ATTACHMENTS

Ordinary Council meeting
Separate Attachments 1

Monday, 23 May 2022

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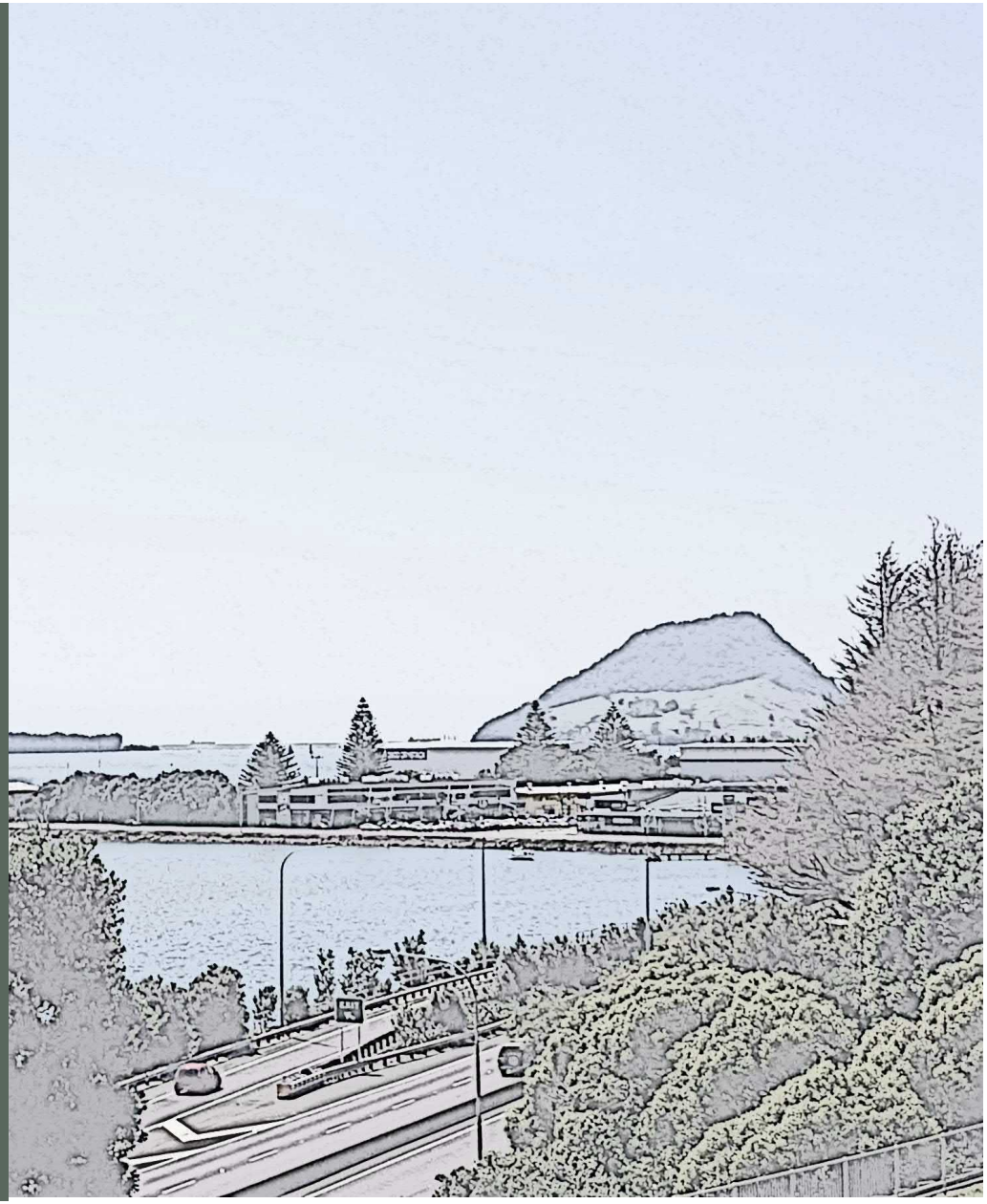
TAURANGA MULTI-FUNCTION STADIUM

FEASIBILITY STUDY

27th April 2022



Prepared for Priority One & Partners

INFORMATION

Document Reference	Tauranga Stadium Feasibility
Consultants	Visitor Solutions Ltd and Tuhura Consulting, in association with Warren and Mahoney, Deloitte, Stantec, Boffa Miskell, Maltby's, Marketing Economics, and Senate Shj,
Authors	Craig Jones, Dean Kimpton, Steve Armitage, Daryl Maguire, Stephen Di Donato, Brendon O'Connor, Kyle Callow, Richard Bailey, Gary Cross, Andy Mot, Mark Apeldoorn, Russell Halliday, Rebecca Ryder, Te Pio Kawe, Matt Allott, Morné Hugo, Lawrence McIlrath, and Whare Timu.
Sign off	Craig Jones
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Front Cover Credit	Indicative view from proposed stadium functions space - Visitor Solutions Ltd

CONTENTS

1.0 EXECUTIVE SUMMARY

The Project Partners (Tauranga City Council, Bay of Plenty Regional Council, Priority One, and Sport New Zealand) engaged Visitor Solutions and Tuhura Consulting in association with Warren and Mahoney, Deloitte, Stantec, Senateshj, Boffa Miskell, Market Economic, Maltbys, and Steve Armitage to set the direction and provide recommendations for delivering the right multi use stadium, in the right location.

The study built upon earlier work which indicated that there was a need and demand for a multi-use stadium. The client partners desired an evidence-based approach that was not afraid to challenge past thinking. The project's governance group stressed the need to think 'outside the box' and deliver an innovative unique solution fit for Tauranga

Based on the analysis of available data the report made a series of summary conclusions. The first was that the study concurred with earlier needs research that found a Tauranga Stadium is required, but only if it is in the form of a world class boutique community centric development, a "peoples stadium". This requires casting aside traditional stadium models and embracing a new concept that welcomes the wider community into the facility continuously (not just for large commercial sporting events). This must be a multi-functional stadium that accommodates community clubs, local cultural events, festivals, professional sport, and commercial concerts alike. It must focus on delivering the best spectator experience possible and be a place with such a buzz and atmosphere that people want to return time after time.

It was determined that the Tauranga Domain can accommodate a stadium and associated facilities with the best position being a central Domain location roughly on the site of the existing athletics track. This will however require the relocation of three sports codes from the site athletics, bowls, and croquet. All other codes (such as tennis, rugby, and cricket) and general community recreational use can largely remain.

The projected event calendar indicated that, when compared to entertainment and community sport use, professional sport is unlikely to be a significant stadium user in the short to medium term. It is therefore important to balance design drivers so the stadium functions for professional sport but not at the expense of the community sports and entertainment events. A unique "peoples stadium" concept design has been developed which will encourage the community into the stadium and to use the turf and surrounding Domain amenities.

Both covered arena and open stadium options were explored. Analysis clearly indicated that a covered arena on the Domain site was not the best option[1]. This was primarily because of the bulk and height of a covered arena, its cost (circa $300-350 million[2]), and the fact that it was unlikely to generate meaningful additional levels of use when compared to an open stadium. In a Tauranga setting a boutique, highly flexible, open stadium was determined to generate stronger community outcomes.

A range of cultural opportunities were identified for consideration and incorporation into the stadium design and function. These included the opportunity to influence the stadium design values, language and concepts that enable a sense of manaaki (hospitality / welcoming people to the stadium), kaitiakitanga (sense of place) and mauri (life force / well-being) these key cultural design principles can be woven into the design concepts for the new stadium. One of the strongest opportunities has already been established in the initial concepts, strong sightlines from the stadium to Mauao (which is afforded by the designs open northern end). This open northern end also makes the venue ideal for large kapa haka festivals and other cultural events.

The optimal stadium for Tauranga has been determined to be open air with circa 8,000 permanent covered seats with the flexibility to expand to circa 18,000 seats in full sports event mode. The expansion of seating is best addressed primarily through prefabricated temporary seating modules. This sports mode seating configuration will deliver New Zealand's most intimate, atmospheric boutique stadium experience for

[1] If a covered arena option is to be pursued, it is recommended another site be investigated.

[2] This assumes a 20,000 seat arena stadium is developed because expansion is not feasible at a later data. Even if a smaller 10,000 seat arena stadium was developed this cost is estimated at circa $220 million.

both spectators and players alike (while still meeting all projected capacity requirements). It will generate an optimal fan experience.

Many entertainment stadium event configurations are also possible ranging from circa 17,800 - 25,000+ in the main stadium alone. In festival mode numerous stages are possible in southern, central, and northern precinct locations generating the potential for 40,000+ attendees.

Initial analysis indicates the stadium is best owned by an independent charitable trust which is supported by development funding from third parties such as local and central government entities, and charitable funders. The facility would be well placed to be managed under a performance-based contract by professional facility mangers, such as Bay Venues Ltd.

Two favoured concept sub-options were developed, and quantity surveyed. Direct construction only cost estimates are circa $155 million for a stadium (and associated facilities) with a fitness centre (gym), and circa $166 million for a stadium (and associated facilities) with an exhibition space. It is important to note these figures include a 20% contingency and construction escalation[3], but exclude relocation costs associated with existing users and any new facilities provided and detailed business case, design, consenting, and overheads associated with programme management, fund raising, debt funding etc.

The focus of the financial analysis undertaken was to understand project cashflows as opposed to the flow of funds between the multiple parties that may be involved and hold ownership interests. Assuming capital grants of up to $60 million can be obtained there is an estimated additional funding requirement of between $96.6 million and $107.7 million.

The consideration of how the additional funding requirement will be sourced is outside the scope of this study. However, it is envisaged this may be via a wider targeted regional rate, regional or local council debt or provided by other entities (e.g. Quayside Holdings). It is likely that it would be provided to the operating Trust in the form of a grant so that the Trust would have no on-going debt obligations.

Two financial models were developed, one for each of the concept sub-options (Stadium / Exhibition and Stadium / Fitness). Each option was underpinned by a series of revenue and operational cost assumptions. Food and beverage represent a large proportion of the revenue and operating expenditure and is modelled based on a 20% marginal contribution. The models indicate the Stadium / Exhibition space option would generate average year revenue of $7.5 million while the Stadium / Fitness Centre option would generate slightly less at $6.9 million. Operational costs are estimated at $5.7 million and $6.1 million respectively.

Based on the analysis, both stadium options are EBITDA positive. However, neither of the modelled options contributes sufficient profit to cover debt and interest payments nor a satisfactory contribution towards depreciation to fund replacements over time. The options are not cashflow positive over the 50-year modelled time horizon. This is not uncommon. In our experience Stadiums are generally not financially self-sufficient (and often don't contribute enough to cover debt repayments or fund replacements over time) and therefore require augmented funding over time to remain cash flow positive.

Augmented funding can be justified on the grounds of the wider economic and social benefits that are generated for the sub region. These include such things as increased visitor bed nights and expenditure, a more vibrant range of leisure and recreational opportunities for residents, increased media coverage for Tauranga and the sub region, improved community sports pathways, opportunities for showcasing local cultural, sporting, entertainment, and business talent, assisting with the reinvigoration of the Tauranga CBD, and a strengthening in the sense of pride and wellbeing perceived by residents.

[3] Capital cost escalation has been incorporated based on 5.4%-6.3% p.a. (reverting to Treasury assumptions from FY26 ~2% p.a). This has a compounding effect on the estimated construction costs. These escalation rates have been supplied by Maltbys.

In line with the client's objective of an operational community stadium in 2026, continued momentum is essential if this deadline is to be achieved. Given these factors the report made the following recommendations.

1. The open-air boutique "peoples stadium" concept be advanced for further analysis and planning.

2. The concept of a charitable trust be explored further with legal and financial advisors.

3. The detailed business case and further design be advanced, this is pre-requisite to the detailed funding discussions needed.

4. Further engagement is undertaken with industry and community stakeholders based on the findings of the feasibility study; particularly with those who have been identified as more greatly impacted by the potential development in order to consider how any negative impacts can be mitigated should the project proceed.

5. That the governance oversight of the above programme continues.

2.0 INTRODUCTION

Brief, Objectives, and Process

The Project Partners (Tauranga City Council, Bay of Plenty Regional Council, Priority One, and Sport New Zealand) engaged Visitor Solutions and Tuhura Consulting in association with Warren and Mahoney, Deloitte, Stantec, Senateshj, Boffa Miskell, Market Economic, Maltbys and Steve Armitage to set the direction and provide recommendations for delivering the right multi use stadium in the right location.

The study built upon earlier work which indicated that there is a need and demand for a multi-use stadium. The client partners desired an evidence-based approach that was not afraid to challenge past thinking. The project's governance group stressed the need to think 'outside the box' and deliver an innovative unique solution fit for Tauranga.

Primary drivers:

The Project Partners established the following primary drivers for the project:

- To create a multi-use stadium that will meet the entertainment, business, sport, and cultural requirements for the whole community of Tauranga and The Western Bay of Plenty.
- To provide Tauranga and the Western Bay of Plenty with a quality multi-use stadium that can help meet demand and facilitate growth within the sub-region's event sector.
- To provide Tauranga and the sub-regions with a multi-use stadium that will meet the requirements of a growing city and surrounds.
- To create a multi-use stadium that will have a positive economic and social impact on Tauranga and the sub-region.

Background Context

Tauranga City is the economic and population centre in the Bay of Plenty. Tauranga is part of the wider sub-region with linkages to Western Bay of Plenty, and it also supports activities in the wider region (e.g., Rotorua). The city, and the sub-region (including Western Bay of Plenty) has seen considerable, and very fast, population growth over the recent past.

The speed and scale of the growth is putting pressure on the available resources. Several large-scale projects are underway across the city to cope with backlogs, and to position the city to accommodate growth. There are several agencies collaborating to manage this growth, through the SmartGrowth initiative. The large projects are in response to the local growth pressures and reflect the aspirations to capture the growth in a way that maintains wellbeing and improves the liveability of the local communities.

Tauranga and the sub-region are without a purpose-built stadium to support rectangular field ball sports (such as rugby, league, football, and touch) as well as larger entertainment events. Existing facilities are not fit for purpose for these activities. An earlier report by Becca identified that the Tauranga Domain was the best location for a potential stadium. The Domain is a much-loved space which facilitates a range of active and passive sports and leisure activities. The challenge will therefore be to balance as many competing uses as possible, while still delivering a functional stadium concept that is in keeping with the Domain's natural attributes.

Report Purpose and Structure

The purpose of this report is to holistically examine existing data, gather new data, and undertake analysis to determine an optimal stadium configuration and test if this is compatible with the Domain site. The report begins by outlining the favoured stadium concept. It looks at the concept's components and how they function together with areas such as the cultural design opportunities, planning and engineering issues, cost estimates, governance and management approaches, and financial models.

The second section of the report outlines the background to how the favoured concept was arrived at. It explores stakeholder feedback and research on stadium demand, potential niche opportunities, stadium performance, the proposed site, the different preliminary concepts that were explored, and the wider development context. The report ends with a series of conclusions and recommendations.

The Favoured Concept

3.0 THE FAVOURED CONCEPT

3.1 CONTEXT

New Zealand is characterised by an over-supply of over-capacity stadia, many of which are not fit for purpose (from a spectator perspective). Most of the time, many stadia provide only average or poor customer experiences, including being half empty or less for most events. This undermines the fan / spectator experience on most occasions.

A new smaller boutique fit for purpose stadium could attract more summer entertainment events and provide a superior atmosphere for spectators of sports events and a compelling value proposition for hirers.

It is at the boutique end of the market with very good design and event flexibility that Tauranga could carve a niche. It is also very important that the stadium serves a wide range of users from community sport and events, semi-professional sports to professional sport, and commercial events.

The opportunity exists to develop a unique boutique stadium offer, one that is open to community activity and not locked away behind closed doors for the sole benefit of professional sport and commercial activity. This would be a departure from the New Zealand stadia of the past and carve a strong niche for Tauranga and the sub-region.

3.2 PRELIMINARY CONCEPT

The preliminary stadium concept outlined in this section (see Appendix 1) emerged from a clear evidence base and analysis of available data (see Sections 12.0 – 15.0). It is important to objectively examine stadia and explore how they have performed nationally and what is the best fit for a host community.

All too often stadia discussions and decisions have been governed by the heart rather than the head. This has often led to 'real' opportunities being overlooked and the perpetuation of the same old stadia models, with similar seating capacities, that inevitably sit dormant for most of the year. To break away from these traditional, often suboptimal outcomes of the past, it was necessary to challenge how a design could:

- Enable near constant community use of the Domain.
- Work equally as well for the community, professional sports, and commercial events.
- Maximises revenue generation (without privatising public space).
- Compliment the wider Tauranga facility network and CBD precinct plans.
- Carve a unique niche for Tauranga.
- Be world leading and 'clever' in its approach.

Design Principles

The guiding design principles that underpin the favoured Tauranga Stadium concept are:

Welcoming - people and place
Objective: Creating a generous and welcoming experience is a key objective of the new development.

Prioritises - user experience
Objective: Maintaining community access and a sense of ownership will be a key factor for the success of the project.

Celebrate -Mauao and land
Objective: The Tauranga and Wharepai Domains enjoy sweeping views over the surrounding harbour estuaries. Mauao (Mount Maunganui) is a natural focal point and symbol at the eastern end of the harbour.

Environmental Stewardship
Objective: The responsible protection of the natural environment through sustainable design will encourage environmental literacy while also providing comfortable spaces that are connected to the natural amenity of the site. The project provides a 'leadership opportunity' for Tauranga at a time when conservation, climate

change and environmental sustainability are at the centre of political and societal discussion.

Integrated Response to site
Objective: Enhancing the connection to the land and the local context through form and scale is an important consideration. Designing in a complementary scale to the built environment and integrating into the landform will formulate an appropriate site response.

Flexibility and adaptability
Objective: The facility will have a long life and over decades, sports codes, events, population, and patterns of use will change. The design must enable a variety of crowd sizes and event types while minimising both capital cost and operational overlay expense. The ability to expand and adapt over the long term should be anticipated, without 'over-building' on day one.

Description
Analysis has clearly demonstrated that a medium to large stadium (comparable to many other New Zealand stadiums) either with or without a fully enclosed roof (an arena) is suboptimal and cannot be justified in a Tauranga context (see Section 12).
Currently in the medium term the optimal approach is clearly a boutique stadium with 8,000 permanent covered seats with the ability to scale up its capacity. Ideally numerous capacity configurations for both sports events (ranging from 8,000 – 15,000+ seats) and entertainment events (23,000 pax) are desirable.

Given the unique nature of the Tauranga sports landscape a sole use rectangular professional sports turf-based stadium cannot be justified (see Section 12). A unique stadium concept that caters for community sport, semi-professional and professional sport is the only viable solution given supply and demand factors. Built assets such as grandstands also need to be well utilised which requires them to have an ability to be very multi-functional (given comparatively low levels of professional sports usage).

The following sections set out to explain the favoured concept (and its associated sub-options). Attention is first turned to the design's facility components and differentiating the two sub-options. Focus is then placed on the design's functionality and linkages with the wider Tauranga facility network. Then cultural opportunities and technical factors such as engineering, and planning are considered.

Facility Components

The main facility components of the concept are:

1. Stadium Seating (in base model) – 8,000 permanent seats and 2,700 prefabricated temporary seats. The permanent seats are all undercover with 4,000 in a western stand, 2,000 in a southern stand and 2,000 in an eastern stand. The prefabricated seats in the base concept model would be positioned in the northern side of the stadium. This base model provides a maximum seated capacity of 10,700. Note: seating can expand above these capacities (see Section 3.2).

2. Function Space – 1,000 m^2 of function space is in the northern section of the western stand. This affords views from both within the space and its associated decks within the stadium and externally to the harbour entrance and Mauao. Adjacent to the function space is a catering kitchen. The space serves as a function venue most of the time and then on game days can be reconfigured into either corporate boxes or corporate lounges helping to increase stadium capacity (up to 500 additional seats maximum).

3. A multi-sport clubroom is located at the end of the north-eastern grandstand affording views into the stadium and the outer rugby fields and cricket oval. This facility offers community changing rooms on the ground level while the first floor accommodates a kitchen, bar, toilets, deck, and access to the rooftop terrace. Most of the time the facility accommodates community sports clubs such as cricket and rugby. On larger event days the lounge area and rooftop terrace are used for event hospitality (up to 300 additional seats max).

4. The lower ground floor below the function space in the western stand accommodates the players and official changing rooms together with, a first aid room, storage, and cleaners / services storage. Adjacent to this space is a functions and stadium loading bay, lifts and lobby servicing the functions space (and exhibition space or fitness centre).

5. A lower ground floor exhibition space of 1,500 m^2 is linked by the lobby to an additional 750 m^2 of exhibition space on the upper ground floor above. Combined the spaces offer 2,250 m^2 of light exhibition space. (Note: this space is interchangeable with a fitness centre option so only appears in the exhibition plan option).

6. The southwestern corner of the grandstand accommodates a food and beverage, and merchandising space. A small food and beverage kiosk space is provided in the south-eastern corner of the grandstand.

7. Eastern and southern terraces are positioned at the rear, along the length of the grandstand. These terraces are designed to enable the seating and event capacity to be increased. The terraces primarily accommodate standing spectators, prefabricated temporary seating modules or marques (or a combination of all). See Section 3.2 for additional details.

8. Scoreboards and digital screens are located at elevation on the north-eastern and southwestern corners of the stadium.

9. The eastern and southern sides of the stadium accommodate community lawns and plazas. The plaza is also designed to accommodate food trucks and stands to service larger capacity events. The outside eastern edge of the stadium accommodates event loading, VIP parking and other game day functions.

10. The ICP, coach, press and broadcast rooms are located centrally in the western grandstand.

11. A hybrid turf surface (artificial fibres and grass) is positioned within the stadium which facilitates codes such as rugby, league, football, and touch at a community and professional level. The hybrid turf also hardens the surface to make it more robust for events use (Appendix 2). The stadium is lit with floodlights suitable for televised event coverage.

Concept Sub-Options

Two concept sub-options have been prepared; these are:

1. A stadium (and associated facilities) with a fitness centre (gym),
2. A stadium (and associated facilities) with an exhibition space.

Both options are identical in all other respects except for interchanging the two named components (a fitness centre or a light exhibition centre).

Which option is selected will depend largely on external factors, mainly the construction of the Memorial Pool and Indoor Facility at Memorial park (which includes a fitness centre) and the final design of the Tauranga Central Business Precinct (which currently includes an exhibition space of circa 1,000 m^2). It will be important for any new stadium facility components not to compete and cannibalise the market of other planned facilities of a similar nature.
Based on available demand data duplicating two large new gyms in the CBD is not recommended at this time. Especially given that other private providers are already operating. Of the two locations Memorial Park with its pool and indoor recreation centre synergies is likely to be the better of the two locations for a fitness centre. Event disruption may also hamper a commercial gym's operation on the Domain. However, on the positive side a gym is likely to activate the Domain with greater foot traffic on non-event days.

By comparison the developing of a light exhibition space at the Domain (within the footprint of the existing grandstand) would offer some advantages. These include:

- The creation of a critical mass of light exhibition space in the order of 2,225m^2 , with the potential to add another 1,000 m^2 of space that could be 'borrowed' from the function centre, has strong commercial appeal (giving 3,250 m^2 in total),
- A light exhibition space would be very compatible with the overall stadium functionality (more so than a fitness centre).
- The footprint of the stadium accommodates the additional light exhibition space well without any further encroachment into the open space of the wider Domain.
- The upper level of the light exhibition space would be compatible with the creation of further game / entertainment event day functions space (such as corporate boxes and corporate lounges). This would add further stadium capacity without incurring additional capital cost.
- The light exhibition space would have a positive impact on the Stadium's revenue.

Based on available data the light exhibition space is considered a better operational fit with the overall stadium concept. Consideration will now need to be given to the relative merits of where such spaces are best located, in the central CBD or within the footprint of the stadium in the Domain (or a combination of both). This is best achieved through a market and then cost benefit analysis.

PROPOSED
LOCATION PLAN

SUMMARY

PROS

- MAXIMISES FUTURE EXPANSION
- RETENTION OF CRICKET OVAL, TENNIS AND SOUTHERN OVAL
- POSITIVE LARGER SITE CIRCULATION

CONS

- REMOVAL OF BOWLS CLUB AND CROQUET

SITE CIRCULATION

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

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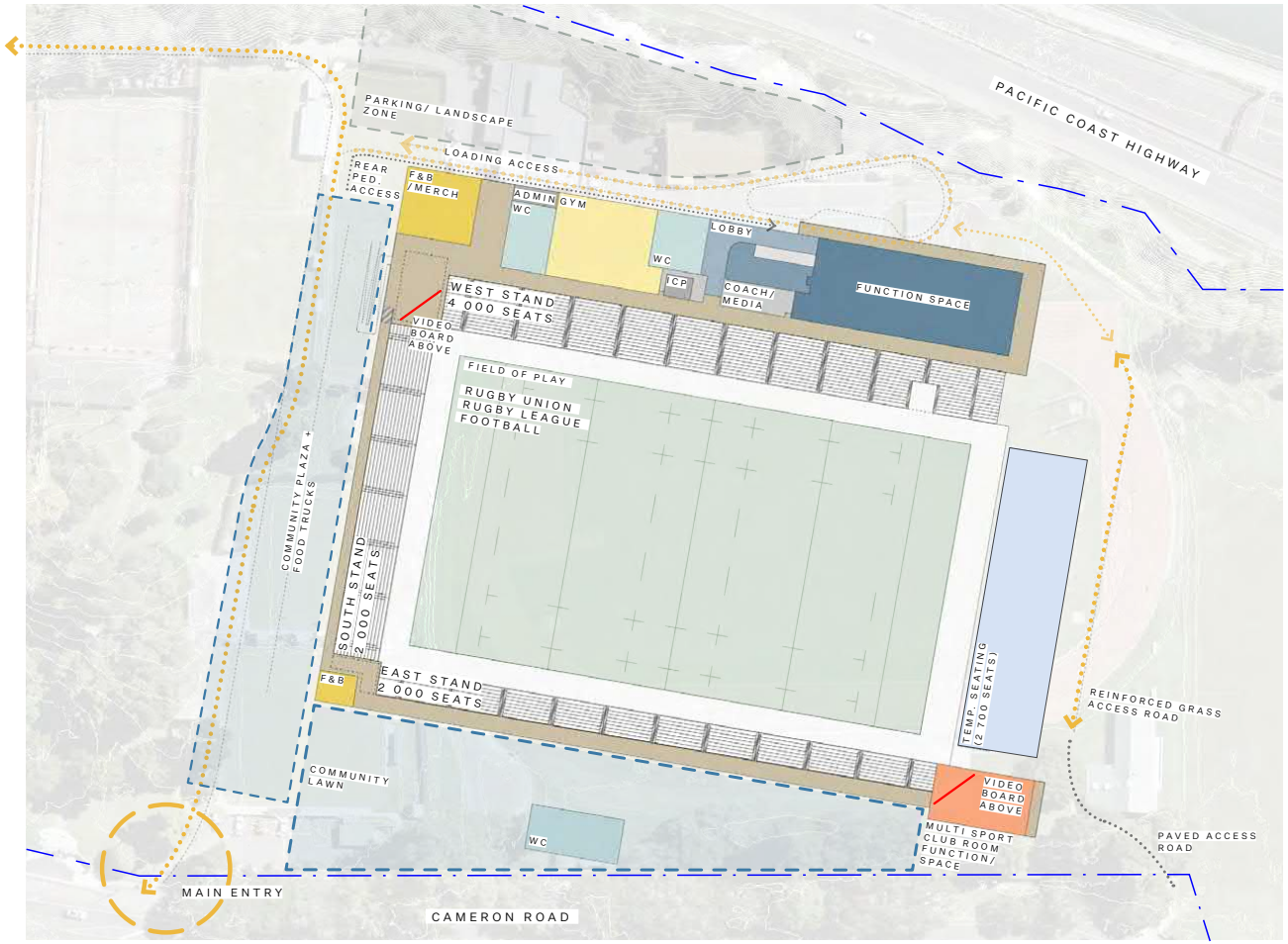
PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)



AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 720	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
GYM	500	SQM
WC AMENITY	590	SQM
MEDIA/ COACH/ ADMIN	220	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM
TOTAL EXCL. TEMPORARY SEATING	10 650	SQM
PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS	2 700	SEATS
TOTAL INCL. TEMPORARY SEATING, APPROX.	10 700	SEATS
ROOF AREA	10 800	SQM

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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PROPOSED
LOWER GROUND FLOOR PLAN (PITCH LEVEL)

AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 720	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
GYM	500	SQM
WC AMENITY	590	SQM
MEDIA/ COACH/ ADMIN	220	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM
TOTAL EXCL. TEMPORARY SEATING	10 650	SQM
PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS	2 700	SEATS
TOTAL INCL. TEMPORARY SEATING, APPROX.	10 700	SEATS
ROOF AREA	10 800	SQM

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)
EXHIBITION OPTION

AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 520	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
EXHIBITION SPACE	750	SQM
WC AMENITY	545	SQM
MEDIA/ COACH/ ADMIN	180	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM
EXHIBITION SPACE	1500	SQM
TOTAL EXCL. TEMPORARY SEATING	12 150	SQM
PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS	2700	SEATS
EXHIBITION SPACE*	UP TO 500	SEATS
TOTAL INCL. TEMPORARY SEATING. APPROX.	11 200	SEATS
ROOF AREA	10 800	SQM

* PATRONS WITH NO SEAT IN STANDS

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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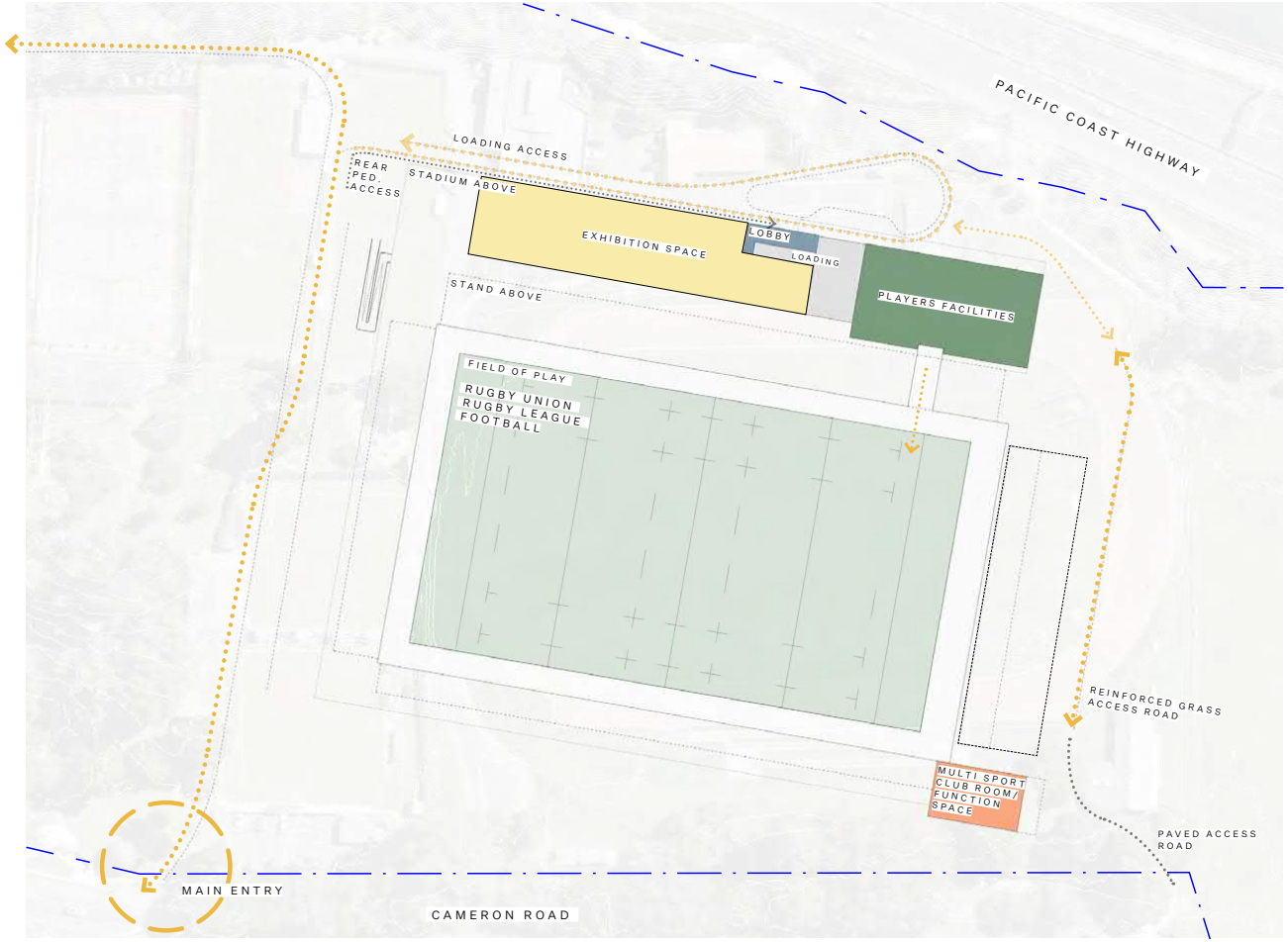
PROPOSED
LOWER GROUND FLOOR PLAN (PITCH LEVEL)
EXHIBITION OPTION



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MULTI SPORT CLUB ROOM	315	SQM
EXHIBITION SPACE	750	SQM
WC AMENITY	545	SQM
MEDIA/ COACH/ ADMIN	180	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

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ROOF AREA	10 800	SQM

* PATRONS WITH NO SEAT IN STANDS

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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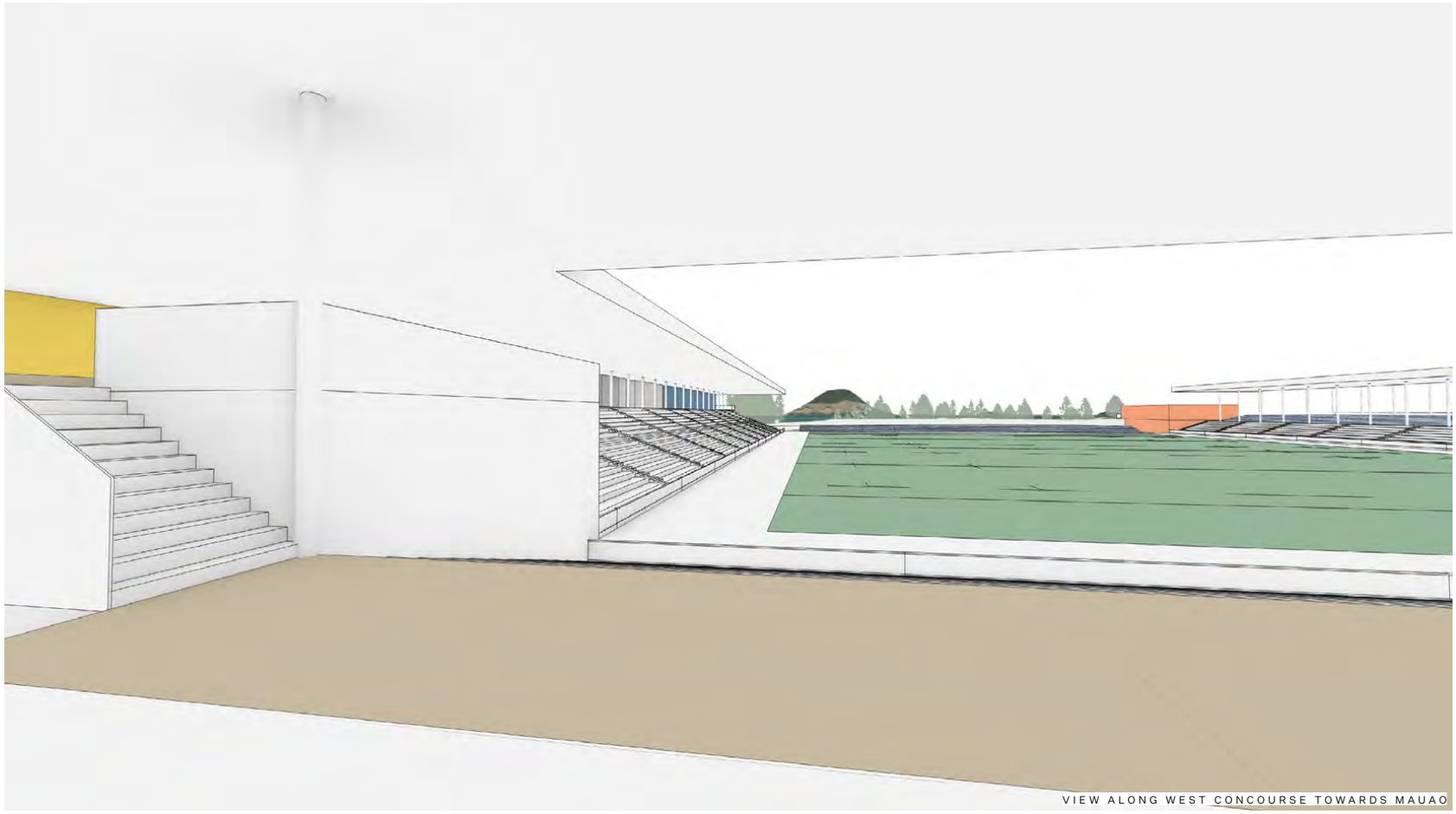
PROPOSED
ARTIST IMPRESSION

VIEW FROM SOUTH STAND TOWARDS MAUAO

WARREN AND MAHONEY VISITOR SOLUTIONS

17

PROPOSED
ARTIST IMPRESSION



VIEW ALONG WEST CONCOURSE TOWARDS MAUAO

WARREN AND MAHONEY VISITOR SOLUTIONS

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3.3 CONCEPT FUNCTIONALITY & STAGGING

Visitor Solutions and Warren and Mahoney have put considerable thought into the stadium functionality and how it will work in the different modes.

Community Mode

In community mode, which will be most of the time, people are free to come and go accessing the main stadium turf area and sections of the stadium and surrounds. Community level sport will be based in the main multi sports facility and have access to the playing surfaces (including the main stadium turf).

Two hybrid turfs are proposed one in the stadium and one on Wharepai Reserve to enable club and school play to be alternated should professional sports displace community use temporarily from the main stadium. The two hybrid turfs will be at two different levels of specification, with the stadium turf being the highest.

Each hybrid is estimated to enable 25-30 hours of sports use per week in winter. At times, prior to significant televised games, the stadium turf will need to be rested (to protect its visual appearance for television coverage) (See Appendix 1).

The Wharepai Reserve turf will be specified to accommodate professional sports training and warm up, club and social play and entertainment events. These hybrid turfs combined with the northern rugby fields and cricket oval on the Domain will maximise community utilisation opportunities.

Functions and light exhibitions can be staged in the western grandstand without any direct impact on club level use of the surrounding fields or the multi sports clubrooms. The community will be free to utilise the Domain with its additional amenity features in much the same way they do today.

Professional and Semi Professional Sports Mode

In professional and semi-professional sports mode the facility can be utilised in many different configurations. Sports use will be centred on field codes, such as rugby (including 7s), league, football, and touch. The field is sheltered from the prevailing south westerly wind.

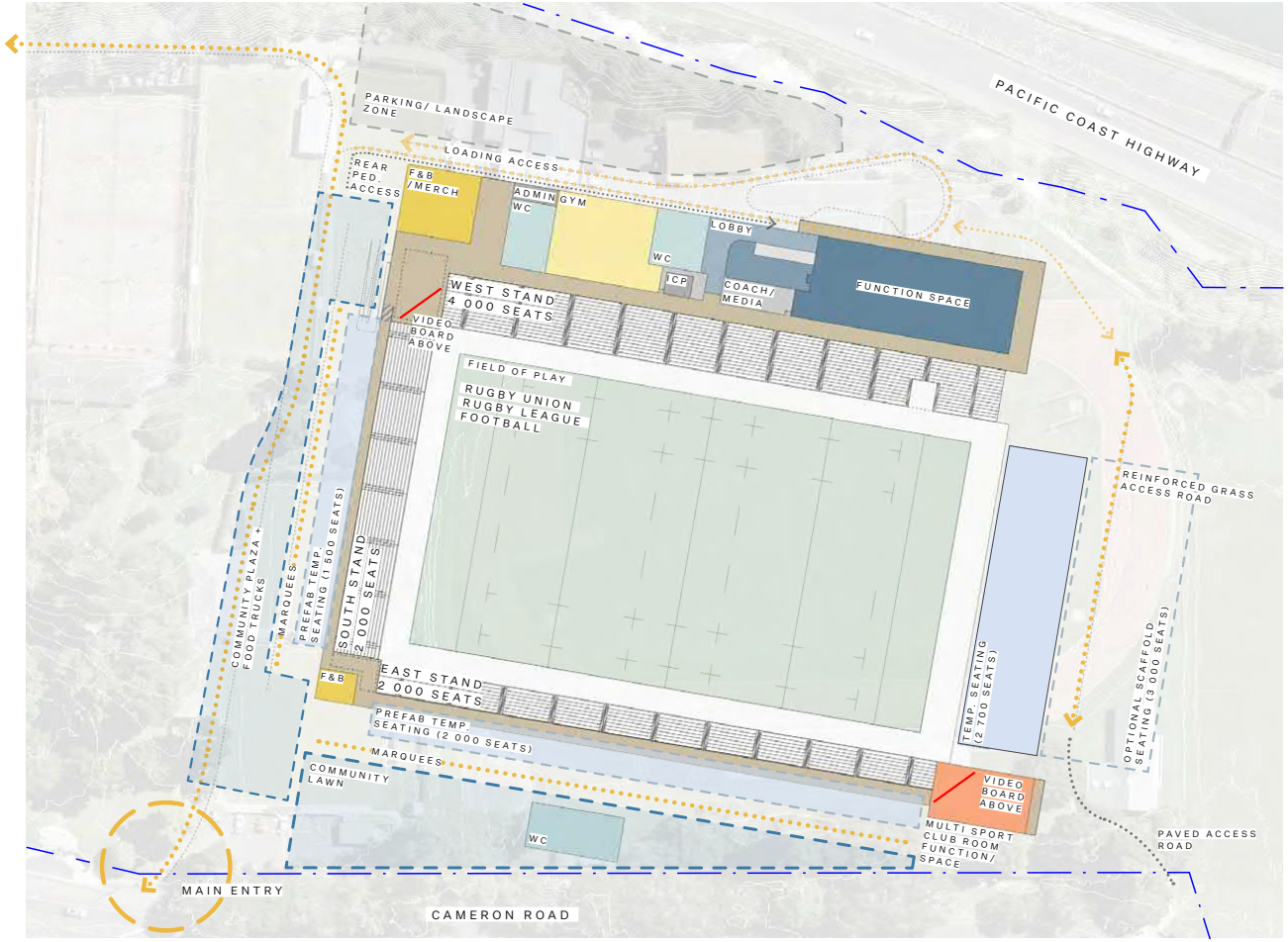
The seating configurations can be scaled up and down according to demand. The base model can accommodate 8,000 permanent covered seats, and an additional 2,700 prefabricated temporary seats (on the northern end of the stadium), giving a capacity of 10,700 seats. With the inclusion of the built function spaces a further 800 pax capacity (in different configurations) is generated. If the eastern and southern terraces are used for marquees, tables and standing observation capacity could increase conservatively by another 1,000 pax. The base model could therefore accommodate circa 12,500 pax.

The stadium has been designed so that the capacity can expand still further with a series of additional prefabricated temporary seat modules (up to 4,000 seats) across the eastern and southern stands. This would displace any marques to the rear of the temporary seating but add far more seated capacity. Once the function spaces are included seating would reach circa 15,000 (or slightly more if the light exhibition concept option was developed).

For events requiring greater capacity scaffold seating can introduce still further seating opportunities at the northern end of the stadium (circa 3,000 seats although this comes at an added cost). This would give a maximum capacity of circa 18,000.

The diversity of seating and function configurations would make the stadium New Zealand's most multifunctional boutique stadium and well aligned to identified demand (see Section 12.0).

PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)
TEMPORARY SEATING EXPANSION MODE



AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 720	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
GYM	500	SQM
WC AMENITY	590	SQM
MEDIA/ COACH/ ADMIN	220	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM

TOTAL EXCL. TEMPORARY SEATING 10 650 SQM

PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS*	UP TO 6 200	SEATS
FUNCTION SPACE**	UP TO 500	SEATS
MULTI SPORT FUNCTION**	UP TO 300	SEATS

TOTAL INCL. TEMPORARY SEATING. APPROX. 15 000 SEATS

INCL. ADDITIONAL 3000 SCAFFOLD SEATS 18 000 SEATS

ROOF AREA 10 400 SQM

*SOME VIEWING RESTRICTIONS DUE TO ROOF STRUCTURE/ COLUMNS + SLOPE OF GROUND
** PATRONS WITH NO SEAT IN STANDS

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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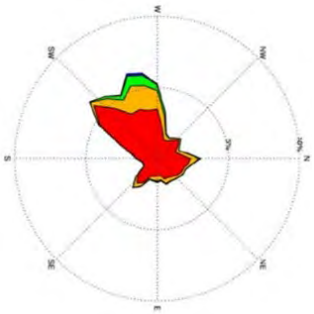
PROPOSED
ENVIRONMENT STUDY

TAURANGA WIND ROSE

Prevailing South-West Wind



WARREN AND MAHONEY VISITOR SOLUTIONS

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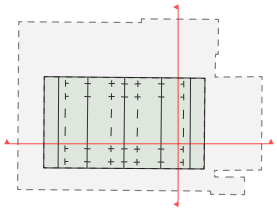
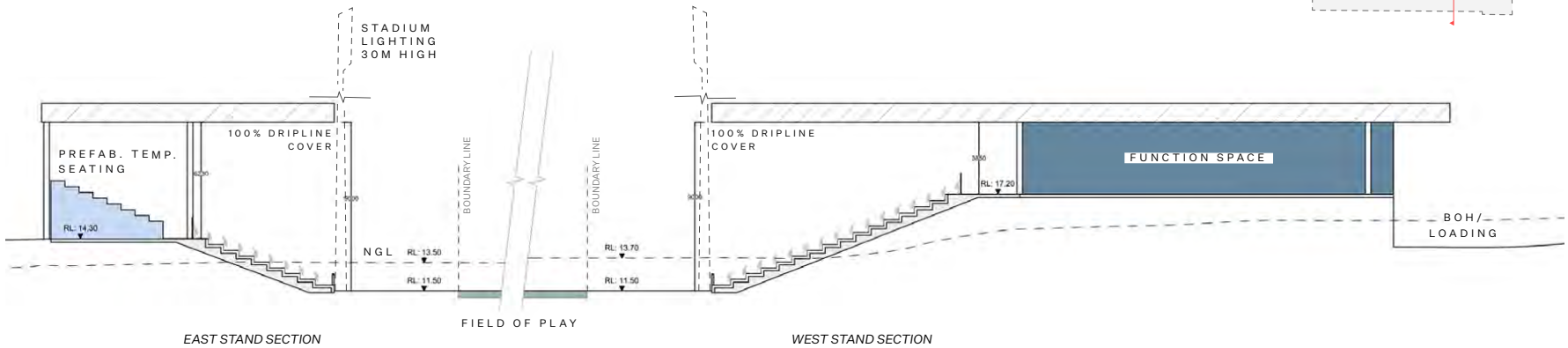
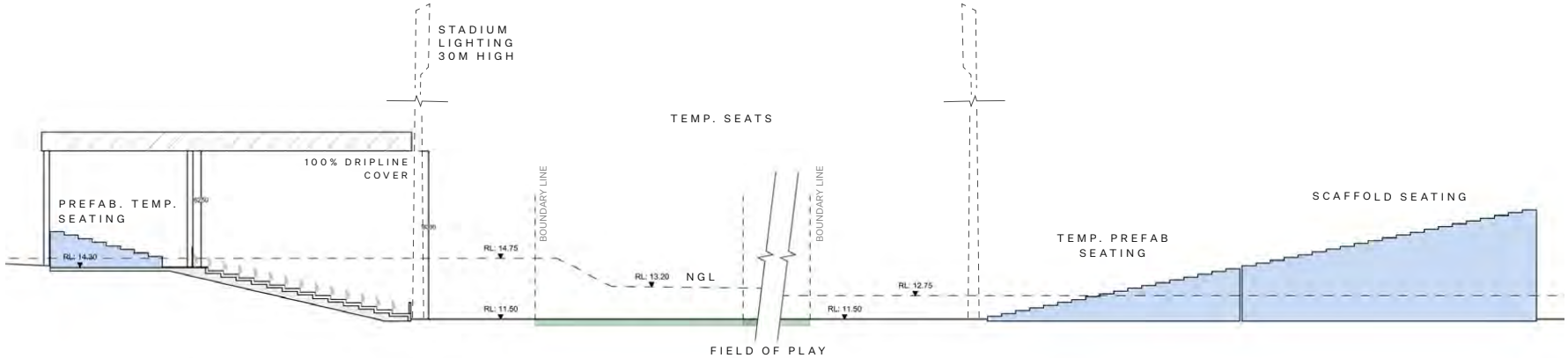
21

PROPOSED
STADIUM SECTIONS
TEMPORARY SEATING EXPANSION MODE





EAST STAND SECTION *WEST STAND SECTION*



SOUTH STAND SECTION *NORTH STAND SECTION*

*ALL LEVELS SUBJECT TO SURVEY DATA

WARREN AND MAHONEY VISITOR SOLUTIONS

1:200 @ A3

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Entertainment Mode

In entertainment mode the true flexibility of the stadium and wider precinct becomes even more apparent. The main entertainment configurations are concert mode and festival mode. In concert mode three stage configurations are likely to dominate (although many other options are possible). These are north stage, east stage, and centre stage (in the round).

The greatest audience capacity is created with the north stage which would enable an audience of circa 23,250 pax (without function spaces or additional prefabricated temporary seating in the southern or eastern stands being included).

The east stage would generate a more intimate setting with potentially fewer numbers (circa 17,800 – 22,400). This option would see the stage erected over the central eastern grandstand seating and facing the western grandstand. The other stage configuration would be in the centre of the turf enabling a performance in the round. This would accommodate circa 21,500- 25,000 pax.

In festival mode the true functionality of the stadium and wider precinct is unlocked. It would be possible to have a central stadium stage (as per the concert configuration) which could be considered the main stage. Outside the stadium the number of stages could range from two to four depending on the configuration adopted.

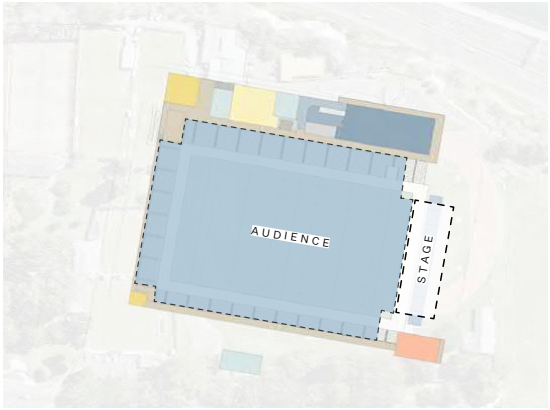
This could see a single southern stage, a central stadium stage and a northern stage (a three large stage precinct configuration) or a central stadium stage with several smaller stages north and south.

These potential stage and audience configurations were of particular interest to promoters. They perceived that the precinct offered possibilities that were rare in the New Zealand market.

PROPOSED
STAGE ORIENTATIONS
CONCERT MODE

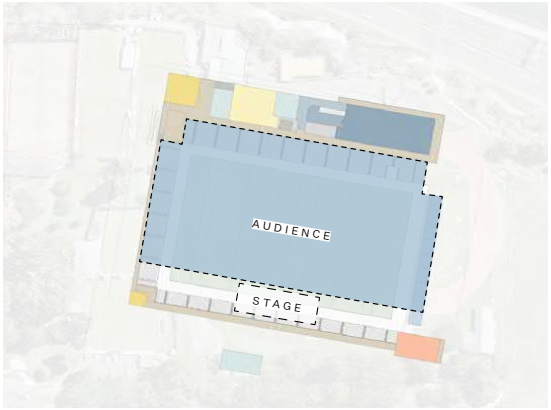
**Stage locations are indicative and will vary depending on stage location and venue hirer's productions requirements*

01.



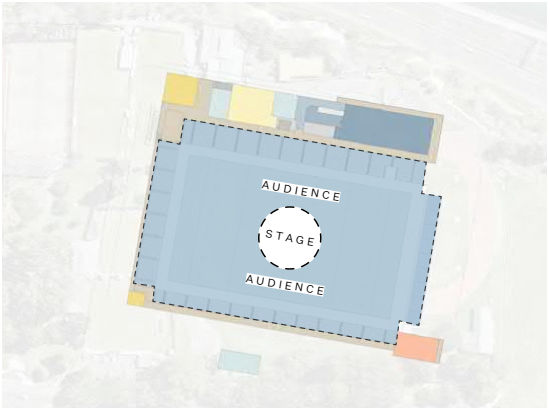
NORTH STAGE

02.



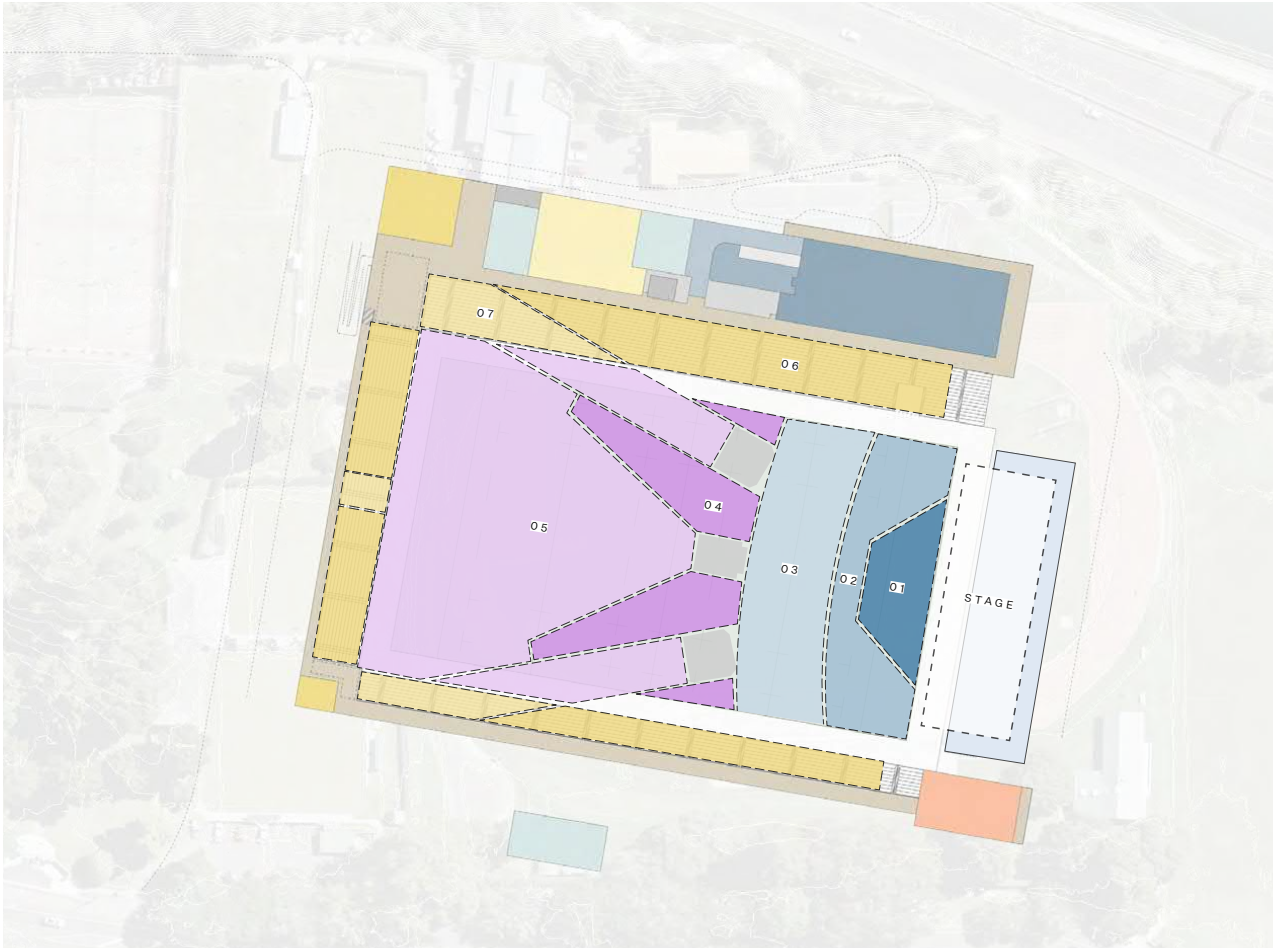
EAST STAGE

03.



CENTRAL STAGE

PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)
CONCERT MODE NORTH STAGE



CAPACITY SUMMARY (INDICATIVE)

STANDING

490	SQM @ 0.25 SQM	1 960	CAP.
1 050	SQM @ 0.35 SQM	3 000	CAP.
1 400	SQM @ 0.45 SQM	3 110	CAP.
1 250	SQM @ 0.55 SQM	2270	CAP.
4 000	SQM @ 0.75 SQM	5 330	CAP.

SEATING

STADIUM SEATING

2 530	SQM	5 850	CAP.

STADIUM SEATING OBSCURE VIEWING

750	SQM	1 730	CAP.

INDICATIVE CAPACITY APPROX. 23 250 CAP.

*The diagram shows one particular concert layout. Exact capacities will vary depending on stage location, speaker tower placement and venue hirer's production requirements

Concert capacity could potentially be up to 25,000 depending on field configuration and capacity required to be maintained for exiting patrons off field

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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PROPOSED
STAGE ORIENTATIONS/ LOCATIONS (INDICATIVE)
FESTIVAL MODE

STAGE SUMMARY

STADIUM (CENTRAL FIELD)

3 STAGE ORIENTATIONS

NORTH FIELD

5 STAGE ORIENTATIONS

SOUTH FIELD

2 STAGE ORIENTATIONS

*Stage locations are indicative of where a variety of stages could be accommodated across the site. This diagram shows flexibility of the venue given the large field areas outside the stadium itself

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

Phasing Development

The stadium has been positioned in the Domain in a way that would enable future expansion should demand, a cost benefit analysis, and financial modelling dedicate it was required and viable. Although such expansion is considered unlikely in the medium term (next 25-30 years) it is important not to limit opportunities.
The base design enables future permanent seating to be developed in the western, eastern, and southern stands.

