



Australian Government
Great Barrier Reef
Marine Park Authority



reefHQ
Great Barrier Reef
AQUARIUM



Reef HQ Aquarium Master Plan 2021-2041

Delivering the global destination of excellence in
tropical coral reef education





Australian Government
Great Barrier Reef
Marine Park Authority

Document details

Reef HQ Aquarium Master Plan 2021-2041

Client

Great Barrier Reef Marine Park Authority

Project Team

Cox Architecture, Counterpoint Architecture + UAP

Cover image

Provided by UAP

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Aboriginal and Torres Strait Islander readers are advised this publication may contain names and images of deceased persons.

The Great Barrier Reef Marine Park Authority is an organisation committed to child safety and to the implementation of Child Safe principles and procedures.

The Great Barrier Reef Marine Park Authority acknowledges the continuing Sea Country management and custodianship of the Great Barrier Reef by Aboriginal and Torres Strait Islander Traditional Owners whose rich cultures, heritage values, enduring connections and shared efforts protect the Reef for future generations.

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This Master Plan is also supported by:

- Commercial assessment and cost benefit analysis (commercial-in-confidence)
- Strategic Snapshot

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Josh Thomas
Chief Executive Officer
Great Barrier Reef Marine Park Authority

Foreword

Message from the CEO

I'm delighted to present this Master Plan which will deliver our Reef HQ Aquarium as the global destination of excellence in tropical coral reef education.

As the National Education Centre for the Great Barrier Reef Marine Park Authority (the Authority), Reef HQ Aquarium plays a vital role in educating the community about the importance of protecting the Great Barrier Reef (Reef). This 20-year Master Plan demonstrates the Authority's ongoing commitment to providing a high quality education and an aquarium facility for years to come.

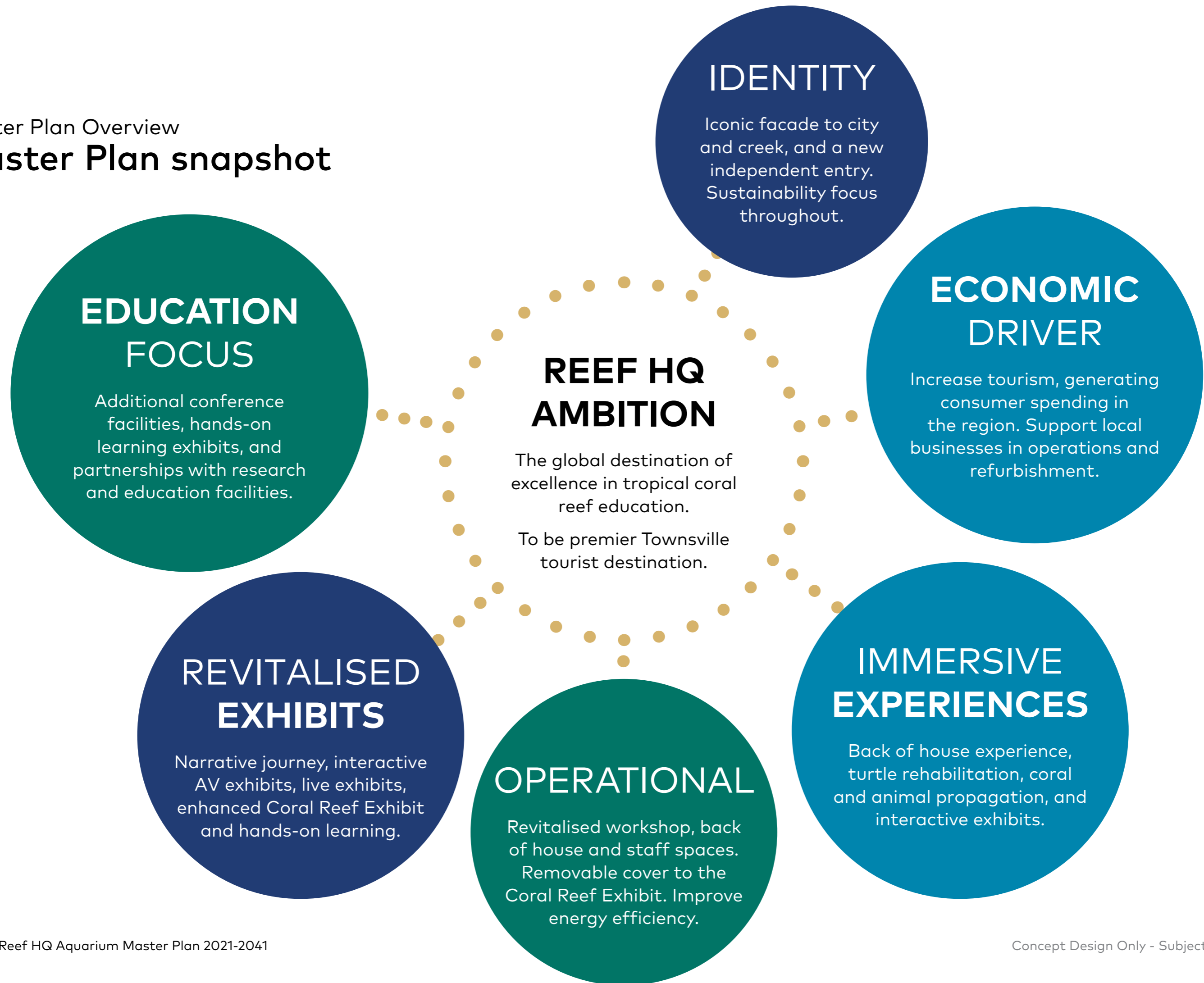
Since opening its doors in Townsville in 1987, the Aquarium has made the Reef accessible to children and adults from across Australia and around the globe. As the world's largest living coral reef aquarium it is a showpiece of the treasures of the Reef, allowing us to

demonstrate its compelling natural beauty, and introduce visitors to the importance of the Reef and the Marine Park as a natural wonder, and to ensure its conservation.

Our guiding principles are to educate people to build an understanding of the Reef, maintain the world's largest living coral reef exhibit and inspire visitors through engaging and exciting experiences. We want to create a sense of awe, wonder, and appreciation of the Reef in our community and for visitors alike. The Authority aims to use a co-design or co-creation approach within future design development processes to ensure the rich cultural heritage of First Nations people is acknowledged and interwoven throughout the Aquarium experience. This Master Plan sets the pathway to achieve this vision.

Context

Master Plan snapshot



The world's largest living coral reef Aquarium - Reef HQ

Background

The Great Barrier Reef Marine Park Authority (the Authority) has been providing world-leading Marine Park management since 1975. We are a strong, efficient, and agile natural resource regulator entrusted by Australia with the responsibility of managing the natural wonder that is the Great Barrier Reef Marine Park.

Reef HQ opened in 1987 and is the world's largest living coral reef aquarium. The original vision for the facility was "to create the Great Barrier Reef on land, making the Reef accessible and affordable while at the same time spreading the Reef conservation message and gaining public support for the protection of the 'real thing'". Reef HQ is the Australian Government's National Education Centre for the Great Barrier Reef and is recognised nationally and internationally as a centre of excellence in environmental education.

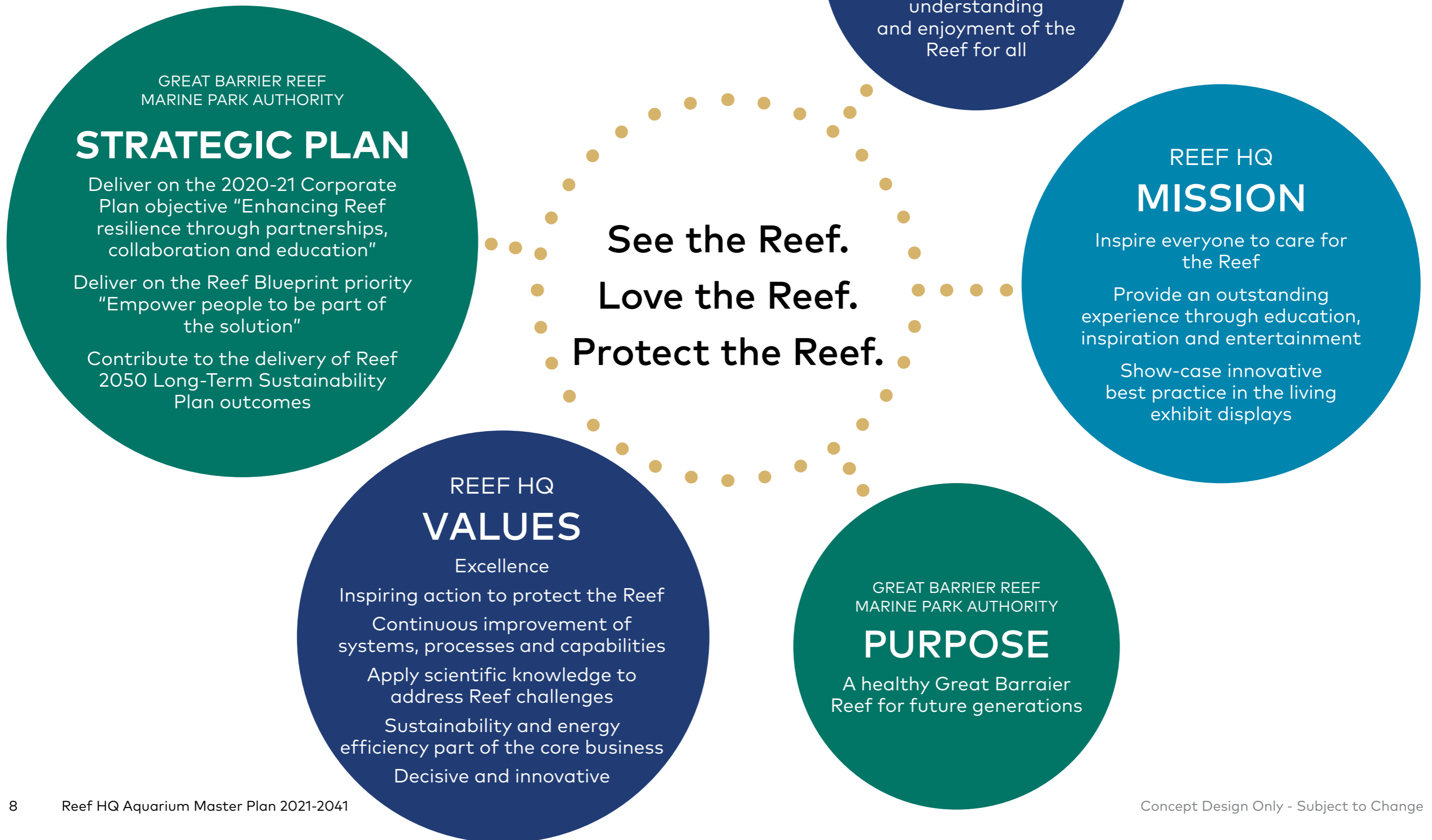
Management is guided by the Great Barrier Reef Marine Park Act 1975 and the best available science to protect values, reduce threats, and improve the current and long-term outlook for the Great Barrier Reef (Reef) and the communities that depend on it. We work together with other Australian and Queensland government agencies, industry, community organisations, and individuals to help achieve our vision; a healthy Reef for future generations.

