



Brisbane Central Business District Bicycle User Group

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The Right Honourable Cr Adrian Schrinner
Lord Mayor of Brisbane
GPO Box 2287
BRISBANE QLD 4001

Via email to: lord.mayor@brisbane.qld.gov.au

Dear Lord Mayor

Please accept this as the Brisbane Central Business District Bicycle User Group (CBD BUG) submission regarding the proposed development at the Eagle St Pier under application number A005477682. In line with the CBD BUG's standard practice this submission will only outline concerns regarding the development and how they impact on cycling.

The importance of ensuring this development makes appropriate provision for people riding bicycles cannot be understated, due to the lack of direct and/or safe alternatives within the Brisbane CBD and the decades that will likely have to pass until the next opportunity arises to revisit the shortcomings being proposed in the currently published plans.

Existing Conditions

Riverwalk

1a. Existing Layout

The existing Riverwalk forms a vital active transport function for people traveling to/from/through Riverside to/from/through the Brisbane City Gardens. It is the only corridor that does not pose the risk of conflict with and/or potential for injury from a motor vehicle. Currently, the Riverwalk through the Eagle Street Pier splits into an upper and a lower path (Figure 1). The upper path is predominately used by people wishing to linger and stroll. The lower path is predominately used by people to travel through the precinct whether they be on foot or bicycle. While the lower path is a substandard width, the separation of functions removes much conflict which would exist if the two paths had been built as one. Currently, the upper path is a minimum width of 3m and the lower path a minimum width of 2.5m providing a combined width of 5.5m for the Riverwalk.

1b. Existing Patronage

According to the traffic report, 1,400 cycle and 7,600 pedestrian movements travel along the Riverwalk through the Eagle St Pier in a 24hr period. Unfortunately, the report does not provide an hour by hour breakdown of the volumes. This is highly disappointing considering the report states that there is a "Well defined morning and afternoon commuter peak periods". This omission does not allow for evidence based assessment of the proposal, a critical factor when independent investigation cannot be conducted due the current effects of COVID-19 on transport behaviours by the public. Further to this the traffic report also indicates that 95% of cycle movements travel through the site in question cementing the existing Riverwalk's function as part of the active transport network.

Development Proposal

2a. Government/Council Cycling Plans

The traffic engineering report cites the Brisbane City Council City Plan 2014 but does not reference the Queensland Government “Principle Cycle Network Plan” for SEQ. Under the “Principle Cycle Network Plan” the corridor is ranked the most pressing as “Route Priority A”. This ranking in combination with BCC listing it as a “Primary Cycling corridor” would indicate any development to the corridor should be of the highest standard to cater for high volumes of both people on foot and bicycle.

2b. Bicycle parking

It is pleasing that a substantial amount of bicycle parking is to be provided as part of the development. However, according to the traffic report this is an under provision. Using a relaxation based on assumptions to avoid minimum requirements on a site of such prominence is unacceptable due to its location on the Riverwalk (to a primary cycling corridor (BCC) / Route Priority A corridor (TMR)) and the fact that bicycle parking is being used to provide an environmental sustainability rating. Due to the development’s key location for a variety of active travel users the proposal should have no relaxation in minimum bicycle parking provision and should make generous provision for all path users to encourage more people to travel along the Riverwalk.

2c. Failure to comply with Austroads

It is highly disappointing that the traffic engineering report fails to reference AustRoads “GUIDE TO ROAD DESIGN – Part 6A: Pedestrian and Cycle Paths”. This nationwide guideline which provides clear instructions on how to choose and design pedestrian and cycle corridors has not been observed

2c.1. Austroads has a simple flow chart on selection of a walking/cycling corridor (Figure 2). This flow chart clearly indicates that the selection of a shared corridor is unsuitable and that people using different active travel modes should be safely accommodated by separated paths.

2c.2. Austroads states appropriate lines of sight should be maintained (Figure 3) yet there are two sets of stairs leading down onto the Riverwalk that may result in conflict due to the peculiar angle of approach.