3.4 NETWORK LINKAGES

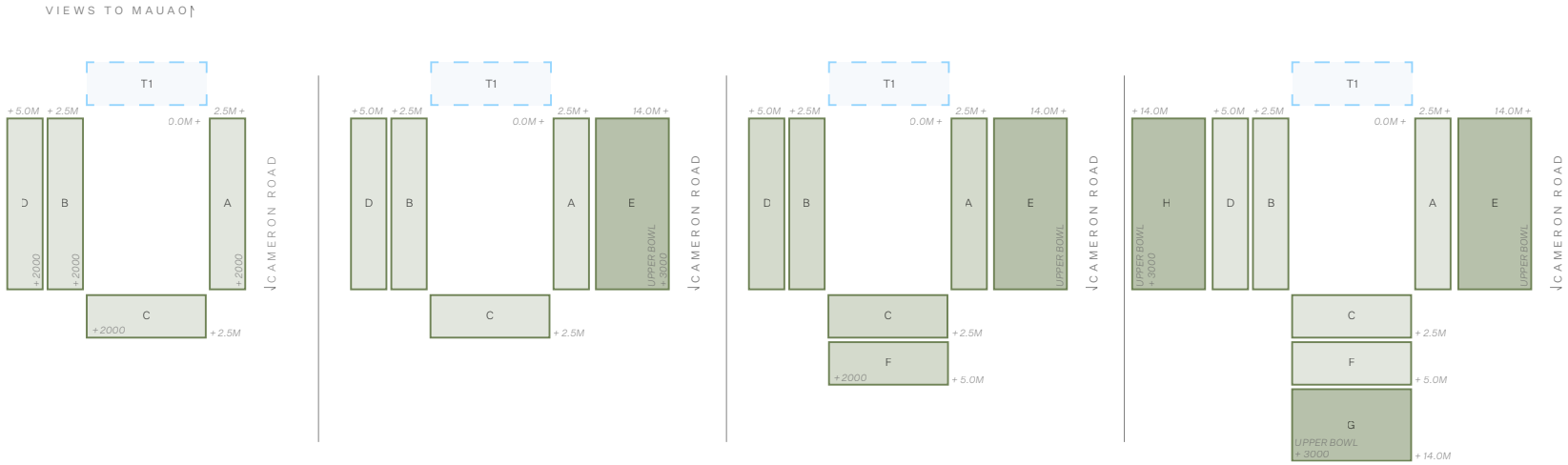
The stadium is designed to complement existing and proposed facilities within the wider Tauranga and Western Bay of Plenty network. The facility would become the pre-eminent rectangular stadium in the sub-region, complementing Bay Oval which is cricket focused.

At the community level the objective is that a range of sports codes would utilise the stadium turf (particularly over winter) for club and school events, complementing the existing network of sub-regional sports fields. Given the limited number of professional sports events, and the specification of the turf, such use is considered possible.

The function spaces and light exhibitions space would synergise well and enable up to 3,250 m^2 of combined space. This would enable some capacity at Baypark to be released for greater levels of community activity (such as community sport). This rebalancing of the event network will need to take into consideration the final event / theatre / gallery approach adopted in the central business precinct, which is currently under development. The outcome of this work will influence what is, or is not, undertaken on the Domain.

The entertainment offer created is diverse and compliments existing opportunities both on the Domain and in other locations, such as Baypark (with its indoor capacity).

STAGING AND EXPANSION STRATEGY



BASE SCHEME

A + B + C + D	8 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	10 700	SEATS

EXPANSION 01

A + B + C + D + E	11 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	13 700	SEATS

EXPANSION 02

A + B + C + D + E + F	13 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	15 700	SEATS

EXPANSION 03

A + B + C + D + E + F + G + H	19 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	21 700	SEATS

ALL SEATING TO BE UNDER COVER EXCL. TEMPORARY

WARREN AND MAHONEY VISITOR SOLUTIONS

4.0 CULTURAL DESIGN OPPORTUNITIES

Cultural engagement has formed a key part of this feasibility study. The cultural significance of the site, being Otamataha Pa and the distal point of a cultural significant landform of the Te Papa peninsula. The Te Papa Spatial Plan shows several features within the Tauranga and Wharepai Domains including known maara, kainga, waahi and kainga.

Understanding the values further has been investigated through engagement with Ngāi Tamarāwaho hapū representatives. These representatives were supportive of the open-air stadium design and location because it had a strong alignment to Mauao (strong sightlines) and was more in keeping with the landscape.

The representatives also noted the opportunity to influence the open stadium's design values, language and concepts enabling a sense of manaaki (hospitality / welcoming people to the stadium), kaitiakitanga (sense of place), and mauri (life force / well-being) to be incorporated. These key cultural design principles will be explored and woven into the design concepts as the project advances.

A wide range of more specific cultural opportunities were discussed that could be advanced as the stadium planning and design progresses. These included such things as:

- Exploring further ideas of Māori visual language / concepts – such as the visual impact of the use of traditional "tukutuku" patterns into the design of the stadium seating that expresses and represents mana whenua values of identity and energy.

- Considering a 'lintel' element as a gateway for people to pass through – based on the te ao Māori concept of a female carved lintel that presents the birth of mankind to remind us on where we come from in an abstract / artistic approach.

- Considering a new Te Reo Māori name for the Stadium.

The stadium design was also seen as being ideal to accommodate large cultural performances and festivals, such as Te Matatini National Kapa Haka Festival. The facility was also considered in in a suitable location and of appropriate scale to showcase Māori sporting teams such as the Black Ferns, Black Ferns 7's, Māori All Blacks and Māori All Black 7's.

Further detail about cultural opportunities is outlined in Appendix 3.

5.0 ENGINEERING

5.1 TRAFFIC FACTORS

High level traffic planning advice was provided to assist the conceptual design of the stadium. This established the Tauranga Domain is well located near the Central City to achieve integration with transport networks that support a range of modes of travel to and from the site. Significant planning and investment in the Central City to promote a walkable area, with improved public transport services, and dedicated cycle facilities further supports the Domain as a central location for Multi-Function Event Facility.

A facility that accommodates up to 10,700 seated attendees in the favoured 'base' layout dated March 2022 will generate high levels of movement to the Central City by private vehicle, bus, cycling and walking. A focus of movement will be to and from the south of the Domain site. To the south is where bus stops, car parking, and other activities that attendees will link a trip from are located. Some external improvements that will support connection to the site are understood to already be planned as part of the Central City Strategy. Additional local considerations will be necessary to facilitate peak movement of people, and event management plans are likely to be required.

The facility is located within the Domain site with a relocated access to Cameron Road, supported by potential access to Hamilton Street (west). The positioning enables key servicing of the site external to the stands, and future design stages will need to resolve the detailed space requirements to satisfy operational requirements. Car parking will be limited, and there will be a general reliance on the wider city parking resource. That in turn will assist in maintaining a pedestrian friendly space around the facility.

Initial review confirms the site position as suitable from a transport feasibility perspective, whilst noting there will likely be some reliance on planned transport infrastructure and services in the Central City area. Integrated Transportation Assessment in the future will be able to better inform the spatial

requirements for transport infrastructure within the site, the connections required, and the need for and priorities of external transport infrastructure based on travel mode and movement analysis.

Additional data on traffic planning issues can be found in Appendix 4.

5.2 ENGINEERING FACTORS

High level structural and geotechnical engineering advice was provided on the conceptual design. The final design will be subject to more detailed investigation, design, and assessment as part of the next stage of design development. Appropriate engineering will be required in the following phases of work to confirm the structural element sizing and extent. This includes foundations, support structure and roof cantilever elements to name a few. Additional data on engineering issues can be found in Appendix 5.

Geotechnical Aspects

Stantec have carried out a high-level review of the ground conditions and the potential implications to the foundation design based on the proposed location of the stadium concept adjacent to the slope along the west side of the Domain, above State Highway 2, Takitimu Drive. Using the information on the site ground conditions available within the Beca Geotech Detailed Seismic Assessment (DSA)[4]. The site investigation information in the Beca report indicates the ground at the site is liable to liquefaction and resulting in lateral spread of the founding soils during a seismic event, as well as the potential failures of the slope.

The review also identified that seismically induced lateral deformations may extend horizontally up to 80 m or more back from

[4] Report, dated 20/3/2020

the edge of the slope. This would require enhanced foundations within in this zone[5]. Reinforced concrete augured piles within this enhanced zone would require extensive pile caps and/or raft slab to support the stadium stands along the western side of the proposed development.

Piled foundations to the stands outside the slope deformation zone, > 80 m from the slope, would be likely be smaller and shallower in depth, of the order 600 dia. depth 10 to 15 m.

The current proposed location on the site is geotechnically feasible, however foundation costs are likely to be significant for the stadium structures particularly within the 80 m zone from the top of the slope along the west side of the site. The stadium structures will require piled foundations supporting a concrete raft/pile caps to support the gravity and seismic loads and to resist the seismic slope failure, settlement, and lateral spread due to liquefaction of the site during a significant seismic event.

Structural Aspects

The current main west stand roof indicates cantilevers of the order of 20 m and would require deep structural steelwork elements of the order 2 – 2.5 m at the supports tapered towards the cantilever end to achieve the spans indicated. The longitudinal grid spacing has been assumed to be in the range of 8 – 10 m. The structural floor zones between upper and lower ground floors will depend on the structural grid, and are yet to be agreed, but a 1000 mm structural zone would be reasonable at this stage. The structural depth along with the roof construction and falls will need to be considered in determining the overall building height.

A 20 m cantilever would require a minimum 10 m back span to balance the loads and span.

The permanent stand seating areas would likely be constructed in pre-cast concrete slab/beam elements supported on steel work beams or precast concrete beam/wall elements. This structural form would be extended in to rear accommodations areas.

The concept scheme indicates the playing pitch excavated below the existing ground level, with some area appearing to be built up to match the existing adjacent ground levels. Embankments and retaining wall structures will likely be required in some areas.

[5] Therefore, Stantec are recommending piled foundations, (i.e. foundations at or close to the edge of slope being in the order of pile Diameter (D) =1.2m, spacing = minimum 3D-4D, Depth = 25 - 30m).

6.0 PLANNING

Boffa Miskell undertook a review of the relevant statutory planning provisions (and applicable plan changes), which would apply with respect to the establishment and operation of an event stadium at Tauranga Domain (Appendix 6).

The City Plan states that the Active Open Space Zone applies to the City's larger parks and reserves that are primarily used for organised sport and events, usually with associated buildings and structures. These areas are also used for passive purposes and provide large areas of open green space.

The City Plan provisions recognise the intensive use made of these areas, and the need to provide sufficient facilities to support these uses while retaining a park or reserves open space character and amenity values.

Coupled with the Active Open Space Zone is the Active Open Space Zone (Major), which applies to reserves expected to contain larger facilities. The purpose of identifying these reserves specifically is to allow larger buildings and structures, including the provision for more intensive activities and events to occur on them.

The Active Open Space Zone (Major) applies to:

a. Blake Park,
b. Gordon Spratt Reserve,
c. Waipuna Park,
d. Paurau Farms,
e. Greerton Park,
f. Tauranga/Wharepai Domain,
g. Papamoa East (future reserve).

The favoured open stadium concept was found to have a lower risk from a consenting perspective (compared to the enclosed arena concept due to the smaller building mass, absence of an arena roof and lower height).
The key consenting risks associated with the favoured open air stadium concept are as follows:

- Landscape and visual effects associated with the height of the proposed stadium. These effects will be addressed through a landscape and visual effects assessment.
- Archaeological effects due to the earthworks required and the fact that an archaeological site affects the site. These effects will be addressed through an archaeological assessment, which will also address the need for an archaeological authority to be sought from Heritage New Zealand.

A pre-application meeting with Tauranga City Council would provide further guidance with respect to the likes of notification and other requirements.

The activity itself is anticipated and provided for within the Active Open Space Zone (Major). The proposal will however involve elements of non-compliance, which will require addressing through an assessment of environmental effects, which will be informed by the various technical inputs provided. Based on available data the proposed concept is considered achievable from a planning perspective.

7.0 QUANTITY SURVEY

Two favoured concept sub-options were developed, and quantity surveyed based on the architectural, engineering and landscape architecture data.

Direct construction only cost estimates are:

a) A stadium (and associated facilities) with a fitness centre (gym) for circa $130 million (2022). **Escalated to $155 million (2026)**
b) A stadium (and associated facilities) with an exhibition space for circa $139 million (2022). **Escalated to $166 million (2026)**

It is important to note that these figures:

- include a 20% contingency,
- 2022 figures exclude construction escalation. Allowing for construction escalation out to 2026 Deloitte have estimated costs will increase to be circa $155 million and $166 million respectively[6].
- exclude relocation costs associated with existing users and any new facilities provided.
- exclude detailed business case, design, consenting, and overheads associated with programme management, fund raising, debt funding etc.

Life cycle costs have also been prepared for both options (see Appendix 7).

[6] Capital cost escalation has been incorporated based on 5.4%-6.3% p.a. (reverting to Treasury assumptions from FY26 ~2% p.a). This has a compounding effect on the estimated construction costs. These escalation rates have been supplied by Maltbys.

8.0 GOVERNANCE & MANAGEMENT

Establishing the right ownership, governance and management structure is essential for any large project. The selected structure impacts not only on a facility's ability to come to fruition (through the planning, design, and capital funding stages), but also once developed its ongoing operational success (its financial viability, and social, economic, and environmental performance). A range of governance and management models were explored for the proposed stadium facility. These fell under six main groupings:

- Council ownership, governance, and management,
- Council ownership, governance, and Bay Venues Ltd management,
- Private ownership and management,
- Bay Venues Ltd ownership, governance, and management,
- Trust ownership, governance, and management,
- Trust ownership, governance, and outsourced management,

Initial Evaluation

After initial evaluation, options with sole Council ownership were removed from consideration on two main grounds. The first being the stadium project has regional benefit and wide appeal to many user groups. Council ownership could potentially reduce the likelihood of encouraging broader participation and potentially partnerships.

The second reason was that Council ownership would reduce the ability to seek charitable grants from third parties, some of whom are reluctant to grant community funding to facilities owned by Council, on the basis it subsidises what should otherwise be a ratepayer cost. Further, an analysis of the project's capital costs (see Section 7.0) demonstrates Council would be unable to provide all the project's capital.

Similarly, Bay Venues Ltd ownership was discounted on the grounds of it being a Council CCO and would face similar challenges to the Council ownership models.

Private ownership and management was also considered unviable on the basis that a commercial rate of return on the capital invested would not be possible without significant operational grants from third parties. Private sector financial structuring was also considered to be potentially less favourable than a charitable trust structure (which can leverage grant funding from third parties). It was also considered to be potentially harder to deliver on the community outcomes of the stadium precinct with a private ownership model.

Once non-viable options are discounted, the remaining and preferred approach is to place the Community Stadium into independent Trust ownership. The Trust can then elect to take on governance and asset management, or governance and outsource the management to a separate facility management company. It is these two options that were explored further.

Evaluation of Trust Centric Models

The independent Trust model would see the proposed facility owned, governed, and operated by an independent Trust. This overcomes many of the initial fundraising constraints and enables multiple partner groups / entities to be represented within the Trust. However, it would require the Trust to either set up its own management entity (and in so doing duplicate the role of Bay Venues Ltd in Tauranga), or contract that management function to a 3rd party.

The alternative management outsourcing model would see either Bay Venues Ltd or an alternative facility manager such as Community Leisure Management (CLM), Belgravia Leisure (BL), or the YMCA who

would then operate the facility under a management contract with the Trust.

Table 8.1 sets out the management pros and cons for each approach.

Table 8.1: Management pros and cons

	Pros	Cons
Trust Management (the asset owning trust)	• All responsibility for the performance of the facility rests with one legal entity. • The Trust would have one focus / priority, the performance of the stadium ('fewer distractions'). • Management is more readily guided by governance.	• The management arm would need to be set up and resourced from scratch. • Operational subsidisation would still be required from Council who may be less inclined to see grants going outside its CCO facility management structure. • Economies of scale would be less likely to be established (as BVL and other commercial facility management companies have systems and processes and hundreds of staff). • Staff retention is often harder as career paths are more limited • Tauranga network-wide synergies would be harder to create (as Bay Venues Ltd manage the other Council facility assets.
Bay Venues Ltd Management	• Offers an existing facility management entity that is experienced in the Tauranga market. • Is a known quantity for Council which may be beneficial given operational subsidies will be required. • Can operate the stadium within a Tauranga wide facility network. • Has established management and marketing capability (and its own independent skills-based board). • Has a proven track record of working with Council's events, parks and community teams.	• Were perceived by some community interviewees as not being "community focused" and as "chasing the dollar" at the expense of community outcomes. • Operational subsidisation would still be required from Council. • Direct appointment may not deliver desired operational performance, or commercial tension outcomes
Other External Facility Management	• Were perceived by some interviewees as an alternative to Bay Venues Ltd that would introduce "competition into the Tauranga facility management scene". • Economies of scale could be established (as commercial facility management companies have systems and processes and hundreds of staff nationally and sometimes internationally). • Have established management and marketing capability.	• Operational subsidisation would still be required from Council who may be less inclined to see grants going outside its CCO facility management structure. • Tauranga network-wide synergies would be harder to create (as Bay Venues Ltd manage the other Council facility assets). • Would not necessarily be experienced in the Tauranga market. • Cannot operate the stadium within a Tauranga wide facility network in the same way Bay Venues Ltd can.

On balance we believe the best approach is for a management contract to be established with either Bay Venues Ltd or another established facility management entity for a set term.

A small number of interviewees perceived Bay Venues Ltd as not being "community focused" and as "chasing the dollar" at the expense of wider community outcomes. We believe that these perceptions related more to the temporary displacement of specific community sports use from some facilities in the existing network. No interviewees were critical of the organisation's commercial performance. We are aware of similar perceptions being held of other management organisations such as Community Leisure Management (CLM), Belgravia Leisure (BL), or the YMCA in other regions.

In negotiating with a provider, there are always pros and cons as set out in the table above. Any direct negotiation must create healthy commercial and performance tension. To achieve this, we recommend clearly defined outcomes (e.g. broader community access), performance criteria established against which the Trust can assess delivery, including financial targets and asset management. Given the proposed stadium itself is unique to NZ, we recommend performance criteria include ongoing innovation and development of the venue and its offer to the region.

Balancing issues (community and commercial) can be addressed in a suitably researched and structured management contract between the Trust and management entity. It will be important that the general objectives of the contract are communicated to community organisations, so they understand the parameters that the management entity is working within.

We see maximising wider community benefit from the Domain could be assisted if the area was operated as a single holistic precinct. It may be beneficial therefore to consider the same management entity managing all domain activity (for example sports ground use and events). This would require a separate agreement between Council and the management entity.

This would have the benefit of streamlining the bookings and optimising the precinct's functionality. Again, it would be important that the general objectives of any contract are communicated to community organisations, so they understand the parameters that facility management is working within. One of the objectives of any potential contract should be maximising community use of the Domain (including for structured community sport and casual leisure).

What Could the Favoured Structure Look Like?

Initial analysis indicates that the favoured structure would see an independent skills based charitable trust established. The Trust would be tasked with developing the stadium facility and fundraising for its construction.

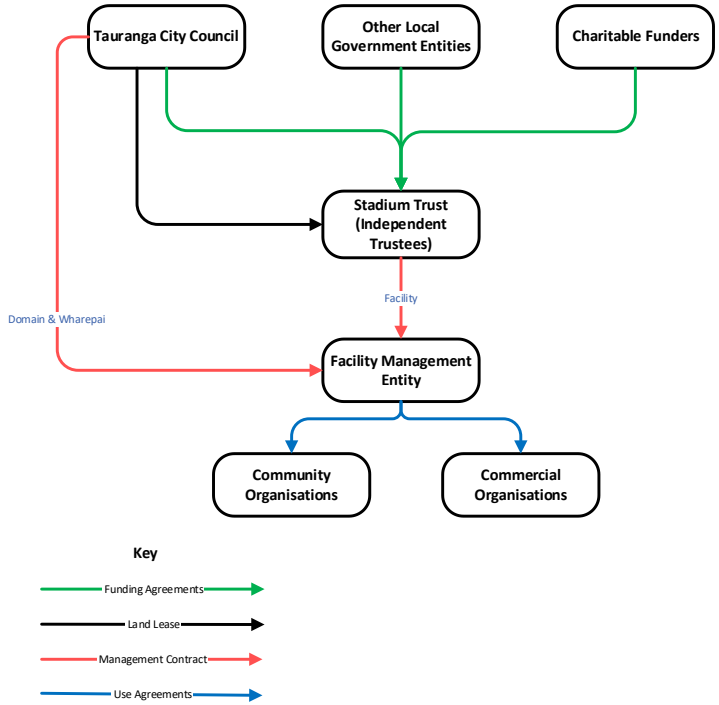
Funding agreements would be put in place between the Trust and funders, such as Tauranga City Council, other local and central government entities, and charitable funders. In the case of Tauranga City Council, a lease would also be negotiated for the land on which the stadium facility would be developed.

An external facility management entity (such as a BVL or CLM) would then be contracted by the Trust to manage and operate the facility. A separate management contract could also be established between the management entity and Council to manage the wider Domain and Wharepai Reserve. These agreements could be aligned so that amongst other things they commenced and terminated on the same dates. The management entity in turn would have a series of use agreements and contracts with community and commercial organisations.

The Trust and Tauranga City Council would have the ability to review the management entities performance over the term of each

contract, and either reappoint them or change the management approach.

Figure 8.1: Summary Governance and Management Structure



Important Considerations

It will be important to seek legal advice around the formation of the Trust and all the agreements between the individual parties. The composition of the Trust will also be critical. At various times the mix of trustee skills required will change. At the initial planning and development stages skills and experience in areas such as project development, politics, contract law, and project structuring would be advantageous. Later at the operational stages skills such as asset management, marketing, and accounting would come to the fore.

From the outset it will be necessary for all parties involved in the project to articulate their objectives operationally. These will need to be clearly defined in any agreements between the main parties and in general terms to the community groups who use the Domain. These objectives should flow through all agreements especially those between the facility management entity and community organisations such as sports clubs (to avoid the misperceptions of the past).

It will be important that the project be treated holistically from the outset rather than as a silo. Achieving this is best done by involving all the core partners from the beginning (see Section 11.0, on the development road map).

9.0 GRANT FUNDING

Jenni Giblin has undertaken a high-level funding assessment to assist in guiding early strategic decision making and financial modeling. This enables the proposed stadium to be positioned to leverage as much external funding as possible from a diverse range of sources.

Discussions with funders and further analysis will need to be completed to confirm the assumptions that underpin this assessment. They are based on funds raised by the author for stadium projects and other similar projects across New Zealand.

The unique nature of the project with a strong focus on community use and its open stadium design is unusual within New Zealand (where most stadia shut people out when they are not in event mode). These factors all contribute to broadening the projects potential funding opportunities.

Initial assessments indicated that the proposed Stadium has the ability to secure external funds from a variety of sources. A high-level breakdown of these is provided below (Table 9.1). It should be emphasised that this is an initial assessment only and further work will be required to test the projects funding appeal.

Table 9.1: High level funding breakdown

Funding source	Fund	Amounts
Central Government	LGB Significant Projects Fund	$6,000,000
	LGB Community Facilities Fund	$800,000
	Central Government support into Tauranga	$20,000,000
Local Government	TCC	unknown
	BOP Regional Council	$5,000,000
Corporate & Philanthropic partners		$5,000,000
Founding Partner	TECT	$20,000,000
Trusts	Gaming and Community	$3,000,000
Total		$59,800,000

Further detail on the projects high-level funding assessment is outlined in Appendix 8.

10.0 FINANCIAL MODELS

Two favoured concept sub-options were developed, and quantity surveyed. Direct construction only cost estimates are circa $155 million for a stadium (and associated facilities) with a fitness centre (gym), and circa $166 million for a stadium (and associated facilities) with an exhibition space. It is important to note these figures include a 20% contingency and construction escalation[7], but exclude relocation costs associated with existing users and any new facilities provided and detailed business case, design, consenting, and overheads associated with programme management, fund raising, debt funding etc.

The focus of the financial analysis undertaken was to understand project cashflows as opposed to the flow of funds between the multiple parties that may be involved and hold ownership interests. Assuming capital grants of up to $60 million can be obtained there is an estimated additional funding requirement of between $96.6 million and $107.7 million.

The consideration of how the additional funding requirement will be sourced is outside the scope of this study. However, it is envisaged this may be via a wider targeted regional rate, regional or local council debt or provided by other entities (e.g. Quayside Holdings). It is likely that it would be provided to the operating Trust in the form of a grant so that the Trust would have no on-going debt obligations.

Two financial models were developed, one for each of the concept sub-options. Each option was underpinned by a series of revenue and operational cost assumptions. Food and beverage represent a large proportion of the revenue and operating expenditure and is modelled based on a 20% marginal contribution. The models indicate the Stadium / Exhibition space option would generate average year revenue of $7.5 million while the Stadium / Fitness Centre option would generate slightly less at $6.9 million. Operational costs are estimated at $5.7 million and $6.1 million respectively (Table 10.1).

Table 10.1: Financial Summary

$NZ000's	Stadium and Fitness	Stadium and Light Exhibition
Project Metrics:		
Cumulative Cash Flow	(313,878)	(321,665)
NPV	(167,084)	(174,242)
IRR	N/A	N/A
Payback (Non discounted)	+50yrs	+50yrs
Capital Intensity		
Capex	154,895	165,884
EBITDA (FY22 Real Terms)	1,143	1,431
Capital Intensity	135	116
Profitability		
Revenue (FY22 Real Terms)	6,900	7,564
EBITDA (FY22 Real Terms)	1,143	1,431
EBITDA Margin%	17%	19%
Debt Metrics		
Debt	(96,558)	(107,737)
Debt Repayment	5,250	5,858

Source: Deloitte Analysis

Based on the analysis, both stadium options are EBITDA positive. However, neither of the modelled options contributes sufficient profit to cover debt and interest payments nor a satisfactory contribution towards depreciation to fund replacements over time. The options are not cashflow positive over the 50-year modelled time horizon.

[7] Capital cost escalation has been incorporated based on 5.4%-6.3% p.a. (reverting to Treasury assumptions from FY26 ~2% p.a). This has a compounding effect on the estimated construction costs. These escalation rates have been supplied by Maltbys.

This is not uncommon. In our experience Stadiums are generally not financially self-sufficient (and often don't contribute enough to cover debt repayments or fund replacements over time) and therefore require augmented funding over time to remain cash flow positive.

Detailed financial projections for each option are provided within Appendix 9.

11.0 ECONOMIC AND SOCIAL OUTCOMES

Stadiums and function/event spaces can generate positive economic and social outcomes for host communities. Traditionally these benefits are generated during periods of event activity only, which for stadiums can be infrequent. One of the unique aspects of the proposed Tauranga stadium precinct is its ability to still generate social and economic benefits more frequently, with less idle periods. This is primarily because unlike the conventional approach where stadiums focus on national and international events, in the Tauranga case, the community will also have virtually constant access. For example, community clubs and schools can host sporting events on the main stadium field in between professional and semi-professional sporting events.

The stadium can also accommodate a wide range of entertainment activities from smaller concerts, community fairs, festivals, and events (e.g., food and wine), all the way through to large music concerts and cultural performances (such as kapa haka) that can attract over 25,000 spectators. Sports use will likely dominate over winter while outdoor events and concerts will predominantly take place in summer. This assists in spreading the social and economic benefits of the stadium across the entire year.

The stadium itself is complemented by multi-use functions and exhibition spaces. During large sport and concert events these spaces act as corporate boxes and lounges. Outside these times they accommodate a range of activities such as weddings, corporate functions, wakes, cultural events, trade shows and exhibitions.

The stadium precinct will:

- Generate increased visitor bed nights within Tauranga and the sub region,
- Generate increased visitor spend within the Tauranga CBD and wider sub region,
- Increase the profile of Tauranga and the subregion through greater television and wider media coverage,
- Assist local sports development pathways by giving youth and club players the opportunity of competing in a stadium environment,
- Adding to the residents' sense of pride and wellbeing,
- Showcase local cultural, sporting, entertainment, and business talent.

International literature suggests that new stadiums offer communities more intangible social benefits. These benefits go beyond the core role of stadiums (e.g., hosting sport events) and include aspects like community identity, contributing towards liveability and so forth. While expressing these benefits in dollar terms is difficult, they do add to the overall value of stadium developments.

Appendix 10 outlines more detail on social and economic benefits generated by the proposed stadium precinct.

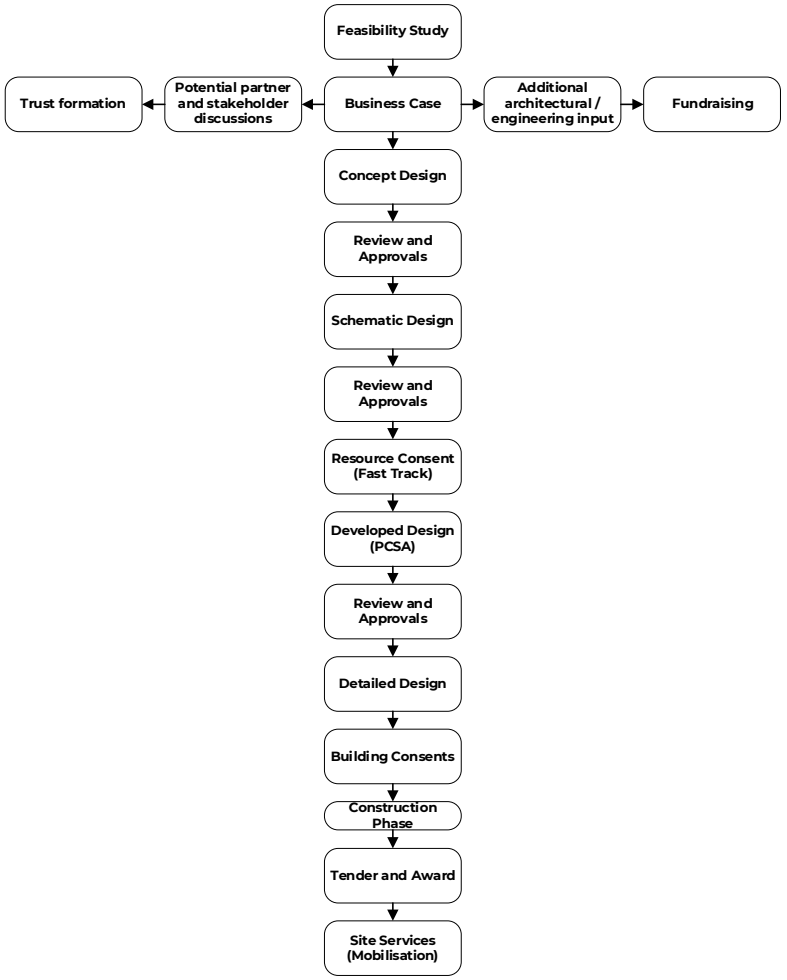
12.0 DEVELOPMENT ROAD MAP

An analysis of the project's development roadmap (Figure 12.1) indicates that meeting the objective of an operational community stadium in 2026, will be tight. Meeting this deadline will require continued momentum with the business case and associated activities commencing in May 2022. Appendix 11 sets out an indicative programme. The main tasks in this programme are outlined in Table 12.1.

Table 11.1: Key Programme Tasks

Task	Start Date	Duration (Months)
Business Case	May 2022	2-3
Additional preliminary architectural / engineering input	May 2022	2
Potential partner and stakeholder discussions	April 2022	4
Trust Formation	May 2022	2-4
Core Partner / Contractor Agreements	August 2022	24
Fundraising	May 2022	36
DESIGN		
Concept Design	Sept 2022	4
Review and Approvals	Jan 2023	1
Schematic Design	Feb 2023	4
Review and Approvals	July 2023	1
Resource Consent (Fast Track)	August 2023	6
Developed Design (PCSA)	Nov 2023	6
Review and Approvals	May 2024	1
Detailed Design	June 2024	6
Building Consents	Dec 2024	4
CONSTRUCTION		
Tender and Award	Dec 2024	4
Site Services	April 2025	20
Opening	Dec 2026	

Figure 12.1: Development Roadmap



The Underlying Context

13.0 THE TAURANGA STADIUM DEMAND & NICHE

13.1 STAKEHOLDER ENGAGEMENT

A critical part of the process has been to engage with a wide range of stakeholders, including potential hirers[8], to build an understanding of their venue needs and expectations. Those organisations that hire and otherwise benefit from venue facilities and services have user and experience-based insights that, when considered objectively and in the wider market context, inform recommendations, decision making, planning and delivery.

Engagement was undertaken via a combination of web surveys, interviews, and site walks. The stakeholders represent a cross section of small, medium, and large, sport / entertainment / event organisations. They range from an entertainment company with a market cap of circa $US25B, to local member-based sporting clubs, such as Tauranga Athletics.

Where possible engagement was undertaken with the CEO or an executive. In some instances, sports organisations provided input from a cross section of members.

13.2 KEY FINDINGS[9]

Sport market

The main potential hirers for a rectangle stadium are rugby, rugby league and football. We interviewed senior personnel at national, regional and community level from these sports. The summary findings are:

- At the international level **NZR** typically hosts approximately six All Blacks tests per annum. History shows the majority of these are allocated to the four main centres (usually two in Auckland). The critical decision-making criteria are commercial; that is maximising the financial return from the event and within this, contributing criteria such as stadium capacity (35,000+), stadium commercial terms, population base, quality, and capacity of visiting fan accommodation.

- At the regional level rugby features the following competitions
    - DHL Super Rugby Pacific (men's),
    - Sky Super Rugby Aupiki (women's),
    - Bunnings Warehouse NPC (men's); and
    - Farah Palmer Cup (women's).

    1. The DHL Super Rugby Pacific has no Sanzaar or NZR minimum seating capacity requirement, although there are minimum operating requirements. The Super Rugby Aupiki & Farah Palmer Cup competitions do not have minimum capacity requirements.

    2. For the Bunnings Warehouse NPC, the minimum stadium requirements are as follows:

[8] Examples of those engaged include entities such as New Zealand Rugby, Chiefs, New Zealand Football, BoP Rugby Union, Live Nation, Eccles / Frontier Touring, Promoters Association, Business Events Association Aotearoa, One Love, and local event promotors, past and present heads of convention bureaus, numerous sports clubs, WaiBOP Football, and Sky City.

[9] Note much of the information provided is from stakeholder discussions; that is complemented by concurrent research of publicly available information to add context (e.g. All Black schedules) and reports provided to us (e.g. PwC Needs Assessment Report 2019)

- Capacity of 10,000 for Round Robin games and 15,000 for the semi-finals and final.
- 1,000 covered seats for Round Robin matches and 2000 covered seats for semi-finals and final.
- 1,500 other seats for Round Robin matches and 3,000 other seats for semi-finals and final.

- For DHL Super Rugby Pacific, the leading commercial rugby product below test match level, each club determines where they play their home matches. History shows they play almost all of these fixtures at the stadium where they are the anchor hirer (e.g. Chiefs FMG stadium, Hamilton). The five anchor venues range in capacity from 25,800 (Hamilton) to 48,000 (Eden Park, Auckland), four are rectangular (the exception is Eden Park which is oval).

- In relation to the Chiefs, the Club has seven home matches each year; they have an obligation to play five of those at FMG stadium, Hamilton. The Chiefs venue expectation in allocating home matches (outside Hamilton) is a stadium of circa 12,000 to 15,000 seats. When the new Yarrow stadium becomes available (partial completion 2022, full completion 2024), the Chiefs expect to support that market by allocating fixtures to New Plymouth.

- There is not a suitable venue in Tauranga to host Chiefs matches; if there was a suitable venue, it would be likely the Chiefs would want to engage with the Bay of Plenty market by allocating one match per year to Tauranga, subject to commercial terms and ability to meet minimum operating standards.

- Other rugby product includes rugby 7's at various levels, and Māori sporting teams such as the Black Ferns, Black Ferns 7's, Māori All Blacks and Māori All Black 7's which are less frequent. With the possible exception of large international 7's tournaments[10] all other products would be well suited to the proposed stadium concept. This builds upon the existing national 7's tournament held in Tauranga.
- In summary
  - *Tauranga does not have a DHL Super Rugby Pacific club or Sky Super Rugby Aupiki club as an anchor hirer or a tenant.*
  - *There is very limited scope for a new stadium in Tauranga to secure regular high attendance, commercial rugby fixtures (e.g. test matches and DHL Super Rugby Pacific).*
  - *The main potential rugby fixtures available to a new stadium in Tauranga would be Bay of Plenty Rugby matches in the Bunnings Warehouse NPC and Farah Palmer Cup.*
  - *On a less frequent basis, the stadium would likely appeal to Black Ferns, Black Ferns 7's, Māori All Blacks and Māori All Black 7's.*

- At international level **New Zealand Football** wants to bring more All Whites fixtures to New Zealand.

  1. The critical decision-making criteria is financial, whereby such fixtures must 'wash their own face', which means selling 20,000 tickets for the event. Other important factors are population base, visibility (i.e. outside Auckland) and a rectangular stadium. New Zealand Football would allocate All Whites fixtures to Auckland, Christchurch, and Wellington in that order; they are unlikely to secure more than one or two fixtures per annum.

  2. A smaller circa 8,000 capacity venue could work for the national women's team the White Ferns, if it had scalability to add temporary seating. Again, the issue is

[10] Although this may change in the future as events evolve.

frequency of fixtures and likely allocation preferences to other cities.

At regional level football has the domestic competitions of which the most prestigious is National Premier League. There is also the Chatham Cup (Men's, knock out) and Kate Sheppard Cup (Women's knock out). None of these competitions draw stadium level attendances although finals can draw stronger attendances.

New Zealand has one team playing in the A League, the Wellington Phoenix. The Wellington Phoenix has a track record of taking some home games away from their home stadium (Sky Stadium). However, the number of games held in other New Zealand locations is unlikely to exceed 2-3 each year. Of these 2-3 games, larger key fixtures are likely to be held at Eden Park for revenue reasons where crowds have ranged between 20,000 – 24,000 pre Covid. This is best illustrated by the fact Wellington Phoenix will hold their only two games of the Covid disrupted 2021/22 season split between Wellington and Auckland.

- In summary
  - *Tauranga does not have a club competing in the National Premier League.*
  - *There is very limited scope for new stadium in Tauranga to secure regular high attendance, commercial football fixtures (e.g. All Whites, Football Ferns, Wellington Phoenix).*

- At international level **New Zealand Rugby League Football** aims to have two to four Kiwi's test matches each year, however this is not consistently achieved. History shows the majority of these events are allocated to the main centres, and Auckland secures more tests than other regions, with Mt Smart the notional national rugby league stadium, NZRL offices being next door and the Vodafone Warriors hosting about 13 NRL fixtures per year since 1996.

- **National Rugby League (NRL).** Historically the Vodafone Warriors do host a small number of home games outside Auckland. On an infrequent basis a new Tauranga stadium may be considered as a venue.

- In summary
  - *There is very limited scope for a new stadium in Tauranga to secure regular high attendance, commercially based rugby league fixtures (e.g. Kiwi's).*
  - *On an infrequent basis a new Tauranga stadium may be considered as a venue for a Vodafone Warriors game.*

- At **community sports level**, stakeholders emphasised the need to retain green space and were concerned that any built structure development on the site did not subsume open spaces. Community level sports users do not want to be shut out of access and use of the location under consideration and expect it to be available for all levels of sport including school and club. Some organisations perceived a stadium would negatively impact their operations and were fearful of any form of development. This does not mean those community organisations located on site expect no changes.

- Their facility expectations are not so much around commercial models and capacity, rather the need for confidence in community level access to sports surfaces being maintained and the provision of basic amenities e.g. access points, adequate shade, modern toilet facilities. Some would like to see the provision for staging the development considered and some referred to supporting local suppliers.

- In summary
  - *It is important to community stakeholders that there is public access to the domain, that the domain retains open spaces and modern amenities are provided for*

participants (e.g., club and school sports, casual sport, and recreation).

- *Some Clubs are opposed to any form of stadium or facility development because events on the Domain currently disrupt their activities and new infrastructure was perceived to negatively impact their activities still further (this perception was specifically held by the bowling and tennis clubs).*

Sports event attendance

As well as engaging with stakeholders, the project team undertook analysis on attendances at select stadiums in the upper North Island. These stadiums are listed below (Table 13.1).

Table 13.1: Examined Stadiums

Venue	Population	Stadium capacity
Northland Events Centre (Okara Park, Whangarei)	95,000	30,000
QBE/North Harbour Stadium (North Shore, Auckland)	1,600,000 (250,000 North Shore)	25,000
Mt Smart Stadium (Auckland)	1,600,000	25,800

We considered these venues because,

- They are regional level stadiums with capacity in the 20,000 to 30,000 range (therefore attendance is rarely constrained).
- Two of these stadiums have provincial rugby anchor hirers but no Super Rugby anchor hirers (i.e. like Tauranga).

We set out in Table 13.2 the number of events by category and average attendance for these venues. Three points to be aware of are:

1. The data are indicative only, as for two venues we had five years of data (2015-19) and for one venue we had two years of data (2017-19)
2. The data are based on reported attendances; that is not the same thing as commercial ticket sales. Invariably there will be a portion of attendances through complementary tickets, promotions, and giveaways
3. To protect commercial confidence, we have not provided the data by venue.

Table 13.2: Events by Category (across Northland Events Centre, QBE, and Mt Smart)

Event Type	Number events	Average attendance
NRL Warriors	56	11,063
Super rugby	3	8,030
Mitre 10 Cup (provincial rugby)	40	2,529
Rugby tests (x2 All Blacks and 1 non All Blacks game)	3	14,342
Rugby league tests	5	17,796
A league football	5	4,695
FIFA U20 World Cup	7	12,447
Chatham Cup final (football)	3	2,224
Total	122	
Anchor hirer sports events	96	7,506
Non anchor hirer sports events	26	10,856
Non rugby/rugby league tests	114	7,608

This information provides some indicative evidence of the following points:

1. Anchor hirers are critical to generating a schedule of sports events; in the data above this is evidenced by the Warriors at

Mt Smart, and provincial rugby teams at Okara Park and North Harbour stadium. In this sample 96 of the 122 sports events were anchor hirers.

2. Outside anchor hirer events there is limited sports event content available, and hirers have many venue options. Excluding anchor hirer events, these three venues, across five years, five years, and two years respectively, hosted only 26 sports events.
3. That is, in this sample there were 624 weeks and these venues hosted non-anchor hirer sports events on only 26 of those 624 weeks, which equates to 2 events per venue per year.
4. Most sports event content draws small attendance numbers. When excluding rugby tests and rugby league tests from the sample, sports event content in the remaining sample averaged 7,608 in attendees.

Entertainment market

There is potential scope for Tauranga to attract more high attendance international concerts and to amplify and grow existing festivals if there was a suitable venue. Data shows people from the region support international concerts in Auckland, with a higher propensity to buy tickets than some other regions, such as Hamilton**.**

The opportunity, according to one leading promoter, is leveraging Tauranga's inherent advantages, these being

- Growing population, including younger age groups,
- Strong reputation as a summer destination, lending itself to outdoor concert experiences,
- Proximity to Auckland, so it can be a feeder and/or support venue to Auckland.

The context to be aware of is that for promoters the cost of freight and logistics is a significant challenge and so they seldom bring artists to New Zealand for one show. They need at least two options and Tauranga, with the right venue, would be very well positioned to be the second venue for an international artist. Other cities like Hamilton and Wellington do not have a compelling venue offer, Christchurch has availability issues (multi use exhibition venue) and Dunedin presents logistics and cost challenges and serves a lower population. Although local event promoters and organisers already delivering content in the region see merit in the development of a multi-purpose venue, there is a strong view that retaining open space and the ability to easily deploy the wider precinct is preferrable to being subsumed within a closed stadium (roofed arena). This is also considered to be an intrinsic feature of 'the Bay' which – as noted above - plays strongly to its brand, reputation, and appeal as a summer destination for the domestic tourism market.

In addition to the outdoor functionality, local promoters have noted that any potential new venue would need to deliver a range of basic requirements such as adequate shade, basic amenities, and access points, and ideally be a 'clean venue'.

Other interesting points that present opportunities:

- If Tauranga develops a venue for sports in the winter and artists in the summer, having a permanent roll on roll off stage stored on site would be a significant advantage. The promoter can simply roll the stage into position and 'plug in', which means more events become commercially feasible (e.g. notionally it might take the promoter four hours to set up with a roll on stage rather than four days if building a stage).
- There are examples of large international promoters partnering and investing in venue developments, financing, and operations, including Spark Arena in Auckland. Tauranga may want to consider the potential for this (noting sports do not typically provide capital for venue developments).
- One promoter said that the right Tauranga venue, in the right location, with the right arrangement could attract 15 to 20 higher attendance commercial events in a summer.
- Local promoters and event organisers have not directly advocated for audiences beyond the numbers that they

currently attract, instead favouring a better quality of experience within the venue.

A potential stadium (with indoor support facilities) was also considered as being ideal to accommodate large cultural performances and festivals, such as Te Matatini National Kapa Haka Festival.

If configured correctly it was felt a stadium could attract many types of more diverse events such as historical/military enactments, marching competitions, brass band festivals, large speaking engagements, electronic gaming events (e-sports), fairs and sculpture events. These entertainment events were perceived to be both at the community and commercial level.

- In summary
  - *There is potential for Tauranga to attract more high attendance (mid-tier) international concerts if there was a suitable venue,*
  - *Tauranga's niche is perceived to be more one of an open-air concert and festival destination.*
  - *A stadium could allow for a diverse range of entertainment and cultural events (at both a commercial and community level).*

Business market

Prior to Covid-19, the New Zealand business events industry was valued at $1.5 billion per annum, with over 3.6 million attendees both domestic and international, employing 22,000 people.

Competition for business events has significantly increased in recent times with the development of new business events infrastructure in Auckland, Wellington and Christchurch serving a broad range of events, and supported by strong established supporting infrastructure.

Once opened, the New Zealand International Convention Centre (NZICC) will create additional capacity in the Auckland market; this means that existing venues such as Shed 10, the Aotea Centre and the Viaduct Events Centre will become more accessible to event organisers as demand shifts to the NZICC. This displacement may inhibit the ability of smaller regions to attract content unless there is a deliberate and targeted strategic approach to prospecting and bidding for content.

Data and insights held by the industry body, Business Events Industry Aotearoa, indicates that Tauranga and the wider Bay of Plenty significantly underperforms relative to other regions in the attraction of business events and exhibitions. Although venues like The Lion Foundation Centre (Baypark) are available, the lack of supporting infrastructure means Tauranga has tended to be overlooked (unless the event is targeted at a local or sub-regional market).

However, there is evidence of demand for the wider Bay of Plenty as a business events destination. Research undertaken at MEETINGS, New Zealand's premium Business Events trade show, shows keen interest from both independent buyers (Day Buyers) and Hosted Buyers. Hosted Buyers are individuals, primarily Australian or New Zealand corporate or association representative, noted as high value clients who have a strong record of business and the potential to book future business events in New Zealand. Table 13.3 indicates latent demand, and a new venue in the market is likely to attract further interest in the region.

Table 13.3: Potential latent demand indicators (business events)

MEETINGS BUYER BREAKDOWN:		
www.meetings.co.nz	**2019**	**2021**
Hosted Buyers (ex AU and NZ) total attended	204	143
Hosted Buyers interested in Bay of Plenty	34%	50%
Hosted Buyers with events of 200 plus delegates	75%	63%
Hosted Buyers interested in conference exhibition venues	85%	75%
Day Buyers - mostly ex Auckland - total	357	261
Day Buyers interested in Bay of Plenty	27%	34%
Day Buyers interested in conference and exhibition venues	63%	65%

With the focus of the major centres being on large-scale conferences, incentives and exhibitions, there is arguably potential for Tauranga to focus on mid-tier business events/exhibitions, particularly those that are aligned to its brand attributes and target economic sectors. These mid-sized events would be able to be catered to by existing accommodation and supporting infrastructure, as is presently the case with content hosted at The Lion Foundation Centre. However, there would need to be consideration to the displacement impacts on existing and planned event infrastructure. For example, until the Tauranga CBD precinct planning is fully resolved it remains unclear how planned components such as the conference, exhibition, gallery, and theatre functions indicated in that project will be configured and staged.

Notwithstanding this, based on market knowledge of the utilisation rates of similar sized venues, a modern well-located facility could be expected to annually host up to 50 day conferences/residential conferences/functions (ranging in capacity from 1,000-4,500), 8-10 light exhibitions (catering to up to 150 exhibition stands), and a significant number of meetings, product launches, weddings and workshops. In addition, there is potential to establish local annual exhibitions that could become 'anchor' business events to showcase the region rather than 'buying' content into the venue.

- In summary
  - *Tauranga has an opportunity to focus on mid-tier business events/exhibitions that are aligned to its brand attributes and target economic sectors.*
  - *This is best delivered through light exhibition and function spaces.*
  - *Consideration needs to be given to the potential displacement of events currently hosted at The Lion Foundation Centre and within relevant facilities proposed within CBD precinct planning initiative; particularly if the proposed new venue is of a similar size.*
  - *Any proposed new venue will enable the Lion Foundation Centre to focus more on community-oriented events rather than commercial ones.*

13.3 STADIUM COMPETITION & EXPERIENCE

New Zealand has many stadiums competing for the same sports event and entertainment content. Those stadiums in the main metro areas of Auckland, Hamilton, Wellington, Christchurch, and Dunedin have inherent competitive advantage in that they have secure anchor hirers competing in international competitions (NRL and Super Rugby) (Table 13.4).

Table 13.4: Existing New Zealand Stadiums

City	Population	Stadium/s	Stadium sport event capacity	Anchor tenant events p.a.
Whangarei	99,400	Toll Stadium	30,000	6
Auckland	1,715,600	Eden Park	48,000	11
		Mt Smart	22,000	17
		North Harbour Stadium	25,000	5
Hamilton	178,500	FMG Waikato Stadium	25,800	11
Tauranga	155,200	Tauranga Domain	5,000	2-3
		Bay Oval	10,000 (cricket)	variable
		TrustPower Baypark	20,000	13 (speedway)
Rotorua (District)	77,400	Rotorua International Stadium	26,000	2-3
Napier	66,700	McLean Park	19,700	5
New Plymouth	87,300	Yarrow Stadium	25,000 (pre redevelopment)	5
Palmerston North	90,500	Palmerston North Stadium	22,000	5
Wellington	217,000	Sky Stadium	33,000	11
Nelson	54,700	Trafalgar Park	18,000	5
Christchurch	392,100	Orange Theory Stadium	18,000	11
Dunedin	133,300	Forsyth Barr Stadium	30,000	11
Invercargill	57,000	Rugby Park	18,000	5

They achieve this mainly because they have higher capacity stadiums, in higher population areas and more capacity in related services (e.g., accommodation, training facilities, public transport). A high proportion of these stadia are over-capacity, many of which are not fit for purpose, and which provide only average or poor customer experiences, including being half empty or more for most events.

Focus group research undertaken by Visitor Solutions prior to Covid 19 illustrates this poor customer experience with representative comments including:

> *"...this stadium has got no atmosphere - 20,000 in, the biggest crowd of the year and the grandstand opposite us is empty" (spectator at a large metro stadium).*
>
> *"This place [stadium] sucks the life out of the game, 4,000 people in and thousands of empty seats, NPC business as usual. More vibe in my lounge" (spectator at a regional stadium).*
>
> *"...thousands of empty seats, and no atmosphere. It would feel better watching this at my local park, way more feel and atmosphere" (spectator at a regional stadium).*

Tauranga does not have an obvious anchor hirer and it is not part of its events or economic development strategy to secure such an arrangement.

Therefore, a new venue would be competing for irregular sports event content, with the seven stadia in the main metro areas, and in the entertainment event market competing with mid-size stadia in Auckland, Hamilton, Whangarei, Rotorua and New Plymouth as well as proven indoor venues such as Spark Arena in Auckland.

Simply duplicating the capacities and configurations of other stadiums in New Zealand's existing network would be foolish. A far better approach involves learning from other regions mistakes and

considering actual stadium performance and attendance figures. Tauranga has an opportunity to carve out a niche as a boutique community focused "people's stadium" that places a greater emphasis on seating scalability, functionality, and the quality of the spectator experience.

Placing the fan / spectator experience first requires casting aside traditional stadium models and embracing a new concept. It must focus on delivering the best spectator experience possible and be a place with such a buzz and atmosphere that people want to return time after time.

To be a "people's stadium" it must also welcome the wider community into the facility continuously (not just for large commercial sporting events). It must be a multi-functional stadium that accommodates community clubs, local cultural events, festivals, professional sport, and commercial concerts alike.

13.4 INDICATIVE EVENTS CALENDAR

Based on the analysis undertaken an indicative events calendar has been prepared. This is outlined in Table 13.5. This calendar will be further refined in the project's business case stage following further industry engagement. This engagement will be aided by the preliminary concept designs from this study.

Table 13.5: Indicative Events Calendar: Year One (assuming staff and facility marketing established 24 months in advance).

Sports	• Super Rugby x 1, average attendance 12,000 • NPC Rugby x 3, average attendance 5,000 • Football (various) x 2, average attendance 1,500 • Other x 5, average attendance 5,000 Total events = 11
Community Sport	• Larger Club / school games x 30, average attendance 400 • Lower-level club / school play x 30, average attendance 200 Total events 60
Outdoor Entertainment Events Note: this covers more than music concerts.	• Entertainment very large x 1, average attendance 16,000 • Entertainment large x 4, average attendance 10,000 • Entertainment medium x 8, average attendance 5,000 • Entertainment small x 8, average attendance 3,000 Total Events = 21
Functions	• Functions very large x 15, average attendance 700 • Functions large x 30, average attendance 500 • Functions medium x 40, average attendance 200 • Functions small x 100, average attendance 100 Total functions = 185
Exhibition	The light exhibition space will host a total of 50 exhibitions (evenly split between community and commercial exhibitions) in Year one. These will comprise: • 40 day events/exhibitions, • 6 light exhibitions of a 2-day duration, • 4 light exhibitions of a 3-day duration. Total 64 days of bookings.

Note 1: We would assume an incremental increase over time.
Note 2: The calendar is derived from available secondary data, interviews with industry representatives and professional experience. The calendar will be refined further during the business case stage.

13.5 SUMMARY

New Zealand is characterised by an over-supply of over-capacity stadia, many of which are not fit for purpose, and which provide only average or poor customer experiences, including being half empty or more for most events.

There is no evidence that a new mid-sized stadium in Tauranga (circa 25,000 seats) would create or secure more sports events, nor that Tauranga would perform above the market in terms of attendances.

A new smaller boutique fit for purpose stadium could attract more summer entertainment events, provide a superior atmosphere for sports spectators, and a compelling value proposition for hirers. It is at the boutique end of the market with very good design and event flexibility that Tauranga could carve a niche. It is also very important that the stadium serves a wide range of users from community sport and events, semi-professional sports to professional sport, and commercial events.

The opportunity exists to develop a unique boutique stadium offer, one that is open to community activity and not locked away behind closed doors for the sole benefit of professional sport and commercial activity. This would be a departure from the New Zealand stadia of the past and carve a strong niche for Tauranga and the sub-region.

14.0 THE PROPOSED SITE

Prior to this feasibility study the client partners commissioned Becca to undertake a site analysis study to identify the best potential location for a multi-use stadium. This analysis recommended the Tauranga Domain as the optimal location.

The brief for this study was to determine if a stadium and associated facilities were able to be located within the Domain and if so where abouts (Appendix 12).

A site location exploration was undertaken that identified three potential options on the Domain. These were a central location roughly covering the athletics track, a southern location on Wharepai Domain, and a northern location covering the cricket oval area. Each option created different pros and cons (Table 14.1).

Table 14.1: Site Positioning Pross and Cons

Option	Pros	Cons
1. A central location (roughly covering the athletics track)	• Maximises future expansion. • Retention of cricket oval, northern sports fields, tennis, and southern field. • Positive larger site circulation (linkages between central and northern open spaces). • Ability to use trees to soften built structure. • Best precinct wide operational / functional outcomes for recreation and events.	• Removal of athletics, bowls club and croquet club.
2. A southern location on Wharepai Domain	• Stadium form shrouded by trees (although some are protected). • Retention of athletics track, northern fields, and Cricket oval. • Closer connection to the CBD.	• Likely impact on protected heritage trees. • Significant site level changes high excavation cost. • Removal of tennis, bowls club, croquet club and southern field. • Negative larger site circulation. • Limited future expansion. • Maximum site disruption.
3. A northern location covering the cricket oval area	• Flat site for simple construction. • Retention of athletics track bowls, tennis, and southern field.	• Access restricted/ reduced footprint. • Limited future expansion. • Removal of proposed northern temporary stand (lower capacity). • Removal of cricket oval and northern fields. • Negative larger site circulation (no open space linkages with stadium turf). • More exposed to weather conditions.

If a correct stadium field orientation was to be maintained along with a realistic facility bulk, it was apparent that whatever site was selected one or more of the existing sporting organisations would likely be displaced.

Another very import consideration was the operational performance of the stadium and associated facilities both now and into the future.

Any capital investment of this scale also must maximise its futureproofing (expansion) potential.

After careful evaluation it was determined that the best site was the central location. The selection of this site would result in the displacement of athletics, bowls, and croquet although tennis, rugby, cricket, and community recreational activity would be retained (and in many cases optimised).

PROPOSED
SITE LOCATION EXPLORATION

01.

SUMMARY

Central Location (Roughly Covering the Athletics Track)

PROS

- Maximise future expansion
- Retention of cricket oval, northern sports fields, tennis and southern field
- Positive larger site circulation (linkages between central and northern open spaces)
- Ability to use trees to soften built structure
- Best precinct wide operational / functional outcomes for recreation and events

CONS

- Removal of athletics, bowls club and croquet club

02.

SUMMARY

A Southern Location on Wharepai Domain

PROS

- Stadium form shrouded by trees (although some are protected)
- Retention of athletics track, northern fields, and Cricket oval
- Closer connection to the CBD

CONS

- Likely impact on protected heritage trees
- Significant site level changes high excavation cost
- Removal of tennis, bowls club, croquet club and southern field
- Negative larger site circulation
- Limited future expansion
- Maximum site disruption

03.

SUMMARY

A Northern Location Covering the Cricket Oval Area

PROS

- Flat site for simple construction
- Retention of athletics track bowls, tennis, and southern field

CONS

- Access restricted/ reduced footprint
- Limited future expansion
- Removal of proposed northern temporary stand (lower capacity)
- Negative larger site circulation (no open space linkages with stadium turf)
- More exposed to weather conditions

WARREN AND MAHONEY VISITOR SOLUTIONS

PROPOSED
SITE LOCATION
PROPOSED

SUMMARY

PROS

- MAXIMISES FUTURE EXPANSION
- RETENTION OF CRICKET OVAL, TENNIS AND SOUTHERN OVAL
- POSITIVE LARGER SITE CIRCULATION

CONS

- REMOVAL OF BOWLS CLUB AND CROQUET

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

15.0 PRELIMINARY CONCEPT OPTIONS

Three preliminary facility options were explored during projects initial evaluation stages. These are summarised in table 15.1. It should be noted that as initial options they were adjusted over time. This led to aspects such as the high-performance centre dropping out and light exhibition space coming in. The options were explored with the projects working and governance groups.

Table 15.1: Summary Preliminary Stadium Options

	Option 1	**Option 2**	**Option 3**
Permanent Seating	10,000	8,000	10,000
Temp Seating	Up to 5,000	Up to 5,000	Up to 2,500
Function Space	770 m^2	1,000 m^2	770 m^2
Gym	Yes	Yes	Yes
HP Centre	Yes	Yes	Yes
Arena Roof	No	No	Yes
Sunken pitch	Yes	Yes	Yes

Note: these options evolved over time.

