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Your Ref: SSD-8924 & SSD-8925

Rodger Roppolo
Planning Officer – Key Sites Assessments
Department of Planning, Industry and Environment
320 Pitt Street
SYDNEY NSW 2000
via Planning Portal

Dear Rodger

Request for advice – The new Sydney Fish Markets – Concept and Stage 1 (SSD-8924) and Stage 2 (SSD-8925)

Thank you for your correspondence dated 11 October 2019 which invites the City of Sydney Council (the City) to provide comments on the proposed Concept and Stage 1 and Stage 2 development for the new Sydney Fish Markets (SFM).

The City notes the establishment of a new fish market has been anticipated for many years but with more certainty since 2016, when the then NSW Premier Mike Baird announced the preferred location at the head of Blackwattle Bay. This commitment was reinforced on 25 June 2017 when NSW Premier Gladys Berejiklian announced the appointment of Danish Architects 3XN as the lead designer for the project.

It is our understanding that the proposed location at the head of Blackwattle Bay allows for the current fish market to continue its existing operations until the new facility is completed and operational. This approach allows the markets to provide uninterrupted operation.

The City has reviewed the SSD applications and supports the proposal, but raises a number of matters and design recommendations regarding various aspects of the proposal. It is imperative that the SFM development is cohesive in design and responds positively to the surrounding public domain, public open space and waterfront, and minimises negative impacts on the surrounding residential and business community. It is also important that the development embodies sustainable building methods and operational measures and seeks to improve the marine and terrestrial biodiversity of the greater Bays Precinct.

The City raises the following areas for consideration.

1 Design Excellence (integrity)

Section 6 of the submitted Design Excellence Strategy notes that the *'methodology for design integrity process is yet to be finalised and will be subject to collaboration between UrbanGrowth, GA NSW and CoS. It is anticipated that the finalised process will align with many of the design integrity principals and objectives of the CoS Competitive Design Policy (2013).'*

Given that a detailed application has now been submitted for approval, a **design integrity process should be assured** as part of the assessment and determination of the detailed SSD application. To ensure design excellence and continuity through to completion of the SSD, it is recommended that a condition be imposed on any consent granted, as set out below. Separate conditions could address the continued involvement of the Design Review Panel, as flagged in the Strategy.

Design Integrity

To ensure design continuity and excellence of the preferred design team's approved scheme is maintained throughout the development process, as a minimum the preferred design team should be conditioned to present to the Integrity Panel:

- Design drawings for a construction certificate;
- Design drawings for the contract documentation;
- Maintain continuity during the construction phases through to completion of the project;
- Provide any documentation required by the Consent Authority verifying the design intent has been achieved at completion; and
- Attend all meetings that pertain to design issues with the community, authorities and other stakeholders, as required.

2 Building Design and Materiality

In general, it is noted that the proposed development effectively privatises what could be a completely landscaped public edge along the foreshore with direct connection to Wentworth Park. Measures have been raised in the Landscape Character and Visual Impact Assessment to ameliorate the view impact of the proposal, and these should be incorporated in a meaningful way.

It is recommended that during the development of the design, consideration be given to prioritizing the public interest and public access to the foreshore. Further, it is recommended that ongoing consultation be undertaken in the detailed design phases to ensure integration of the recommendations of the technical reports and urban design comments as follows.

2.1 Built form and Urban Design

2.1.1 Roof

The key compositional element of the design is a 194m x 95m (approx.) undulating canopy roof that appears to float above the market. The roof structure is made from timber and aluminium panels studded with skylights. The roof has been designed to deliver a series of sustainability strategies including energy generation via integrated PV cells, rainwater collection, and natural ventilation using pressure differentials and indirect light penetration to the market.

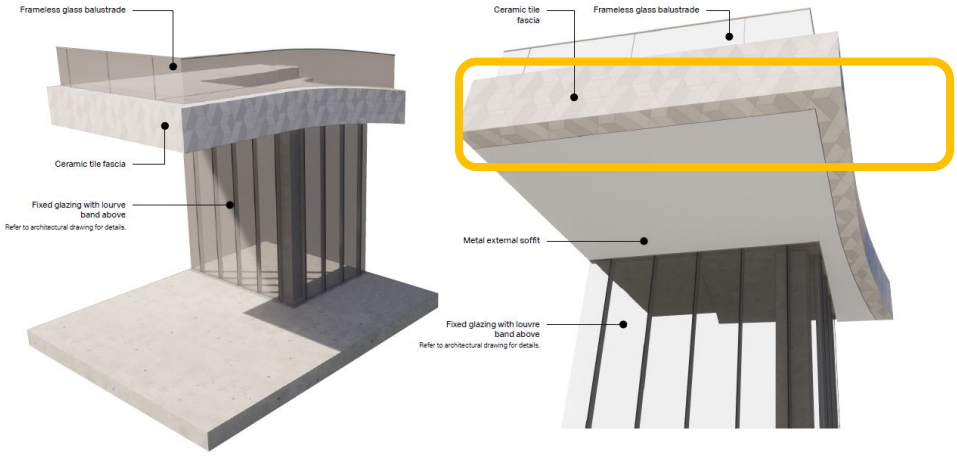
The faceted timber roof structure provides a level of intricacy and authenticity that will enrich and add warmth and texture to the market and is considered successful.

The delivery of dappled light to the central east-west promenade and retail spaces is an intrinsic element of the scheme, and a function of the size and reflectivity of the south facing apertures, however, no material finish or aperture size has been identified for the important roof cassettes.

Maintaining the permeability of the canopy will be critical to the success of the scheme and its achieving design excellence. Ongoing consultation is recommended to ensure that any rationalisation of the roof structure to achieve commercial and sustainability outcomes preserve the permeability of the canopy, and the tactility of the faceted structure. Further information including a 1:20 section through the roof canopy is recommended to identify minimum/typical aperture size and materiality.

2.1.2 Materials and Finishes

The City notes that very little detail has been provided for the materials and finishes. The patterned ceramic tile of the façade cladding provides an intricacy and energy to the façade, while possibly addressing reflectivity. The ceramic edge treatment of the elevated promenade abuts a metal soffit, as per figure 1 below. This junction will be highly visible from the public domain and difficult to detail with a tile, considering that mitred edges are difficult to cut and tend to chip and fail. This detailing of this corner must achieve a robust and high quality outcome.



It is noted that the roof fascia appears to have the same material quality as the edge of the elevated promenade, yet the roof fascia appears to be wrapped by a thin sheet material, rather than the ceramic tile cladding.

A 1:20 detailed section drawing showing the edge treatment of the elevated promenade is recommended to ensure the delivery of a robust and high quality outcome.

It is also recommended that the proponent consider and the consent authority require continuing the edge treatment of the elevated promenade to the underside of the soffit to provide a seamless junction at the ground floor interface. Further, clarification is sought on the treatment of the roof fascia, and how this will achieve the similar material outcome as the edge of the elevated promenade.

It is recommended that a Material Sample Board be provided to ensure that:

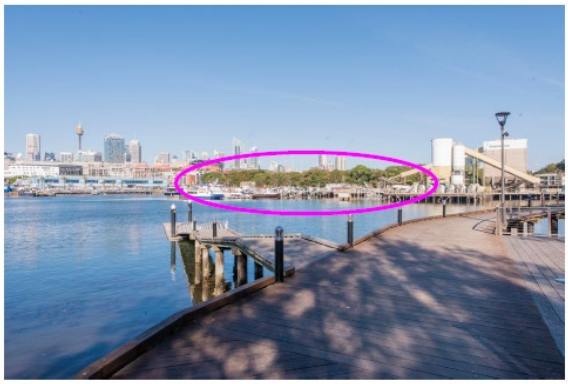
- The intricacy and energy of the patterned ceramic tile be achieved during design development.
- A high quality finish be achieved for the roof fascia that integrates with the edge treatment of the promenade below and throughout the development.
- A high quality finish be provided to the substations along the western side of the Bridge Road elevation.

2.2 Scenic Quality and Visual Impacts

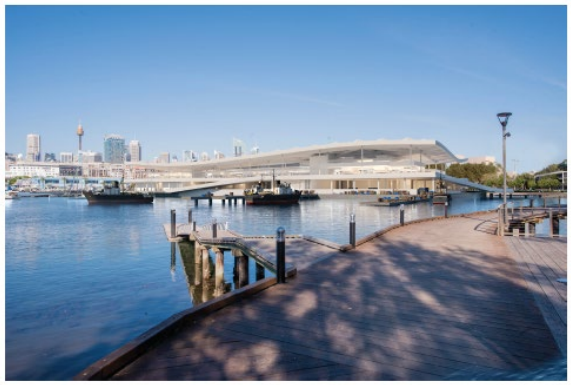
The consideration of view impacts from surrounding areas is one of the central urban design considerations of the Sydney Regional Environmental Plan No. 26 – City West (SREP 26) (currently under review). The Landscape Character and Visual Impact Assessment identifies that the development will create a number of impacts ranging from low to high taken from an analysis of 25 viewpoints within the visual catchment of the site.

