for: • Unique design of roof • Geotechnical risks associated with waterfront location	Original WT Partnership cost estimate, but including exclusions
Credit rating downgrade	No credit rating downgrade	Assumed 10% risk of credit rating downgrade costing the Tasmanian Government 20 basis points on its total debt	No credit rating downgrade
Visual disamenity	5% of Hobart residents aged 15 and over experience an annual disamenity of $100	5% of Hobart residents aged 15 and over experience an annual disamenity of $500	5% of Hobart residents aged 15 and over experience an annual disamenity of $100

Source: Scenarios based on desktop research and stakeholder consultations.

Itemised cost estimates in NPV terms for the central case, the pessimistic case and the optimistic case are presented in Table 6.

Table 6. Summary of costs in CBA model, NPV over 2024 to 2058

Item	Central case - NPV, $m	Pessimistic case - NPV, $m	Optimistic case - NPV, $m
Capital costs (core stadium)	624.7	682.7	562.6
Capital costs (stadium-related but currently excluded)	57.6	57.6	57.6
Capital costs (Precinct plan)	123.4	123.4	123.4
Opportunity cost of land	155.6	311.2	49.0
Lifecycle costs	73.1	78.4	67.5
Operating costs	135.9	135.9	135.9
Event attraction costs	70.8	70.8	70.8
State government subsidy to Devils	91.1	91.1	91.1
Marginal cost of public funds	86.7	94.7	78.1
Credit rating downgrade		30.8	
Visual disamenity/externality	9.1	45.5	9.1
Total costs	**1,428.0**	**1,722.0**	**1,245.1**

8. Benefits

Overview

The major differences in our benefit estimates from those presented in the POSS process are as follows. Our analysis provides:

- more conservative and we believe realistic numbers of interstate visitors; and
- a reduced net economic benefit from every dollar of additional tourism spending. As outlined below, our approach follows the economic literature and has been confirmed in consultation with leading CBA academics and practitioners.

Events

We have largely adopted KPMG's assumptions regarding events (Table 7).[67] However, based on our consultations, we have modified some of KPMG's assumptions regarding event numbers. Specifically, we have made substantially more optimistic assumptions about the non-sporting events the stadium will attract. We agree that, particularly if the stadium is roofed, it is likely to attract some events which in larger cities are held in venues such as the Rod Laver Arena which specialise in events attracting a crowd of up to 15,000 people. Accordingly, we have assumed that each year it will attract:

- 3 full-stadium concerts, compared with one assumed by KPMG; and
- 2 arena-style concerts, compared with one assumed by KPMG.

However, we assume Tasmania only gets a cricket test match once every four years, as opposed to every year in the KPMG modelling. This reflects a high level of uncertainty regarding whether the Hobart stadium would make much difference to Tasmania's capacity to attract more test matches. The roof may

[67] KPMG's assumptions are presented in Table 7 on p. 11 of its *Cost-Benefit Analysis* report.

make Hobart a more attractive venue for cricket by lowering the risk of cancellation due to rain, but most test tours will likely still earn higher returns in other Australian cities. It is also possible that the sporting custodians of test cricket will be conservative in approving test cricket under cover, particularly given the difficulties of playing undercover in Australia's summer heat, a matter that has created some concern in the hosting of the Australian Open tennis tournament.

Table 7. Assumptions regarding events

Event type	Total event days	Transferred event days	New event days	Daily attendance
AFL (TFC)	7		7	20,825
AFLW (TFC)	3		3	4,900
AFL pre-season	1	1	0	6,125
AFLW pre-season	1	1	0	2,450
BBL	4	4	0	10,413
WBBL	4	4	0	2,450
NRL Club Match	1		1	17,763
Test Match (1 in every 4 years)	4		4	14,088
Men's ODI / T20	1	1	0	15,313
Women's ODI / T20	1	1	0	4,900
Socceroos (Tier 2 ,1 in every 4 years)	1		1	22,050
Matildas (Tier 2, 1 in every 4 years)	1		1	22,050
Youth International	1		1	2,450
Adhoc sport/entertainment (1 in every 2 years)	1		1	12,000
Concerts (Full)	3		3	30,000
Arena mode concerts	2		2	10,000
Local Football GF	1	1	0	4,900
VFL Tasmania Devils / VFLW Tasmania Devils (Double Header)	2		2	2,450
Coates Talent League - (Double Header)	1	1	0	613
Existing Mass Participation Events	1	1	0	1,500
Existing Local Events	1	1	0	1,500
Total (maximum)	**42**	**16**	**26**	

Stadium revenue

Revenue items included in KPMG's CBA

Consistent with KPMG but using assumptions from the 2022 MI Global Partners CBA for ticket prices, venue share and venue hire fees, we model the additional revenue of the stadium for the following categories:

- Share of ticket sales;
- Venue hire fees; and
- Membership and other revenue.

These revenue items are implicit in KPMG's CBA, as they are included in the calculation of the operating subsidy, but they are not explicitly identified. A summary of our assumptions is presented in Table 8.

Table 8. Assumptions regarding revenue items

Item	Assumptions	Sources & notes
Ticket sales	Stadium's share of total ticket revenue is 5%. Ticket prices are assumed for five tiers of events: • Tier 1 – Tier 1 concerts / World Cup content : $125 • Tier 2 – AFL Finals, Cricket, Socceroos, Wallabies: $78 • Tier 3 – AFL regular season: $60 • Tier 4 – A-League, Super Rugby, BBL: $45 • Tier 5 – WBBL, AFLW: $20	Based on MI Global Partners (2022, p. 19)
Venue hire fees	$50,000 venue hire fee	MI Global Partners (2019, p. 19) assumes $62,500/ day. But note KPMG is assuming around $35-36k per day, based on the total of $1.246 million reported in the Financial Impact Report (p. 18). This may reflect forgone revenue relating to revenue-generating elements being excluded from the stadium model in KPMG's CBA.
Membership and other revenue	$5.289 million per annum	KPMG Financial Impact Report (2024, Table 8, p. 18)

Source: MI Global, KPMG and Lateral Economics.

Revenue associated with excluded items

Furthermore, we have modelled the following revenue items related to the additional CAPEX (discussed above) currently excluded from the KPMG CBA model but estimated in scenario 2 of its Financial Impact Analysis (on p. 23):

- **Food and Beverage revenue;**
- **LED Ribbon board advertising revenue; and**

- Additional function-related revenue associated with being able to offer AV services.

We have adopted assumptions consistent with KPMG's analysis, adjusted for differences in the assumed number of events.

Net revenue loss at other stadiums

We model a reduction in UTAS and Ninja stadiums' net revenue as some events are transferred to the new Hobart stadium. UTAS loses a pre-season AFL game and a Coates Talent League game while Ninja stadium loses four AFL games. This is a relatively minor impact in the model but should be considered part of the financial impact on the state government and, hence, in the terms of KPMG's analysis, the required operating subsidy. The Tasmanian Planning Commission recognised the need to consider impacts on other stadiums in its letter to the MPDC CEO of 19 November, noting the financial impact analysis should "remove non-incremental revenue", particularly "the revenue earned by other stadia or venues".[68]

Increased visitation

The large bulk of benefits in existing CBAs for Hobart Stadium come from increased visitation.[69] Hence, it is especially important to get the assumptions around increased visitation from outside Tasmania and net tourism benefits correct. Both MI Global Partners and KPMG correctly identified it is only additional spending in the state that comes from visitors from outside Tasmania that is relevant to calculating any additional economic activity and

[68] Tasmanian Planning Commission (2024) Macquarie Point Multipurpose Stadium–Project of State Significance Request for Further Information, letter dated 19 November 2024 to MPDC CEO Anne Beach, p. 8.

[69] Indeed, the Stadium requires ongoing public subsidy and hence its economic case hinges on tourism and other benefits rather than the financial performance of the Stadium itself.

related benefits.[70] However, their assumptions, particularly KPMG's, are unrealistically optimistic.

Labour and producer surplus

The benefits from increased visitation (i.e. tourism benefits) are much lower in our model than KPMG's.

KPMG assumes that approximately 35 cents in every dollar of additional tourism spending in Tasmania is a net benefit to the state.[71] This comprises 16 cents of producer surplus and nearly 19 cents of labour surplus for every dollar of spending.[72] The collective 35 cents in the dollar or 35% of total tourism spending is twice as large as that assumed by MI Global Partners. MI Global Partners relied on a NSW Department of Premier and Cabinet estimate "that for every dollar spent within the state as a result of event visitation, the economic benefit is $0.1625."[73]

In our view, very little if any labour surplus should have been included in calculating visitation benefits — which account for around half of the visitation benefits claimed by KPMG. Labour surplus benefits are only relevant in a CBA where the opportunity cost of labour is not the wage in alternative employment but of leisure, i.e., if the person would otherwise not be working. In this case, an assumed value of leisure is used as a shadow price.
As NSW Treasury notes in its CBA guidelines (2023, p. 49): "Shadow price adjustments for use of resources (labour, non-labour inputs to production,

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[70] This is because increased spending by Tasmanians on the stadium and its offerings will leave them with less in their pocket for other expenditures in Tasmania.

[71] In estimating additional tourism spending we use the same assumptions regarding average nights and daily spending as KPMG in its CBA report. KPMG based its assumptions on Tourism Research Australia data. That is, stadium event attendees stay an average of 3.1 nights in Tasmania with average spending of $304 per night (KPMG, 2024, CBA report, p. 20). For retained visitation, it is assumed that the person would otherwise have spent 2.9 nights interstate with average spending of $326 per night (KPMG, 2024, CBA report, p. 22).

[72] See KPMG's CBA report (p. 18).

[73] MI Global Partners (2022) HOBART STADIUM Cost Benefit Analysis Report –Final, 11 November 2022, p. 18.

land) are not commonly used in Australia, and this Guide cautions against doing so due to the significant measurement complexities involved." They can only be justified where "The resource used (non-labour inputs, labour) would otherwise be unemployed or under-employed so that the opportunity costs of labour employed on an initiative are less than the wage costs and the initiative's costs could be adjusted accordingly."[74]

Likewise, Peter Abelson from the University of Sydney notes:

> When a worker would have alternative employment, the labour surplus may be little or nothing. When a worker would be otherwise unemployed or under-employed, the opportunity cost is the value of leisure foregone.[75]

The labour surplus associated with the stadium will likely be less than KPMG assumes. Tasmania's unemployment rate (4.3%) is close to the national average (4.1%) and much lower than historical averages (6.3% since January 2000 and 7.8% since February 1978), suggesting very little slack in the labour market.[76] There may be some small benefit from a wage premium for new jobs, but it would be much less than KPMG's assumed labour surplus.

The same logic means that the producer surplus benefit from additional tourism spending will be smaller than KPMG assumes. If labour moves from alternative employment to employment in tourism-related activities, producer surplus in other activities can be expected to fall as tourism-related producer surplus rises. There may be some opportunity for tourism-related businesses to increase their utilisation without additional resources, so there may be some producer surplus, but substantially less than KPMG assumes.

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[74] TPG23-08 NSW Government Guide to Cost-Benefit Analysis

[75] Abelson, Peter (2011) Evaluating Major Events and Avoiding the Mercantilist Fallacy, p. 6.

[76] ABS Labour Force Survey trend estimates.

Recognising the alternative uses of labour and capital resources in the Tasmanian economy while at the same time acknowledging there may be some small net benefit from additional tourism spending, we assume 10% of new tourism spending can be treated as a net benefit to the state.[77]

Dr Leo Dobes, Honorary Associate Professor, Australian National University, has provided advice regarding the treatment of tourism benefits in a CBA consistent with our understanding (Box 6). Dr Dobes is a highly-regarded expert in CBA, and has taught the CBA course for the Australia and New Zealand School of Government (ANZSOG).

[77] We did not include it in our calculations, but another reason for reducing the net benefit suggested by KPMG's methodology is that a significant share of additional producer surplus will flow out of Tasmania to interstate or international shareholders.

Box 6. The treatment of tourism benefits in a CBA

Labour surplus

Only the additional labour surplus generated by currently unemployed Tasmanian workers should be counted. Contracting currently employed workers would involve a transfer of their existing labour surplus to a different location within Tasmania, rather than generating additional labour surplus (but recognising that there might be adjustments for differences in wage rates, or hours worked). Potential displacement of other economic activity is also a relevant issue that needs to be explored further.