2c.3. Austroads clearly states that curves in a cycling corridor should be avoided (Figure 3). Considering the Riverwalk is above a straight section of the Brisbane River there is no reason to provide bends other than for aesthetic reasons. While CBD BUG views the form of the Riverwalk as important, its function as a safe active travel corridor must be the first priority.

2c.4. Austroads states that in general the operating speed of a person on a bicycle is 20kmph to 30kmph (Figure 3). Further to this, it recommends that paths are designed to a minimum travel speed of 30kmph. According to Austroads the minimum radii of any bend that has been added for aesthetic reasons should be between 10m and 25m respectively (Figure 4). Based on the CBD BUG’s measurement of the drawings, minimum radii range from 2.5m to 4.0m (Figures 5 and 6) and therefore the radii of the bends in the current design is non-compliant with Austroads. We have noted that the Urban Report has used the words “safe speed” in an attempt to absolve the project proponent from complying with Austroads.

2d. Failure to comply with TMR Guidelines

The Department of Transport and Main Roads provides a number of publications regarding the optimal design of pedestrian and cycling facilities. As part of this submission we will reference “Supplement to AustRoads Guide to Road Design – Part 6A: Pedestrian and Cycle Paths” and TN133 – “Guidance on the Widths of shared paths and separated bicycle paths”. Both documents reference traffic volumes on a per hour basis, which due to this strategic omission in traffic reports requires assumptions to be made based on educated assumptions from the CBD BUG’s own experience and the traffic report.

2d.1. TMR supplement to Part 6a provides a number of graphics (Figure 7 and Figure 8) to determine suitable path widths which show that even at current volumes a separated path is recommended.

2d.2. TMR TN133 which continues to be referenced by TMR supplement to Part 6a clearly states that when dealing with a corridor's capacity "if there is sufficient space for a 4.0m shared path, then a segregated 1.5m footpath and a 2.5m bicycle path may be a better outcome in terms of throughput capacity" (Figure 9).

2e. Failure to comply with Brisbane City Council Draft "City Reach Waterfront Master Plan"

The "City Reach Waterfront Master Plan" draft for consultation was released by the Brisbane City Council in November 2019. This was approximately seven months before the plans for the redevelopment of Eagle St Pier were submitted to Council. This document clearly states that it is the Brisbane City Council's plan that the Riverwalk aka "Promenade" is "an eight metre unobstructed" structure (Figure 10). According to the documents submitted in this development application the unobstructed width is only 6 metres and is clearly too narrow with inadequate width and will lead to crashes and/or conflicts.

2f. Generous 6m Riverwalk

It is noted that the subjective language of describing the 6m width of the Riverwalk as "generous" is used. This language is misleading as the planned 6m width is not generous and will result in a continuation of conflict between various active travel mode user groups.

2f.1. As stated above, the existing Riverwalk at the Eagle St pier divides into a lower and upper path. Using both paths as a singular number the existing Riverwalk through Eagle St pier is a minimum width of 5.5m whereas the proposal is for 6m. This means at most there is a .5m increase in corridor width if not a reduction when looking at sections where the paths are wider.

2f.2. The Southbank Promenade is of a 6m width. This facility opened in the early 1990s and over its 20 plus years has been subject to numerous media articles that have highlighted the conflicts that occur between user groups. Much of this conflict is due to the shared nature of the 6m path where people are told to keep left but this is counter to human nature when traveling along a visual drawcard. Compounding the conflict is the large volumes of people that use the corridor, volumes that may be similar to Eagle St Pier once it is redeveloped.

2f.3. The Howard Smith Wharves development opened in November 2018 with a 6m primary corridor for active transport. Like the Eagle St Pier redevelopment, a shared path was proposed. This 6m shared use corridor has been subject to media articles commenting on its poor design. The 6m width has not been sufficient to prevent conflict that social media has been highlighting (Figure 11)

2g. Minimum 6m Riverwalk

It is written throughout the documents that a minimum 6m wide thoroughfare (Figure 12) is to be provided but the viewing of the submitted drawings shows this not accurate. In reality, the minimum clear width of the reconstructed Riverwalk is 2.2m and 2.7m (Figures 5 and 6). Such pinch points will result in conflict and potential crashes.