Clarification is sought to confirm how the proposal is aiming to deliver the mitigation measures identified in the Landscape Character and Visual Impact Assessment (VIA). These include the management of light spill at night, and the assessment of planting opportunities to alleviate the visual impact of the building looking south toward the northern facade. Additional information is requested to understand how these impacts are to be addressed. Further, the city notes that any landscaping opportunities should consider the Pedestrian Wind and Environment Study prepared by Windtech.

Further, the existing group of significant fig trees are highly visible from a wide vista of lands surrounding Blackwattle Bay looking south as well as areas looking north. The proposed development results in scenic quality impacts and public view loss to an existing strong landscaped public edge ("green band") along with foreshore with direct connection to Wentworth Park resulting from the scale of the proposal as depicted in the images below from the submitted VIA.



Viewpoint 1 - Existing view



Viewpoint 1 – Proposed Photomontage

Viewpoint 4 - Existing view

Viewpoint 4 - Proposed Photomontage

The proposal partially conceals significant water views north from Wentworth Park, and views looking south from the surrounding visual catchment. The proponent is encouraged to soften the public domain on the northern elevation with robust landscaping that withstands wind impacts.

2.3 Ground floor – generally

The high degree of transparency at the ground floor will allow visibility into the operational activities of the fish market and the exhibition spaces, adding visual interest. It is noted that there are also a number of exhibition spaces that wrap some of the operational back of house uses, however, the City raises concern the exhibition space at the northern entry to the site is notably narrow and may not be successful.

It is recommended that an exhibition strategy be prepared and submitted to ensure that displays deliver a meaningful and active edge condition and take advantage of the transparency of the glazing

2.4 Raised Promenade

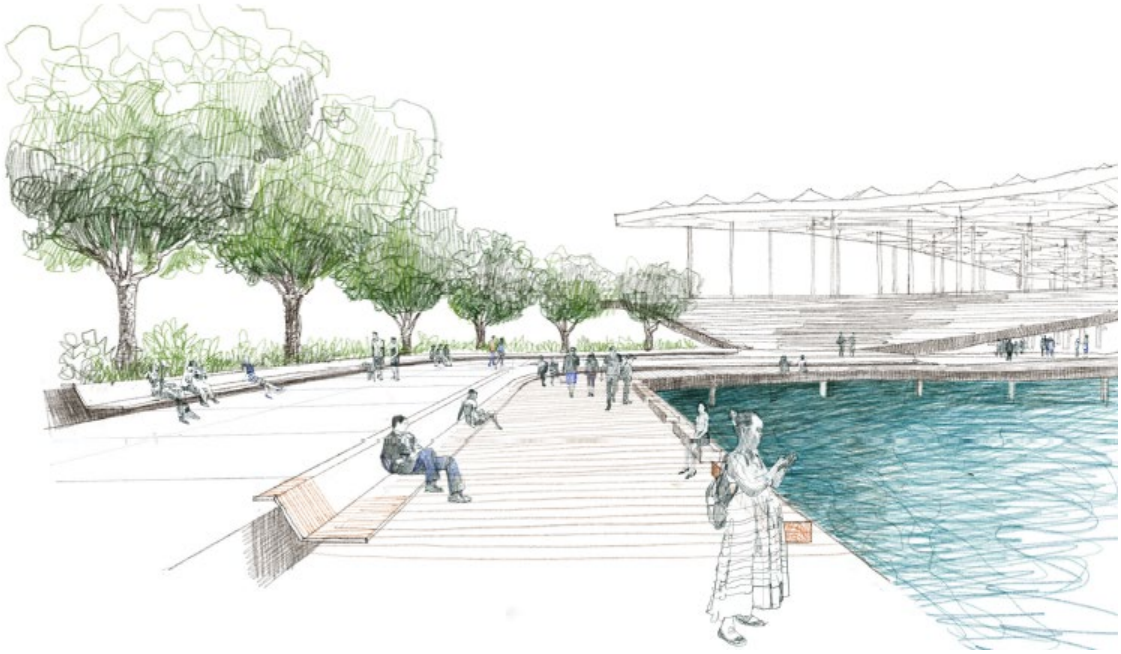
The foreshore promenade is elevated at the northwest corner to facilitate continuous operational functions below. The promenade consists of an outdoor seating zone and a public walkway. The outdoor seating zone illustrated on the Upper Ground Floor plan appears to be wider than the public promenade.

Given the natural value of Blackwattle Bay is a public asset, the generosity of the public part of the promenade is considered paramount, and should be realised as a generous public verandah with opportunities for recreation and rest beyond sitting at café / restaurant tables. ***It is recommended that a generous width of the raised walkway along the water's edge be for public use and not for use by commercial tenant seating. This should be formalised on title as a permanent right of public access for any leasehold or subdivided areas.***

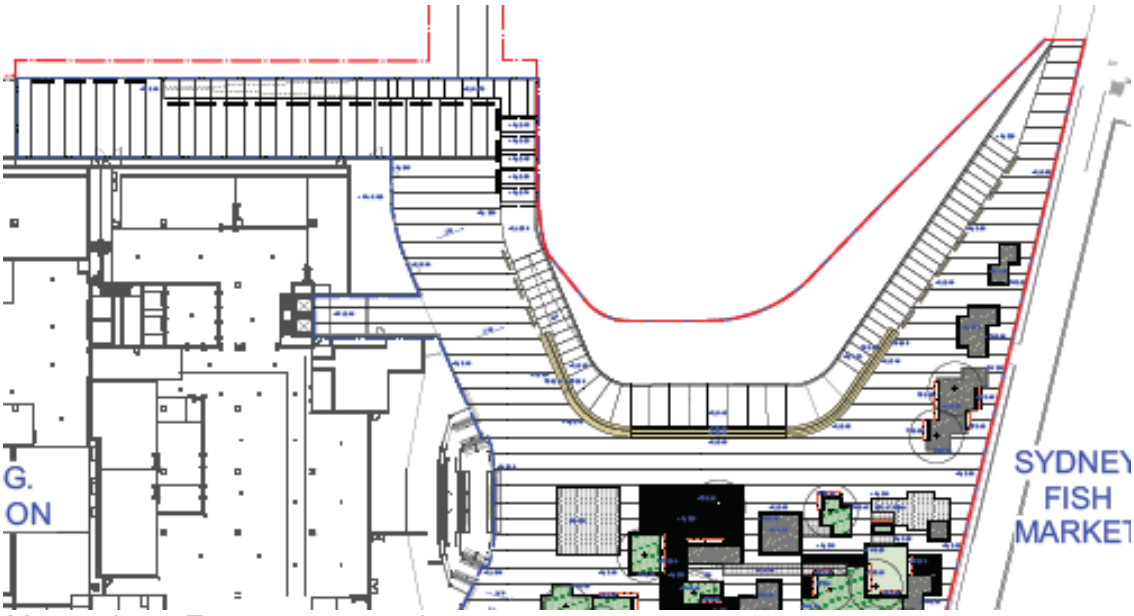
Further, given the wind environment, it is noted that furniture elements as indicated on drawing 'Floor Plan Upper Ground Floor' AR-S2-B10 L01-01, should be fixed, and the addition of any elements should be subject to the recommendations of the Wind Assessment.

2.5 Promenade design

The concept sketch for the eastern waterfront promenade (below) edged by large trees for shade relief and generous seating for passive recreation is strongly supported. However, this vision is at odds with the public domain masterplan which includes a p*romenade with large areas of concrete, limited trees and seating opportunities*.



Submitted waterfront promenade concept sketch



Masterplan – Eastern promenade

The design of the eastern plaza and promenade does not include any large trees. The inclusion of larger trees would help reduce the view impact of the new building and provide a link to the heritage fig plantings in Wentworth Park. Further, additional plantings will assist with shade relief from the glare generated by the building, large areas of precast concrete as well as the harbour.

It is also noted that the western promenade includes large areas for temporary storage of 8-9 shipping containers within the public domain that obstruct access from the western promenade to the western stairs which may need to be reconsidered as this is a main access location into the SFM building. It is recommended that the proponent make a commitment to use predominantly recycled materials in its construction of public domain elements.

2.6 Central Internal Promenade/Main Boulevard

The City notes that the documentation provided indicates that the central internal promenade is naturally illuminated from the roof canopy. This is supported, however, other documentation submitted indicates that the continuous open quality of the central boulevard appears somewhat diminished as mezzanine level spaces including external terraces and the Sydney Seafood School overhang the promenade at gridlines.

It is strongly recommended that ongoing consultation in the design development of the roof canopy and central promenade be undertaken to ensure that any structure overhanging this promenade is minimised, or designed as slender 'bridge' element rather than an enclosed space.