If currently unemployed Tasmanian workers are contracted to the stadium project, their calculated labour surplus would be reduced by any transaction costs (e.g. relocation to Hobart, new work clothes, etc) incurred by them.

Producer surplus

Care needs to be taken in estimating producer surplus, because the entities that generate it may be owned by non-Tasmanians. Given KPMG's adoption of a Tasmanian perspective, producer surplus transferred elsewhere should not be counted as a benefit of the project.

Source: Dr Leo Dobbs, Honorary Associate Professor, Australian National University

Interstate visitors

KPMG assumes that 25 per cent of the stadium's AFL attendances will be from interstate.[78] That is, for an AFL game with an assumed average attendance of 20,825, approximately 5,200 attendees would be from outside Tasmania.[79]

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[78] In KPMG's (2024) Cost-Benefit Analysis report on p. 19 it notes: "Of attendees to Commercial events, 25 per cent are assumed to be visiting from outside of Tasmania. This figure has been benchmarked against the proportion of local vs inbound visitors to Hawthorn (AFL) games held at UTAS Stadium published by PwC in 2017".

[79] The average attendance estimate is based on the figures in Table 7 of KPMG (2024) Cost-Benefit Analysis report, p. 11.

However, in our view, this overestimates interstate attendance. The games from which KPMG derives its 25 per cent figure involve two interstate teams rather than one, which will be the case for AFL games held in Tasmania under the new arrangements.

Further, while we agree that attendances at AFL home games for the Tasmania Devils will exceed the attendances under existing arrangements at UTAS and Ninja stadiums, we see no reason why they would draw a higher proportion of followers of the corresponding away teams from interstate.

Accordingly, to estimate the interstate visitors to Devils home games we take the average interstate attendance at Hawthorn-North Melbourne games in Tasmania (3,400) and divide it by two. Thus we expect interstate visitors at a typical Devils game to be around 1,700 (i.e. around 8% of the attendances we estimate).[80] We found KPMG interstate visitor assumptions regarding other event types similarly optimistic with little supporting evidence, and assumed 10% rather than 20% for entertainment and one-off events. Except where the new stadium attracted some exclusive acts which would not appear on the mainland, we think this figure is probably generous.

It was suggested to us that Hawthorn and North Melbourne games held in Hobart have generally featured lower-performing or less popular teams, and that Hobart Stadium games featuring the Devils would feature more popular teams, particularly Collingwood, which has only ever played a practice game in Hobart. We investigated whether we should change our assumptions based on this idea but concluded against doing so. Some of the most popular teams,[81] such as Carlton (2018 and 2019 seasons), West Coast Eagles (2018,

[80] See p. 17 of Final report on AFL in Tasmania which reports average attendance at York Park since 2015 of around 13,500 and Hawthorn's Tasmanian economic impact which reports one-quarter of attendees are visitors from outside Tasmania. Note, KPMG have taken the absolute interstate visitor numbers from games at York Park and expressed them as a percentage of total attendance. This means that, where they predict higher attendance (which we agree is likely for Devils' games) KPMG's produces an uplift in interstate visitor numbers. We can't see any reason for doing so and, accordingly find slightly smaller gains from interstate visitation to Devils' home games.

[81] That is teams with large numbers of members and engaged supporters.

2023, and 2024 seasons), and Geelong (2022 and 2024 seasons), have played in Tasmania.[82]

Using current membership numbers, we calculated the average membership associated with clubs playing in Tasmania, including Hobart and North Melbourne), from 2017 to 2024 (excluding both 2020, where no matches were played and 2021, where additional games were played).[83] This value of 71,796 is close to the average club membership of 73,316 in 2024.[84] Thus, it does not appear that the Hawthorn and North Melbourne games were typically featuring less popular teams. Indeed, Hawthorn has above-average membership for an AFL club, with 83,823 members compared with an average membership of 73,316.

Retained visitation

We have adjusted KPMG's estimates downward–i.e. from 25% to 10% for concerts and entertainment events, because KPMG's assumed proportion of retained visitors seemed very high, and provided no empirical support.

Additional travel outside of Tasmania for away games

Through an offset to tourism benefits in the CBA, labelled 'offset to retained visitation due to travel to away games', we account for the fact that having an AFL team gives Tasmanians an additional reason to travel interstate (i.e. to away games). KPMG does not appear to have considered this possibility. We assume that induced interstate travel amounts to 2% of attendance at AFL games in Hobart. In other words, for every fifty people attending a Hobart AFL game, one is induced to take an additional trip to the mainland to watch a

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[82] See 2018 AFL season - Wikipedia, 2019 AFL season - Wikipedia, 2023 AFL season - Wikipedia, and 2024 AFL season - Wikipedia.

[83] A weighted average was calculated based on membership numbers and the number of games played in Tasmania.

[84] Club membership numbers were sourced from this Fox Sports article, Vic powerhouse defends title; new No. 2 leapfrogs Eagles: 2024 AFL membership ladder revealed, accessed on 27 November 2024.

Devils away game. Though the effect is not large, this takes money out of the state, reducing Tasmanian GSP and employment.

Reduction in Hawthorn-North Melbourne games

We model a loss of net tourism benefit associated with four games at Ninja Stadium (formerly Blundstone Arena). There is an assumed loss of four games, which an average of 12,600 people would have attended based on historical attendance data.[85] Interstate attendance of 25% is assumed, consistent with reported interstate attendance at Hawthorn-North Melbourne games (in Launceston).[86] Additional visitor nights and average daily spending are the same as for other tourism net benefit calculations in the CBA model.

Cruise ships

Based on consultations, we model additional tourism spending in Tasmania (around $2.4 million annually) and additional net revenue to TasPorts (approximately $90,000 per cruise ship), due to stadium events underpinning demand for additional cruises to Tasmania. We were persuaded that the new stadium would attract additional cruises. However, because its main activity is in the winter, the effect will be muted. We assume one additional cruise with 2,000 additional tourists each in a typical year (coinciding with a major AFL game and an ANZAC day game), and two additional cruises in every fourth year, with one more cruise coinciding with a test match.

Health and productivity

We have adjusted KPMG's health and productivity benefit by assuming a lower proportion of the additional people playing AFL by 2030 would otherwise have remained inactive. KPMG assumes 37%, which is based on

[85] Final Report on AFL in Tasmania, p. 17.

[86] Hawthorn's Tasmanian economic impact

AusPlay data on the percentage of people playing AFL who only play AFL.[87] However, what is unknown is how many of these people would play another sport entirely if they did not play AFL, which could be a significant proportion. Hence, 37% is too high a parameter in the CBA model, and we have instead assumed 20%. This results in a near halving of the estimated health and productivity benefits.

Terminal value of infrastructure and land

The terminal value of the stadium facilities and related precinct infrastructure is included in the CBA model in the final year of the operating period. Because capital lifecycle costs are included in the model, it is assumed that sufficient refurbishments are made on an ongoing basis to maintain the assets in an undepreciated state — i.e. the full capital expenditures made to build the assets are included in the terminal value in the final period.

Consistent with the inclusion of the land value as a cost item (e.g. because the state government forgoes the opportunity to sell the land at the outset of the project), the terminal value of the land needs to be considered as a benefit item in the final year of the CBA. It is assumed the land value appreciates at an annual average real rate of 3%, which is based on Corelogic data adjusted for inflation.[88]

Use value

This benefit is the total consumer surplus associated with events at the stadium. Consumer surplus is the difference between consumers' willingness to pay for an item and what they actually paid. We have followed MI Global Partners' assumption that the consumer surplus attributable to the sale of a ticket is 10% of its price for attendees of new events (see Table 8 for ticket

[87] KPMG (2020) Cost-benefit Analysis report, p. 27.

[88] See The long game … 30 years of housing values | CoreLogic Australia

price assumptions).[89] This is the same assumption made by KPMG, which starts off with a 20% consumer surplus assumption, but then notes "consumer surplus of new local attendees has been discounted by 50 per cent in order to account for the lack of clarity regarding the alternate use of their time and resources under the base case."[90] Only consumer surplus of local Tasmanian attendees is included in the CBA.

While MI Global Partners has modelled a small uplift in consumer surplus of 5% for attendees who would otherwise have attended events at different stadiums, we have not done so. At this stage, it remains to be determined to what extent Hobart stadium will provide a superior spectator experience to existing stadiums.

It is unclear how KPMG has treated transferred attendance in its consumer surplus calculations, and it is possible it has been included. Regardless, our use value estimate ($22 million) ends up slightly higher than KPMG's ($17 million). The most likely reason is our ticket price assumptions in Table 8 are higher than KPMG's. KPMG did not publish its ticket price assumptions in either its CBA or financial anlaysis reports, so we cannot reconcile the differences.

Non-use value

This is the value Hobart residents enjoy as a result of having a stadium available even if they do not use it. It could be considered an 'option value'. We have adopted KPMG's assumption because it appears reasonable — i.e. $10.85 annual non-use value per Hobart resident aged 15 and over.[91] It means a $20 million benefit in NPV terms in both KPMG's and our model.

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[89] MI Global Partners (2022, p. 21).

[90] KPMG (2024) Cost-benefit Analysis Report, p. 25.

[91] KPMG (2024) Cost-benefit Analysis Report, p. 26.

AFL industry benefit

We have followed KPMG in estimating a benefit to the Tasmanian economy from the establishment of the Tasmanian Devils. This is based on a total investment of $350 million over ten years. In our model, we assume 10 instalments of $35 million over 2024 to 2033. We use the same net benefit assumption related to new spending in the state as for tourism spending — i.e. 10% net benefit.

Stadiums as a catalyst of local development

We have not modelled any catalytic impacts (e.g. new investments in the local economy) because there is little evidence of such an effect in the literature. (Box 7).

Box 7. Catalytic and other economic impacts of stadiums

According to Bradbury *et al.*, extensive economic research about the economic impact of stadiums finds that professional sports facilities financed by public funds often generate limited economic and social benefits.[92]

Even though there are potential economic and social benefits, these are often too small compared to the public investment needed to build arenas or stadiums. For example, Abbiasov and Sedov found positive spillovers from baseball and football stadiums mainly focused on entertainment-related businesses near the sports facilities. In monetary terms, the authors found that a median sports facility generates roughly US$12.5 million of additional spending every year. However, these additional benefits alone are not large enough to offset the public investment over the typical sports facilities' lifetimes.

Bradbury *et al.* (2023, p. 33) indicated that:

> Economists who have scrutinized commissioned reports consistently find them to be flawed, regularly committing basic errors such as incorrectly identifying costs as benefits, overestimating benefits and underestimating costs, confusing gross and net spending, using unrealistic multipliers that inflate growth expectations, and relying on unrealistic assumptions about future economic development.[93]

AFL contribution

The AFL's $15 million contribution to funding the stadium is treated as a benefit item in the CBA model, because it represents a benefit to Tasmania

[92] Bradbury, J.C *et al*, 2023. "Public Policy Toward Professional Sports Stadiums: A Review". *Journal of Policy Analysis and Management*, pp. 1-2.

[93] Bradbury, J.C *et al*, 2023. "Public Policy Toward Professional Sports Stadiums: A Review". *Journal of Policy Analysis and Management*, pp. 33.

that offsets the costs of construction. In the CBA model, it is assumed this is paid in three annual installments of $5 million over 2026 to 2028. If the CBA were undertaken from a national perspective, rather than from the perspective of the state of Tasmania, this contribution would not count as a benefit as it is simply a transfer from one group in the population of concern to another.

Commonwealth contribution

Like the AFL's contribution, the Commonwealth's contribution to the stadium funding is treated as a benefit item in the CBA model. Again, if the CBA had a national focus, this contribution would not count as a benefit but rather as a transfer from one group to another which nets to zero.

Tasmania's net benefits will be materially affected by any implications of federal funding for the stadium for the allocation of GST revenue through the Horizontal Fiscal Equalisation (HFE) process overseen by the Commonwealth Grants Commission (CGC). After I had submitted my draft review to the Tasmanian Government on 2 December, it was announced, on 13 December, the Commonwealth funding would be exempted from the HFE process.[94]

Summary of benefits

As we have done for costs, we have developed central, pessimistic and optimistic scenarios regarding benefits. An overview of the differences between the scenarios by affected item in the CBA modelling is presented in Table 9.