2h. Stone Paving

It is concerning that the "stone paving" is listed as the intended Riverwalk path surface. The existing stone paving in the vicinity of the development would not comply with Austroads nor AS1428.1.

2i. Catering for Active Transport Growth and Kangaroo Point Ped/Cycle Bridge

The proposal's reconstructed Riverwalk does not cater for future growth, nor current usage as outlined by Austroads and TMR. The most notable omission is the lack of reference to the pedestrian and cyclist bridge that will connect Kangaroo Point to the CBD from 2023. This bridge alone will add hundreds, if not thousands, of additional movements to the Riverwalk - but how these numbers will be catered for is not explained.

Closing

3a. Summary

It is the CBD BUG's opinion that the Riverwalk as proposed by this development falls a long way short of providing a world class facility that is free from conflict, caters for everyone and is designed to meet the needs of active transport growth. The CBD BUG attended consultation meetings held by Dexus on how the site would be redeveloped and had high hopes that the lessons of the past would be learnt from. It is disappointing to see that the Architect has ignored this and has chosen to repeat the substandard facilities of the past.

3b. Solution

Every concern raised in this proposal could be easily resolved by a path that complies with Austroads Guidelines, TMR Guidelines and the City Reach Waterfront Master Plan (Figure 13 and 14). Such an example already exists in Vancouver Canada (Figure 15).

The CBD BUG calls on Brisbane City Council to require the development applicant to amend their proposal so the new Riverwalk is of a world class standard that:

- a. caters for all user groups
- b. complies with Austroads Guidelines, TMR guidelines and City Reach Waterfront Master Plan, and
- c. caters for future Active Transport patronage growth.

Yours sincerely



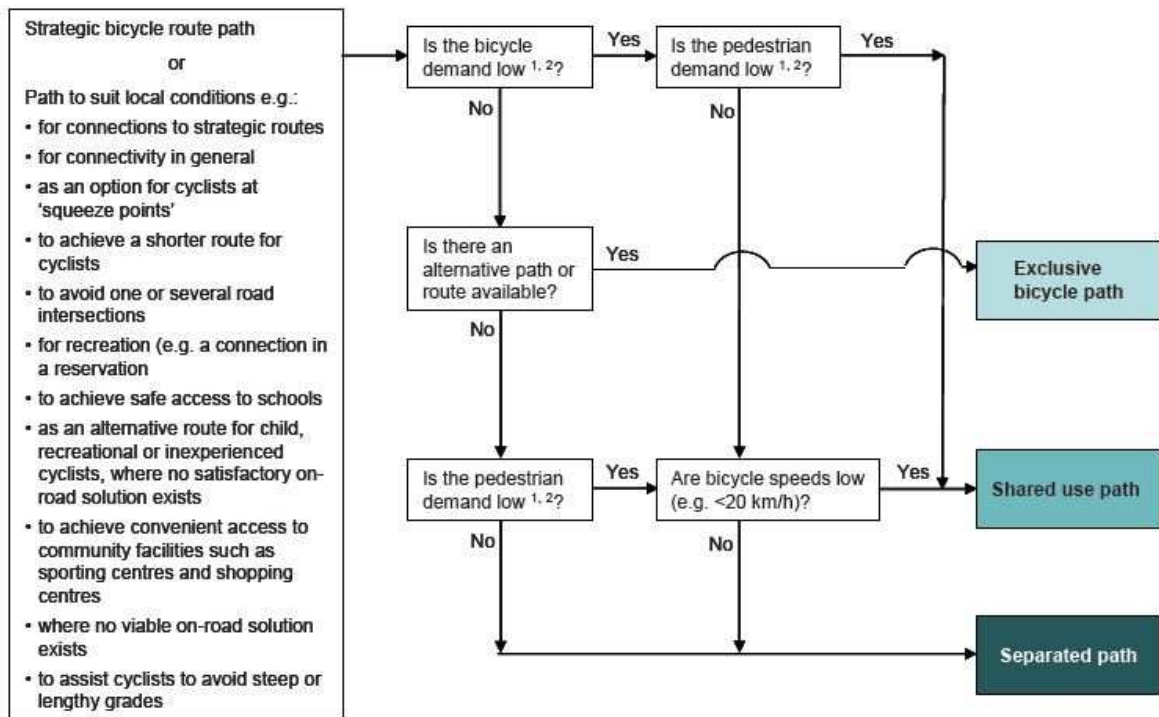
Donald Campbell
Co-convenor
Brisbane CBD BUG
22 July 2020

