

# FUTURE OF FREMANTLE: EMERGING VISION AND FUTURE SCENARIOS



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Western Australian Chapter



Australian  
Institute of  
Architects

## ABOUT THE INSTITUTE

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- The Australian Institute of Architects (Institute) is the peak body for the architectural profession in Australia. It is an independent, national member organisation with more than 14,500 members across Australia and overseas.
- The Institute's vision is: *Everyone benefits from good architecture.*
- The Institute's purpose is: *To demonstrate the value of architecture and support the profession.*
- At the time of this submission the WA Chapter President is Sandy Anghie RAI and the WA State Manager is Jonathan Speer. The National President is Stuart Tanner FRAIA, and the Chief Executive Officer is Cameron Bruhn Hon. FRAIA.

## CONTACT DETAILS

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*The Australian Institute of Architects recognises the unceded sovereign lands and rights of Aboriginal and Torres Strait Islander peoples as the First Peoples of these lands and waters. This recognition generates acknowledgement and respect for Aboriginal and Torres Strait Islander Countries, Cultures and Communities, and their ways of being, knowing and doing. Caring for Country practices including architecture and place shaping have existed on this continent since time immemorial. The Institute recognises a professional commitment to engage and act meaningfully through reciprocal partnership and relationships with Aboriginal and Torres Strait Islander peoples. Together we will support and develop the emergence of new possibilities for our shared future.*

## COVER PHOTO

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The Australian Institute of Architects' WA Chapter recipient of 2022 George Temple Poole Award, the Julius Elischer Award for Interior Architecture and the Jeffrey Howlett Award for Public Architecture. Walyalup Civic Centre. Kerry Hill Architects.  
Photographer: Nicholas Petrusia.

## CONDITIONAL SUPPORT

The Institute recognises the enormous opportunity and potential this project presents and conditionally supports the *Future of Fremantle: Emerging Vision and Future Scenarios* report; however, further consideration of the following is being urged for consideration:

- sustainable net-zero development and ecological and cultural restoration;
- resilience and managing coastal dynamics;
- flexibility in staging to accommodate future industries; and
- further review/input to incorporate international perspectives/experience.

Locally, the project site presents a strategic opportunity to contribute to a sustainable urban renewal, cultural themes of reconciliation and repair and broader vision of ecological restoration for the precinct. From a global perspective, the project presents an opportunity to look forward to the future, to create a world class project based on international best practice.

## DETAILED RESPONSE

### 1. Project Vision and Goals

The project vision and goals are commendable and make a good approach toward a broader community-led vision for Fremantle, with reference to the *UN's Sustainable Development Goals*. The scenarios and reference documents do not adequately demonstrate how the vision and goals will be met. As such, the Institute recommends that further identification of what is needed and broader consultation/engagement with other agencies, industry and academic stakeholders is required to ensure a holistic long-term vision approach.

Examples of reference information expected to assist in reviewing the scenarios include:

- Aboriginal Reference Group stakeholder outcomes/recommendations
- Other consultation reports – identifying key organizational, academic and industry stakeholders consulted
- Geotechnical report
- Ecological impact assessment reports (to assess current benchmark, and potential impact of extended cruise terminal and superyacht marina)
- Coastal hazard assessment (demonstrating sea level rise impacts and river flood planes)
- Burra Charter be used for reference to heritage assessments.

### 2. Economic futures driving land use planning

The proposed vision and scenario report does not articulate how economic scenarios will inform spatial thinking and/or demonstrate a potential timeline for the implementation of the redevelopment project and subsequent developments.

Economic strategies must impact planning (and not vice versa, where spatial commitment would limit economic options). Therefore the project plan should present maximum flexibility for later stages, including flexibility in infrastructure planning which might otherwise also limit options.

The scenarios presented appear to be focused on residential planning options at different densities. There are also a number of statements made in the visions, that are inadequately demonstrated in the scenarios (e.g. housing diversity).

Ideally, the project plan will present a hybrid of all three options along with consideration of heritage (both First Nations and colonial), ecological restoration and focus on sustainable development.