The Authority complements its regulatory tools through a strong focus on education across its program areas, consistent with its role under the Great Barrier Reef Marine Park Act 1975. The Authority's education programs at Reef HQ Great Barrier Reef Aquarium (Reef HQ) provide a highly effective mechanism for influencing community perceptions about the Reef to a broad audience of visitors (local, regional, national, and international).

The Reef is one of the richest, most complex and diverse ecosystems in the world. The Great Barrier Reef Marine Park begins at the tip of Cape York in Queensland and extends south to Bundaberg, over 2300 kilometres. Located in Townsville, Queensland, Reef HQ presents a living example of the Reef that is accessible to people of all ages and physical abilities, offering an opportunity to experience the Reef without getting wet.



Strategic Plan + Mission



Transform Reef HQ as an educational and cultural landmark for visitors to north Queensland, well into the future - Master Plan Vision

Objectives

The purpose of this Master Plan is to establish a long-term direction for continuous improvements and guide the objectives of Reef HQ as a public institution into the future. The vision is to create a unified design character in order to sustain Reef HQ as an educational and cultural landmark for visitors to north Queensland, well into the future. The Master Plan will direct the interpretive and functional master planning of the education, experience, and exhibits of Reef HQ for the next 20 years.

The Master Plan will chart the course for future development in line with the Reef HQ vision. Reef HQ is unique, in that its primary purpose is to educate about the Reef. It is an invaluable asset to the Australian Government for international education of this national asset, as well as Townsville and north Queensland in how we reach and connect our communities with the Reef.

This Master Plan will look at how Reef HQ can be continually renewed, focusing on improving the visitor experience both in the

immediate and long term. In doing so, we are seeking to enrich the experiences visitors can have at Reef HQ and their knowledge and understanding of the Reef.

Reef HQ is built on Wulgurukaba country and we have a proud history of working with Traditional Custodians across the span of the Reef to share the importance of Sea Country and cultural connections. The Authority truly appreciates and values the guidance from Traditional Custodians to ensure we are delivering the project in a culturally appropriate and sensitive way. Consultation with the Traditional Custodians will be ongoing in the development and implementation of the Master Plan, ensuring the stories and connection to Sea Country are told.

Successful Master Plans are ambitious yet achievable, build on existing strengths, are adaptable to change and consider the full needs of the organisation. A good Master Plan is multifaceted and built on complementary components, such as

visitor and education services, conservation appreciation, collection and propagating planning, and sustainable actions and design. This Master Plan delivers strategic benefits to visitors and staff, drives savings, determines capital project requirements and attracts ongoing investment for showcase exhibitions. The Reef HQ Master Plan builds our capacity to meet foreseeable challenges and makes the most of current and guides future opportunities.

This Master Plan has been developed in two parts. Section one provides the context, strategic directions, and principles that guide the Authority's work and projects at Reef HQ. This underpins the way we work and establishes a set of agreed directions that unify our common purpose and future direction. Section two outlines priority projects to be implemented in the next five years as well as provides a conceptual guide for potential future developments.



Community + stakeholder engagement

Groups consulted:

The development of this Master Plan has been based on foundational engagements with many of the Authority's key stakeholder groups. Consultation and engagement is ongoing. Some of the groups providing consultation on Reef HQ include:

- Traditional Custodian Leaders
- Townsville Enterprise
- Townsville Chamber of Commerce
- Townsville City Council – Future Cities
- Port of Townsville
- North Queensland EduTourism Consortium
- Tourism and Events Queensland
- Study Queensland
- Australian Institute of Marine Science (AIMS)
- James Cook University (JCU)
- Sealink
- Museum of Tropical North Queensland

Feedback from visitor consultation

Reef HQ customer surveys and feedback has also been incorporated in the development of this Master Plan. Reef HQ continues to respond to customer feedback.

Stakeholder insights:

- Reef HQ is a "gem in Townsville's crown"
- A place where tourists can learn about the Reef
- A facility that celebrates education, awareness and understanding of marine science
- A complement to marine science research at JCU and AIMS
- Significant to Australia's environmental reputation
- Revitalise the exterior of the facility to promote Reef HQ and improve accessibility
- Upgrade the exhibits to provide a more enjoyable space for visitors
- Capitalise on significant edu-tourism opportunities by increasing the facility's capacity for student groups, updating technology and infrastructure and reviewing the facility's relationship with key nearby institutions
- Improve marketing with clear and concise messaging, to encourage visitors to visit the Reef
- See the reef in a more accessible location as well as promoting the environmental and educational aims of the facility.



128,000
GUESTS
ANNUALLY

5000
STUDENT
VISITORS

15,000
LOCAL
MEMBERS

120
VOLUNTEERS

Benefits of Reef HQ

Since its opening in 1987, Reef HQ has provided public access to the world's largest living coral reef exhibit. Today the Australian Government's pre-eminent Reef education centre hosts on average:

- 128,000 guests annually
- 5000 students at all learning stages (foundational to tertiary) from around the world
- 15,000 local members, approximately 10% of Townsville's population
- 120-member volunteer association

Reef HQ is an integral visitor destination for the city of Townsville, a popular place for regional and international visitors alike. Reef HQ is also an important economic driver for the city of Townsville and north Queensland. Reef HQ is one of the few major visitor destinations in the region.

Reef HQ employs in excess of 50 Townsville locals with a mix of part-and-full-time staff. Further, Reef HQ is a significant procurer of local business services. In 2017-18 alone, Reef HQ procured \$1.1 million in services from local businesses for the operation and maintenance of the facility. By creating a contemporary state-of-the-art destination, Reef HQ strengthens Townsville's position in the domestic visitor market by providing a gateway experience to the region.

Located within Townsville's Waterfront Priority Development Area's Research and Tourism Precinct, Reef HQ is ideally placed to be the epicentre of a world leading marine science precinct, showcasing Townsville's reputation as a world leader in marine science, research, and education. The Waterfront Precinct is a catalyst project for the revitalisation of the Townsville city centre, which will take shape over the next 15 to 20 years. This Master Plan for Reef HQ operates in conjunction with the 'Townsville CBD Master Plan', which emphasised the need for the city centre to reconnect with its

waterfront. Reef HQ is anticipated to be an anchoring facility in a precinct where other developers are planning significant works.

Ongoing maintenance and future refurbishment works will provide further much needed medium term jobs for the local economy. Across the 20-year appraisal period (FY21-FY40), Stage 1 of the Master Plan will support on average between 24 and 38 jobs, while Stage 1 and 2 is expected to support on average between 30 and 34 jobs — noting job creation increases over time as tourist visitation rises.

Working internationally, Reef HQ actively supports destination marketing campaigns through domestic and international media promoting the Reef, Queensland, and Townsville, reaching more than eight million people. At the local level, Reef HQ is a vital component in the Townsville North Queensland Destination Tourism Plan and the Townsville White and Grey Ship-Attraction Plan (2016-2021), which provides opportunities for growth in regional

tourism and delivers real outcomes for a coordinated, achievable, and sustainable future for the sector in Townsville.

Reef HQ has the potential to support extensions of research partnerships such as those that currently exist with James Cook University and the Australian Institute of Marine Science, and showcase the best available Reef related science and information. Reef HQ also has the potential to expand to incorporate a dedicated training facility to be at the forefront of Reef restoration science, animal husbandry, and veterinary services, stimulating an appetite for vocations in marine science or other STEM subjects, as well as supporting an expanded edu-tourism focus for Townsville. Internationally, there has been evidence of investment in marine laboratories within aquariums serving as a catalyst for marine science innovation. Reef HQ anticipates the investment will strengthen Townsville's identity as an epicentre of marine science education, placing edu-tourism front and centre.

Principles

Strategic direction

EDUCATE

Educate people to build an understanding of the Great Barrier Reef

Maintain and strengthen the Authority's reputation as a world-leader in Reef education.

Expand the reach of the Authority's Reef education programs, nationally and internationally, through outreach programs that use state-of-the-art technology to connect global citizens to the Reef.

Deliver engaging community education in Reef HQ through high quality exhibit interpretation, educational talks and tours, and volunteer program.

Partner with others to deliver informative formal education programs (prep to tertiary) and educational resources that are relevant, curriculum linked and innovative.

Promote stewardship actions that reduce direct impacts to the Reef and to encourage positive actions that will build resilience of the high value sites along the Reef in a changing climate.