Following evaluation and direction from the projects steering group two options were considered for additional feasibility analysis. These options were both based on option 2:

a) Option 2 A - without an arena roof,
b) Option 2 B - with an arena roof (a hybrid of option 2 and 3).

Further analysis was undertaken on each option which considered factors such as architectural studies, planning assessments, landscape analysis and stakeholder discussions.

Architectural Precedent Study

The architectural precedent study used Forsyth Barr Stadium at full size and scaled back to 20,000 seats. This was presented as a stadium footprint (Appendix 13). Warren and Mahoney who were also the architects for Forsyth Barr Stadium indicated that reducing an arena below this size would not be advisable as any later expansion would be difficult to accommodate later (given the structure and cost of the arena roof).

Regardless of the footprint of the covered stadium the height would not change in comparison to Forsyth Barr Stadium (with an approximate RL on the Domain of 61.00 circa 47.5m above the natural ground level). This would generate a building with a very significant built form. An updated cost estimate (based on available data) indicates the capital cost of such an arena at between $300 and $320 million.

By comparison the stadium option without the roof is a far more modest scale when shown in comparison (See following plans).

STADIUM FOOTPRINT STUDY
FORSYTH BARR STADIUM, DUNEDIN

SUMMARY

COMPLETED	AUG 2011
GFA	APPROX. 28 000 SQM
CAPACITY	30 800 SEATS
CONSTRUCTION COST	224 MILLION
DIMENSIONS	APPROX. 205M X 170M

FORSYTH BARR STADIUM, DUNEDIN

FORSYTH BARR STADIUM, DUNEDIN
(20 000 SEAT CONFIGURATION)

10 700 SEAT STADIUM PROPOSED

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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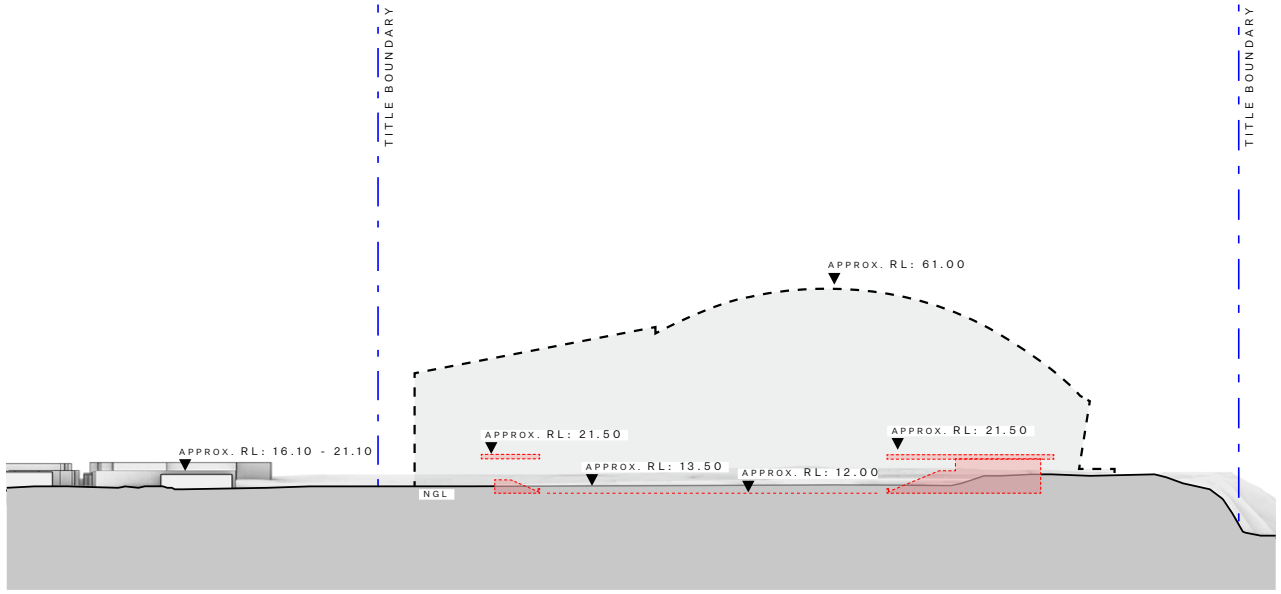
STADIUM ELEVATION STUDY
FORSYTH BARR STADIUM, DUNEDIN

SUMMARY

COMPLETED	AUG 2011
GFA	APPROX. 28 000 SQM
CAPACITY	30 800 SEATS
CONSTRUCTION COST	224 MILLION
DIMENSIONS	APPROX. 205M X 170M



FORSYTH BARR STADIUM, DUNEDIN

10 700 SEAT STADIUM PROPOSED

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

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Planning Analysis

The planning analysis involved investigating the Domain's capacity to accommodate different seating sizes and associated buildings and structures in line with the two options. For the evaluation, consideration of a comparative arena roof stadium design outlined in the architectural precedent study was taken into consideration. Focus on the actual and potential effects of building scale and height on the surrounding environment were then considered.

A summary in relation to both options is set out below:

Option 2 A – No Arena Roof

Fully covered grandstand seating on three sides around a central turf. The stadium is open sided and open northern end to the northern cricket grounds. Vegetation cover is retained throughout the Park and the structure is proposed to extend to approx. RL23.50 in height, approximately 10m above the natural landform. This proposal sits 5m below the permitted building heights for the area and does not extend into the protected viewshafts to Mauao.

A connected open space is provided for between the main field central to the stadium and the northern fields, through the lowering of the stadium field ground level. Informal access to the open space both visually and physically will be retained, providing a continued opportunity for an increasing CBD population to recreate within.

Integration of facilities within the stadium are proposed to consolidate local sporting clubs and public toilet facilities. Temporary seating is proposed at the northern end of the site to enable connected open space when the site is not in event use. Reinforced grass cell is designed for this area to allow for hard wearing spaces whilst retaining a green open space connection between the fields.

This proposal enables 'outside of event' public access to the facilities for community passive and active recreation.

Option 2 B – with an Arena Roof

A covered stadium providing for seats is proposed centrally in a similar location option 2B. The covering requires a domed roof structure with enclosed facades. Open space connections between the stadium field and northern fields is not provided. The proposed stadium would be RL61m, circa 47.5m above the natural ground level, 32.5m above the permitted building height and extending 30.5m into the protected viewshafts to Mauao. Access to the internal field within the stadium will be visually obscured through the stadium facades with no 'outside of events' access to the facility and grounds.
Of the two preliminary options advanced for further analysis the open stadium (Option 2A) is the most optimal from a planning perspective. It remains doubtful that Option 2 B would even be possible on the current Domain site from a planning perspective. See Appendix 6 for additional information.

Landscape Analysis

The landscape values and amenity provided by the Tauranga Domain form a key part of the urban and cultural landscape of Otamataha, Te Papa and the Tauranga CBD area. The evaluation of options relating to landscape values and the visual amenity provided by the Domain have guided the preferred option design development.

The key considerations of the evaluation have considered the landscape attributes, the Te Papa Spatial Plan, and the operative Tauranga City Plan. These considerations are all formative of the character the CBD and the surrounding City Living Zones, including Wharepai and Tauranga Domains'.

The landscape evaluation considered option 2A an open stadium and option 2B an enclosed arena, both centred on the existing main sports field at Tauranga Domain. The removal of formal sports of Athletics, Bowls and Croquet are required to deliver either stadium option and the required access and concourse.

The preferred option for the visual and landscape integration is Option 2A – no arena roof, comprising an open connected facility that

opens to the north, connecting open space within the reserve, retains a low profile to remain subservient to the heritage trees and vegetated character of Otamataha and retains an open sided 24hr accessed facility that supports the growing residential community of the City Living Zone and users of the CBD.

The alternative fully enclosed arena design (option 2B) introduces a change to the recreation use, accessibility, and visual dominance the facility will have on the peninsula. The evaluation identifies significant visual effects matters that are likely to result. These relate to the urban landscape character, recreation use and protected sightlines. This proposal is unlikely to meet a no more than minor threshold when considering the landscape and visual effects, for a future consent application.

Of the two preliminary options advanced for further analysis the open stadium (Option 2A) is the most optimal from a landscape perspective. The feasibility study design has considered the Tauranga City Plan provisions and the preliminary assessment comprises an opportunity to visually integrate the proposal into the cityscape. The likely degree of landscape and visual effects from the favoured design option, an open stadium, will be of a lower degree than the alternative enclosed arena option, but will still require a full assessment of landscape and visual effects. See Appendix 14 for additional information.

Stakeholder Feedback

Section 12.0 has summarised stakeholder feedback and market research findings in relation to the two concept options. Although some entertainment stakeholders believed an arena would offer some advantages for spectator enjoyment during inclement weather none said having an enclosed roof would generate additional performances / books. When asked if they were prepared to pay more to hire a roofed stadium none were.

Other entertainment stakeholders perceived that a roofed stadium would be counterproductive to the Domains ability to hold a diversity of events (such as festivals and events with unique staging designs). They also believed a roofed arena was not aligned to Tauranga's potential niche as an outdoor focused events hub.

Most sports stakeholders believed a roof was not necessary and would not encourage them to book any additional events.

16.0 DEVELOPMENT CONTEXT

Tauranga City is the economic and population centre in the Bay of Plenty. Tauranga is part of the wider sub-region with linkages to Western Bay of Plenty, and it also supports activities in the wider region (e.g., Rotorua).

The city, and the sub-region (including Western Bay of Plenty) has seen considerable, and very fast, population growth over the recent past. The speed and scale of the growth if putting pressure on the available resources. Several large-scale projects are underway across the city to cope with backlogs, and to position the city to accommodate growth. There are several agencies collaborating to manage the growth, through the SmartGrowth[11] initiative.

The large projects are in response to the local growth pressures and reflect the aspirations to capture the growth in a way that maintains wellbeing and improves the liveability of the local communities. Examples of these large-scale infrastructure projects include the Urban Form and Transport Initiative (UFTI) and the Eastern Corridor development.

The growth outlook for Tauranga is positive and the population is projected to continue with the upward trend. Figure 16.1 shows the expected shift in population from 2021 levels (i.e., how many additional people would live in Tauranga compared to current levels) for Tauranga City, the Western Bay of Plenty and Rotorua Districts.

Figure 16.1: Expected population growth (vs current situation)[12]

Current population estimates (2021) suggest that Tauranga is home to 151,450 people. The city has an estimated 55,400 occupied dwellings, and 60,750 total dwellings. Tauranga's population growth is expected to continue to see strong growth over the short, medium, and long term. The growth will manifest over the medium term with 41% of the 30 year growth (to 2051) expected over the next 10 years (to 2031). Over the next decade, Tauranga's growth is expected to increase by 24,580 residents. The City's growth needs to be catered for from a residential perspective, as well as infrastructure and social amenities.

[11] SmartGrowth is a collaboration and shared vision between the strategy partners: Tauranga City Council, Western Bay of Plenty District Council, Bay of Plenty Regional Council, tangata whenua, partner community/business organisations and key Governmental agencies - like the New Zealand Transport Agency.

[12] For Rotorua and Western Bay of Plenty, the StatsNZ: Subnational population projections, by age and sex, 2018(base) – Medium Growth Projection is used.

The Western Bay of Plenty District (WBoP) is the land surrounding Tauranga City. Current population estimates (2021) suggest that WBoP is home to 58,100 people13. The district has an estimated 18,670 occupied dwellings, and 22,310 total dwellings at the 2018 census. WBoP's population growth will also grow over the short and medium term while the rate of change (growth rate) will slow over the long term. Despite the slowdown, the population will still grow. The growth is expected to occur over the medium term with 66% of the 30 year growth (to 2051) expected over the next 10 years (to 2031). Over the next decade, the district's growth is expected to increase by 8,260 residents.

The Rotorua District, bordering WBoP to the South, including Rotorua, is the largest population centre to Tauranga. Current population estimates (2021) suggest that Rotorua is home to 77,400 people. The district has an estimated 25,460 occupied dwellings, and 28,880 total dwellings at the 2018 census. Rotorua's population growth is expected to continue to see strong growth over the short and medium term, while slowing in the long term. The growth is also expected to manifest over the medium term with 55% of the 30 year growth (to 2051) expected over the next 10 years (to 2031), increasing by 5,660 residents[14].

Taking an even wider catchment into consideration the combined populations of the Auckland, Waikato, and Bay of Plenty Regions, represent around 2.5 million residents all within under a 2.5-hour drive of Tauranga Domain.

[13] StatsNZ: Subnational population estimates (TA, subdivision), by age and sex, 2018-2021 (2021 boundaries)

[14] We note that some population projections by Infometrics are lower than the StatsNZ estimates presented here.

Conclusions & Recommendations

17.0 CONCLUSIONS

Based on the analysis of available data the following summary conclusions can be drawn.

1. This study concurs with earlier needs research that found a Tauranga Stadium is required, but only if it is in the form of a world class boutique community centric development, a "peoples stadium". This requires casting aside traditional stadium models and embracing a new concept that welcomes the wider community into the facility continuously (not just for large commercial sporting events). This must be a multi-functional stadium that accommodates community clubs, local cultural events, festivals, professional sport, and commercial concerts alike. It must focus on delivering the best spectator experience possible and be a place with such a buzz and atmosphere that people want to return time after time.

2. The Tauranga Domain can accommodate a stadium and associated facilities with the best position being a central Domain location roughly on the site of the existing athletics track. This will however require the relocation of three sports codes from the site athletics, bowls, and croquet. All other codes (such as tennis, rugby, and cricket) and general community recreational use can largely remain.

3. The projected event calendar indicates that, when compared to entertainment and community sport use, professional sport is unlikely to be a significant stadium user in the short to medium term. It is therefore important to balance design drivers so the stadium functions for professional sport but not at the expense of the community sports and entertainment events. A unique "peoples stadium" concept design has been developed which will encourage the community into the stadium and to use the turf and surrounding Domain amenities.

4. Both covered arena and open stadium options were explored. Analysis clearly indicated that a covered arena on the Domain site was not the best option, if a covered arena option is to be pursued, we recommend another site is investigated. This was primarily because of the bulk and height of a covered arena, its cost (circa $300-350 million[15]), and the fact that it was unlikely to generate meaningful additional levels of use when compared to an open stadium. In a Tauranga setting a boutique, highly flexible, open stadium was determined to generate stronger community outcomes.

5. A range of cultural opportunities were identified for consideration and incorporation into the stadium design and function. These included the opportunity to influence the stadium design values, language and concepts that enable a sense of manaaki (hospitality / welcoming people to the stadium), kaitiakitanga (sense of place) and mauri (life force / well-being) these key cultural design principles can be woven into the design concepts for the new stadium. One of the strongest opportunities has already been established in the initial concepts, strong sightlines from the stadium to Mauao (which is afforded by the designs open northern end). This open northern end also makes the venue ideal for large kapa haka festivals and other cultural events.

6. The optimal stadium for Tauranga is open air with circa 8,000 permanent covered seats with the flexibility to expand to circa 18,000 seats in full sports event mode. The expansion of seating is best addressed primarily through prefabricated temporary seating modules. This sports mode seating configuration will deliver New Zealand's most intimate, atmospheric boutique stadium experience for both spectators and players alike (while

[15] This assumes a 20,000 seat arena stadium is developed because expansion is not feasible at a later data. Even if a smaller 10,000 seat arena stadium was developed this cost is estimated at circa $220 million.

still meeting all projected capacity requirements). It will generate the optimal fan experience.

7. Many entertainment stadium event configurations are possible ranging from circa 17,800 - 25,000+ in the main stadium alone. In festival mode numerous stages are possible in southern, central, and northern precinct locations generating the potential for 40,000+ attendees.

8. Initial analysis indicates the stadium is best owned by an independent charitable trust which is supported by development funding from third parties such as local and central government entities, and charitable funders. The facility would be well placed to be managed under a performance-based contract by professional facility mangers, such as Bay Venues Ltd.

9. Two favoured concept sub-options were developed, and quantity surveyed. Direct construction only cost estimates are circa $155 million for a stadium (and associated facilities) with a fitness centre (gym), and circa $166 million for a stadium (and associated facilities) with an exhibition space. It is important to note these figures include a 20% contingency and construction escalation[16], but exclude relocation costs associated with existing users and any new facilities provided and detailed business case, design, consenting, and overheads associated with programme management, fund raising, debt funding etc.

10. The focus of the financial analysis undertaken was to understand project cashflows as opposed to the flow of funds between the multiple parties that may be involved and hold ownership interests. Assuming capital grants of up to $60 million can be obtained there is an estimated additional funding requirement of between $96.6 million and $107.7 million.

11. The consideration of how the additional funding requirement will be sourced is outside the scope of this study. However, it is envisaged this may be via a wider targeted regional rate, regional or local council debt or provided by other entities (e.g. Quayside Holdings). It is likely that it would be provided to the operating Trust in the form of a grant so that the Trust would have no on-going debt obligations.

12. Two financial models were developed, one for each of the concept sub-options (Stadium / Exhibition and Stadium / Fitness). Each option was underpinned by a series of revenue and operational cost assumptions. Food and beverage represent a large proportion of the revenue and operating expenditure and is modelled based on a 20% marginal contribution. The models indicate the Stadium / Exhibition space option would generate average year revenue of $7.5 million while the Stadium / Fitness Centre option would generate slightly less at $6.9 million. Operational costs are estimated at $5.7 million and $6.1 million respectively.

13. Based on the analysis, both stadium options are EBITDA positive. However, neither of the modelled options contributes sufficient profit to cover debt and interest payments nor a satisfactory contribution towards depreciation to fund replacements over time. The options are not cashflow positive over the 50-year modelled time horizon. This is not uncommon. In our experience Stadiums are generally not financially self-sufficient (and often don't contribute enough to cover debt repayments or fund replacements over time) and therefore require augmented funding over time to remain cash flow positive.

14. Augmented funding can be justified on the grounds of the wider economic and social benefits that are generated for the sub region. These include such things as increased visitor bed nights and expenditure, a more vibrant range of leisure and recreational

[16] Capital cost escalation has been incorporated based on 5.4%-6.3% p.a. (reverting to Treasury assumptions from FY26 ~2% p.a). This has a compounding effect on the estimated construction costs. These escalation rates have been supplied by Maltbys.

opportunities for residents, increased media coverage for Tauranga and the sub region, improved community sports pathways, opportunities for showcasing local cultural, sporting, entertainment, and business talent, assisting with the reinvigoration of the Tauranga CBD, and a strengthening in the sense of pride and wellbeing perceived by residents.

18.0 RECOMMENDATIONS

In line with the client's objective of an operational community stadium in 2026, continued momentum is essential if this deadline is to be achieved. It is recommended that:

1. The open-air boutique "people stadium" concept be advanced for further analysis and planning.

2. The concept of a charitable trust be explored further with legal and financial advisors.

3. The detailed business case and further design be advanced, this is pre-requisite to the detailed funding discussions needed.

4. Further engagement is undertaken with industry and community stakeholders based on the findings of the feasibility study; particularly with those who have been identified as more greatly impacted by the potential development in order to consider how any negative impacts can be mitigated should the project proceed.

5. That the governance oversight of the above programme continues.

Appendix

TAURANGA MULTI-FUNCTION STADIUM

FEASIBILITY STUDY – Appendix

April 2022

Appendix Contents

Appendix 1

TAURANGA MULTI-FUNCTION EVENT FACILITY

APRIL 2022

WARREN AND MAHONEY

VISITOR SOLUTIONS

GUIDING PRINCIPLES

Welcoming
people and place

Open and Accessible
to the community

Celebrate
Mauao and land

Environmental
stewardship

Integrated Response
to site

Flexibility
and adaptability

O B J E C T I V E

Creating a generous and welcoming experience is a key objective of the new development.

Maintaining community access and a sense of ownership will be a key factor for the success of the project.

The Tauranga and Wharepai Domains enjoy sweeping views over the surrounding harbour estuaries. Mauao (Mount Maunganui) is a natural focal point and symbol at the eastern end of the harbour.

The responsible protection of the natural environment through sustainable design will encourage environmental literacy while also comfortable spaces that are connected to the natural amenity of the site. The project provides a 'leadership opportunity' for Tauranga at a time when conservation, climate change and environmental sustainability are at the centre of political and societal discussion.

Enhancing the connection to the land and the local context through form and scale is an important consideration. Designing in a complementary scale to the built environment and integrating into the landform will formulate an appropriate site response.

The facility will have a long life and over decades, sports codes, events, population, and patterns of use will change. The design must enable a variety of crowd sizes and event types while minimising both capital cost and operational overlay expense. The ability to expand and adapt over the long term should be anticipated, without 'over building' on day one.

O U T C O M E

A unique entry experience is proposed that welcomes people to the site in a culturally appropriate manner and the design is proposed to be developed with local iwi. Pedestrian entry is separated from vehicle traffic, and opens into a public plaza/ gathering space. The space can be used on event days for food, beverage and activation, and on non event days as a flexible activities space.

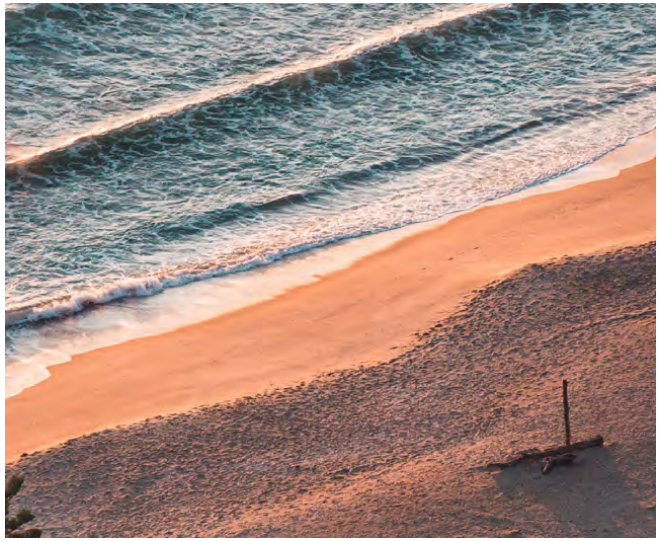
Open access to the site is maintained and enhanced to enable community access at all times except for major event. Features such as fitness trails, a casual running track, walking paths, picnic areas, event plaza and community lawn are proposed to encourage community members to meet, gather, and play in the Domain. Vehicle access is also proposed to be separated from pedestrian access to enhance safety, and allow events to operate with less disruption to public access.

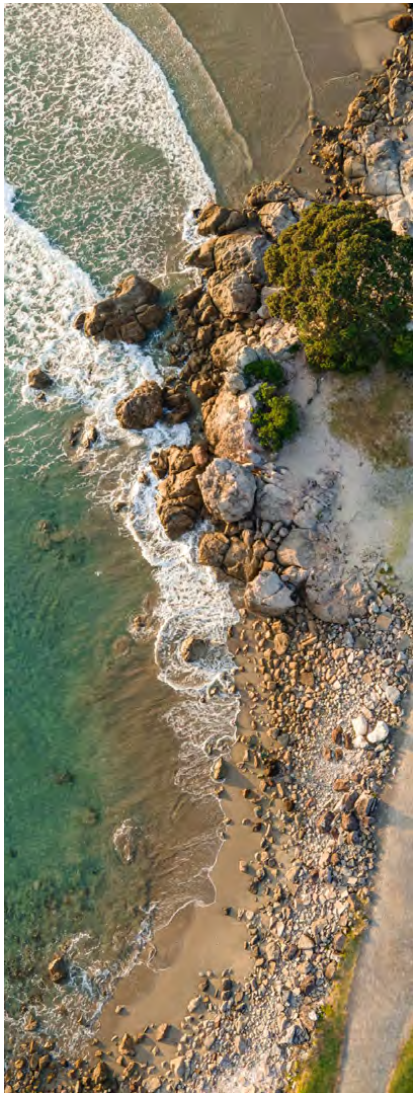
The seating and orientation of the stadium is designed to amplify and frame the view to Mauao. The design of the South and East Stands has been kept open to allow visual transparency which maintains views of the wider landscape as well and into the field of play. These moves keep both the environment and the event visible together, enhancing the experience for attendees.

The design enables a series of sustainability strategies that will enhance the environmental CRESA trials of the project such as; The use of low carbon materials inclusive of timber structures, water stewardship through rainwater storage and reuse and on site energy production with PV panels.

The level of the stadium field of play is proposed to be lowered to match the existing northern field. This creates a larger contiguous surface which is more flexible for a variety of event modes. The lowering of the field also enables the stadium buildings to be lower in height to reduce their apparent scale in the context of the site.

The stadium development is envisaged as a multi purpose event venue. Seating capacity is flexible through the use of stadium owned temporary seating, a variety of event modes are possible from rectangular sport, concerts, and festivals. Function and event spaces are fully integrated into the design which allows event and non event day activity; along side a rename of price points and experiences for attendees.

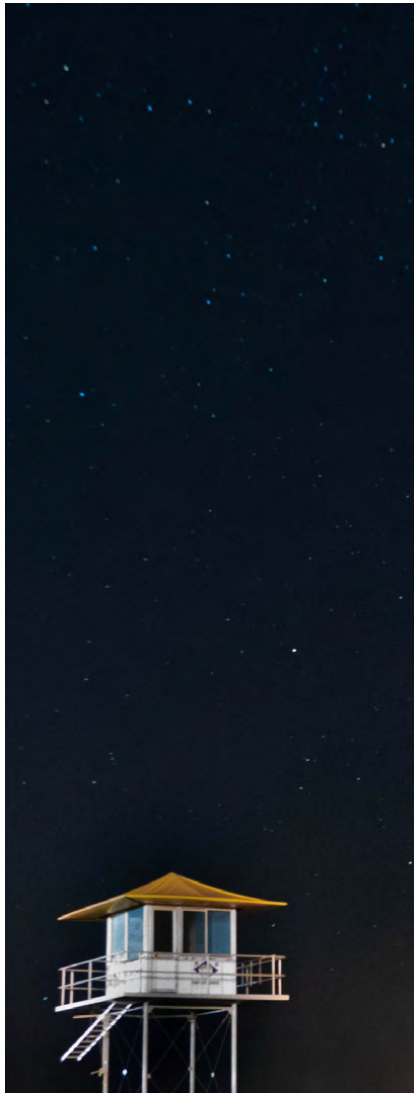




T A U R A N G A

WARREN AND MAHONEY VISITOR SOLUTIONS

T A U R A N G A



WARREN AND MAHONEY VISITOR SOLUTIONS

TAURANGA/ WHAREPAI DOMAIN
PROXIMITY STUDY

LOCATION	DISTANCE	
TAUANGA BRIDGE MARINA	2.0 KM	4 MIN
TAURANGA YACHT CLUB	2.5 KM	6 MIN
BLAKE PARK	5.0 KM	8 MIN
TAURANGA AIRPORT	4.8 KM	9 MIN
MOUNT MAUNGANU GOLF CLUB	5.7 KM	10 MIN
TAURANGA HOSPITAL	4.2 KM	11 MIN
MOUNT MAUAO RESERVE	4.2 KM	11 MIN
OMANU GOLF CLUB	7.7 KM	11 MIN
MAUNGANUI BEACH	7.3 KM	13 MIN

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1:15000 @ A3

5

TAURANGA/ WHAREPAI DOMAIN
EXISTING SITE CONTEXT REPORT

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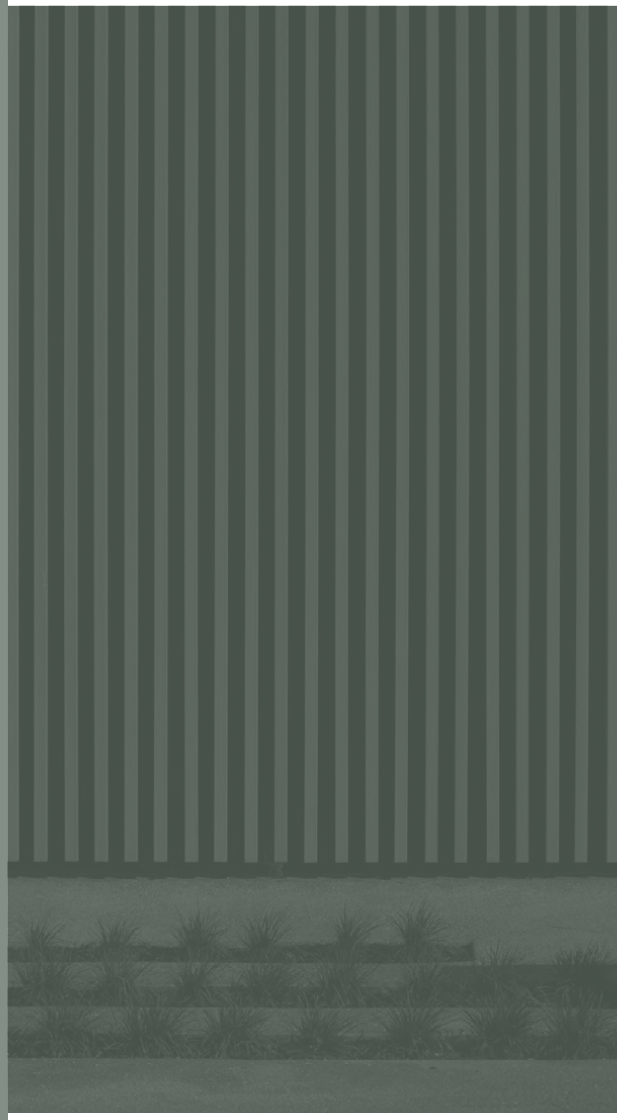
1:1000 @ A3

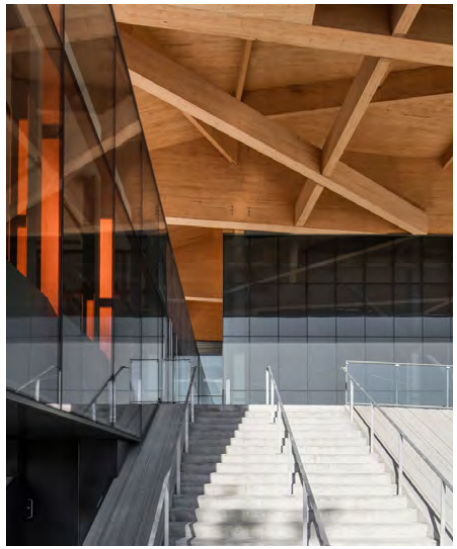
BENCHMARKING



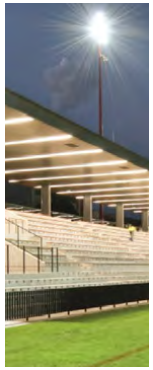
WARREN AND MAHONEY

VISITOR SOLUTIONS

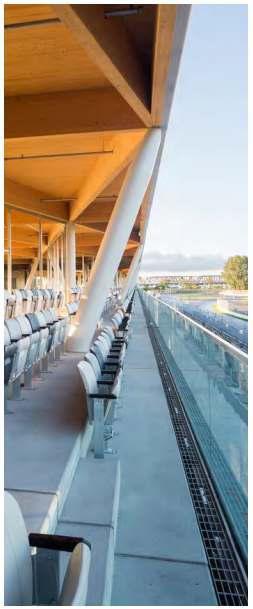
BENCHMARK PROJECTS



NOUVEAUX PADDOCKS, CANADA



REDFERN PARK & OVAL, NEW SOUTH WALES

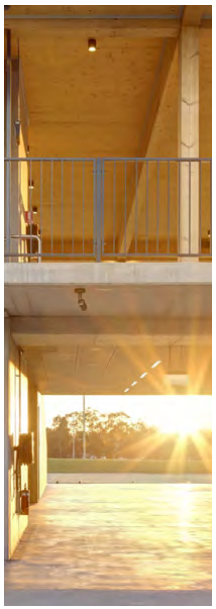


NOUVEAUX PADDOCKS, CANADA

KEUKENHOF, NETHERLANDS

ERIC TWEEDALE STADIUM, NEW SOUTH WALES

ERIC TWEEDALE STADIUM, NEW SOUTH WALES

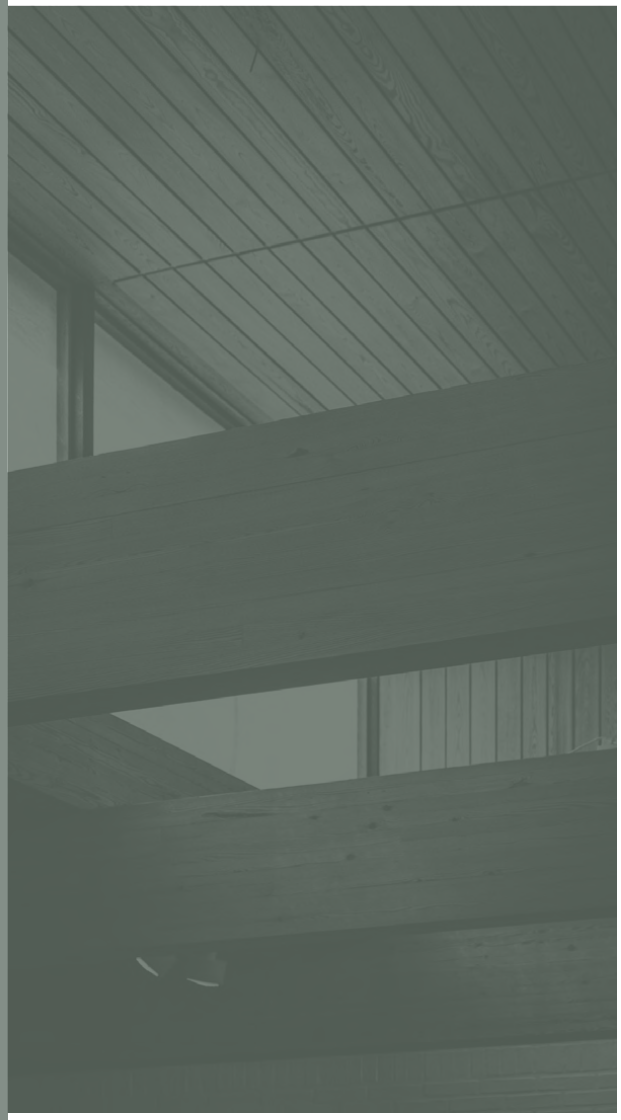


THESE BENCHMARK PROJECTS HAVE BEEN SELECTED AS THEY INCLUDE RELEVANT CHARACTERISTICS

- SIMILAR SCALE/ COMPLEXITY TO THE PROPOSED TAURANGA/ WHAREPAI DOMAIN STADIUM
- USE OF LOW CARBON MATERIALS SUCH AS TIMBER
- COMPOSITIONS WHICH FRAME AND CELEBRATE THE NATURAL ENVIRONMENT
- DYNAMICALLY FACILITATES BOTH SPECTATOR AND FUNCTION AREAS
- PRIORITISES SPECTATOR JOURNEY AND EXPERIENCE
- PROMOTES LOCAL COMMUNITY INTERACTION AND PLACE MAKING

WARREN AND MAHONEY VISITOR SOLUTIONS

CONCEPT PROPOSAL



WARREN AND MAHONEY

VISITOR SOLUTIONS

PROPOSED
LOCATION PLAN

SUMMARY

PROS

- MAXIMISES FUTURE EXPANSION
- RETENTION OF CRICKET OVAL, TENNIS AND SOUTHERN OVAL
- POSITIVE LARGER SITE CIRCULATION

CONS

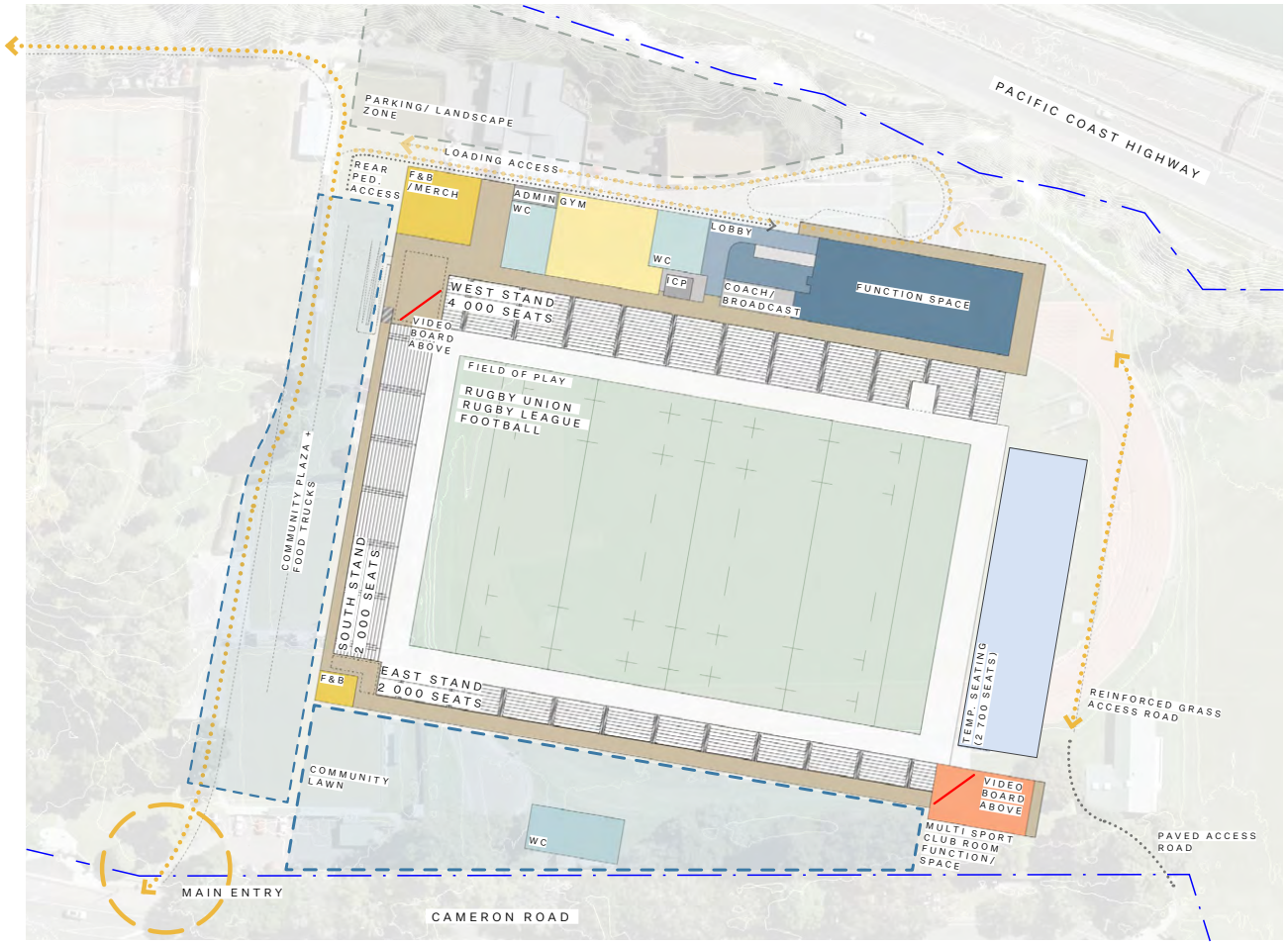
- REMOVAL OF BOWLS CLUB AND CROQUET

SITE CIRCULATION

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)



AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 720	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
GYM	500	SQM
WC AMENITY	590	SQM
BROADCAST/ COACH/ ADMIN	220	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM

TOTAL EXCL. TEMPORARY SEATING	10 650	SQM
PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS	2 700	SEATS
TOTAL INCL. TEMPORARY SEATING, APPROX.	10 700	SEATS
ROOF AREA	10 800	SQM

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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PROPOSED
LOWER GROUND FLOOR PLAN (PITCH LEVEL)

AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 720	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
GYM	500	SQM
WC AMENITY	590	SQM
BROADCAST/ COACH/ ADMIN	220	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
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MULTI SPORT CLUB ROOM	290	SQM
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TOTAL EXCL. TEMPORARY SEATING	10 650	SQM
PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS	2 700	SEATS
TOTAL INCL. TEMPORARY SEATING, APPROX.	10 700	SEATS
ROOF AREA	10 800	SQM

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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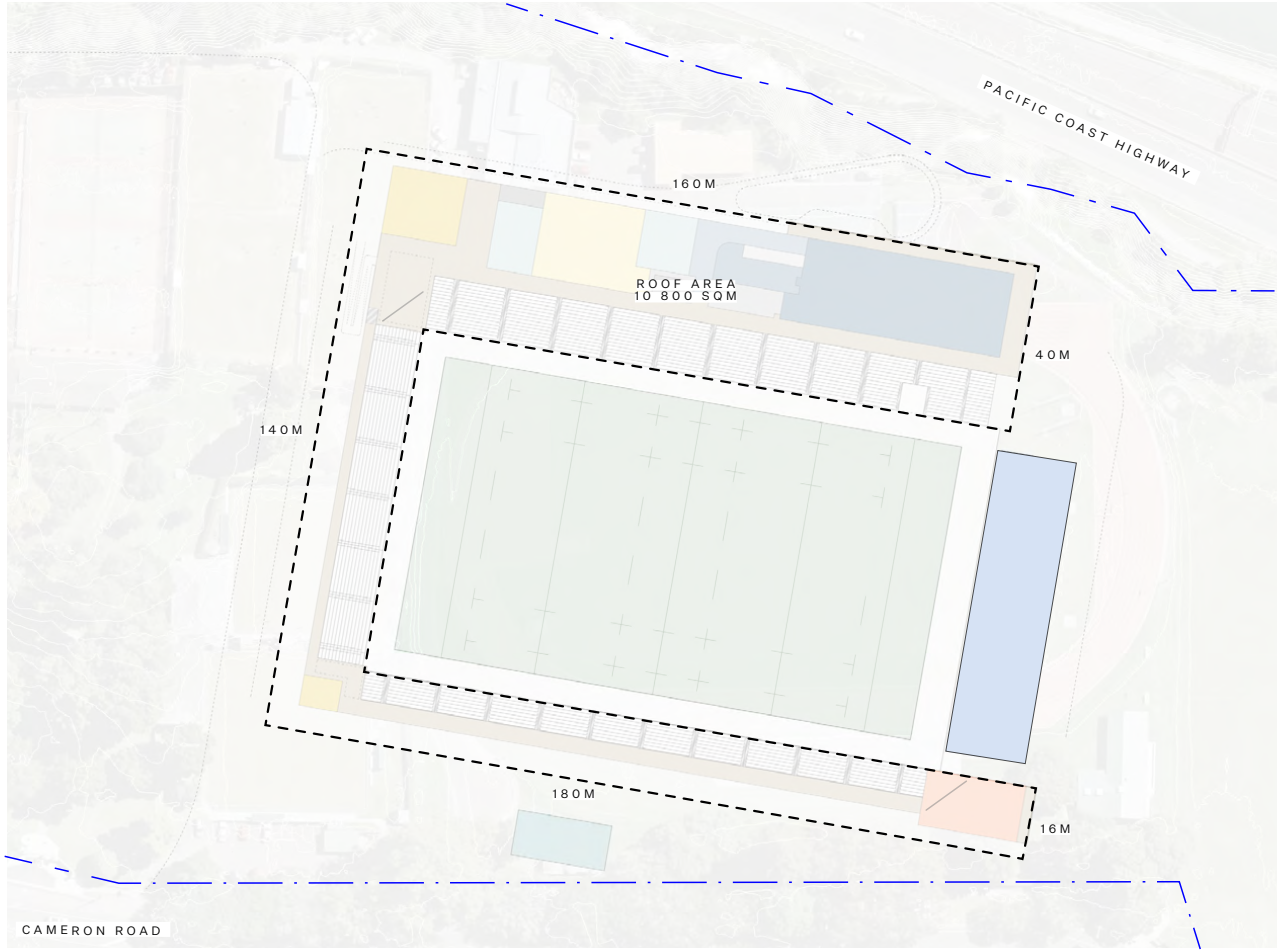
PROPOSED
ROOF PLAN



AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 720	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
GYM	500	SQM
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BROADCAST/ COACH/ ADMIN	220	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

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FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM

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PREFAB TEMP SEATS	2 700	SEATS
TOTAL INCL. TEMPORARY SEATING, APPROX.	10 700	SEATS
ROOF AREA	10 800	SQM

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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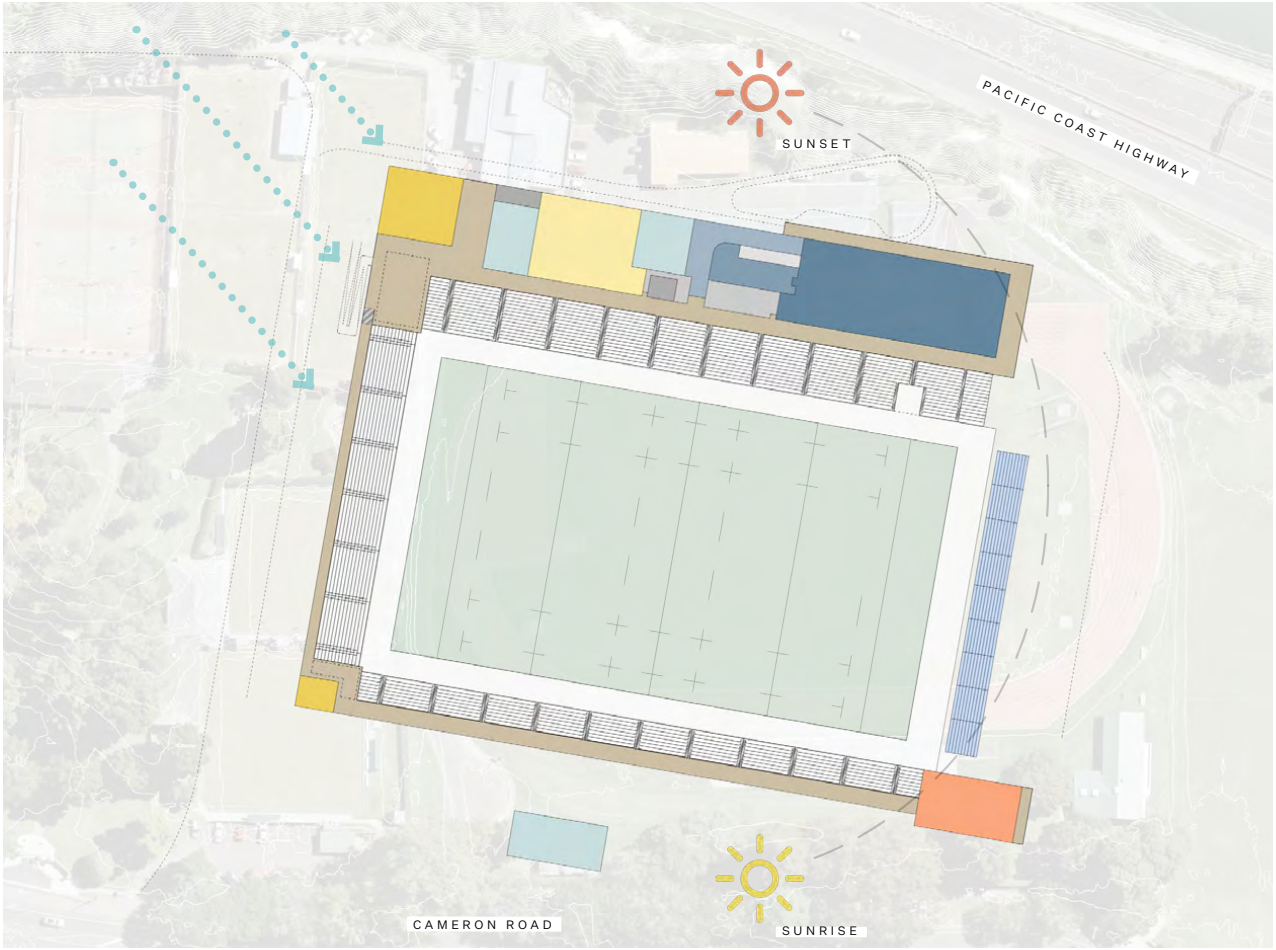
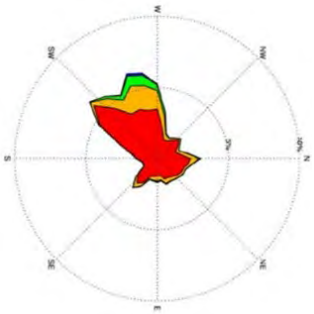
PROPOSED
ENVIRONMENT STUDY



TAURANGA WIND ROSE

Prevailing South-West Wind



WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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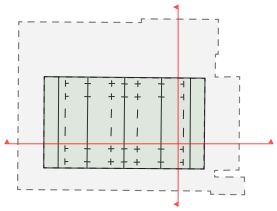
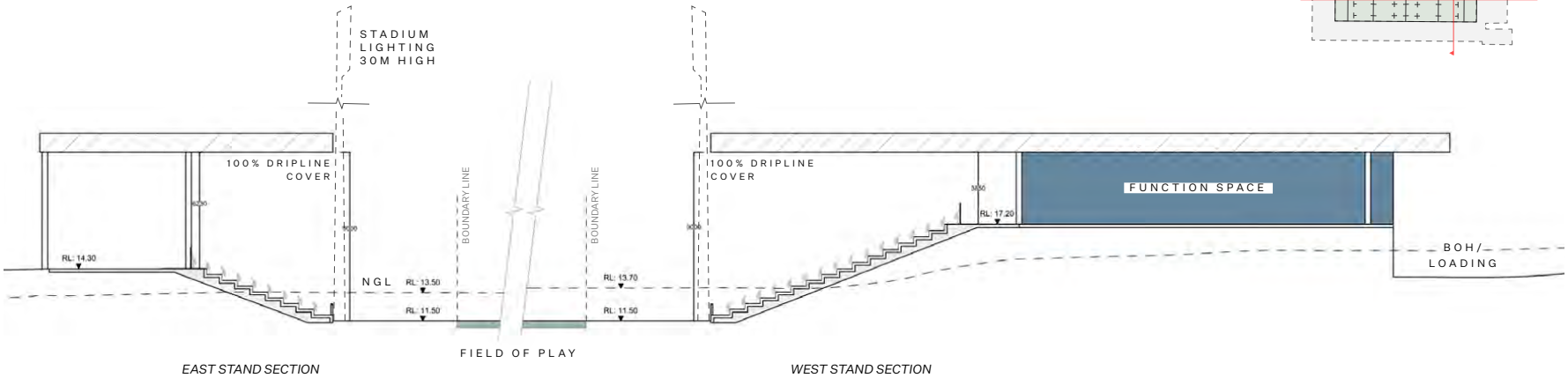
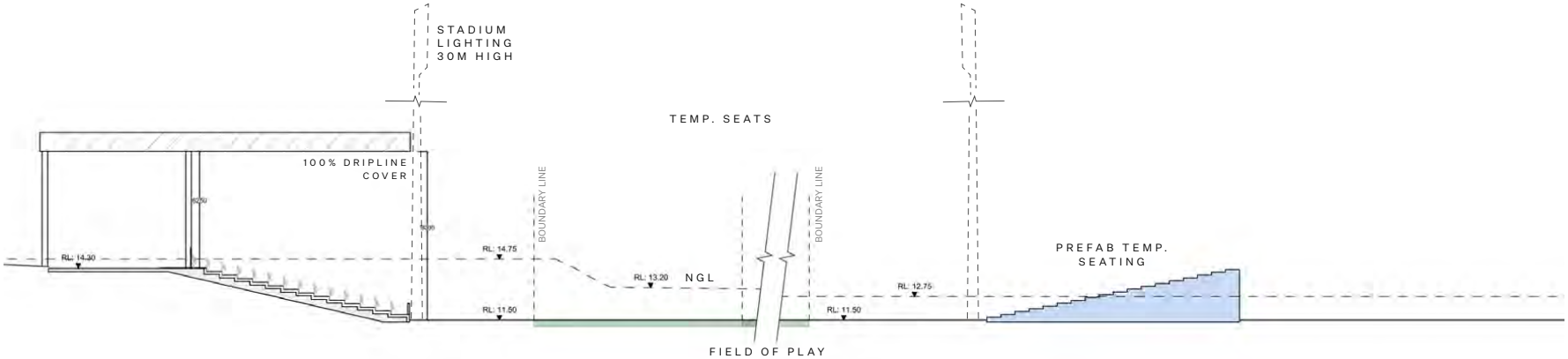
PROPOSED
STADIUM SECTIONS





EAST STAND SECTION *WEST STAND SECTION*



SOUTH STAND SECTION *NORTH STAND SECTION*

*ALL LEVELS SUBJECT TO SURVEY DATA

WARREN AND MAHONEY VISITOR SOLUTIONS

1:200 @ A3

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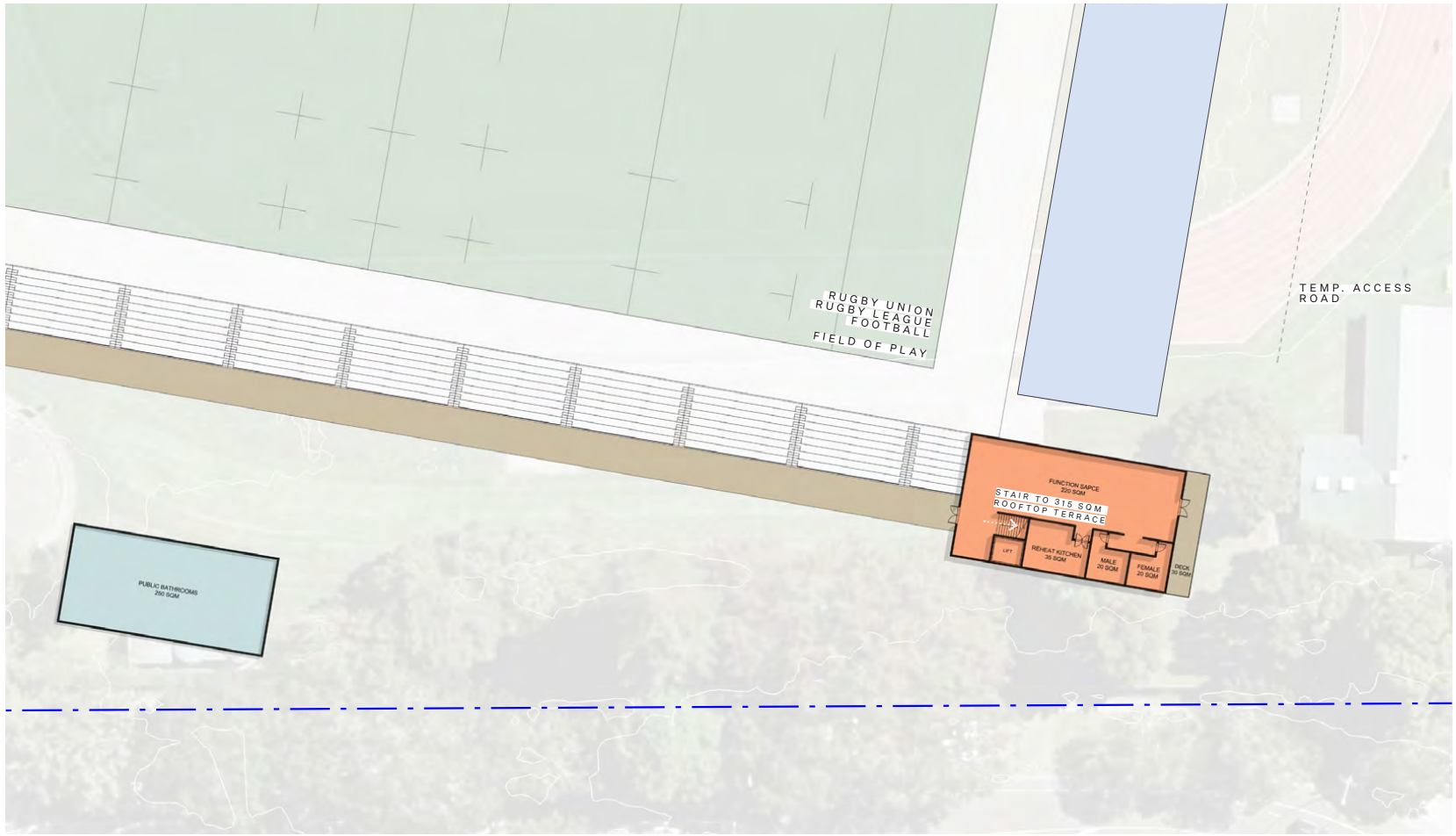
PROPOSED DETAIL PLAN
UPPER GROUND WEST STAND (CONCOURSE LEVEL)

WARREN AND MAHONEY VISITOR SOLUTIONS 1:400 @ A3 16

PROPOSED DETAIL PLAN
LOWER GROUND WEST STAND (PITCH LEVEL)

WARREN AND MAHONEY VISITOR SOLUTIONS 1:400 @ A3 17

PROPOSED DETAIL PLAN
UPPER GROUND EAST STAND (CONCOURSE LEVEL)



WARREN AND MAHONEY VISITOR SOLUTIONS

1:400 @ A3

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PROPOSED DETAIL PLAN
LOWER GROUND EAST STAND (PITCH LEVEL)

WARREN AND MAHONEY VISITOR SOLUTIONS

1:400 @ A3

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PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)
EXHIBITION OPTION

AREA SUMMARY

UPPER GROUND

SEATING/ CIRC/ TERRACE	5 520	SQM
TEMPORARY SEATING	320	SQM
	UP TO 540	SQM
FUNCTION SPACE	1 000	SQM
FUNCTION BOH	330	SQM
FOOD AND BEVERAGE	360	SQM
MULTI SPORT CLUB ROOM	315	SQM
EXHIBITION SPACE	750	SQM
WC AMENITY	545	SQM
BROADCAST/ COACH/ ADMIN	180	SQM
CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM
EXHIBITION SPACE	1500	SQM
TOTAL EXCL. TEMPORARY SEATING	12 150	SQM
PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS	2700	SEATS
EXHIBITION SPACE*	UP TO 500	SEATS
TOTAL INCL. TEMPORARY SEATING. APPROX.	11 200	SEATS
ROOF AREA	10 800	SQM