It is recommended that opportunities to increase vertical permeability between the central promenade and the operational functions below be explored to maximise the theatre of the market to provide a rich sensory experience for visitors to the market. This could be achieved by inserting 5m wide voids along gridline E, between gridlines 9 and 14 (excepting the space for walkways). These voids would be located directly south of the travelator and goods hoist, and could physically and symbolically mark the heart of the market, and be open to the underside of the roof canopy (not overhung with structures above).

2.7 Solar Access

The Shadow Analysis indicates that the western stepped promenade will be in shadow till after midday (possibly 1pm). Given the orientation of the building, this will be difficult to mitigate. The studies demonstrate that the northern portion of Wentworth Park will be overshadowed by the building in the late afternoon (possibly from 2pm onwards). Given the scale of the park, this is considered acceptable.

The submitted summer shadow analysis identifies that shade from tree canopies will be critical to reduce glare and provide solar protection during summer and must be reflected in landscaping and public domain drawing packages.

2.8 Glazing

Migrating birds such as silvereyes, white cheeked honeyeaters, sacred kingfishers, nightjars, and other birds such as powerful owls, boobook owls are all species that have been observed within 1km of the site. Efforts should be made to reduce the incidence of bird strike by reviewing glass materials or finishes that will be able to reduce collision. Some design solutions include (and are not limited to):

- patterned and UV reflective glass (as birds can see the reflected UV light whereas humans cannot, therefore they will be able to recognise the presence of the glass barrier without it affecting the visual aesthetic of the building).

The proponent is invited to consult with the City to discuss other examples of glazing techniques.

3 Bridge Street Frontage and Public Domain Works

The Bridge Road public domain and shared path proposal is not well resolved and needs further development to adequately respond to future users including car and coach use, pedestrians and cyclists.

Providing a pedestrian space that is safe and accessible for all should be the priority in the street design and space allocation where the current road and footpath proposal creates conflict between the various anticipated users, being commuting and recreation. ***The design does not yet demonstrate the creation of a "green promenade" and a review of design to consider space allocation for a feasible shared public domain zone for new street trees and waiting areas is recommended***. It is also recommend that the proponent consider an on road separated cycleway to uncouple cycle movement from pedestrian/visitor movement to resolve use and safety conflicts. Concerns regarding works to the public domain are discussed in more detail below.

3.1 Privatisation and Subdivision of Blackwattle Bay

The City has previously objected to the construction of private facilities over the Harbour, that would otherwise interfere with the goal of creating or enhancing the tree lined foreshore aspect of the harbour.

This development partially privatises views along Blackwattle Bay that are currently available from Bridge Road and Wentworth Park, as well as surrounding residential areas. While this is partially offset with the creation of walkways around the perimeter, this is accessible only within the site itself, not from public land.

Clarification of the future ownership of the footway between the drop-off zone and the edge of building is requested. The plans of subdivision show no change in the southern boundary along Bridge Road. Currently all of the shared zone will be on leased land with the drop-off and planters on public land. It is essential that any shared route occurs on public land so that control of access to pedestrians and cyclists is maintained by the relevant roads authority.

Further, it is recommended that easements for public access and loading be provided within the site for the areas subject to private leasing agreements, to ensure unimpeded public access along Bridge Road, open space and the raised walkway along the water's edge.

3.2 Flooding

The site and surrounding areas are flood affected and subject to overland flooding hazard. The site is at the downstream end of the Blackwattle Bay catchment with five trunk drainage systems that discharge within the site. The submitted Flood Impact Assessment prepared by Cardno has been reviewed in detail, however, it is difficult to establish an understanding and concur with the conclusions made in the report and further consultation is requested between Cardno and the City before final recommendations are provided.

It is noted that the submitted Cardno WSUD proposal also includes a series of engineered devices that may affect promenade connectivity, equitable access, and the usability and safety of a shared path at the junction with western and eastern plazas at the two intersections. Clarification is sought as to whether these have been provided for in the architectural drawings and have been considered in terms of equitable access throughout the site. For example, The "Western Plaza" opposite Wentworth Park Road intersection includes raised grates 900mm x 900mm in tree pits and a sunken wetland either side of the shared path to slow overland flow and floodwater prior to discharge into Blackwattle Bay. Further, the "Eastern Plaza" includes a series of slots and grates to slow the 10-metre wide overland flow path from Wattle Street across the shared path.

It is not clear if the civil and flooding proposals have been coordinated with the public domain design. There is insufficient information to determine the design, levels and potential impacts of stormwater design on the shared path and pedestrianised zones. It is requested that the proponent provide coordinated detailed design for the shared path, junctions with plazas and associated WSUD devices. The package is to include plans with levels, sections, and details drawn to a scale for further review.

The City also requests additional consultation with the Flood Assessment Engineers prior to determination to discuss conclusions made in submitted reports.

3.3 Water Sensitive Urban Design and Stormwater Management

The Stormwater Management Plan prepared by Mott Macdonald identifies points where roof water discharges directly into the Bay, and only a single point in the south-west corner of the site where roof water is to be treated. This does not appear to be reconciled with the water collection principles or strategy in Part 2.11 Design Principles: Modules – Water Collection of the submitted Design Report. It is recommended that further consultation be undertaken to ensure that further development of the rainwater harvesting strategy be completed and coordinated to achieve the desired architectural intent and expression.

Further, the Cardno Flooding and Water Quality Assessment Report (Appendix 12) outlines typical Water Sensitive Urban Design devices (WSUD) to manage the impact of stormwater from development to protect and improve the health of the waterway. The proposal utilizes three WSUD measures:

- Rainwater harvesting from the minimum connected roof area, assumes low flows will drain to a 100kL rainwater tank for re-use in the building cooling tower;
- Proprietary filters / Gross Pollutant Trap (GPT) devices on stormwater pits and pipes; and
- Bioretention systems (raingardens in tree pits).

The following issues are not considered to be well resolved and coordinated between the stormwater management and WSUD design.

3.3.1 Rainwater harvesting

The submitted Stormwater Management Plan prepared by Mott MacDonald indicates the western and eastern roof drainage discharges directly into Blackwattle Bay. The plan does not quantify the volume of rainwater from the 1.61ha roof catchment discharged to the bay, omits the rainwater tank location, and does not show the location of WSUD pipes pits and grates in the western and eastern plazas.

Only a low flow will be harvested from the large roof catchment. Ideally, the design limits all discharge to the Bay and instead provides rainwater harvesting from the whole roof catchment for reuse in cooling, and with excess reuse for irrigation in landscape zones in the public domain.

The approach presented in the submitted Stormwater Management Plan appears to be inconsistent with the Cardno WSUD strategy for rainwater harvesting to a 100kL tank for re-use of roof run off for the cooling towers within the building. Rather than what is proposed, the WSUD and stormwater design

should demonstrate best practice, be more ambitious and strive for a 0% net loss of rainwater harvested for reuse in cooling, reuse in irrigation, black water and greywater recycling and polishing for use in the building and within public domain to supply bubblers and water play areas.

It is requested that the proponent clarify the design and quantify flows to the rainwater tank and discharges directly to the bay and submit amended documentation that commits to the use of 100% of the rainwater harvested from the roof. If this cannot be implemented, adequate evidence is to be submitted as to why rainwater from the roof cannot be harvested for other on-site uses.

3.3.2 Proprietary filters

The proposal includes two types of proprietary filters/GPTs for use on stormwater pipes and pits. They include Pit Basket Inserts (e.g. OceanGuard) and a Jellyfish Filter. The first filter captures and filters low flows to remove sediment, litter and debris through the filtration bag noting flows in excess of the treatment capacity bypass the system and enter straight into the stormwater network (and discharge to Blackwattle Bay).

A Jellyfish Filter uses gravity and filtration cartridges with membranes to remove litter, oil, solids and particulate bound pollutants (including nutrients, metals and hydrocarbons).

It is noted that the site location is at the low point of a large catchment, an area of high flood risk and hazard. Incorporating WSUD devices into the design is supported by the City, the proposal does not clearly demonstrate if the devices will have capacity to treat anticipated catchment overland flows. For example, a 10-metre wide overland flow exists though the proposed Western Plaza, the principal public domain and waterfront promenade. It is requested that the proponent provide details of capacity of the proposed filters for further consideration.

3.3.3 Bioretention basins

Bioretention basins, or raingardens, provide temporary detention to slow flooding and treat stormwater runoff through densely planted surface vegetation and an engineered filter media such as sand. The proposal includes bioretention basins in the Eastern and Western Plazas surrounding the building.