Cc: Space for Cycling Brisbane
Bicycle Queensland
Cr Ryan Murphy Chair of Public and Active Transport Committee
Cr Vicki Howard Central Ward



Figure 1 – Eagle St – Existing Conditions

GUIDE TO ROAD DESIGN PART 6A: PEDESTRIAN AND CYCLIST PATHS



Notes:

1. The level of demand can be assessed generally on the basis of the peak periods of a typical day as follows:
 - a. Low demand: Infrequent use of path (say less than 10 users per hour)
 - b. High demand: Regular use in both directions of travel (say more than 50 users per hour).
 2. These path volumes are suggested in order to limit the incidence of conflict between users, and are significantly lower than the capacity of the principal path types.
- Source: Austroads (1999)

Figure 2.1: Guide to the choice of path treatment for cyclists

Figure 2 - AUSTRROADS

Speed maintenance

For bicycles to be most effective as a means of transport cyclists must be able to maintain speed without having to slow or stop often. Whilst many cyclists typically travel at speeds between 20 km/h and 30 km/h, a significant number of cyclists can travel at speeds in excess of 35 to 40 km/h on the flat and may reach speeds in excess of 50 km/h on down hill gradients. Once slowed or stopped it takes considerable time and effort to regain the desired operating speed.

Bicycle routes, especially off-road, should be designed for continuous riding, minimising the need to slow or stop for any reason including steep gradients, rough surfaces, sharp corners, obscured sight lines, intersections, or to give way to other people because the width available is too narrow.

Sight lines

It is important that appropriate sight lines are provided between a cyclist's eye height and pedestrians to assist in minimising conflict, and between a cyclist's eye height and the path surface so that cyclists can stop in the event that a hazard exists on the path (e.g. mud deposited during inundation, potholes due to washouts, broken glass, and fallen tree limbs).

Designers should therefore resist the temptation to provide curves that are smaller than necessary (e.g. to create an artificially winding path for aesthetics or urban design reasons). It is much better for the safety of path users if larger curves with greater sight distance are provided. Sight distance for cyclists is covered in Section 7.8.

Austrroads 2009

— 22 —

Figure 3 - AUSTRROADS

GUIDE TO ROAD DESIGN PART 6A: PEDESTRIAN AND CYCLIST PATHS

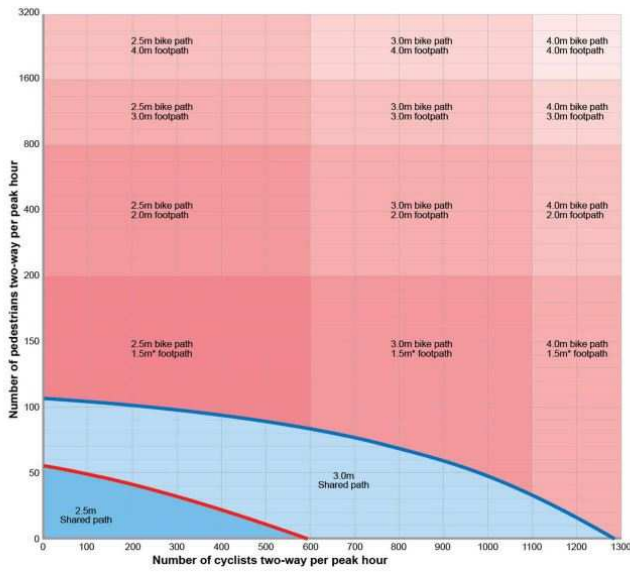
Table 7.1: Minimum radii of horizontal curves without superelevation

Design speed (km/h)	Minimum radius (metres)
20	10
30	25
40	50
50	94

Note: Based on zero superelevation and friction factors of 0.31, 0.28, 0.25 and 0.21 for speeds of 20, 30, 40 and 50 km/h respectively.