[94] https://www.premier.tas.gov.au/latest-news/2024/december/gst-exemption-for-macquarie-point-multipurpose-precinct-secured

Table 9. Specification of central, pessimistic and optimistic scenarios–benefits

Item	Central	Pessimistic	Optimistic
Net tourism benefits	Lower value of net tourism benefits than KPMG (i.e. 10% of additional spending vs ~35%)	Even lower value of net tourism benefits (i.e. 5%) & no additional cruise ships	Net tourism benefits at 20% of additional spending & no offset due to travel to away games
Stadium revenue, use value & non-use value	As described in this section	Assumed to be 20% lower	Assumed to be 20% higher
Health and productivity	Assumes 20% of additional people participating in Aussie Rules due to stadium, rather than ~37%.	Assumes 10% of additional people participating in Aussie Rules due to stadium, rather than ~37%.	Same value as KPMG

Source: Scenarios based on desktop research and stakeholder consultations.

A summary of estimated benefits across the central, pessimistic and optimistic cases is provided in Table 10.

Table 10. Summary of benefits in the CBA model

Item	Central case - NPV, $m	Pessimistic case - NPV, $m	Optimistic case - NPV, $m
Stadium revenue - Ticket revenue	12.5	10.0	15.0
Stadium revenue - Venue hire fees	16.3	13.1	19.6
Stadium revenue - F&B revenue	84.3	67.5	101.2
Stadium revenue - LED Ribbon Board Advertising share	6.4	5.1	7.6
Stadium revenue - Functions revenue	5.7	4.5	6.8
Stadium revenue - membership & other revenue	46.8	37.4	56.2
Increased visitation – sports and cultural events	25.2	10.1	50.4
less offset to visitation due to loss of Bellerive games	*-10.5*	-4.2	
Increased visitation – business events	4.4	2.2	8.7
Increased visitation - operators	0.7	0.3	1.4
Increased visitation - cruise ships	2.1		4.2
Retained visitation	25.7	12.9	51.5
less offset to retained visitation due to travel to away games	*-2.7*	*-1.3*	
TasPorts net revenue from additional cruise ships	1.0		1.0
Use-value	21.8	17.5	26.2
AFL industry	24.6	12.3	49.2
Terminal value	97.1	104.1	89.7
Land value at end of operating year 30	41.0	82.0	12.9
AFL contribution to stadium funding	11.5	11.5	11.5
Commonwealth contribution	183.6	183.6	183.6
Non-use value	19.7	15.8	23.7
Health and productivity	16.2	8.1	29.9
Total benefits	**633.5**	**592.4**	**750.2**

Source: Lateral Economics estimates and calculations.

9. Net benefits

Central, pessimistic and optimistic cases

Based on the estimates of costs and benefits presented above, we can present the NPV and benefit-cost ratio of the stadium in both the core and extended models (Table 11). According to our central case, the project generates net losses of $795 million or around 44 cents of benefits for every dollar spent on it. This means that when both costs and benefits are totalled the stadium produces a net loss to Tasmania of $795 million, compared with KPMG's estimated net loss of $237 million.[95] This produces a capitalised net cost per Tasmanian of around $1,380 compared with the figure implicit in KPMG's calculations which is around $410. Only Tasmanians can say whether the stadium and the Tasmanian team that comes with it are worth this financial sacrifice.

Table 11. CBA metrics

Metric	Central case	Pessimistic	Optimistic
Net benefits ($ million)	**-795**	**-1,130**	**-495**
Benefit-cost ratio	444	344	603
Net benefits per Tasmanian	-$1,381	-$1,963	-$860

Source: Lateral Economics calculations.

No roof scenario

We have modelled a scenario in which the roof cost is excluded. This results in an assumed CAPEX reduction of $150 million and lower lifecycle costs, which are proportional to total CAPEX (see below). The assumed $150 million is midway between the estimated costs of the mid and enhanced options for the roof in WT Partnership's 2022 costing.[96]

[95] KPMG (2024) Cost-Benefit Analysis report, p. 3.

[96] WT Partnership (2022) HOBART STADIUM PRE-FEASIBILITY ESTIMATE NO. 1, p. 13.

We have also modelled some reduction in benefits in the no-roof scenario. Specifically, we assume:

- Attendance is 5% lower; and
- There are fewer concerts in the absence of a roof (only 1 full stadium concert versus 4 in our core scenario, and 0 arena-style concerts compared with 2 in our core scenario)

Our analysis reveals that excluding the roof could improve the NPV which reduces the total cost to Tasmanians, but it does not change the central story much (Table 12). Further, it actually reduces the BCR because the proportionate reduction in benefits is greater than the proportionate reduction in costs. However, the fact that the NPV improves indicates that it would nonetheless improve the project's economics to remove the roof.

Table 12. No-roof scenario CBA metrics

Metric	Central case	Pessimistic	Optimistic
Net benefits ($ million)	**-709**	**-1,027**	**-434**
Benefit-cost ratio	441	343	600
Net benefits per Tasmanian	-$1,232	-$1,785	-$755

Source: Lateral Economics calculations.

Impacts of different discount rates

Infrastructure Australia recommends sensitivity tests for CBAs using lower and upper bound real discount rates of 4% and 10%, respectively.[97] For projects with large upfront capital costs, lower discount rates tend to increase the NPV and BCR because future benefits are discounted less. Conversely, higher discount rates tend to decrease the NPV of net benefits and BCR as future benefits are discounted more.

[97] Infrastructure Australia (2021) Guide to Economic Appraisal, p. 23.

Real discount rate of 4%

Using a 4% real discount rate, the BCR of the project improves significantly from 0.444 to 0.597, and the BCR in the optimistic case is 0.755 (Table 13).

Table 13. Sensitivity test using 4% real discount rate

Metric	Central case	Pessimistic	Optimistic
Net benefits ($ million)	**-710**	**-1,061**	**-383**
Benefit-cost ratio	597	497	755
Net benefits per Tasmanian	-$1,233	-$1,845	-$665

Source: Lateral Economics calculations.

Real discount rate of 10%

Using a 10% real discount rate, the BCR of the project worsens significantly from 0.444 to 0.360, and the BCR in the optimistic case is 0.513 (Table 14). In the pessimistic case, it is 0.265.

Table 14. Sensitivity test using 10% real discount rate

Metric	Central case	Pessimistic	Optimistic
Net benefits ($ million)	**-778**	**-1,086**	**-508**
Benefit-cost ratio	360	265	513
Net benefits per Tasmanian	-$1,352	-$1,887	-$883

Source: Lateral Economics calculations.

Alternative project

The POSS guidelines require the economic impact assessment to "also consider the opportunity cost of domestic investment - for example, a "counter-factual" estimate of the impact of an alternative investment of equivalent public funds."[98] This can also be done for the cost-benefit analysis. Using the reported benefit-cost ratio of 1.95 in an Infrastructure Australia assessment of a recent educational project, alternatively spending achieving a

[98] Tasmanian Planning Commission (2024) Guidelines - Macquarie Point Multipurpose Stadium Project of State Significance - February 2024, p. 9.

BCR of that size would yield net benefits equivalent to over $2,400 per Tasmanian, rather than the net losses just reported (Table 15).[99] This is for illustrative purposes, as undertaking a comprehensive CBA for an alternative project was outside the scope of this review.

Table 15. Illustration of the CBA of an alternative project

Item	Value
Benefit-cost ratio (BCR)	1.95
NPV ($ million)	1,386
Net benefit per Tasmanian	2,409

Source: Lateral Economics calculations.

In comments on the draft report the Government expressed its misgivings in these terms: "The alternative project included for comparison is inappropriate and misleading due to the lack of functional equivalence, or suitability to the site." However the POSS guidelines do not require functional equivalence or suitability for the specific site. This is the right approach. The Government needs to consider whether there are better uses for the funds they plan to invest, whatever they are and wherever they are located before proceeding with any investment and avoiding new debt.

[99] Infrastructure Australia (2017) Infrastructure Australia Project Business Case Evaluation: Hobart Science and Technology Precinct, p. 5.

10. Financial impacts

Introduction

This section analyses the financial impact of the stadium construction on the Tasmanian Government. We compare and contrast two different approaches:

1. Financing scenario 1 — The Government's planned approach of:
    a. Financing the funding shortfall through land sales or alternatively having MPDC borrow the shortfall;
    b. Bringing in private providers to build the revenue-generating aspects of the stadium; and
2. Financing scenario 2 — Full delivery by MPDC.

We highlight where the existing financial analysis of the stadium could be improved.

Financial scenario 1

In this scenario, we consider the full delivery of the stadium by the Tasmanian Government through MPDC. This is consistent with the CBA and uses the same assumptions as set out in sections 8 and 9 on costs and benefits above.

Construction period

All of the amount left to fund after external contributions from the AFL and Commonwealth (refer to Table 3) is borrowed except for $85 million coming from land sales. Hence, the Government needs to fund $756 million from borrowings. Allowing for an estimated $74 million in interest during construction on this borrowing, by the end of the construction period total

additional debt at the end of the construction period (at the end of 2028 in KPMG's financial modelling) is estimated at $830 million.[100]

Operating period

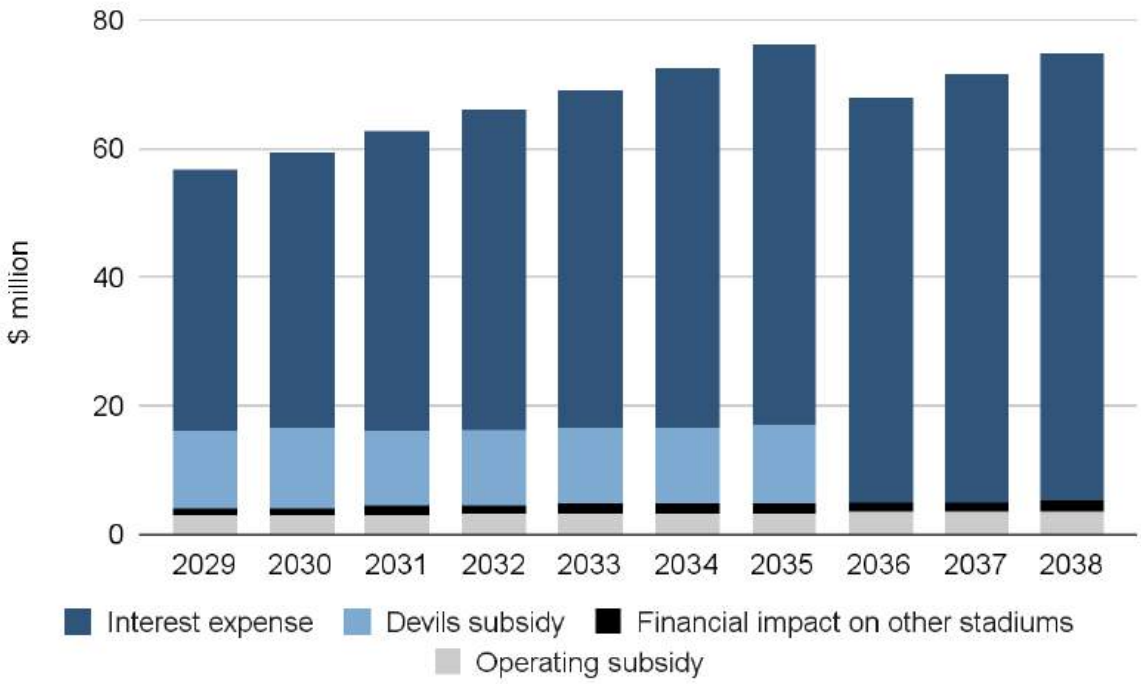
Budgetary impact

KPMG has rightly identified that the stadium will require an ongoing operating subsidy. Additionally, given the financial impacts on other Tasmanian stadiums, particularly Ninja, they may require additional operating subsidies. All else being equal, given that the Tasmanian Government will likely continue running fiscal deficits beyond the forward estimates, this additional expenditure will need to be funded by borrowings, which means additional public debt interest. Additional interest expenses will also be associated with the debt incurred during the construction process.

Our estimates of the ongoing budgetary impact on the Tasmanian Government in the operating period of the stadium are presented in Figure 7. Depending on whether the additional borrowing is undertaken in the general government sector or the PNFC sector (i.e. by MPDC), part of what is labelled as interest expense in this figure may instead be granted expenses to MPDC to cover additional interest it needs to pay. The budgetary cost increases over time as the interest expense increases due to the additional debt incurred each period. Indeed, because of the significant upfront capital cost, the interest expense is the major ongoing impact on the budget.