Eastern Plaza Drainage Network

A 10-metre wide overland flow path exists at the termination of Wattle Street catchment at the northern edge of the eastern Plaza and waterfront promenade. The WSUD proposal includes a series of slots and grates connected to bioretention basins in tree pits to collect and convey stormwater flows. The slots and grates discharge directly into the bay below. The overland flow path conveys flows in excess of the capacity of the slots and grates through to the edge of the bay.

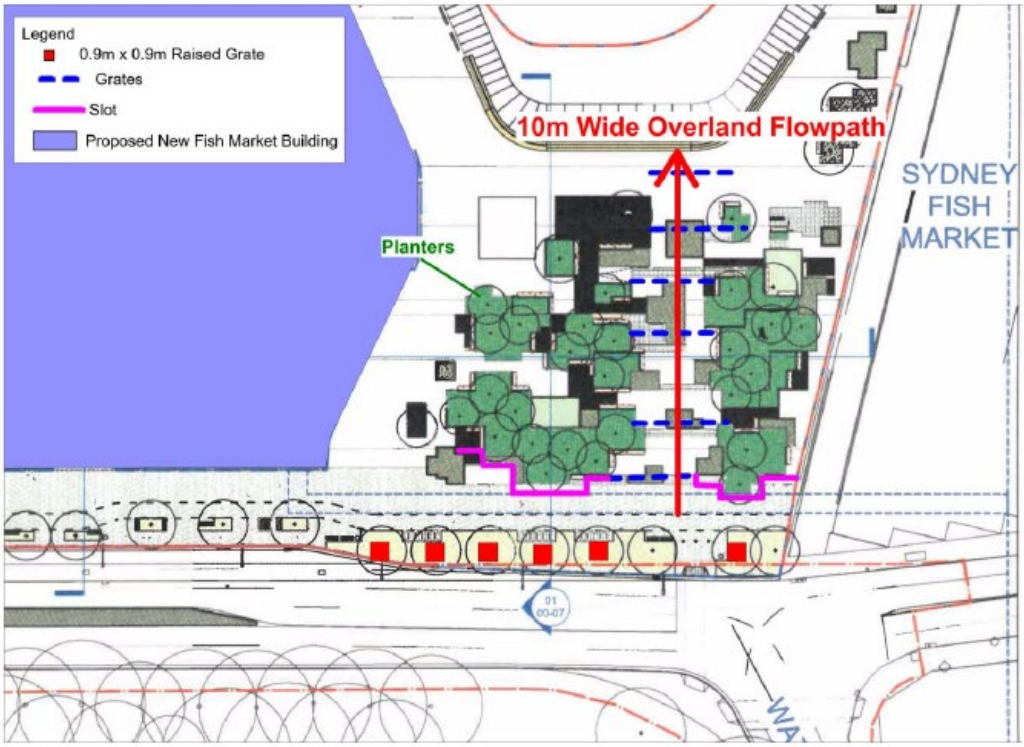


Figure 3-3 Eastern/Civic Plaza Drainage Network Setup in the TUFLOW Model

Western Plaza Drainage Network

The “Western Plaza” opposite Wentworth Park Road intersection includes raised pits in the bioretention zone / tree pits and a sunken wetland in the public domain, either side of the shared path, to slow overland flow and floodwater prior to discharge into Blackwattle Bay.

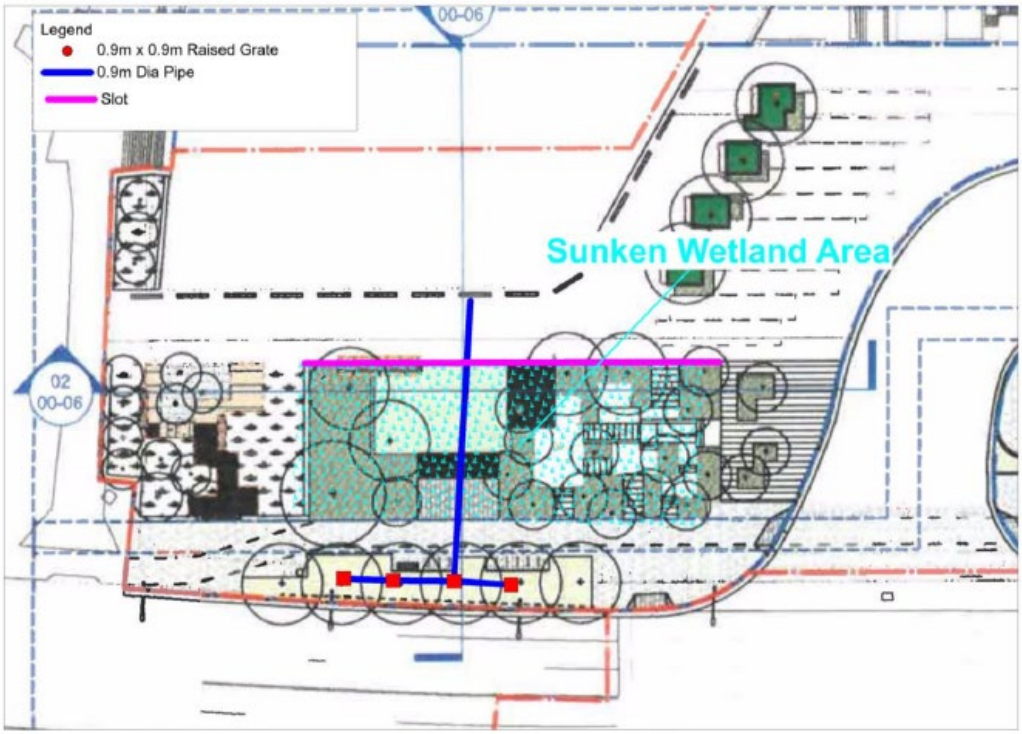


Figure 3-4 Western Plaza Drainage Network Setup in the TUFLOW Model

The Western and Eastern plazas are located at the low point of major stormwater overland flow path. There is insufficient information to determine the design, levels and potential impacts of stormwater, overland flow on the shared path and pedestrianised zones. It is not clear if the civil and flooding designs have been coordinated with the public domain design and additional information is required to determine if the public domain areas are designed for safety, mitigates trip hazards, provides effective best practice WSUD and a robust, seamless, high quality landscape and design excellence within the public domain.

The stormwater and WSUD design should be more fully coordinated with the public domain plans, sections and details to show the full extent of stormwater infrastructure, devices and impacts on landscaped zones in the public domain. The City requests that the proponent to clarify if site intensification and proposed uses will increase stormwater discharge loads into Blackwattle Bay, submit coordinated public domain plans including levels (IL, RL, TW, SSL) and details and submit an amended stormwater management plan, showing location of all pits and WSUD devices and interface with adjoining surfaces in the Western Plaza, shared path and signal crossings.

3.4 Shared Path Conflicts

The City acknowledges efforts made to consider both pedestrian and cyclists travelling along Bridge Road however there remains a concern with the shared path approach along the frontage of the SFM that varies in width and is directly adjacent to coach parking and a drop-off area that may significantly impact the safety of SFM visitors and cyclists.

The SFM is a popular destination for overseas visitors that will likely be transported to the markets via coaches, rather than a proposal that fully supports visitation by sustainable transport modes (active and light rail). The proposal does not fully resolve potential conflicts from people taking photos, phone use and wandering through or crossing the shared path in order to get to the upper level “destination”. The design does not resolve sightlines and desire lines for the various users, lacks safe crossing zones and does not define the shared zone.

This also presents a risk of collision between visitors with people who are blind and have low vision, as they will not be able to see movement of people cycling and choose a safe time to enter into the shared path. In most other shared path scenarios, pedestrians and people cycling are travelling in the same direction or opposite directions, and the onus is on the person cycling to give way to pedestrians. It is assumed that people cycling can see far enough ahead to give way to pedestrians. However, in this design for Bridge Road, pedestrians are conceivably stepping onto the shared path at a perpendicular angle, providing people cycling with little warning or ability to give way.

The City notes that the prioritisation of active transport networks has been identified as one of the key Access and Movement Objectives of the Bays Market District Draft Masterplan Principles and believes further consideration is required to adequately meet the needs of pedestrians, visitors and cyclists. It is clear that one of the main transport issues with the proposal is the bicycle connections and continuity for the bicycle rider and potential safety conflicts with pedestrians and visitors. The proposal has included a shared zone along Bridge Road within the public domain of the site, however, this is considered to be an isolated and ad hoc facility. A commitment for separated on-road cycleway that

connects to the existing and future regional and local bicycle connectors from the proposed SFM is recommended.

3.5 Width of footpath

Council's new design guide requires that a minimum of 3.5m wide shared path is to be provided adjacent to a bus stop/shelter. The current public domain plan shows 7.2m to 9.7m in some sections, however, in some sections the path seems to be far below the minimum required or are obscured by building elements including bicycle racks and an entry staircase. More importantly, and as mentioned earlier, considering the pedestrian traffic, drop-off zones and high volume of bicycle users, the suitability of the shared zone needs to be reconsidered.