Considerations for all three scenarios include:

- Housing diversity and opportunities for low-cost housing and social housing options with government partnerships, inclusionary zoning, developer mandates and bonuses.
- Residential offerings from medium to high-density.
- Integrated mixed-use development demonstrating:
  - o Activation: with restaurants, shops and amenity for new residents
- Integration and consideration of location: for example, current scenarios illustrate the maritime support industries next to the boat harbor (a prime location for residential and head offices), some of the prime residential is in the north near the railway line (at most risk to sea rise erosion), and all the “creative, cultural and tourism” uses are on the southern side of the harbor. It is unclear where the offices and workplaces will be located.
- Ample public open space throughout.
- Opportunity for a hotel offering and other short-stay options.
- Opportunity for destination galleries and conference center.
- Future technology planning; the project has the potential to plan for:
  - o Declining car use and alternate modes of transport
  - o Potential for on-site wind, tide or solar power generation options
  - o Future of freight rail line – noting planned relocation of container port (Westport)
- A broader planning and urban design vision is necessary, considering pedestrian prioritization and potentially pedestrian exclusive areas, beyond the currently considered in the three scenarios, to ensure activated, comfortable and safe streetscapes.<sup>1</sup>

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<sup>1</sup> Refer cities such as Amsterdam, Copenhagen, Helsinki, Zurich, Hamburg and Vancouver have introduced urban design and integrated planning strategies to minimise urban car use and create exclusive pedestrian areas. <https://thecityfix.com/blog/five-cities-show-future-walkability-active-transport-priscila-pacheco/> and <https://www.narcity.com/vancouver/most-walkable-places-in-canada-has-metro-vancouver-cities-in-the-top-5>

### 3. International case studies and their learnings

International redevelopment precedents and case studies are vital to ensure that the full future potential for the project is considered in relevance to its context. It is important that the future redevelopment:

- Avoids locking the redevelopment concept into planning requirements determined from the current perspective and retains flexibility in its land planning and infrastructure to meet future opportunities and future needs that may not be presently apparent.
- Envisions future economic activity drawn from residual knowledge and expertise held within the industries being replaced, drawing on these depths within the community, an inherent part of its character (e.g. fishing and marine science).

The *Future of Fremantle: Place and Economic Directions* Report references just two case studies:

- RDM Rotterdam, Netherlands – a ship-building precinct redevelopment case study with a new R&D industry being introduced after the precinct was decommissioned in 1996.
- Lot 14, Adelaide – this development site’s potential has not yet been fully realized with the development of the Entrepreneur and Innovation Centre and Tarrkarri – Centre for First Nations Cultures being on hold. There is also divided community perception relating to the significant development that was intended (under the Parklands Act) to be reclaimed back to the nationally-heritage listed Adelaide Parklands.

Suggested further case studies of sustainable redevelopments include:

- Gothenburg, Sweden<sup>2</sup>: the RiverCity project in Gothenburg addressed the vacant riverside industrial areas left by the declining ship-building industry and actively considered the threat of rising flood levels due to climate change. The RiverCity project reimaged 500 hectares of waterfront land to underpin comprehensive regeneration. New economies were identified that could revitalize these spaces, focusing on the nexus between the city’s excellent universities and still strong large technology and pharmaceutical companies to enable new SME oriented start up incubators and innovation districts as motors for regeneration. The project is an exemplar project aligning with *UN’s Sustainable Development Goal #11: Sustainable Cities and Communities*.<sup>3</sup>
- Kings Cross Redevelopment, London<sup>4</sup>: one of Europe’s largest and most complex urban regeneration projects, King’s Cross, sought to redevelop declining ‘railway lands’ over a twenty-year period into a new active, carbon-neutral neighborhood. would inevitably require a long-term view. A key challenge was to develop a

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<sup>2</sup> See <https://www.thisisgothenburg.com/development-in-gothenburg>

<sup>3</sup> <https://www.un.org/en/academic-impact/rivercity-gothenburg-city-built-inclusion>

<sup>4</sup> See <https://www.centreforcities.org/reader/making-places/learning-from-kings-cross-regeneration/> and <https://www.kingscross.co.uk/about-the-development>



Masterplan that could satisfy planning requirements while providing the flexibility needed to allow the site to evolve over a long period of implementation, a length of time that would likely include new economic opportunities and periods of recession.

- Detroit Future City, USA<sup>5</sup>: the holistic re-engineering of the City worked on the imperative for radical realignment of the city's spatial layout, infrastructure and services behind the new economics and communities "waiting to get out" from under the decline of traditional industries. The project identified the next city economies, rooted in the city's excellent higher education, medical and tourism sectors and wealth of industrial skills – identifying innovation districts focused on specific new clusters (including renewable energy tech and food industries – as well as the next waves of mobility innovation).