EXHIBIT

Maintain the world's largest living coral reef exhibit

Integrate and demonstrate Reef conservation and protection actions.

Engage with the Authority, Reef science and research stakeholders to showcase and integrate contemporary programs and projects.

Maintain and strengthen the Authority's reputation as displaying the world's largest living healthy coral reef exhibit.

Build awareness of the Authority's reputation as a world-leader in World Heritage and Marine Park area protection and management.

Foster a sense of awe and wonder in aquarium exhibits and maintain excellent animal husbandry and welfare.

Maintain and increase sustainable engineering, construction and operational practices that strengthens the Authority's reputation as a sustainable organisation and showcases actions that demonstrates leading by example.

EXPERIENCE

Inspire visitors through engaging and exciting experiences

Maintain and strengthen Reef HQ's reputation as an exceptional visitor attraction.

Increase visitation to Reef HQ by marketing to specific audiences, local membership, national and international visitors, and opportunities for market extension through new engagement techniques.

Create new experiences and product development that promotes ongoing experience renewal to maintain and increase membership.

Revitalise and engage with consumers and trade support to ensure ongoing premium product is offered.

Master Plan principles

Six core principles have been established through consultation with the Authority and key partners. These Master Plan principles underpin the design moves and decisions made for the Master Plan and concept design. Additionally they are to guide the development of the project through the next stages.



EDUCATION + RESEARCH

- National education for the Great Barrier Reef
- Focus on visitor education and inspiration
- Design for visiting student groups
- Support partnerships with research and education facilities
- Promote an outreach for Reef education and research findings



SUSTAINABILITY + CONSERVATION

- Employ environmentally sustainable design principles
- Incorporate sustainable materials where possible
- Focus on conservation of species and biodiversity



FLEXIBILITY + MOVEMENT

- Provide multiple journey routes
- Exhibition and gathering spaces for large and small groups
- Rationalise circulation
- Centralise visitor amenities for access throughout the journey



OPERATION + MAINTENANCE

- Support current best practice aquarium husbandry and research
- Design display tanks for easy cleaning, maintenance and feeding regime
- Rationalise existing and new plant rooms



INVITING + CONNECTED

- Open up facade at street level
- Invite daylight and views into Aquarium entry foyer
- Connect to Ross Creek, proposed promenade, King and Flinders Street
- Relate to proposed Great Barrier Reef Marine Park Authority building
- Connect to Great Barrier Reef



ENGAGING + MEMORABLE

- Promote the enduring connection to Land and Sea Country of Great Barrier Reef Traditional Custodians
- Trigger curiosity
- Diverse and contemporary exhibitions with multiple mediums
- Create memorable facade to replace 'spire' icon
- Create narrative to support visitor journey

Delivering Our Goals

Stage 1



Stage 2



**Master Plan +
Concept Design**

Key recommendations

World's largest living coral reef aquarium

Retain the iconic Coral Reef Exhibit and Predator Tank as the centrepiece of Reef HQ.

Create an iconic façade

The public identity of Reef HQ will be changed significantly by the removal of the existing iconic 'spire' structure that currently acts as the public 'face' of Reef HQ. It will be essential to create a new distinctive and clearly identifiable façade treatment for the building.

Street to creek connection

Support the creation of a public pedestrian link along the edge of the Reef HQ site to connect Flinders Street to Ross Creek and the Waterfront Promenade.

Establish an independent entry

The planned removal of the existing public entry route through adjacent site necessitates creation of a new public entry point. Ground surface treatments extend beyond the site to signify the new and improved entry.

Revitalise entry spaces

Reorganise and refurbish the entry areas to include reception/ticketing, a reduced retail offering, small takeaway café function and People with Disability amenities. Externally, provide an attractive group marshalling space.

Create a narrative journey

Reorganise the theming of exhibits to create a coherent educational narrative for visitors. Themes are organised sequentially as follows: Formation of the Great Barrier Reef; What Makes the Reef Great; Managing the Marine Park; Protecting the Great Barrier Reef.

Focused exhibits - small tanks

Utilise a greater proportion of small tanks to present specific animals and themes. This strategy will improve the focused presentation of narrative themes, as well as simplify servicing and animal husbandry best practices. Some larger "ecosystem" exhibits are retained, however are reduced in quantity compared to the small tanks.

Improve exhibit viewing spaces

Create new ways for visitors to linger and view exhibits through built in tiered seating and reshaping of exhibit spaces.

Revitalised Turtle Hospital experience

Relocate existing administration areas to create a new Turtle Hospital and back of house tour experience. Displays will include Turtle Remediation tanks, "Canary Tank," Coral, Seahorse and Jellyfish Propagation, Baby Shark Tank and viewing of active staff laboratory areas.



Key recommendations

New interactive data display

Create a new exhibit space at the entry to the Turtle Hospital. The new exhibit sits within the "Protecting the Great Barrier Reef" theme and includes interactive live data streaming linked to reef research and management. The space also acts as a marshalling point for back of house tours.

Cover to Coral Reef Exhibit

Provide a new removable rain cover to Coral Reef Exhibit to improve control of water quality. Solution will need to facilitate suitable light penetration to maintain coral and other animal health.

Reinstate hidden stairway

Reinstate existing public stairway that is currently hidden and utilised for informal storage. The stairway will create new flows of movement for visitors and improve connectivity to the upper level and reef education spaces.

Reef Education Hub

Increase the Reef Education Hub areas and exhibits to better cater for groups and repeat visitors.

Dive Observation Hub

New facilities to support dive observation requirements. This project will necessitate the inclusion of a new lift.

Research

Support research and industry partners in their projects. Profile ground-breaking research relating to coral reef restoration and adaptation, and provide a hands-on learning place for other marine protected area managers to learn how this is done. Conduct collaborative research to demonstrate how increased knowledge can assist with protection and conservation of the Great Barrier Reef and all reefs globally.

Conservation

Create more avenues to educate visitors and raise awareness of the Great Barrier Reef and marine life.

Sustainable Innovations

Continue to showcase renewable energy systems and sustainability innovations, while providing a direct example to visitors on the choices they make at home and in the workplace to reduce impacts on the Reef. Also continue to innovate through the use of sustainable materials and be a real life flagship for sustainability in government business.

Refurbish staff back of house

Refurbish and update existing back of house workshop and staff facilities to improve functionality. Retain and protect existing Quarantine Room and Holding Tank.

Technology enhanced experiences

Augment live exhibits with new interactive AV experiences.

Video conferencing facilities

Provide improved video conferencing facilities in short- and long-term planning to facilitate Reef HQ's extensive media content production.



Reef HQ Site Site aspects

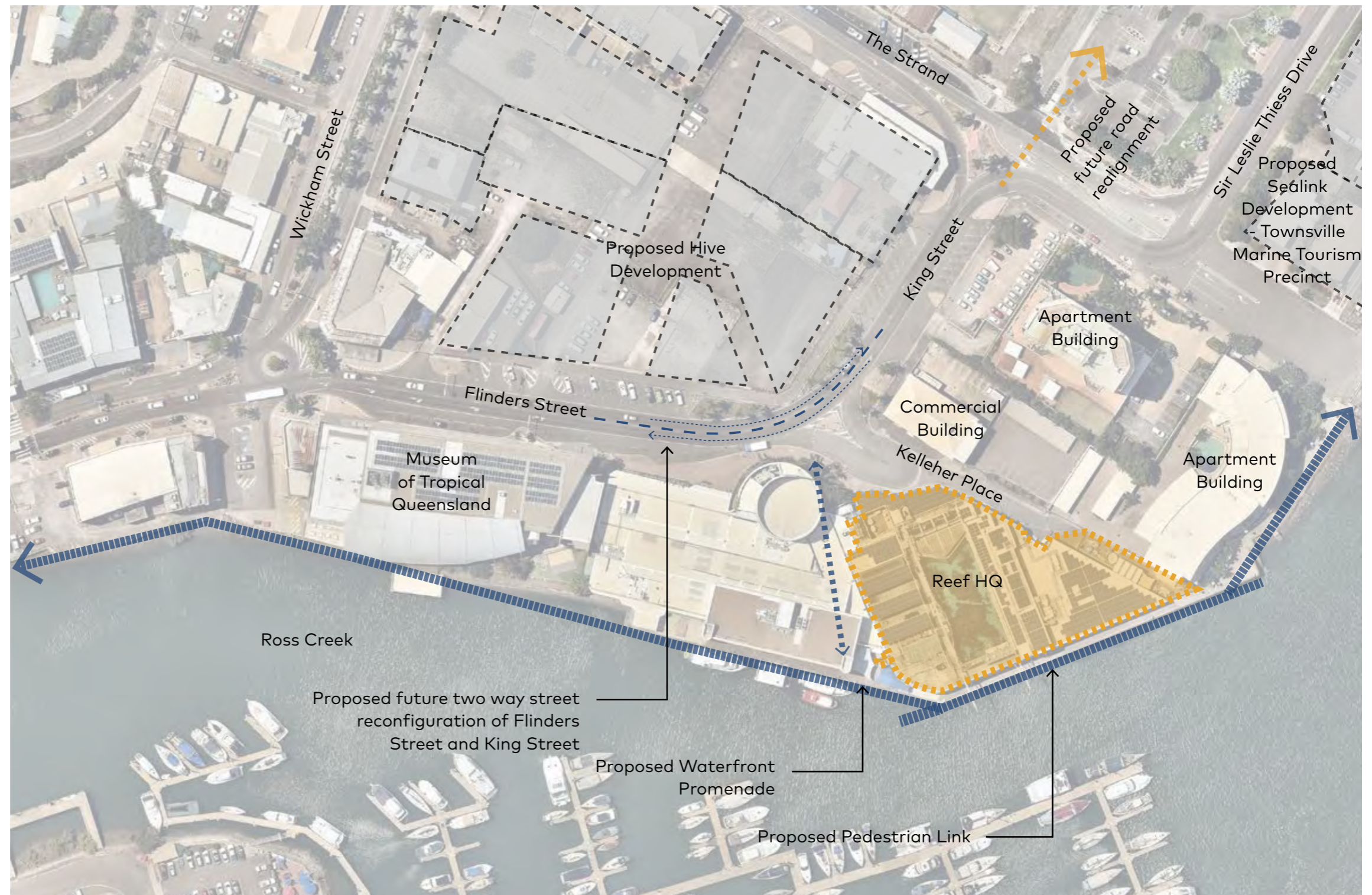
The Reef HQ site offers potential to access greater waterway connectivity and establishment of view corridors. Reef HQ has confirmed that connection to the greater Townsville context has merit and should be explored during the concept design and master planning process.