A review of the Ground floor plan (dwg AR-S2-B10-L00-01[H]) reveals the shared path varies in width from 3 to 6 metres. However, the Bridge Road typical sections are deceptive as these pathways areas impacted by seats on the sides of planters, stairs to upper levels of the building and other furniture items. The available widths for pedestrians and cyclists are much less than the dimensioned sections. Changes are required along this frontage to increase the width and reduce conflict between people crossing from the drop-off area. This may include shortening the area of the drop-off zone where the stairways constrict the available width and directing coaches to drop off under the building.

3.6 Green promenade and public domain interface

The concept masterplan identifies the Bridge Road frontage as a "green promenade" that will connect the Glebe foreshore at the east and west sides of the SFM. The space allocation from market to street edge accommodates the following zones that vary in width along the SFM frontage:

- Articulated building edge – substations and gas infrastructure, stairs and ramp access to the Upper Promenade, and bike parking located in front of the trading room window;
- Shared path – pedestrian through zone with a shared pedestrian / cycle path ambiguous width (active transport for commuter and recreational cyclists);
- Waiting zones – located within the shared public domain zone for street trees, street lights, signage, and street furniture; and
- Drop off zones for visitors – located in a layby for public transport and ride sharing drop off and pick up for visitors.

Further, each outdoor plaza is designed to serve a different purpose. The eastern plaza is designed to educate with water treatment functions of bioretention, improving and recycling or discharge to the bay. The western plaza, adjacent to the Sydney Secondary College, is designed to support the existing water activities like kayak / rowing. However, the proposal segregates use between the industrial "working" functions of the seafood market from the public, retail and experiential uses, which needs to be addressed.

The Eastern promenade (RL3.315) connects to northern promenade stairs up to Upper Ground Level (RL9.67) retail areas and separates public retail uses from industrial and working areas of the market. The western Plaza is segregated by the main vehicular entry to the basement. This represents a significant 6.355-metre level change between the public domain and public areas within the market or "destination".

3.7 Bridge Road activation

The allocation of wholesale market functions on the ground floor successfully maintains the historic industrial functions onsite (cement batching etc), however, the interface along Bridge road could be better resolved. The following issues are raised regarding activation along Bridge Road:

- There are conflicts between active uses, drop-off zones, the southern stepped promenade and fixed urban furniture as outlined above;
- The market entries along Bridge Road could be better activated at ground level. The western entry point is adjacent to approximately 50m of substations that will present a defensive and introverted façade;
- The trading floor is approximately 1.2m to 3m above the public footpath. This may be to address on-site flooding, but will limit visual permeability from Bridge Street; and
- The southern promenade stairs could be better resolved; they will constrain the width and spatial quality of the green promenade, and conflict with the shared pedestrian / cycle zone.

In order to better activate the Bridge Road entry points and provide better sight lines, it is recommended that relocating/partially relocating the substations be investigated. If this is not possible, it is recommended that substations or areas along the ground floor frontage be considered potential zones for public art or heritage interpretation areas.

Further, the City recommends the proponent consider the addition of a small retail or food and drink space on the ground floor at the eastern side of the SFM (e.g. small pocket café). This could address the outdoor plaza area to the east, but could provide some level of activation along Bridge Road and serve the passing foot/cycle traffic and the drop-off.

4 Transport and Access

4.1 Onsite Car Parking Numbers

The submitted Stage 2 traffic report prepared by ARUP proposes to keep existing car (417) parking spaces. The traffic report has distributed the proposed 417 spaces in the following categories:

- 4 accessible car parking spaces;
- 56 B99 car parking spaces;
- 176 dedicated retail car parking spaces; and
- 181 ‘flexible’ retail car parking spaces, which can be used by SRVs during the early morning wholesale and auction period.

A review of the submitted drawings show the following service vehicle parking spaces within the premise:

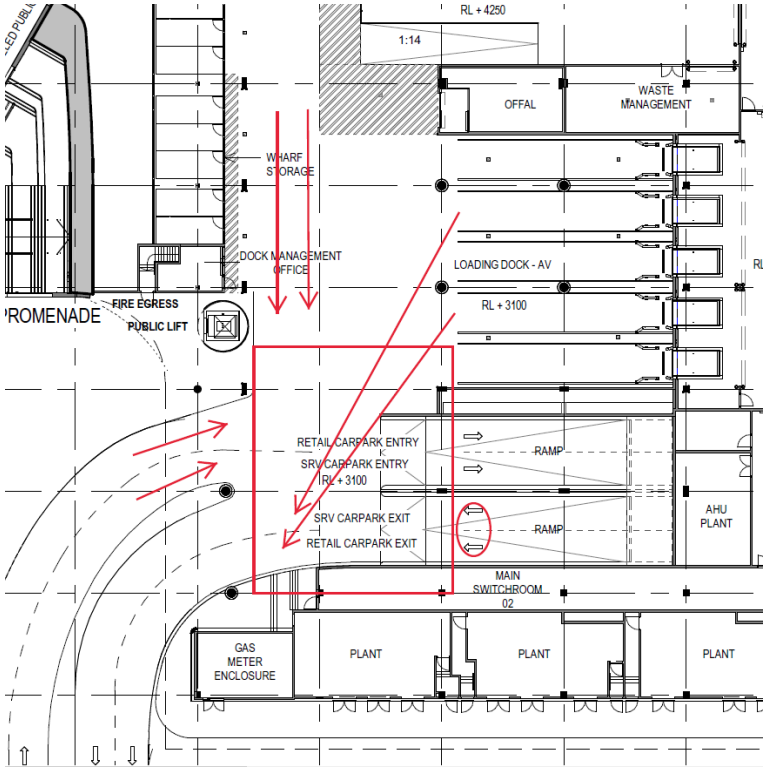
- 5 X 19m long semi-trailer AV (ground level loading dock);
- 13 X 8.8m long medium rigid vehicle (MRV ground level loading dock); and
- 3 X 6.4m long small rigid vehicle (SRV ground level *loading dock*).

The City notes the proposed car parking number complies with similar parking rates for commercial uses as per the Sydney Local Environmental Plan 2012. Going forward, parking numbers should not increase beyond this and a condition to this

effect should be included with any approval. The City also notes that the accessible car parking number spaces complies with Building Code of Australia, however, the City of Sydney DCP requires one accessible car parking space per 20 visitors' spaces. The SFM has designed to create a waterfront tourist destination outside the auction periods and therefore is recommended that **additional 4 (in total 8)** accessible car parking to be provided.

It is recommended that the design, layout, signage, line marking, lighting and physical controls of all off-street car parking facilities satisfy the *Australian Standard AS/NZS 2890.1 - 2004 Parking facilities Part 1: Off-street car parking* and *Australian Standard AS/NZS 2890.2 - 2002 Parking facilities Part 2: Off-street commercial vehicle facilities* and *Australian Standard AS/NZS 2890.6 - 2009 Parking facilities Part 6: Off-street parking for people with disabilities*.

Concern is raised regarding vehicle movement at the confluence of the loading dock access point and the basement entry ramp, particularly for longer vehicle manoeuvring. This should be investigated in details by a qualified traffic engineer, confirmed with vehicle swept path analysis. It is noted that this space may require a traffic light/ other management measures details of this investigation are to be provided for consideration.



Movement of vehicles at the top of carpark ramp and loading dock

The submitted ARUP traffic report has also provided swept path drawings at street level, however, an internal swept path analysis is required to demonstrate that proposed parking layout including loading dock access, vehicle circulation ramps meet the relevant Australian Standards requirements.

4.2 Access / Traffic Generation/ SIDRA modelling

The Stage 2 traffic report has presented the SIDRA modelling results with and without development for 9 adjacent intersections. ARUP's traffic reports recommends that that key intersections in the vicinity of the new SFM site will operate at the same level

of service compared to existing conditions. Result shows most of the intersection LoS is “C” while the worse is “D” which is acceptable under RMS guideline.

When referring to the SIDRA modelling output, however, it can be found that in most of the cases the individual leg of an intersection is greatly impacted with 95% back of queue (20 to 30) vehicles. Figure 59 and 60 of the traffic report shows that approximately 40 heavy vehicle movements per hour will be expected as a result of the proposal. It is noted that submitted SIDRA modelling reflects isolated intersections which does not necessarily replicate the network performance as a whole.

In many cases, a comparison of the current and future average delay provides a better appreciation of the impact of a proposal, and not simply the change in the level of service. The scale of the development should take into account the site-specific factors including maximum queue lengths (and their effect on lane blocking/lane merging), the influence of nearby intersections and the sensitivity of the location to delays.

ARUP’s trip assignment predicts that the majority of traffic is expected to access the site via Bridge Road, with only a small percentage (between 10% and 15%) to arrive via Wentworth Park Road. This results in relatively small *increases* in traffic on Wentworth Park Road during peak hours, between 46 vehicles in the AM peak hour and 70 vehicles in the Saturday peak hour.