Figure 4 - AUSTRROADS

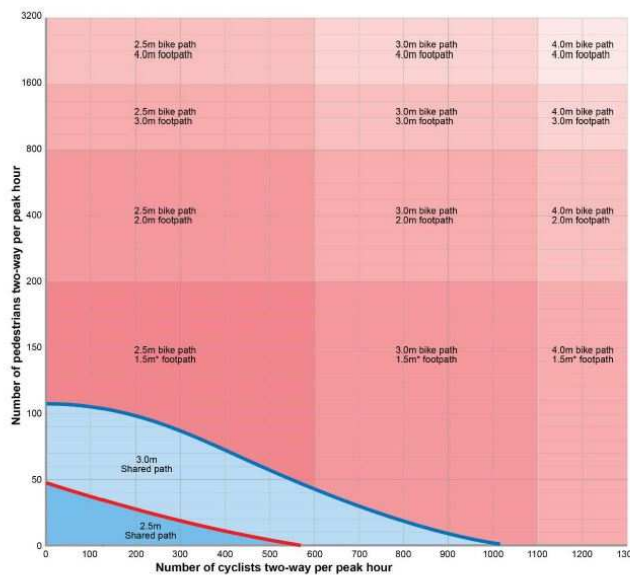
Figure 6A-2 Path capacity and recommended widths, directional split 75/25



Notes: This figure is not to be used for pedestrian only paths
 1.5 m footpath width is the low use minimum only and is not appropriate at higher pedestrian volumes
 A 75/25 directional split is typical for most commuter paths which are subject to high peak direction volumes.

Figure 7 - TMR

Figure 6A-3 Path capacity and recommended widths, directional split 50/50



Notes: This figure is not to be used for pedestrian only paths
 1.5 m footpath width is the low use minimum only and is not appropriate at higher pedestrian volumes
 A 50/50 directional split is typical for most recreational paths which are subject to high use in both directions.

Figure 8 - TMR

Intermediate path widths, such as 2.5 m* or 3.5 m, allow greater clearances between path users and a slightly higher level of service (LOS), but do not add enough operating width to reduce the number of delayed passings. Providing additional width at less than one metre increments will improve cyclist and pedestrian level of service, but not throughput capacity.

As an example: If there is sufficient space for a 4.0 m shared path, then a segregated 1.5 m footpath and a 2.5 m bicycle path may be a better outcome in terms of throughput capacity, than a completely 'shared space'.

Refer to the department's *Road Planning and Design Manual* Volume 3, Part 6A for the impact on path capacity of path width and shared use with pedestrians.

With these calculations in mind, as an example: the presence of 200 pedestrians on a 3 metre path reduces its capacity to less than a third. Note that by increasing a 2.5 m path to 3.0 m (20% increase), the path capacity is may be doubled depending on path traffic. The presence of pedestrians reduces the carrying capacity of the path for cyclists.

Figure 9 - TMR

City Reach Waterfront opportunities

The opportunities for the City Reach Waterfront have been summarised into four elements. The elements are outlined below, and the accompanying map shows where these elements are to be implemented within the City Reach area.

1 Promenade shared space

Based on the benchmarking analysis, and an assessment of Brisbane's current Riverwalk infrastructure, an eight-metre-wide unobstructed promenade is proposed along the full length of the City Reach Waterfront.

In an area where there is a need to balance both movement and placemaking activities, a wide shared space promenade will allow different users to interact safely and functionally.

Council's *Transport Plan for Brisbane — Strategic Directions* is a guiding document for this unifying element.

Qualities addressed:



3 River access

Connecting people to the river will strengthen Brisbane's credentials as a river city and will support new lifestyle and leisure activities along the waterfront.