Site Aspects Diagram

Site context

Reef HQ is located in the heart of Townsville's tourism precinct within close proximity to the Museum of Tropical Queensland. Within short walking distance, the site is linked to the Breakwater precinct and ferries, The Strand public spaces and the entertainment and business districts of Flinders Street East and the city. Proposed future development of the adjacent site and pedestrian pathways along Ross Creek will strengthen pedestrian access and amenity.



Site Context

Legend

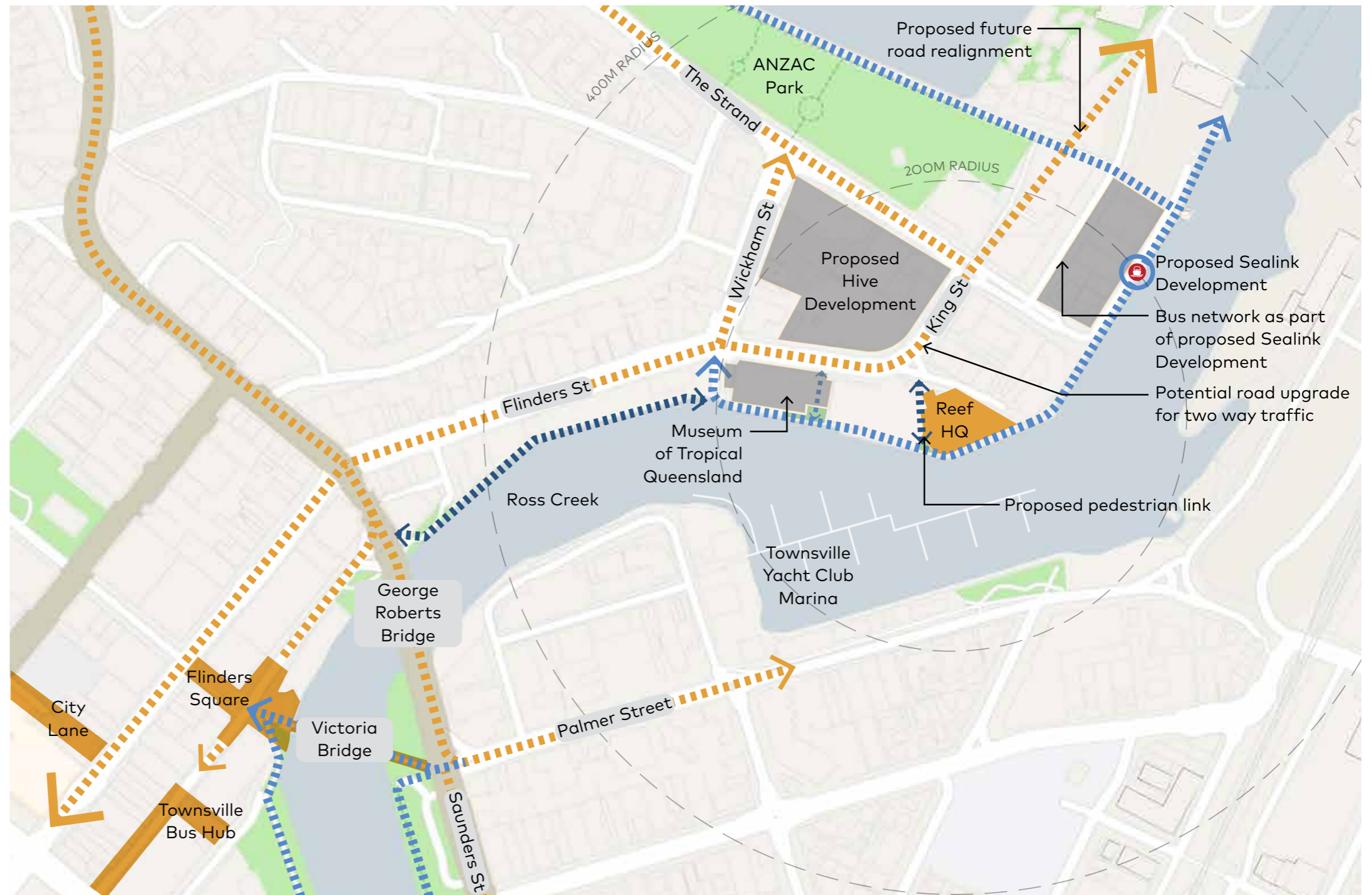
- ← - - - → Foot Links
- ← - - - → Proposed Links
- ← - - - → Vehicle Links
- Activated Precincts
- Ⓜ Marina

Site connections

The site currently has limited pedestrian and vehicular connection to Finders Street due to the future development of the adjacent site. Reef HQ acknowledges that the existing Omnimax structure is the prominent public association with the facility. Bus parking and connection to street parking is located in this location.

The site boundary is generally limited to the building footprint which presents a number of challenges for the future entry location. The existing Omnimax and proposed adjacent development will block the street presence of the proposed entry.

Future opportunities may be presented should the adjacent site be developed and an easement be negotiated with the Port of Townsville. Further, public access to the Ross Creek boardwalk would provide additional pedestrian connection to neighbouring developments.



Site Connections Diagram

- Legend**
- Foot Links
 - Proposed Links
 - Vehicle Links
 - Activated Precincts
 - Marina

Existing conditions



- Legend**
- Tanks / Display
 - Public Access
 - Core - Stairs / Amenities / Lift
 - Plant Room
 - ⓧ Indicates Corresponding Photo Location

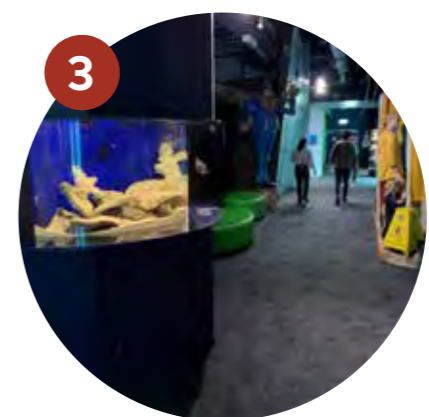
Concept Design Only - Subject to Change



External view to Reef HQ



Theatre seating



Gallery 8



Workshop



Coral Reef Exhibit corridor



Cafe

Existing Ground Floor Plan

Existing conditions



Existing First Floor Plan



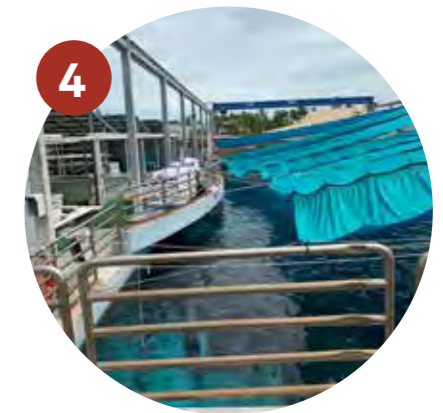
Walkway between Predator Tank and Coral Reef Exhibit



Solar panels



Discovery Lagoon



Coral Reef Exhibit from Wave Deck



View to Castle Hill from Observation Deck



Coral propagation tanks

- Legend**
- Tanks / Display
 - Public Access
 - Core - Stairs / Amenities / Lift
 - Plant Room
 - X Indicates Corresponding Photo Location