As such, the City suggests more investigation is required particularly at the vehicle access point on Bridge Road and immediate intersections of the subject site. It would be useful to develop a microsimulation based traffic network model to understand the vehicle access and the overall network performance with the cumulative forecasted traffic from the SFM development and other approved adjacent developments.

4.3 Bicycle Facilities

The submitted Stage 2 traffic report suggests that a total of 136 bicycle parking spaces for staff and visitors will be provided within the building basement and in the public domain areas. Bicycle parking for visitors are placed at an easily visible location at the ground floor along Bridge Road. The 38 U-rails are proposed to cater for 76 bicycles – representing a 950% increase compared to the current availability of public bicycle spaces.

Given an expected 18,000 person daily attendance to the SFM, the number of bicycle spaces proposed are considered to be very low. While the City’s expectation is a higher percentage (usually 10%) of bicycle users, the proposed bicycle parking counts for less than 0.8% of the proposed fish market day-to-day attendance. The City recommends the proponent increase the amount of public bicycle spaces available on site.

The City expects that premium quality bicycle and end of trip facilities are to be provided to this tourist and visitor attraction precinct. The layout, design and security of the bicycle facilities must comply with the minimum requirements of Australian Standard AS 2890.3:2015 Parking Facilities Part 3: Bicycle Parking Facilities and Council’s DCP.

The end of trip facilities for staff use that are located within the basement and meets Council’s requirement, however, it is recommended that Class B (AS 2890.3:2015) bicycle parking and associated end of trip facilities (lockers/showers etc.) be provided

for at least 10% of the total fulltime staff and workers with an option to add more in future once the demand grows.

Directional signage to the bicycle parking facility is also to be installed from the street level, between the vehicle entry point at the site boundary and the entry point to the End of Trip facilities. Signage is to be generally in accordance with 2890.3:2015 Parking Facilities Part 3: Bicycle Parking Facilities.

4.4 Walking

The primary pedestrian access to the new Sydney Fish Market will be via Bridge Road, which currently provides a 2.5m wide footpath on the northern side of the road. The proposal has enhanced pedestrian experience along Bridge Road, with a significantly widened footpath and boardwalk directly adjacent to the new site.

The augmentation of the signalised intersection at Bridge Road and Wattle Street, as well as the removal of the existing pedestrian island, will improve the pedestrian environment around the site. An additional signalised intersection on Bridge Road at Wentworth Park Road is also proposed which will facilitate improved accessibility to the south towards Wentworth Park. The City supports those initiatives as it improved accessibility to the proposed SFM. The proposal, however, is silent on walking connections from light rail stations to the new fish market site. It is recommended that a more direct and improved walking connection should be provided from the existing Fish Market light rail station. This may need to be implemented as a commitment for implementation in the Concept Plan and overall Bays Precinct Masterplan.

4.5 Drop-off/pick-up functions on Bridge Road and coach parking

The proposal includes a vehicle drop-off and pick-up lane (approximately 130m in length excluding tapers) on the northern side of Bridge Road. This lane will be in addition to the existing two eastbound lanes and is intended to be used by coaches, taxis and ubers.

The current proposal states that, with the combination of on-site (very limited as shown in the current form of the proposal) and off-site parking space that will be operated through the appropriate management plan, the demand for coach parking and layover can be me managed. Under the current street condition, this could be an acceptable outcome however, once the area (including the overall Bays Precent) is redeveloped as it is aiming to do so, the on-street coach parking provisions on local roads and residential streets may no longer be appropriate.

It is recommended that the proponent investigate using existing coach and bus parking options that are located within close proximity of the proposed SFM. Successful developments that provide on-site coach and bus layovers include 1 Shelley Street, Sydney (carpark access from Lime Street) along Darling Drive, Haymarket adjacent to UTS. The proponent is invited to discuss with the City other successful examples of on-site coach and bus parking provisions.

Further, it is recommended that a management strategy is to be implemented to manage the loading servicing, drop off/pick up, movement and layover of coaches within the site as well as offsite parking.

4.6 Travel Plan

The City notes that the submitted travel plan requires more work. The plan must set a clear time-bound target for reducing private car travel to and from the SFM. The plan must also document all the measures undertaken to achieve its target.

The City recommends that the Green Travel Plan (GTP) be revised to address the above issues prior to the determination of the application. The GTP must also include a Transport Access Guide (TAG) to emphasis public and active transport (bicycle, walk) to the SFM. Council's website (http://www.cityofsydney.nsw.gov.au/development/planning-controls/travel-plans) and Sections 7.6 and 7.7 of the Sydney Development Control Plan 2012 presents guidelines to prepare the GTP.

4.7 Road Safety

The submitted traffic report states that the proposal will consider the design shifts of the existing footpath to the north side to create more space around the Bridge Road entry point and provide a plaza experience to improve pedestrian safety by creating additional pedestrian waiting spaces within the site boundary. The City, however, recommends that a road safety audit be conducted to confirm safety to the users of the proposed shared path and pedestrian/bicycle access and the newly created signaled vehicle access intersection.

5 Ecologically Sustainable Design

The City notes that the NSW Government has a target for the state to be net zero emissions by 2050. The City identifies the SFM development as a perfect opportunity to maximise efficiency, reduce waste and be powered by 100% renewable electricity. The City recommends the following sustainability measures be implemented in the development:

- Maximise inherent design and materials opportunities at the detailed design stage to reduce energy demand (by reducing or avoiding the need for artificial lighting and air condition).
- Apply carbon value engineering in selecting materials to reduce overall costs while at the same time reducing embodied carbon emissions (for example see http://www.lowcarbonlivingcrc.com.au/resources/crc-publications/crclcl-project-reports/rp1034-carbon-value-engineering-integrated-carbon)
- Maximise the production of onsite solar power generation.
- Implement more sustainable stormwater harvesting and treatment methods as discussed in detail above.
- Refrigeration and HVAC systems should specify only using refrigerants with a global warming potential (GWP) of one (1) or below.
- Adopt a 100% renewable operations target for the site to be achieved through a large scale Power Purchase Agreement (PPA) of renewable energy similar to the precedent by Metro North West https://www.sydneymetro.info/article/beryl-gets-go-ahead-help-power-sydney-metro-northwest

Further, as the land owner, it is recommended that the NSW Government add an "estate levy" condition of consent within the site head lease(s) as the vehicle to raise the revenue to fund the PPA. This is the same structure as used by Infrastructure NSW (previously Barangaroo Delivery Authority) to ensure that the entire Barangaroo precinct is 100% renewable.

6 Social Impact and Accessibility

6.1 External stairs

The City notes that a key design feature of the proposed Sydney Fish Markets building is the “4 x external feature stairs that function as main entrances to the building i.e. (connect the ground level public domain to the upper ground level public promenade) including:

- Northern Stepped Promenade (available 24/7);
- Eastern Stepped Promenade (available 24/7);
- Southern Stepped Promenade (available 24/7);
- Western Stepped Promenade (available 24/7).”

In terms of design of the stepped promenade where stairs are incorporated within integrated seating for example bleacher seating, the City recommends that the proponent consider the following design guidance:

a) Tactile Ground Surface Indicators should only be included at the top and bottom of the stair component – not at the top and bottom of the any other integrated elements, such as seating – so that people who are blind or have low vision do not confuse the bleacher for stairs and can easily identify a safe place to descend/ascend stairs;
b) Stairs should be easily discernible from surrounding bleacher seating and have defined and consistent edging. This can be achieved through:
    a. the use of contrasting materials for the stairs and seating (minimum 30% luminance contrast), and
    b. defined edges, and/or
    c. luminance contrasting strips on the nose of the bleacher seating, in addition to those required on the nose of the stair riser. Both minimum 30% luminance contrast; and
c) Additional permanent design features should be put in place to prevent people who are blind or have low vision from stepping off the top bleacher. These can include, but are not limited to:
    a. barriers
    b. seating
    c. planting.

Integrated seating should also consider the provision of the following where possible:
a) backrests and arms rests for some of the seating element; and
b) additional space available next to seating for assistance animals, prams, or other items.

6.2 Furniture and Fixtures

The City notes the surrounding public domain precincts will use a variety of bespoke and integrated seating options. The City encourages the proponent to ensure the design of these bespoke items considers accessibility, and in line with the City’s Inclusive and accessible public domain guidelines including:

- Setting seats back by a minimum of 500mm from the path of travel
- Integrating seating that is of a long bench variety includes regular recesses for wheelchair users and families with prams, so obstructions on the path of travel are avoided. There are some good examples at the Barangaroo foreshore

- Designing bespoke seating to include arm rests or backrests in part, to ensure seating can meet the needs of older people and people with limited core strength.
- Where some improvised and integrated seating is provided that may not be fully compliant with AS1428.2 (which is not mandatory in developments) to ensure that there are some AS compliant seating options within the immediate seating zone are provided.