#### 4. Climate change, resilience and net zero

This development will be realized through the most critical phase of the timeline to achieve the Paris Agreement commitments. The UN has recently published a report which indicates that on our current level of implemented strategies, we are on a trajectory to 2.9 degrees temperature increase<sup>6</sup>. This highlights fundamental imperatives which should be fundamental to the Fremantle Ports development masterplan.

##### Net zero development

The redevelopment precinct needs to be focused on net zero carbon for both operational and embodied emissions. To attract leading organizations and companies to the precinct, both the precinct development and individual developments will need to meet stringent corporate plans in association with managing their emissions. As such, it is recommended that every new development plays its part in slowing down climate change. It is inevitable that within the lead time for the procurement of the project, there will be statutory requirements for zero-carbon design.

The Institute advocates for a zero-carbon construction industry by 2030, as our built environment accounts for 39% of all carbon emissions globally, with operational emissions accounting for 28%<sup>7</sup>. The project plan is silent on carbon/sustainability targets and does not cross-reference to an active State or local policy. There is further opportunity for the precinct to lead by example by:

- Planning and development of climate hazard mitigation in districts where increased intensity and frequency of events are predicted;
- Equitable access to climate-resilient diverse buildings, health and without discrimination of lifestyle, cultural or generational social structure;
- Incentivisation of adaptive reuse of existing underutilised building stock within the precinct;
- Requirement for life-cycle and flood-risk assessments for all new buildings;

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<sup>5</sup> <https://detroitfuturecity.com/>

<sup>6</sup> UNEP, *Adaptation Gap Report 2023*, 02 November 2023, available: <https://www.unep.org/resources/adaptation-gap-report-2023>

<sup>7</sup> WorldGBC (2019). New report: the building and construction sector can reach net zero carbon emissions by 2050. Source: <https://www.worldgbc.org/news-media/WorldGBC-embodied-carbon-report-published>

- Incentivisation of zero carbon (or low carbon) construction methodology (including waste) and materials (which connects to other incentivisation of new material industry e.g. green concrete, cross-laminated timber, and others);
- Urban design and master planning focussed on higher density urban and suburban development to reduce urban sprawl, manage the heat island effect, respond to stormwater, address transport and improve connectivity.<sup>8</sup>
- Urban design and master planning focussed on higher density urban and suburban development to reduce urban sprawl, manage the heat island effect, respond to stormwater, address transport and improve connectivity.<sup>9</sup>
- Reduction of car parking and requirements for parking for new developments with a focus on alternative (particularly Active) modes of transport and walkable neighbourhoods.
- Urban design that takes into consideration accessibility, particularly those with mobility issues. Access to beaches and water areas should be open to all; however, too often, insufficient consideration is provided to how those with mobility (and other disabilities) can access such areas.

Future development needs to be coupled with a balancing ethos of ecological restoration of both land and water. The restoration needs to go beyond passive and active measures, to rehabilitation and reclamation of ecosystems<sup>10</sup>.

The proposed extension of the cruise terminal (all scenarios at different scales) and potential superyacht marina (scenario 3) needs to be assessed from an ecological impact perspective. The cruise and superyacht industries have notorious environmental impacts and carbon footprints. Environmental impacts include environmental pollution (air and water), solid waste pollution, noise pollution, chemical pollution, ballast water pollution, greywater pollution, threats to coral reefs, and damage to marine life<sup>11</sup>. Significant environmental impact analysis of these industries is required, and if adopted, impacts need to be appropriately negated and offset throughout the precinct.

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<sup>8</sup> Sourced from the Institute's response to the State's recently commenced process of developing sectoral emissions reduction strategies to transition the economy to net zero (SERS). Available:

[https://www.architecture.com.au/wp-content/uploads/211217-Aust\\_Inst\\_Architects\\_SERS-response-letter.pdf?\\_zs=Hh1Jm&\\_zl=3Je52](https://www.architecture.com.au/wp-content/uploads/211217-Aust_Inst_Architects_SERS-response-letter.pdf?_zs=Hh1Jm&_zl=3Je52)

<sup>9</sup> Sourced from the Institute's response to the State's recently commenced process of developing sectoral emissions reduction strategies to transition the economy to net zero (SERS). Available:

[https://www.architecture.com.au/wp-content/uploads/211217-Aust\\_Inst\\_Architects\\_SERS-response-letter.pdf?\\_zs=Hh1Jm&\\_zl=3Je52](https://www.architecture.com.au/wp-content/uploads/211217-Aust_Inst_Architects_SERS-response-letter.pdf?_zs=Hh1Jm&_zl=3Je52)

<sup>10</sup> Gann, G et al, 2019, International principles and standards for the practice of ecological restoration, second edition, Society for Ecological Restoration. Available online: <https://onlinelibrary.wiley.com/doi/10.1111/rec.13035>

<sup>11</sup> For cruise ships see: <https://www.trvst.world/environment/environmental-impact-of-cruise-ships/#:~:text=Cruise%20ships%20burn%20heavy%20fuel,pollution%20and%20threatening%20marine%20life> e. & <https://www.reuters.com/business/sustainable-business/cruise-industry-faces-choppy-seas-it-tries-clean-up-its-act-climate-2022-07-27/> & <https://www.theguardian.com/commentisfree/2021/jul/08/massive-tax-exempt-cruise-ships-damage-environment> & <https://foe.org/blog/cruise-ships-environmental-impact/> For Superyachts see: <https://www.theguardian.com/environment/2022/jan/29/superyacht-sales-surge-prompts-fresh-calls-for-curbs-on-their-emissions> & <https://www.oceanweb.com/superyachts-and-pollution-at-sea/> & <https://www.dw.com/en/superyachts-symbolize-climate-breakdown/a-61245302> & <https://www.nytimes.com/2023/04/10/opinion/superyachts-private-plane-climate-change.html#:~:text=According%20to%20a%202021%20analysis,that's%20just%20a%20single%20ship>.

## Resilience

The precinct plan needs to demonstrate a clear strategy for managing the long-term resilience in the light of climate change and the likely resulting sea rise. The AR6 Report of the International Panel on Climate Change (Chapter 12)<sup>12</sup> a coastal area loss of 350km<sup>2</sup> over the period 1984 – 2018 having already occurred in Western Australia, as evidenced from satellite observations. Therefore, it is imperative that the Western Australian government undertake scientific modelling of potential sea level rise under varying temperature increase scenarios and model the cost/economic impacts on urban and infrastructure precincts to assess investment solutions. This must involve scenario modelling for sea rise. For reference, a 1m sea rise (together with the associated wave energy and increased river flood plains) would have catastrophic impact on the site and mitigating this risk would require very significant infrastructure.

The insitute identifies inherent unconsidered risk associated with seal level rise that has not been addressed by the three scenarios. The project requires a robust strategy focussed on resilience and innovation to address this risk. Placing the responsibility of flooding and permanent sea level rise with owners and occupiers will impact the insurability, ability to access finance and economic viability for these consumers.

## 5. Heritage

The project presents an opportunity to address the changed geography of the place through colonial intervention on land and water (dredging) and associated cultural impacts with First Nations people. This needs to occur through a thorough process of consultation with Noongar elders, ecological restoration, complementary land/building uses (particularly in high cultural value areas) and themes of repair and reconciliation.

The project plan needs to address the colonial and First Nations people's heritage sites through urban interventions. This includes identifying and addressing the significance of State Heritage sites, City of Fremantle Heritage sites and Aboriginal Heritage sites (and broader significance of place). This does not appear to have been undertaken with the expected level of rigor and engagement for a precinct of such importance to Fremantle, Perth and Peel and the State.

We recommend:

- More proactive engagement of and co-design with First Nations People in addressing the Aboriginal Heritage sites and the precinct.
- The engagement of appropriate heritage consultant/s and historians to undertake heritage assessment and recommendations with reference to the Burra Charter.

\*\*\*\*\* Submission end \*\*\*\*\*

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<sup>12</sup> Steffen, W., Rockström, J., Richardson, K., Lenton, T.M., Folke, C., Liverman, D., Summerhayes, C.P., Barnosky, A.D., Cornella, S.E., Crucifix, M., Donges, J.F., Fetzer, I., Lade, S.J., Scheffer, M., Winkelmann, R., and Schellhuber, H.J. 2018. Trajectories of the Earth System in the Anthropocene. PNAS August 14, 2018 vol. 115 no. 33