[100] Interest during construction is approximated in the following way. Over the four year construction period, the average level of borrowings is assumed to be half of the required borrowing requirement of $756 million–i.e. $378 million. The assumed interest rate of 4.87% applied to this average level of borrowings gives average annual interest payments of $18.4 million. Multiplying this by 4 (for the 4-year construction period) gives $73.6 million in interest during construction.

Figure 7. Ongoing budgetary impact of the stadium: financial scenario 1



Note: An interest rate of 4.87% is assumed and the operating subsidy and financial impact on other stadiums is inflated at 2.5% assumed CPI inflation per annum.

Impact on net debt

By the end of 2027-28, Tasmania's non-financial public sector (NFPS) net debt is expected to be $16.616 billion, or around $28,400 per Tasmanian.[101] First we calculate net debt at the end of the construction (i.e. the end of 2028) excluding the $375 million of borrowings already in the budget and associated cumulative interest expenses of $37 million. This gives an estimated NFPS net debt in 2028 in the absence of the stadium of $16.204 billion. Adding the additional $830 million of debt at the end of the construction period, brings net debt to $17.034 billion in 2028. After the first ten years of operation, net debt increases to $17.635 million. That is an additional net debt per Tasmanian of $1,563 as a consequence of the Stadium after its construction and first ten years of operation.

[101] The net debt figure is from Table A1.8, p. 188 of Tasmanian Government 2024-25 Budget Paper no. 1. The calculation of net debt per Tasmanian is based on an estimate Tasmanian population of 585,000 in 2027-28, based on extrapolating the latest ABS estimate of Tasmania's population

Table 16. Impact on public sector net debt per Tasmanian–financial scenario 1

	$ billion	Per Tasmanian
A) NFPS Net debt in 2028 - without stadium	16.204	$27,827
B) NPFS Net debt in 2028 - with stadium	17.034	$29,252
C) NPFS Net debt in 2038 - with stadium	17.635	$29,389
Net debt impact of stadium after 10-years operating (C-A)	1.430	$1,563

Source: Tasmanian Government and Lateral Economics estimates and calculations.

Financial scenario 2

In this scenario, consistent with the KPMG analysis, some revenue-generating capital expenditures (e.g. F&B fit-out, AV, CCTV, etc.) are not assumed to be government funded. Rather they are met by private sector providers who can earn revenue from these assets. Note that this does not include a carpark. While a car park has been announced, it was not included in the financial analysis of the stadium undertaken by KPMG. We can find no basis on which to model the car park and hence have not considered it.

Construction period

In this scenario, consistent with Table 3 above, $700 million needs to be borrowed by the Government. Adding on an estimated $68 million for interest during construction, total borrowings at the end of the construction period will be $768 million higher. This is lower than the estimated additional debt if the private sector did not construct the revenue-generating assets.

Operating period

It is clear that the work simply has not been done to support the private provision of those facilities of the stadium that the current accounting for the project assumes will be privately provided. This much is made clear by KPMG's observation that it had "not been provided any detail regarding the

proposed funding / outsourced model for catering and technology (including service provision) at the time of writing."[102]

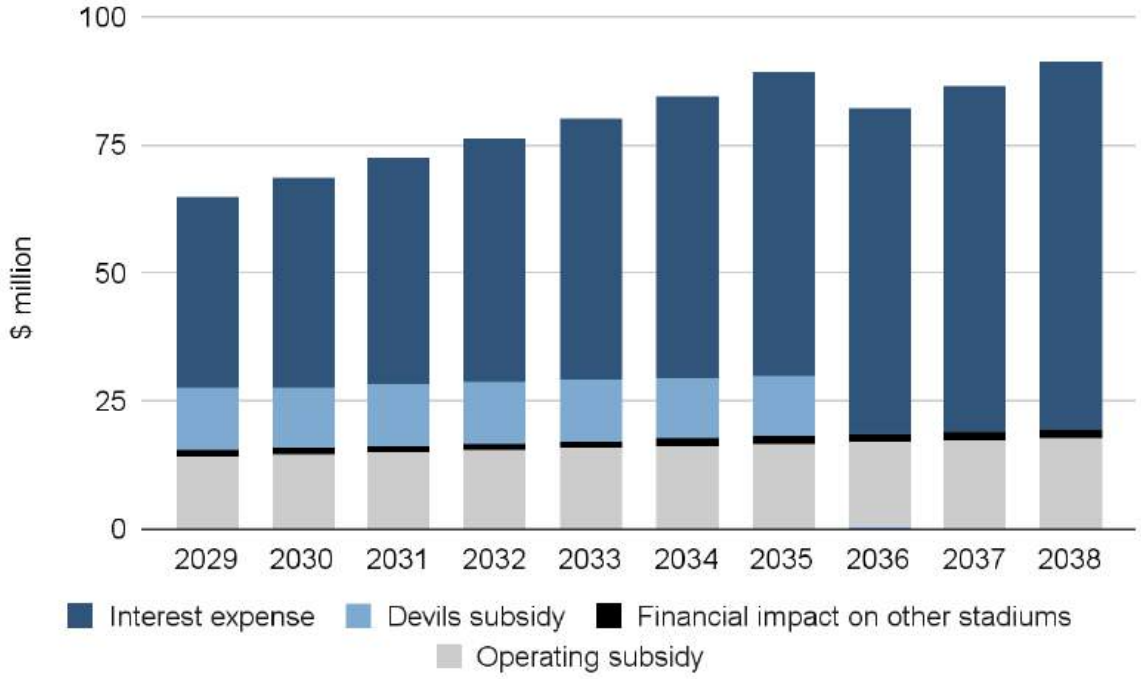
Given this, we adopt a 'top down' method of calculating the potential cost of entering these arrangements in order to keep the expense of the necessary investment off the Government's balance sheet. Note that to do so, private investors must be induced to fund $56.5 million of revenue-generating assets as part of a start-up venture when it is quite uncertain how successful the stadium will be in attracting events. In such circumstances the private sector will be very reluctant to invest in the capital cost of such facilities. This is the reason why rental and concession arrangements are common in such circumstances.

To capture this reluctance, we assume that in the operational period, the private sector needs to earn a 20% return on the capital invested in the $56.5 million of revenue-generating, amounting to $11.3 million per annum — obviously a far higher cost of capital than the Government's cost of debt. This amount will be made up of some combination of reduced revenue to the stadium (compared to the revenue it would earn if it debt-funded the capital cost of the facilities and charged rent or concessional fees) and/or direct payments to the private parties who funded the capital cost of the revenue earning facilities. The net effect is shown in Figure 8, which, as one would expect, shows a much larger annual budget impact than for financial scenario 1.

After the start-up phase when the stadium's event calendar becomes established the rate of return demanded to meet the capital cost of the facilities could be expected to fall, perhaps substantially.

[102] KPMG (2024) Financial Impact Report, p. 17.

Figure 8. Ongoing budgetary impact of the stadium: financial scenario 2



Note: An interest rate of 4.87% is assumed and the operating subsidy and financial impact on other stadiums is inflated at 2.5% assumed CPI inflation per annum.

Considering the financial impacts in this scenario, net debt ends up higher than in scenario 1 (Table 17). Although the initial capital outlay is lower, the potential for a poor financial deal to attract private sector investors means that ongoing outlays via the operating subsidy to the stadium will likely be higher and net debt ends up higher after ten years of operation.

Table 17. Impact on public sector net debt per Tasmanian–financial scenario 2

	$ billion	Per Tasmanian
A) NFPS Net debt in 2028 - without stadium	16.204	$27,827
B) NPFS Net debt in 2028 - with stadium	16.972	$29,145
C) NPFS Net debt in 2038 - with stadium	17.676	$29,458
Net debt impact of stadium after 10-years operating (C-A)	1.471	$1,631

Source: Tasmanian Government and Lateral Economics estimates and calculations.

11. Economic impact assessment

The role of economic impact assessment in public policy

As part of my review, I have also considered the economic impact analysis undertaken of the stadium by KPMG using a computable general equilibrium (CGE) model. CBA is the preferred framework for evaluating projects–hence, I have focussed the bulk of my review on the CBA and financial analysis of the project. However, governments may wish to consider economic impacts in their decision-making. As the NSW Treasury observed in the *NSW Government Guide to Cost-Benefit Analysis*:

> Economic impact analysis is not an alternative analytical approach, it mainly shows how economic activity (e.g., GDP, private consumption, investment, exports, employment and industry outputs) changes due to a specific initiative, such as a project or policy change, typically called 'shocks'. Estimates of GDP changes from economic impact models and net benefits from a CBA are not interchangeable, nor additive. Economic impact analysis, however, can provide complementary information to decision makers or, depending on the methodology, inputs into a CBA.[103]

One thing for which economic impact estimates are useful is to consider the amount of slack in the economy and the degree to which demand is satisfied by imported labour (and the extent of displacement or 'crowding out' of economic activity elsewhere in the economy). These matters are of critical importance given firstly the changes in the Australian economy since COVID and the relatively small size of the Tasmanian economy.
In this regard, there are important shortcomings in the economic impact assessment:

[103] NSW Treasury (2023) NSW Government Guide to Cost-Benefit Analysis, p. 103.

1. **Overestimation of impacts.** As the economic impact assessment uses the same over-optimistic interstate visitor assumptions discussed in the benefits section above, it will overestimate the economic impact of the stadium on the state. Additionally, KPMG has not considered the economic impact of the negative shock from some Tasmanians making additional interstate trips to attend Tasmania Devils' away games.
2. **A lack of clarity on Gross State Product (GSP) per capita uplift accruing to interstate migrants.** The assessment is light on details regarding the mechanisms of the GSP impact. In particular, it would be useful for decision makers to know what share of the additional jobs and GSP uplift in the construction and operating phases accrue to local residents as opposed to construction workers who relocate temporarily or to interstate migrants who move to Tasmania to take up new jobs.
3. **Lack of response to POSS requirements.** At least in the short run, almost any investment, whether from the private or public sector will promote economic activity and, in so doing, generate benefits in the form of higher employment and profits. Cost benefit analysis seeks to shed light on the extent to which this is really the case if one considers all costs and benefits now and in the future. Economic impact analysis sheds light on similar questions in a different way, by comparing the economic impact of a project to a counterfactual of not proceeding with that project. However, without care such an analysis can often be used to justify projects on the basis of their benefits without focusing on their costs. For this reason, it makes sense to have an additional counterfactual in which there's a different project of a similar magnitude.

It may be partly for these reasons that the POSS guidelines required a comparison with an alternative investment of equivalent public funds. Yet, as the Tasmanian Planning Commission noted in its 19 November letter to the MPDC CEO, the economic impact assessment provided for the POSS

approval did not do this. We have offered a very summary cost benefit analysis of a similarly sized project above.[104]

[104] TPC (2024) Macquarie Point Multipurpose Stadium–Project of State Significance Request for Further Information, p. 2.

Disclaimer

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Appendix 1. Terms of Reference

1. The independent review of State's finances will include financial modelling of the Macquarie Point Multipurpose Precinct. The independent assessor will review the existing analysis supporting the cost-benefit assessment of the Precinct (including financial modelling and assessments of the social, economic and environmental costs, benefits and impacts of the Precinct) and provide their assessment of the overall costs and benefits of the Precinct. In undertaking their review, the independent assessor may consult both within and outside Government.
2. To facilitate this review, the Government will provide the independent assessor with the following cooperation and assistance:
    a. access to all relevant material held by the Government in relation to the Tasmanian AFL team, the Macquarie Point multipurpose stadium, and the Arts, Entertainment and Sports Precinct at Macquarie Point (including all financial, economic, socio-economic, environmental and planning assessments, models and other relevant analysis; relevant contractual agreements including the Tasmania-AFL agreement; and the findings of prior consultations and independent expert input);
    b. access to previous analysis and reports relating to other proposed developments at Macquarie Point;
    c. full cooperation of Government stakeholders including the opportunity to consult and receive input from political stakeholders and from agencies (and, where relevant, their third-party advisors) involved in the development of the above material; and
    d. any other assistance reasonably required by the independent assessor.
3. The independent assessor will be Dr Nicholas Gruen.