Opportunities for river access are to be promoted along the City Reach Waterfront at every opportunity to encourage recreational and tourism-related activity.

Council's *River Access Network 2017* and *River's Edge Strategy 2013* are guiding documents for this unifying element.

Qualities addressed:



Figure 10 – BCC Draft - City Reach Waterfront Master Plans

-  **Hayden E James** So now cycle paths aren't even good enough for these morons? Eff me
Like · Reply · 21w  3
-  **Rosemary Keenan** Make it cycle free
Like · Reply · 21w
↳ 2 Replies
-  **Alex Aye** Didn't realise HSW was the new location for the tour de france.
Like · Reply · 21w  2
-  **Ken Oas** Cyclists.. ya either want the road or the path? You can't whinge about both
Like · Reply · 21w  1
↳ 17 Replies
-  **Todd Morrow** The cyclists need to slow the hell down. My 2.5 year old daughter and i were almost taken out by a cyclist on sunday afternoon who thought it was a bloody raceway! I swear these guys don't use their brain and their selfishness is astounding. It's a massively crowded area. Either slow down or find another route to take.
Like · Reply · 3w  14
↳ 21 Replies
-  **Chord Savage**  Top Fan pay rego if you want your own road or ride on roads. if you live in city highly unlike you own a car most people i know in City don't own cars
Like · Reply · 3w  5
-  **Anita Wyndham** Is it too much to ask cyclists to dismount and walk their bike through that area.
Like · Reply · 3w  5
↳ 10 Replies
-  **Andrew Crapp** Are cyclists complaining about having to slow down for slower traffic on the road? Maybe they should introduce a law for safety requiring a 1m gap between the cyclist and slower traffic who are limited to being two abreast. Cyclist will just have to wait for an appropriate spot to pass the same as cars on roads.....
Like · Reply · 3w  3
↳ 6 Replies

Figure 11 – Social media comments regarding the Howard Smith Wharfs development

A Snapshot of Waterfront Brisbane

The Waterfront Brisbane proposal is a city-shaping development for the Queensland capital.

Dexus's \$2.1 billion transformation of the city's business district embraces the river, incorporating two new towers, riverfront dining and retail outlets and public plazas.

Waterfront Brisbane is designed to allow people and business to thrive in a place for commerce and trade.

The public will benefit from a new improved section of the Riverwalk that creates an unimpeded, consistent and generous promenade.

The 30 year old Eagle Street Pier building will make way for two towers of 49 and 43 storeys with a combined 135,000 square metres of office space and a vibrant active retail and public space.

When two new towers replace the Eagle Street Pier building, views from city to the river that have been lost for 30 years will reemerge.

A new riverlink connects the city to the water and provides direct access to the riverwalk for cyclists, pedestrians and wheelchairs.

Cyclists and pedestrians will enjoy a 300m waterfront promenade with a minimum six meter wide thoroughfare allowing safe transit through the precinct.

Figure 12

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CONCEPT AMENDMENTS

- COMPLYING WITH**
- Austroads Guidelines
 - TMR Guidelines
 - BCC Draft City Reach Waterfront Master Plan

RIVERDECK WITH SHADE STRUCTURE

RIVERDECK WITH SHADE STRUCTURE

LEGEND

<input checked="" type="checkbox"/> DAI	<input type="checkbox"/> Retail	<input type="checkbox"/> Lobby
<input type="checkbox"/> Riverwalk	<input type="checkbox"/> End of Trip Facilities	<input type="checkbox"/> Lift / Stair / Services
<input type="checkbox"/> Site Boundary	<input type="checkbox"/> Carpark	<input type="checkbox"/> Landscape