* PATRONS WITH NO SEAT IN STANDS

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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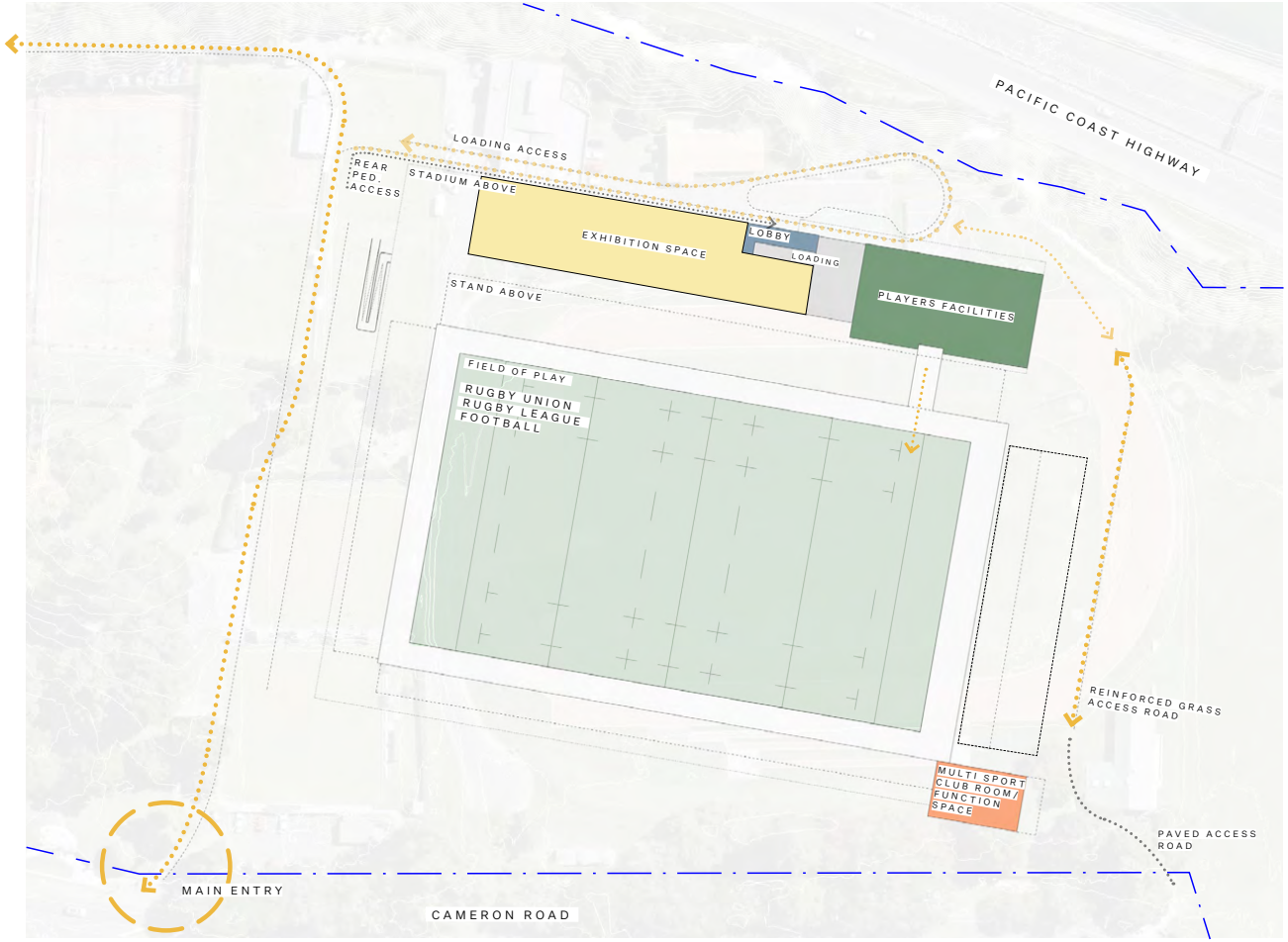
PROPOSED
LOWER GROUND FLOOR PLAN (PITCH LEVEL)
EXHIBITION OPTION



AREA SUMMARY

UPPER GROUND

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* PATRONS WITH NO SEAT IN STANDS

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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PROPOSED
ARTIST IMPRESSION

VIEW FROM SOUTH STAND TOWARDS MAUAO

WARREN AND MAHONEY VISITOR SOLUTIONS

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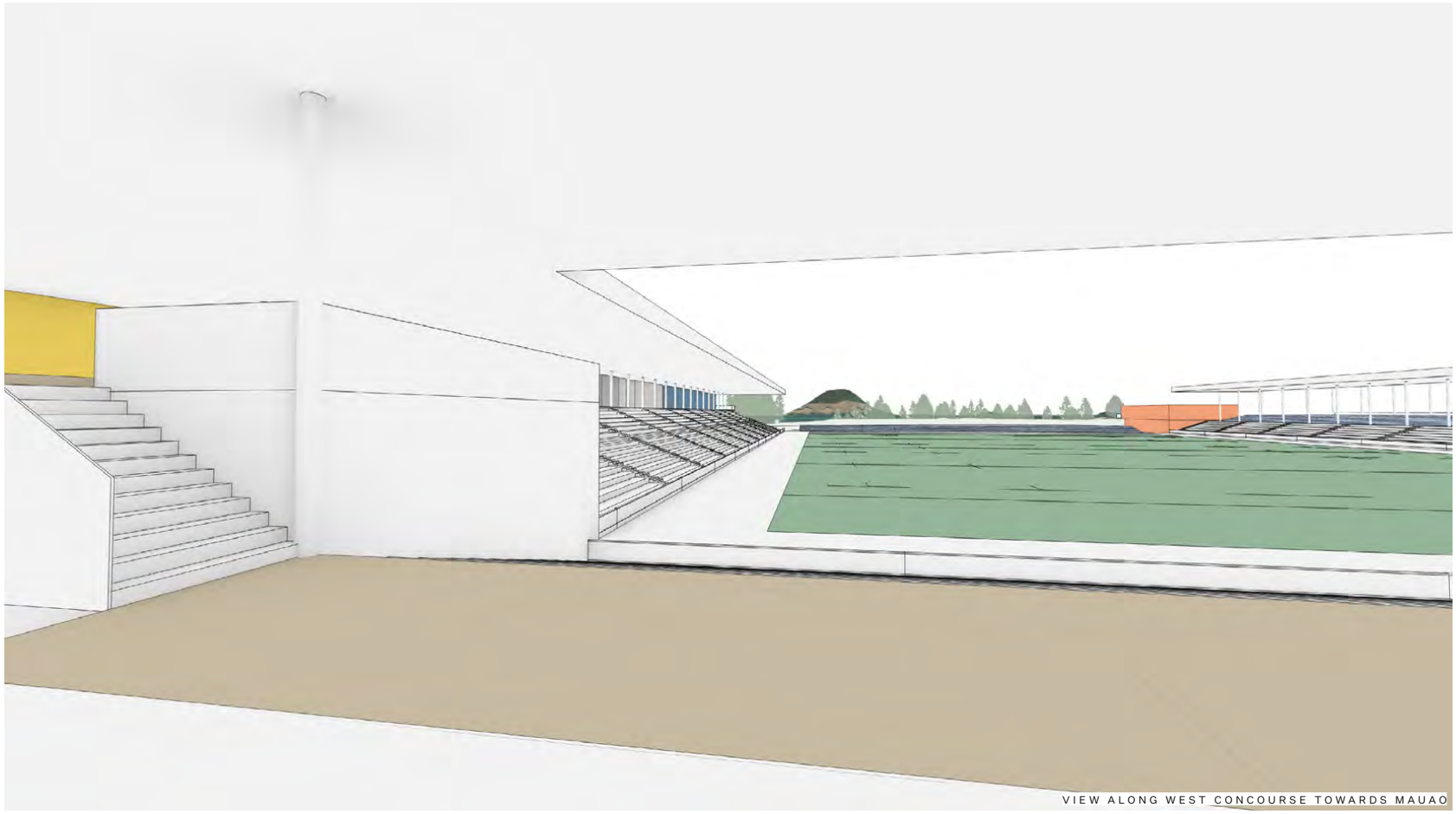
PROPOSED
ARTIST IMPRESSION



VIEW ALONG WEST CONCOURSE TOWARDS MAUAO

WARREN AND MAHONEY VISITOR SOLUTIONS

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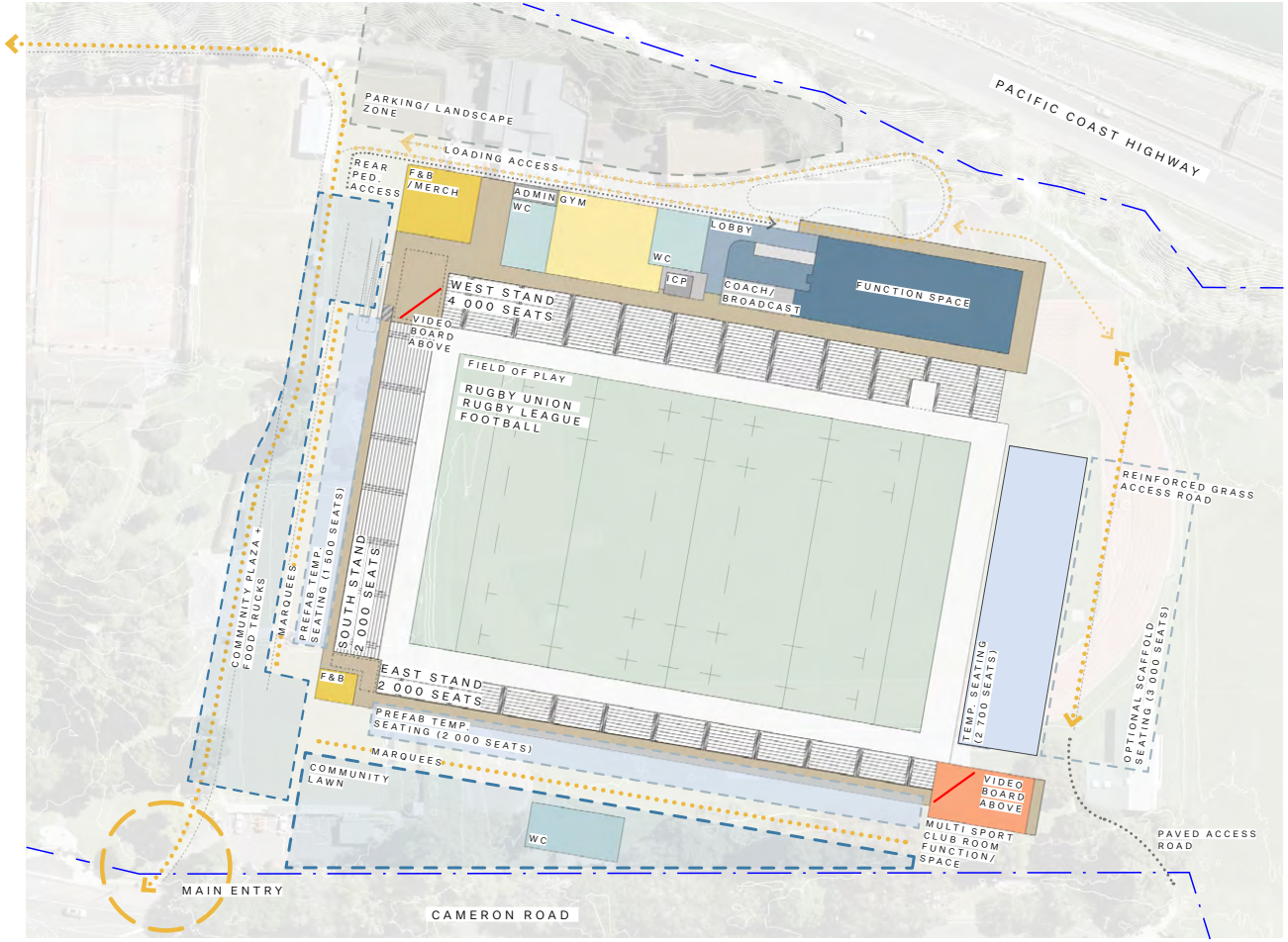
STADIUM EVENT MODES

WARREN AND MAHONEY
VISITOR SOLUTIONS

PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)
TEMPORARY SEATING EXPANSION MODE



AREA SUMMARY

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GYM	500	SQM
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CORE/ SERVICES	50	SQM

LOWER GROUND

PLAYERS FACILITIES	970	SQM
FUNCTION LOBBY/ BOH	80	SQM
MULTI SPORT CLUB ROOM	290	SQM
CORE/ LOADING	260	SQM

TOTAL EXCL. TEMPORARY SEATING 10 650 SQM

PERMANENT SEATS	8 000	SEATS
PREFAB TEMP SEATS*	UP TO 6 200	SEATS
FUNCTION SPACE**	UP TO 500	SEATS
MULTI SPORT FUNCTION**	UP TO 300	SEATS

TOTAL INCL. TEMPORARY SEATING. APPROX. 15 000 SEATS

INCL. ADDITIONAL 3000 SCAFFOLD SEATS 18 000 SEATS

ROOF AREA 10 400 SQM

*SOME VIEWING RESTRICTIONS DUE TO ROOF STRUCTURE/ COLUMNS + SLOPE OF GROUND
** PATRONS WITH NO SEAT IN STANDS

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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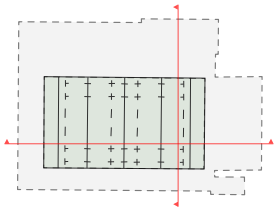
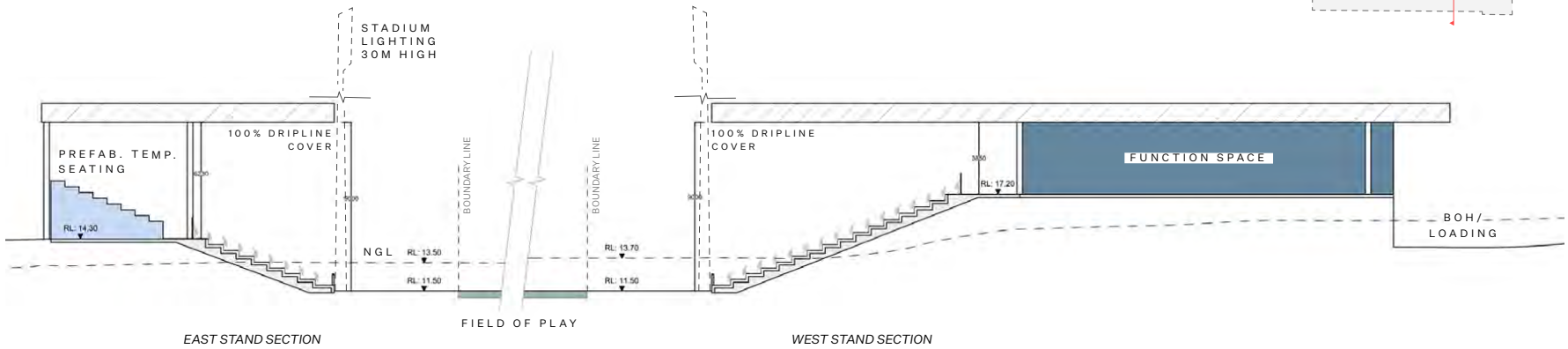
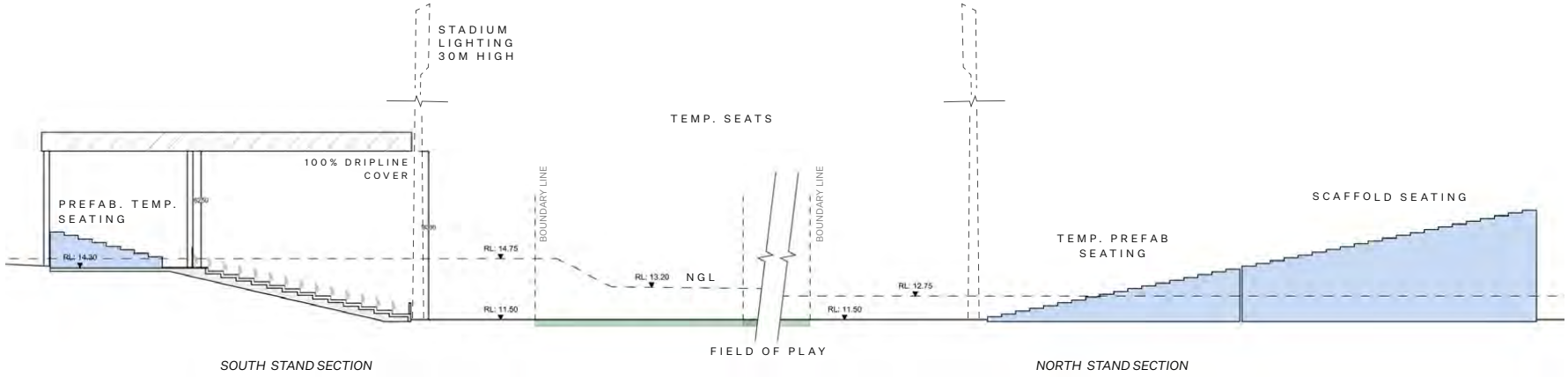
PROPOSED
STADIUM SECTIONS
TEMPORARY SEATING EXPANSION MODE





EAST STAND SECTION *WEST STAND SECTION*



SOUTH STAND SECTION *NORTH STAND SECTION*

*ALL LEVELS SUBJECT TO SURVEY DATA

WARREN AND MAHONEY VISITOR SOLUTIONS

1:200 @ A3

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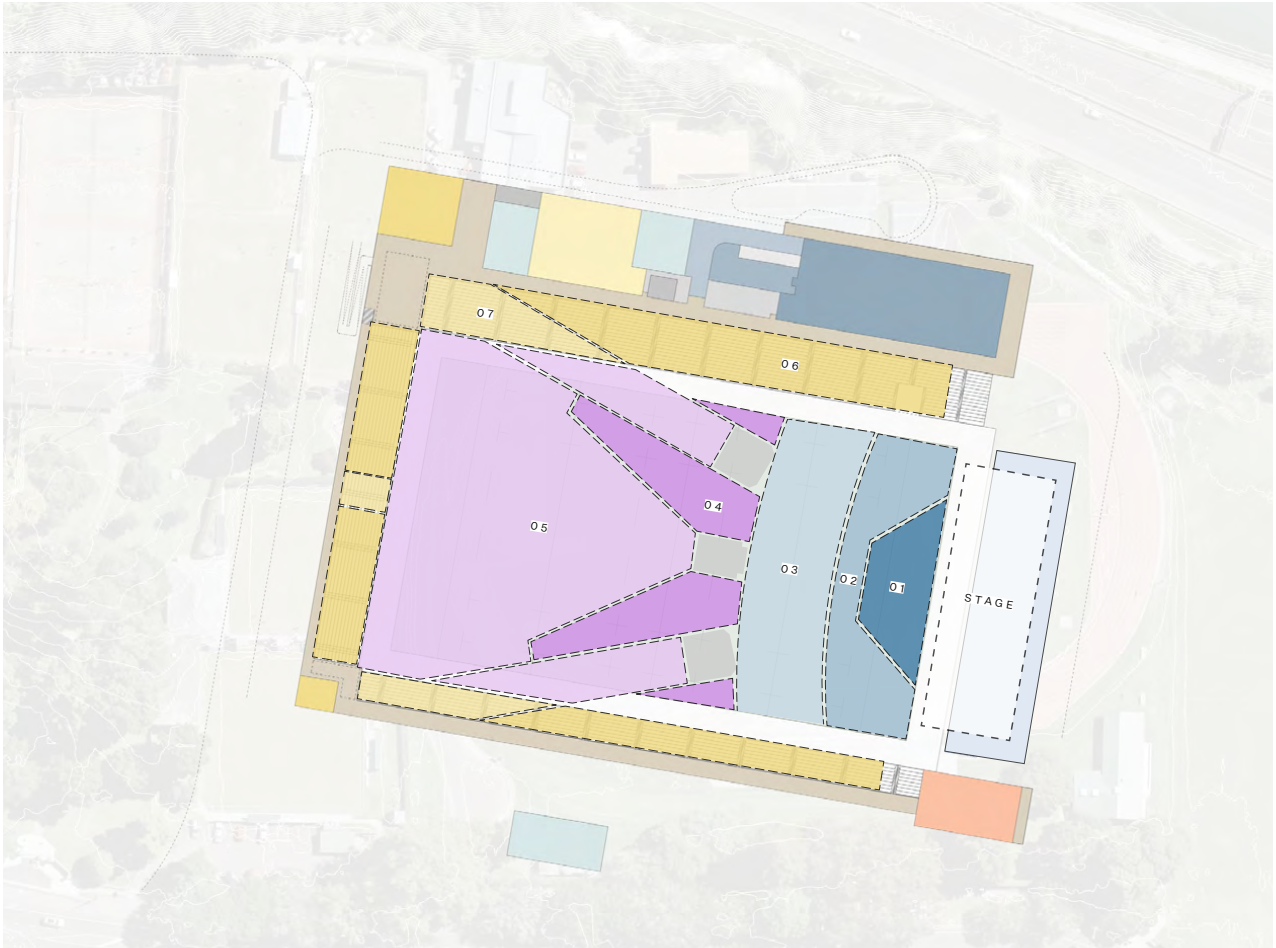
PROPOSED
UPPER GROUND FLOOR PLAN (CONCOURSE LEVEL)
CONCERT MODE NORTH STAGE



CAPACITY SUMMARY (INDICATIVE)

STANDING

490	SQM @ 0.25 SQM	1 960	CAP.
1 050	SQM @ 0.35 SQM	3 000	CAP.
1 400	SQM @ 0.45 SQM	3 110	CAP.
1 250	SQM @ 0.55 SQM	2270	CAP.
4 000	SQM @ 0.75 SQM	5 330	CAP.

SEATING

STADIUM SEATING

2 530	SQM	5 850	CAP.

STADIUM SEATING OBSCURE VIEWING

750	SQM	1 730	CAP.

INDICATIVE CAPACITY APPROX. 23 250 CAP.

*The diagram shows one particular concert layout. Exact capacities will vary depending on stage location, speaker tower placement and venue hirer's production requirements

Concert capacity could potentially be up to 25,000 depending on field configuration and capacity required to be maintained for exiting patrons off field

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

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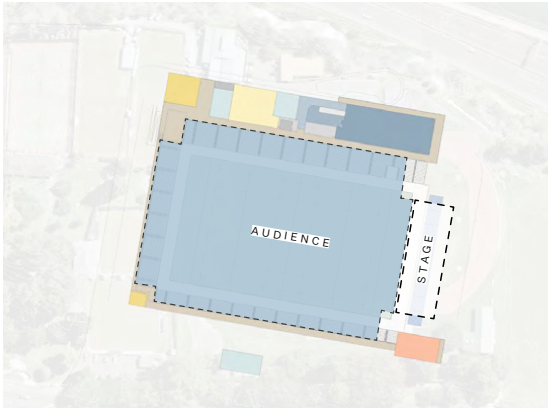
PROPOSED
STAGE ORIENTATIONS
CONCERT MODE

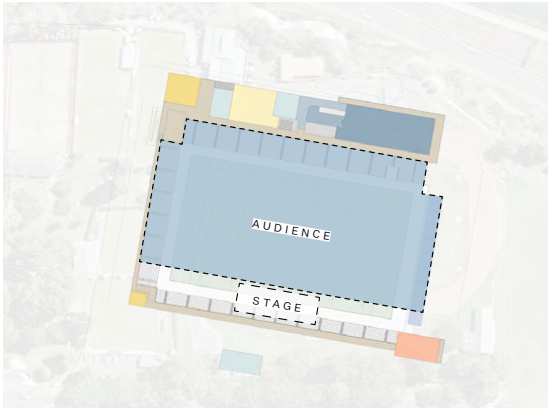
**Stage locations are indicative and will vary depending on stage location and venue hirer's productions requirements*

01.



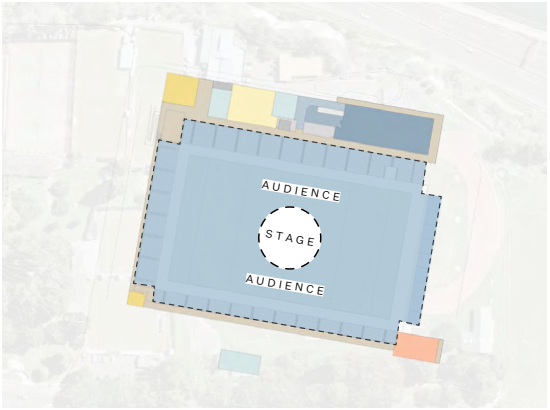
NORTH STAGE

02.



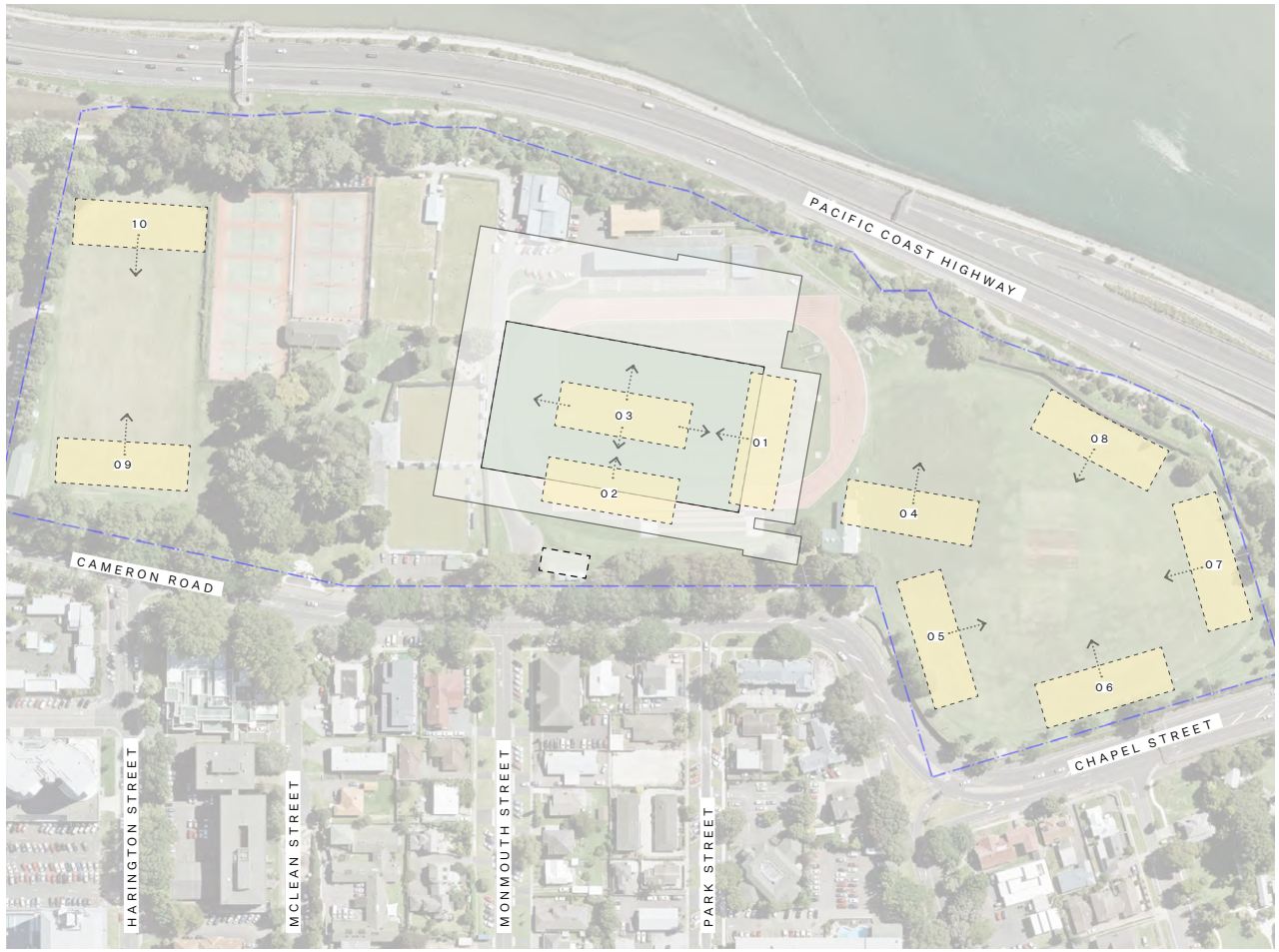
EAST STAGE

03.



CENTRAL STAGE

PROPOSED
STAGE ORIENTATIONS/ LOCATIONS (INDICATIVE)
FESTIVAL MODE



STAGE SUMMARY

STADIUM (CENTRAL FIELD)

3 STAGE ORIENTATIONS

NORTH FIELD

5 STAGE ORIENTATIONS

SOUTH FIELD

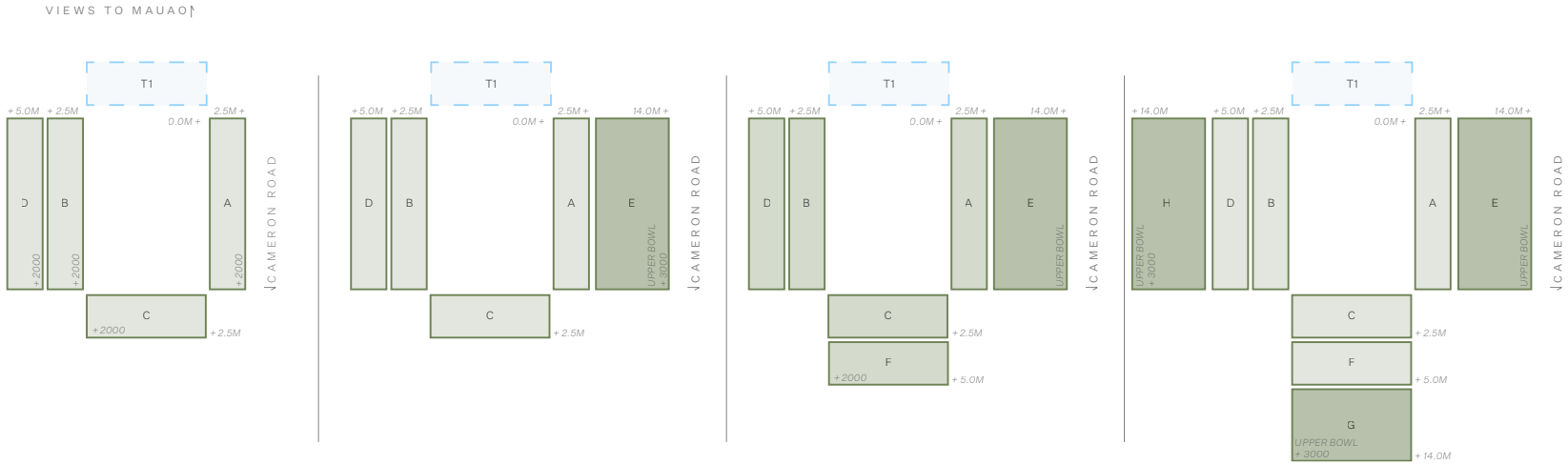
2 STAGE ORIENTATIONS

*Stage locations are indicative of where a variety of stages could be accommodated across the site. This diagram shows flexibility of the venue given the large field areas outside the stadium itself

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

STAGING AND EXPANSION STRATEGY



BASE SCHEME

A + B + C + D	8 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	10 700	SEATS

EXPANSION 01

A + B + C + D + E	11 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	13 700	SEATS

EXPANSION 02

A + B + C + D + E + F	13 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	15 700	SEATS

EXPANSION 03

A + B + C + D + E + F + G + H	19 000	PERMANENT
T1	2 700	TEMPORARY
TOTAL	21 700	SEATS

ALL SEATING TO BE UNDER COVER EXCL. TEMPORARY

WARREN AND MAHONEY VISITOR SOLUTIONS

WARREN AND MAHONEY®

VISITOR SOLUTIONS

Appendix 2

22/3/22

Craig Jones

Visitor Solutions Ltd

PO Box 9972

Newmarket

Auckland 1149

Dear Craig

RE. Tauranga Domain Stadium Turf

Following discussions with Craig Jones from Visitor Solutions Ltd to understand the preliminary stadium concept design and operational circumstances, I provide an opinion of what would be the best "solution" for the rootzone / pitch composition at the proposed Tauranga Domain Stadium. The requirement is for the pitch to sustain the following usage:

1. It will be suitable for elite level professional / semi-professional sports such as Super Rugby and NPC rugby (plus other codes such as football). Likely to be no more than 12 games per year (some or all of which would be televised).
2. Some community sport (one off special games plus regular use across various codes)
3. Entertainment events (principally during the summer) such as concerts.

In our opinion, the best combination of rootzone and grass type in this situation would be:

- A hybrid pitch which combines a natural turf sward with artificial turf fibers.
- A rye grass turf sward.

The hybrid pitch will look like a normal grass pitch but with extra benefits that accrue from the presence of the artificial turf fibres. Specifically in any event, the hybrid turf fibers will provide stability suitable for professional level rugby scrums without the surface ripping up. In addition, if turf cover is lost (for example following a concert) the artificial turf fibers allow use to occur immediately (and in the absence of natural grass cover) if need be. Further to that, if the pitch has to be re-sown to replace lost cover, play could go ahead on the newly sown and partially established turf sward within 4 to 6 weeks.

A rye grass turf sward is recommended because ryegrass is quick and straight forward to establish from seed throughout the year. This means that cover can be lost but relatively quick re-establishment of the natural turf sward can be achieved at virtually any time of the year.

This combination of rootzone type and grass cover will be well suited to this situation because:

- It can provide the best possible visual presentation (uniform dark green colour with eye catching striping)
- It can provide the quality of playing conditions required for the highest level of sports such as rugby and football.
- It can sustain very high levels of use if required (the artificial fibres allow much more use than a non-hybrid surface).
- It can still be used even if some of the grass cover is lost.
- Events such as concerts may damage the turf cover but they will not damage the underlying rootzone layers.
- Using rye grass will allow rapid re-establishment of new grass from seed when required.
- “Instant” re-establishment of damaged turf can also be achieved through re-turfing with hybrid turf grown for that purpose.

Potential use levels:

A hybrid pitch can sustain high weekly levels of use (e.g. 25-30 hours / week) in winter.

This level of use would see a decline in the turf sward that would be unacceptable if a televised match was scheduled.

If an important televised match was scheduled, use should be restricted to enhance the appearance of the turf (e.g. no more than one match / week) in the weeks prior to ensure that the pitch presents well on screen.

High use levels would be possible at times of the year when there are no televised matches scheduled, especially in the lead up to scheduled renovations.

This proposed approach would enable a good level of community, semi professional and professional sports use together with entertainment events within the proposed stadium.

If you have any questions, please do not hesitate to call me.

Kind Regards

Alex Glasgow,

Technical Director,

NZ Sports Turf Institute

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Appendix 3

Boffa Miskell

Memorandum

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Attention:	Craig Jones
Company:	Visitor Solutions
Date:	28th April 2022
From:	Te Pio Kawe
Message Ref:	Cultural Engagement and Opportunities
Project No:	BM211008

Introduction

Cultural engagement has formed a key part of this feasibility study. The cultural significance of the site, being the Ōtamataha Pā / Mission Cemetery is the eastern boundary of the norther area of a cultural significant Te Papa peninsula. The Te Papa Spatial Plan shows several historical sites and areas of occupation and land use active areas / features within the Wharepai Domain including known māra kai (cropping / garden areas), waahi nohoanga and kāinga (living areas and homes).

Understanding the values further has been investigated through engagement with Ngāi Tamarāwaho hapū representatives. These representatives were supportive of the open-air stadium design over the central rugby field with covered seating around the western, southern and eastern sides of the park because the northern end has a strong alignment to Mauao (strong sightlines) and was more in keeping with the Te Papa and Tauranga Moana landscape and the CBD area), kaitiakitanga (sense of place), and mauri (life force / well-being) to be incorporated. These key cultural design principles will be explored and woven into the design concepts as the project advances.

Review of Options

The two selected options (roof and no roof – open air) were presented at the hui to discuss the concept of a closed roof stadium vrs an open roof stadium. Opportunities of the open-stadium option were discussed that it would provide with the visual connections to Mauao, and the connections with the Tauranga harbour entrance, Matakana and Rangiwaea Island, Mt Maunganui and Tuhua in the background.

The diagrammatic schemes were shown, and discussion comprised understanding how more sensitive and appropriate the open-stadium scheme is to the Wharepai Otamataha precinct on the edge of the Te Papa CBD. Showing the size and scale of the Dunedin and Christchurch stadiums overlaid into the Wharepai landscape would look out of character with the surround buildings and proved a valuable perspective from the presentation material.

Outcomes

There was preference for the open air stadium option. The representatives noted the opportunity to influence the stadium design values, language and concepts that enable a sense of manaakitanga (hospitality / welcoming people to the stadium), kaitiakitanga (sense of place) and mauri (life force / well-being) these key cultural design principles can be woven into the design concepts for the new stadium.

Opportunities Identified

A wide range of more specific cultural opportunities were discussed that could be advanced as the stadium planning and design progresses. These included such things as:

- Exploring further ideas of Māori visual language / concepts – such as the visual impact of the use of traditional “tukutuku” patterns into the design of the stadium seating that expresses and represents mana whenua values of identity, energy and welcome to our home.

- Considering a ‘lintel’ element as a gateway (waharoa) for people to pass through – based on the Te Ao Māori concept of a female carved lintel that presents the birth of mankind to remind us on where we come from in an abstract / artistic approach.

- Considering a new Te Reo Māori name that reflection the local Iwi identity for the new Stadium.

- Integrating the Tauranga Moana Design Principles to the design approach and outcomes.

Development of the design should form a collaborative approach with mana whenua with sound design approach.

The stadium design was also seen as being ideal to accommodate large cultural performances and festivals, such as local bi-annual Tauranga Moana Tauranga Tāngata festival, regional Mātaatua (BOP) and Tākitimu (Hastings / Wairarapa) Kapa Haka competitions, national Te Matatini Kapa Haka festival etc. The facility was also considered in a suitable location and of appropriate scale to showcase Māori sporting teams such as the Black Ferns, Black Ferns 7’s, Māori All Blacks and Māori All Black 7’s.

Appendix 4

Stantec

Memo

To:	Craig Jones –Visitor Solutions Ltd	From:	Andrew Metherell Stantec - Christchurch
Project/File:	310103262	Date:	30 March 2022

Reference: Tauranga Multi-Function Stadium Feasibility – Transportation Engineering Advice

1 Executive Summary

The Tauranga Domain is well located near the Central City to achieve integration with transport networks that support a range of modes of travel to and from the site. Significant planning and investment in the Central City to promote a walkable area, with improved public transport services, and dedicated cycle facilities further supports the Domain as a central location for Multi-Function Event Facility.

A facility that accommodates up to 10,700 seated attendees in the favoured 'base' layout dated March 2022 will generate high levels of movement to the Central City by private vehicle, bus, cycling and walking. A focus of movement will be to and from the south of the Domain site. To the south is where bus stops, car parking, and other activities that attendees will link a trip from are located. Some external improvements that will support connection to the site are understood to already be planned as part of the Central City Strategy. Additional local considerations will be necessary to facilitate peak movement of people, and event management plans are likely to be required.

The facility is located within the Domain site with a relocated access to Cameron Road, supported by potential access to Hamilton Street (west). The positioning enables key servicing of the site external to the stands, and future design stages will need to resolve the detailed space requirements to satisfy operational requirements. Car parking will be limited, and there will be a general reliance on the wider city parking resource. That in turn will assist in maintaining a pedestrian friendly space around the facility.

Initial review confirms the site position as suitable from a transport feasibility perspective, whilst noting there will likely be some reliance on planned transport infrastructure and services in the Central City area. Integrated Transportation Assessment in the future will be able to better inform the spatial requirements for transport infrastructure within the site, connections required, and the need for and priorities of external transport infrastructure based on travel mode and movement analysis.

2 Project

The Tauranga Multi-Function Stadium Feasibility project has considered a range of options for development of a stadium in the Tauranga Domain area. The project team has investigated a range of stadium locations within the site, and a range of potential stadium sizes (in terms of seating capacity and facilities provided). This has led to the current March 2022 site plan, which provides for permanent seating of 8,000 seats, prefabricated temporary seating of up to 2,700 seats, and function space.

3 Existing Transport Context

The site is located at the northern end of the Tauranga Central City, adjacent to the northern entry point towards the Tauranga City Centre.

Figure 1 shows the Tauranga Domain has existing road frontage on its eastern side to Cameron Road, which is a busy urban 'secondary arterial' road servicing a key north-south movement corridor through Tauranga. There are several local streets that intersect with Cameron Road in the vicinity of the site, and Brown Street at the northern end provides an important Collector route into the Central City. SH2 is to the west, but is at a different elevation and has no access to the Tauranga Domain.

Figure 1: Existing Road Hierarchy and Site Location

Car Parking is predominantly located towards the Central City southeast of the site. North of 4th Avenue, there are approximately 1,400 off-street public parking spaces (of which 750 are in parking buildings), and 1,900 on-street spaces. Weekday peak parking surveys indicate quite high CBD parking utilisation at 85% and higher. There are up to 7,000 car parking spaces in total available including private parking.

There are approximately 14 bus routes into the city, typically twice hourly and end at about 7-8pm. There are plans to extend the duration of services across each day. Bus stops are in the Central City generally to the southeast of the site.

4 Existing Site Transport Characteristics

Existing vehicle access to the Tauranga Domain is via Cameron Road opposite Monmouth Street. Restricted use service accesses are on Cameron Road opposite Brown Street, and on Elizabeth Street at the southern extent of the Domain. One way accesses to the bowls club are available immediately north of the memorial gates opposite McLean Street, and south of Monmouth Street.

Pedestrian access is achieved at the vehicle access locations, and from Cameron Road opposite McLean Street, and at the corner of Cameron Road and Elizabeth Street. Aside from the vehicle and pedestrian access points, the site is encircled by a high fence preventing all pedestrian desire lines to be satisfied. Most pedestrian desire lines within the site do not have formed paths. Pedestrian footpaths around the site are basic standard with limited crossing facilities of Cameron Road, in the form of pedestrian refuge crossings either side of the main access.

A limited amount of on-site car parking is available. Some larger vehicle servicing of the site can occur via the main access route.

5 Future Transport Network

As part of the Central City Strategy, a range of transport improvements are being planned and undertaken in the Central City.

Cameron Road south of the site is to have a major upgrade to incorporate a revised street scape, capable of accommodating buses and cyclists.

An improved bus network and frequency of service is proposed within the Central City, including a central bus stop hub likely on Durham Street, near the southeast corner of the site.

There is potential for upgrade to some of the intersections on Cameron Road adjacent to the site to facilitate movement including by cycles, pedestrians, and buses.

There are a range of private and public developments occurring in the surrounding area, which will be supported by the transport network changes.

6 High Level Event Travel Demand Assessment

To provide a broad understanding of the travel demand associated with a stadium event, an indicative travel mode assessment has been carried out.

By way of context, the 2018 census indicates that those working in Tauranga Central City (11,340 people) have the following main means of travel to work:

Travel Mode	Percentage
Work at home	2%
Drive a car, truck, or van	84%
Passenger in a car, truck, van, or company bus	3%
Public bus	3%
Bicycle	4%
Walk or jog	3%
Other	1%

Table 1: 2018 Census Mode of Travel to Work Tauranga Central

This indicates a high preference for driving a car. For events, the mode split for work trips would be modified as follows:

- Car occupancy will increase significantly, as multiple attendees will share a ride.
- Bus use will increase, as normal parking availability may become more constrained and event promotions support the use of bus for ease of access.
- Walking will occur as part of a linked trip. For example, attendees to a large event after work would already be in the city, or attendees that made pre-event trips to the central city will then walk to the site.
- The willingness to walk a greater distance to an event may increase the primary walking catchment.
- The proportions by mode will also vary by the scale of event, as the event gets larger attendees will be more likely to change travel model preferences.

An indicative mode split and travel demand assessment is included in Table 2 for varying event sizes.

	Stadium Scale							
Attendees:	**4000**		**10700**		**15000**		**18000**	
By Mode:								
Car	88%	3520	79%	8453	75%	11250	72%	12960
Bus	6%	240	12%	1284	14%	2100	15%	2700
Cycle	1%	40	1%	107	1%	150	1%	180
Walk	5%	200	8%	856	10%	1500	12%	2160
	100%		**100%**		**100%**		**100%**	
Vehicle occupancy	2.4		2.6		2.8		2.8	
Drop-off	5%		5%		5%		5%	
Private Vehicle Trips								
Peak Hour Arrival Rate	80%		70%		63%		60%	
Peak Hour Arrivals		1173		2276		2531		2777
Peak Hour Departure		59		114		127		139
Peak Hour Departure Rate								
Peak Hour Departure Rate	85%		85%		85%		85%	
Peak Hour Arrivals		62		138		171		197
Peak Hour Departure		1247		2763		3415		3934
Parked cars		1393		3089		3817		4397
Buses departing								
Bus occupancy	25		35		50		50	
Bus numbers		10		37		42		54
Cycle Parking Demand		40		107		150		180

Table 2: Indicative Travel Demands

Whilst the indicative travel demands will requirement refinement through future assessment, the following observations can broadly be made:

- The parked cars will utilise a significant amount of the Tauranga Central car parking supply for large scale events (i.e. stadium at seating capacity), requiring many attendees to walk from the southern Central City area.
- All of the modes of travel will likely involve walking in the immediate vicinity of the site, leading to a concentration of pedestrian movement that will then disperse. The departure period will usually have the highest concentration of movement.
- The number of buses required to accommodate demand would likely exceed the existing hourly arrivals or departures in the Central area at peak times.
- Approximately 2,300 vehicles arriving in the peak hour for a 10,700 attendee event, although that is likely to be conservatively high if attendees are already in the central city. By way of comparison, census data indicates up to 9,500 people drive into Tauranga central across the day for work.
- Large events are desirably timed for periods of lower parking demand and off-peak traffic to accommodate the large change in travel demand. This is likely to require network traffic assessments and investigations of an event management framework.

7 Site Positioning and Scale Options

Through the feasibility investigations for a facility on the Tauranga Domain, Stantec has considered the transport related matters associated with several locations within the site, and a range of sizes.

A range of transport related considerations were identified, including:

1. The major movement of attendees by foot will be to and from the south or southeast.
2. This will generate high pedestrian flow through the site to the south of stadium, and also across Cameron Road.
    - There is a need to allow for improved walk routes through the site (currently access is quite controlled), alongside Cameron Road (e.g. widened footpaths), and across Cameron Road (e.g. formalised crossing points (raised / signalised))
    - Stadium service vehicle routes and VIP parking should ideally be to the north of the major pedestrian desire lines to minimise conflict during large events.
3. Cameron Road is a busy arterial with curved alignment at the northern end and established avenue trees are a barrier for unimpeded access for pedestrians and vehicles.
    - Additional vehicle access north of the existing main site access could be problematic and concepts should plan on the basis of regular access being opposite or south of Monmouth Street-Park Street.

- Balancing that is the need to minimise the conflict between service and pedestrian movement. Sites further south will be able to consider supporting access via the western end of Hamilton Street
- Possible to consider signalisation of Cameron Road / Brown Street to support access to the Central City and to a large stadium at the northern end of site to address the above issue.

4. Event traffic management plans are likely to be required for moderate and large events, with localised closure of Cameron Road and detours for access from the north via Brown Street and Willow Street.
    - Similar event management already occurs with existing activities.
    - Stadium size and positioning can impact the operational practicalities of event traffic management, such as frequency, cost, and time of day/week restrictions.
5. Daytime parking is well utilised in the area, so some on-site parking for operational requirements should be considered. Could be used for mobility, VIP and broadcasting areas at events.
6. Service vehicles could be large truck and trailers so sufficient manoeuvre and turnaround space should be provided. Some designs have very constrained space around them for additional service areas.
7. Pedestrian connections to the paths and pedestrian bridge alongside SH2 should be allowed for.
8. Positioning the stadium as far south as possible on the wider site would be most desirable, as it reduces distances to parking, buses, central city generally.
    - A position at the southern end is approximately 400m less walk distance compared with north end of site. A large stadium can generate significant parking demand which will already require attendees to walk for long distances.
    - An option on the southern end of the site would connect very well to the city and transport mode interchanges to support the attractiveness of bus services.
    - Dual road access would be achievable at the south (i.e. via Hamilton Street west and Cameron Road) and some options may require access across the western end of the football pitch in any case.
    - Options for event traffic management detours are enhanced the further south the stadium is on the site.
9. As there will likely be insufficient space on site for event buses will require consideration of suitable drop-off areas.
10. The larger the scale of the facility, the higher potential need for event traffic management and supporting transport infrastructure close to the site.

Considering the above we also advised on the transport pros and cons of the various options at the north, central, and southern parts of the site. The central site location does not support the best outcome for all of the matters above, although none are considered ‘red flag’ issues that prevented the

site being carried forward based on the multi-disciplinary preference for the central site. For example, matters include:

1. There will be a concentration and possible conflict of pedestrian and vehicle movement at the facility entrance (south east corner). This will need to be addressed through supporting pedestrian routes internally, clear differentiation of infrastructure for pedestrians and vehicles were appropriate, site access controls and event management to address large scale events.
2. Site access to the western and northern side of the facility can be constrained. Internal connections need to be designed for where possible, or maintenance and operations planning to consider further.

8 Favoured March 2022 Layout

The design team have developed a concept layout for an Event Facility that provides 8,000 permanent seats and 2,700 temporary seats as outlined in the favoured March 2022 layout. The positioning of the site within the Domain context has been shifted further to the south. This opens up space around the stands at the constrained north-western and north-eastern corners of the site. Existing bowling, croquet and athletics facilities would have to relocate.

8.1 Vehicle Access

Site access provisions for vehicles allow for:

- a relocated main access on Cameron Road immediately north of the memorial gates north of McLean Street on the general alignment of the bowls club southern access, and also should be developed to secure two primary points of access.
- connection through to the existing tennis club car park at the southwest corner of the site, which would ideally further connect through to Hamilton Street (west) for site access flexibility. That also minimises pedestrian / vehicle conflict at the main Cameron Road access, and affords connectivity for other modes to access the rear of the site from additional locations.
- retention of the existing temporary access off Cameron Road near Brown Street, which could be used to support the temporary access requirements for the northern part of the site.

8.2 Loading and Site Servicing

Loading access is shown along the western side of the site to service the main stand, which we understand would be the predominant location requiring day to day servicing. It is noted that the space remains constrained, and at the scale shown would most likely be suitable for turnaround by rigid trucks, potentially of a restricted length. Currently the plans indicate turnaround diameter of approximately 20m. Desirably an outside kerb turning circle of approximately 30m diameter will be

provided to enable a full turnaround by all road legal vehicles including coaches and articulated trucks. This is constrained by the steep slopes adjacent, and reverse manoeuvring areas may be required.

The northern end of the site would require servicing suitable for event set-up in the temporary seating area This can be linked to the western service route, and for occasional use potentially the direct access to Cameron Road opposite Brown Street.

If full connectivity around the stadium is achieved by an internal loop road or route avoiding turnaround by vehicles, then service vehicle size limitations could be reduced.

8.3 Pedestrian Access

Pedestrian access points for day to day operation would be at least similar to existing, although the additional western linkage from Hamilton Street (west) would support further connectivity if provided.

It will continue to be desirable to link the intersection of Cameron Road and Hamilton Street with the stadium via an internal pedestrian route. The intersection of Cameron Road / Hamilton Street will desirably be signalised in the future to support pedestrian movement at a key entry point to the Domain area.

The existing pedestrian crossing infrastructure on Cameron Road north and south of Monmouth Street would not support major pedestrian desire lines for the site during event mode, although can support dispersal of pedestrian movement if further connections across the site boundary are provided.

A study of additional pedestrian infrastructure requirements to cross Cameron Road on appropriate desire lines would be necessary. There will also be a need for suitable onward Central City connections east-west in particular, which require assessment for suitability and need for upgrade. As noted above, that would include Hamilton Street to Monmouth Street, and in the vicinity of Brown Street.

The form of Cameron Road along the site frontage would also require review to determine a suitable layout to accommodate pedestrian demands, which could impact availability of existing car parking.

8.4 Access Design

The linkages noted above will need to be assessed at a more detailed level to ensure standards are satisfied:

- There are existing trees and memorial gates that could be impacted, and design may be constrained by the need to limit impacts.
- The main access is just north of McLean Street. That location supports right turns from Cameron Road to the site, and right turns into McLean Street not overlapping. The position is on the inside of a bend, and sightlines will need to be assessed to ensure vehicles can exit safely. Removal of parking in the vicinity of the access would be desirable.
- Capacity of the access to support all movements safely with a priority controlled layout, considering the increasing traffic volumes, and potential changes to the formation of Cameron Road in the future. This could impact the standard of access required via Hamilton Street.
- Gradients of access from Hamilton Street are suitable if access is provided to that street.

8.5 Car Parking

On-site car parking is not shown on the plans at this stage, and it is anticipated some operational parking will need to be provided, which could be part of a flexible space used for other purposes on event days.

Peak parking demand will likely occur at off peak times for the Central City. Car parking demand will need be satisfied in the wider Central City area, and parking management strategies may require refinement to manage potential impacts of changes in parking demand.

A priority of planning for a site without event on-site parking will be to ensure good pedestrian linkages to bus stops, and the wider Central City in general.

8.6 Public Transport Connectivity

The proximity of public transport on Durham Street, together with expected improvements of service frequency will offer attendees of events viable alternatives to private vehicles requiring car parking. The increased scale of public transport passenger demand during events will likely require additional event based planning, and for large scale one-off events provision of event buses could be considered to supplement existing services.

8.7 Event Traffic Management

The location of the stadium adjacent to an arterial road will likely require event traffic management to establish diversions of Cameron Road between Brown Street to the south of Hamilton Street. A primary purpose will be to establish safety of those walking to and from the site immediately adjacent to the Domain, and to minimise drop-off and pick-up movements 'at the gate' which are disruptive. At times of events, it is anticipated that the road network will have residual traffic carrying capacity to accommodate the changes in traffic patterns from diversions.

This will be a matter for future assessments, and it can reasonably be expected a range of off-the-shelf plans could be developed for different scale and time of day events.

9 External Transport Infrastructure Requirements

The success of the facility can be supported by transport infrastructure changes, some of which may overlap with Council transport projects. These would be investigated in future phases of the facility development, but could include:

1. Improve pedestrian crossing facilities along Cameron Road to link into desire lines. As a minimum there will need to be an additional pedestrian refuge/raised platform crossing of Cameron Road in the vicinity of the access opposite McLean Street.

2. Upgrade the footpath on the western side of Cameron Road along the frontage from Hamilton Street to Brown Street – say a 3m path (some complexity with the trees).

3. Establish an improved walk route through the treed area between the bowling and tennis clubs connecting to Cameron Road / Hamilton Street (assume signals provisioned as part of Council transport projects).

4. Consider improvement to pedestrian infrastructure on at least one of the east-west streets such as McLean Street (e.g. a 3m path on the south side).
5. Allowance for a rear through route to Hamilton Street (extension from the tennis court car park) to support servicing and cycle access from SH2 cycle paths.
6. Consider upgrade of vehicle / pedestrian access with traffic signals at or near Cameron Road / Brown Street (possibly could be considered as part of Council transport project in the future).

Regards,

Stantec New Zealand

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Appendix 5

Stantec

Memo

To:	Craig Jones Visitors Solutions Ltd.	From:	Gary Cross Stantec New Zealand, Christchurch
Project/File:	310003262	Date:	29 March 2022

Reference: Tauranga Multi Use Arena Concept – Geotech and Structural

Scope

Stantec have been appointed by Visitor Solutions Ltd to provide high level structural and geotechnical engineering advice on the conceptual design proposals for a potential Multi Use Sports Arena on the Tauranga Domain.

Our structural and geotechnical comments are based on the Warren & Mahoney (W&M) architectural favoured scheme, circulated 22 March 2022, the latest architectural concepts are attached for reference. Bear in mind the review is high level based on the preliminary information provided and referenced below. The final design will be subject to more detailed investigation, design and assessment as part of the next stage of design development.

This memo and the associated sketches are indicative conceptual design documents only. Not for detailed costings or construction. Appropriate engineering will be required in the following phases of work to confirm the structural element sizing and extent. This includes foundations, support structure and roof cantilever elements to name a few.

Geotechnical Aspects

Stantec have carried out a high-level review of the ground conditions and the potential implications to the foundation design based on the proposed location of the stadium concept adjacent the slope along the west side of the Domain, above State Highway 2, Takitimu Drive.

Using the information on the site ground conditions available within the Beca Geotech Detailed Seismic Assessment (DSA) report, dated 20/3/2020, enabled a high-level review of the potential foundation options and implications on the foundations of the adjacent the bank. We have used the simplified cross sections provided in the Beca report for this review. The site investigation information in the Beca report indicates the ground at the site is libel to liquefaction and resulting in lateral spread of the founding soils during a seismic event, as well as the potential failures of the slope.

The review also identified that seismically induced lateral deformations may extend horizontally up to 80m or more back from the edge of the slope. This would require enhanced foundations within in this zone. Therefore, we are recommending piled foundations, (i.e. foundations at or close to the edge of slope being in the order of pile Diameter (D) =1.2m, spacing = minimum 3D-4D, Depth = 25 - 30m). Reinforced concrete augured piles within this enhanced zone would require extensive pile caps and/or raft slab to support the stadium stands along the western side of the proposed development.

Piled foundations to the stands outside the slope deformation zone, > 80 m from the slope, would be likely be smaller and shallower in depth, of the order 600 dia. depth 10 to 15 m.

Reference: Tauranga Multi Use Arena

The current proposed location on the site is geotechnically feasible however foundation costs are likely to be significant for the stadium structures particularly within the 80 m zone from the top of the slope along the west side of the site. The stadium structures will require piled foundations supporting a concrete raft/pile caps to support the gravity and seismic loads and to resist the seismic slope failure, settlement and lateral spread due to liquefaction of the site during a significant seismic event.

Structural Aspects

The initial reference projects reviewed indicated modest cantilevers with no back spans, referencing glulam timber or equivalent structure elements. The current main west stand roof indicates cantilevers of the order of 20 m and would require deep structural steelwork elements of the order 2 – 2.5 m at the supports tapered towards the cantilever end to achieve the spans indicated. The longitudinal grid spacing has been assumed to be in the range of 8 – 10 m. The structural floor zones between upper and lower ground floors will depend on the structural grid, and are yet to be agreed, but a 1000 mm structural zone would be reasonable at this stage. The structural depth along with the roof construction and falls will need to be consider in determining the overall building height.

Note: that a 20 m cantilever would require a minimum 10m back span to balance the loads and span.

The permanent stand seating areas would likely be constructed in pre-cast concrete slab/beam elements supported on steel work beams or precast concrete beam/wall elements. This structural form would be extended in to rear accommodations areas. See attached west stand cross section mark up sketch, Tauranga Stadium Proposed Concept west stand sect. Stantec comments 290322.

The concept scheme indicates the playing pitch excavated below the existing ground level, with some area appearing to be built up to match the existing adjacent ground levels. Embankments and retaining wall structures will likely be required in some areas

The above memo is based on the following documentation.

1. Warren and Mahanoy favoured concept design package 230322
2. Beca Geotech Detailed Seismic Assessment report, 20/3/2020

Regards,

Stantec New Zealand

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Attachment: W&M Drawings 9726 – Tauranga Stadium _ Proposed Concept Package 220323

Appendix 6

Boffa Miskell

Memorandum

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Attention:	Craig Jones
Company:	Visitor Solutions
Date:	7 April 2022
From:	Matt Allott, Planner, Senior Principal, Boffa Miskell Limited
Message Ref:	Tauranga Stadium Feasibility Study – Preliminary Planning Assessment
Project No:	BM211008

The following sets out a summary of the relevant statutory planning provisions (and applicable plan changes), which would apply with respect to the establishment and operation of an event stadium at Tauranga Domain (the Domain).