Opportunities + constraints

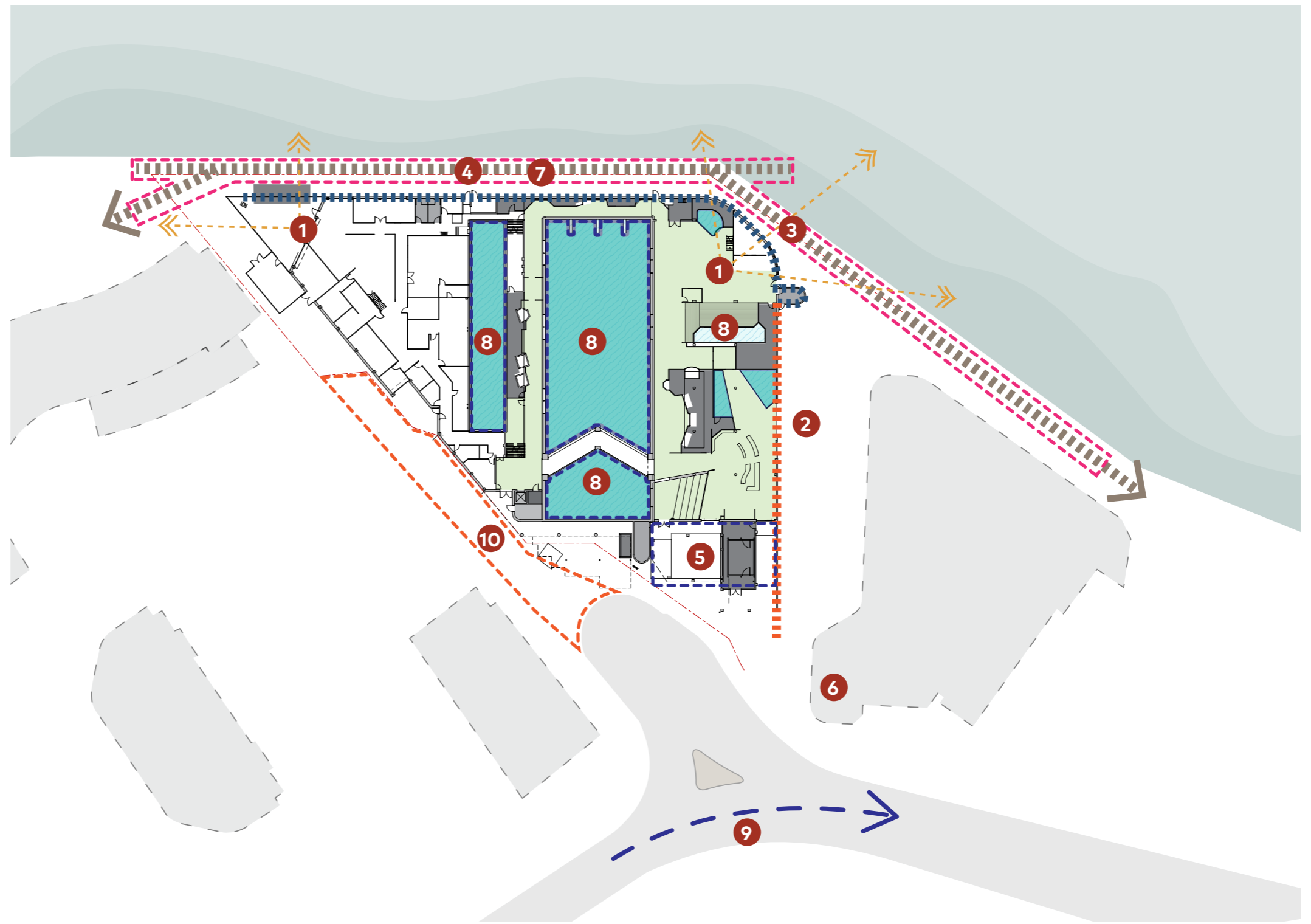
The master planning and concept design of Reef HQ presents several opportunities and constraints including:

Opportunities

- 1 Upper level views of Ross Creek and Castle Hill
- 2 Activate street frontage - pending securing easement
- 3 Activation and connection to Ross Creek
- 4 Connect to proposed waterfront promenade

Constraints

- 5 Interim public entry / exit area compromised by plant and services
- 6 Existing Great Barrier Reef Wonderland Complex blocks visibility of Reef HQ
- 7 Existing Ross Creek facade unwelcoming and blank
- 8 Existing large tanks limit potential new layout options
- 9 Existing one way street system limits presence / visibility of Reef HQ
- 10 Service laneway is a dead-end space



Opportunities + Constraints Diagram

Concept Design

Narrative journey

The current Reef HQ lacks a clear vision of the visitor experience. The Concept Design and Master Plan seeks to address this issue by creating a journey narrative. The journey narrative, will be in four parts:

The Formation of the Reef

The beginning of the visitor experience and sets the tone for the journey, consisting of three key motivations: form an emotional connection, tell the science story, and speak to the relevance of the Reef today.

What Makes the Reef Great

The animals, coral, biodiversity of catchments and the Reef itself. This portion of the journey set-up an understanding of what makes it important and why we should care for it.

Managing the Marine Park

The 'hot topics' section, the greatest threat to the Reef is climate change. The other main threats are associated with coastal development, land-based run-off, and threats from direct human use of the Reef (such as illegal fishing).

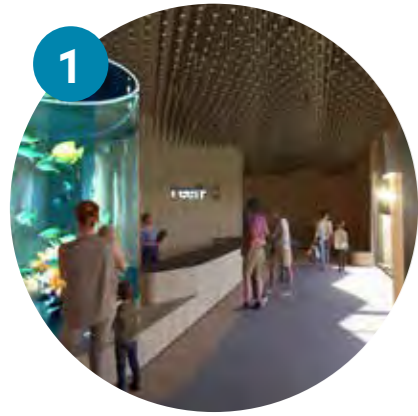
Protecting the Reef

Information about all the people in the Reef space, how the Reef is managed, and what the visitor can do to care for the Reef.

Underpinning the journey should be a scientific narrative of marine conservation and appreciation.



Ground floor plan



1
Revitalise Entry Sequence + Spaces



2
Create Narrative Journey + New Exhibits



3
Renewed Turtle Hospital Experience

Concept Design Only - Subject to Change



First floor plan



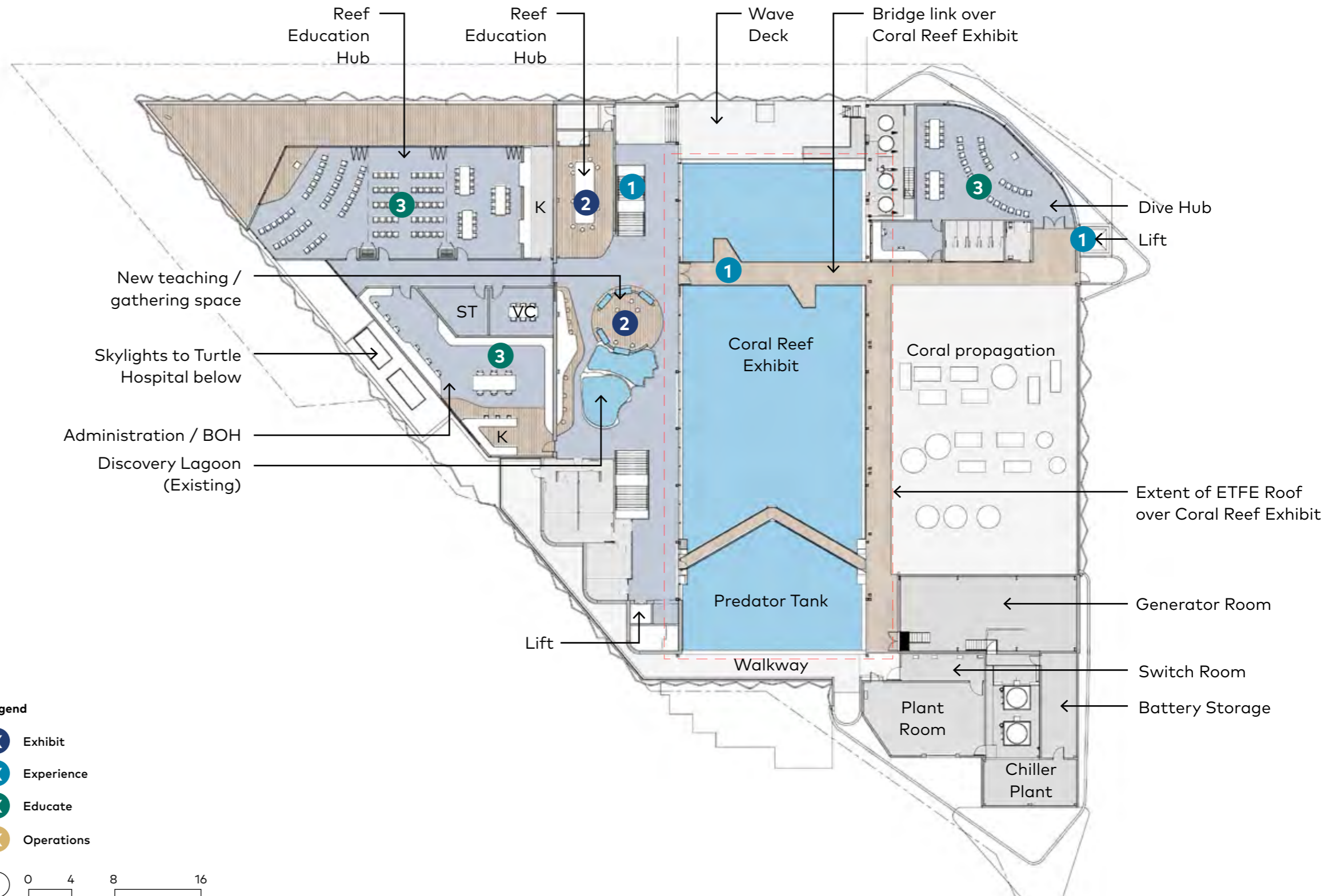
1 Renew Circulation Sequences



2 Revitalise + Expand Hands-on Learning



3 New Conference, Admin + Dive Hub



Entry sequence



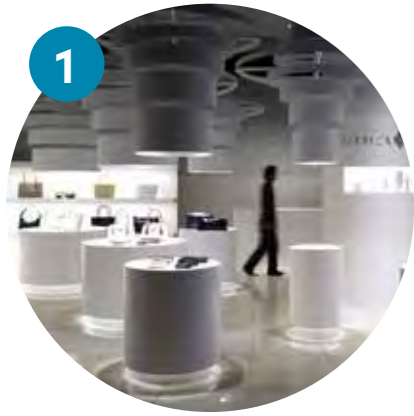
Concept design of Reception Desk and Teaser Tank at Entry