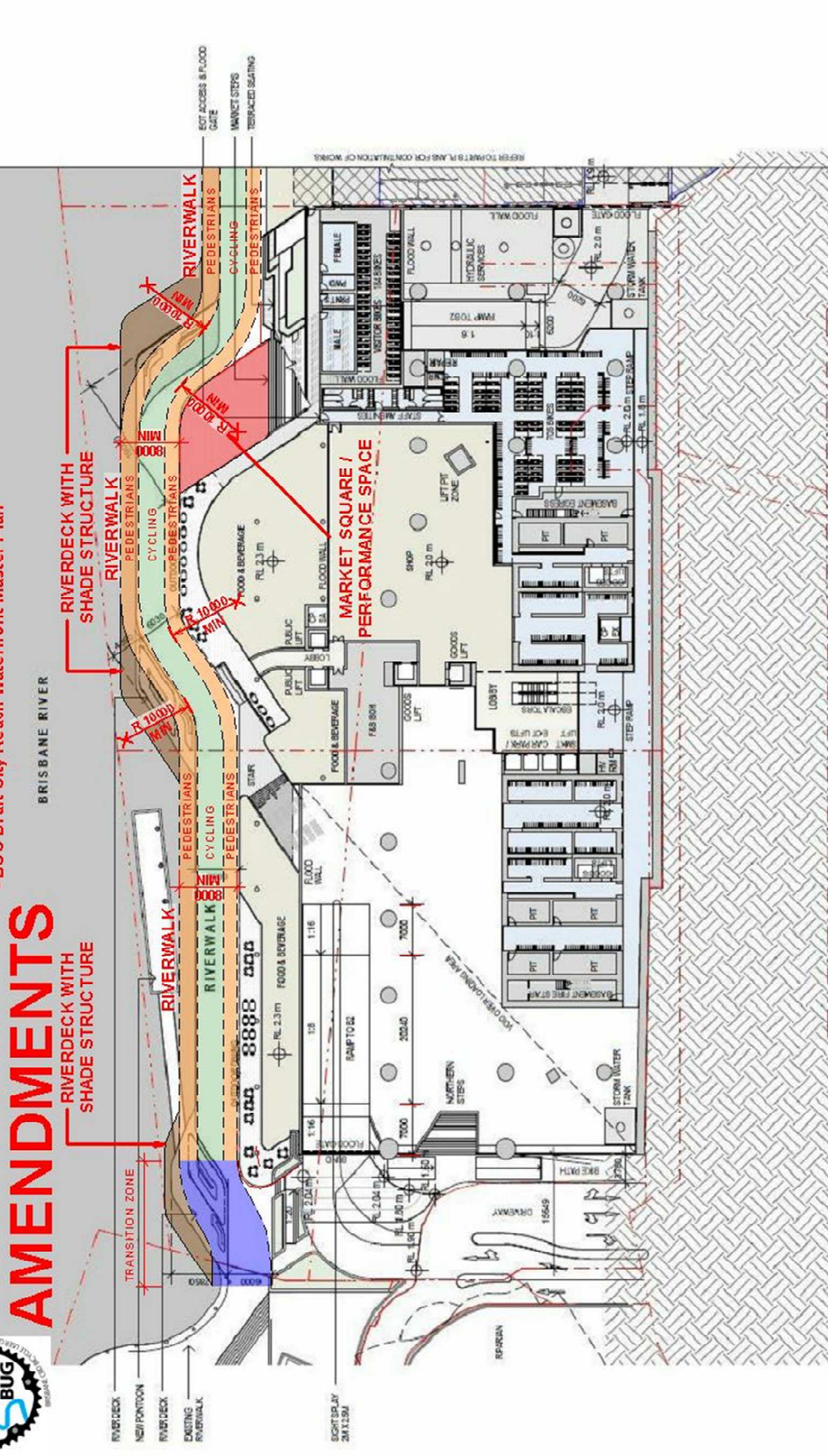


Figure 13 – CBD BUG CONCEPT AMENDMENTS

Basement 1 River Level Floor Plan Zone A

Masterplan & Retail Program: **Frank + Associates**
 Commercial Towers: **Frank**

Deous - Waterfront Brisbane - Development Application 2 (Waterfront Place Retail Works)

Scale: 1:500 @ A3
 Date: 11/06/2020
 Reference: AR.DWG.042.20.B1A (B)



Figure 15 - Vancouver