Appendix 2: The road to Mac Point

A stadium wasn't seriously considered as a potential use for the Macquarie Point site until recently. The story of how it came to be the site for a new stadium is instructive in a number of respects.

First, given its scale and the extent to which it will dominate the site, hosting a major stadium is unlikely to be consistent with the planning arrangements and principles in place for the site, and incorporated into the Macquarie Point Development Corporation Act 2012.

Second, it illustrates the significance of mission creep in the way in which plans for the stadium unfolded. The prospect of a stadium was mentioned by Tasmania's AFL taskforce in 2019, though the taskforce conceded that it was "potentially an 'over-indulgence'" at the same time suggesting it was a 'silver bullet' and offered an indicative costing of $300 million.

Background

The Tasmanian government set up the Macquarie Point Development Corporation in June 2012 as a condition of receiving a Commonwealth grant of $50 million to assist with the remediation of the old Macquarie Point railyards and Brooke Street Pier in preparation for future redevelopment.[105]

The relevant act required the Corporation to plan, facilitate and manage the redevelopment of the site to ensure it:

(i) is redeveloped as a vibrant and active area, with a mix of uses, that connects with and complements adjacent areas within Hobart; and

(ii) encourages inner-city living; and

[105] Council of Australian Governments, Project agreement for Macquarie Point Railyards Precinct Remediation Project, 18 November 2013 https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2021-01/macquarie_point_railyards_remediation.pdf.

(iii) is redeveloped so as to deliver sustainable social and economic benefits to Hobart; and

(iv) is redeveloped in accordance with sound planning, urban design and environmental principles.

Further, "to the extent practicable" it was required "to make a profit from carrying out its functions".[106]

In its first year, the Corporation held more than 40 public and stakeholder information-sharing and education sessions and promised "authentic consultation".[107]

In 2015-16 the Corporation contracted the Museum of Old and New Art (MONA) to develop what became known as a plan that introduced a Truth and Reconciliation Art Park as "the cultural heart" of Macquarie Point along with cultural and public spaces, Antarctic research and science centres and residential and conference facilities.[108]

The plan noted that Macquarie Point was a low-lying site and that the views to and from it placed it in the context of its surrounding landscape.

Macquarie Point as a site

In neither the plan nor in any of the Corporation's first eight annual reports did the Corporation mention the possibility of the site being used for a stadium,

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[106] Macquarie Point Development Corporation Act 2012, https://www.legislation.tas.gov.au/view/html/asmade/act-2012-050#GS6@EN.

[107] Macquarie Point Development Corporation Annual Report 2012-2013 https://www.macpoint.com/_files/ugd/8d6c51_3f2540d4df464612ada86d415b41dbb7.pdf.

[108] Macquarie Point Reset Masterplan 2017-2030, Macquarie Point Development Corporation https://www.planning.tas.gov.au/__data/assets/pdf_file/0010/705997/Applied-adopted-or-incorporated-document-Macquarie-Point-Reset-Masterplan-2017-2030.PDF.

though the idea of basing a new stadium at Macquarie Point did surface as Tasmania's AFL Taskforce sat in 2019.[109]

The first reference, in the Corporation's 2021-22 annual report was to a separate "parallel" state government exploration of the feasibility of an arts, entertainment, and sports precinct. Commission Chair Brian Scullin wrote: "While penning my message for this annual report [towards the end of 2022 or in early 2023], it has been confirmed that Mac Point is the preferred location for that development.[110]

On 9 May 2023, the Minister for State Development, Construction and Housing directed the Corporation to develop an updated precinct plan that included a multipurpose stadium, a culturally-informed park, Antarctic facilities, and a residential development that included affordable housing.[111]

The parallel process had been underway for some time.

The Tasmanian government set up a taskforce to develop a "framework and business case to support the granting of a Tasmanian AFL and AFLW licence" in June 2019.

The taskforce reported in December 2019 that "the existing Tasmanian AFL stadia capacities are incapable of hosting the forecasted average attendance or member demand required in the Business Plan".[112]

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[109] See Stubbs, B. 2019. "Tasmania to cut apron strings by joining the AFL", The Mercury, November 8, https://www.themercury.com.au/news/tasmania-to-cut-apron-strings-by-joining-the-afl-as-its-first-sporting-goal/news-story/5f5be82ad9931347b38eff23fe68ef20.

[110] Macquarie Point Development Corporation Annual Report 2021-2022 https://www.macpoint.com/_files/ugd/6fea93_8bd5735b38a9417491767e5a27472a79.pdf.

[111] Macquarie Point Development Corporation Annual Report 2023-2023 https://www.macpoint.com/_files/ugd/6fea93_8ee25bbeefba48aeab1e95cd2f3814e9.pdf.

[112] AFL Licence Taskforce Business Plan 2019 Prepared for the State Government of Tasmania 18 December 2019 https://www.planning.tas.gov.au/__data/assets/pdf_file/0008/781307/Appendix-MM-AFL-Licence-Taskforce-Business-Plan-2019-18-December-2019.PDF.

Noting that this was "outside of its terms of reference", the taskforce put the case for a "clean sheet", roofed stadium which it said should be capable of entertaining approximately 27,500 patrons and identified Macquarie Point as a suitable site.

It said 90% of Hobart hotel stock was situated within a 15-minute walk of Macquarie Point, the site was well served by three main arterial roads and the land was zoned "industrial" allowing for concerts or other events that might otherwise trouble residents.

Scope creep

Though it was optimistic in promoting Tasmania's cause for an AFL team, the 2019 taskforce report was also relatively circumspect in its ambitions. Pointing to the way in which Optus Stadium and the refurbishment of the Adelaide Oval had increased attendances it argued that:

> a Tasmanian team playing in an Adelaide Oval equivalency would neither be a burden on the AFL nor the State: it would be self-sufficient. Arguably, $300M for self-determination for the granting of a 19th licence is potentially an 'over-indulgence', which is why the Taskforce has endeavoured to build a case that sseeks considerably less of the state. While we believe we can reveal a strong case for Tasmanian inclusion in the AFL, this would be a silver bullet.[113]

Further, it was envisaged that the process of deciding on, locating, designing and building a new AFL stadium would take place over a considerable period of time. As the taskforce put it, it should proceed "upon 'proof of concept': as a longer-term aspiration".[114]

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[113] AFL Licence Taskforce, 2019, p. 54.

[114] AFL Licence Taskforce, 2019, p. 12.

> Our stadium approach is underpinned by the retention of matches in the north and south of the State. We are firmly of the view that, to Hobart's detriment, Blundstone Arena is likely to be sub-optimal for a Tasmanian AFL side to play the stronger drawing mainland teams. Subject to a Stadium review we see an optimal opportunity whereby UTAS Stadium is upgraded to a capacity of approx. 27,500 patrons in line with the Gemba report.
>
> For the first 5-7 seasons this would be the 'home' of the proposed Club's key football opportunities. Blundstone Arena would play a support role in this activity while a new, boutique Hobart CBD national stadium concept was delivered. Once 'live', the two regions would have high quality assets and vie for the biggest matches based simply and rationally upon supporter demand and club revenue potential.[115]

The passage of time has revealed the taskforce's cost estimate for a stadium to be wishful thinking. By contrast, its proposal for Tasmania to take substantially more time to plan and deliver the new stadium acquires a new relevance as Tasmanian authorities rush the delivery of a major piece of infrastructure.

In July 2021 former Geelong Cats President and AFL Commissioner Colin Carter responded to an invitation from the AFL Commission to examine the task force report saying a significant investment in a "stadium strategy" would be needed. It was "reasonable to assume" that the Tasmanian government would address stadium requirements as governments have done so well in every other state".[116]

In October 2021, Infrastructure Tasmania engaged MCS Management & Consulting and PhilpLighton Architects to conduct a preliminary feasibility

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[115] AFL Licence Taskforce, 2019, p. 54.

[116] Colin Carter, 2021. A licence for a Tasmanian team? A Report to the AFL Commission, July, https://footyindustry.com/docs/Carter_Review_Tasmania_Licence_2021.pdf.

assessment of possible sites that could accommodate the footprint of a contemporary Tier 2 sporting and event stadium with a capacity of 23,000 to 27,000 seats within easy commuting distance of the Hobart CBD.

MCS investigated six sites including Macquarie Point and on 25 February 2022 recommended the nearby Regatta Point.[117] It was the furthest away from residential areas, had a "wow" factor from approach, and open flat adjacent space for parking.

On 1 March 2022 then Premier Peter Gutwein used his State of the State address to parliament to announce a $750 million stadium at Regatta Point with a capacity of up to 27,000 seats and a retractable roof, making it one of only two such AFL venues in the country.[118]

The precedent was Docklands stadium in Melbourne which was similar to Premier Gutwein's proposed stadium. It had a retractable roof and was built on the waterfront. It suffered from substantial cost overruns. The final result was aesthetically unappealing, especially for what might have been a prime waterfront location and it took many years and increased expense to iron out technical problems with the surface of the playing field.

Premier Gutwein indicated his intention to obtain funding "from all levels of government, as well as private sector involvement and equity raising".

The plan was "subject to stakeholder consultation and planning approval, and achieving later this year an AFL license.[119]

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[117] Hobart stadium – site selection process, MCS Management and Consulting, Philip Lighton Architects, 25th february 2022 https://www.stategrowth.tas.gov.au/__data/assets/pdf_file/0019/412435/2._Hobart_Stadium_-_Site_Selection_Process_Report_-_MCS_Management_and_Consulting_in_conjunction_with_PhilpLighton_Architects.pdf

[118] Address to Parliament, Peter Gutwein, Premier, 1 March 2022 https://tasmaniantimes.com/2022/03/premiers-state-of-the-state-address-2022/

[119] Address to Parliament, Peter Gutwein, Premier, 1 March 2022 https://tasmaniantimes.com/2022/03/premiers-state-of-the-state-address-2022/

Gutwein had outlined the plan to key stakeholders the day before.[120]

He characterised the 2019 taskforce report as finding that a new stadium in Hobart was “a not immediate, but necessary part of our AFL license bid”.

The AFL agreement

In June 2022 Gutwein’s successor as premier Jeremy Rockliff met the AFL CEO Gillon McLachlan for the first of a series of face-to-face meetings. Ahead of the meeting, on his arrival at the Hobart Airport, Rockliff was asked whether the Tasmanian team joining the AFL was contingent on a new stadium.

He replied, "absolutely it is”.[121]

Addressing the press after the meeting, McLachlan reiterated that "this team needs and will have a new stadium if you want a licence”.

The premier agreed, telling journalists the two were on the "same page" in understanding a licence for a Tasmanian AFL team could not be granted without the guarantee of the new Hobart stadium.

Two months later in July Rockliff walked back that commitment saying while the government was fully committed to a stadium, it would “not fully fund a stadium, and in fact we will draw a line under a maximum contribution of up to 50 per cent, delivered on a site and at a cost that is acceptable to Tasmanians”.[122]

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[120] Tasmanian government to reveal plans for a new AFL stadium near Hobart's Macquarie Point, Chris Rowbottom ABC News 28 February 2022 https://www.abc.net.au/news/2022-02-28/tasmanian-government-to-reveal-plans-for-a-new-afl-stadium/100868458

[121] No new Hobart stadium, no team, AFL tells Tasmania. And now, taxpayers are on the hook, Chris Rowbottom, ABC News 10 June 2022 https://www.abc.net.au/news/2022-06-10/tas-no-new-stadium-no-team-afl-tells-tasmania/101139722

[122] Tassie drops bombshell threat on AFL in fight to secure 19th licence, Brett Stubbs, Hobart Mercury 23 July 2022 https://www.themercury.com.au/news/tasmania/tassie-drops-bombshell-threat-on-afl-in-fight-to-secure-19th-licence/news-story/8586fd774ee28e18dace76ffac716b5b

In August and September 2022, Rockliff received memos from the Department of State Growth subsequently released under Right to Information laws saying it would be $305 million cheaper to build a stadium at Macquarie Point than Regatta Point due principally to the need to reclaim land and build over the water at Regatta Point. A stadium at Macquarie Point could be delivered about 12 months sooner.[123]

On 18 September 2022 Premier Rockliff announced that Macquarie Point would be the site for a 23,000-seat roofed stadium, saying "history stands to be made this month if Tasmania achieves our dream of having our very own team in the AFL".[124]

The ABC reported the change of heart followed discussions with the AFL, "whose powerbrokers were impressed with the Macquarie Point site following visits earlier this year".[125]

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[123] Right to Information 22-23-28 - The following has been released in relation to a request for information relating to the Hobart Stadium

[124] Tassie stadium call as AFL decision looms, AAP September 18, 2022 https://www.espn.com.au/afl/story/_/id/34614962/tasmania-licence-stadium-call-afl-decision-looms

[125] Macquarie Point selected as Tasmania's AFL stadium location, ABC understands, Chris Rowbottom, ABC News 17 September 2022 https://www.abc.net.au/news/2022-09-17/tasmanias-afl-stadium-to-be-built-at-macquarie-point/101451196

Appendix 3: Information withheld from the Western Australian Auditor General.