Site Context

The site is zoned in the Tauranga City Plan (City Plan) as Active Open Space (Major), as shown through Figure 1 below.

Figure 1: Tauranga City Plan Zoning and Policy Overlays

The City Plan states that the Active Open Space Zone applies to the City's larger parks and reserves that are primarily used for organised sport and events, usually with associated buildings and structures. These areas are also used for passive purposes and provide large areas of open green space.

The City Plan provisions recognise the intensive use made of these areas, and the need to provide sufficient facilities to support these uses while retaining a park or reserves open space character and amenity values.

Coupled with the Active Open Space Zone is the Active Open Space Zone (Major), which applies to reserves expected to contain larger facilities. The purpose of identifying these reserves specifically is to allow larger buildings and structures, including the provision for more intensive activities and events to occur on them.

The Active Open Space Zone (Major) applies to:

a. Blake Park
b. Gordon Spratt Reserve
c. Waipuna Park
d. Paurau Farms
e. Greerton Park
f. Tauranga/Wharepai Domain
g. Papamoa East (future reserve)

As shown through Figure 2 below, the area of the site where the proposed development is to be located is affected by numerous Proposed Plan Change 27 (PPC27) – Flooding from Intense Rainfall overlays, including a major and minor overland flow path and flood prone area.

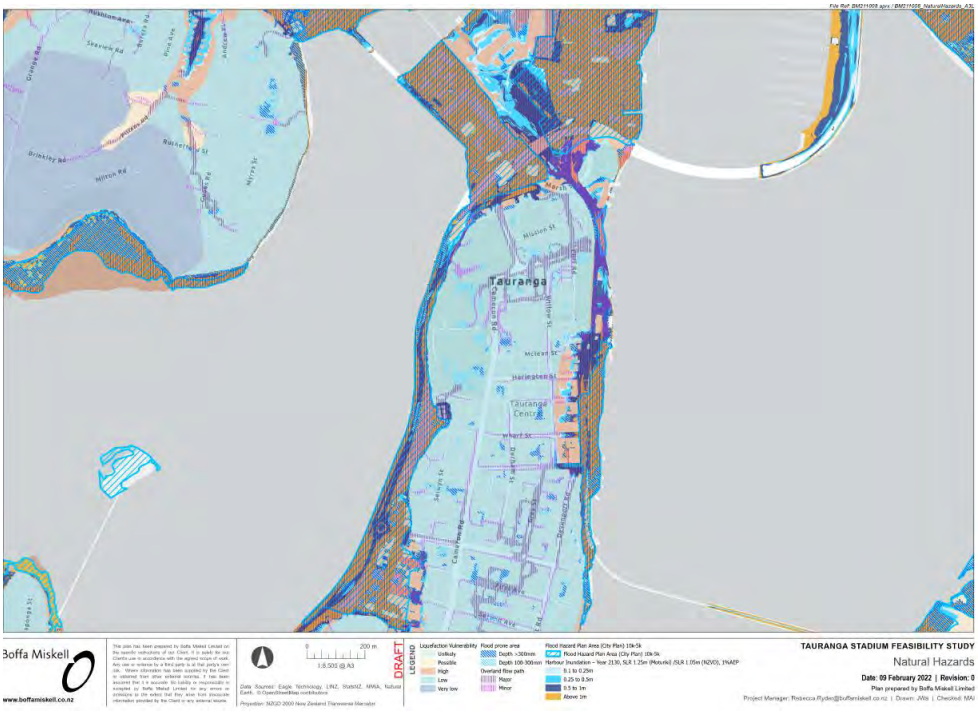

Figure 2: Natural Hazards

As shown through Figure 3 below, there are archaeological sites located within the site and surrounding area.

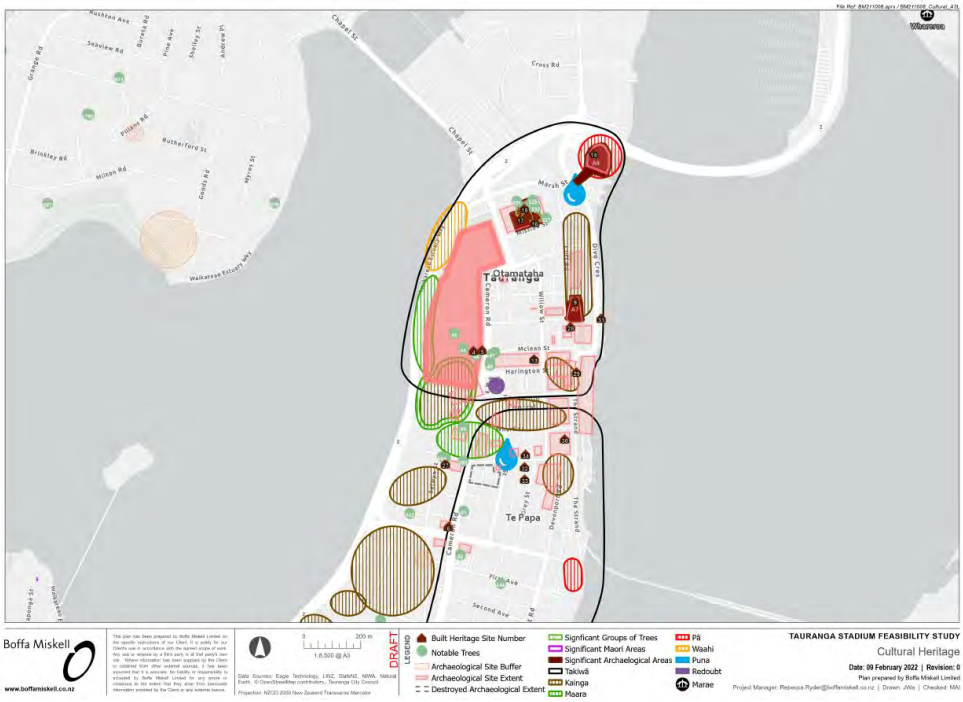

Figure 3: Cultural Heritage

Proposed Stadium Options

The siting of a stadium at the Domain has undergone a location analysis across the two Domains, considering the impact the siting would have on current facilities, integration with the CBD activities and continued recreation use of the open space. Option locations for the siting have considered the spatial footprint required and the surrounding concourse and other facilities, accessibility, and connectivity to the surrounding street network. Equally consideration of the heritage features, viewshafts and recreation opportunities were evaluated. Site option location 'B' has been selected to proceed for the evaluation of stadium types.

Figure 4: Favored Site Development Option

Three initial stadium concept options have been presented, which are set out in summary form in the table below:

	Option 1	Option 2	Option 3
Permanent Seating	10,000	8,000	10,000
Temp Seating	Up to 5,000	Up to 5,000	Up to 2,500
Function Space	770 m^2	1,000 m^2	770 m^2
Gym	Yes	Yes	Yes
HP Centre	Yes	Yes	Yes
Arena Roof	No	No	Yes
Sunken pitch	Yes	Yes	Yes

Following this evaluation and direction from the projects steering group two options have been considered for additional feasibility analysis. These options are:

1. Option two without an arena roof,
2. Option two with an arena roof (a hybrid of option 2 and 3)

The analysis involves investigating the Domain's capacity to accommodate different seating sizes and associated buildings and structures. For the evaluation, consideration of a comparative arena roof stadium design has been taken into consideration with a focus on the actual and potential effects of building scale and height on the surrounding environment.

A summary in relation to both options is set out below:

Option 2 – No Arena Roof (permanent covered grandstands)

Fully covered grandstand seating on three sides around a central turf. The stadium is open sided and open northern end to the northern cricket grounds. Vegetation cover is retained throughout the Park and the structure is proposed to extend to approx. RL23.50 in height, approximately 10m above the natural landform. This proposal sits 5m below the permitted building heights for the area and does not extend into the protected viewshafts to Mauao.

A connected open space is provided for between the main field central to the stadium and the northern fields, through the lowering of the stadium field ground level. Informal access to the open space both visually and physically will be retained, providing a continued opportunity for an increasing CBD population to recreate within. Integration of facilities within the stadium are proposed to consolidate local sporting clubs and public toilet facilities. Temporary seating is proposed at the northern end of the site to enable connected open space when the site is not in event use. Reinforced grass cell is designed for this area to allow for hard wearing spaces whilst retaining a green open space connection between the fields.

This proposal enables 'outside of event' public access to the facilities for community passive and active recreation.

Option 2 – with an Arena Roof

A covered stadium providing for seats is proposed centrally in a similar location to the above option. The covering requires a domed roof structure with enclosed facades. Open space connections between the stadium field and northern fields is not provided. The proposed stadium would be RL61m, circa 47.5m above the natural ground level, 32.5m above the permitted building height and extending 30.5m into the protected viewshafts to Mauao. Access to the internal field within the stadium will be visually obscured through the stadium facades with no 'outside of events' access to the facility and grounds.

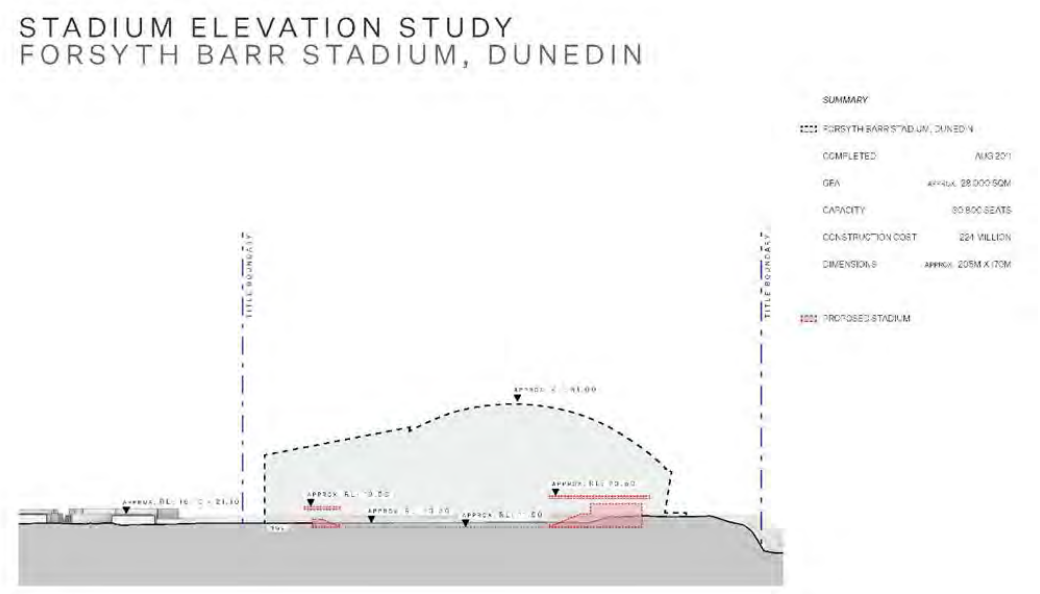

Figure 5: Comparative Analysis – Forsyth Barr Stadium, Dunedin

Rules

The proposed stadium falls under the City Plan's definition of both 'community facilities' and 'public recreational facilities and activities, detailed as follows:

> *Community Facilities*
>
> *Means land, buildings and structures:*
> *a) utilised for activities such as community use, deliberation, entertainment, recreation or leisure undertaken for purposes other than principally for commercial gain; or*
> *b) operated by the Council as publicly funded (partially or wholly), run or owned activities.*
> *Community facilities includes:*
> *f) Public recreational facilities and activities/minor public recreational facilities and activities;*
> *g) Clubrooms;*
>
> *Public Recreational Facilities and Activities*
>
> *Means:*
> *c) Playing fields, sports grounds, hard courts, greens and golf courses;*
> *d) Structures such as goal posts, cricket nets, fences and other similar structures which are ancillary to and used in conjunction with playing fields, sports grounds, hard courts, greens and golf courses;*
> *e) Lighting, including support structures;*
> *for the use and enjoyment of the public.*

The activity status for different activities within the Active Open Space Zone (Major) are set out through Table 13A.1 which classifies both community facilities and public recreational facilities and activities as a permitted activity within the Active Open Space Zone (Major), subject to compliance with Rule 13A.8. It is noted that Option 2 also integrates raised flood lighting of four lighting stands of between 30m – 40m above the filed surface, with these falling under the definition of public recreational facilities and activities.

Rule 4B.4(b) classifies any activity that provides more than 25 on-site carparks as a restricted discretionary activity, with the requirement for an integrated transport assessment to be provided to support an application for resource consent under this rule (see Rule 4B.4.1.1).

The table below provides a summary of the relevant performance standards contained within the City Plan.

Standard	Description
Chapter 4 – General Rules	
4B.2.3 On-Site Parking Requirements – General	a) The minimum on-site parking requirements in Appendix 4A: General Minimum Loading Requirements shall apply to all activities not otherwise provided for by Rule 4B.2.2 – On-Site Parking Requirements – City Centre Zone and Rule 4B.2.11 – On-Site Parking – Extensions and Alterations to a Lawfully Established Activity; b) All on-site parking shall be located within the site; d) Any activity (excluding activities in Rural Zones) required to provide parking and loading spaces in accordance with Rule 4B.2.3 a) and b) On-Site Parking requirements – General shall ensure that all areas on the site used for vehicle parking, access, manoeuvring and loading/unloading shall be formed and sealed with an all weather surface prior to the activity commencing.
4B.2.5 On-Site Manoeuvring	a) All activities with vehicle access to the strategic road network or collector roads as shown on the City Road Hierarchy Plan (see Diagram 1, Section 5, Plan Maps Part B) and not otherwise listed in Rule 4B.6 – Non-complying Activities, shall provide on-site manoeuvring such that all vehicles can enter and exit the site

	without reversing on to the road. Such manoeuvring shall be able to be executed in no more than a three-point turn; b) All activities shall provide on-site manoeuvring for a 90-percentile car in accordance with Appendix 4D: 90 Percentile Tracking Curve for a Car provided that reversing may be permitted only on to a local road where less than five carparks are provided on-site; f) Minimum aisle and accessway widths shall be 3 metres for a one-way flow and 5.5 metres for a two-way flow.
4B.2.6 Vehicle Loading Requirements	a) All activities, except those located within the City Centre Zone, shall provide loading spaces in accordance with Appendix 4A: General Minimum Loading Requirements. Where loading spaces are required, they shall be located: i) On the same site as the activity; ii) Exclusive of any vehicle parking space or manoeuvring area; iii) Where the loading/unloading space directly faces a road, it shall be set back at least 5 metres from the road boundary; c) Vehicle loading spaces shall be designed to accommodate a 90 percentile two-axle truck in accordance with Appendix 4E: 90 Percentile Tracking Curve for an 8 m Rigid Two-Axle Truck, and where articulated trucks and trailers or buses are to be used, loading spaces shall also be designed to accommodate these vehicles; d) Every vehicle loading space shall be of useable shape of the following dimensions: i) Minimum width of 3.5 metres; ii) Minimum depth of 8 metres; iii) Minimum height of 3.8 metres above ground or floor level.
4B.2.7 Site Access and Vehicle Crossings	a) The location of vehicle access points from an intersection shall be in accordance with Appendix 4G: Location of Access Points from Intersections; d) Vehicle crossing-point widths for other activities shall be a minimum width of 2.7 metres on the site boundary; e) Where vehicle entrance locations are altered, the crossing area no longer required shall be reinstated as verge and/or footpath and kerbs replaced. The cost of such work shall be borne by the owner of the property served by the former crossing; f) The minimum sight distance from vehicle access points shall be in accordance with Appendix 4H: Calculating Sight Distances;
4C.2.2 Earthworks - All Zones	In addition to Rule 4C.2.3 – Tauriko Business Estate through to Rule 4C.2.10 – Floodplains, Major Overland Flowpaths and Flood Prone Areas, earthworks are a Permitted Activity providing: a) They are ancillary to and carried out at the same time as physical works required to establish a Permitted Activity within that zone; b) Any earthworks, exposing more than $100m_2$ of area shall apply, as a minimum, the following erosion and sediment control measures (where applicable) to keep sediment on the site: i) A single access constructed to prevent vehicle tracking of material off the site; ii) A perimeter silt fence or other barrier; iii) Material stockpiles placed upslope of the silt fence or other barrier and covered when not in use; iv) Temporary or permanent downpipes connected to the stormwater system; v) Surface water diverted away from, or prevented from, running over bare soil; and vi) Sediment-laden water from the works area channelled to a retention area on the site. Rule 4C.2.2

<table>
<tr><td></td><td>b) shall not apply to earthworks that: have resource consent under the Bay of Plenty Regional Council Regional Natural Resources Plan or are ancillary to primary production;
c) Any single cut on a site 1.5 metres in height or higher (either as a single cut or combination of cuts) where the angle of cut is 45o or greater is retained either before construction of any building foundations or retained no later than 3 months after that cut being created. This rule shall not apply to earthworks in the Rural Zone unless those earthworks are associated with construction of a building;</td></tr>
<tr><td>4C.2.10 Floodplains, Major Overland Flowpaths and Flood Prone Areas</td><td>In addition to Rule 4C.2.2 – All Zones, earthworks within a floodplain, major overland flowpath or flood prone area shall:
a) Not exceed 10m³ in net volume of fill (based on ground level existing at 16 November 2020); and
b) Not raise the ground level (existing at 16 November 2020) by more than 300mm.</td></tr>
<tr><td>4E.2.10 Open Space Zones</td><td>a) The noise level from all activities in these zones shall not exceed the following noise limits within the boundary of Residential Zones, the Future Urban Zone or the Rural Residential Zone:<table><tr><th>Control Hours</th><th>Noise Level</th></tr><tr><td>daytime</td><td>45 dBA L_{eq}</td></tr><tr><td>night-time</td><td>35 dBA L_{eq} and
55 dBA L_{max}</td></tr></table>b) Rule 4E.2.10 a) – Open Space Zones shall not apply to outdoor recreational activities provided for as Permitted Activities in these zones; c) Every activity shall be conducted to ensure the activity, as well as traffic and people movement generated by the activity, is limited to between 0700 and 2200 Sunday to Thursday, and 0700 and 2400 Friday and Saturday;
e) Sound levels shall be measured in accordance with NZS 6801:2008 Acoustics - Measurement of Sound and assessed in accordance with NZS 6802:2008 Acoustics - Environmental Noise, or any superseding codes of practice and/or standards.</td></tr>
<tr><td>4E.2.14 Construction Noise</td><td>a) Construction noise from a site in any zone within the City shall not exceed the limits recommended in, and shall be measured and assessed in accordance with, NZS 6803:1999 Acoustics Construction Noise;
b) For construction activities being undertaken from 20 December – 10 January (inclusive) within the Mount Maunganui area from Adams Avenue to Grace Avenue, noise levels shall not exceed Rule 4E.2.1 – Residential Zones and Rural-Residential Zone.</td></tr>
<tr><td>4G.2.2 Commercial, Industrial and Open Space Zones</td><td>a) Activities shall be conducted to ensure artificial light spill from a site shall not exceed the following luminance levels, within the boundary of any site within the Residential Zones, Rural Residential Zone, and Rural Zones:<table><tr><th>Control Hours</th><th></th></tr><tr><td>daytime</td><td>25 lux</td></tr><tr><td>night-time</td><td>10 lux</td></tr></table>i) Luminance levels shall be measured vertically or horizontally anywhere along the affected site boundary.</td></tr>
<tr><td colspan="2">Chapter 13 – Open Space Zones</td></tr>
<tr><td>13A.8.1 Building Height</td><td>a) The maximum height of any building, with the exception of the Permitted Intrusions in Rule 4H.2.3 – Permitted Height and Viewshaft Protection Area Intrusions shall be:</td></tr>
</table>

<table>
<tr><td></td><td>
<table>
<tr><th colspan="2">Active Open Space Zone (Major)</th></tr>
<tr><td>Principal Buildings and structures</td><td>15 metres</td></tr>
<tr><td>Accessory Buildings and structures</td><td>6 metres</td></tr>
<tr><td>Public toilets and associated changing rooms (identified as minor public recreational facilities and activities)</td><td>6 metres</td></tr>
<tr><td>Lighting, including support structures</td><td>15 metres</td></tr>
</table>
b) Provided that no building or structure within any identified Viewshaft Protection Area, with the exception of the Permitted Intrusions in Rule 4H.2.3 – Permitted Height and Viewshaft Protection Area Intrusions shall exceed the maximum height identified within the Plan Maps (Part B).
</td></tr>
<tr><td>13A.8.2 Building Scale</td><td>The maximum gross floor area (GFA) of any building shall not exceed:
<table>
<tr><th colspan="2">Active Open Space Zone (Major)</th></tr>
<tr><td>Principal Buildings and structures</td><td>1500m^2</td></tr>
<tr><td>Accessory Buildings and structures</td><td>100m^2</td></tr>
<tr><td>Public toilets and associated changing rooms (identified as minor public recreational facilities and activities)</td><td>100m^2</td></tr>
</table>
</td></tr>
<tr><td>13A.8.3 Overshadowing</td><td>All buildings, with the exception of the Permitted Intrusions in Rule 4H.2.2 – Permitted Overshadowing Envelope Intrusions, shall be within the building envelope in accordance with Appendix 14C: Overshadowing.</td></tr>
<tr><td>13A.8.4 Setbacks</td><td>a) All buildings, with the exception of the Permitted Intrusions in Rule 4H.2.1 – Permitted Setback Intrusions, shall provide a minimum setback of 1.5 metres from a side or rear boundary.
b) All buildings shall be setback a minimum of 15 metres from Mean High Water Springs, excluding:
i) Minor structures and activities;
ii) Minor public recreational facilities and activities;
iii) Surf lifesaving activities and associated structures, excluding surf life saving buildings (and clubrooms);
iv) Buildings and structures located within the Tauranga Bridge Marina, Tauranga Marina and Marine Park Scheduled Site;
v) Areas separated by a formed legal road from the Coastal Marine Area. c) All buildings shall be setback a minimum of 10 metres from the edge of a bank of a permanently flowing river or stream, or wetland, excluding minor structures and activities and minor public recreational facilities and activities</td></tr>
<tr><td>13A.8.5 Streetscape</td><td>a) All buildings shall be set back a minimum of 3 metres from the front boundary of the site;
b) All buildings on a site adjoining a Road Widening designation shall have the setback measured from that designation boundary;
c) The provision of on-site parking shall not be located within the required streetscape setback.</td></tr>
<tr><td>13A.8.6 Establishment, Maintenance or Demolition of a Building or Structure</td><td>Areas disturbed by the establishment, maintenance or demolition of a building or structure shall be restored to the condition of the surrounding area at the completion of the works.</td></tr>
</table>

<u>Proposed Plan Change 27 (PPC27) – Flooding from Intense Rainfall</u>

The area of the site where the proposed stadium is to be located is affected by various PPC27 overlays, as detailed above. This plan change has legal effect.

The activity status for different activities within the PPC27 overlays are set out through Table 8D.1, with the relevant activity statuses as follows:

- 'New structures with 20m^2 or more gross floor area' are classified as a discretionary activity within a minor and major overland flow path (subject to Rule 8D.5), and a permitted activity within a flood prone area (subject to Rule 8D.3.5).

Major and Minor Overland Flow Path

Consent will be required as a discretionary activity under Rule 8D.5(a) for a new structure within an overland flow path.

Flood Prone Area

The permitted activity rules that apply to new structures in a flood prone area are included in Rule 8D.3.5, as follows:

> *Any activities located in a flood prone area shall:*
> *a) Be located in an area that has a flood depth of less than 300mm; and*
> *b) Have the following minimum freeboard level:*
> *i) 500mm for residential buildings and Marae; or*
> *ii) 300mm for business activities and industrial activities.*

Objectives and Policies

The objectives and policies of relevance to the proposal are included within the below table, along with an assessment of how the proposed development 'fits' within these.

Objective/Policy	
Chapter 4 – General Rules	
4B.1.2 Objective – Maintaining a Sustainable Transport Network	Transport-related effects of the subdivision, use and development of land do not compromise the integrated, safe, sustainable and efficient function of the transport network within the sub-region.
4B.1.2.2 Policy – Maintaining Road Function	By ensuring that traffic generation associated with the subdivision, use and development of land does not adversely affect the primary function of roads within the road hierarchy.
4B.1.2.3 Policy – Side Friction on Key Strategic Roads	By ensuring the continued efficient functioning of these key strategic roads: c) Cameron Road; by avoiding the creation of additional vehicle access points associated with the subdivision, use and development of land.
4B.1.3 Objective – Parking	Parking is provided that meets the demand of activities either on-site or in the vicinity to ensure that the safe, sustainable and efficient functioning of the adjoining transport network is maintained and that parking areas provide appropriate stormwater disposal.
4B.1.3.1 Policy – On-Site Parking Requirements	Ensuring that land use activities provide: a) A level of onsite vehicle parking that reflects anticipated demand; b) Bicycle parking that meets the requirements of Appendix 4C - Bicycle Parking Dimensions and Design Requirements, where bicycle parking is proposed to be provided;

	c) Parking and loading areas that are appropriately located and designed for their intended use; d) On-site parking and loading areas that are configured to provide for the practical and safe movement of vehicles on-site and off-site, and avoid, remedy or mitigate adverse effects on the safe and efficient operation of the transport network (including the function of roads as identified in the road hierarchy).
4B.1.3.2 Policy – On-Site Parking – Pedestrian Safety	By ensuring the safe and efficient movement of pedestrians is provided for within on-site parking, access and manoeuvring areas and at vehicle entry/exit points.
4B.1.3.4 Policy – Parking Areas and Stormwater Disposal	Ensuring that where large impervious areas of parking are provided appropriate methods of stormwater disposal are incorporated into the design of the car park.
4C.1.1 Objective – Earthworks	Earthworks are provided for and managed to ensure they do not adversely affect the environment, Plan Areas or cultural and heritage values.
4C.1.1.1 Policy – Stability	By ensuring that areas of cut and fill associated with site earthworks are managed to minimise the risk of instability and damage to other properties both during and after construction.
4C.1.1.2 Policy – Sediment Run-Off	By ensuring earthworks are managed to minimise sediment run-off from a site, particularly into the Council's stormwater system, through the adoption of suitable sediment and erosion controls.
4E.1.1 Objective – Noise	The generation of noise is reasonable for the nature and scale of individual activities, recognising the purpose and character of the underlying zone whilst minimising annoyance and disturbance on surrounding activities and sensitive zones.
4G.1.1 Objective – Lighting	To avoid the adverse effects of lighting from activities and any associated buildings, structures and signs on the surrounding environment.
4G.1.1.1 Policy – Advertising	By ensuring advertising illumination does not adversely effect the amenity of the surrounding environment, in particular sensitive zones, and the transport network.
4G.1.1.2 Policy – Light Spill	Ensuring that lighting is installed and operated so as not to generate adverse light spill effects on sensitive zones, adjoining properties and the transport network.
Chapter 13 – Open Space	
13A.4.1 Objective - Open Space Role and Function	The maintenance, enhancement and development of Open Space provides for a wide range of recreational, community and active living opportunities.
13A.4.1.1 Policy - Open Space Role and Function	By providing for the maintenance, enhancement and development of Open Space through: a) Identifying open space areas that cater to the needs of: i) Local neighbourhood reserves (Passive Open Space); ii) The City (Active Open Space); iii) The sub-region (Active Open Space (Major)); iv) Special Uses (Scheduled Sites); b) Identifying areas with natural character, ecological and conservation values (Conservation); c) Enabling a wide range of recreational, community and active living opportunities that caters to the needs of users to occur across each zone; d) Creating a safe physical environment by applying the following principles to use and development:

	i) Open space areas are well-defined and provide for convenient and safe movement without compromising security; ii) All publicly accessible areas are overlooked, and with clear sightlines and lighting providing maximum visibility; iii) Design Open space areas so the level of human activity is appropriate to the areas' location and purpose, deters crime and creates a sense of safety.
13A.4.2 Objective – Recognition of Reserve Management Plans	The development of Open Space is in accordance with approved Reserve Management Plans.
13A.4.2.1 Policy - Recognition of Reserve Management Plans	By ensuring that objectives, polices, actions and relevant development/landscape concept plans of an approved Reserve Management Plan are recognised and provided for through open space management and development.
13A.4.3 Objective – Bulk and Scale of Buildings and Structures	Buildings and structures are of a bulk and scale that is compatible with the surrounding environment
13A.4.3.1 Policy - Bulk and Scale of Buildings and Structures	By ensuring that the bulk and scale of buildings and structures in the Open Space Zones: a) Is restricted to a bulk and scale that: i) Avoids the impacts of building bulk and overshadowing on surrounding independent dwelling units, or activities including their outdoor living areas; ii) Ensures an adequate supply of daylight to adjacent sites to minimise overshadowing; iii) Provides a level of amenity consistent with the surrounding landscape character. b) Provides for larger buildings and structures on land zoned Active Open Space and Active Open Space (Major).
13A.4.4 Objective – Site Layout and Building Design	Development within Open Space Zones provides for an amenity consistent with the landscape character of the surrounding area.
13A.4.4.1 Policy - Site Layout and Building Design	By ensuring the layout and design of development in the Open Space Zones: a) Provides building setbacks between sites that ensure a physical separation of buildings between sites and limits the impact of building bulk on adjoining sites; b) Retains the majority of the site as Open Space; c) Ensures that buildings are setback from the road boundary to provide a consistent streetscape that provides opportunities for landscape planting.
13A.4.5 Objective – Open Space Character	The open space character of the City's reserves is maintained and enhanced.
13A.4.5.1 Policy - Open Space Character	By ensuring that the development in an Open Space Zone is assessed against: a) The Reserves Act purpose of the reserve and its role and function within the open space network; b) The location of the proposed development within the open space in relation to surrounding uses; c) The existing landform or topography (and the extent of earthworks); d) The size or proportion of the open space and its ability to absorb new buildings or structures and activities; e) Any positive or negative effects on access and connectivity to other open space, or areas of community activity;

	f) The ability of new buildings, structures or activities to enhance or detract from the existing visibility of the open space; g) The effects on indigenous flora and fauna, with an overall goal to retain existing indigenous vegetation and/or large specimen trees.
13A.4.6 Objective – Adverse Effects on the Surrounding Environment	Buildings, structures and activities on land zoned Open Space does not adversely affect the surrounding environment's amenity, landscape character, streetscape and/or heritage or cultural values.
13A.4.6.1 Policy - Adverse Effects on the Surrounding Environment	By ensuring that buildings, structures and activities on land zoned Open Space are designed, sited, operated and maintained to address the potential adverse effects: a) Of noise and light emissions; b) On the amenity values of the surrounding environment, including its landscape character and streetscape; c) On the amenity values of sites, buildings, places or areas of: i) Indigenous flora and fauna ii) Heritage, cultural or archaeological value.
13A.4.7 Objective – Public Access	Public access, for the recreational needs of the City, to and along the coastal environment, wetlands, rivers and streams is maintained and enhanced.
Chapter 8 – Natural Hazards	
8D.1.1 Objective - Avoidance or mitigation of flooding from intense rainfall	The flood risk to life, property and infrastructure resulting from subdivision, use and development of land is reduced over time taking into account the effects of climate change.
8D.1.1.2 Policy - Overland Flowpaths – General	Maintain the function of overland flowpaths to safely convey flood water and reduce risk to life, property and infrastructure by: a) Maintaining the water carrying capacity of an overland flowpath; b) Maintaining the water storage capacity of a major overland flowpath; c) Restricting activities that may obstruct an overland flowpath; d) Ensuring that the risk of flooding is not transferred to other people, property or infrastructure; and e) Ensuring that the minimum freeboard level of habitable rooms is 500mm above the flood level; and f) Demonstrating that safe evacuation during flood events is provided.
8D.1.1.4 Policy – Flood Prone Area - General	Requiring new buildings and additions to existing buildings (other than social and cultural buildings and critical buildings) within the flood prone area to mitigate risks from flood hazards by: a) Requiring that the minimum freeboard level of habitable rooms is 500mm above the flood level b) Ensuring that the risk of flooding is not transferred to other people, property or infrastructure; and c) Ensuring that business and industrial activities are designed to minimise damage to goods and internal fittings caused by flooding.

Information Requirements

We have identified the following technical inputs as being required to support an application for resource consent:

- Landscape and visual effects assessment
- Archaeological assessment
- Geotechnical assessment
- Civil engineering assessment
- Urban design assessment
- Acoustic assessment
- Lighting assessment (if applicable)
- Construction management plan
- Traffic impact assessment
- Lighting assessment

Consenting Risks

The consenting risk differs between the three options. Option 2 (without an arena roof) will have less risk from a consenting perspective than the other two options due to the smaller building mass, absence of an arena roof and lower height. Notwithstanding this, the key consenting risks associated with the proposal (option 2 – without an arena roof) are as follows:

- Landscape and visual effects associated with the height of the proposed stadium and associated light towers. These effects will be addressed through a landscape and visual effects assessment.
- Archaeological effects due to the earthworks required and the fact that an archaeological site affects the site. These effects will be addressed through an archaeological assessment, which will also address the need for an archaeological authority to be sought from Heritage New Zealand.

A pre-application meeting with Tauranga City Council would provide further guidance with respect to the likes of notification requirements etc.

Summary

The activity itself is anticipated and provided for within the Active Open Space Zone (Major). The proposal will however involve elements of non-compliance, which will require addressing through an assessment of environmental effects, which will be informed by the various technical inputs provided.

Of the two stadium options advanced for further assessment the one without a fully enclosed arena roof is considered more achievable from a planning perspective.

Appendix 7

EST. 1929

MALTBYS

DEFINING COSTS · MANAGING RISK · DELIVERING RESULTS

TAURANGA MULTI-FUNCTION EVENT FACILITY
FEASIBILITY OPTION ESTIMATES
DRAFT FOR REVIEW

March 2022

DEFINING COSTS, MANAGING RISK AND DELIVERING
RESULTS THAT ADD VALUE FOR OUR CLIENTS

AUCKLAND Level 2, Princes Court, 2 Princes Street Auckland 1140, PO Box 2176 Ph: 09 303 4394 www.maltbys.co.nz

TAURANGA STADIUM
FEASIBILITY/COST PLAN
Option 1 - 8,000 permanent seats & up to 2,700 temporary seats
Mar-22

MALTBYS
DEFINING COSTS · MANAGING RISK · DELIVERING RESULTS

	Quant.	Unit	Rate ($ NZD)	Total ($ NZD)	Comments
Demolition					
Allow to demolish existing clubhouse	320	m2	250	80,000	
Allow to demolish existing structures incl bleachers	1,865	m2	250	466,250	
Demolish/site scrape existing track and field	15,740	m2	45	708,300	
Bulk Excavation & filling					
Excavation, removal and backfill to internal spaces (Gym/WC/players facilities etc)	2,800	m3	150	420,000	Assumed 800 deep excavation
Excavation, removal and backfill to achieve levels for pitch	5,600	m3	150	840,000	Assumed 500 deep excavation
Excavation, removal and backfill to achieve levels for seating/bleachers	1,800	m3	150	270,000	Assumed 500 deep excavation
Piling and Ground Beams					
1,800 x 1,000 deep ground beam	329	m	2,430	799,470	
8,000 wide x 1,200 deep raft slab to internal spaces	1,217	m2	1,370	1,667,290	
Establishment	1	Item	50,000	50,000	
600 dia piles 30m deep	5,480	m	860	4,712,800	
1,200 dia piles 30m deep	1,522	m	1,510	2,298,220	
Piling to South and East seating stands	1,857	m2	550	1,021,350	Assumed piling likely - subject to further geotec
Internal Buildings/Structures		**Total**	**29,415,000**		
External façade incl roof	50	%	14,708,000		20yrs replacement, 10yrs maintenance
Internal basebuild and misc FF+E items	20	%	5,883,000		15yr full replacement, 5yr maintenance
Services	30	%	8,824,000		15yrs full replacement
Lower Level					
Players facilities including sports field access	970	m2	5,000	4,850,000	
Function Lobby/BOH	80	m2	5,000	400,000	
Multi sport club room	290	m2	5,000	1,450,000	
Core/Loading	260	m2	4,000	1,040,000	
Upper Level					
Function Space	1,000	m2	5,000	5,000,000	
Function BOH	330	m2	5,000	1,650,000	
Food and beverage	360	m2	6,000	2,160,000	
Multi sport club room	315	m2	5,000	1,575,000	
Gym	500	m2	5,000	2,500,000	
Toilet amenity	590	m2	8,000	4,720,000	
Media/Coach/Admin Facilities	220	m2	6,000	1,320,000	
Core Services	50	m2	15,000	750,000	
FF+E and ICT to above areas	1	item	2,000,000	2,000,000	
Seating					
Bleachers including foundations, framing and platform	3,449	m2	2,000	6,898,000	
Seating, handrails and hard fittings	8,000	seats	500	4,000,000	
Temporary seating	2,700	seats		2,000,000	Full temporary demountable tiered seating
Roof to stands					
Steel/CLT/Glulam frame to span 22m, cantilever of 16m over Western seating	6,000	m2	1,100	6,600,000	Steel roof members in excess of 2.0m deep
PVC or sim. roof over CLT frame (above)	6,000	m2	800	4,800,000	
Steel/CLT/Glulam frame to span 16m, cantilever of 8m over Eastern seating	2,700	m2	500	1,350,000	
PVC or sim. roof over CLT frame (above)	2,700	m2	800	2,160,000	
Steel/CLT/GlulLam frame to span 20m, cantilever of 11m over Southern seating	2,100	m2	900	1,890,000	
PVC or sim. roof over CLT frame (above)	2,100	m2	800	1,680,000	
Infrastructure and Siteworks					
1 - Main entry, including signage, street furniture, bollards, lighting and gates	1	No.	500,000	500,000	
2 - Alternative entries, including signage, street furniture, bollards, lighting and gates	8	No.	50,000	400,000	
3 - Community lawn, with planting beds, large trees and seating	3,600	m2	400	1,440,000	
4 - Central plaza, combination of concrete paving, planting, trees and furniture	7,500	m2	500	3,750,000	
5 - Reinforced turf to allow for temporary use for additional stand	2,500	m2	300	750,000	
6 - Sports field, including drainage, subgrade, field marking, irrigation etc. Allowance is for Desso or sim. Hybrid turf product	1	Item	2,000,000	2,000,000	Main pitch
7 - Car parking and service access area	5,000	m2	300	1,500,000	
8 - Paved concrete access driveways	900	m2	300	270,000	
9 - Mounds up to 1m height to cricket oval area	1	Item	300,000	300,000	
10 - Allowance for Cameron Road interface	1	Item	500,000	500,000	
Concrete stairs/access to stands	6	No.	100,000	600,000	
Access ramps and retaining	1	Item	500,000	500,000	
Allowance for secondary field	1	Item	1,000,000	1,000,000	Southern field
Floodlighting	1	Item	2,000,000	2,000,000	
Security/CCTV to entire stadium	1	Item	750,000	750,000	
Media screens/score boards and the like	1	Item	1,000,000	1,000,000	
Infrastructure services and drainage	1	Item	2,000,000	2,000,000	
Subtotal			**Sub-total**	**93,386,680**	
PROFESSIONAL FEES		Item	14%	13,074,135	
RESOURCE & BUILDING CONSENT FEES & CHARGES		Item	0.50%	532,000	
COUNCIL DEVELOPMENT CONTRIBUTIONS/UTILITY CHARGES		Item	1%	1,070,000	
CONTRACT WORKS INSURANCE		Item	0.25%	270,000	
CONSTRUCTION COST ESCALATION		Item		-	Excluded - timeframe to be determined
DESIGN AND PROJECT CONTINGENCY		Item	20%	21,667,000	
TOTAL CONSTRUCTION COST (Excl any finance, interest costs & GST)				**130,000,000**	**Say $130m with range of +/- 10%**

Note: Estimate is based on Warren and Mahoney Tauranga Multi-function Event Facility concept drawings dated 23 March 2022, together with Boffa Miskell Tauranga Stadium landscape concept dated 24 March 2022 and Stantec geotech/structural memo dated 29 March 2022

MALTBYS
DEFINING COSTS · MANAGING RISK · DELIVERING RESULTS

TAURANGA STADIUM
LIFE CYCLE COSTS
Option 1 - 8,000 permanent seats & up to 2,700 tempora

Construction Element	*Expected Lifespan*	*Yrs for calc*	*Total (Yr 0)*	*5 YR MAINT. $*	*YEARS 5*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*	*55*	*60*	*TOTAL LIFE COST OVER 60 YEARS*	*MAINTENANCE OVER 15 YEARS*
External façade incl roof																		
External façade incl roof	15-25 years	20	$ 2,941,600	$ 294,160	73,315	91,364	113,857	7,094,298	176,816	220,345	274,589	17,109,418	426,429	531,408	662,231	41,263,023	**$ 70,979,000**	**$ 279,000**
Internal basebuild and misc FF+E items	15-20 years	20	$ 5,883,000	$ 147,075	183,282	228,403	284,632	14,188,114	442,024	550,843	686,450	34,217,673	1,066,036	1,328,475	1,655,522	82,523,241	**$ 143,238,000**	**$ 696,000**
Services	10-15 years	15	$ 8,824,000	$ 176,480	219,926	274,068	17,076,932	425,619	530,399	33,048,687	823,694	1,026,472	63,958,544	1,594,080	1,986,513	123,777,848	**$ 253,567,000**	**$ 17,571,000**
Seating																		
Bleachers including foundations, framing and platform	50+ years	50	$ 6,898,000	$ 68,980	85,962	107,124	133,496	166,360	207,315	258,352	321,954	401,213	499,984	62,307,125	776,460	967,611	**$ 73,131,000**	**$ 327,000**
Seating, handrails and hard fittings	10-15 years	15	$ 4,000,000	$ 40,000	49,847	62,119	7,741,130	96,469	120,217	14,981,273	186,694	232,655	28,992,994	361,305	450,252	56,109,632	**$ 113,385,000**	**$ 7,853,000**
Roof to stands																		
Steel/CLT/Glulam frame to span 22m, cantilever of 16m over Western	15-25 years	20	$ 6,600,000	$ 66,000	82,248	102,496	127,729	15,917,313	198,359	247,191	308,045	38,388,006	478,384	596,154	742,916	92,580,892	**$ 156,370,000**	**$ 312,000**
PVC or sim. roof over CLT frame (above)	15-25 years	20	$ 4,800,000	$ 72,000	89,725	111,814	139,340	11,576,227	216,391	269,663	336,049	27,918,550	521,874	650,350	810,454	67,331,558	**$ 114,772,000**	**$ 341,000**
Steel/CLT/Glulam frame to span 16m, cantilever of 8m over Eastern seating	15-25 years	20	$ 1,350,000	$ 13,500	16,823	20,965	26,126	3,255,814	40,573	50,562	63,009	7,852,092	97,851	121,941	151,960	18,937,001	**$ 31,985,000**	**$ 64,000**
PVC or sim. roof over CLT frame (above)	15-25 years	20	$ 2,160,000	$ 32,400	40,376	50,316	62,703	5,209,302	97,376	121,348	151,222	12,563,347	234,843	292,657	364,704	30,299,201	**$ 51,647,000**	**$ 153,000**
Steel/CLT/GlulLam frame to span 20m, cantilever of 11m over Southern seating	15-25 years	20	$ 1,890,000	$ 18,900	23,553	29,351	36,577	4,558,140	56,803	70,787	88,213	10,992,929	136,992	170,717	212,744	26,511,801	**$ 44,779,000**	**$ 89,000**
PVC or sim. roof over CLT frame (above)	15-25 years	20	$ 1,680,000	$ 25,200	31,404	39,135	48,769	4,051,680	75,737	94,382	117,617	9,771,492	182,656	227,622	283,659	23,566,045	**$ 40,170,000**	**$ 119,000**
Infrastructure and Siteworks																		
Sports Field (Main & 2nd field)	10-15 years	15	$ 3,000,000	$ 45,000	56,078	69,884	5,805,847	108,527	135,245	11,235,954	210,031	261,736	21,744,745	406,469	506,534	42,082,224	**$ 85,623,000**	**$ 5,932,000**
Floodlighting	10-15 years	15	$ 2,000,000	$ 30,000	37,385	46,589	3,870,565	72,351	90,163	7,490,636	140,020	174,491	14,496,497	270,979	337,689	28,054,816	**$ 57,082,000**	**$ 3,955,000**
Security/CCTV to entire stadium	10-15 years	15	$ 750,000	$ 11,250	14,020	17,471	1,451,462	27,132	33,811	2,808,989	52,508	65,434	5,436,186	101,617	126,633	10,520,556	**$ 21,406,000**	**$ 1,483,000**
Media screens/score boards and the lik	5-10 years	10	$ 1,000,000	$ 15,000	18,693	1,552,969	29,029	2,411,714	45,082	3,745,318	70,010	5,816,365	108,724	9,032,636	168,845	14,027,408	**$ 38,027,000**	**$ 1,601,000**
Subtotal			**$ 53,776,600**	**$ 1,055,945**	**1,022,638**	**2,804,068**	**36,948,194**	**69,159,059**	**2,466,311**	**75,194,329**	**3,830,105**	**166,791,873**	**138,382,740**	**77,993,535**	**9,237,118**	**658,552,856**	**$ 1,296,161,000**	**$ 40,775,000**

NOTES:

a) * Denotes ongoing maintenance required for 'expected lifespan'
b) Excludes demolition and salvage value of materials, bulk excavation and filling, piling and substructures, landscaping, parking, paving and drainage etc
c) Inflation included per annum at 4.5% (Estimated, excludes current hyper inflation due to COVID market effects)
d) Maintenance figures exclude access costs for operation cost comparison
e) Products above are external and will have other subframing and structural supports that are not included in the above
f) Excludes temporary seating and loose items

Cost outlay at year 0	$ 130,000,000	
Cost per year from year 1	$ 19,436,017	$ 2,718,333
percentage of construction cost per year	15%	2%

TAURANGA STADIUM
FEASIBILITY/COST PLAN
Option 2 (Exhibition option) - 8,000 permanent seats & up to 2,700 temporary seats
Mar-22

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	Quant.	Unit	Rate ($ NZD)	Total ($ NZD)	Comments
Demolition					
Allow to demolish existing clubhouse	320	m2	250	80,000	
Allow to demolish existing structures incl bleachers	1,865	m2	250	466,250	
Demolish/site scrape existing track and field	15,740	m2	45	708,300	
Bulk Excavation & filling					
Excavation, removal and backfill to internal spaces (Gym/WC/players facilities etc)	2,800	m3	150	420,000	Assumed 800 deep excavation
Excavation, removal and backfill to achieve levels for pitch	5,600	m3	150	840,000	Assumed 500 deep excavation
Excavation, removal and backfill to achieve levels for seating/bleachers	1,800	m3	150	270,000	Assumed 500 deep excavation
Piling and Ground Beams					
1,800 x 1,000 deep ground beam	329	m	2,430.00	799,470	
8,000 wide x 1,200 deep raft slab to internal spaces	1,217	m2	1,370.00	1,667,290	
Establishment	1	Item	50,000	50,000	
600 dia piles 30m deep	5,480	m	860	4,712,800	
1,200 dia piles 30m deep	1,522	m	1,510.00	2,298,220	
Piling to South and East seating stands	1,857	m2	550	1,021,350	Assumed piling likely - subject to further geotec
Internal Buildings/Structures		**Total**	**36,065,000**		
External façade incl roof	50	%	18,033,000		20yrs replacement, 10yrs maintenance
Internal basebuild and misc FF+E items	20	%	7,213,000		15yr full replacement, 5yr maintenance
Services	30	%	10,819,000		15yrs full replacement
Lower Level					
Players facilities including sports field access	970	m2	5,000	4,850,000	
Function Lobby/BOH	80	m2	5,000	400,000	
Multi sport club room	290	m2	5,000	1,450,000	
Core/Loading	260	m2	4,000	1,040,000	
Exhibition space	1,500	m2	4,000	6,000,000	
Upper Level					
Function Space	1,000	m2	5,000	5,000,000	
Function BOH	330	m2	5,000	1,650,000	
Food and beverage	360	m2	6,000	2,160,000	
Multi sport club room	315	m2	5,000	1,575,000	
Exhibition space	750	m2	5,000	3,750,000	
Toilet amenity	545	m2	8,000	4,360,000	
Media/Coach/Admin Facilities	180	m2	6,000	1,080,000	
Core Services	50	m2	15,000	750,000	
FF+E and ICT to above areas	1	item	2,000,000	2,000,000	
Seating					
Bleachers including foundations, framing and platform	3,449	m2	2,000	6,898,000	
Seating, handrails and hard fittings	8,000	seats	500	4,000,000	
Temporary seating	2,700	seats		2,000,000	Full temporary demountable tiered seating
Roof					
Steel/CLT/Glulam frame to span 22m, cantilever of 16m over Western seating	6,000	m2	1,100	6,600,000	Steel roof members in excess of 2.0m deep
PVC or sim. roof over CLT frame (above)	6,000	m2	800	4,800,000	
Steel/CLT/Glulam frame to span 16m, cantilever of 8m over Eastern seating	2,700	m2	500	1,350,000	
PVC or sim. roof over CLT frame (above)	2,700	m2	800	2,160,000	
Steel/CLT/GlulLam frame to span 20m, cantilever of 11m over Southern seating	2,100	m2	900	1,890,000	
PVC or sim. roof over CLT frame (above)	2,100	m2	800	1,680,000	
Infrastructure and Siteworks					
1 - Main entry, including signage, street furniture, bollards, lighting and gates	1	No.	500,000	500,000	
2 - Alternative entries, including signage, street furniture, bollards, lighting and gates	8	No.	50,000	400,000	
3 - Community lawn, with planting beds, large trees and seating	3,600	m2	400	1,440,000	
4 - Central plaza, combination of concrete paving, planting, trees and furniture	7,500	m2	500	3,750,000	
5 - Reinforced turf to allow for temporary use for additional stand	2,500	m2	300	750,000	
6 - Sports field, including drainage, subgrade, field marking, irrigation etc. Allowance is for Desso or sim. Hybrid turf product	1	Item	2,000,000	2,000,000	Main pitch
7 - Car parking and service access area	5,000	m2	300	1,500,000	
8 - Paved concrete access driveways	900	m2	300	270,000	
9 - Mounds up to 1m height to cricket oval area	1	Item	300,000	300,000	
10 - Allowance for Cameron Road interface	1	Item	500,000	500,000	
Concrete stairs/access to stands	6	No.	100,000	600,000	
Access ramps and retaining	1	Item	500,000	500,000	
Allowance for secondary field	1	Item	1,000,000	1,000,000	Southern field
Floodlighting	1	Item	2,000,000	2,000,000	
Security/CCTV to entire stadium	1	Item	750,000	750,000	
Media screens/score boards and the like	1	Item	1,000,000	1,000,000	
Infrastructure services and drainage	1	Item	2,000,000	2,000,000	
Subtotal			**Sub-total**	**100,036,680**	
PROFESSIONAL FEES		Item	14%	14,005,135	
RESOURCE & BUILDING CONSENT FEES & CHARGES		Item	0.50%	570,000	
COUNCIL DEVELOPMENT CONTRIBUTIONS/UTILITY CHARGES		Item	1%	1,146,000	
CONTRACT WORKS INSURANCE		Item	0.25%	289,000	
CONSTRUCTION COST ESCALATION		Item		-	Excluded - timeframe to be determined
DESIGN AND PROJECT CONTINGENCY		Item	20%	23,209,000	
TOTAL CONSTRUCTION COST (Excl any finance, interest costs & GST)				**139,256,000**	**Say $139m with range of +/- 10%**

Note: Estimate is based on Warren and Mahoney Tauranga Multi-function Event Facility concept drawings dated 23 March 2022, together with Boffa Miskell Tauranga Stadium landscape concept dated 24 March 2022 and Stantec geotech/structural memo dated 29 March 2022

MALTBYS
DEFINING COSTS · MANAGING RISK · DELIVERING RESULTS

TAURANGA STADIUM
LIFE CYCLE COSTS
Option 2 (Exhibition option) - 8,000 permanent seats & u

Construction Element	*Expected Lifespan*	*Yrs for calc*	*Total (Yr 0)*	*5 YR MAINT. $*	*YEARS 5*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*	*55*	*60*	*TOTAL LIFE COST OVER 60 YEARS*	*MAINTENANCE OVER 15 YEARS*
Internal Buildings/Structures																		
External façade incl roof	15-25 years	20	$ 3,606,600	$ 360,660	89,890	112,019	139,596	8,698,088	216,788	270,157	336,665	20,977,300	522,831	651,542	811,940	50,591,249	**$ 87,025,000**	**$ 342,000**
Internal basebuild and misc FF+E items	15-20 years	20	$ 7,213,000	$ 180,325	224,718	280,039	348,980	17,395,693	541,955	675,374	841,639	41,953,437	1,307,040	1,628,810	2,029,794	101,179,693	**$ 175,620,000**	**$ 854,000**
Services	10-15 years	15	$ 10,819,000	$ 216,380	269,649	336,032	20,937,821	521,847	650,316	40,520,597	1,009,921	1,258,545	78,418,800	1,954,482	2,435,640	151,762,526	**$ 310,895,000**	**$ 21,544,000**
Seating																		
Bleachers including foundations, framing and platform	50+ years	50	$ 6,898,000	$ 68,980	85,962	107,124	133,496	166,360	207,315	258,352	321,954	401,213	499,984	62,307,125	776,460	967,611	**$ 73,131,000**	**$ 327,000**
Seating, handrails and hard fittings	10-15 years	15	$ 4,000,000	$ 40,000	49,847	62,119	7,741,130	96,469	120,217	14,981,273	186,694	232,655	28,992,994	361,305	450,252	56,109,632	**$ 113,385,000**	**$ 7,853,000**
Roof to stands																		
Steel/CLT/Glulam frame to span 22m, cantilever of 16m over Western	15-25 years	20	$ 6,600,000	$ 66,000	82,248	102,496	127,729	15,917,313	198,359	247,191	308,045	38,388,006	478,384	596,154	742,916	92,580,892	**$ 156,370,000**	**$ 312,000**
PVC or sim. roof over CLT frame (above)	15-25 years	20	$ 4,800,000	$ 72,000	89,725	111,814	139,340	11,576,227	216,391	269,663	336,049	27,918,550	521,874	650,350	810,454	67,331,558	**$ 114,772,000**	**$ 341,000**
Steel/CLT/Glulam frame to span 16m, cantilever of 8m over Eastern seating	15-25 years	20	$ 1,350,000	$ 13,500	16,823	20,965	26,126	3,255,814	40,573	50,562	63,009	7,852,092	97,851	121,941	151,960	18,937,001	**$ 31,985,000**	**$ 64,000**
PVC or sim. roof over CLT frame (above)	15-25 years	20	$ 2,160,000	$ 32,400	40,376	50,316	62,703	5,209,302	97,376	121,348	151,222	12,563,347	234,843	292,657	364,704	30,299,201	**$ 51,647,000**	**$ 153,000**
Steel/CLT/GlulLam frame to span 20m, cantilever of 11m over Southern seating	15-25 years	20	$ 1,890,000	$ 18,900	23,553	29,351	36,577	4,558,140	56,803	70,787	88,213	10,992,929	136,992	170,717	212,744	26,511,801	**$ 44,779,000**	**$ 89,000**
PVC or sim. roof over CLT frame (above)	15-25 years	20	$ 1,680,000	$ 25,200	31,404	39,135	48,769	4,051,680	75,737	94,382	117,617	9,771,492	182,656	227,622	283,659	23,566,045	**$ 40,170,000**	**$ 119,000**
Infrastructure and Siteworks																		
Sports Field (Main & 2nd field)	10-15 years	15	$ 3,000,000	$ 45,000	56,078	69,884	5,805,847	108,527	135,245	11,235,954	210,031	261,736	21,744,745	406,469	506,534	42,082,224	**$ 85,623,000**	**$ 5,932,000**
Floodlighting	10-15 years	15	$ 2,000,000	$ 30,000	37,385	46,589	3,870,565	72,351	90,163	7,490,636	140,020	174,491	14,496,497	270,979	337,689	28,054,816	**$ 57,082,000**	**$ 3,955,000**
Security/CCTV to entire stadium	10-15 years	15	$ 750,000	$ 11,250	14,020	17,471	1,451,462	27,132	33,811	2,808,989	52,508	65,434	5,436,186	101,617	126,633	10,520,556	**$ 21,406,000**	**$ 1,483,000**
Media screens/score boards and the lik	5-10 years	10	$ 1,000,000	$ 15,000	18,693	1,552,969	29,029	2,411,714	45,082	3,745,318	70,010	5,816,365	108,724	9,032,636	168,845	14,027,408	**$ 38,027,000**	**$ 1,601,000**
Subtotal			**$ 57,766,600**	**$ 1,195,595**	**1,130,371**	**2,938,322**	**40,899,170**	**74,066,656**	**2,726,130**	**82,840,583**	**4,233,597**	**178,627,593**	**153,180,402**	**78,774,407**	**10,210,226**	**714,522,214**	**$ 1,401,917,000**	**$ 44,969,000**

NOTES:

a) * Denotes ongoing maintenance required for 'expected lifespan'
b) Excludes demolition and salvage value of materials, bulk excavation and filling, piling and substructures, landscaping, parking, paving and drainage etc
c) Inflation included per annum at 4.5% (Estimated, excludes current hyper inflation due to COVID market effects)
d) Maintenance figures exclude access costs for operation cost comparison
e) Products above are external and will have other subframing and structural supports that are not included in the above
f) Excludes temporary seating and loose items

Cost outlay at year 0	$ 139,256,000	
Cost per year from year 1	$ 21,044,350	$ 2,997,933
percentage of construction cost per year	15%	2%

Appendix 8

8

Tauranga City Council

High Level Funding Strategy

Tauranga Stadium

31 March 2022

Tauranga Stadium - High Level Funding Assessment

1.0 Purpose

The purpose of this high-level funding assessment is to help guide early strategic decision making to enable the proposed stadium to leverage as much external funding as possible from a diverse range of sources.

Discussions with funders and further analysis will need to be undertaken to test these assumptions. They are based on funds raised by the author for stadium projects and other similar projects across New Zealand.

2.0 Potential Funding Sources

The proposed Stadium has the ability to secure external funds from a variety of sources. A high-level breakdown is provided below.

Table 1: High level funding breakdown

Funding source	Fund	Amounts
Central Government	LGB Significant Projects Fund	$6,000,000
	LGB Community Facilities Fund	$800,000
	Central Government support into Tauranga	$20,000,000
Local Government	TCC	unknown
	BOP Regional Council	$5,000,000
Corporate & Philanthropic partners		$5,000,000
Founding Partner	TECT	$20,000,000
Trusts	Gaming and Community	$3,000,000
Total		**$59,800,000**

2.1 Central Government

The Significant Projects Fund has a strong history of making grants to a range of sporting stadiums and multi-purpose hubs across the country. The regional significance of the proposed Stadium lends itself to funding from the Significant Projects Fund. To be eligible a project must:

- *Be for a community purpose for public use in New Zealand*
- *Have a total cost of $3 million or more*
- *Provide regional or national benefits or outcomes in sport or recreation*

The concept of a 'peoples stadium' with 95% bookings being made available for community use makes this stadium a unique offering in New Zealand. Given this strong focus on 'community' an application should be made to the Lottery Community Facilities Fund. Generally, their contributions range from $800,000 down to $300,000 for projects of this size and scale.