Exhibition



Concept design of 'What Makes the Reef Great' Exhibit

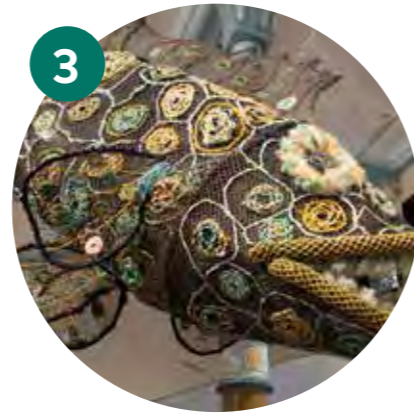
Entry sequence + exhibition



1 Organic Entry Forms
Open up facade at street level and create inviting organic forms



2 Teaser Tank
Encourage visitors with teaser tank, cafe and retail at entry



3 Dreaming Stories
Tell dreaming stories throughout the experience



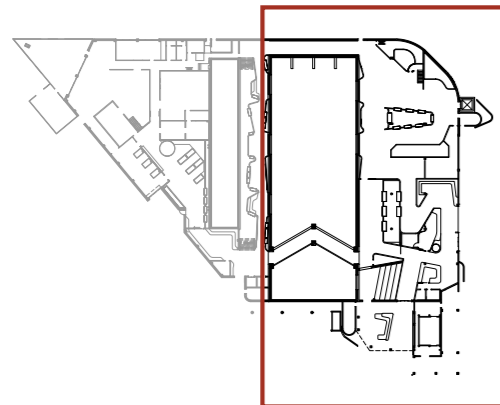
4 Small Jewel Tanks
Incorporate new smaller tanks throughout exhibitions



5 Temporary Exhibits
Open and flexible space for temporary installations



6 Immersive AV Tunnel
Create immersive AV experience of large and rare ocean animals



- Legend**
- X Exhibit
 - X Experience
 - X Educate
 - X Operations

- Images**
- 1 - Patrick Cox Shop by Sinato Architects. Image: Toshiyuki Yano
 - 3 - Ghost Net Art. Image: Tony Hisgett
 - 4 - Manila Ocean Park
 - 5 - Baleinopolis, Aquarium Tropical by Studio Gang. Image: Studio Gang
 - 6 - Image: Provided by Reef HQ

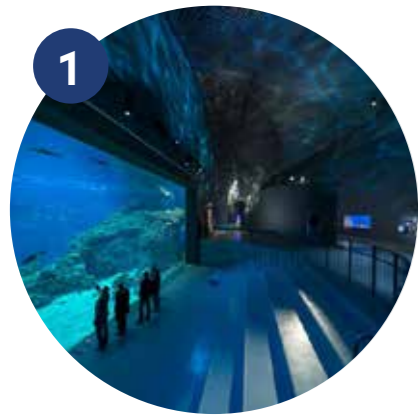


Exhibition



Concept design of 'Managing the Marine Park' Exhibit

Exhibition



1 Tiered Seating
Provide tiered seating, taking advantage of existing large viewing windows to Coral Reef Exhibit



2 Small Jewel Tanks
Incorporate new smaller tanks throughout exhibitions



3 Infographic + Wayfinding
Incorporate clear and consistent wayfinding and infographic displays throughout



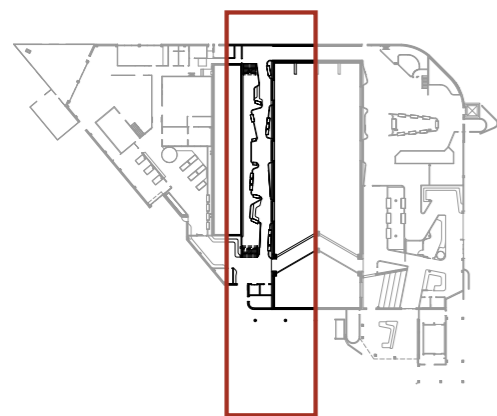
4 Tunnel Experiences
Enhance existing tunnel infrastructure with unique events



5 Upgrade Theatrette
Upgrade existing theatrette as part of long-term strategy



6 Interactive Exhibit
Create interactive exhibits for a memorable final experience

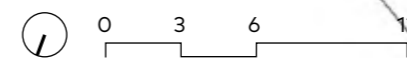
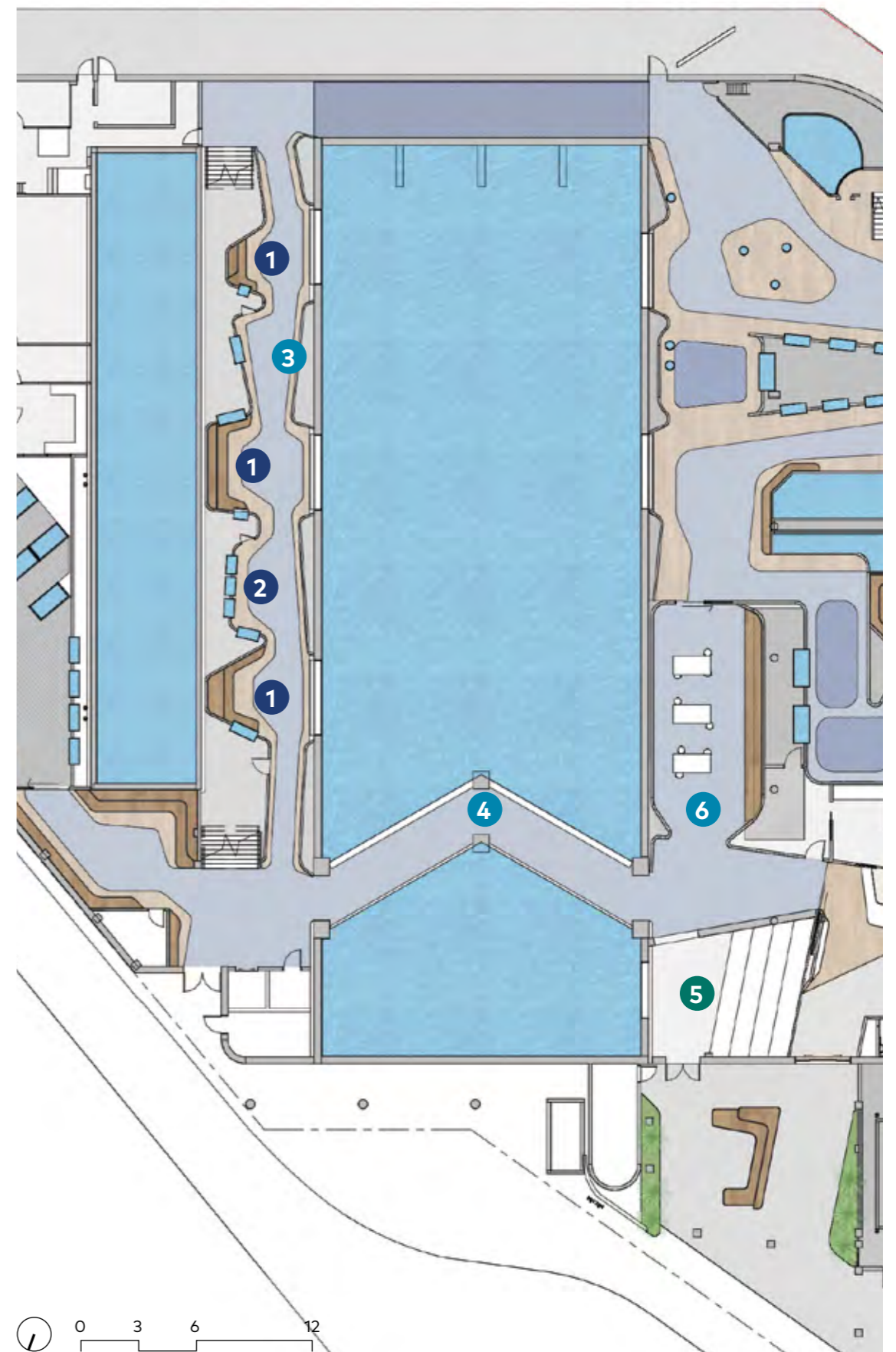


Legend

- X Exhibit
- X Experience
- X Educate
- X Operations

Images

- 1 - Blue Planet Aquarium
- 2 - Eco Edo Nihonbashi Art Aquarium
- 3 - Marine Cycle Room, Natural History Museum by Lee Kong Chia
- 4 - Reef HQ Valentine' Day Dinner
- 5 - Cantina Antinori by Marchesi Antinori. Image: Pietro Salvarei
- 6- Sketch Aquarium by teamLab



Turtle Hospital + back of house technical



Concept design of Turtle Hospital

Turtle Hospital + back of house technical



1 Interactive Display
Create interactive data display at Turtle Hospital entrance



2 Canary Tank
Place canary tank on display to educate visitors on the management aquaria



3 Turtle Tanks
Isolated from other technical exhibits and connected to turtle quarantine



4 Coral Propagation
Display coral propagation tanks for days when Turtle Hospital is empty



5 Baby Shark Tank
Provide baby shark breeding tank for days when Turtle Hospital is empty



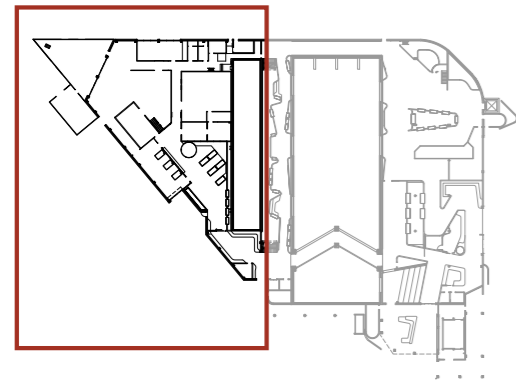
6 Labs
Create visual connection to labs to educate visitors on the management aquaria



7 Staff Amenities
Rationalise and relocate amenities to new building at 1 Flinders Street



8 Workshop
Reorganise and consolidate workshop space



- Legend**
- X Exhibit
 - X Experience
 - X Educate
 - X Operations

- Images**
- 2 - Reef Tank. Image: ReefBuilders.com
 - 3 - The New England Aquarium. Image: Toan Trinh
 - 4 - Commercial Live Rock Frag Crustacean Display. Image: dasaquariums.com
 - 6 - Image: Formaspace.com
 - 7 - ERM Power Fitout Melbourne by Cox Architecture Image: Diana Snape
 - 8 - Ofenwerkstatt Workshop by ma ma. Image: Hanno Mackowitz