The first request was made in the Legislative Assembly and was in 16 parts. On 14 September 2014, the then Minister, the Hon Terry Waldron MLA, declined to provide the information asked for in parts (a), (d), (h) and (k), which was:

(a) Westadium's anticipated internal rate of return

(d) Westadium's total cost of capital

(h) expected income from revenue-generating opportunities to be managed by Westadium

(k) annual payments by the State to Westadium

The second request during the Legislative Council's Standing Committee on Estimates and Financial Operations' (EFOC) hearing on the annual report of DSR sought information on:

1. the expected net present value of the commercial opportunity revenue (see A5 in Table 1), which is the same as (h) above
2. various annual payments under the contract (see A6 and A7 in Table 1), which are similar to (k) above.

On 25 February 2015, the Hon Mia Davies MLA, refused to provide the above information. The third request also arose from the EFOC hearing. After the hearing, the EFOC Chair wrote to the Minister reminding her of the request for an unredacted copy of the State's agreement with the Westadium consortium. On 21 April 2015, the Hon Davies declined to provide the unredacted contract.

Source: 27 Aug 2015: Report 19 Opinions on Ministerial Notifications

https://audit.wa.gov.au/reports-and-publications/reports/opinions-ministerial-notifications-aug-15/background/

Appendix 4: Stakeholder consultation meetings

	Name	Position	Location	Date
1	Rebecca Ellston	Executive Director, Property Council Tasmania	TC	29 July 2024
2	Steve Old	CEO, Tasmania Hospitality Association	TC	29 July 2024
3	Dean Coleman	Engineer and Advocate of Macpoint 2.0	Melbourne	29 July 2024
4	Anne Beach	CEO, Macquarie Point Development Corporation	TC	30 July 2024
5	Dominic Baker	CEO, Cricket Tasmania	TC	30 July 2024
6	Ruth Langford	Founder, Nayri Niara	TC	31 July 2024
7	James Avery	CEO, Stadiums Tasmania	TC	1 August 2024
8	Paul Lennon	Advocate of Macpoint 2.0 & Former Premier	TC	1 August 2024
9	Pauline Cook	CEO, Reconciliation Tasmania	TC	2 August 2024
10	Rufus Black	Vice Chancellor, University of Tasmania	TC	2 August 2024
11	David Clerk	Master Builders Australia	TC	5 August 2024
12	Andrew Winch	Civil Contractors Federation	TC	5 August 2024
13	Anna Reynolds	Lord Mayor of Hobart	Hobart	8 August 2024
14	John Hardy	CEO, RSL Tasmania	Hobart	8 August 2024
15	Ross Doddridge	President, Regatta Association	Hobart	8 August 2024

16	Terrence Roe	State President, Vietnam Veterans Association	Hobart	8 August 2024
17	John Wadsley	President, Soldier's Memorial	Hobart	8 August 2024
18	Josh Willie	ALP Member for Clark	Hobart	8 August 2024
19	Dean Winter	Leader of the opposition	Hobart	8 August 2024
20	Luke Edmunds	ALP Member for Pembroke	Hobart	8 August 2024
21	Andrew Wilkie	Member for Clark	Hobart	9 August 2024
22	Nic Street	Minister for Sport	Hobart	9 August 2024
23	Simon Behrakis	Liberal member for Clark	Hobart	9 August 2024
24	Mark Shelton	Liberal member for Lyons	Hobart	9 August 2024
25	Sean Hollick	Premier's Office	Hobart	9 August 2024
26	Ruth Forrest	Independent member for Murchison	Hobart	9 August 2024
27	Vica Bayley	Greens member for Clark	Hobart	9 August 2024
28	Caroline Sharpen	CEO of Tasmania Symphony Orchestra	TC	14 August 2024
29	Daniel Hanna	Executive General Manager Corporate Affairs at Federal Group	TC	14 August 2024
30	Rusell Hanson	Author, Economics Benefit Report	TC	20 August 2024
31	Mat Hinds	Architect, Taylor and Hinds.	TC	21 August 2024
32	Grant O'Brien	Chair, Tasmania Devils	TC	22 August 2024
33	Graeme Wells	Wells Economic Analysis	TC	23 August 2024

34	Peter Gutwein	Former Premier	Launceston	26 August 2024
35	Jacquie Lambie	Senator, Leader and founder of the Jacquie Lambie Network	Devonport	27 August 2024
36	Miriam Beswick	JLN Member for Bradden	Devonport	27 August 2024
37	Bec Thomas	Independent member for Elwick	TC	5 September 2024
38	Leon Rawson	Lead Engineer GHD	TC	9 September 2024
39	Leigh Woolley	Architect and Urban Design Consultant	TC	10 September 2024
40	Megan Baynes	Senior Urban Designer at Hobart City Council	TC	10 September 2024
41	Amy Hills	CEO, Tourism Industry Council of Tasmania	TC	20 September 2024
42	Michael Bailey	CEO, Chamber of Commerce and Industry, Tasmania.	TC	20 September 2024
43	Jeff Malpas	UTAS	TC	12 June 2024.
44	Andrew Dillon	CEO, AFL	TC	12 June 2024.
45	Andy Gowers	Chair, Hawthorn FC	Richmond	17 September 2024
46	Andrew Jenner	JLN Member for Lyons	Hobart	27 September 2024
47	Rebekah Pentland	JLN Member for Bass	TC	16 September 2024
45	Bob Gordon	President, Football Tasmania	Melbourne	4 September 2024
46	Anthony Donald	CEO, TASports	TC	27 September 2024

47	Jason Byrne	UTAS	TC	18 September 2024
48	Nick Addison John Olsen	Adelaide Oval Stadium Management Authority	TC	26 September 2024
49	Susan Wallace	YIMBY Hobart	TC	24 September 2024
50	Lachlan Rule	YIMBY Hobart	TC	24 September 2024
51	Paul Green	Chairman, KPMG Tasmania	TC	8 October 2024
52	David Harradine	Partner, KPMG	TC	8 October 2024
53	Josh Abbott	Associate Director, KPMG	TC	8 October 2024
54	Michael Malakellis	Senior Economist, KPMG	TC	8 October 2024
55	Mike McKenna	Chief Executive Officer, Optus Stadium	TC	11 October 2024
56	Dean Butcher	SLR Consulting	TC	11 October 2024
57	Paul Atkins	Executive Director Plenary Group	TC	18 October 2024
58	John Langoulant	Agent General WAGO	TC	16 October 2024
59	Matt Connell	MKTG	TC	26 November 2024

Appendix 5: Xmirus peer review report

Monday 25th November 2024

Nicholas Gruen
CEO
Lateral Economics
PO Box 303
PORT MELBOURNE VIC 3207

Via Email: ngruen@lateraleconomics.com.au

CONFIDENTIAL REPORT

PEER REVIEW REPORT OF WT PARTNERSHIP COSTING FOR
PROPOSED MACQUARIE POINT MULTI-PURPOSE STADIUM

Dear Nicholas

Please find attached our report for the peer review of the cost estimate completed by WT Partnership on the Proposed Macquarie Point Multi-Purpose Stadium.

We trust we have interpreted your request correctly, and if you wish to discuss the contents of the report, please do not hesitate to contact me.

Yours faithfully

Bob Richardson
Managing Director

Property | Event | Construction

Financial & Commercial Cost Management
Quantity Surveying
Contract Management
Independent Certifier & Superintendent

Contract & Procurement Strategy Advisors
Sport & Event Advisors
Management Consultants

XMIRUS

PEER REVIEW REPORT OF WT PARTNERSHIP COSTING

FOR

PROPOSED MACQUARIE POINT MULTI-PURPOSE STADIUM

[ex-mir-us] adj.

Latin **ex** ‘as a result of’ + **mirus** ‘excellence’

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Executive Summary

Xmirus (XMPL) was engaged to provide a peer review report of the WT Partnership costing of the proposed Macquarie Point Multi-Purpose Stadium (MPMPS).

Specifically, to provide written advice on the following issues:

- The risk of cost overruns for the Stadium and whether they are adequately addressed in the WT Partnership costing;
- The nature of the costing that WT Partnership has prepared (i.e. construction cost versus development cost) and the implications of that for the uncertainty around the cost estimate–quantified in percentage terms if possible; and
- The significance of the itemised exclusions in the costing and what they could mean for the ultimate cost of the project (noting we are not expected to provide a definitive quantitative costing of them, but indicative quantification — including by providing some range — these would be useful if we think it is possible).

Our conclusion in summary is as follows:

Risk of cost overruns

There are risks and uncertainties in the delivery of any significant major High Profile Risk Projects including the final cost.

Question 1

Have The Risk of Cost Overruns been adequately addressed in the WT Partnership costing?

Answer 1

Refer to our conclusion on page 21.

We consider the construction cost estimate to be reasonable at this stage and with the exclusions and qualifications we would expect.

The construction cost estimate of the base cost of the project and the likely cost of the risks have been identified.

However, the actual outcome of the project in terms of cost is subject to a range of uncertainties, including market changes, project performance, unanticipated events such as industrial action and delays to approvals.

We have therefore highlighted where we believe the Client's feasibility or Development budget should consider Client costs and include for those items we have identified.

There may be other costs we have not commented on such as the cost of the Client project team, consultants, travel costs, biodiversity offsets, client-supplied equipment, land acquisition, finance and holding licences and regulatory costs which will need to be included in the Clients feasibility budget. Refer to exclusions and qualifications on pages 16 to 18 for examples e.g. External Infrastructure Services and works to the Southeast / Northwest and Southwest Plazas.

The cost outcome we have noted is **$861,005,500 excluding GST. The breakdown of this outcome is as shown below:**

	WT Estimate	XMPL Base Estimate	XMPL Proposed Development Budget
Construction Cost	526,858,422	516,093,572	516,093,572
Development Costs			
Design & Construction Contingency	110,640,268	90,191,278	See below
Design Construction and Client Contingency	Nil		187,077,672
Consultants' fees	65,502,640	76,681,616	65,502,640
Headworks and Council Fees	5,000,000	5,000,000	5,000,000
MPDC Project Resourcing	7,500,000	7,500,000	7,500,000
Escalation	59,403,669	72,681,616	72,681,616
Exclusions			7,150,000
TOTAL ESTIMATE (EXCL GST)	$774,905,000	$768,148,082	$861,005,500

The overall difference between the WT and The Xmirus Budget is 11%.

This may not fully cover the cost of all of the risks should they occur but is our balanced opinion of the risks occurring and if so the significance of their impact.

Question 2

Nature of the costing prepared (i.e. construction cost versus development cost).

Answer 2

Refer to Pages 8 to 11 Construction v Development Cost.

Question 3

Implications of the Nature of the costing prepared for the uncertainty around the cost estimate.

Answer 3

Refer to Pages 8 to 11 Construction v Development Cost. In percentage terms we have proposed an adjustment of +11% overall see above for details.

Question 4

Significance of the itemised exclusions.

Answer 4

Refer to pages 15 to 21 we have identified some exclusions that we consider should be included in the development budget totalling $7,150.000. There are others that need additional information to be provided by WT or the Developer to determine if any additional allowance should be provided.

Refer to exclusions and qualifications pages 16 to 18 for examples e.g. External Infrastructure Services and works to the Southeast / Northwest and Southwest Plazas.

One of the risk items not previously noted is the unique design of the roof which has been promoted *as "When completed, the Stadium will be the largest timber roofed stadium in the world."* The fixed, dome-shaped roof is an important part of the design.

"The transparent roof, which is supported by an internal steel and timber frame, provides an opportunity to showcase Tasmanian timber," Minister Street said.