Further, in order to establish the SFM as a destination truly inclusive of and accessible to people who are blind, it is recommended that the proponent consult with Guide Dogs NSW/ACT and Vision Australia as the design is further refined.

7 Security and Safety

A Crime Prevention through Environmental Design Report (CPTED) has been prepared by Aecom. The City notes that areas that require specific attention to ensure maximum safety within the proposed development have been identified and recommendations proposed to mitigate any issues. Of particular note is the undercroft beneath the western stepped promenade. It is recommended that ongoing consultation be undertaken in the design of external public areas to ensure the measures identified in the CPTED report are implemented during design development.

It is also recommended that further design development be undertaken in the design of the western stepped promenade undercroft to ensure that it does not create ambiguous access control between the public and operational areas to the north, nor create space for concealment. Further design development of the accessible lift entries adjacent the western stepped promenade and the southern façade is also recommended to ensure that all entries are clearly defined and easily recognisable with active edges and clear sightlines from the public domain.

A public domain lighting strategy is also recommended to be prepared and considered in the design of the SFM.

8 Tree Management

The City notes the double row plantation (avenue) of forty one Moreton Bay Figs (*Ficus macrophylla*), located along the northern boundary adjoining Bridge Road. They have a broad range of sizes ranging between 10-18 metres in height with a combined canopy of 25-30 meters in diameter extending over the roadway and parkland. In this regard, it is noted that the survey plans attached with the proposal show no encroachment of the crown of the figs over Bridge Road.

The evergreen native trees planted c.1890-1900, form part of a larger significant collection of trees within Wentworth Park. It is also noted that Wentworth Park is listed as a heritage item under the Sydney Regional Environmental Plan No. 26 – City West (SREP 26).

This group of fig trees, listed on the City of Sydney Significant Trees Register, are considered of high landscape significance, forming a strong treed edge to the park landscape setting. The trees contribute greatly to the existing urban canopy, habitat, and biodiversity in the City.
The double row plantation of Moreton Bay Figs is an outstanding example of the stylistic approach and influence of Charles Moore (Director, Sydney Royal Botanic Gardens 1848-1896) and displays the typical structured, albeit informally spaced rows of Moreton Bay Figs along the park boundaries. This curtain of evergreen rainforest trees typically

encloses broad open lawn areas with groupings of botanical specimens and other park elements. This approach became a defining feature of much of Sydney's parklands during this period.

The proposal includes raising the level of Bridge Road however, the EIS does not include an Arborist Impact Assessment (AIA) and no assessment of the impacts on the tree roots and canopy, and fabric of the Wentworth Park retaining wall has been provided. The proponent reasons that the trees and retaining wall fall outside of the Bridge Road extent of works boundary, although they are in fact adjacent to or on the boundary and are likely to be impacted as a result of the works.

Despite the significance of the trees, the extent of tree roots and canopy disturbance has not been assessed. All efforts should be made to retain as many existing trees as possible.

The road infrastructure upgrade works will require excavation and fill, upgrades to existing trunk drainage and electrical services, trenching for signals upgrade at the two intersections and possible undergrounding of aerial cabling.

While raising the road slightly improves flood risk on Bridge Road and is supported by the City, lifting road levels up to 1 metre is certain to impact on the trees and must be adequately considered. The tree canopy will require pruning of limbs to meet RMS road clearances which may greatly impact on the existing urban canopy. Further, as the proposal includes traffic works and the implementation of traffic lights at various intersections along Bridge Road, it is likely that some trees will require significant pruning or potential removal to facilitate the installation and adequate operation of traffic lights. This is dependent on the configuration of the traffic signals, and the distance at which sight-lines must be maintained.

The City requests that a detailed AIA be carried out and include comprehensive root and canopy investigations, detailed wall fabric condition assessment, features and levels survey of the park edge to outside of the tree protection zones. ***The AIA is to assess the impact and recommend mitigation measures to preserve the form and health of the highly significant group of registered trees***. Further additional information requested includes the following:

- Detailed levels and features survey including Wentworth Park significant trees and retaining wall;
- Detailed root mapping investigation and canopy investigation for each tree;
- A fabric condition report for the heritage retaining wall;
- A full AIA of the impact of the proposed civil, services, signals and footpath works on the trees and wall and recommended mitigation; and
- Confirmation of the extent of changes to the park boundary and an assessment of the impacts on heritage listed park wall.

Further, the City recommends that the design development of the landscaping of the site consider the following:

- Tree species for any proposed replanting within the site should be selected in consideration of Section 3.5.2 "Urban vegetation" of the Sydney Development Control Plan 2012;
- The tree species for any replanting proposed for the northern side of Bridge Road must be Lophostemon confertus (Brush Box) in accordance with the City's Street Tree Master Plan: Part C – Precinct Plans;

- Soil improvements must be provided for replanting proposed for the northern side of Bridge Road in accordance with the Street Tree Master Plan: Part D – Technical Guidelines;
- All new trees must have a minimum container size of 400L at the time of planting;
- All new trees must be grown in accordance with the Australian Standard 'AS2303:2018 Tree stock for landscape use'; and
- An appropriately qualified Consultant Arborist (AQF Level 5 minimum) must consider the impact of the proposal to raise the surface level of Bridge Road and install new traffic signals at the intersection of Bridge Road and Wentworth Park Road. The Consultant Arborist must produce a Pruning Specification Report which specifies the required pruning in accordance with the Australian Standard 'AS4373:2007 Pruning of amenity trees'. The Pruning Specification Report must be provided to the City for consideration. All tree pruning will be undertaken by the City's contractors.

9 Urban Ecology and Biodiversity

9.1 Improving aquatic foreshore biodiversity

The City strongly recommends further enhancement measures be implemented in the proposal to improve aquatic foreshore biodiversity. The concept design provides minimal enhancement and misses a real opportunity to significantly improve this area of the foreshore.

It is noted that small sections of the footprint have been dedicated to biodiverse walls providing minimal benefits, however, it is unclear as to why there is such little effort to provide biodiverse walls along the entire footprint within the site while the submitted Marine Ecology Assessment report identifies some effective and well-researched habitat opportunities to improve the aquatic environment. While there is some effort to design novel habitat into the outer edges of the site i.e. through landscaping and a "living seawall", there is minimal consideration into how these sites would provide connectivity to surrounding sites. There is a great potential to provide a lot more along the sites water facing edge.

Further, the concept design creates a significant amount of shading of aquatic environments. The requirements of the development specifically identify the desire to consider guidelines that seek to improve habitat and supporting documents identify that shading negatively impacts aquatic flora and fauna including fish. Additionally, supporting documentation notes that shading can favour the colonisation of non-native species in these areas which should be avoided.

While the existing structure also has significant shading over the water, there are opportunities in which the design could incorporate something more innovative. The Marine Ecology Assessment has identified excellent habitat opportunities to increase biodiversity value and these should be incorporated into the detailed design.

Potential modifications to various vertical structures also has the potential to further improve the health of the system and have positive flow on effects, as has been identified in the Marine Ecology Assessment. The inclusion of structures below the water's surface, a sloping seawall and the planting of native macroalgae creates complexity and the use of materials that allow light to penetrate through structures that sit on or above the water's surface is considered highly beneficial and should be considered in the development.

It is not clear how this has been incorporated into the concept design as it does not appear to do so in any of the accompanying drawings. This interface should be reviewed and innovative designs should be explored. A key component of the design should also allow ongoing monitoring to understand its success and to inform future harbour redevelopments.

9.2 Aquatic Edge Design

The proposed pedestrian promenade over the sea wall is identified as being impermeable precast concrete surface, meaning the water below will be completely overshadowed. It is also noted that the basement structure and new sections of sea wall are a highly engineered solution of driven piles and precast U shaped culvert beams and T-beams that limits habitat creation.

Unlike the historic rock revetment details sourced by the engineer, the proposed sea wall and basement design does not mimic an intertidal habitat with sloping walls, beaches, crevices and vegetated hiding places for fish and marine fauna. This limits habitat creation and should be explored further in the design development of the site.

The City recommends that the proponent demonstrate a better environmental outcome, consider improving the design, and ecology and aquatic habitat rehabilitation, by including an amended public domain design for the promenade with light penetrating surface, integrated with a tidal marine environment as part of the design of new sections of the sea wall. The proponent should consider successful global examples of marine and seawall rehabilitation projects including the Central Seawall Project in Seattle. This project promenade design included precast concrete panels with glass pavers specifically shaped, oriented and positioned to provide natural light to the sea floor.

It is also recommended that the applicant consider incorporating recommendations from the consultants to provide optimal natural light onto the seafloor to encourage macroalgae growth and a fauna corridor into the promenade design.