Reef Education Hub

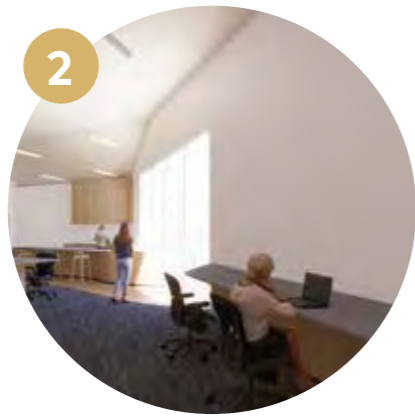


Concept design of Reef Education Hub

Reef Education Hub + Conference Centre



1 Public Amenities
Upgrade and expand existing public amenities



2 Hot Desks
Hot desks to new administration wing



3 Discovery Lagoon
Maintain existing Discovery Lagoon



4 Video Conferencing
Dedicated room for filming educational content



5 Conference Rooms
New conference and training facility to expand offering



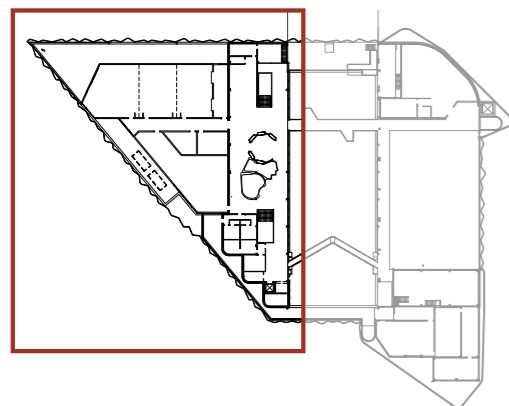
6 Reef Education Hub
Expand existing Discovery Lagoon area to create hands-on learning space



7 Reinstated Stairway
Reinstate existing stairway to create multiple journey options



8 Outdoor Terrace
Create outdoor breakout terrace for new conference facility



- Legend**
- X Exhibit
 - X Experience
 - X Educate
 - X Operations

Images

4 - Bornholm's Boarding School by Rosen Bosch Studio
Image: Kim Wend
6 - Hong Kong Science Museum by Huttinger Interactive Exhibitions.

Concept only – elements may move to The Hive 0 3 6 12

Education + events spaces

Reef HQ currently offers a variety of educational experiences for both tourist visitors and school groups. The programs and experiences offered will be revitalised on an annual review cycle to ensure engaging and relevant content is being delivered.

Education facilities

- Theatrette
- Turtle Hospital
- Conference Room (60 People)
- Discovery Lagoon
- Upstairs Science Area
- Video Conferencing Room

Current visitor experiences

- The Predator Dive Show
- Discovery Lagoon Session
- Turtle Talk - Turtle Hospital Tour
- Shark Feeding Show
- Animal Feeding Tour

Current school programs

Delivered in-person at Reef HQ or via Video Conferencing Facility:

- Foundation - Reef to Rainforest, Reef Rangers
- Year 1 - Living Under the Sea
- Year 2 - Growing up on the Reef
- Year 3 - Exploring the Reef
- Year 4 - Circle of Life, Reef Relationships, Endangered Species
- Year 5 - Adaptations for Survival
- Year 6 - Reef at Risk
- Year 7 - Classifying Creatures of the Reef, Connecting Creatures Roles to the Reef
- Year 8 - Reproducing in the Reef
- Year 9 - Reef Communities, Management of the Reef
- Year 10 - Climate Change
- Twilight and Night Programs - Nocturnal Presentation, Discovery Lagoon Session, Nocturnal Torchlight and Coral Fluorescence Tour, Turtle Hospital, Observation and Data Collection

EDUCATION

Formal foundational tertiary education:

- Student group programs targeted primarily at Queensland-based schools through the Queensland Curriculum and Assessment Authority syllabus frameworks.
- Tertiary programs focused on students attaining course/degree credit points through Aquarium based programs.

Study tours (Edu-tourism):

- Study tours (national and international) student groups for high school and tertiary groups, with groups likely to stay within the Townsville region for 1.5 to 5 weeks.

Vocational education and training:

- Traineeship programs, including Indigenous traineeships and apprenticeships.
- Potential partnership/s with registered training organisation/s to deliver vocational education and training providing nationally accredited courses.

International collaboration:

- Focused at the government-to-government level providing a dedicated location for the sharing of knowledge and experience.

Corporate social responsibility programs:

- Provide businesses with opportunities to contribute to their societal goals of a philanthropic, environmental, or charitable nature by engaging in ethically-oriented practices focused on Reef protection and conservation.

Dive Hub + Coral Propagation



1 Predator Tank
Maintain existing Predator Tank and upgrade shipwreck installation



2 Coral Reef Exhibit
Maintain existing Coral Reef Exhibit and remove mullions from viewing windows



3 Coral Propagation
Locate coral propagation to rooftop and encourage visiting academics



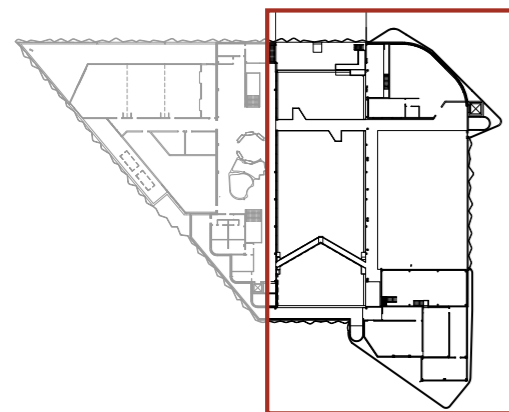
4 Connection Bridge
Connect Dive Hub and Conference Centre with bridge over Coral Reef Exhibit



5 New Lift
Connect ground floor and first floor functions without need to journey through all exhibits



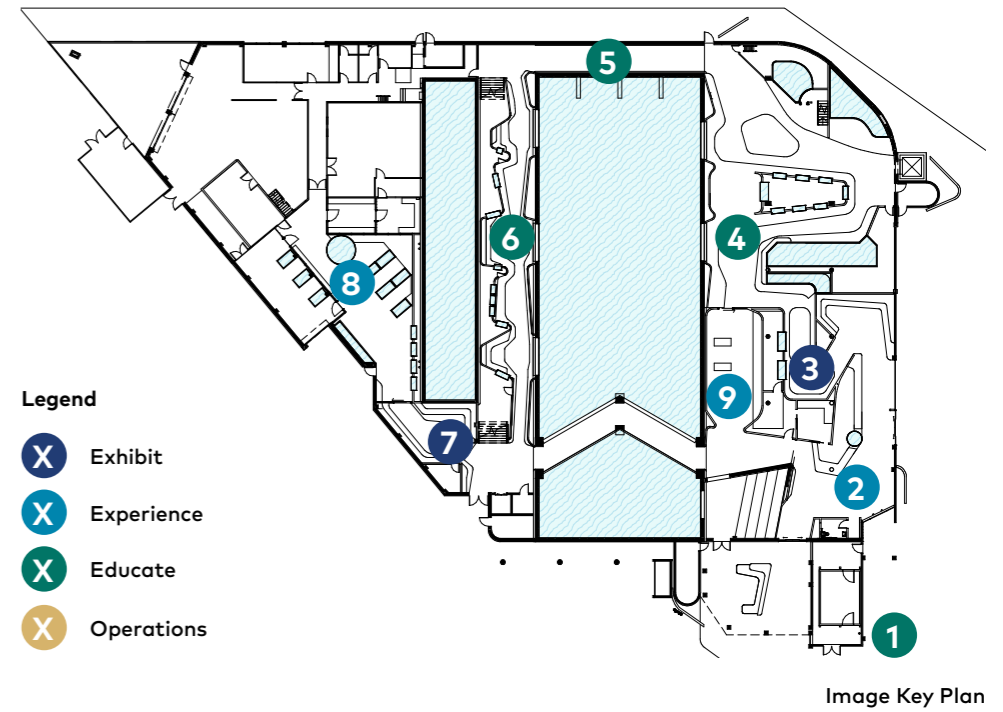
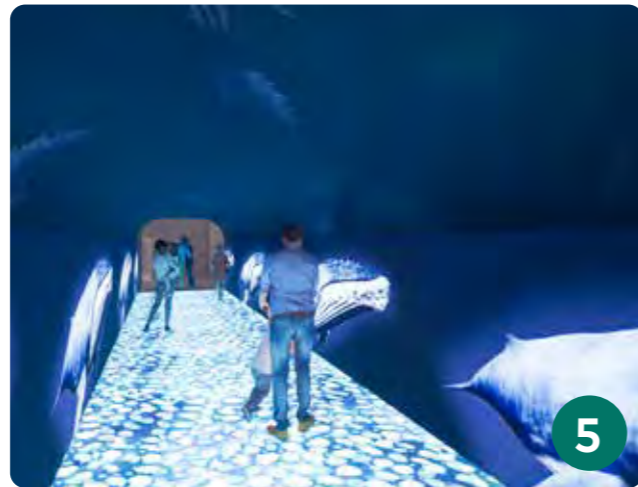
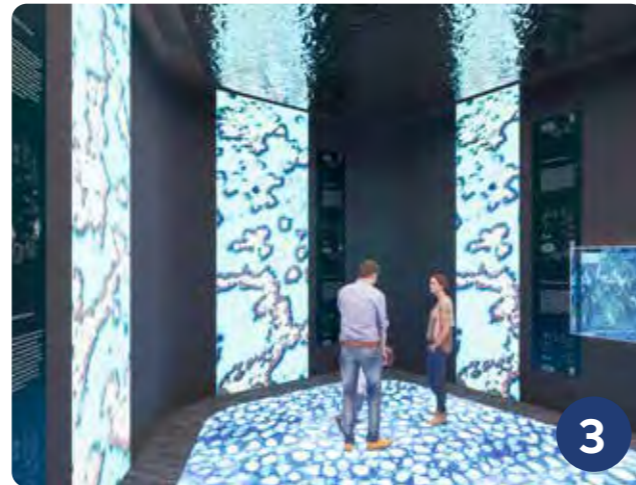
6 Dive Hub Training Room
New Dive Hub to supervise dives and snorkelling in Coral Reef Exhibit