In addition to the two funds identified above, a further approach should be made to the Government for $20M. Previously the government has funded both the Forsyth Barr Stadium and the then AMI Stadium in Christchurch $15M each. Yarrow Stadium has also received $20M from the Government via the 'shovel ready' fund. There is an opportunity to have a wider strategic discussion with the Government for support of this project.

2.2 Local Government

As the total project cost is unknown, this report has not estimated the shortfall that Tauranga City Council will need to commit to.

The Bay of Plenty Regional Council should be approached to discuss the possibility of a grant via a regional rate given the region-wide benefits of the proposed Stadium. It is not uncommon for Regional Council's to financially contribute towards a project that will deliver positive benefits and outcomes across their region. An *estimated* figure of $5M has been identified, however this would need greater consideration and analysis.

2.3 Corporate and Philanthropic Partners

The proposed stadium will be a 'clean stadium' with no naming rights or sponsorship attached to specific aspects of the facility. This is a unique approach as most large stadiums in New Zealand generally have corporate sponsors for both the name of the facility as well as naming rights associated with stands, corporate boxes, changing facilities and function spaces.

The rationale for a 'clean stadium' is that it will enable other revenue streams to be explored via greater opportunities for venue hireage. These opportunities have been explored elsewhere in the report.

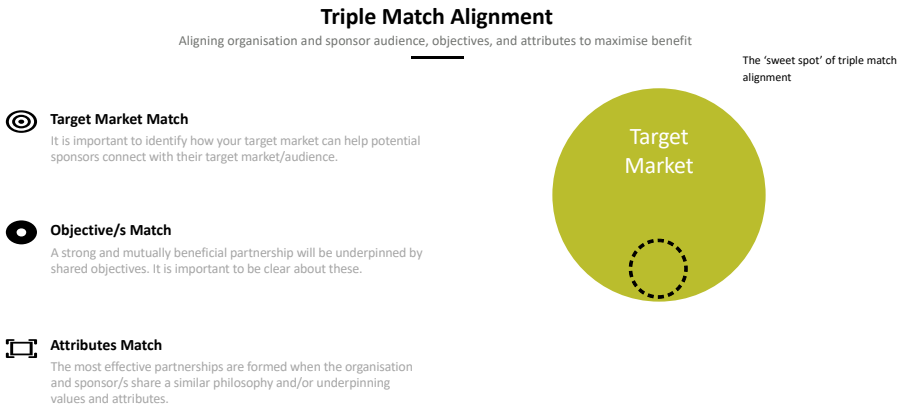
Given the regional significance, the multi-purpose functionality, and the genuine desire to have a truly 'fit for purpose' user centric community facility for Tauranga, the proposed Stadium will have the ability to attract both corporate and philanthropic partners. These partners can be recognised within the facility without compromising the 'clean stadium' concept.

There will not be opportunities for any corporate return on investment (in the traditional sense) in terms of brand exposure, awareness and partner activation for this facility. Therefore, a well thought out 'Case for Investment' focusing on the social and economic benefits to the region will need to be developed to attract investment from corporates and philanthropists. The guiding principles of being open and accessible, a welcoming place with strong links to Mauao, the carefully considered location and focus on the user experience should be clearly articulated in the 'Case for Investment'.

Partners are most likely to be from within Tauranga and the wider Bay of Plenty region, who have a strong sense of pride in their community and who want to invest back in ensuring Tauranga has an appropriate stadium to meet the needs of its existing and future residents. It would be unlikely that a national or international corporate would engage without any naming rights or return on investment.

A partnership framework should be developed, including using the triple match alignment process outlined below, to ensure any potential partners approached are aligned to the philosophy and guiding principles of the project. The more aligned a potential partner/donor is with the project's audience, attributes, and objectives, the more likely a match will be made, and they will be retained as a long-term partner.

Figure 1: Triple Match Theory



It is recommended, in the case of donations to the project, that a registered Charitable Trust should be the recipient of donations. As a registered charity, a Trust would be able to offer partners/donors the benefit of a tax rebate on donations. Companies may also claim a deduction on charitable giving. The position of donations is as follows:

> *Companies may claim a deduction for any gift to a charitable organisation. The available deduction is limited to the net income of the company for that year before making the deduction.*
>
> *Individuals may claim a tax credit for any gift of $5 or more to a charitable organisation(s). The tax credit is one-third of the donation made, limited to the individual's taxable income in that tax year*.

2.4 TECT

The project will need a founding partner to help leverage other funding partners on board. TECT lends itself as a solid founding partner given the regional significance and compelling community focus of project. This would be part of a wider long-term partner approach across a range of Tauranga projects such as facilities within the Civic Precinct (Library and Community Hub, Civic Plaza, Museum and Exhibition Centre, Civic Whare) and the Memorial Park Aquatics and Recreational Hub. A contribution of $20m over two years should be sought.

2.5 Trusts

Trust funding is an established and often used avenue for generating revenue at a variety of levels for sporting infrastructure projects. This form of funding is particularly relevant to the proposed Stadium project because of the benefits it will bring as a much-needed community facility for Tauranga. A key consideration however is the reliance the proposed user groups already have on gaming trusts for their operations. It is critical that any capital-related trust funding applications for the project do not threaten the annual gaming income for these key organisations, so it is advised to spread the targeted amounts over two/three years.

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There are a number of gaming and community trusts available in the Bay of Plenty region that can be applied to. Traditionally, the Trust sector has been a significant funder of large stadiums. The community and user centric focus of the project would algin well to both gaming and community trusts.

For a project of this size and scope, a strategic approach is required to secure funds, especially as the amount of money gaming trusts have to distribute is trending downwards. A coordinated and diversified approach to trust funding should be undertaken to secure maximum revenue through as many different trusts as possible. This can be achieved through establishing key relationships, understanding the needs of trusts, and being able to show the value the trust funding will provide to the community. Early conversations with the trust sector and an investment in relationship management should be a priority.

3.0 Comparative Analysis

3.1 Yarrow Stadium

In 2017 and 2018 the two main grandstand at Yarrow Stadium were declared earthquake prone and closed. Following full consideration of public consultation submissions, specialist advice and analysis and the Stadium's wider strategic objectives, the Taranaki Regional Council and New Plymouth District Council resolved in May 2019 to proceed with a repair and refurbishment of the stadium at a cost of $50M. The refurbishment will provide for 30,000 seating capacity.

$30M is being funded by rate payers and the remaining $20M is being covered by a Government grant under the 'shovel-ready' economic stimulus package to kick-start work on major projects.

3.2 Te Kaha/Canterbury Multi-Use Arena

In 2020 the Government and Christchurch City Council approved the multi-functional areas to be built in Christchurch. Council has allocated $303M and the Government has approved $220M from the Christchurch Regeneration Acceleration Fund.

The arena will have a roof, minimum seating capacity of 25,000 with potential to add up to 30,000 seats, a fixed rectangular turf, high quality acoustics.

3.3 Forsyth Barr

Forsyth Barr is a multi-purpose indoor sports stadium opened in 2011. The total cost was $224.3M with Dunedin City Council contributing $152.7M, Otago Regional Council $37.5M, Central Government $15M, Trusts $8.3M, Otago University $10M, corporate partnerships $0.7M and a further $0.2M from the Rugby World Cup Fund and profit on the sale of catering equipment.

The arena is fully roofed and has five lounges, four stands and twelve food and beverage outlets. It has seating capacity for 30,000 and holds concerts for 36,000.

3.4 McLean Park - Napier

The rebuild of the Graeme Lowe Stand at McLean Park in Napier was completed in 2009 and cost $13M. Funding was secured from Napier City Council $6M, the Lottery Grants Board, Significant Projects Fund $3M, corporate fundraising $3M and trust funding $1M.

It has a capacity of 19,700 and is used for cricket, rugby and has also hosted rugby league fixtures.

3.5 Sky Stadium – Wellington

Opened in 2000 the total cost of the then Westpac Trust Stadium was $130M. This was funded by Wellington Regional Council $25M, Wellington City Council $15M, Trusts $7M, corporate and other fundraising $50M and a loan from ANZ $33M.

The stadium hosts cricket, football, rugby and rugby league along with concerts and exhibitions. It has seating for 34,500 and can hold concerts for 46,000.

Table 2: Breakdown of Funding Sources for Stadiums

Venue	Cost	Central Govt	Local Govt	Corporates	Trusts	Other
Yarrow Stadium	$50.0	$20.0	$30.0			
Te Kaha - Canterbury		$220.0	$303.0			
Forsyth Barr – Dunedin	$224.3	$15.0	$192.2	$0.7	$8.3	$10.2
McLean Park Napier	$13.0	$3.0	$6.0	$3.0	$1.0	
Sky Stadium -Wellington	$130.0		$40.0	$50.0	$7.0	$33.0

4.0 Fundraising Risks

There are a number of potential risks that need to be considered and where possible mitigated in order for the fundraising to be successful.

Ensuring that key stakeholders are consistently on message and remain positive throughout the life of the project. This includes being clear on the proposed Stadium's purpose, outcomes, community benefits as well as having consensus around processes and decisions made. It can be difficult securing external funding if funders perceive any internal conflicts, mixed messaging or significant stakeholder opposition to a project. Similarly with projects such as the scale and size of the proposed Stadium, there may be a nervousness within the community as to cost and need. These concerns need to be managed and the community kept regularly informed of the project.

As Tauranga City Council embarks on substantial infrastructure investment, it is crucial that a city-wide integrated infrastructure investment funding strategy is developed and within that strategy smaller revenue generation strategies should be developed for each facility. Projects will struggle to secure external funding if they are competing against each other. Approaches will need to be strategic, carefully articulated, managed, and spread across realistic timeframes.

The inability to bring on board a founding partner such as TECT, (estimated to contribute $20M) is a high risk for the project. Bringing a founding partner on board early to help with decision making, becoming a project advocate/ambassador and helping to attract other funders will be vital to the project's success. Conversations need to commence straightaway, and any approach will need to sit within the wider infrastructure investment conversation. A partner such as TECT will not only provide capital investment but will help leverage other funder investment and give confidence to the fundraising campaign.

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Given the number of projects projected for Tauranga, there is a risk of fundraising fatigue from funders and the wider community. This has occurred in other regions such as Canterbury where large-scale infrastructure projects have sought high levels of external investment. Funders can become weary of continued applications, therefore it is critical to share the wider strategic vision for infrastructure investment early on, and continue to communicate, engage and provide updates on progress.

5.0 Recommendations

- Establish a long-term funding partnership with TECT as a founding partner of the Stadium. $10m per year for two years will enable Tauranga City Council to leverage external investment for the proposed stadium.
- A ***compelling case for investment*** should be developed to support funding applications/approaches. This needs to include the overwhelming growth Tauranga is facing, the lack of investment by previous councils, social and economic outcomes that will be delivered back to the community.
- A wider strategic conversation needs to be held with Central Government seeking investment into Tauranga. This needs to occur reasonably quickly and the compelling case for investment should support these discussions. Yarrow Stadium, Forsyth Barr and the previous AMI Stadium have all received significant funds from Central Government.
- A more detailed external ***Revenue Generation Strategy*** will need to be developed for the project and should be integrated with other proposed projects such as the civic precinct and spaces and places projects.
- Within the Revenue Generation Strategy, a detailed corporate and philanthropic framework that is cognisant of a 'clean stadium' (partner tiers/recognition/engagement) will need to be developed. Gaming, community and private trusts would be identified along with a detailed timeline of when to make an approach and for which aspects of the project. The Revenue Generation Strategy will need to be integrated into the wider developments in Tauranga such as the Civic Precinct and the Spaces and Places, so projects are not competing for funding.
- A detailed stakeholder and community engagement/communications strategy should underpin the ***Revenue Generation Strategy*** to ensure stakeholders and the wider community are engaged and informed throughout the life of the project.
- A regional rate via the Bay of Plenty Regional Council should be explored, this should be part of a wider strategic conversation including the Museum & Exhibition Centre given the regional significance of both projects to the Bay of Plenty. Stadiums such as Forsyth Barr, Yarrow and Sky Stadium have all benefited from Regional Council funding.
- Internal resourcing within Tauranga City Council will be required to lead this piece of work, ensuring consistency across all external investment, developing internal processes and policies. This should also include resourcing for relationship management, partner retention and activation activities.
- An independent economic assessment should be commissioned to support funding applications particularly into Central Government, Bay of Plenty Regional Council and TECT.
- A Charitable Trust should be established and registered with the Charities Commission to accept donations from corporate and philanthropic partners.

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6.0 Capital Raising Next Steps

The proposed Stadium is in the very early **Strategic Phase** of assessing funding opportunities. Creating a sound strategic foundation is vital to attracting significant funds to a project. This requires the establishment of key relationships, understanding the needs of funders and being able to show the value the funding will provide to the community at a variety of levels. A detailed Revenue Generation Strategy should be undertaken before moving to the next phase.

The **Development Phase** of a funding campaign typically includes the development of marketing material (e.g. sponsorship collateral), community campaigns and funder/partnership research. This is a vital stage to ensure that approaches to funders are given the best chance of success.

The **Implementation Phase** is where pre-planning and development of information, material and campaigns align to achieve a cohesive and compelling case (that outlines community support and need) to attract funding. Approaches should be executed by a capable resource that has an intimate knowledge of the organisation, understands a funder's objectives and can act flexibly in the negotiation process.

The **Evaluation Phase** sees the maintenance of partnerships, evaluation of effectiveness and, all going well, re-signing of partners for future support.

Figure 2: Capital Raising Methodology

7.0 Revenue Generation Strategy

A Revenue Generation strategy identifies benchmarked targets for where funding should be sought, how each source should be approached and when applications or approaches should be made for the project. Support for the project may be in-kind or cash. Some funders will want to contribute to specific parts of the project. Other funders will not necessarily want to "tag" their funding to any specific aspect.

The strategy would identify infrastructure and activities required to support the capital raising campaign. The strategy should also recommend a process to build a community campaign in order to demonstrate public support for the project so that it will be attractive to funders, donors and sponsors.

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Figure 3: Revenue Generation Strategy

Appendix 9

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Tauranga Multi Function Stadium Facility

Feasibility study – Financial Analysis

Prepared for Visitor Solutions Limited
March 2022

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Financial Model - Tauranga Multi-Function Stadium Facility

Overview of Approach

The expected annual costs of the Tauranga Multi-Function Stadium Facility (TMFSF) were determined through the development of a financial model ('the model'). The costs of the TMFSF comprise:

- Capital costs for the development, design and construction of the facility.
- Operating costs and revenues relating to the operation of the faclity.
- Lifecycle costs covering the refurbishment of the facility components.

The financial model was constructed based on costs, revenue and funding assumptions and estimates obtained from Tauranga City Council (TCC), Maltbys (Quantity Surveyors), domestic and international events arena experts including Visitor Solutions and other appropriate public sources of information.

A summary of the key inputs and assumptions in the Model, and their respective sources are detailed below:

	Assumption	Source
Land	Land is assumed to be provided to the project at no cost as the development is replacing an existing facility.	TCC
Construction Timing	FY26 (12 Months)	Warren & Mahoney
Escalation on construction costs	CY22 5.4% CY23 6.3% CY24 5.8%	Maltbys
Depreciation	Depreciation on property, plant and equipment is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives. The useful lives associated with the depreciation rates of major classes of property, plant and equipment have been estimated as follows: • Building shell fit-out 20-50 years (2% to 5%) • Furniture, fittings, plant & equipment 10-15 years (7% to 10%)	Inland Revenue Department, benchmarked against other publicly disclosed financial statements.
Model period	54 years	Deloitte
Operations period	50 years	Deloitte
Inflation	~2% (applied to income and operating expenditure). Discount Rates and CPI Assumptions for Accounting Valuation Purposes (treasury.govt.nz)	NZ Treasury
NPV Date	Jul-22	Deloitte
GST & Tax	Excluded The facilities will be operated by a Trust or other non-tax paying entity.	

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Cost to Funder Analysis

The consideration of how any residual funding requirement (post capital grants) will be sourced is outside the scope of this study. It is envisaged this may be via a wider targeted regional rate, regional or local council debt or provided by other entities (e.g. Quayside Holdings).

It is likely that residual funding would be provided to the operating Trust in the form of a grant so that the Trust would have no on-going debt obligations.

In the absence of definitive sources of debt we have modelled it consistently with how stadiums are generally financed and therefore modelled for the purposes of feasibility studies. Accordingly, for illustrative purposes the financial analysis has been prepared on the basis of council ownership. Further analysis will be undertaken as the debt funding options are refined.

The indicative operating cost to Council presented within our analysis considers:

The Accounting Cost to Council (what will appear in the Annual Accounts) is:

- Net of revenue, and operating costs.
- Interest on the money borrowed by the Funder to fund the construction cost at 3.5% interest, repaid over 30 years on a table loan basis (equal payments each year).
- Depreciation on the fit-out and plant funded by a Council.

The Rates Cost to Council (what would be rated for) is assumed to be:

- The net operating cost (before depreciation).
- Interest on debt borrowed to fund development of the facility.
- Debt repayment over 30 years (on the initial development capital expenditure).
- Depreciation, which is rated for and held in a reserve to fund capital replacements and renewals (based on 50 years straight-line for buildings, 10-20 years straight line for plant and equipment and 50 years straight-line on Fitness buildings).

The Cashflow Cost to Council (what it will actually cost in cash each year) is assumed to be:

- The contribution of the facility to Council.
- Add back the depreciation on the facility that is rated for.
- Less the actual cost of asset replacements.

Though the cashflow cost varies by year (depending on what is replaced in a year), in all cases the total rates collected exceed the cashflow cost (as the depreciation rated for is more in total than the cost of replacements).

Modelled Options

There are two preferred design options that have been modelled:

	Description
Base and Fitness Centre	Base Stadium with a Fitness Centre 8,000 permanent seats and up to 5,000 temporary seats
Base and Light Exhibition	Base Stadium with a light exhibition centre: 8,000 permanent seats and up to 5,000 temporary seats

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The modelling of the preferred facility options builds on previous financial modelling analysis undertaken on three alternative preliminary design options. The financial analysis related to the preliminary options is detailed within Appendix 2.

The focus of the financial analysis is to understand project cashflows as opposed to the flow of funds between the multiple parties that may be involved and/or hold ownership interests.

Capital Expenditure

The construction cost estimates for the facility options have been prepared by Maltbys for the purpose of providing a construction cost estimate.

The construction of the facility will be phased over a 12 month period. All presented costs are reported in financial years (ended 30 June).

An allowance for cost escalation has been incorporated based on 5.4%-6.3% p.a. (reverting to Treasury assumptions from FY26 ~2% p.a). These escalation rates have been supplied by Maltbys.

Estimated Capital Costs

$NZ000's	Stadium and Fitness	Stadium and Light Exhibition
Demolition	1,255	1,255
Bulk Excavation and Filling	1,530	1,530
Piling	10,549	10,549
Internal Building Structures	29,415	36,065
Seating	12,898	12,898
Roof	18,480	18,480
Infrastructure and Site Works	19,290	19,260
Resource Consents	532	570
Contract Works Insurance	270	289
Council Development Contribution	1,070	1,146
Professional Fees	13,074	14,005
Contingency	21,667	23,209
Total (2022 Real Terms)	130,030	139,256
Cost Escalation	24,865	26,628
Total (Nominal)	**154,895**	**165,884**
Source: Maltbys (QS), Deloitte Analysis		
Excludes Capitalised Interest	1,661	1,853
Note forecast escalation is 5.4% (CY22), 6.3% (CY23) and 5.8% (CY24).		

We note that alongside professional fees (14%) a 20% contingency allowance has been factored into the estimated capital costs.

Life cycle Costs

The lifecyle cost assessment has been calculated by applying benchmark lifecycle percentages for replacement of the initial capital costs over time. Lifecycle costs include asset maintenance and asset replacement expenses over the lifecycle of the facility.

Maltbys estimate that the alternative facility options will likely to incur $128.5 million to $139.1 million (real terms) in lifecycle costs over the 50 yr operating period.

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Lifecycle Costs (2022 Real Terms)

$NZ000's	Stadium and Fitness	Stadium and Light Exhibition
5 Yr	821	907
10 Yr	1,806	1,892
15 Yr	19,092	21,133
20 Yr	28,676	30,711
25 Yr	821	907
30 Yr	20,077	22,118
35 Yr	821	907
40 Yr +	56,403	60,566
Total (2022 Real Terms)	128,515	139,142

Source: Maltbys (QS)

Consistent with our approach in relation to the intital project capital expenditure this has been escalated on the same assumed capital cost escalation rate profile.

Operating expenditure and revenue

The operating model estimates the costs and revenues associated with the operation over a 50-year period. The model was informed by domestic and international stadium experts, Bay Venues, TCC and Visitor Solutions.

While operating revenue will be generated over a ~50 year period following the opening of the facility, operating expenditure will be incurred for salaries, finance, adminisitration and IT prior to construction completion. This assessment is therefore undertaken over a 54-year timeframe that includes the project delivery and 50 years of operations.

Revenue:

Events Calendar:

The events calendar is an important driver of a venues financial performance. The event calendar is the key driver of annual attendance levels and therefore key event day revenues such as ticketing and catering revenue. The number of event days (and annual event attendance) is also a driver of other revenue streams such as naming rights, sponsorship, signage and supply rights. The value of these is dependent on the level of exposure to event day patronage.

The table below presents the assumed events calendar in the average year for the new TMFSF for each of the proposed options.

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Average Event Days

	Attendance Numbers	Stadium and Fitness	Stadium and Light Exhibition
Sports			
Super Rugby	12,000	1	1
NPC Rugby	5,000	3	3
Football	1,500	2	2
Other	5,000	5	5
Community Sport			
Medium	400	30	30
Small	200	30	30
Outdoor Events			
Very Large	16,000	1	1
Large	10,000	4	4
Medium	5,000	8	8
Small	3,000	8	8
Light Exhibition			
Day events	4,500	0	40
2 day events	4,500	0	6
3 day events	4,500	0	4
Function			
Very Large	700	15	15
Large	500	30	30
Medium	200	40	40
Small	100	100	100
Events		277	327

Source: Visitor Solutions

Sports

The following 11 events will be secured by the stadium:

- Super Rugby X 1 average attendance of 12,000
- NPC Rugby X 3 average attendance of 5,000
- Football (various) x 2 average attendance of 1,500
- Other X 5 average attendance of 5,000

Hires have been based on a traditional stadium service model (full service). However, given the nature of some events a clean hire approach may be negotiated[1].

Base rental rates (traditional stadium service model) will range between $40k and $2.5k per event. Across the 11 projected sports events base rental will total $118k in year one.

Total PAX across all eleven events in year one is estimated to be 55,000.

Food and beverage (F&B) expenditure is estimated to average $9.50[2] per pax per event[3]. Assuming 55,000 PAX this will generate~ $522k in revenue per year. Applying a 20% profit margin will generate $104k per year[4].

No margin will be charged on event security, cleaning, and traffic management[5].

[1] Clean hire would include use of the turf, and grandstands, amenities, security, and stadium management observation. Rates would be negotiated. Potential hirers at the lower to mid-level sports event range indicated this approach made staging events at the stadium more a of a viable proposition. This approach should be explored further in later project stages.
[2] This spend rate has been benchmarked and confirmed with existing North Island operators. The mix of events (e.g. levels of play will influence the spend rate with larger events pulling spend up and smaller events dragging spend back). Spend rates can be estimated again as the event calendar is firmed up and actual bookings are accepted.
[3] Expenditure is based on benchmarking and averaging.
[4] Note: if a clean hire was negotiated it is assumed the clean hire rate would be increased and offset any loss of F&B revenue. This approach should be explored further in later project stages.

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Community Sport

Community sport will not be a significant revenue generator.

In year one the stadium turf will accommodate 30 larger club and school games with an average attendance of 400.

A further 30 smaller club and school games attracting an average attendance of 200 will take place in year one.

Additional community games will be accommodated as the booking schedule and turf conditions allow.

The intention is that all local field based sporting clubs have an opportunity to use the main stadium turf annually to assist with club and code development objectives.

Total revenue will equate to $3k per annum.

Outdoor Events

In year one the wider precinct and stadium will attract 21 events of various scales. These will include:

- 1 very large event with an average attendance of 16,000
- 4 large events with an average attendance of 10,000
- 8 medium events with an average attendance of 5,000
- 8 small events with an average attendance of 3,000

Total outdoor event PAX in year one is estimated to be 120,000.

Food and beverage expenditure is estimated to average $7.50 per PAX per event. Assuming 120,000 PAX this will generate $900k in revenue. Applying a 20% profit margin will generate $180k.

The average day rate will be $15,000 generating rental of $630k in year one (42 days of bookings). This assumes an average of two days per booking (with pack in and pack out).

No margin will be charged on event security, audio visual, cleaning, and traffic management[5].

Light Exhibition

The light exhibition space will host a total of 50 exhibitions (evenly split between community and commercial exhibitions) in year one. These will comprise:

- 40 day events/exhibitions
- 6 light exhibitions of a 2 day duration
- 4 light exhibitions of a 3 day duration
- Total 64 days of bookings

Assuming an average attendance for commercial exhibitions of 7,000 pax and 2,000 pax for commercial exhibitions. In year one total pax will be 225,000 (175,000 community and 50,000 commercial).

The average daily rate will be $5k generating rental of $320k in year one (64 days of bookings).

The average daily pack in pack out rate will be $2k per day per event (half day in half day out) generating rental of $100k (50 events) in year one.

Food and beverage expenditure is estimated to average $5.50[6] per pax per event. Assuming 225,000 pax this will generate ~$1,24m in revenue. Applying a 20% profit margin will generate ~$248k.

[5] Once greater detail is developed at the business case stage margins can be reconsidered on some aspects such as security and AV.

[6] This spend rate has been benchmarked and confirmed with existing North Island operators.

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No margin will be charged on event security, audio visual, cleaning, and traffic management[7].

Commercial Functions

185 commercial functions will be held in year one. These will be comprised of:

- 15 very large functions with an average attendance of 700
- 30 large functions with and average attendance of 500
- 40 medium functions with and average attendance of 200
- 100 small functions with and average attendance of 100

An average function hire is set at $750[8] generating ~$139k in year one.

A total of 43,500 PAX will be hosted in year one. An average F&B spend per PAX will be $80 generating ~$3.5m in revenue. This will generate a 20% profit margin which equates to $696k in year one.

No margin will be charged on event security, audio visual, cleaning, and traffic management[9].

Fitness Centre

The fitness centre has been modelled based on data from the proposed Memorial Park Fitness Centre. A reduction in revenue of 20% has been applied to that model to reflect the times when the fitness centre would be inaccessible due to other activities.

If the memorial Park Fitness Centre advances, we would strongly advise reconsidering creating a fitness centre in the Tauranga Domain.

The fitness centre is estimated to generate $993k (assuming the Memorial Park Fitness Centre does not advance) per annum.

Community Multi Sport Facility

A community multi-sport facility will be developed for use by the community-based sports clubs and organisations. This facility will be owned by the asset owning Trust and leased to local sports and community organisations for a base rate of $5k per annum. This is approximately 50% below similar Tauranga Council lease rates to take account of disruption due to stadium events and the need to relinquish the buildings function space at these times.

The operating revenue for the TMFSF is from a number of different sources. The variation within the revenue between the modelled options is the impact of the Fitness Centre, Light Exhibition rental and associated F&B revenue.

[7] Once greater detail is developed at the business case stage margins can be reconsidered on some aspects such as security and AV.

[8] This assumes approximately 75% of hires at $500 and 25% at $1,500.

[9] Once greater detail is developed at the business case stage margins can be reconsidered on some aspects such as security and AV.

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Estimated Revenue (average year)				Revenue (000's)	
	Attendance Numbers	Stadium and Fitness	Stadium and Light Exhibition	Stadium and Fitness	Stadium and Light Exhibition
Sports		Event no#		Revenue	
Super Rugby	12,000	1	1	40	40
NPC Rugby	5,000	3	3	60	60
Football	1,500	2	2	5	5
Other	5,000	5	5	13	13
Community Sport					
Medium	400	30	30	2	2
Small	200	30	30	2	2
Outdoor Events					
Very Large	16,000	1	1	30	30
Large	10,000	4	4	120	120
Medium	5,000	8	8	240	240
Small	3,000	8	8	240	240
Light Exhibition					
Day events	4,500		40	0	200
2 day events	4,500		6	0	60
3 day events	4,500		4	0	60
Pack in/Pack Out				0	100
Function					
Very Large	700	15	15	11	11
Large	500	30	30	23	23
Medium	200	40	40	30	30
Small	100	100	100	75	75
		277	327	889	1,309
Multi-Sport Club				5	5
Gym & Fitness Centre				993	
Other Revenue/Signage Rights				10	10
Food & Beverage				4,903	6,140
Naming Rights				100	100
Other				n/a	n/a
Total Revenue (2022 Real Terms)				**6,900**	**7,564**

Source: Visitor Solutions, Deloitte Analysis

Operating Costs

There are a range of expenses resulting from the management and utilisation of major venues including:

- Event day expenses – all expenses directly related to hosting an event, including, but not limited to, security, event cleaning, ushers, traffic management and event presentation.
- Venue overhead expenses – all other venue operating costs which cannot be directly attributable to an individual event including employee expenses, regular repairs and maintenance, turf maintenance, insurances, promotion, marketing and general administration expenses.
- Gym expenses are primarily salary and wages and maintenance costs.

Staffing

Catering and watering staff are accounted for directly within the revenue modelling so do not appear as a direct operational cost.

The main build facility staff and salary structure will include:

- GM (1 FTE) - $110k
- Events & Marketing Manager (1 FTE) - $85k

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- Operations Manager (1 FTE) - $65k
- Admin/Board Sec (.5 FTE) – $25k
- Operational staff (2 FTE) -$100k
- Kiwisaver etc (5%)

An elite ground staff crew will be established to service the Domain fields (hybrid turfs x 2, cricket oval, turf rugby fields, as well as selected premium turfs around the city). This is to ensure maximised community and professional use of the assets created. This is considered essential to maintaining the functionality of the development[10]. The ground staff and salary structure will include:

- Heads grounds person (1 FTE) - $90k
- Senior grounds person (1 FTE) – $65k
- Junior grounds person (1 FTE) – $45k
- Kiwisaver etc (5%)

It is anticipated that the ground crew staff will also support other turf needs within Tauranga. Accordingly, the model incorporates a 30% recharge of the total salary and wage costs received from other facilities within the costing.

The grounds crew will have an operational budget of $80k annually. Every three years the budget would be increased to $110k to account for resurfacing.

Facility Expenses

Facility expenses have been estimated in year one as being $395k. This includes electricity, insurance, rates, repairs and maintenance, security and alarm monitoring and cleaning. Allowances have benchmarked against available data where possible and are set out as line items in the financial model.

- Electricity - $60k
- Insurance - $200k[11]
- Rates - $20k
- R&M - $50k
- Security and Alarm monitoring - $15k
- Cleaning Contract (Base contract) - $50k

Indirect Costs

Administration and management costs have been estimated in year one as being $195k. This includes electricity, insurance, rates, repairs and maintenance, security and alarm monitoring and cleaning. Allowances have been benchmarked against available data where possible and are set out as line items in the financial model.

- Director and Governance Fees - N/A
- Marketing and Advertising - $50k
- Telephone and Tolls - $25k
- Other Administration (Accounting, Audit, Bank, PC, FBT, Legal, PPS, Prof fees, Training, Travel) - $120k

[10] The option of contraction the work was investigated and rejected on the grounds that although being cheaper it would lead to reduced asset utilisation an not unlock the full value of the capital being invested in facilities.
[11] The insurance figure is a provisional estimate and will be refined once negotiations are commenced with either local government insurers or third party insurer providers.

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Estimated Operating Costs

$NZ000's	Stadium and Fitness	Stadium and Light Exhibition
Stadium/Events		
Staff Costs - Direct (Turf Mgmt)*	147	147
Staff Costs - Indirect	404	404
Direct Costs		
Facility Costs	395	395
Turf Operational Budget	80	80
Food & Beverage	3,922	4,912
Indirect Costs	195	195
	5,143	6,133
Gym/Fitness Centre		
Staff Costs	446	
Direct Costs	118	
Administration/Indirect Costs	50	
	613	0
Total (2022 Real Terms)	**5,757**	**6,133**

Source: Visitor Solutions, Deloitte Analysis

*Includes Recharge

The scope of our work for this financial analysis excludes consideration of a preferred management model for the facility. For the purposes of the analysis, however, a number of implicit assumptions have been made regarding venue management, including:

- The venue is assumed to be managed by the venue owner (e.g a charitable trust of a Council entity) – therefore no private sector venue management fee has been included; and
- The venue manager is assumed to outsource many of the key operating activities to specialist third parties including ticketing, cleaning and security, which is common practice across the industry.

Funding Sources

Typically there can be a range of funding sources available for infrastructure of this nature including:

- Debt funding - we anticipate the returns of the facility would likely be insufficient to support repayment of debt and therefore using this as a mechanism to fund the facility would likely place on-going financial stress on venue operations;
- Application of regional rates – it is not uncommon in New Zealand for regional councils to apply a special regional rate to assist with funding major projects which will benefit an entire region. For example, this approach was adopted for Westpac Stadium and similarly for Forsyth Barr Stadium; and
- Pre-sales of commercial rights – if rights were pre-sold it would significantly impact the ongoing operational financial performance of the venue.

Funding for the TMFSF will need to be met through a combination of:

- Capital funding from the Crown;
- Debt provided by regional of local councils (likely sourced via the LGFA);
- Operating revenues and, if required and feasible, other commercial opportunties; and
- Funding through an “operating subsidy” provided by regional of local councils.

Regional rates will also be investigated following approval of the feasibility study.

A high-level funding assessment has been undertaken by Jenni Giblin (Giblin Group) which indicates an external funding target of circa $60 million may be achievable. This estimate has been used in the financial modelling.

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For the purposes of our analysis we have assumed the following funding profile:

Party	Description
Central Govenment	LGB Significant Project Fund $6m LGB Community Facilities Fund $800k Central Government Support into Tauranga $20m
Local Government	Tauranga City Council TBC BOP Regional Council $5m
Corporate/Philanthropic Partners	$5m
Founding Partners	TECT $20m
Trusts	Gaming and Community Trusts $3m

The remainder of the capital funding required is estimated to be $96.6 million for Stadium and Fitness option and $107.7 million for the Stadium and Light exhibition option (based on a build cost of $154.9 million and $165.9 million respectively). It is assumed this is achieved through Council debt funding.

Financial Evaluation

Financial Summary

Based on our analysis both TMFSF options are EBITDA positive. However, neither of the modelled options contributes sufficent profit to cover debt and interest payments nor a satisfactory contribution towards depreciation to fund replacements over time.

The options are not cashflow positive over the 50 year modelled time horizon.

Financial Summary

$NZ000's	Stadium and Fitness	Stadium and Light Exhibition
Project Metrics:		
Cumulative Cash Flow	(313,878)	(321,665)
NPV	(167,084)	(174,242)
IRR	N/A	N/A
Payback (Non discounted)	+50yrs	+50yrs
Capital Intensity		
Capex	154,895	165,884
EBITDA (FY22 Real Terms)	1,143	1,431
Capital Intensity	135	116
Profitability		
Revenue (FY22 Real Terms)	6,900	7,564
EBITDA (FY22 Real Terms)	1,143	1,431
EBITDA Margin%	17%	19%
Debt Metrics		
Debt	(96,558)	(107,737)
Debt Repayment	5,250	5,858

Source: Deloitte Analysis

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This is not uncommon - in our experience Stadiums are generally not financially self-sufficient (and often don't contribute enough to cover debt repayments or fund replacements over time) and therefore require "augmented" funding over time to remain cash flow positive.

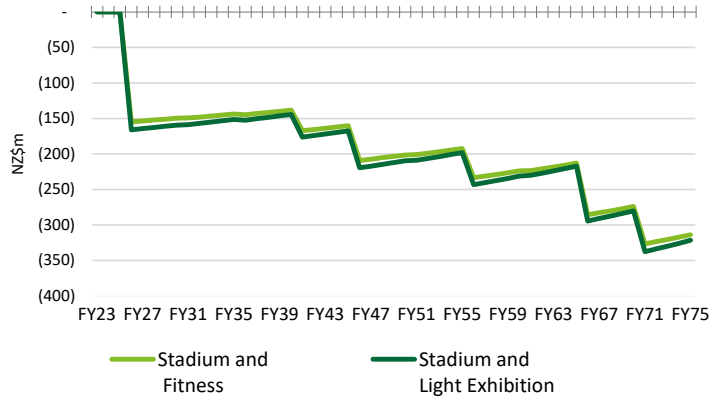
Detailed financial projections for each option, including the cost to funder, are provided within the Appendices.

Cumulative cashflow:

To quantify the options and ultimately determine which option is financially more viable we have assessed the cumulative cashflow difference on both an undiscounted and discounted basis.

As illustrated in the following chart there is almost no discernable difference between the two options with the increased capital costs associated with the Stadium and Light Exhibition option (~$11 million) primarily offset by the increased EBITDA contribution of the facility (~$300k per annum) over the modelled time horizon.

Cumulative Free Cash Flow (NZ$m)



Source: Deloitte Analysis

On an undiscounted basis (over 50 years) the Stadium and Light Exhibition option will cost $8 million more than the Stadium and Fitness option. (~$7 million on a discounted basis).

Impact on Rates:

The rates cost to Council (what would be rated for) is assumed to be:

- The net operating cost (before depreciation).
- The cost of capital expenditure on the facility.
- Interest on debt borrowed to fund development of the facility.
- Debt repayment over 30 years.
- Depreciation, which is rated for and held in a reserve to fund capital replacements and renewals.

Our analysis indicates that:

- The gross cost of the facility reduces over time and this is evident after 30 years (~FY57) when the debt borrowed to fund the development has been paid off.
- The rates cost remains marginally higher for the Stadium and Light Exhibition option relative to the Stadium and Fitness option (~$460k higher (~6%)) which is a result of the higher upfront capital costs driving both a higher depreciation charge and interest and debt repayment (as the required loan is higher) which are rated for.

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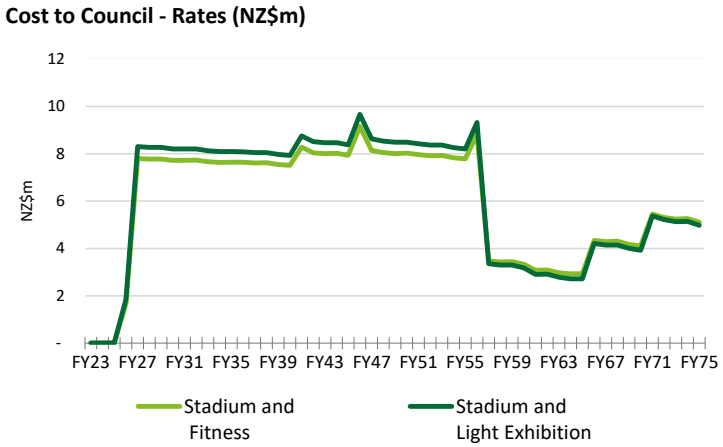


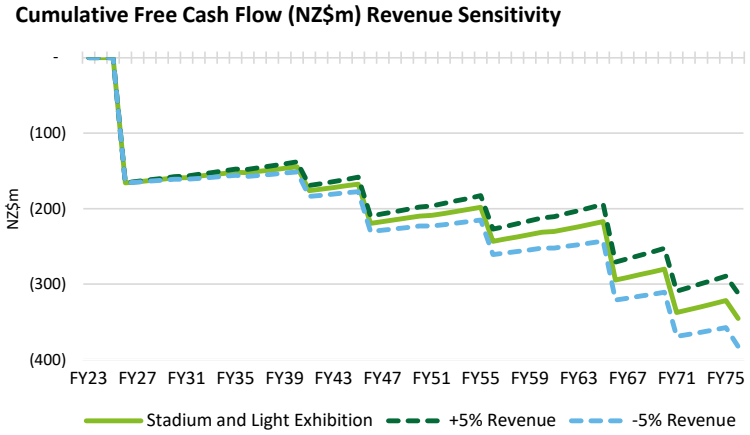
Sensitivity Analysis

To assess the potential impact of changes in key variables, sensitivity analysis has been conducted to evaluate the effect on cumulative cashflow and costs to council of the facility given potential changes to revenue, expenditure and capital expenditure. Note our sensitivity analysis has only been performed in relation to the Stadium and Light Exhibition option.

Revenue

The first of the three variables considered in the sensitivity analysis is revenue, which considers the effects of a decrease of 5% and an increase of 5% in the overall revenue line item (no change to expenditure).

- A 5% increase/decrease in revenue is projected to result in a ~+/-$35 million impact on cumulative cash flow across the life time of the project, which is presented in the chart below.



Source: Deloitte analysis

- A 5% increase/decrease in revenue is projected to result in a ~+/-$400k impact on cost to council in FY27.

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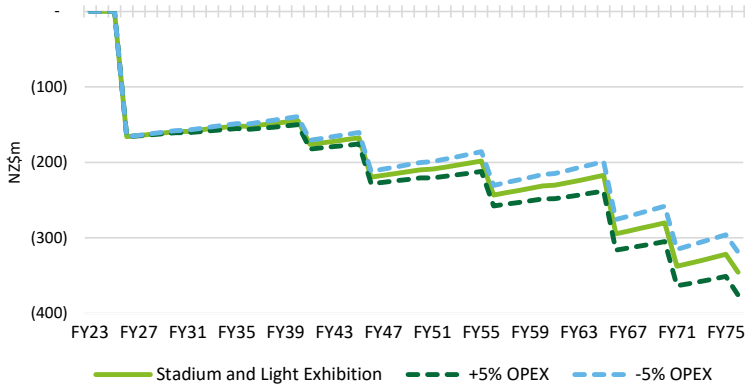
Expenditure

The second variable considered in the sensitivity analysis is expenditure, which considers the effects of a decrease of 5% and an increase of 5% in the overall facility expenditure line (no change to revenue).

- A 5% increase/decrease in expenditure is projected to result in a ~+/-$28 million impact on cumulative cash flow across the life time of the project, which is presented in the table below.

Cumulative Free Cash Flow (NZ$m) OPEX Sensitivity



Source: Deloitte analysis

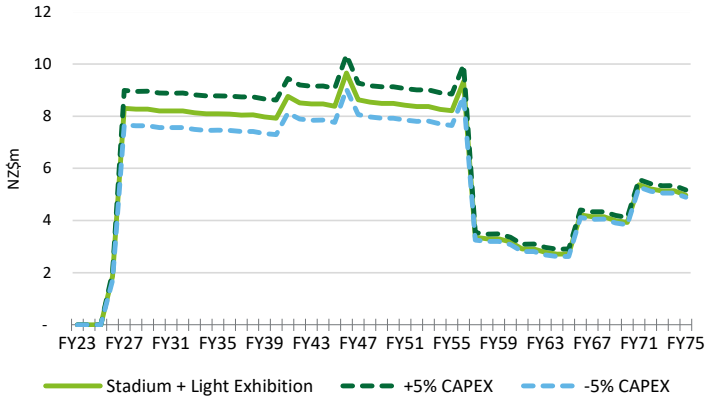
- A 5% increase/decrease in expenditure is projected to result in a ~+/-$330k impact on cost to council in FY27.

Capital Expenditure

The up front capital expenditure costs are significant and as a result we have considered the effects of a decrease of 5% and an increase of 5% in the overall capital expenditure line item (no change to expenditure or revenue).

- A 5% increase/decrease in capital expenditure is projected to result in a ~+/-$650k impact on cost to council in FY27, this is illustrated below.

Cost to Council - Rates (NZ$m)



Source: Deloitte Analysis

- A 5% increase/decrease in capital expenditure is projected to result in a ~+/-$8.2 million impact on cumulative cash flow across the life time of the project.

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Disclaimer

This analysis and report has been prepared for Visitor Solutions Limited in accordance with our engagement letter dated 22 November 2021. We consent with this analysis being incorporated into a Visitor Solutions wider report in connection with the project.

Please note the model projections have been compiled from information provided to Deloitte and the assumptions as outlined. As these projections are based on assumptions about circumstances and events that have not yet taken place they are subject to variations that may arise as future events actually occur. Accordingly, no assurance can be provided that the predicted results will actually be attained.

In providing the Services we have relied upon and assume, without independent verification, the accuracy and completeness of all information that has been provided to us and available from public sources.

In no way do we guarantee or otherwise warrant that any forecasts of future profits, cashflows or financial position of the stadium would be achieved. Forecasts are inherently uncertain. They are predictions of future events, which cannot be assured. They are based upon assumptions, many of which are beyond the control of Stadium operators and its management team.

Actual results will vary from the forecasts and these variations may be significantly more or less favourable.

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March 2022

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APPENDIX 1: Detailed Financial Forecasts

Preferred Option Analysis: Stadium and Fitness: Detailed Forecast

Some years have been hidden for presentation purposes

Stadium and Fitness																				
$NZ000's	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY37	FY42	FY47	FY52	FY57	FY62	FY67	FY72
Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*
Sports					11	11	11	11	11	11	11	11	11	11	11	11	11	11
Community Sports					60	60	60	60	60	60	60	60	60	60	60	60	60	60
Outdoor Events					21	21	21	21	21	21	21	21	21	21	21	21	21	21
Light Exhibition					-	-	-	-	-	-	-	-	-	-	-	-	-	-
Functions					185	185	185	185	185	185	185	185	185	185	185	185	185	185
Gym/Fitness Centre (Pax)					1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215
Revenue																		
Sports	-	-	-	-	132	134	137	140	142	145	160	177	195	216	238	263	290	321
Community	-	-	-	-	3	3	3	4	4	4	4	5	5	6	6	7	7	8
Outdoor Events	-	-	-	-	705	719	734	748	763	779	860	949	1,048	1,157	1,278	1,411	1,557	1,719
Functions	-	-	-	-	155	158	162	165	168	172	189	209	231	255	281	311	343	379
Light Exhibition	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gym/Fitness Centre	-	-	-	-	1,112	1,134	1,157	1,180	1,204	1,228	1,356	1,497	1,652	1,824	2,014	2,224	2,455	2,711
Food & Beverage	-	-	-	-	5,488	5,598	5,710	5,824	5,941	6,060	6,690	7,387	8,156	9,004	9,942	10,976	12,119	13,380
Other Revenue	-	-	-	-	129	131	134	137	139	142	157	173	191	211	233	257	284	314
Total	-	-	-	-	7,725	7,879	8,037	8,198	8,362	8,529	9,416	10,397	11,479	12,673	13,992	15,449	17,057	18,832
Salary & Wages																		
Turf (Incl Recharge)	-	-	-	-	(165)	(168)	(171)	(175)	(178)	(182)	(201)	(221)	(245)	(270)	(298)	(329)	(363)	(401)
Gym /Fitness Centre	-	-	-	-	(499)	(509)	(519)	(530)	(540)	(551)	(609)	(672)	(742)	(819)	(904)	(998)	(1,102)	(1,217)
Administration	-	-	-	-	(453)	(462)	(471)	(480)	(490)	(500)	(552)	(609)	(672)	(742)	(820)	(905)	(999)	(1,103)
Direct																		
Food & Beverage (COS)	-	-	-	-	(4,391)	(4,479)	(4,568)	(4,660)	(4,753)	(4,848)	(5,352)	(5,909)	(6,524)	(7,204)	(7,953)	(8,781)	(9,695)	(10,704)
Facility Expenses	-	-	-	-	(532)	(542)	(588)	(564)	(576)	(624)	(648)	(716)	(840)	(872)	(963)	(1,131)	(1,174)	(1,296)
Gym /Fitness Centre	-	-	-	-	(132)	(134)	(137)	(140)	(142)	(145)	(160)	(177)	(195)	(216)	(238)	(263)	(290)	(321)
Indirect	-	-	-	-	(274)	(280)	(285)	(291)	(297)	(303)	(334)	(369)	(408)	(450)	(497)	(549)	(606)	(669)
Operating Costs	-	-	-	-	(6,445)	(6,574)	(6,740)	(6,839)	(6,976)	(7,153)	(7,856)	(8,674)	(9,626)	(10,573)	(11,674)	(12,956)	(14,230)	(15,711)
Net Operating Cost	**-**	**-**	**-**	**-**	**1,280**	**1,306**	**1,297**	**1,358**	**1,386**	**1,376**	**1,560**	**1,723**	**1,852**	**2,100**	**2,319**	**2,493**	**2,826**	**3,121**
Depreciation	-	-	-	-	(3,827)	(3,827)	(3,827)	(3,827)	(3,854)	(3,854)	(3,919)	(4,516)	(4,740)	(4,770)	(5,792)	(5,585)	(7,110)	(8,425)
Subtotal	-	-	-	-	(2,547)	(2,521)	(2,530)	(2,469)	(2,468)	(2,478)	(2,358)	(2,794)	(2,888)	(2,670)	(3,473)	(3,092)	(4,284)	(5,305)
Interest	-	-	-	(1,661)	(3,380)	(3,314)	(3,246)	(3,176)	(3,104)	(3,028)	(2,612)	(2,116)	(1,528)	(830)	-	-	-	-
Total Accounting Cost	-	-	-	(1,661)	(5,927)	(5,835)	(5,777)	(5,645)	(5,572)	(5,506)	(4,970)	(4,910)	(4,416)	(3,500)	(3,473)	(3,092)	(4,284)	(5,305)
Rates Cost to Council																		
Net Operating Cost	-	-	-	-	1,280	1,306	1,297	1,358	1,386	1,376	1,560	1,723	1,852	2,100	2,319	2,493	2,826	3,121
Interest Cost/Capitalised Interest	-	-	-	(1,661)	(3,380)	(3,314)	(3,246)	(3,176)	(3,104)	(3,028)	(2,612)	(2,116)	(1,528)	(830)	-	-	-	-
Capex - Establishment	-	-	-	(154,898)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
External Funding Received	-	-	-	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Draw/Repayment	-	-	-	96,558	(1,870)	(1,936)	(2,004)	(2,074)	(2,146)	(2,222)	(2,638)	(3,134)	(3,722)	(4,420)	-	-	-	-
Depreciation to Fund Replacements	-	-	-	-	(3,827)	(3,827)	(3,827)	(3,827)	(3,854)	(3,854)	(3,919)	(4,516)	(4,740)	(4,770)	(5,792)	(5,585)	(7,110)	(8,425)
Total Accounting Cost	-	-	-	(0)	(7,797)	(7,771)	(7,780)	(7,719)	(7,718)	(7,728)	(7,608)	(8,044)	(8,138)	(7,920)	(3,473)	(3,092)	(4,284)	(5,305)
Cash Flow Cost to Council																		
Cost to Rates	-	-	-	(0)	(7,797)	(7,771)	(7,780)	(7,719)	(7,718)	(7,728)	(7,608)	(8,044)	(8,138)	(7,920)	(3,473)	(3,092)	(4,284)	(5,305)
Addback Depreciation	-	-	-	-	3,827	3,827	3,827	3,827	3,854	3,854	3,919	4,516	4,740	4,770	5,792	5,585	7,110	8,425
Replacement Capex	-	-	-	-	-	-	-	-	(1,080)	-	-	-	-	-	-	-	-	-
Total Cost to Council - Cash Flow	-	-	-	(0)	(3,970)	(3,944)	(3,953)	(3,892)	(4,944)	(3,874)	(3,690)	(3,527)	(3,398)	(3,150)	2,319	2,493	2,826	3,121

DISCLAIMER - These projections have been compiled from information and instructions furnished to us and estimates made by Deloitte. As these projections are based on assumptions about circumstances and events that have not yet taken place they are subject to variations that may arise as future events actually occur. Accordingly, we cannot give assurance that the predicted results will actually be achieved.

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Preferred Option Analysis: Stadium and Light Exhibition: Detailed Forecast

Some years have been hidden for presentation purposes

Stadium and Light Exhibition																		
$NZ000's	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY37	FY42	FY47	FY52	FY57	FY62	FY67	FY72
Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*
Sports					11	11	11	11	11	11	11	11	11	11	11	11	11	11
Community Sports					60	60	60	60	60	60	60	60	60	60	60	60	60	60
Outdoor Events					21	21	21	21	21	21	21	21	21	21	21	21	21	21
Light Exhibition					50	50	50	50	50	50	50	50	50	50	50	50	50	50
Functions					185	185	185	185	185	185	185	185	185	185	185	185	185	185
Gym/Fitness Centre (Pax)					1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215
Revenue																		
Sports	-	-	-	-	132	134	137	140	142	145	160	177	195	216	238	263	290	321
Community	-	-	-	-	3	3	3	4	4	4	4	5	5	6	6	7	7	8
Outdoor Events	-	-	-	-	705	719	734	748	763	779	860	949	1,048	1,157	1,278	1,411	1,557	1,719
Functions	-	-	-	-	155	158	162	165	168	172	189	209	231	255	281	311	343	379
Light Exhibition	-	-	-	-	470	480	489	499	509	519	573	633	699	771	852	940	1,038	1,146
Gym/Fitness Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Food & Beverage	-	-	-	-	6,874	7,011	7,152	7,295	7,441	7,589	8,379	9,251	10,214	11,277	12,451	13,747	15,178	16,758
Other Revenue	-	-	-	-	129	131	134	137	139	142	157	173	191	211	233	257	284	314
Total	-	-	-	-	8,468	8,638	8,811	8,987	9,166	9,350	10,323	11,397	12,584	13,893	15,339	16,936	18,699	20,645
Salary & Wages																		
Turf (Incl Recharge)	-	-	-	-	(165)	(168)	(171)	(175)	(178)	(182)	(201)	(221)	(245)	(270)	(298)	(329)	(363)	(401)
Gym /Fitness Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Administration	-	-	-	-	(453)	(462)	(471)	(480)	(490)	(500)	(552)	(609)	(672)	(742)	(820)	(905)	(999)	(1,103)
Direct																		
Food & Beverage (COS)	-	-	-	-	(5,499)	(5,609)	(5,721)	(5,836)	(5,952)	(6,071)	(6,703)	(7,401)	(8,171)	(9,022)	(9,961)	(10,998)	(12,142)	(13,406)
Facility Expenses	-	-	-	-	(532)	(542)	(588)	(564)	(576)	(624)	(648)	(716)	(840)	(872)	(963)	(1,131)	(1,174)	(1,296)
Gym /Fitness Centre	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indirect	-	-	-	-	(218)	(223)	(227)	(232)	(236)	(241)	(266)	(294)	(324)	(358)	(395)	(437)	(482)	(532)
Operating Costs	-	-	-	-	(6,866)	(7,004)	(7,179)	(7,287)	(7,432)	(7,618)	(8,370)	(9,241)	(10,253)	(11,265)	(12,437)	(13,799)	(15,161)	(16,739)
Net Operating Cost	**-**	**-**	**-**	**-**	**1,602**	**1,634**	**1,632**	**1,700**	**1,734**	**1,732**	**1,953**	**2,156**	**2,331**	**2,628**	**2,902**	**3,137**	**3,537**	**3,906**
Depreciation	-	-	-	-	(4,046)	(4,046)	(4,046)	(4,046)	(4,075)	(4,075)	(4,142)	(4,810)	(5,107)	(5,140)	(6,255)	(6,046)	(7,678)	(9,119)
Subtotal	-	-	-	-	(2,444)	(2,412)	(2,414)	(2,346)	(2,341)	(2,343)	(2,189)	(2,654)	(2,776)	(2,512)	(3,354)	(2,909)	(4,141)	(5,214)
Interest	-	-	-	(1,853)	(3,771)	(3,698)	(3,622)	(3,544)	(3,463)	(3,379)	(2,914)	(2,361)	(1,705)	(926)	-	-	-	-
Total Accounting Cost	-	-	-	(1,853)	(6,214)	(6,109)	(6,036)	(5,889)	(5,804)	(5,722)	(5,103)	(5,015)	(4,482)	(3,438)	(3,354)	(2,909)	(4,141)	(5,214)
Rates Cost to Council																		
Net Operating Cost	-	-	-	-	1,602	1,634	1,632	1,700	1,734	1,732	1,953	2,156	2,331	2,628	2,902	3,137	3,537	3,906
Interest Cost/Capitalised Interest	-	-	-	(1,853)	(3,771)	(3,698)	(3,622)	(3,544)	(3,463)	(3,379)	(2,914)	(2,361)	(1,705)	(926)	-	-	-	-
Capex - Establishment	-	-	-	(165,884)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
External Funding Received	-	-	-	60,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Draw/Repayment	-	-	-	107,737	(2,087)	(2,160)	(2,236)	(2,314)	(2,395)	(2,479)	(2,944)	(3,496)	(4,153)	(4,932)	-	-	-	-
Depreciation to Fund Replacements	-	-	-	-	(4,046)	(4,046)	(4,046)	(4,046)	(4,075)	(4,075)	(4,142)	(4,810)	(5,107)	(5,140)	(6,255)	(6,046)	(7,678)	(9,119)
Total Accounting Cost	-	-	-	-	(8,301)	(8,269)	(8,272)	(8,203)	(8,198)	(8,201)	(8,047)	(8,511)	(8,634)	(8,370)	(3,354)	(2,909)	(4,141)	(5,214)
Cash Flow Cost to Council																		
Cost to Rates	-	-	-	-	(8,301)	(8,269)	(8,272)	(8,203)	(8,198)	(8,201)	(8,047)	(8,511)	(8,634)	(8,370)	(3,354)	(2,909)	(4,141)	(5,214)
Addback Depreciation	-	-	-	-	4,046	4,046	4,046	4,046	4,075	4,075	4,142	4,810	5,107	5,140	6,255	6,046	7,678	9,119
Replacement Capex	-	-	-	-	-	-	-	-	(1,194)	-	-	-	-	-	-	-	-	-
Total Cost to Council - Cash Flow	-	-	-	-	(4,256)	(4,224)	(4,226)	(4,158)	(5,317)	(4,126)	(3,905)	(3,702)	(3,527)	(3,229)	2,902	3,137	3,537	3,906

DISCLAIMER - These projections have been compiled from information and instructions furnished to us and estimates made by Deloitte. As these projections are based on assumptions about circumstances and events that have not yet taken place they are subject to variations that may arise as future events actually occur. Accordingly, we cannot give assurance that the predicted results will actually be achieved.

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APPENDIX 2: Options Analysis - Tauranga Multi-Function Stadium Facility

Modelled Options

The design options shortlisted for financial modelling in this report are:

	Description
Option 1	10,000 permanent seats & up to 5,000 temporary seats
Option 2	8,000 permanent seats & up to 5,000 temporary seats
Option 3	Roofed: 10,000 permanent seats & up to 2,500 temporary seats

Capital Expenditure

The construction cost estimates for the facility options have been prepared by Maltbys for the purpose of providing a high-level cost estimate.

The construction of the facility will be phased over 12 months (Option 1, Option 2) and 24 months (Option 3) period. All presented costs are reported in financial years (ended 30 June).

An allowance for cost escalation has been incorporated based on 5.4%-6.3% p.a. (reverting to Treasury assumptions from FY26 ~2%). These rates has been supplied by Maltbys.