"The frame will support a fully transparent ETFE material, which is a plastic based material designed to have a high corrosion resistance and strength over a wide temperature range.

"This will allow light in, support natural turf growth, and avoid the need for large light towers."

Stadia roofs are complex structures that require significant architectural and engineering effort.

Constructability is another key consideration because stadiums need to be built safely, economically and in the least time possible. Any temporary construction to the stadium or supporting construction of the roof will create a level of disruption and risk. To minimise the risk involved, the sequence of construction needs to be planned and the temporary works that are chosen to need to be carefully considered to ensure that they are safe and economical.

An example of the difficulties that can occur was the RAC Arena (formerly Perth Arena).

The construction was marred by controversy in relation to the cost and time blowouts from the original $150 million estimate to $550 million. Auditor General Colin Murphy reported that "*The initial estimates of the cost and opening date for the Arena were unrealistic and made before the project was well understood or defined."*

Question 5

What the exclusions could mean for the ultimate cost of the project.

Answer 5

Often the answer given to this question is that the Contingency will suffice. Refer to commentary on pages 12 to 21. Historical data on projects shows that having likely included contingency and escalation provisions the costs still overran the estimates.

Therefore, we are of the view that the costs would become clearer when later stages of the design are determined and a schedule of risks and a probabilistic estimate using statistical techniques can be carried out.

We are of the opinion that at this stage those cost items identified in exclusions and qualifications pages 16 to 18 of this report should be included in the development budget.

Our recommended estimate figure to be included in the development cost budget is $861,055,000 subject to the qualifications through this report.

	$
WT Base construction estimate	774,905,000
Contingency adjustment	79,000,000
Escalation	No change
Exclusions	7,150.000
Total excluding GST	861,005 500

Background and Objectives

We understand Lateral Economics has been appointed to undertake a financial and economic analysis of Macquarie Point Development Corporations State Significant Project application to the Tasmania Government for a Multipurpose Stadium in Tasmania. The application was based on a concept design for the Stadium including integration with the precinct and broader location and site.

Introduction

By email 11/11/2024 Xmirus have been requested to provide a peer review of the WT Partnership costing of the proposed Macquarie Point Multi-Purpose Stadium.

Project Overview and Scope

In providing the review of the WT Partnership costing of the proposed Macquarie Point Multi-Purpose Stadium, we were required to specifically provide advice on the following issues:

- The risk of cost overruns for the Stadium and whether they are adequately addressed in the WT Partnership costing;
- The nature of the costing that WT Partnership has prepared (i.e. construction cost versus development cost) and the implications of that for the uncertainty around the cost estimate–quantified in percentage terms if possible; and

- The significance of the itemised exclusions in the costing and what they could mean for the ultimate cost of the project (noting we are not expecting us to provide a definitive quantitative costing of them, but indicative quantification — including by providing some range if possible.)

Methodology

Our methodology for this review was as follows:

Review the following reference documents:

- The costing report from WT Partnership dated 10 July 2024;
- The summary report from WT Partnership dated 26 September 2024; and
- Any relevant information on the Tasmanian Planning Commission page for the Project of State Significance assessment, particularly the architectural drawings.

Xmirus have reviewed the provided information to complete the enclosed report including the consideration of the following:

- The costing report from WT Partnership dated 10 July 2024;
- The summary report from WT Partnership dated 26 September 2024; and
- Any relevant information on the Tasmanian Planning Commission page for the Project of State Significance assessment, particularly the architectural drawings.

Following this review we have provided:

1) the key considerations against specific risk and cost issues;
2) Their potential to impact the project and thus cost overruns;
3) Reached the conclusion noted above in the executive summary and in details throughout the report.

Commentary

1. Review of the reference documents:

Xmirus have undertaken a review of each of the referenced documents noted in the methodology and the following are issues we consider require further review or explanation as detailed below.

We advise that, whilst the extract from the Tasmanian Planning Commission provided by Macquarie Point Development Corporation to TPC for the Project of State Significance application provides good background, the

architectural drawings included are representative of the scheme only being of such limited detail and of a conceptual design nature that they provide no ability for us to challenge the quantities or scope in the WT reports.

We note the comment in the WT Summary of Estimate 26th September 2024 that the estimate is based on the documentation as set out in the PoSS Submission.

In the detailed estimate 10th July 2024 eight other design documents are listed in section 3 as being used. We have not sighted this documentation and cannot comment on its cost representation in the estimate.

Schematic Design Estimate No 1

Given the position above we have accepted the measurements contained in the costing report from WT Partnership dated 10 July 2024.

We were unable to measure any quantities from the design drawings provided or carry out any spot checks on the quantities.

The Estimate

- Has quantity and rates excluded from pages 1 to 4.
- We are not certain why this has been done as the areas are shown on pages 5 and 6. And one can thus derived the costs per m2 overall from that detail.

From this information we ascertain the (relevant areas are:

- FECA Fully enclosed areas) 41,643m2
- Uncovered areas (Field of play) 20,523 m2
- Tiers (Seating stands)13,379 m2

Total GFA (Gross Floor Area)= FECA + UCA + TIERS = 75,545 m2

Less uncovered areas = 55,022m2

The cost per m2 GFA is usually the benchmark used by Quantity Surveyors (QS) when following the AIQS cost management guide to compare the reasonableness of estimates.

For the (MPMPS) project this would equate to $18,608 per m² i.e. $774,905,000 / 41,643 and a cost per seat of $31,629.

For stadia, a cost per m2 is not the most appropriate way to do a comparison given the differing number of seats, corporate boxes, facilities and amenities provided together with or without a roof.

Thus, to obtain a view on the validity of the estimate using the areas shown in the WT estimate and the other information provided we have calculated our own version of the construction estimate which is $768m on a 'like for like' basis.

As this is within 1% of the WT base estimate, we consider that the WT estimate of construction cost is reasonable and within the range we would expect at this level of design.

However, there are a number of items noted or excluded from the estimate which will impact the costs which we comment on below.

Our comments below are in italics against those items we consider need to be reviewed further.

Construction v Development Cost

1. The covering letter from Macquarie Point Development Corporation (MPDC) to the Minister notes that it is a summary of the cost as at the concept design stage.

   As the cost is at the concept design stage, we have reviewed the allowances made in the estimate.

2. The cost plan is a summary at a point in time of costings that informed the economic analysis work attached to their Project of State Significance application. ***Noted.***

3. The cost plan is a summary document to provide context to the total sum included in that work.

4. Detailed costings have not been included as the release of specific allocations, such as contingencies and the cost of trade works or building margins, will provide key assumptions to the market and risks undermining the competitive nature of the construction tender process.

   Noted. *We understand this position but in our experience the market will make judgements on their bid for the project based on the Tender documents released by the Client and the competitive nature of the construction tender process should be able to be maintained.*

   Thus, the Clients Tender documents should exclude or limit any reference to:

   - *the contingencies*
   - *the cost of trade works*
   - *building margins,*
   - *key assumptions*

5. The process for estimating some of these elements at this stage in the process is also using the intellectual property of the specialist consultant.

   Noted*. We are unable to comment as we are not certain at this early stage which intellectual property of the specialist consultant is being referred to.*

6. The documentation notes some exclusions. These include items that are being funded as part of the broader precinct work and fit out elements that are being explored to determine the level of third-party contributions or partnerships could be included, and standard exclusions such as GST.

   Noted. *We comment later on how we would expect these matters to be incorporated in the costings. Clarification would need to be requested from (MPMPS) to establish where these exclusion costs have been incorporated into their feasibility and development budget.*

7. *The nature of the costing that WT Partnership has prepared is a construction cost not a development cost.*

Generally, in providing a development cost or feasibility when seeking to receive private or government funding a feasibility study will have been undertaken at this early stage of the project.

The AIQS Australian Cost Management Manual Volume 5 'Feasibility Study Guidelines "published in July 2006 defines a feasibility study as a systematic risk management process involving problem definition, the generation and analysis of alternatives ,and an appraisal and recommendation whether a project should procced and the form in which it may proceed with a defined plan for its feasibility, technically and financially.

The WA Government in March 2022 provided a Feasibility Study Guide. which provided practical assistance in undertaking a feasibility study for a proposed sport and recreation facility and notes a feasibility study should critically assess a proposal to build a facility and enable the client (the owner) to make an informed decision about whether to proceed with the proposed project.

In undertaking studies for the NSW Government, we note that the Capital investment value of a development or project should include all costs necessary to establish and operate the project, including the design and construction of building structures, associated infrastructure and fixed or mobile plant and equipment

It is our opinion other than the items specifically excluded, such as Finance costs, Land costs and Development contributions, whilst not in the construction estimate should be included in the development estimate and or feasibility study.

The development estimate is different to the construction estimate the latter being the anticipation of the construction Tender. The development estimate should include all establishment costs and those that are needed to operate the development.

Thus, at this stage the study should consider all the alternatives within the scope of an identified need in order to establish the most effective investment of funds, financial impacts of the proposal and identify the risks to the capital costs involved in delivery.

We note that MPDC comments that the design process has been informed by workshopping that considered the key drivers for the Macquarie Point Development Corporation including integration with the precinct and broader location and site, and priorities far Stadiums Tasmania including considering the perspective of users both from people experience events and those bringing content to the venue.

Through the design process they will continue to refine the allocation and integration of spaces to deliver an efficient, integrated facility and venue, and minimise duplication of space and identify opportunities to streamline delivery. The quantity surveyor team will continue to work closely with the design team to refine costings as work progresses into detailed design.

We have obviously not been privy to these workshops but would expect that in this Early Stage in the development, when little is known about the scope, risks and opportunities that will be inherent in its delivery, the development estimate should recognise cost control processes which will include:

- *Clear definition of the project need.*
- *Identification and analysis of options to deliver the project need, including staging of delivery and non-infrastructure solutions.*
- *Avoiding early anchoring of estimates, particularly through public announcements.*
- *Early engagement with industry to identify risks and potential value management options.*
- *Planning and design activities to define the scope, staging and delivery methodology for the project.*

- *Value management, opportunity identification and validation to ensure the scope is the most efficient way to deliver on the service need.*
- *Identification, quantification and mitigation of risks, including targeted investigations to quantify high impact risks.*
- *Ensuring the robustness of assumptions.*

The outcome of the above activities will be a robust construction and development cost estimate which should provide the project team with a challenging but achievable target cost for delivering the project.

In the context of this report two major elements that construction costs should include would be for the provision for cost escalation and contingency.

The implications of those and the other items noted by us at for the uncertainty around the cost estimate– quantified in percentage terms equated to + 11%.

Contingency

There are risks and uncertainties in the delivery of any significant major High Profile Risk Projects including the final cost.

Contingency provisions are sums allocated within a cost plan to cover the cost of unplanned activities or risks that are necessary to deliver project outcomes and require additional funds.

Contingency should be included in feasibility studies based on the overall risk assessment, prior to an investment decision and when seeking finance.

The calculation of contingency allowance requirements should align with the project risk profile, complexity, stage of the investment lifecycle and benchmarks based on past project cost performance.

Project budgets should not contain contingency provisions for changes to the project beyond the intent of the business case.

Estimation of Contingency

Options for the calculation of Contingency include:

1. Fixed percentages of the base cost estimate (Deterministic).
2. Analysis to estimate 'most likely' contingency requirement based on probability of occurrence, (Probabilistic) and a
3. Flexibility of approach in applying options 1 and 2, depending on the lifecycle stage and risk profile.

Deterministic –This is a simplistic method for estimating contingency. It allows for estimates of contingency funds when little information is available.

Probabilistic – analysis to estimate contingency requirement based on probability of occurrence. This method is more complex than the deterministic method and estimates contingency requirements based on the risk profile of a project. It relies on an accurate and complete risk profile.

The deterministic approach is more appropriate during early stages of project development while probabilistic approaches are more appropriate for later stages and higher risk projects.

At this stage of the MPMPS estimate Fixed percentages of the base cost estimate (Deterministic) has been used and is in our opinion appropriate.

Determining Contingency Requirements

The best practice approach is to allocate contingency provisions across governance levels based on who is best placed to control and manage the corresponding risk. This requires agreement on the allocation of risks and transparency on how each risk will be managed.

Submissions should identify the approval process for release of contingency. Approval for release of contingency should be in line with the delegation of authority.