- Legend**
- X Exhibit
 - X Experience
 - X Educate
 - X Operations



Model views



Model views

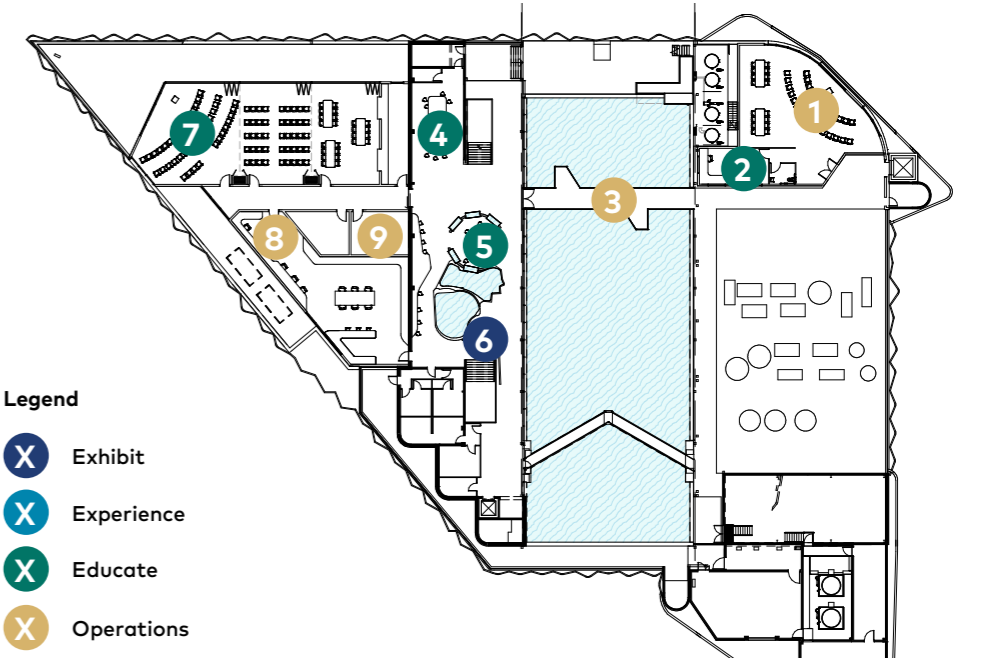
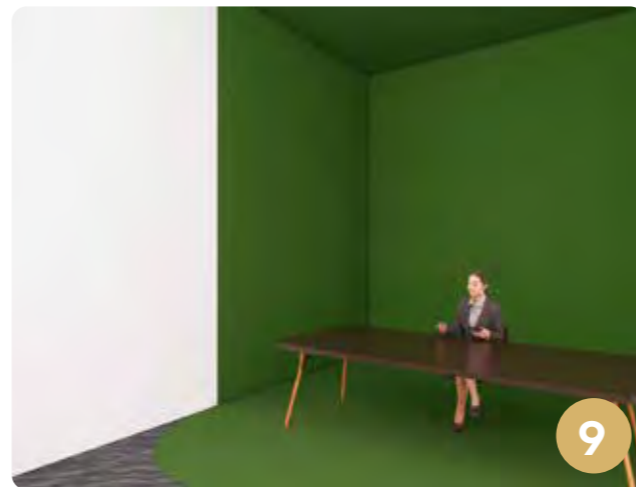


Image Key Plan

Landscape + pathways



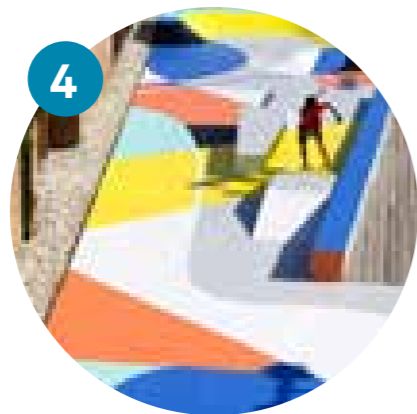
1
Sculpture
 Commission art installation to exterior entrance to create visitor interest



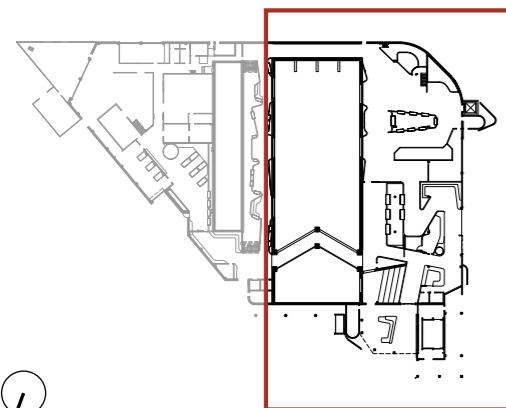
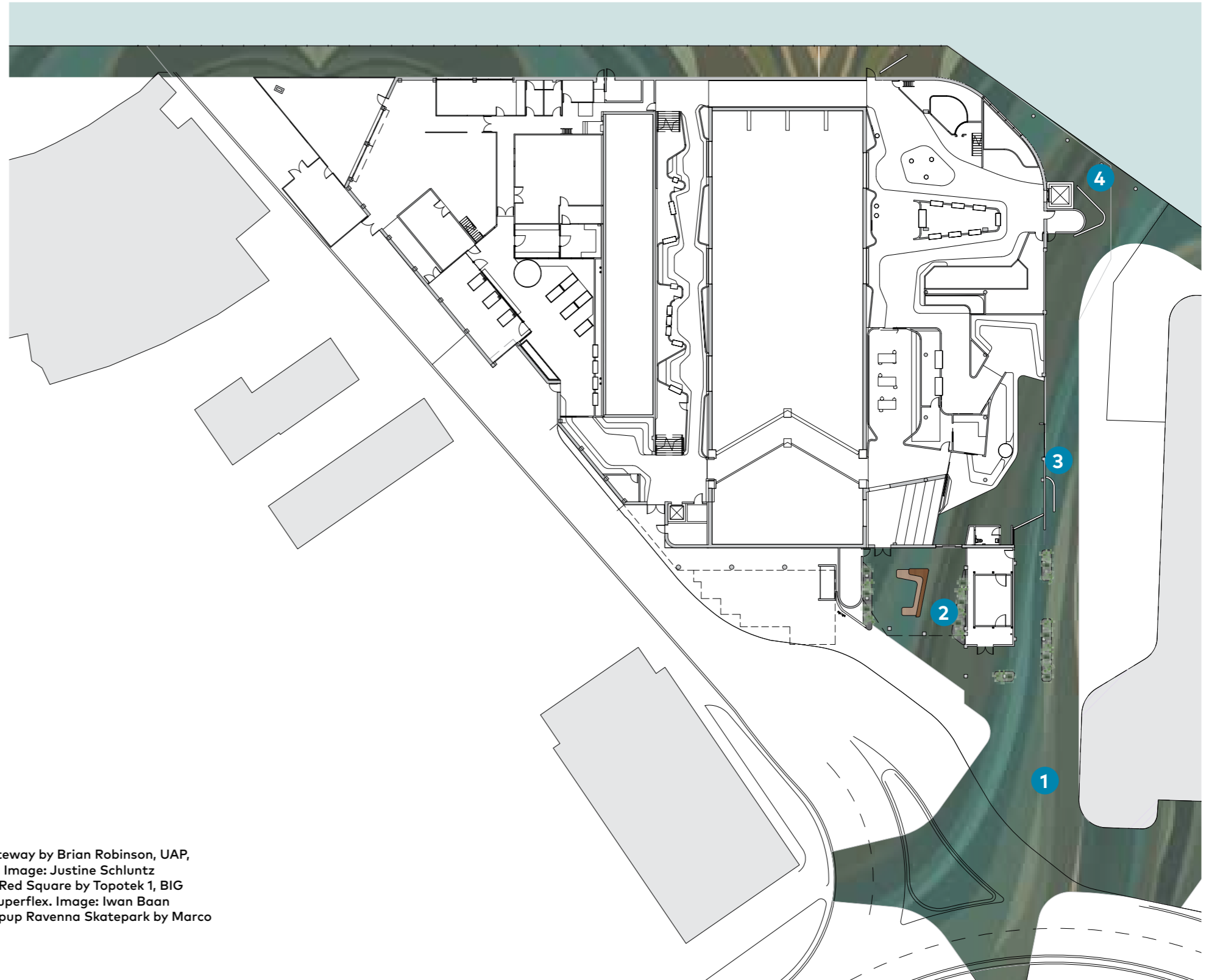
2
Seating
 New external seating area for student mustering



3
Entrance Pathway
 Establish interest with entrance pathway texture and pattern



4
Boardwalk
 Connect to proposed Ross Creek boardwalk



- Legend**
- X Exhibit
 - X Experience
 - X Educate
 - X Operations

- Images**
- 1 - Citizens Gateway by Brian Robinson, UAP, Creativemove. Image: Justine Schluntz
 - 3 - Superkilen Red Square by Topotek 1, BIG Architects + Superflex. Image: Iwan Baan
 - 4 - Darsena Popup Ravenna Skatepark by Marco Mangione





Concept Design Only - Subject to Change



Reef HQ Aquarium Master Plan 2021-2041



Australian Government
Great Barrier Reef
Marine Park Authority



reefHQ
Great Barrier Reef
AQUARIUM