Estimated Capital Costs

$NZ000's	Option 1	Option 2	Option 3
Demolition	1,233	1,233	1,145
Bulk Excavation & Filling	3,780	3,540	3,780
Piling	3,770	3,320	3,640
Internal Building Structures	29,180	30,175	25,580
Seating	15,400	12,600	15,400
Roof	14,330	10,900	39,170
Infrastructure & Site Works	14,860	14,600	13,970
Resource Consents	471	435	585
Contract Works Insurance	239	221	297
Council Development Contribution	946	875	1,176
Professional Fees	11,557	10,691	14,376
Contingency	19,153	17,718	23,824
Total (2022 Real Terms)	114,919	106,308	142,943
Cost Escalation	21,975	20,327	29,081
Total (Nominal)	**136,894**	**126,635**	**172,024**
Source: Maltbys (QS), Deloitte Analysis			
Excludes Capitalised Interest	2,046	1,866	5,336
Note forecast escalation is 5.4% (CY22), 6.3% (CY23) and 5.8% (CY24).			

We note that alongside professional fees (14%) there is a 20% contingency allowance factored.

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Life cycle Costs

The lifecyle cost assessment has been calculated by applying benchmark lifecycle percentages for replacement of the initial capital costs over time. Lifecycle costs include asset maintenance and asset replacement expenses over the lifecycle of the facility.

Maltbys estimate that the facility options will likely to incur $122 million to $167 million (real terms) in lifecycle costs over the 50 yr operating period.

Lifecycle Costs (2022 Real Terms)

$NZ000's	Option 1	Option 2	Option 3
5 Yr	848	792	1,119
10 Yr	1,833	1,777	1,119
15 Yr	22,109	21,356	19,593
20 Yr	24,531	21,377	47,230
25 Yr	848	792	1,119
30 Yr	23,094	22,341	19,593
35 Yr	848	792	1,119
40 Yr +	58,769	53,025	76,457
Total (2022 Real Terms)	132,878	122,254	167,351

Source: Maltbys (QS)

Consistent with our approach in relation to the intital project capital expenditure this has been escalated on the same assumed capital cost escalation rate profile.

Operating expenditure and revenue

The operating model estimate the costs and revenues associated with the operation over a 50-year period. The model was informed by domestic and international stadium experts, Bay Venues, TCC and Visitor Solutions.

While operating revenue will be generated over a ~50 year period following the opening of the facility, operating expenditure will be incurred for salaries, finance, adminisitration and IT prior to construction completion. This assessment is therefore undertaken over a 54-year timeframe that includes the project delivery and 50 years of operations.

Revenue

Events Calendar:

The events calendar is an important driver of a venues financial performance. The event calendar is the key driver of annual attendance levels and therefore key event day revenues such as ticketing and catering revenue. The number of event days (and annual event attendance) is also a driver of other revenue streams such as naming rights, sponsorship, signage and supply rights. The value of these is dependent on the level of exposure to event day patronage.

The table below presents the assumed events calendar in the average year for the new TMFSF for each of the proposed options.

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Event Days

	Attendance	Option 1	Option 2	Option 3
Sports				
Super Rugby	12,000	1	2	2
NPC Rugby	5,000	3	3	3
Football	1,500	2	2	2
Other	5,000	5	5	5
Community Sport	400	30	30	30
Outdoor Events				
Very Large	16,000	1	1	1
Large	10,000-12,000	4	4	6
Medium	5,000	8	8	10
Small	3,000	8	8	10
Function				
Very Large	700		10	
Large	500	15	25	15
Medium	200	20	25	20
Small	100	40	50	40
		137	173	144

Source: Visitor Solutions

The key difference between the options in the forecast event calendar is the number of non-sporting events that can be hosted. Under Option 2 the larger function space allows for larger events (up to 700 people) and greater function demand overall. Option 3 allows for a greater number of Outdoor Events (an additional six events per year). Under all options sporting events remain the same with the exception of one less Super Rugby game under Option 1.

As noted previously the model has been prepared on a 'dry hire' basis and therefore the venues share of ticket revenue, merchandise, security, catering, and signage has been excluded. Revenue does include the commercial rights sold from the arena, which have been benchmarked against similar domestic and international facilities.

The operating revenue for the TMFSF is from a number of different sources and varies across the alternative facility options:

Revenue Sources:

$NZ000's	Option 1	Option 2	Option 3
Events:			
Sports Events	124	164	164
Outdoor Events	480	480	625
Convention	63	108	63
Food & Beverage	1,240	2,360	1,240
	1,906	3,111	2,091
Gym Facility	993	993	993
Commercial Naming Rights	80	80	80
Facility Rental	1	1	1
Other			
Total (2022 Real Terms)	**2,980**	**4,185**	**3,165**

Source: Visitor Solutions, Deloitte Analysis

Note: Events Revenue is calculated based on $/Event and driven by the event calendar

Gym revenues have been benchmarked off other Tauranga facility analysis (Baywave) and conservatively scaled to compensate for the impact of events disrupting Gym access at times.

Operating Costs

There are a range of expenses resulting from the management and utilisation of major venues including:

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- Event day expenses – all expenses directly related to hosting an event, including (but not limited to) security, event cleaning, ushers, traffic management and event presentaiton.
- Venue overhead expenses – all other venue operating costs which cannot be directly attributable to an individual event including employee expenses, regular repairs & maintenance, turf maintenance, insurances, promotion, marketing and general administration expenses.
- Gym expenses are primarily salary & wages and maintenance costs.

As the analysis has been prepared on a 'Dry Hire' basis we have not incorporated the expenditure related to event day hosting. Only event day cost associated with the convention facilities (primarily food & beverage) have been incorporated.

Operating Costs

$NZ000's	Option 1	Option 2	Option 3
Stadium/Events			
Staff Costs	347	347	347
Direct Costs (including Food & Beverage)	1,445	2,358	1,495
Indirect Costs	145	145	145
	1,937	2,850	1,987
Gym/Fitness Centre			
Staff Costs	446	446	446
Direct Costs	118	118	118
Administration/Indirect Costs	50	50	50
	613	613	613
Total (2022 Real Terms)	**2,550**	**3,463**	**2,600**

Source: Visitor Solutions, Deloitte Analysis

The scope of our work for this financial analysis excludes consideration of a preferred management mode for the facility. For the purposes of the analysis, however, a number of implicit assumptions have been made regarding venue management, including:

- The venue is assumed to be managed by the venue owner (e.g a charitable trust of a Council entity) – therefore no private sector venue management fee has been included; and
- The venue manager is assumed to outsource many of the key operating activities to specialist third parties includiing ticketing, cleaning and security, which is common proactice across the industry.

Funding Sources

Typically there can be a range of funding sources available for infrastructure of this nature including:

- Debt funding- we anticipate the returns of the facility would likely be insufficient to support repayment of debt and therefore using this as a mechanism to fund the facility would likely place on-going financial stress on venue operations/TC;.
- Application of regional rates – it is not uncommon in New Zelaand for regional councils to apply a special regional rate to assist with funding major projects which will benefit an entire region. For example, this approach was adopting for Westpac Stadium and similarly for Forsyth Barr Stadium; and
- Pre-sales of commercial rights – if rights were pre-sold it would significantly impact the ongoing operational financial performance of the venue.

Funding for the TMFSF will need to be met through a combination of:

- Capital funding from the Crown;
- Debt provided by regional of local councils (likely sourced via the LGFA);
- Operating revenues and, if required and feasible, other commercial opportunties; and
- Funding through an "operating subsidy" provided by regional of local councils.

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Regional rate will also be investigated following the approval of the feasibility study.

A brief description of the alternative funding sources is provided below:

Party	Description
Capital Funding from Crown	The proposed phasing of the Council capital expenditure is based on the capital works projections prepared by Maltbys. At this stage there has been no engagement with central Government to ascertain the level of funding that may be available. Accordingly, for the purposes of our analysis we have conservatively assumed that $15m funding could be sourced from central Government.
Local/Regional Council Debt	We understand this would be provided in the form of LGFA debt. Within the modelling of the options the capital expenditure is funded by Council debt at 3.5% interest per annum, with debt repaid over 30 years. (Note: Councils can currently borrow at <3% interest rate, but the long-term interest rate applied for capital projects is 3.5%). This is consistent with other Council approaches we are aware of.
Operating Subsidy	As is frequently the case for public infrastructure projects, the operating costs for the TMFSF exceed operating revenues in all years of operation. The difference will be closed through an operating subsidy provided by the Council. The level of operating subsidy varies depending on the year – and are driven by fluctuation in demand and lifecycle requirements.
Regional Rates/Contribution	The financial impact of a wider regional contribution has not been included. There is an expectation that contributions would by forth coming from the territorial authorities in the wider Western Bay of Plenty Region. This is on the basis that the facility will benefit not just the residents of Tauranga but the surrounding region.

As an example of the relative funding across other NZ arena facilities:

- Dunedin's Forsyth Barr Stadium project cost $224 million (in 20XX) with the majority of the funding coming from the Dunedin City Council ($163 million), Otago Regional Council ($38 million), and central Government ($15 million). Operating subsidies are provided by DCC to support on-going operations.
- Wellington's Westpac / Sky Stadium project cost ~$130 million (in 20XX) with funding from the Wellington Regional Council ($25 million) and Wellington City Council ($15 million) in the form of limited recourse loans at 0%, Grants & Donations ($7 million), Fundraising ($50 million) and a ANZ Bank loan ($33 million). The ANZ Loan held security over the land and building and floating charge over the assets of the Trust. The interest rate was ~8% with a component on a floating basis.

For the purposes of our analysis we have assumed the following funding profile:

- Capital funding from the Crown $15 million (consistent with the Dunedin Stadium funding received);
- Grants and donations $5 million (e.g. Lotteries Commission etc);
- Regional rate ($0 million); and
- Debt provided by regional of local council (the residual difference).

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Financial Evaluation

Financial Summary

Based on this indicative analysis and modelling all three options are EBITDA positive. However, none of the options contribute sufficent profit to cover debt and interest payments nor a satisfactory contribution towards depreciation to fund replacements over time.

This is not uncommon - in our experience Stadiums are generally not financially self-sufficient (and often don't contribute enough to cover debt repayments or fund replacements over time) and therefore require "augmented" funding over time to remain cash flow positive.

The options are not cashflow positive over the 50 year modelled time horizon.

Financial Summary

$NZ000's	Option 1	Option 2	Option 3
Project Metrics:			
Cumulative Cash Flow	(362,436)	(306,094)	(474,283)
NPV	(172,199)	(150,454)	(209,004)
IRR	N/A	N/A	N/A
Payback (Non discounted)	+50yrs	+50yrs	+50yrs
Capital Intensity			
Capex	136,894	126,635	172,024
EBITDA (FY22 Real Terms)	430	722	565
Capital Intensity	318	175	304
Profitability			
Revenue (FY22 Real Terms)	2,980	4,185	3,165
EBITDA (FY22 Real Terms)	430	722	565
EBITDA Margin%	14%	17%	18%
Debt Metrics			
Debt	(118,939)	(108,502)	(157,362)
Debt Repayment	6,467	5,899	8,556

Source: Deloitte Analysis

Detailed financial projections for each option, including the cost to council, are provided within Appendices 2, 3 and 4.

Cumulative cashflow:

To quantify the options and ultimately determine which option is financially more viable we have assessed the cumulative cashflow difference on both an undiscounted and discounted basis.

As illustrated in the following chart Option 2 is more affordable relative to Option 1 & 3 due to a lower initial capital outlay but higher operational profits over the long term driven by the larger scale function space.

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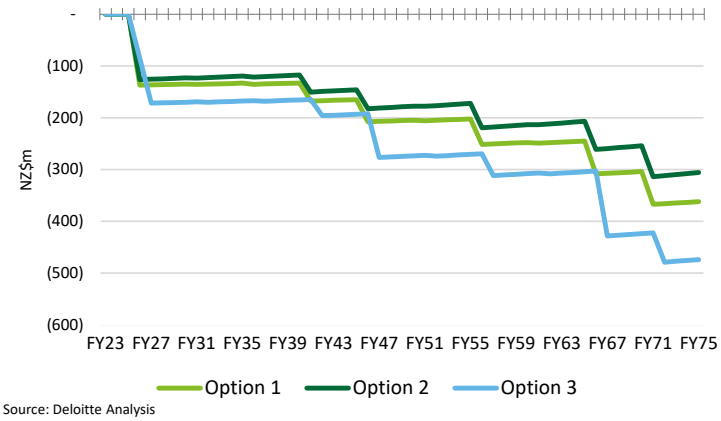
Cumulative Free Cash Flow (NZ$m)



Source: Deloitte Analysis

On an undiscounted basis (over 50 years) Option 2 will cost $56 million less (than Option 1) and $168 million less than Option 3. (~$21 million and ~$61 million on a discounted basis).

Impact on Rates:

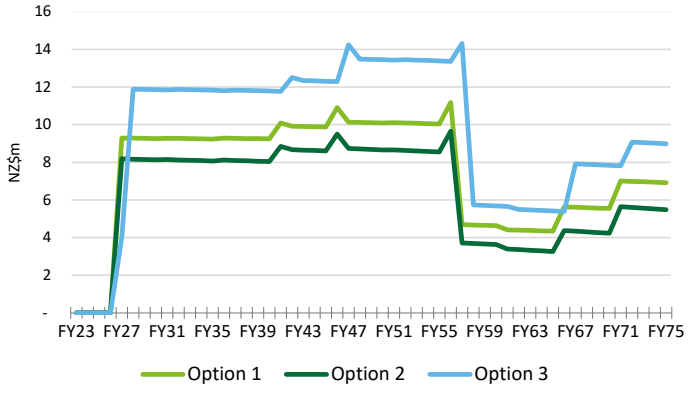
The rates cost to Council (what would be rated for) is assumed to be:

- The net operating cost (before depreciation).
- The cost of capital expenditure on the facility.
- Interest on debt borrowed to fund development of the facility.
- Debt repayment over 30 years.
- Depreciation, which is rated for and held in a reserve to fund capital replacements and renewals.

Our analysis indicates that:

- The gross cost of the facility reduces over time and this is evident after 30 years (~FY57) when the debt borrowed to fund the development has been paid off.
- The rates cost remains significantly lower for Option 2 relative to Option 1 (~$1 million pa lower) and Option 3 (~$4 million lower).

Cost to Council - Rates (NZ$m)



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Summary

Option 2 has the lowest capital cost and highest profitability (resulting in a lower overall rates increase to a ratepayer base).

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Options Analysis: Option 1: Detailed Forecast

Option 1 *Some years have been hidden for presentation purposes*

$NZ000's	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY37	FY42	FY47	FY52	FY57	FY62	FY67	FY72
Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*
Sports					11	11	11	11	11	11	11	11	11	11	11	11	11	11
Community Sports					30	30	30	30	30	30	30	30	30	30	30	30	30	30
Outdoor Events					21	21	21	21	21	21	21	21	21	21	21	21	21	21
Functions					75	75	75	75	75	75	75	75	75	75	75	75	75	75
Gym/Fitness Centre (Pax)					1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215
Revenue																		
Stadium	-	-	-	-	676	689	703	717	731	746	824	909	1,004	1,108	1,224	1,351	1,492	1,647
Function Centre	-	-	-	-	1,458	1,487	1,517	1,547	1,578	1,610	1,778	1,963	2,167	2,392	2,641	2,916	3,220	3,555
Gym/Fitness Centre	-	-	-	-	1,112	1,134	1,157	1,180	1,204	1,228	1,356	1,497	1,652	1,824	2,014	2,224	2,455	2,711
Other Revenue	-	-	-	-	91	92	94	96	98	100	111	122	135	149	164	181	200	221
Total	-	-	-	-	3,336	3,403	3,471	3,541	3,612	3,684	4,067	4,490	4,958	5,474	6,044	6,673	7,367	8,134
Salary & Wages	-	-	-	-	(887)	(905)	(923)	(941)	(960)	(979)	(1,081)	(1,194)	(1,318)	(1,455)	(1,607)	(1,774)	(1,959)	(2,163)
Direct	-	-	-	-	(1,749)	(1,784)	(1,820)	(1,856)	(1,893)	(1,931)	(2,132)	(2,354)	(2,599)	(2,870)	(3,169)	(3,498)	(3,862)	(4,264)
Indirect	-	-	-	-	(218)	(223)	(227)	(232)	(236)	(241)	(266)	(294)	(324)	(358)	(395)	(437)	(482)	(532)
Operating Costs	-	-	-	-	(2,855)	(2,912)	(2,970)	(3,029)	(3,090)	(3,152)	(3,480)	(3,842)	(4,242)	(4,683)	(5,171)	(5,709)	(6,303)	(6,959)
Net Operating Cost	**-**	**-**	**-**	**-**	**482**	**491**	**501**	**511**	**522**	**532**	**587**	**648**	**716**	**790**	**873**	**964**	**1,064**	**1,175**
Depreciation	-	-	-	-	(3,309)	(3,309)	(3,309)	(3,309)	(3,336)	(3,336)	(3,400)	(4,098)	(4,381)	(4,412)	(5,561)	(5,361)	(6,676)	(8,162)
Subtotal	-	-	-	-	(2,827)	(2,817)	(2,807)	(2,797)	(2,814)	(2,804)	(2,813)	(3,450)	(3,665)	(3,621)	(4,688)	(4,397)	(5,612)	(6,987)
Interest	-	-	-	(2,046)	(4,163)	(4,082)	(3,999)	(3,912)	(3,823)	(3,730)	(3,217)	(2,607)	(1,882)	(1,022)	-	-	-	-
Total Accounting Cost	-	-	-	(2,046)	(6,990)	(6,899)	(6,806)	(6,710)	(6,637)	(6,534)	(6,029)	(6,057)	(5,548)	(4,643)	(4,688)	(4,397)	(5,612)	(6,987)
Rates Cost to Council																		
Net Operating Cost	-	-	-	-	482	491	501	511	522	532	587	648	716	790	873	964	1,064	1,175
Interest Cost/Capitalised Interest	-	-	-	(2,046)	(4,163)	(4,082)	(3,999)	(3,912)	(3,823)	(3,730)	(3,217)	(2,607)	(1,882)	(1,022)	-	-	-	-
Capex - Establishment	-	-	-	(136,894)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
External Funding Received	-	-	-	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Draw/Repayment	-	-	-	118,939	(2,304)	(2,385)	(2,468)	(2,554)	(2,644)	(2,736)	(3,250)	(3,860)	(4,584)	(5,445)	-	-	-	-
Depreciation to Fund Replacements	-	-	-	-	(3,309)	(3,309)	(3,309)	(3,309)	(3,336)	(3,336)	(3,400)	(4,098)	(4,381)	(4,412)	(5,561)	(5,361)	(6,676)	(8,162)
Total Accounting Cost	-	-	-	0	(9,294)	(9,284)	(9,274)	(9,264)	(9,281)	(9,271)	(9,280)	(9,917)	(10,132)	(10,088)	(4,688)	(4,397)	(5,612)	(6,987)
Cash Flow Cost to Council																		
Cost to Rates	-	-	-	0	(9,294)	(9,284)	(9,274)	(9,264)	(9,281)	(9,271)	(9,280)	(9,917)	(10,132)	(10,088)	(4,688)	(4,397)	(5,612)	(6,987)
Addback Depreciation	-	-	-	-	3,309	3,309	3,309	3,309	3,336	3,336	3,400	4,098	4,381	4,412	5,561	5,361	6,676	8,162
Replacement Capex	-	-	-	-	-	-	-	-	(1,116)	-	-	-	-	-	-	-	-	-
Total Cost to Council - Cash Flow	-	-	-	0	(5,985)	(5,975)	(5,966)	(5,956)	(7,061)	(5,935)	(5,880)	(5,818)	(5,751)	(5,676)	873	964	1,064	1,175

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Options Analysis: Option 2: Detailed Forecast

Option 2 *Some years have been hidden for presentation purposes*

$NZ000's	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY37	FY42	FY47	FY52	FY57	FY62	FY67	FY72
Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*
Sports					12	12	12	12	12	12	12	12	12	12	12	12	12	12
Community Sports					30	30	30	30	30	30	30	30	30	30	30	30	30	30
Outdoor Events					21	21	21	21	21	21	21	21	21	21	21	21	21	21
Functions					110	110	110	110	110	110	110	110	110	110	110	110	110	110
Gym/Fitness Centre (Pax)					1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215
Revenue																		
Stadium	-	-	-	-	720	735	750	765	780	795	878	970	1,071	1,182	1,305	1,441	1,591	1,756
Function Centre	-	-	-	-	2,762	2,818	2,874	2,932	2,990	3,050	3,367	3,718	4,105	4,532	5,004	5,525	6,100	6,734
Gym/Fitness Centre	-	-	-	-	1,112	1,134	1,157	1,180	1,204	1,228	1,356	1,497	1,652	1,824	2,014	2,224	2,455	2,711
Other Revenue	-	-	-	-	91	92	94	96	98	100	111	122	135	149	164	181	200	221
Total	-	-	-	-	4,686	4,779	4,875	4,972	5,072	5,173	5,712	6,306	6,962	7,687	8,487	9,371	10,346	11,423
Salary & Wages	-	-	-	-	(887)	(905)	(923)	(941)	(960)	(979)	(1,081)	(1,194)	(1,318)	(1,455)	(1,607)	(1,774)	(1,959)	(2,163)
Direct	-	-	-	-	(2,771)	(2,827)	(2,883)	(2,941)	(3,000)	(3,060)	(3,378)	(3,730)	(4,118)	(4,547)	(5,020)	(5,542)	(6,119)	(6,756)
Indirect	-	-	-	-	(218)	(223)	(227)	(232)	(236)	(241)	(266)	(294)	(324)	(358)	(395)	(437)	(482)	(532)
Operating Costs	-	-	-	-	(3,877)	(3,954)	(4,033)	(4,114)	(4,196)	(4,280)	(4,726)	(5,218)	(5,761)	(6,360)	(7,022)	(7,753)	(8,560)	(9,451)
Net Operating Cost	**-**	**-**	**-**	**-**	**809**	**825**	**841**	**858**	**875**	**893**	**986**	**1,088**	**1,202**	**1,327**	**1,465**	**1,617**	**1,786**	**1,971**
Depreciation	-	-	-	-	(3,094)	(3,094)	(3,094)	(3,094)	(3,120)	(3,120)	(3,183)	(3,861)	(4,034)	(4,063)	(5,183)	(4,979)	(6,127)	(7,573)
Subtotal	-	-	-	-	(2,285)	(2,269)	(2,253)	(2,236)	(2,244)	(2,227)	(2,197)	(2,773)	(2,833)	(2,736)	(3,718)	(3,361)	(4,341)	(5,602)
Interest	-	-	-	(1,866)	(3,798)	(3,724)	(3,648)	(3,569)	(3,488)	(3,403)	(2,935)	(2,378)	(1,717)	(932)	-	-	-	-
Total Accounting Cost	-	-	-	(1,866)	(6,083)	(5,993)	(5,901)	(5,805)	(5,732)	(5,630)	(5,132)	(5,151)	(4,550)	(3,668)	(3,718)	(3,361)	(4,341)	(5,602)
Rates Cost to Council																		
Net Operating Cost	-	-	-	-	809	825	841	858	875	893	986	1,088	1,202	1,327	1,465	1,617	1,786	1,971
Interest Cost/Capitalised Interest	-	-	-	(1,866)	(3,798)	(3,724)	(3,648)	(3,569)	(3,488)	(3,403)	(2,935)	(2,378)	(1,717)	(932)	-	-	-	-
Capex - Establishment	-	-	-	(126,636)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
External Funding Received	-	-	-	20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Draw/Repayment	-	-	-	108,502	(2,102)	(2,175)	(2,252)	(2,330)	(2,412)	(2,496)	(2,965)	(3,521)	(4,182)	(4,967)	-	-	-	-
Depreciation to Fund Replacements	-	-	-	-	(3,094)	(3,094)	(3,094)	(3,094)	(3,120)	(3,120)	(3,183)	(3,861)	(4,034)	(4,063)	(5,183)	(4,979)	(6,127)	(7,573)
Total Accounting Cost	-	-	-	-	(8,185)	(8,169)	(8,152)	(8,135)	(8,144)	(8,126)	(8,096)	(8,672)	(8,732)	(8,635)	(3,718)	(3,361)	(4,341)	(5,602)
Cash Flow Cost to Council																		
Cost to Rates	-	-	-	-	(8,185)	(8,169)	(8,152)	(8,135)	(8,144)	(8,126)	(8,096)	(8,672)	(8,732)	(8,635)	(3,718)	(3,361)	(4,341)	(5,602)
Addback Depreciation	-	-	-	-	3,094	3,094	3,094	3,094	3,120	3,120	3,183	3,861	4,034	4,063	5,183	4,979	6,127	7,573
Replacement Capex	-	-	-	-	-	-	-	-	(1,043)	-	-	-	-	-	-	-	-	-
Total Cost to Council - Cash Flow	-	-	-	-	(5,091)	(5,075)	(5,058)	(5,041)	(6,067)	(5,007)	(4,914)	(4,811)	(4,698)	(4,573)	1,465	1,617	1,786	1,971

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Options Analysis: Option 3: Detailed Forecast

Option 3 *Some years have been hidden for presentation purposes*

$NZ000's	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY37	FY42	FY47	FY52	FY57	FY62	FY67	FY72
Year	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*15*	*20*	*25*	*30*	*35*	*40*	*45*	*50*
Sports					12	12	12	12	12	12	12	12	12	12	12	12	12	12
Community Sports					30	30	30	30	30	30	30	30	30	30	30	30	30	30
Outdoor Events					27	27	27	27	27	27	27	27	27	27	27	27	27	27
Functions					75	75	75	75	75	75	75	75	75	75	75	75	75	75
Gym/Fitness Centre (Pax)					1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215	1,215
Revenue																		
Stadium	-	-	-	-	-	900	918	937	956	975	1,076	1,188	1,312	1,448	1,599	1,765	1,949	2,152
Function Centre	-	-	-	-	-	1,487	1,517	1,547	1,578	1,610	1,778	1,963	2,167	2,392	2,641	2,916	3,220	3,555
Gym/Fitness Centre	-	-	-	-	-	1,134	1,157	1,180	1,204	1,228	1,356	1,497	1,652	1,824	2,014	2,224	2,455	2,711
Other Revenue	-	-	-	-	-	92	94	96	98	100	111	122	135	149	164	181	200	221
Total	-	-	-	-	-	3,614	3,687	3,760	3,836	3,912	4,320	4,769	5,266	5,814	6,419	7,087	7,824	8,639
Salary & Wages	-	-	-	-	-	(905)	(923)	(941)	(960)	(979)	(1,081)	(1,194)	(1,318)	(1,455)	(1,607)	(1,774)	(1,959)	(2,163)
Direct	-	-	-	-	-	(1,841)	(1,878)	(1,916)	(1,954)	(1,993)	(2,201)	(2,430)	(2,682)	(2,962)	(3,270)	(3,610)	(3,986)	(4,401)
Indirect	-	-	-	-	-	(223)	(227)	(232)	(236)	(241)	(266)	(294)	(324)	(358)	(395)	(437)	(482)	(532)
Operating Costs	-	-	-	-	-	(2,969)	(3,028)	(3,089)	(3,151)	(3,214)	(3,548)	(3,917)	(4,325)	(4,775)	(5,272)	(5,821)	(6,427)	(7,096)
Net Operating Cost	**-**	**-**	**-**	**-**	**-**	**646**	**659**	**672**	**685**	**699**	**772**	**852**	**941**	**1,038**	**1,146**	**1,266**	**1,398**	**1,543**
Depreciation	-	-	-	-	-	(3,979)	(3,979)	(3,979)	(3,979)	(4,014)	(4,052)	(4,794)	(6,629)	(5,935)	(6,900)	(6,758)	(9,323)	(10,622)
Subtotal	-	-	-	-	-	(3,333)	(3,320)	(3,307)	(3,294)	(3,315)	(3,281)	(3,942)	(5,689)	(4,897)	(5,754)	(5,492)	(7,925)	(9,079)
Interest	-	-	-	(1,315)	(4,021)	(5,508)	(5,401)	(5,291)	(5,176)	(5,058)	(4,401)	(3,622)	(2,696)	(1,596)	(289)	-	-	-
Total Accounting Cost	-	-	-	(1,315)	(4,021)	(8,841)	(8,721)	(8,598)	(8,470)	(8,373)	(7,682)	(7,563)	(8,385)	(6,492)	(6,043)	(5,492)	(7,925)	(9,079)
Rates Cost to Council																		
Net Operating Cost	-	-	-	-	-	646	659	672	685	699	772	852	941	1,038	1,146	1,266	1,398	1,543
Interest Cost/Capitalised Interest	-	-	-	(1,315)	(4,021)	(5,508)	(5,401)	(5,291)	(5,176)	(5,058)	(4,401)	(3,622)	(2,696)	(1,596)	(289)	-	-	-
Capex - Establishment	-	-	-	(85,138)	(86,888)	-	-	-	-	-	-	-	-	-	-	-	-	-
External Funding Received	-	-	-	10,000	10,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Draw/Repayment	-	-	-	76,453	80,909	(3,048)	(3,155)	(3,265)	(3,380)	(3,498)	(4,155)	(4,934)	(5,860)	(6,960)	(8,267)	-	-	-
Depreciation to Fund Replacements	-	-	-	-	-	(3,979)	(3,979)	(3,979)	(3,979)	(4,014)	(4,052)	(4,794)	(6,629)	(5,935)	(6,900)	(6,758)	(9,323)	(10,622)
Total Accounting Cost	-	-	-	-	-	(11,889)	(11,876)	(11,863)	(11,850)	(11,871)	(11,837)	(12,498)	(14,245)	(13,453)	(14,310)	(5,492)	(7,925)	(9,079)
Cash Flow Cost to Council																		
Cost to Rates	-	-	-	-	-	(11,889)	(11,876)	(11,863)	(11,850)	(11,871)	(11,837)	(12,498)	(14,245)	(13,453)	(14,310)	(5,492)	(7,925)	(9,079)
Addback Depreciation	-	-	-	-	-	3,979	3,979	3,979	3,979	4,014	4,052	4,794	6,629	5,935	6,900	6,758	9,323	10,622
Replacement Capex	-	-	-	-	-	-	-	-	-	(1,502)	(1,659)	(32,058)	(85,319)	(2,233)	(43,146)	(2,721)	(126,780)	(58,069)
Total Cost to Council - Cash Flow	-	-	-	-	-	(7,910)	(7,897)	(7,884)	(7,871)	(9,360)	(9,443)	(39,762)	(92,935)	(9,750)	(50,555)	(1,456)	(125,382)	(56,526)

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Appendix 10

10

Date: 28/04/2022

TAURANGA MULTI-FUNCTION STADIUM

ECONOMIC ASSESSMENT: SUMMARY OF KEY POINTS

This economic assessment is forms part of the wider assessment into the options around developing a multi-function stadium in Tauranga. The preliminary assessment is based on initial data and will need to be expanded as further information becomes available and this short paper summarises the key points. It is not a detailed description of the process, assumptions or findings. The findings will need to be finalised as the project costs (capex) and the ongoing activities (e.g., number and scale of events) are refined and agreed to. This includes the funding arrangements because they influence the size and direction of the economic impacts.

Two different economic assessment tools underpin the analysis:

- A cost benefit analysis (CBA) – A CBA sheds light on the relationship between all the costs and benefits and the results are reported as a ratio, and
- An economic impact assessment (EIA) – An EIA explores the expected change in economic activity that would be facilitated by a new development. It includes the flow-on (supply chain) effects throughout the economy. GDP and employment impacts are reported.

The objective is to provide a high-level assessment of the economic effects associated with establishing a multi-function stadium in Tauranga (a facility). The modelling and assessment structures applied for this assessment are consistent other/similar assessments and processes, like securing funding from the Provincial Growth Fund and applications under the COVID-19 Recovery (Fast-track Consenting) Act. These were prepared using approaches as outlined by the New Zealand Treasury[1] and the Better Business Case approach. In addition, the assessment includes the GDP and employment effects as used in several economic assessments, including work in the Bay of Plenty.

The assessment is based on inputs as prepared by third parties, specifically the work of Deloitte, Maltbys and the Visitor Solutions. This work is taken as accurate (at the time), and we have not reviewed it. In addition, a range of informed assumptions underpin the modelling, and like any modelling several limitations and caveats apply[2]. A conservative position is maintained throughout to limit optimism bias.

The two options, 'stadium with fitness' and 'stadium with light exhibition', were considered separately.

Cost and benefits

The costs benefit analysis includes the different costs, and benefits that the facility would support and facilitate. The following elements are included:

[1] Treasury New Zealand (2017) Guide to Social Cost Benefit Analysis.
[2] Detail can be provided upon request.

CORE ITEMS INCLUDED IN THE ASSESSMENT

Cost		Benefits
Capital costs and ongoing maintenance costs (life cycle costs)		Benefits to participants (consumer surplus)
The costs associated with operating the facility		The terminal value of the facility
The costs associated with delivering the services (e.g., food and beverages)		Benefits to community users (based on time values and facility use)
The value of the resources used to service 'new visitors' and the associated activity (estimated using producers' surplus)		Return on business spending (e.g., for exhibitors, naming rights)
Participants opportunity costs		

A default rate of 5% was used to discount future cashflows into present values. This rate is consistent with the default rates suggested by the NZ Treasure and Waka Kotahi NZ Transport Authority[3]. The following table summarises the costs and benefits for the two options.

Table 1: Summary – Costs and Benefits (@5%)

	Benefits $m	Costs $m	Net position $m	CBR	Annual (50 y) $m
Stadium and Fitness	479.7	679.4	-199.7	0.7	-4.0
Stadium and Light Exhibition	837.4	1,031.1	-193.7	0.8	-3.9

Both options return a CBR that is less than one, suggesting that the costs outweigh the benefits. Importantly the core driver of the net position is the cost associated with establishing the facility, and the ongoing life cycle costs. At the same time the relatively low value (benefit) associated with the community use is also a drag (because a part of the benefit cannot be expressed in monetary terms). Regardless, the relatively low benefit of the community activities stems from the displacement and substitution with existing facilities.

Economic impacts assessment

The second tool used in the assessment is the EIA, and it is based on a Multi-regional Input-Output table, and the Dollar-values are expressed in 2021-terms. The different components of the facility were considered independently, and include:

- The construction effects,
- The life cycle costs,
- The ongoing and operational effects. This includes visitor spending that is attracted to Tauranga due to the facility.

[3] Acknowledging that Waka Kotahi's projects are transport related.

The model reflects the supply chain effects[4] and the impacts are reported using Value Added[5] and Modified Employee Counts[6]. The impacts are due to a lift in economic activity in response to new demands generated by the facility. The total impacts include the direct, indirect as well as the impacts. Table 2 summarises the VA impacts using a 5% discount rate.

Table 2: VA Impacts (NPV @5%)

Stadium and fitness	Phase		
	Construction	Life Cycle	Ongoing
Tauranga City	34	3	69
Rest of Bay of Plenty	13	1	15
Rest of NZ	98	8	48
Total	***145***	***12***	***133***
GRAND TOTAL		***289***	
Stadium and light exhibition	**Phase**		
	Construction	Life Cycle	Ongoing
Tauranga City	36	3	105
Rest of Bay of Plenty	13	1	22
Rest of NZ	106	8	74
Total	**155**	**13**	**201**
GRAND TOTAL		***369***	

The present value of the total VA[7] that would be delivered by the two options is estimated at:

- Stadium and Fitness $289m,
- Stadium and Light Exhibition $369m.

The two options have broadly similar impact profiles, with the spatial impacts showing similar distributions across Tauranga, the rest of the Bay of Plenty and the Rest of NZ. Large shares of the VA impact generated during construction is expected to flow out of the region to the test of NZ, but mostly Auckland, and is a function of supply chains. However, **the ongoing activity will see large shared of the VA remain locally, with between $76m and $105m in additional VA locally once fully operational.**

From an employment perspective, the number of jobs supported during the different stages cannot be expressed in 'present value' terms. Using annual employment levels at the peaks, shows that establishing the facility will support local employment. The construction and life-cycle jobs are temporary, aligned with the investment cycles. During the construction period, the locally supported employment will vary between 495

[4] Sometimes referred to as multiplier effects; we do not use multiplier to estimate the impacts as this can mis-represent the impacts. Instead the economic shock is translated into final demand, and the economic shifts required to meet the new level of demand are estimated.
[5] Value Added is like GDP but taxes are treated differently.
[6] A Modified Employee Count is a head count of all workers (including part time workers) and allowance is made for working proprietors.
[7] These estimates do not show the potential effects of funding. The VA could be $15m (upper limit) lower and the scale is a dependent on how the shortfall(s) are financed.

and 525 MECs in the local economy (during peak construction). The ongoing activity will support the continuous jobs. At the max (at full capacity) the two options will support:

- Stadium and Fitness 190 MECs locally in Tauranga
- Stadium and Light Exhibition 290 MEC locally in Tauranga.

Concluding remarks

The economic assessment illustrates the tension that normally exists when reviewing large, community facing facilities such as stadium. Investing in stadiums are often motivated based on the potential economic impacts that they support (VA and jobs) but the value for money (cost and benefit) proposition is difficult to see in a positive light – these are well documented observations and not unique to the Tauranga project. Regardless, cities and regions are still investing in new facilities and upgrading existing facilities. Often the motivation is related to enhancing existing facilities and amenities, and improving user experiences. Adding capacity and enabling a wider range of uses and participation is another reason for investing in facility upgrades. At the same time, upgrading facilities are also seen to expand local access to higher quality sport events. Experience suggests that the ability to host more, and higher level sport events assists cities to attract new visitors and visitor spending. In turn these visitors help to generate positive economic effects.

While the CBA returns a below-one position for the two options, it is important to note that the assessment does not integrate other potential benefits, like:

- Identity of place and pride in the city arising from the stadium and quality infrastructure,
- Potential neighbourhood effects and associated property value change[8] arising from the investment,
- The potential to support regeneration efforts around the CBD, and enabling additional commercial and residential developments.
- The value of health outcomes. The community facility element would encourage wellbeing and lift healthy lifestyle choices, improve engagement in sports and physical activity.
- Improved local talent. The facility would support existing sport codes to improve the quality of their leagues, lifting quality and capabilities.

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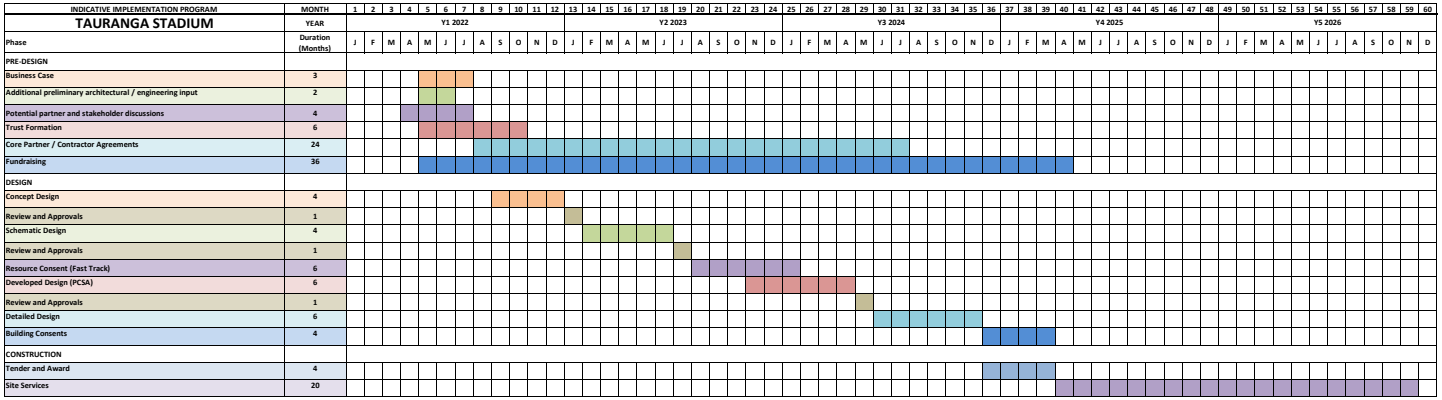
[8] Some studies show property values can increase around stadium developments. Matheson. V. Point/Counterpoint. Is there a case for subsidizing sports stadiums. December 2018.

Appendix 11

TAURANGA STADIUM - IMPLEMENTATION PROGRAM



APRIL 2022

Appendix 12

12

TAURANGA MULTI-FUNCTION EVENT FACILITY

APRIL 2022

WARREN AND MAHONEY®
VISITOR SOLUTIONS

TAURANGA/ WHAREPAI DOMAIN
PROXIMITY STUDY

LOCATION	DISTANCE	
TAUANGA BRIDGE MARINA	2.0 KM	4 MIN
TAURANGA YACHT CLUB	2.5 KM	6 MIN
BLAKE PARK	5.0 KM	8 MIN
TAURANGA AIRPORT	4.8 KM	9 MIN
MOUNT MAUNGANU GOLF CLUB	5.7 KM	10 MIN
TAURANGA HOSPITAL	4.2 KM	11 MIN
MOUNT MAUAO RESERVE	4.2 KM	11 MIN
OMANU GOLF CLUB	7.7 KM	11 MIN
MAUNGANUI BEACH	7.3 KM	13 MIN

WARREN AND MAHONEY VISITOR SOLUTIONS

1:15000 @ A3

TAURANGA/ WHAREPAI DOMAIN
EXISTING SITE CONTEXT REPORT

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

3

SITE LOCATION OPTIONS STUDY

WARREN AND MAHONEY

VISITOR SOLUTIONS

PROPOSED
SITE LOCATION EXPLORATION

01.

SUMMARY

Central Location (Roughly Covering the Athletics Track)

PROS

- Maximise future expansion
- Retention of cricket oval, northern sports fields, tennis and southern field
- Positive larger site circulation (linkages between central and northern open spaces)
- Ability to use trees to soften built structure
- Best precinct wide operational / functional outcomes for recreation and events

CONS

- Removal of athletics, bowls club and croquet club

02.

SUMMARY

A Southern Location on Wharepai Domain

PROS

- Stadium form shrouded by trees (although some are protected)
- Retention of athletics track, northern fields, and Cricket oval
- Closer connection to the CBD

CONS

- Likely impact on protected heritage trees
- Significant site level changes high excavation cost
- Removal of tennis, bowls club, croquet club and southern field
- Negative larger site circulation
- Limited future expansion
- Maximum site disruption

03.

SUMMARY

A Northern Location Covering the Cricket Oval Area

PROS

- Flat site for simple construction
- Retention of athletics track bowls, tennis, and southern field

CONS

- Access restricted/ reduced footprint
- Limited future expansion
- Removal of proposed northern temporary stand (lower capacity)
- Negative larger site circulation (no open space linkages with stadium turf)
- More exposed to weather conditions

WARREN AND MAHONEY VISITOR SOLUTIONS

PROPOSED
SITE LOCATION
PROPOSED

SUMMARY

PROS

- MAXIMISES FUTURE EXPANSION
- RETENTION OF CRICKET OVAL, TENNIS AND SOUTHERN OVAL
- POSITIVE LARGER SITE CIRCULATION

CONS

- REMOVAL OF BOWLS CLUB AND CROQUET

WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

WARREN AND MAHONEY®

VISITOR SOLUTIONS

Appendix 13

TAURANGA MULTI-FUNCTION EVENT FACILITY

APRIL 2022

WARREN AND MAHONEY®

VISITOR SOLUTIONS

TAURANGA/ WHAREPAI DOMAIN
PROXIMITY STUDY

LOCATION	DISTANCE
TAUANGA BRIDGE MARINA	2.0 KM 4 MIN
TAURANGA YACHT CLUB	2.5 KM 6 MIN
BLAKE PARK	5.0 KM 8 MIN
TAURANGA AIRPORT	4.8 KM 9 MIN
MOUNT MAUNGANUI GOLF CLUB	5.7 KM 10 MIN
TAURANGA HOSPITAL	4.2 KM 11 MIN
MOUNT MAUAO RESERVE	4.2 KM 11 MIN
OMANU GOLF CLUB	7.7 KM 11 MIN
MAUNGANUI BEACH	7.3 KM 13 MIN

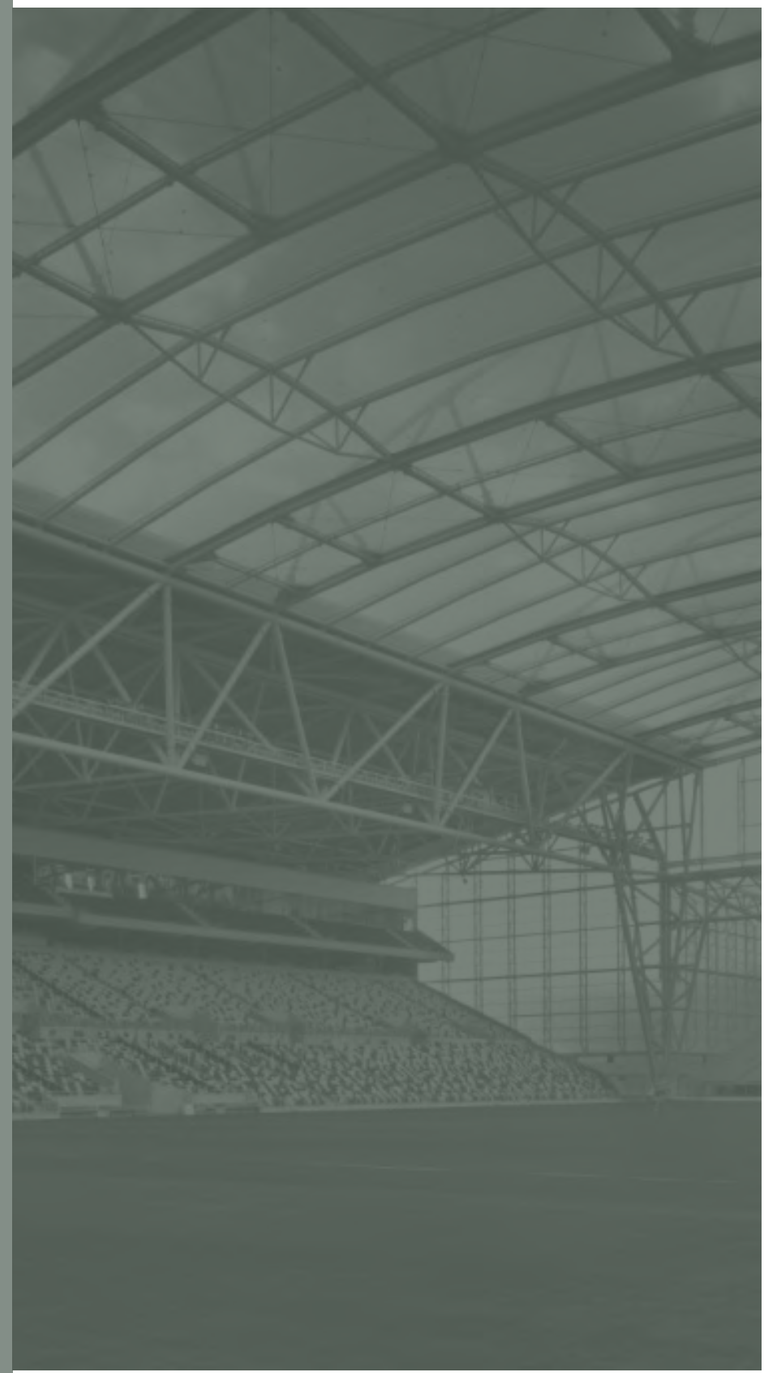
WARREN AND MAHONEY VISITOR SOLUTIONS

1:15000 @ A3

TAURANGA/ WHAREPAI DOMAIN
EXISTING SITE CONTEXT REPORT

WARREN AND MAHONEY VISITOR SOLUTIONS

1:1000 @ A3

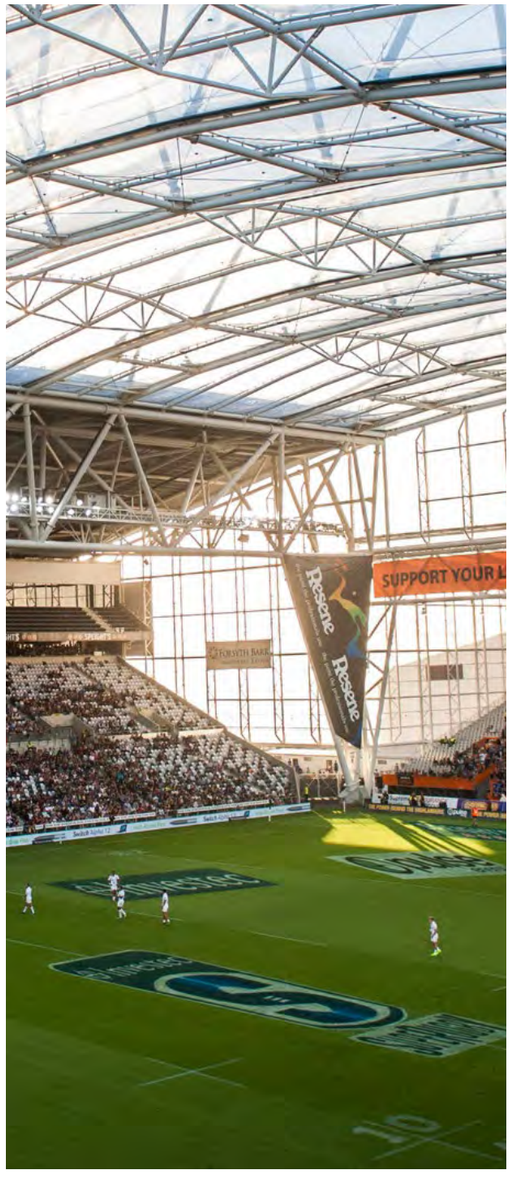


WARREN AND MAHONEY®

VISITOR SOLUTIONS

PRECEDENT STUDY

FORSYTH BARR STADIUM, DUNEDIN

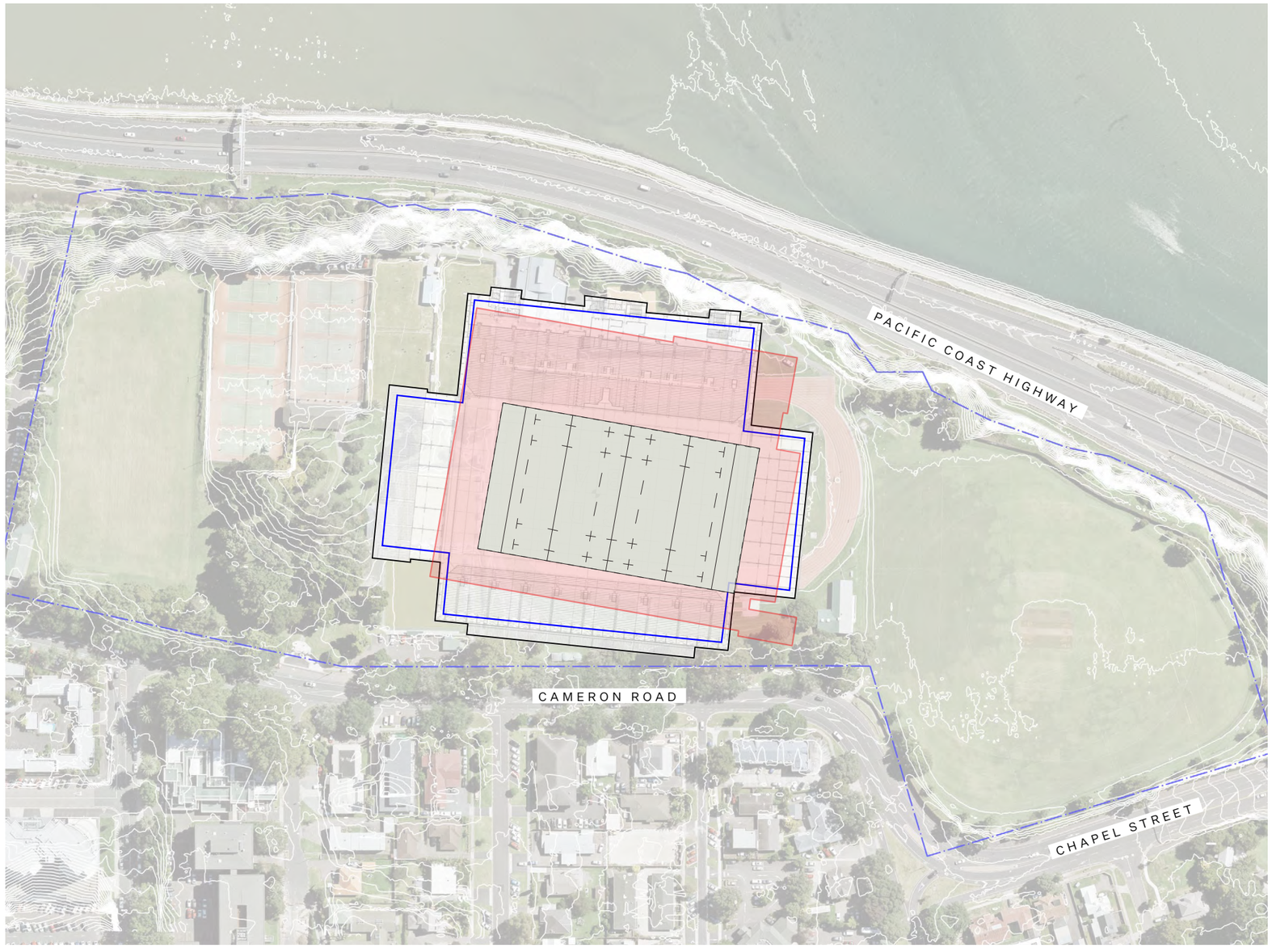


SUMMARY

COMPLETED	AUG 2011
GFA	APPROX. 28 000 SQM
CAPACITY	30 800 SEATS
CONSTRUCTION COST	224 MILLION
DIMENSIONS	APPROX. 205M X 170M

WARREN AND MAHONEY VISITOR SOLUTIONS

STADIUM FOOTPRINT STUDY
FORSYTH BARR STADIUM, DUNEDIN



SUMMARY

COMPLETED	AUG 2011
GFA	APPROX. 28 000 SQM
CAPACITY	30 800 SEATS
CONSTRUCTION COST	224 MILLION
DIMENSIONS	APPROX. 205M X 170M

FORSYTH BARR STADIUM, DUNEDIN

FORSYTH BARR STADIUM, DUNEDIN
(20 000 SEAT CONFIGURATION)

10 700 SEAT STADIUM PROPOSED

WARREN AND MAHONEY

VISITOR SOLUTIONS

1:1000 @ A3

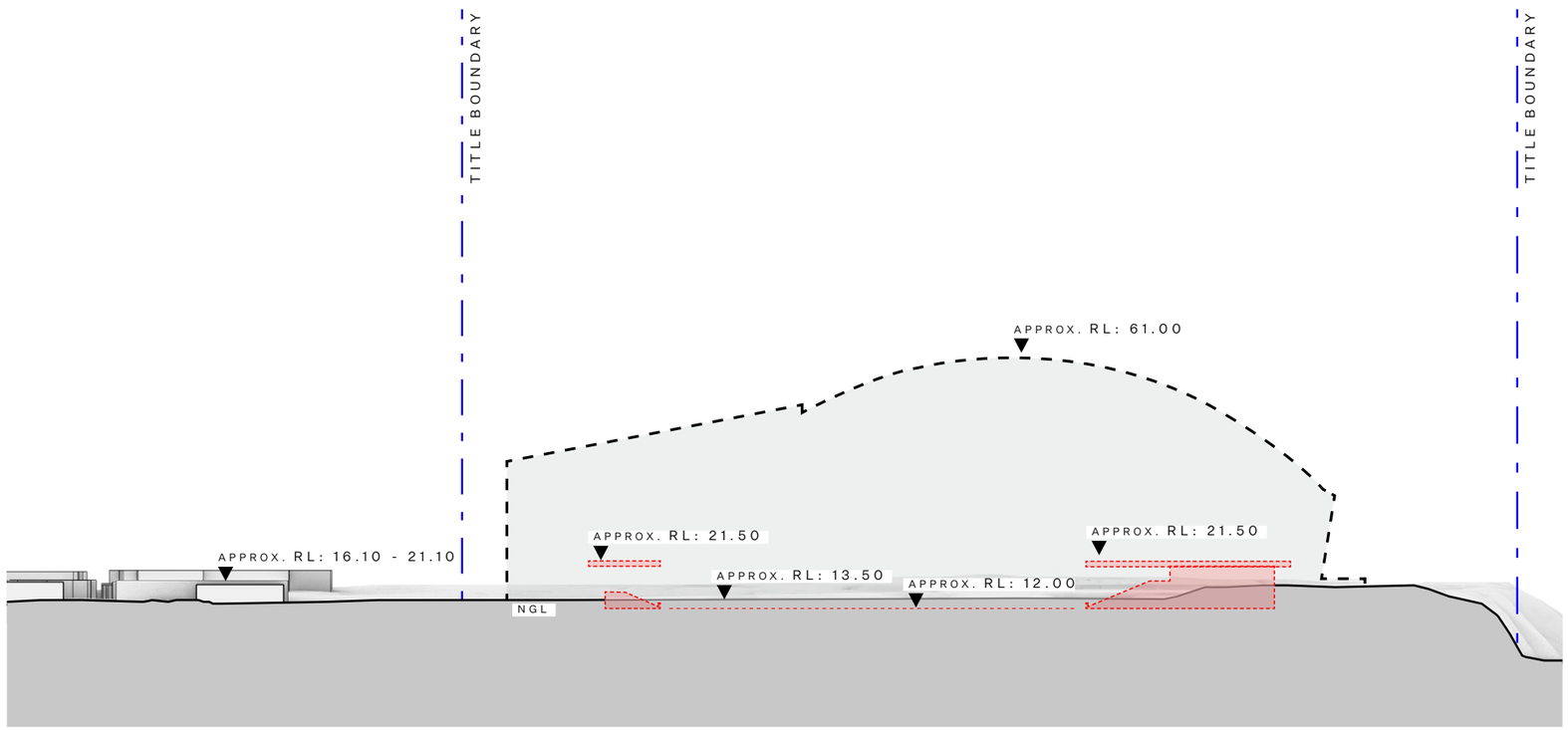
STADIUM ELEVATION STUDY
FORSYTH BARR STADIUM, DUNEDIN

SUMMARY

COMPLETED	AUG 2011
GFA	APPROX. 28 000 SQM
CAPACITY	30 800 SEATS
CONSTRUCTION COST	224 MILLION
DIMENSIONS	APPROX. 205M X 170M

FORSYTH BARR STADIUM, DUNEDIN

10 700 SEAT STADIUM PROPOSED



WARREN AND MAHONEY VISITOR SOLUTIONS

1:2000 @ A3

WARREN AND MAHONEY®

VISITOR SOLUTIONS

Appendix 14

Boffa Miskell

Memorandum

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Attention:	Craig Jones
Company:	Visitor Solutions
Date:	6th April 2022, Revision A
From:	Rebecca Ryder, Landscape Architect, Associate Partner, Boffa Miskell Ltd
Message Ref:	Landscape Preliminary Assessment - Tauranga Stadium Feasibility Study
Project No:	BM211008

Tauranga Stadium Feasibility Study - Preliminary Landscape Assessment

Executive Summary

The landscape values and amenity provided by the Tauranga Domain form a key part of the urban and cultural landscape of Otamataha, Te Papa and the Tauranga CBD area. The evaluation of options relating to landscape values and the visual amenity provided by the Domain have guided the preferred option design development.