Probabilistic risk assessment is considered by us to be 'best practice' for the estimation of the Contingency as it directly aligns the quantum of the Contingency to the identified risks in the risk register.

The minimum requirement for determining Contingencies at each stage of the project lifecycle should have regard to the level of information available to project team given the state of scope and design development, investigations and engagement with stakeholders and industry.

The scope of the risk assessment should be tailored to the complexity, cost and riskiness of the project.

The use of generic risk percentages is to be avoided wherever practicable. Risk percentages must be determined by appropriate benchmarking against similar projects or projects in other infrastructure sectors with similar risk profiles.

A deterministic design allowance is usually required early in the design process to account for the fact that many risks will not have been identified or quantified. Benchmarks should be used to determine the quantum of the design allowance.

Underlying challenges for risk management and procurement are magnified for large high-risk projects-in particular, market capability and capacity in large, complex infrastructure projects.

Deterministic risk impact assessment at early stages of the project development where many risks are unknown should include benchmarking against projects with similar characteristics and/or risk profile. We are unaware if WT undertook such benchmarking for this project.

At this stage of the MPMPS estimate, the allowances are approximately 10% for design contingency and 11% for delivery contingency of the base construction costs.

We consider this allowance appropriate for the construction estimate at this stage of the development.

However, as there is no allowance for Client contingency apparent in the WT Estimate we propose this and considering the other risks of the project this should be included in the Development costs.

At later stages of the design development The preferred approach for the estimation of the Contingencies for any projects within the scope is probabilistic risk impact assessment. It can be undertaken through either or both of the following two processes:

1. Monte Carlo Analysis. This is the minimum requirement where the project has a unique risk profile or features major risks that do not have a deterministic (single point) outcome.
2. Expected Value Analysis. This approach may be utilised for projects where there are many recent and similar projects to benchmark against.

In 2019 the Risk Engineering Society (RES) and Engineers Australia published a contingency guide on Contingencies.

The report noted that, despite decades of international studies and efforts to predict and/or reduce project cost overruns or schedule delays, major projects around the world continue to be significantly affected.

The study of over 3,000 projects across Australia and globally showed the following results:

Mean – cost overrun - 34.20%

Standard Deviation (SD) – 37.8%

11% of cost overruns were directly attributable to scope changes. 89% were attributable to other causes.

Key findings were that: 20-40% was the typical cost overrun and 86% of projects studied exceeded cost estimates.

Large Infrastructure cost estimates were “highly and systematically misleading.”

Cost overruns of over 20% occurred in 50% of government projects studied.

Infrastructure NSW has undertaken reviews which demonstrate that megaprojects are approximately 1.5 times more likely to be at risk when compared with projects with an Estimated Total Cost less than $1 billion. The magnified risks necessitate a more conservative approach to apportioning of the Contingency.

Given the above data and that that there appears to be no Client contingency allowed we would recommend a further 15% allowance should be provided in the Development budget as an overrun contingency for this project approximately equivalent to $78.00m. of the base construction cost.

Escalation

Escalation is intended to protect the project budget against the risk of price escalation during the planning and delivery of the project. Escalation is typically used to forecast what costs or prices will be in the future and/or to bring past costs or prices to a current basis.

Escalation is driven by conditions in the economy external to any project.

Cost escalation must have regard to the particular nature of the project (e.g. significant and/or complex new construction, refurbishment etc), as well as the likely time frame for delivery and should be referenced against Treasury guidance and ABS indices as appropriate.

Construction costs should be calculated as being effective at the Estimate Base Date. For the MPMPS estimate this is June 2024.

We have not sighted a program for the project but the allowance of 42 months i.e. 3.50 years is in our opinion reasonable.

In the MPMPS estimate the escalation allowance is $59,403, 669, i.e. 12% when applied to the base construction costs.

We are not aware at this stage of cost estimation of the project whether any sensitivity testing and benchmarking has been conducted on the escalation figures.

The Tasmanian Department of Treasury and Finance September 24 indices CPI index shows a September 2024 "year on year" increase of 2.5 % compared to Melbourne's of 3.5% and Sydney 3.7%.

We thus consider the escalation allowance made in the estimate to be realistic.

We are not certain what delivery method the project anticipates but we assume that the escalation risk will be transferred to the contractor at Contract Award at which point the contractor will have incorporated its own calculations of escalation risk into its contract price.

However, if this is not the case and if some collaborative forms of contract are considered then the risk of escalation should be allowed for in the Client Costs.

Minimising the time between now, Contract Award and then delivery will obviously minimise the escalation risk.

Exclusions & Qualifications

1. Exclusions and qualifications are noted in two parts of the WT documentation, the costing report from WT Partnership dated 10 July 2024 and The summary report from WT Partnership dated 26 September 2024;

WT Partnership costing report dated 10 July 2024;

The items below were Qualifications or Exclusions to the construction cost estimate.

All of the items should be considered and included in the feasibility or development budget as required.

Qualification or Exclusion	Approximate Value	Comment
	Refer to the September estimate below We have allowed in the September estimate an allowance for those items that may need to be included in the development budget	All to be confirmed by Developer or adjustments made to construction or development costs

Below the line items - Trade value Inc. On Costs (but excluding consultant fees)	Costs estimated by WT but then redacted from the Total Estimate	Developer or WT to confirm original estimated value
Goods Shed		Noted as Corporation led in September estimate; We assume this means at the local council cost?
External Services		Noted as Corporation led in September estimate; We assume this means at the local council cost?
Kitchens and F&B Fitouts		Noted as Exclusion in September estimate; We assume this means will be part of a concessionaire or tenant Agreement for Lease (AFL). If not adjustment to be made to costs?
AV Services including TVs / Brackets		Noted as Exclusion in September estimate. Normally part of base build, particularly the scoreboard
PA System		Noted as Exclusion in September estimate. Normally part of base build
CCTV Systems		Noted as Exclusion in September estimate. Normally part of base build
Ribbon advertising to fences		Noted as Exclusion in September estimate We assume this means costs will be part of a concessionaire or tenant AFL. If not adjustment to be made to costs?
Loose Furniture		Included in September estimate
Stadium Special Equipment		Included in September estimate
Future Development Areas		WT or Developer to explain context for exclusion
E/O Landscaping to perimeter		Included in the July estimate then excluded We note Extent of Landscaping has been included based on the delineation of POSS Boundary (Mac Point Precinct Plan2023). All works outside of this nominated Boundary have been excluded
Stadiums Tas Office		WT or Developer to explain context for exclusion
Exclusions		
Fitout to F&B's Bars and restaurants		Repeats item above

Void Areas and Future Development Areas		WT or Developer to explain context for exclusion
Roof Dome less than 28m high		WT or Developer to explain context for exclusion
Goods Shed relocation and fitout		Noted as Corporation led in September estimate We assume this means at the local council cost ?
Works to the Southeast / Northwest and Southwest Plazas		WT or Developer to explain context for exclusion
Provision of Mobile DAS Systems, Wi-Fi fi, Ribbon Board Advertising, Audio Visual, PA, CCTV by others Generators - Not required		Repeats item above
Rainwater tanks and detention tanks - Sep Budget		Included in September estimate
Marine grade finishes		WT or Developer to explain context for exclusion
All development not directly related to the Stadium		Included in September estimate
Asbestos / site contamination Removal of Soil Contamination - Separate Budget		Included in September estimate
Negotiated Contracts / Construction Management		WT or Developer to explain context for exclusion
Accelerated Programme / Site Restrictions		WT or Developer to explain context for exclusion
Financing / Land / Legal / Holding Costs		Assumed at Developers cost No cost to Government
Decanting Costs		WT or Developer to explain context for exclusion
Delay and Prolongation Allowances		WT or Developer to explain context for exclusion
Pitch Equipment, Grow Lights, Fans - By Operator		Noted as Exclusion in September estimate We assume this means will be part of a concessionaire or tenant AFL. If not adjustment to be made to costs?

Loose Furniture - By Operator		Included in September estimate
Information Technology, computing equipment	Refer September estimate summary	Noted as Exclusion in September estimate. Normally part of base build
Consultant Fees beyond allowance		WT or Developer to explain context for exclusion
Authority Fees beyond allowance		WT or Developer to explain context for exclusion
Cost Escalation beyond Early works Construction Start date of July 2025 and Midpoint of construction for 42 Months		Refer September estimate for amounts included
Client contingency		Refer September estimate for amounts included
GST		Noted

WT Partnership summary report dated 26 September 2024;

The items below were Qualifications or Exclusions to the construction cost estimate

All of the items should be considered and included in the feasibility or development budget.as required

Qualification or Exclusion	Approximate Value	Comment
Disclaimer		
Where WT has not been provided with sufficient information, they have made assumptions and allowances which will require detailed review once the design is developed.		WT or Developer to explain context for disclaimer and any specific particular concerns they have.
The estimate has been prepared expressly for Macquarie Point Development Corporation for the purpose of preparing a Concept Design budget and is not to be used for any other purpose or distributed to any third party.		Noted
The estimate assumes an Early Works Construction start in June 2025 and completion in December 2028.		July estimate assumed construction Start date of July 2025 and construction for 42 Months i.e. completion in December 2028.

SPECIFIC EXCLUSIONS		
The estimate excludes the following:		
Goods Shed Relocation and Fitout– Corporation led		Included in estimate then excluded Developer or WT to confirm original estimated value. We assume excluded as to be at the local council cost.
External Infrastructure Services – Corporation led		Included in estimate then excluded Developer or WT to confirm original estimated value. We assume excluded as to be at the local council cost.
Kitchens and F&B Fitout beyond service connection points		Noted as We assume this means will be part of a concessionaire or Tenant AFL. If not adjustment to be made to costs?
AV Services incl TV's and Brackets, Wi-Fi, DAS, Cellular Services, Scoreboards	1,000,000	Noted as Exclusion in September estimate. Normally part of base build, particularly scoreboard.
PA System & CCTV	650,000	Included in estimate then excluded Normally part of base build.
LED Ribbon Advertising to fences		Noted We assumes this means will be part of a concessionaire or tenant AFL.IF not adjustment to be made to costs?
Whole of precinct costs	2,000,000	WT or Developer to explain context for exclusion. We note No allowance has been made for the proposed future development of the Antarctic Facilities Zone, Complementary Integrated Mixed-Use Zone and the Aboriginal Culturally Informed Zones (outside of the scope of this project) Southern Plaza Excluded - outside of POSS Boundary and Stadium Funded Scope Note Western Plaza Excluded - outside of POSS Boundary and Stadium Funded Scope Note Service Road Ramp

		Excluded - outside of POSS Boundary and Stadium Funded Scope Culturally Informed Zone Excluded - outside of POSS Boundary and Stadium Funded Scope
Fitout to Venue Control Room		WT or Developer to explain context for exclusion
Accelerated Programme / Site Restrictions		WT or Developer to explain context for exclusion
Delay and Prolongation Allowances		WT or Developer to explain context for exclusion
Operational specific items	3,000,000	WT or Developer to explain context for exclusion
Information Technology, computing equipment	500,000	Noted as Exclusion in September estimate. Normally part of base build
GST		Noted
	7,150,000	Indicative estimate only subject advise from Developer or WT

Conclusion

Cost estimation

Given the high-profile high-risk nature of the MPMPS project, cost estimation and risk analysis are challenging and complex to verify.

WT have quantified the assumptions which underpin their cost estimates and risk exposure which in some instances are different to our opinion in this review. refer to pages 13 to 18 in this report.

Conservatism or over optimism in the cost estimates and risk provisions at any stage in the project life cycle, may result in either overstated or understated estimates at this early stage.

As noted, we consider the construction cost estimate to be reasonable at this stage and with the exclusions and qualifications we would expect.

The construction cost estimate of the base cost of the project and the likely cost of the risks have been identified.

However, the actual outcome of the project in terms of cost is subject to a range of uncertainties, including market changes, project performance, unanticipated events such as industrial action and delays to approvals.

We have therefore highlighted where we believe the Clients feasibility or Development budget should consider Client costs and include for the items we have identified.

There may be other costs we have not commented on such as the cost of the Client project team, consultants, travel costs, biodiversity offsets, client-supplied equipment, land acquisition, finance and holding licences and regulatory costs.

The cost outcome we have noted is $861,005,500.

This may not fully cover the cost of all of the risks should they occur but is our balanced opinion based on the risks likely to occur and the significance of their impact.

R C Richardson

25th November 2024