9.3 Improving terrestrial foreshore biodiversity

The City strongly recommends further enhancement measures to improve terrestrial foreshore biodiversity and seek opportunities to complement existing efforts by the City to create an almost continuous (albeit narrow) habitat corridor in the LGA, with connectivity to be established with sites at Pyrmont (as per the City's Urban Ecology Strategic Action Plan).

The City has identified the Glebe Foreshore Walk East as an opportunity to expand bush restoration works and increase the diversity of locally indigenous flora species and to undertake fauna habitat enhancements. To continue the foreshore experience, landscaping efforts at the SFM must be improved/increased for biodiversity considerations and the opportunity to connect with bush restoration sites in Pyrmont and Glebe Foreshore.

The submitted Biodiversity Assessment Report has not explored the opportunities to strengthen the City's interest in creating a continuous vegetated foreshore as identified in the Urban Ecology Strategic Action Plan. This area is part of a key linkage area in which there is a high level of effort to restore the natural heritage. The proposed planting palette could be complimented further with the efforts by the City along the Glebe foreshore and Pyrmont, and should be reviewed to include greater diversity of locally indigenous species. It is to be noted that much of the landscaping

along the road should not be considered in efforts to improve biodiversity values and is to be considered as part of the main landscaping works.

The opportunity that this site could make towards these ambitions to improve terrestrial biodiversity should be stronger. The urban and local park in the current concept design are small, fragmented garden boxes and habitat areas in which both humans and wildlife could positively experience from is not evident in this design.

The omission of utilising local data in the preparation of the Biodiversity Assessment Report has resulted in an oversight of the site's potential contribution to urban biodiversity. It would be beneficial for the project to be made aware of local Council data of fauna that have been observed in the area in proximity to the new fish market site.

In reviewing the submitted biodiversity report, it notes that development should protect and enhance terrestrial and aquatic species, populations and ecological communities and in particular should avoid physical damage and shading of aquatic vegetation. There is consideration that there is no significant impact of the development on aquatic or terrestrial vegetation but the report does not address the enhancement of species or acknowledge that where shading occurs that there is minimal aquatic vegetation. Further, the report identifies that there are no opportunities for connectivity to existing terrestrial biodiversity and the City questions why this statement is made as the reasons why connectivity is not possible are not presented.

The City strongly recommends that further development in the aquatic and terrestrial design be undertaken to improve and increase potential habitats. Additional information is also requested to assist in the review of the proposal in regard to urban ecology and biodiversity. This includes:

- Details on light spill impacts from the building; and
- Information regarding surveys being conducted to confirm an absence of any existing seahorse habitat. The existing subtidal zone includes Sargassum linearifolium which is a potential habitat for seahorses.

10 Heritage

A review of the submitted heritage impact statements and reports notes the rich heritage of Blackwattle Bay, the working harbour and significant landscapes, pieces of infrastructure and other buildings surrounding the site. The site is not individually listed although Blackwattle Bay Stormwater Channel, which is on the s 170 Heritage Register of Sydney Water, traverses the site. The site is also near a number of heritage items, including Wentworth Park, The Railway Viaduct over Wentworth Park, and the Former MWS and DB Sewage Pumping Station at 103 Pyrmont Glebe Point Road and the Kauri Foreshore Hotel at 2 Bridge Road.

The former coal loader within the site although not listed on a statutory register, is of some significance. Its surviving fabric demonstrates the process of supply of coal from ship to shore by means of a steel cantilevered gantry crane and hardwood bunks, and the distribution from the depots to the consumers. It is a symbol of the maritime industrial history of the Bays Precinct and serves as a landmark seen from the land and water.

The maritime history of site of the proposed new Sydney Fish Market in Blackwattle Bay is one of the evolution of industrialisation, from a swamp to an area for waste disposal to

an area for transhipment of various materials associated with the commercial development of Sydney and the State. The evolution of the maritime infrastructure, including wharves, jetties and dredging works have formed the background to the current form and character of the Bay. The seawall an 1885-86 Government wharf at the southern shoreline and represents the process of land reclamation in the latter part of the nineteenth century.

The Blackwattle Bay Stormwater Channel No 17 is of high historical and technical significance as it was one of the five original combined sewers built in Sydney around 1857. These five sewers were responsible for greatly improving public health, hygiene and living standards for the city's residents in the late 1800's. Improved public health was achieved by diverting stormwater and sewerage from the streets and discharging it into the Harbour. The channel is also of technological significance as it provides an excellent example of the engineering construction techniques of the late 1800s and of the city's early infrastructure. The numerous extensions and modifications made throughout the years provide a good example of the advancements made in drainage construction techniques.

The adjoining Wentworth Park is an important and rare open space in a densely populated area. Situated on reclaimed land it is associated with a number of historic drains which have the potential to reveal information on the technical processes of late 19th century land reclamation. Traversing the park is the State Listed brick arched railway bridge viaduct.

The City notes that whilst the proposal will result in the loss of significance with the demolition of the former coal loader and the office/weighbridge building, there will be positive outcomes with a new and improved SFM and opportunities for greater connectivity along the foreshore, improved aesthetic appearance of this part of the Blackwattle Bay and for heritage interpretation. The following specific comments should be noted:

10.1 Heritage Interpretation Plan

The Heritage Impact Statement (HIS) refers to the heritage interpretation of the site being a key focus of the development and will be incorporated throughout the precinct that *"it has been designed to provide a significant number of opportunities for disseminating information about the history of the site through heritage interpretation both physical and visual. This includes using salvaged material from the coal loader and the office/weighbridge buildings and displaying archaeological deposits in a manner that process and additional and educational opportunity to engage the public in the history of the area."*

The city notes, however, that no specifics of an interpretation plan have been submitted for review. A Heritage Interpretation Plan is required to be submitted as part of the detailed design of the SFM and is to address the maritime history of the site, the existing Fish Markets and archaeological evidence to ensure adequate provision is made for heritage interpretation as part of the development.

10.2 Mitigation Measures

The Mitigation Measures recommended to deal with the loss of assess heritage values outlined in the HIS should be included as a condition of consent. In particular:

- Engagement of a built heritage specialist;
- Heritage listed stormwater channel;
- Physical archive;

- Archival Photographic Recording of the coal loader and office/weighbridge prior to commencement of works on site;
- Salvage Methodology; and
- Archaeology.

10.3 Maritime Archaeology

The findings of the maritime Heritage Impact Assessment are that the proposed works have potential to disturb archaeological deposits of local significance within the sediment in the investigation. The mitigation measures and archaeological test excavation strategy identified this assessment report should be adopted for the proposed works.

11 Site Remediation and Contamination

The City has undertaken a review of the submitted reporting in regard to site remediation and contamination and are satisfied with the recommendations is such reports.

The site is classified with high probability of heavy metal, PAHs, TRH, ASS, and soil, groundwater, sediment, ground gases and vapour contamination resulting from former industrial uses. Remediation is required to enable the development and is recommended that remediation be undertaken in accordance with the submitted recommendations.

The site is classed as having a ‘high probability’ of acid sulphate soil (ASS) within the benthic sediments. These soils can cause harm to marine flora and fauna if disturbed, exposed to oxygen and then resubmerged during piling. The proposed construction method includes a silt curtain and cofferdam to contain fine-scale sediment plumes during construction and remediation of sediment contamination.

It is recommended that a NSW EPA Accredited Site Auditor peer review the proposed RAP and any further contamination reports prepared for the site.

11.1 Environment and Construction Impact

Contaminated sediments in Black Wattle Bay may leach into the sea water following construction disturbance, requiring careful management during demolition and construction, and during the immediate period afterwards. The treatment and contingencies section of the ASS Management report seems to consider the treatment of resultant water acidification as land based rather than in the bay. This should be clarified and confirmed that adequate measures, and comment sought from the relevant team before determination.

11.2 Construction management

The staging or period of construction impact needs to be made clear and is recommended that a construction traffic management plan be prepared and submitted to the DPIE and City as part of the Stage 1 assessment – understand the assumptions and management of the construction including by water and by land. This includes the Bridge Road upgrade works will have significant impact on public and private transport during construction.

12 Public Art

The consideration of public art has not discussed in the EIS and is it recommended that a public art strategy be prepared and submitted for further assessment.

13 Signage

A commercial signage strategy and wayfinding signage strategy is recommended to be submitted either as part of this assessment or as a condition of consent. Wayfinding is to be considered on a larger scale and form part of a comprehensive and consistent wayfinding strategy as the Fish Markets site falls within part of the larger Bays Precinct.

Should you wish to speak with a Council officer about the above, please contact Marie Burge, Planner, on 9265 9333 or at mburge@cityofsydney.nsw.gov.au.

Yours sincerely,

Graham Jahn AM
Director
City Planning I Development I Transport