The key considerations of the evaluation have considered the landscape attributes, the Te Papa Spatial Plan and the operative Tauranga City Plan. These considerations are all formative of the character the CBD and the surrounding City Living Zones, including Wharepai and Tauranga Domains'. The evaluation considered two final proposals centred on the existing main sports field at Tauranga Domain. The removal of formal sports of Athletics, Bowls and Croquet are required to deliver the stadium and the required access and concourse. The change in use from compartmentalised leased areas to effectively two areas being tennis and the proposed stadium retains the passive and active recreation balance that is unique to the Domains'. The preferred option for the visual and landscape integration is Option Two, comprising an open connected facility that opens to the north, connecting open space within the reserve, retains a low profile to remain subservient to the heritage trees and vegetated character of Otamataha and retains an open sided 24hr accessed facility that supports the growing residential community of the City Living Zone and users of the CBD.

The feasibility study design has considered the Tauranga City Plan provisions and the preliminary assessment comprises an opportunity to visually integrate the proposal into the cityscape. The likely degree of landscape and visual effects will of a low degree and requires a full assessment of landscape and visual effects. The inclusion of stadium lighting to this option will see a potential infringement into the protected sightlines to Mauao and may have potential, depending on the placement, to impact on views to Mauao. However the potential effect should be anticipated as part of a recreation reserve and the interface with residential land use will be mitigated by the retention of mature tree cover around the Domains' and Cameron Road.

The alternative roofed design introduces a change to the recreation use, accessibility, and visual dominance the facility will have on the peninsula. The following evaluation identifies significant visual effects matters that are likely to result. These relate to the urban landscape character, recreation use and protected sightlines. This proposal is unlikely to meet a no more than minor threshold when considering the landscape and visual effects, for a future consent application.

Tauranga Stadium Feasibility Study - Preliminary Landscape Assessment

Introduction

The following details the existing landscape values and considerations for two options for the placement of an event stadium at Tauranga Domain. The term 'landscape' in this regard refers to the urban landscape comprising the modified and natural landform, vegetation patterns, built patterns, sensory values and associative values.

Site Context

Set at the northern end of the Te Papa peninsula the Tauranga Domain comprises rich cultural heritage with its original siting of the Otamataha Pa. Cultural heritage is extensive across this site and the peninsula with the Tauranga Domain and The Elms sited at the historical harbour's edge, with a sand bar, Paritaha, sited where the Sulphur Point reclamation now exists. The escarpment that surrounds the Tauranga Domain provides a legible indicator of the once natural shoreline that extended around the Te Papa peninsula to Otumoetai. These natural landforms remain broadly intact with a mixture of native and exotic vegetation along escarpment.
The Tauranga and Wharepai Domains provide a collective open space that frames and screens urban development of the CBD area. Large heritage trees and framework vegetation provide an 'established' parkland character to the northern entry to the CBD along Cameron Road. Puriri trees extend along Cameron Road along the extent of the Domains' frontage and reinforce a high level of urban and visual amenity.
The vegetation patterns within the domain and along Cameron Road collectively create a backdrop and foreground, that settle the existing and future permitted urban form amongst it. Built form remains broadly subservient to the dominant vegetation patterns retaining a distinctive character that is recognised as important within Tauranga City Council non statutory planning documents:

- Tauranga Landscape Study
- Residential Character Study

The Domains' provide open space and parkland character to this end of the peninsula and is distinctive to that of other open space areas within the CBD.
Recreation values of the Domain are attributed to both passive and active recreation activities with the Domain frequented through organised sports, events and passive recreation for CBD dwellers and visitors. The Domain offers extensive open space to accommodate a wider number of users, providing areas for relaxation and active recreation for a growing community within an intensifying area of the City.
Within the Domains' organised recreation comprises bowls, croquet, cricket, rugby, athletics and tennis facilities. The croquet, bowls and tennis a sited on a ridgeline that extends between Wharepai and Tauranga Domain areas, dividing the site into two distinctive open space areas with fields. The existing rugby / athletics stadium is sited to the western side of the field, shielding spectators from the prevailing westerly winds.
Walkability of the Domain from the CBD is a unique characteristic with it's placement comprising a key node in the wider recreation open space network within the CBD. Other open space areas comprise:

- Cliff Road Reserve
- The Redoubt
- Tauranga CBD Waterfront
- The Elms
- Waikareao Estuary walkway
- Aspen Tree Reserve

Each of these open spaces provide a variety of types of recreation, with the Domain providing the only suitable space for informal sport and large gatherings. The Tauranga Reserve Management Plan (2019) identifies the Tauranga Domain as a premier sports park, catering for a wide range of sports. The park also provides valuable inner-city green space. It provides for public access to this space to be preserved, with a balance maintained between the existing leased exclusive use areas and areas of free public access. Whereas Wharepai Domain is a dedicated events space. This part of the overall park will be developed for events use, with sporting use of the park being its secondary purpose. The greenspace nature of the park will be maintained. The key reserve management plan statements are as follows[1]:

[1] Refer Page 442 - https://www.tauranga.govt.nz/Portals/0/data/council/plans/reserve_management/files/tga_rmp/final_tauranga_rmp_reserve_specific_info.pdf

1. Public access to this space must be preserved, with a balance maintained between the existing leased exclusive use areas and areas of free public access.
2. Maintain Wharepai Domain as a space to serve as a major events park and inner-city green space.
3. The design and layout of the park shall be reviewed at the time that individual leases expire.
4. No leases for new buildings will be permitted on any part of Tauranga or Wharepai Domain.
5. No permanent fencing is permitted on any part of Tauranga Domain. Relocatable fencing may be used for events.
6. Continue to advocate for improved pedestrian access across Cameron Road and into the park, and with the Takitimu Drive walkway linkage.
7. Preserve the amenity of the grove of mature trees near the Memorial Gates.
8. Consider the future requirements for the building on Wharepai Domain, including the opportunity to incorporate the public toilets within this building and demolish the stand alone public toilets on the domain.
9. Improve and enhance the Peace Mile.
10. No additional areas of carparking will be provided for current users.
11. As the reserve contains archaeological values, consideration will be given to the requirement to consult with Heritage New Zealand Pouhere Taonga in planning and implementing works within the reserve.

The City Centre Strategy (2012) identifies that the Tauranga and Wharepai Domains are important large scale green spaces close to the City Centre. Their role of providing passive and active recreation opportunities will not change, and they will provide a venue for occasional park based events (e.g. sporting carnivals, garden show, motor show). The role of the Tauranga and Wharepai Domains as a respite for City Centre residents will grow, and dog walking areas, additional seating and quiet contemplation areas will be developed. The historic gates will remain as a key feature of the Cameron Road streetscape. Landscaped pedestrian links will connect the Tauranga and Wharepai Domains to The Elms and Cliff Road area and to the rest of the City Centre along Cameron Road.

The character of the CBD is defined by the balance of built form to the vegetation patterns, height and responsiveness to the natural landform. Height is centred to the CBD basin area to the east of Cameron Road with tall tree cover creating a book end to the CBD. This dominance of vegetation cover within a high-density area provides a very high degree of urban visual amenity for Tauranga City which is largely unique to this area and the early avenues.
The urban built form patterns centre building height to the south of Hamilton Street up to Elizabeth Street. Buildings can extend up to RL48.7, above NZVD16 datum, within a basin that falls to the east from Cameron Road. Building height to the north of Hamilton Street, at the headland plateau of the Te Papa peninsula, is confined to a building height of 19m fronting Cameron Road, above the permitted ground level. The proposed building heights for the Te Papa Spatial Plan see an increase to 20m above ground level supporting a high-density building typology.
Some buildings currently extend above the operative Tauranga City Plan building height limits in this area, however all remain in context with surrounding built form and the dominant tree cover provided by the Domain, The Elms and the Redoubt, along Cliff Road.
Views to the Tauranga Harbour and Mauao are enjoyed from Tauranga Domain and are experienced through formal running trails around the Domain (Name the walk) and from within the existing central and northern sports fields. Views to Mauao are also apparent throughout this northern end of the Domain. The Tauranga City Plan (TCP) also identified protected viewshafts across the CBD to Mauao from Marae and identified viewpoints. Map 22 of the TCP[2] identifies that areas of the Domain are highly sensitive to additional heights of buildings, with allows of between 0 - 2m above the permitted building height of 15m before the Mauao Protected viewshafts are infringed.

[2] http://econtent.tauranga.govt.nz/data/city_plan/maps/S7/Section7L22.pdf

Proposed Stadium Options

The siting of a stadium at the Tauranga Domain has undergone a location analysis across the two Domains, considering the impact the siting would have on the current facilities, integration with the CBD activities and continued recreation use of the open space. Option Locations A, B, C and D[3] for the siting considered the spatial footprint required and the surrounding concourse and other facilities, accessibility and connectivity to the surrounding street network. Equally consideration of the heritage features, viewshafts and recreation opportunities were evaluated. Option Location A was selected to proceed for the evaluation of stadium types.

Within this same reporting three stadium concept options were presented:

	Option 1	**Option 2**	**Option 3**
Permanent Seating	10,000	8,000	10,000
Temp Seating	Up to 5,000	Up to 5,000	Up to 2,500
Function Space	770 m^2	1,000 m^2	770 m^2
Gym	Yes	Yes	Yes
HP Centre	Yes	Yes	Yes
Arena Roof	No	No	Yes
Sunken pitch	Yes	Yes	Yes

Following this evaluation two options were considered for the Feasibility Study investigating the Domain's capacity to accommodate different seating sizes and associated building and structures. For the evaluation consideration of a comparative stadium design has been integrated into the evaluation by use of the Forsyth Barr Stadium from Dunedin. The two options comprise:

Option 2
A partially covered stadium seated area placed centrally with an open sided and open northern end to the northern cricket grounds. Vegetation cover is retained throughout the Park and the structure is proposed to extend to approx. RL23.50 in height, 10m above the natural landform. This proposal sits 5m below the permitted building heights for the area and does not extend into the protected viewshafts to Mauao.

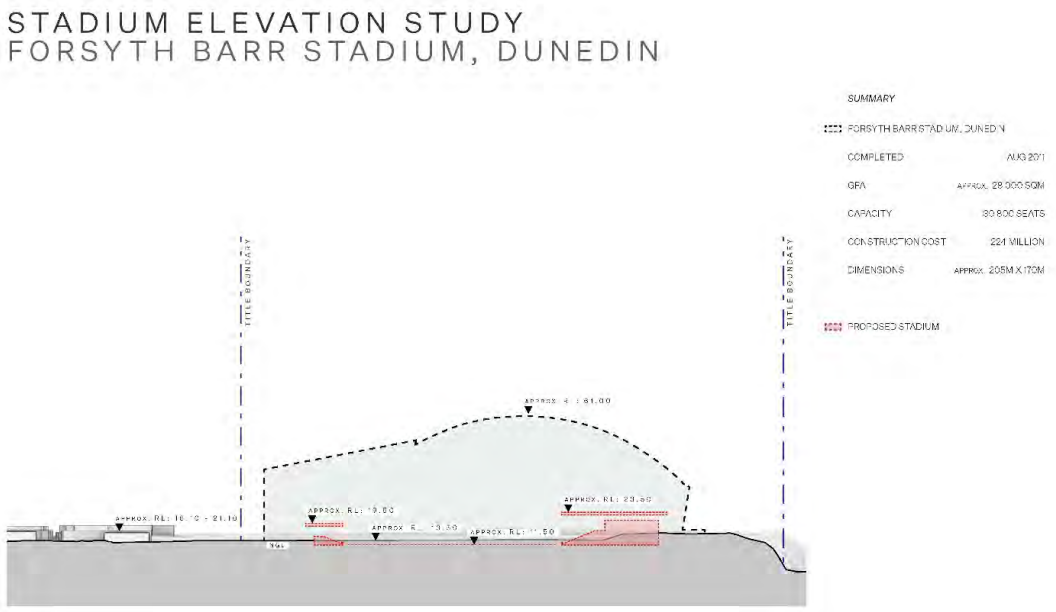
A connected open space is provided for between the main field central to the stadium and the northern fields, through the lowering of the stadium field ground level. Informal access to the open space both visually and physically will be retained, providing a continued opportunity for an increasing CBD population to recreate within. Integration of facilities within the stadium are proposed to consolidate local sporting clubs and public toilet facilities. Temporary seating is proposed at the northern end of the site to enable connected open space when the site is not in use. Reinforced grass cell is designed for this area to allow for hard wearing spaces whilst retaining a green open space connection between the fields. This option integrates raised flood lighting of four lighting stands of between 30m-40m above the field surface.

This proposal enables 'outside of event' public access to the facilities for community passive and active recreation.

[3] Refer to Location & Facility Options Powerpoint Presentation to the Steering Group on the 9th of February 2022

Option 3

A covered stadium providing for seats is proposed centrally in a similar location to the above option. The covering requires a domed roof structure with enclosed facades. Open space connections between the stadium field and northern fields is not provided. The proposed stadium would be RL61m, 47.5m above the natural ground level, 32.5m above the permitted building height and extending 30.5m into the protected viewshafts to Mauao. Access to the internal field within the stadium will be visually obscured through the stadium facades with no 'outside of events' access to the facility and grounds. This option would integrate lighting internally within the stadium for evening events.



The options were presented to the steering committee and a decision made to consider two options of the smaller footprint option. Through development of the optioneering the project team have selected Option Two as the preferred option as it meets the project objectives and sensitivities of the site and balances the facility in the existing open space and CBD.

Preliminary Assessment

The landscape and visual effects assessment of the proposal requires consideration of:

- Building scale and the ability for a building to integrate with the surrounding urban character and anticipated character of the area.
- Visual amenity values, attributed to aesthetic coherence of buildings within the surrounding urban landscape patterns.
- Effects on identified viewshafts to Mauao in the Tauranga City Plan
- Effects on the landscapes values, being biophysical, sensory and associative, including cultural landscape values.

The following outlines the key effects matters and addresses the likely effects of both options and the key considerations for future design and consenting:

Landscape Values and Attributes	Option Two - Open Stadium	Option Three - Roofed Stadium
Building scale and the ability for a building to integrate with the surrounding urban character and anticipated character of the area.	The stadium retains a low level building profile with the city scape remaining dominant in the backdrop and adjoining City Living Zone of extending above the building height, creating a transitioning building scale across the peninsula.	The roof stadium will form a dominant structure on the city skyline, extending above the permitted CBD building heights of RL48.7 by some 13m. The balancing of building form scale in the CBD will be focused on the Domain, drawing away from the cityscape profile of a amphitheatre. The stadium will form a dominant structure across the CBD skyline.
Lighting	The four lighting poles of 30-40m will extend to 30m to 40m in height. This will exceed the permitted building height plane of 15m above the natural ground level. This results in an infringement on the building height between 13m to 23m.	Integrated into the building and will not require assessment for internal lighting. External flood lighting will require assessment as part of the overall building bulk and scale for night time visual effects.
Visual amenity values, attributed to aesthetic coherence of buildings within the surrounding urban landscape patterns.	The low building profile will enable the vegetated character of the Domain to remain dominant in the CBD character. The open sided approach and accessibility will retain the area as 'part of the Park' and connected as an open space. Retaining a high degree of visual amenity for the local community.	The dominant built form and closed building will dominate the skyline of the CBD and heritage areas of the Otamataha area. The closing of the space will remove the area from the parkland and recreation use, both visually and physically. The visually dominant structure will be in contrast with the objectives of the Reserve Management Plan and Te Papa Spatial Plan.
Effects on identified viewshafts to Mauao in the Tauranga City Plan	No effect on the viewshafts by remaining below the identified viewshaft plane (Refer Map 22 of Tauranga City Plan) The proposed lighting will extend into the viewshaft by between 13m to 23m and will require assessment. Low to moderate effects may occur and will require assessment and specific design placement.	Significant infringement and obscuring of the viewshafts to Mauao. Potential for significant adverse effects on the Marae and Identified Sightlines.

Landscape Values and Attributes	Option Two - Open Stadium	Option Three - Roofed Stadium
Cultural landscape values	The proposal will require excavation through the lowering of the field to marry into the Cricket oval area. Excavation changes the natural landform and changes the historic connections to the historic land uses of the area. The knoll with heritage trees will remain unchanged and the trees will remain dominant features of the site. The historic gates will be enhanced with connection to the facility.	The proposal will require excavation through the lowering of the field to marry into the Cricket oval area. Excavation changes the natural landform and changes the historic connections to the historic land uses of the area. The knoll with heritage trees will remain unchanged with the heritage trees becoming subservient to the building structure of the stadium. The historic gates will be enhanced with connection to the facility.
Recreation Values	The objectives and outcomes of the Reserve Management Plan will provide for continued connection and recreation use of the space for passive and active recreation. The proposal retains the other functions of the Park in the main, with the removal of some organised sports, including athletics, bowls and croquet. Supporting continuation of informal recreation access around and within the Park. The proposal focuses to retain the function of the open space for the wider community and local residents and visitors within the CBD. The proposal will open the reserve grounds up to the road frontage and provide opportunity for recreation and passive use of this space. Both proposals provide opportunity for integration of public toilets into the building. The design can integrate the Peace Mile recreation running trail. Passive and informal active recreation will be maintained as part of the facility.	The proposal creates a dominant use of space as private leased area, or privatised space vrs open space. Fencing will be removed around the perimeter of the Park and the Stadium will 'fence' off the space from the remainder of the Park. Improved pedestrian access will occur as a result with concourses and key connections to the street networks adjoining the Park. The amenity of the gates and trees will be retained in place and will be subservient to the proposed covered stadium structure. Provides opportunity for integration of public toilets into the building. The design can integrate the Peace Mile recreation running trail. The opportunity for use of this space as part of the wider recreation activities within the CBD will be removed with the facility focused to organised events only.
Potential adverse landscape and visual effects on the landscape	Low to Very Low adverse landscape and visual effects.	Potential for Moderate-High to Very High adverse visual effects and Moderate-High adverse landscape effects.

Conclusion

The potential for integration of Option Two is positive and creates opportunity for the balancing of events and the continuation of functionality of the reserve for recreation outside of events. Option Three creates a statement building that will dominate not only the Domain park space but also the CBD cityscape. There is a likely higher degree of effects resulting from building form and scale alongside the privatisation of open space removing the function and interconnected use of open space for all users and residents.

The preferred Option Two will create an opportunity to balance all of the visual amenity and cultural landscape values that exist on the space and maintain the area to support the urban growth planned for the immediate area.

Boffa Miskell

Memorandum

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Attention:	Craig Jones
Company:	Visitor Solutions
Date:	07/04/2022
From:	Morné Hugo
Message Ref:	Tauranga Stadium Feasibility Study – Urban Design Comments
Project No:	BM211008 - Tauranga Stadium Feasibility Study

Tauranga & Wharepai Domain (the Domain) is a premier sports park catering for a wide range of sports in close proximity to the Tauranga City Centre.

I addition to its function as a sports reserve, the domain serves an important function as an informal community recreational space in addition to its role to cater for sports clubs and organised sporting events.

The Domain is also used as a formal events space for events such as music performances and festivals.

As a key open space in the Tauranga City Centre, it is important that any redevelopment of the domain is designed and developed in a fully integrated manner with its surrounding central city context. The urban design approach during the stadium feasibility study process had been aimed at maintaining and enhancing strong pedestrian connectivity to the wider city centre.

From an urban design perspective, it is fundamental to the ongoing success of the Domain and future stadium redevelopment that that public access to the space is preserved with a balance maintained between the existing leased exclusive use areas, future community stadium function and areas of free public access. This view is supported by the Domain's existing Reserve Management Plan (RMP).

The RMP further identifies that no permanent fencing is permitted on any part of Tauranga Domain. Relocatable fencing may be used for events. This approach is generally supported when considered from an urban design perspective, with the key item for consideration being the maintenance of good open and permeable views into and out of the Domain to enhance visual connection and ensure that any negative CPTED[1] outcomes are avoided.

The urban design approach taken also continues to advocate for improved pedestrian access across Cameron Road and into the park, and with the Takitimu Drive walkway linkages to the Waikareo Estuary shared path system.

As the reserve contains archaeological values, consideration will be given to the requirement to consult with Heritage New Zealand Pouhere Taonga in planning and implementing works within the reserve. This is discussed further in the cultural report.

Key Urban Design considerations and features which are embedded within the favoured stadium concept proposal include:

- Strong connectivity to the town centre and connectivity to the community as a known space that is integral to community activities;

[1] CPTED Crime Prevention through Environmental Design

- 12-month usage and daily usage, not just as a stadium for a small number of events during the year;
- Leafy open character of the site will be maintained an enhanced;
- Public outdoor spaces are proposed surrounding the stadium, including a public entry plaza space and community lawn area directly adjacent to the stadium's Cameron road Frontage. An integrated pathway network will also provide strong pedestrian and cycling connections to the wider town centre:
- An upgraded playground are is proposed to be incorporated adjacent to the public plaza space and community lawn and the opportunity exist for integration of fitness stations and a fitness trail around the outer edges of the Domain and connection to the wider network of jogging and cycling trails:
- The favoured design proposal is for a stadium of a height that is not overly dominant on the surrounding streetscape network and land uses and road network;
- Permeable stadium frontage onto Cameron Road is to be maintained as much as possible and adapted for general function and 'event' use.
- Low height and open, community focussed character of the favoured stadium concept are key features that supports good urban design outcomes.
- The proposed Hybrid Turf to the stadium sports field, 'hardens' the field to be used as a community space and throughout the year.
- A synthetic walking/jogging track has been incorporated to the outside of the main field, to allow ongoing daily use by the community for fitness and recreation.
- Existing vegetation and cultural/historic features are maintained and enhanced by the design approach adopted.
- Visual connectivity to Mauao and the Waikareo Estuary provides key visual backdrops to the stadium and provides a strong cultural connection to the wider Tauranga Moana landscape.

What should be avoided?

It is important to maintain a design that is kept to a low height and well-integrated into the existing landscape and town centre edge location. An overly dominant, high, enclosed and insular and stadium design (similar to Forsyth Barr Stadium in Dunedin) has been specifically avoided to negate possible negative landscape and urban design effects. Tauranga is a city that has a pleasant climate year-round and provides residents and visitors with fantastic opportunities to connect to the Bay's beautiful outdoor environment. The design approach for the proposed stadium is aimed at maximising these connections and opportunities and enhancing the overall desirability and attractiveness of the Tauranga City Centre.

Sensitivity: General

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Report

Tauranga Stadium Site Selection

Prepared for Priority One

Prepared by Beca Ltd

26 August 2021

Sensitivity: General

Revision History

Revision Nº	Prepared By	Description	Date
	Keith Frentz Craig Richards Jandre van Zyl Roger Dowling	Technical assessment and inputs across the five main criteria. Report development	21 July 21
.1	Krishan Singh	Updates following meeting with Priority One	4 August 21
.2	Krishan Singh	Response and recommendations from TCC engagement	18 August 21
1.0	Krishan Singh	Final issue to client	26 August 21

Document Acceptance

Action	Name	Signed	Date
Prepared by	**Keith Frentz** **Craig Richards** **Jandre van Zyl**		21 July 21
Reviewed by	**Krishan Singh**		25 August 21
Approved by	**Roger Dowling**		26 August 21
on behalf of	Beca Limited		

Contents

Appendices

1 Introduction

The scope of this study is two-fold and comprises of both site identification and then a two-stage assessment approach to determine site selection for a stadium within the Tauranga region. The approach considers a range of characteristics to identify the more viable sites that can in time support the broader strategic objectives of the city.

The project team completed the three key activities through workshops, including initial stakeholder engagement with Tauranga City Council and desktop analysis as part of identifying and completing this initial assessment of sites.

A total of 18 sites within the Tauranga region were identified and then assessed to confirm a selection of preferred sites to be examined and investigated further. Following this approach nine sites were selected and assessed which forms the basis of this report.

It is the recommendation of this report in consultation with Tauranga City Council that the Tauranga Domain is carried forward for feasibility study, including additional demand analysis.

Site Identification

The application of five key criteria were initially developed to identify 18 sites in total. Of the locations, 16 were within the Tauranga region, and two were in the Western Bay of Plenty, specifically to the east. The key criteria included:

- Locality and natural hazards identification
- Scale of requirements, general allowance for key site requirements
- Allowance of a minimum of 4.5ha to accommodate a regulation field
- Land use and any direct implications
- Transportation and access considerations

A long list of nine potential sites were agreed upon to progress further for a more detailed analysis and assessment.

Site Assessment

Following site identification workshop held with Beca and Priority One specialists on 9 June 2021 to consider all potential sites for a mid-sized (10,000 – 12,500 seat) stadium Beca was asked by Priority One to proceed to “coarse screen” a long-list of nine sites with the intention of reducing the long-list to a short list for more detailed evaluation. The long-list comprises the following:

- Tauranga Domain, north end Cameron Road
- Memorial Park, specifically backing onto Devonport Road at the 11th Ave end
- Tauranga Racecourse, south end of Cameron Road, specifically the northern end of the site with additionally entry through the Sherson Street end of the racecourse
- Parau Farm, Bethlehem
- Blake Park, Maunganui Road, south-end by the netball courts which is considered to be a more favourable option on this site
- Links Avenue Reserve, Maunganui Road
- Bay Park, Truman Lane, a site to be considered close to the existing football pitches
- McLeod’s Farm, north-end of the Te Puke Highway, close to the Domain Road interchange
- Gordon Spratt Reserve, Papamoa East

The screening proposed at this stage includes the following:

- Site Size and Shape considering the footprint required for the proposed stadium
- Stadium Design Potential considering the ability to provide a multi-use facility on the identified site

- Current Land Use considering the underlying and adjacent zoning and issues that may arise in terms of compatibility with the neighbouring area
- Accessibility
- Critical Infrastructure
- Natural Hazards
- Opportunities for Complementary or Shared Facilities

Evaluation

Each site is given a score from 0 to 5 for each criterion, where a '5' indicates that a site completely satisfies or exceeds the criterion, and a '0' indicates that a site fails the criteria. A score of '0' does not constitute a fatal flaw, merely the presence of an issue that would need to be addressed. The scores for each criterion are then totalled to give a final score for each site, and to allow the identification and ranking of a preferred site(s).

The text in italics at the beginning of each sub-section summarises the evaluation guidelines, including instructions for how scoring is to be applied with respect to each criterion.

The location of the sites are shown on Figure 1: Stage 2 Site Evaluation Index Map. An indicative stadium layout on each site is shown in Appendix A.

Engagement with Tauranga City Council

Throughout the site assessment the project team liaised and engaged with the Tauranga City Council. To ensure broader city strategic intent and outcomes were captured, Tauranga City Council was provided both the initial 18 sites and then the outcome of the screening (based on five main criteria) of nine sites by the project team. Tauranga City Council performed both assessments independently, the latter comprising the rationale and known opportunities and constraints, as well as existing and future organizationally based commitments. These comments have been included to support the recommendation placed in Section 9 of this report.

Site Ranking

Across the seven evaluation criteria the assessment of sites identified the Tauranga Domain, Tauranga Racecourse and Blake Park as the top three locations for a stadium and should be considered for further detailed investigation. Each of these three locations each scored highly around opportunities for complementary or shared facilities, accessibility and size, shape and scale criteria. The outcome of the assessment is shown in Table 1.

Table 1: Overall Ranking

Site Ranking	Site	Score
1	Tauranga Domain	30
2 =	Tauranga Racecourse, Greerton	28
2 =	Blake Park, Mount Maunganui	28
4	Parau Farms, Bethlehem	26
5 =	Baypark, Papamoa	25
5 =	Gordon Spratt Reserve, Papamoa	25
7	McLeod's Farm, Te Puke Highway	24
8	Links Ave, Mount Maunganui	21
9	Memorial Park, Avenues	20

Sensitivity: General

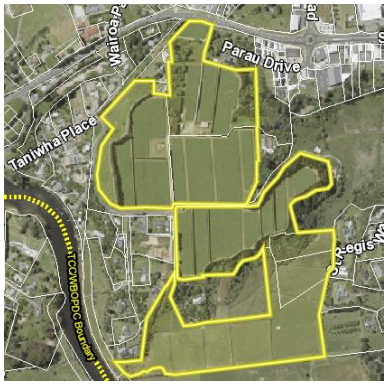
Figure 1: Stage 2 Site Evaluation Index Map

Sensitivity: General

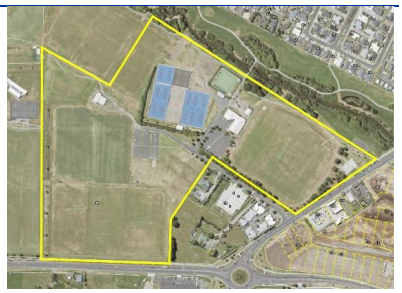
Table 2: Site Description

Site	Approximate Area (ha)	Description	
1	5.0 ha	Tauranga Domain, north end Cameron Road	
2	4.0 ha	Memorial Park, specifically backing onto Devonport Road at the 11th Ave end.	
3	10.0 ha	Tauranga Racecourse, south end of Cameron Road, specifically the Sherson Street end of the racecourse	

Sensitivity: General

4	33.3 ha	Parau Farm, Bethlehem	
5	5.0 ha	Blake Park, Maunganui Road, south-end by the netball courts	
6	4.0 ha	Links Avenue Reserve, Maunganui Road	
7	10.0 ha	Bay Park, Truman Lane, close to the existing football pitches	

Sensitivity: General

8	10.0 ha	McLeod's Farm, north-end Te Puke Highway, close to the Domain Road interchange	
9	20.5 ha	Gordon Spratt Reserve, Papamoa East	

2 Site Size and Shape

Is the site of a size capable of providing for all the requirements of the proposed stadium and projected future growth? For this criteria the "site" should be regarded as the overall area available for potential stadium development, which may incorporate multiple titles/parcels.

The shape of the site should be such that the development is not constrained so that a useable area rectangular in shape can be developed.

Sites providing or exceeding the stated useable land requirement will score 5 on the scale. Sites smaller than the stated useable requirement will score progressively and comparatively less.

The optimal size of the site should be not less than 5 ha unless it is of an ideal shape that can accommodate a stadium footprint including some peripheral activities such as limited car parking or practice pitches.

The long-listed sites range from approximately 4ha (Links Avenue Reserve, and Memorial Park) in size to 33.3ha (Parau Farm). Both the smaller sites are of a regular rectangular shape and could accommodate the stadium footprint although Memorial Park would require significant redevelopment of the existing buildings. Parau Farm would also require significant development work but the site is large enough to accommodate this. Blake Park has a nominal available area of 5ha but it is of a triangular shape. This could be accommodated by looking at an overall Master Plan for Blake Park. Both the Domain and Blake Park is scored 4 because of its shape and the remaining sites are scored 5 as it is demonstrated that they can accommodate the stadium footprint easily.

Table 3: Site Size and Shape Score

Site	Size and Shape Score
1 – Tauranga Domain,	4
2 – Memorial Park, Avenues	5
3 – Tauranga Racecourse, Greerton	5
4 – Parau Farms, Bethlehem	5
5 – Blake Park, Mount Maunganui	4
6 – Links Ave, Mount Maunganui	5
7 – Baypark, Papamoa	5
8 – McLeod's Farm, Te Puke Highway	5
9 – Gordon Spratt Reserve, Papamoa	5

3 Stadium Design Potential

Does the site present good locational, urban design and architectural opportunities that would promote multi-use functions? Are there existing buildings or other developments on the site (e.g. large sealed or grassed/ sportsfield areas) that could provide high quality support facilities?

A comparative analysis of the long-listed sites is made, scoring 5 down to 0.

Site 1: Tauranga Domain

- Prominent location overlooking the harbour
- Strong cultural and heritage links to the Wharepai Domain, the Elms and the Redoubt
- Adjacent to an existing area of multi-use sports centres
- Likely to require the relocation of the athletics track and field facilities
- Close proximity to Tauranga CBD and has the ability to regenerate this area of the CBD
- It is surrounded by residential, commercial and sports activities
- The shape of the domain site has a tapered triangulated characteristic and will require design development to accommodate the stadium
- The Domain site could accommodate the stadium in three locations but would require the relocation of some activities

Score: 5

Site 2: Memorial Park

- Strong location overlooking the harbour
- Sheltered under the Te Papa/Devonport Road ridge
- Redevelopment would absorb existing area of multi-use sports centres creating a new centre
- Would require relocation of QE2 centre, Memorial Hall and the swimming pool
- Close to Tauranga CBD
- Surrounded by residential and existing sport activity
- Large site to accommodate design opportunity, may impact residents' views of the harbour and Mauau

Score: 3

Site 3: Tauranga Race Course

- Would disrupt or require relocation of the race course
- Would require adjustment to the Golf Course
- Community uses in the current buildings would be disrupted
- Effectively a greenfield site that could be fully developed to include some of the disrupted uses
- Close to Greerton Town Centre

- Is surrounded by a mix of residential, commercial, race course stand and light industrial activity
- Large site with the ability to accommodate design opportunity

Score: 3

Site 4: Parau Farm

- Greenfield site overlooking the Wairoa River
- Strong cultural and heritage links to Ngati Kahu
- Potential for complementary facilities at Bethlehem Town Centre
- City fringe with a mix of residential, horticulture and commercial
- No specific site characteristics to respond to and the site is concealed behind a rise and could have limited visual impact.
- Large site with the ability to accommodate design opportunity

Score: 4

Site 5: Blake Park

- Within existing Blake Park multi-use sports complex with international cricket and hockey facilities, provision of training grounds
- Likely to require the relocation of the netball facilities
- Surrounded by residential, commercial, and port/industrial
- Close to Mt. town centre
- Already a sports hub and would complement existing facilities
- Site is large and able to accommodate design opportunity

Score: 5

Site 6: Links Ave

- Prominent location on Maunganui Road
- Likely to require the relocation of the current soccer club facilities
- Close to Bayfair Shopping Centre
- Surrounded by residential
- Site is compact and may struggle to accommodate extent of the stadium and associated support area

Score: 3

Site 7: Bay Park

- Adjacent to an existing area of multi-use sports centres, Bay Park race track and indoor basketball and netball facilities

- Large site that could accommodate the field and stadium, would require relocation of training fields and may impinge on carparking
- Surrounded by commercial activity and natural landscape
- Distanced from amenity and complimentary activity

Score: 3

Site 8: McLeod's Farm

- Prominent location overlooking Papamoa
- Strong cultural and heritage links to the Papamoa Hills
- Large greenfield site wouldn't require any relocation of other facilities
- Surrounded by farmland
- Distanced from amenity and complimentary activity

Score: 4

Site 9: Gordon Spratt Reserve

- Within an existing area of multi-use sports centres with room for expansion
- Surrounded by residential, close of commercial/light industrial area and secondary school
- Distanced from amenity
- Good size to accommodate the stadium requirements

Score: 4

Table 4: Stadium Design Potential Score

Site	Design Potential Score
1 – Tauranga Domain,	5
2 – Memorial Park, Avenues	3
3 – Tauranga Racecourse, Greerton	3
4 – Parau Farms, Bethlehem	4
5 – Blake Park, Mount Maunganui	5
6 – Links Ave, Mount Maunganui	3
7 – Baypark, Papamoa	3
8 – McLeod's Farm, Te Puke Highway	4
9 – Gordon Spratt Reserve, Papamoa	4

4 Current Land Use

Are the district plan zonings (or proposed zonings in a relevant structure plan) suitable for the proposed stadium?

Are the surrounding zones compatible with the proposed stadium?

Sites that are zoned for recreational purposes with adjacent zones that are non-residential will score the highest. Then in order of suitability: reserve/open space, employment and lowest would be mixed-use/residential.

Operative Tauranga City Plan (TCP)

The current land use assessment reviewed each site against the current TCP and the zoning of the site and the surrounding area to establish a score for land use.

Table 5: Current Land Use Assessment

Site	Site Zoning	Surrounding Zoning	Assessment
1	Active Open Space (Major)	Suburban Residential City Living Mixed Use	Limited adjacent residential use
2	Active Open Space	Suburban Residential	Intense residential development along Devonport Road and Eleventh Avenue
3	Active Open Space	Industry Suburban Residential	Industry to north with residential to east on other side of Cameron Road. Proposed to allow for greater density
4	Active Open Space (Major)	Rural Suburban Residential	Low density development on three sides with undeveloped residential land on fourth side
5	Active Open Space (Major)	Suburban Residential Industrial	Residential to northeast across Maunganui Road. Industry and Railway line to south
6	Active Open Space	Suburban Residential	Residential on three sides with Maunganui Road and Railway on fourth side
7	Special Use Baypark	Industrial	Industrial surrounding the special use area which is already developed for multi-use sports facilities. Railway and expressway also on two sides
8	Rural	Rural	Rural and expressway surrounding site
9	Active Open Space (Major)	Suburban Residential Greenbelt Commercial	Wairakei stream area to the north, residential zone mainly taken up by the Papamoa Secondary School with Commercial occupying balance area opposite on Parton Road

Table 6: Current Land Use Score

Site	Current Land Use Score
1 – Tauranga Domain,	4
2 – Memorial Park, Avenues	2
3 – Tauranga Racecourse, Greerton	3
4 – Parau Farms, Bethlehem	4
5 – Blake Park, Mount Maunganui	3
6 – Links Ave, Mount Maunganui	2
7 – Baypark, Papamoa	5
8 – McLeod's Farm, Te Puke Highway	5
9 – Gordon Spratt Reserve, Papamoa	4

Sensitivity: General

5 Accessibility

Does the site have good access to its boundaries for all modes of transport?

In the opinion of qualified traffic engineers, is the site well serviced by a transport network that is safe and has sufficient capacity for the proposed stadium?

A site that is considered more accessible via alternative means of transport will score higher than one that is remote of these services.

Accessibility in this evaluation considers the ability to access the site by various modes of travel and the potential effects that access during events could have on the surrounding transport system. Based on the overall accessibility assessment the Domain scored the highest (5), with the Racecourse and Blake Park each scoring 4.

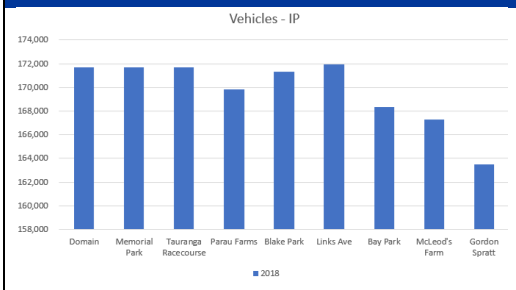
5.1 Accessibility Modelling

The Tauranga City Council (TCC) accessibility model has been used to define the difference between the sites in terms of accessibility by private car, cycling and public bus. The model enables the analysis to consider future year scenarios (2028 and 2048), in these scenarios the transport system and land use has evolved as envisaged in the Urban Form and Transport Initiative (UFTI).

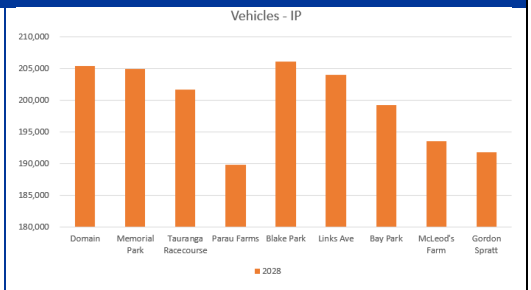
The following graphs summarise the findings of the accessibility modelling for car trips in the off-peak period (this is representative of weekend conditions). Detailed outputs of the modelling are provided in Appendix B.

In summary the Domain, Memorial Park, the Racecourse, Blake Park and Links Ave have the highest accessibility by car.

Number of People Accessible by Car in 30 minutes 2018 Off Peak

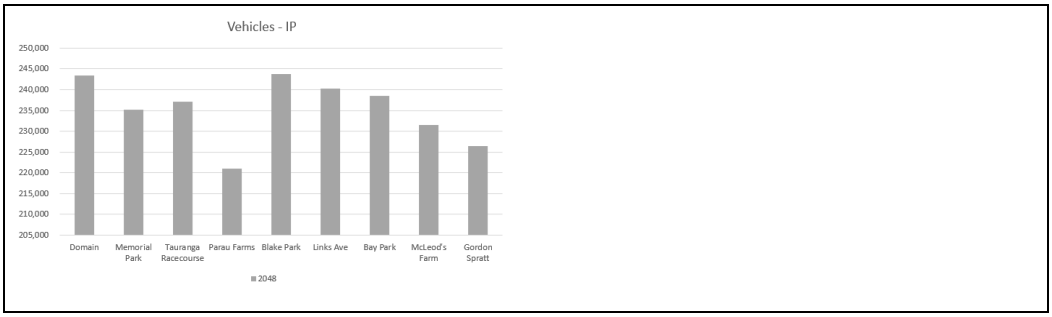


Number of People Accessible by Car in 30 minutes 2028 Off Peak



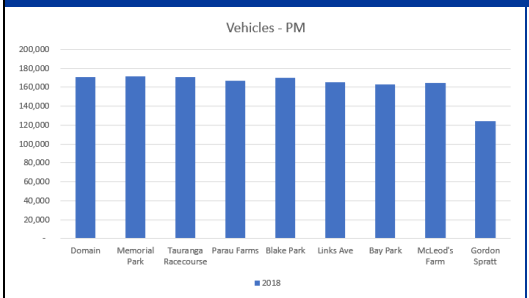
Number of People Accessible by Car in 30 minutes 2048 Off Peak

Sensitivity: General

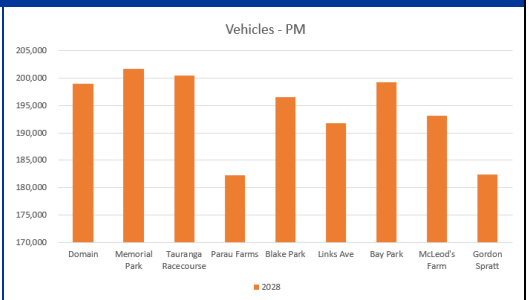


The following graphs summarise the findings of the accessibility modelling for car trips in the evening-peak period (this is representative of time periods between 4-6pm weekdays). In summary the sites are fairly even in 2018 except for Gordon Spratt Reserve. Accessibility reduces in future across most sites, note this is influenced by the nature of the road upgrade in the modelling which are generally not committed.

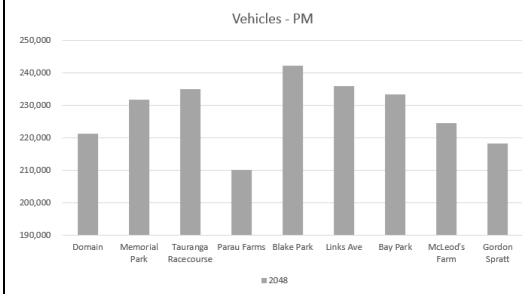
Number of People Accessible by Car in 30 minutes 2018 Evening Peak



Number of People Accessible by Car in 30 minutes 2028 Evening Peak



Number of People Accessible by Car in 30 minutes 2048 Evening Peak



Findings for public transport and cycle accessibility is provided in Appendix B and summarised as:

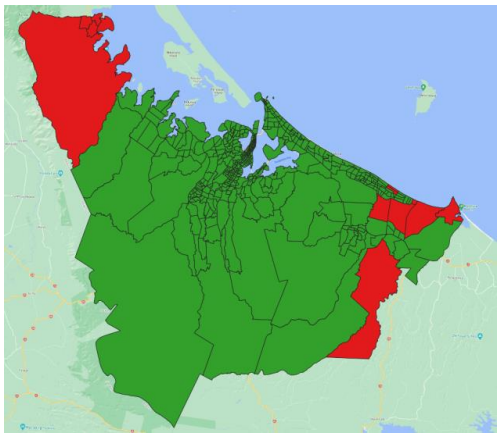
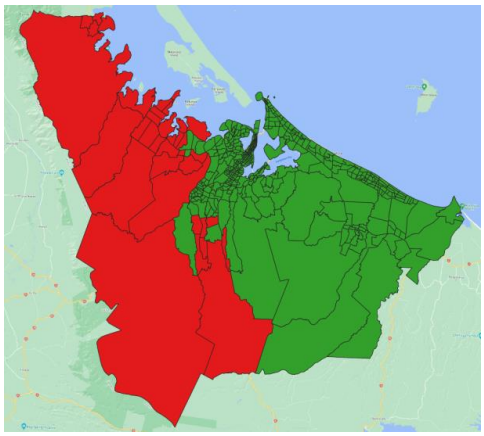
- Memorial Park and Links Ave achieve the highest accessibility for cycle trips, around 8 – 9%. This reflects the nature of the surrounding land use as predominantly residential. The Domain, Racecourse, Blake Park and Gordon Spratt Reserve all have slightly lower cycle accessibility of around 5 – 6%. Parau Farms, Baypark and McLeod's Farm have low cycle accessibility, 3% or less.

- The Domain and Memorial Park achieve the highest public transport accessibility of 45 – 53%. Links Ave has slightly lower public transport accessibility of around 30%. The Racecourse, Parau Farms, Blake Park, and Gordon Spratt achieve public transport accessibility of around 20%. Baypark and McLeod's Farm have no public transport accessibility (based on existing bus routes).

The following limitations apply to the accessibility modelling results:

- The modelling includes road, cycleways and public transport improvements based on UFTI and the Transport System Plan. These upgrades are not committed and if they are not delivered then accessibility will be different to these results.
- The modelling does not consider local area congestion that may occur as a result of events at the stadium. All sites would experience some level of local congestion when major events are held. Road networks at some sites may be better at accommodating this than other sites, this is considered in the wider evaluation section below.
- The public transport accessibility modelling assumes current and proposed bus routes. It is possible that bus routes would be adapted to better suit the stadium location, so actual public transport accessibility may be higher.

For comparison of sites, maps showing accessibility within 30 minutes by car in 2048 are provided in Appendix B. The accessibility maps for the Domain and Gordon Spratt Reserve are shown below as an example. Dwellings withing the green shaded area can access the site within a 30 minute drive.

2048 Accessibility Map for the Domain site	2048 Accessibility Map for Gordon Spratt site
	

5.2 Transport Evaluation

The sites have been evaluated against the following transport criteria:

- Accessibility by car, bus and cycle (informed by the accessibility modelling described above)
- Walking catchment – considers the surrounding land use and if many people could walk from home or other land uses (such as employment or retail) to the site
- Surrounding network suitability – considers the roads surrounding the site and how suitable these are for potential increased traffic and parking demands

- Direct access viability – considers the viability / feasibility of providing a suitable access intersection with the adjacent road network
- Network connectivity – considers the connectivity to the nearby state highway and suitability of access roads to accommodate an increase in traffic volumes
- On site or nearby parking opportunity – considers availability of parking that will be necessary to avoid significant overflow parking on local streets.

Table 7: Transport Evaluation

Evaluation Criteria	Site Location								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Car, PT, Cycle accessibility (from modelling)	5	5	4	3	5	5	3	3	4
Walking catchment	4	5	4	1	3	4	2	1	3
Surrounding network suitability / potential impact	4	2	2	4	3	1	4	3	3
Direct access viability	5	3	3	4	4	1	4	4	3
Network connectivity (avoid cul de sacs, local roads)	5	2	4	2	4	1	3	3	2
On site or nearby parking opportunity	5	4	4	4	4	1	4	3	4
Score	**5**	**3**	**4**	**3**	**4**	**2**	**3**	**2**	**3**

Table 8: Overall Accessibility Score

Site	Accessibility Score
1 – Tauranga Domain,	5
2 – Memorial Park, Avenues	3
3 – Tauranga Racecourse, Greerton	4
4 – Parau Farms, Bethlehem	3
5 – Blake Park, Mount Maunganui	4
6 – Links Ave, Mount Maunganui	2
7 – Baypark, Papamoa	3
8 – McLeod's Farm, Te Puke Highway	2
9 – Gordon Spratt Reserve, Papamoa	3

6 Critical Infrastructure

Does the site have immediate availability or connection to: Water supply (potable and fire fighting), sanitary drainage, storm water, electricity, gas, telephone?

Distance from the headworks of these services should also be considered and ability to provide services needed for a stadium of this size e.g., power.

A site with adequate connection to all infrastructure services for the proposed stadium will score the highest. The scoring is a relative score between sites.

A Critical Infrastructure evaluation has been undertaken for all of the sites considered. Refer Appendix C for details of the evaluation of each site.The sites have been evaluated against the following criteria:

- Site Grades – site slopes and would grading be required?
- Site Serviceability – where are the services, 3-waters and dry?
- Access roads – is there adequate access for large construction machinery?
- Impact to existing infrastructure – are existing services affected?
- Constructability – will roads need to be realigned/closed; will services need re-locating?

Table 9 below shows the sub ranking, and Table 8 shows the overall ranking.

Table 9: Critical Infrastructure Ranking sub-scores

	Site								
	1	2	3	4	5	6	7	8	9
Site Grading	4	5	5	4	5	5	5	5	5
Site Serviceability	4	4	4	2	4	4	4	1	4
Access Roads	4	4	2	3	4	4	4	3	4
Impact to ex. infrastructure	2	1	2	5	2	3	3	5	4

Note final scores are calculated based on a weighting: 0.2x grading + 0.4x serviceability + 0.1x access + 0.3x impact to existing infrastructure.
Scoring weighting is based on the likely effect each sub score would have on creating a critical flaw in the site location. This takes into account potential costs on mitigating the issue. Serviceability and impacted to existing infrastructure are weighted the highest as these have potential to create significant limitations or cost to the project. Appendix C shows the unweighted scores.

Table 10: Critical Infrastructure Score

Site	Critical Infrastructure Weighted Score
1 – Tauranga Domain,	3
2 – Memorial Park, Avenues	3
3 – Tauranga Racecourse, Greerton	4
4 – Parau Farms, Bethlehem	3
5 – Blake Park, Mount Maunganui	4
6 – Links Ave, Mount Maunganui	4
7 – Baypark, Papamoa	4
8 – McLeod's Farm, Te Puke Highway	3
9 – Gordon Spratt Reserve, Papamoa	4

7 Natural Hazards

Does the site have any history or demonstrate any evidence of instability or poor ground conditions?
Does the site have any history or demonstrate evidence of flooding?
Desktop evaluation via council records may highlight sites with known natural hazard issues. If no information is available on any sites then all should score equal.
Sites that may require greater construction costs as a result of ground conditions (e.g. deep peat) will be scored lower than others.
Low lying sites identified as flood plains with watercourses will score lowest together with those located in tsunami threat zones.
Preferred sites will be subject to additional due diligence post site evaluation.

A natural hazards evaluation has been undertaken for all of the sites considered. Refer Appendix C for details of the evaluation of each site. The sites have been evaluated against the following criteria:

- Flooding (Event) – are there flooding or overland flood paths on the proposed site
- Harbour Inundation – is the site within the TCC Mapi modelled harbour inundation area
- Tsunami Zone – is the site within the TCC Mapi modelled tsunami zone
- Slope stability – are there steep slopes or relic slips on the site. Is the site in a liquefaction zone
- Constructability – will the steep slopes and flooding/inundation levels require fill or retaining structures

Table 11 below shows the sub ranking, and Table 12 shows the overall ranking.

Table 11: Natural Hazards sub-scores

	Site								
	1	2	3	4	5	6	7	8	9
Flooding	4	2	2	3	2	1	2	3	3
Harbour Inundation	5	2	5	5	5	5	2	2	5
Tsunami	5	5	5	5	5	5	5	5	2
Slope stability	2	1	5	3	5	5	3	3	2

Note overall scores are calculated based on a weighting: 0.5x flood + 0.2x harbour + 0.1x tsunami + 0.2x slope. Scoring weighting is based on the likely effect each sub score would have on creating a critical flaw in the site location. This takes into account feasibility and potential costs on mitigating the issue. Flooding is weighted the highest as this have potential to create significant limitations or cost to the project. Appendix C shows the unweighted scores.

Table 12: Natural Hazards Score

Site	Natural Hazard Weighted Score
1 – Tauranga Domain,	4
2 – Memorial Park, Avenues	2
3 – Tauranga Racecourse, Greerton	4
4 – Parau Farms, Bethlehem	4
5 – Blake Park, Mount Maunganui	4
6 – Links Ave, Mount Maunganui	3
7 – Baypark, Papamoa	3
8 – McLeod's Farm, Te Puke Highway	3
9 – Gordon Spratt Reserve, Papamoa	3

8 Opportunities for Complementary or Shared Facilities

Stadia of this type benefit from complementary facilities in the surrounding area or that are able to be developed within the site. These may typically be hospitality or service facilities, accommodation or training facilities. Is the site large enough to be co-developed with these service facilities or are they existing or able to be developed in the surrounding area?

Sites that are large enough to be comprehensively developed or are within 400m of major accommodation and hospitality services will score the highest.

Sites 1, 3 and 5 are within 400m of the Tauranga CBD, Greerton commercial centre and Maunganui Downtown respectively and are each of a size that would enable mixed use development to some degree. Each of these sites score 5.

Memorial Park, is remote from these services and is not large enough to develop its own support infrastructure. It is scored 2.

Parau Farms is quite remote from existing facilities but is large enough for support facilities and services to be developed within the site. This site is scored 3.

Both Links Ave and Baypark are approximately 400m from Bayfair shopping precinct which provides commercial support but accommodation is generally limited in this area and the sites are either too small, or developed with alternative uses, Baypark, to allow for a comprehensive development. These sites each scored 2.

McLeod's Farm is remote from supporting facilities which would provide complementary services or opportunities for development. This site is scored 2.

Gordon Spratt Reserve, is within 400m of the Parton Road Commercial area but accommodation is limited in this area. The site is large enough to be developed for support facilities and services on the site but that would be difficult because of the land use zoning. It has scored 2.

Table 13: Opportunities for Complementary or Shared Facilities Score

Site	Complementary or Shared Facilities Score
1 – Tauranga Domain,	5
2 – Memorial Park, Avenues	2
3 – Tauranga Racecourse, Greerton	5
4 – Parau Farms, Bethlehem	3
5 – Blake Park, Mount Maunganui	5
6 – Links Ave, Mount Maunganui	2
7 – Baypark, Papamoa	2
8 – McLeod's Farm, Te Puke Highway	2
9 – Gordon Spratt Reserve, Papamoa	2

9 Results of the Analysis

Summary Analysis

The following table provides a summary of the scores for each criterion, for each of the nine sites. No weighting has been given to the various criteria. The resulting ranking will be used to determine those sites to evaluate further.

Table 14: Results of the Stage 2 Analysis

Criteria	Site Scores								
	1	2	3	4	5	6	7	8	9
Site Size and Shape	4	5	5	5	4	5	5	5	5
Stadium design potential	5	3	3	4	5	3	3	4	4
Current Land Use	4	2	3	4	3	2	5	5	4
Accessibility	5	3	4	3	4	2	3	2	3
Critical Infrastructure	3	3	4	3	3	4	4	3	4
Natural Hazards	4	2	4	4	4	3	3	3	3
Opportunities for complementary or shared development	5	2	5	3	5	2	2	2	2
TOTAL (35)	**30**	**20**	**28**	**26**	**28**	**21**	**25**	**24**	**25**

Tauranga City Council Recommendations

The following key points were provided by Tauranga City Council in support of the site assessments.

- Tauranga Domain – Central location with adequate area to present siting options, has aging infrastructure and existing leases for other activities such as tennis and bowls/croquet. The site would require further work to determine geotechnical information and engagement with iwi. Recommend Tauranga Domain is taken forward to feasibility study, within the inclusion of additional demand analysis.
- Memorial Park, Avenues – Key underground infrastructure is located on the site and TCC is committed to the recently approved new Aquatic Centre and indoor community court space. Recommend this option is not progressed any further.
- Tauranga Racecourse, Greerton – There is the opportunity to explore this site further from a Parks and Recreation perspective. The site is an ideal size and location with good accessibility. However, with the current lease arrangements with the Crown, and an intent for strategic development allowing for housing along the Te Papa peninsula, the view is that if this option was to become available, its first choice use would be for other purposes and therefore, this option is not progressed any further.
- Parau Farms, Bethlehem – The Council has identified this site for future housing, and some of the constraints of the land and infrastructure may provide development difficulties for a large scale single development such as a stadium. Recommend this option is not progressed any further.
- Blake Park, Mt Maunganui – Council agreed that a stadium could complement the existing cricket stadium and other sporting activities already located at Blake Park. A masterplanning strategy project is currently underway and the view from Council is that it expects the key moves from current and key users would inform how this site should be developed. Noted, that certain sporting and community activities would be displaced. Agreed that significant transport challenges affect this sub-catchment and proximity to residents are important to understand. Recommend Blake Park remains a second option and is explored further if or as required.

- Links Ave, Mt Maunganui – Constrained site spatially, very limited transportation links and challenges around the immediate residential area (light and noise). Council recommends this option is not progressed any further.
- Baypark, Papamoa – Council agreed there is significant infrastructure present on or near the site (to the Waste Water Treatment Plant) and climate change/environmental challenges to navigate supporting a structure. However, Council remains open that the strength of the site is capacity and it would be useful as a future location to receive sporting or community activities displaced by a stadium situated in another location. Recommend this option is not progressed any further, however supports a recommended option from a displacement perspective.
- McLeod's Farm, Te Puke Highway – Council raised that this location created accessibility challenges outside of private transport and presented itself as a destination with limited immediate amenity. Recommend this option is not progressed any further.
- Gordon Spratt Reserve, Papamoa – Council identified that this location becomes overwhelmed from an accessibility perspective and the site is too far out to meet the needs of Tauranga West. Recommend this option is not progressed any further.

Site Ranking

Across the seven evaluation criteria the assessment of sites identified the Tauranga Domain, Tauranga Racecourse and Blake Park as the top three locations for a stadium. Each of these three locations each scored highly around opportunities for complementary or shared facilities, accessibility and size, shape and scale criteria. It was also highlighted that Baypark would be a suitable option to support the transfer of sporting and community activities should any displacement occur or is required. The inclusion of the independent assessment from Tauranga City Council along with the technical assessment, it is recommended that the Tauranga Domain should be considered for further detailed investigation.

Table 15: Site Ranking

Site Ranking	Site	Score
1	Tauranga Domain	30
2 =	Blake Park, Mount Maunganui	28
2 =	Tauranga Racecourse, Greerton	28
4	Parau Farms, Bethlehem	26
5 =	Baypark, Papamoa	25
5 =	Gordon Spratt Reserve, Papamoa	25
7	McLeod's Farm, Te Puke Highway	24
8	Links Ave, Mount Maunganui	21
9	Memorial Park, Avenues	20

Recommended Site and Next Steps

It is the recommendation of this report in consultation with Tauranga City Council that the Tauranga Domain is carried forward for feasibility study, including additional demand analysis.

Sensitivity: General

Appendix A

Sites indicative stadium layout

Appendix B

Maps showing accessibility within 30 minutes by car in 2048

Sensitivity: General

Appendix C

Civil Assessment (Natural Hazard, Infrastructure, and constructability)