

2018-05-01

Marc Yeo
Senior Consultant
Thelem Consulting Pty Ltd
Suite 3, Level 2, Plaza Building Australia Square
95 Pitt St
Sydney NSW 2000

Dear Marc

Cockle Bay Park development – Response to RMS Review of Amended Concept Proposal for DA SSD7684

We refer to the letter from Roads and Maritime Services (RMS) – RMS reference SYD16/00625/08 – dated 30 January 2018 which details RMS' response to the amended concept proposal for development application SSD7684. Within this letter, RMS identified items which will require consideration as part of the determination of the development application and resolution in the preparation of any Stage 2 development application. Responses to the following RMS identified items are set out below. The number reference relates to the item number in RMS' letter.

- 1. Construction Traffic Management Plan (CTMP) and Maintenance Traffic Management Plan (MTMP)
- 9. Pier Options
- 14. Constructability
- 16. Works Authorisation Deed
- 17. Wheat Road and Vehicle Access to the development site

1. Construction Traffic Management Plan (CTMP) and Maintenance Traffic Management Plan (MTMP)

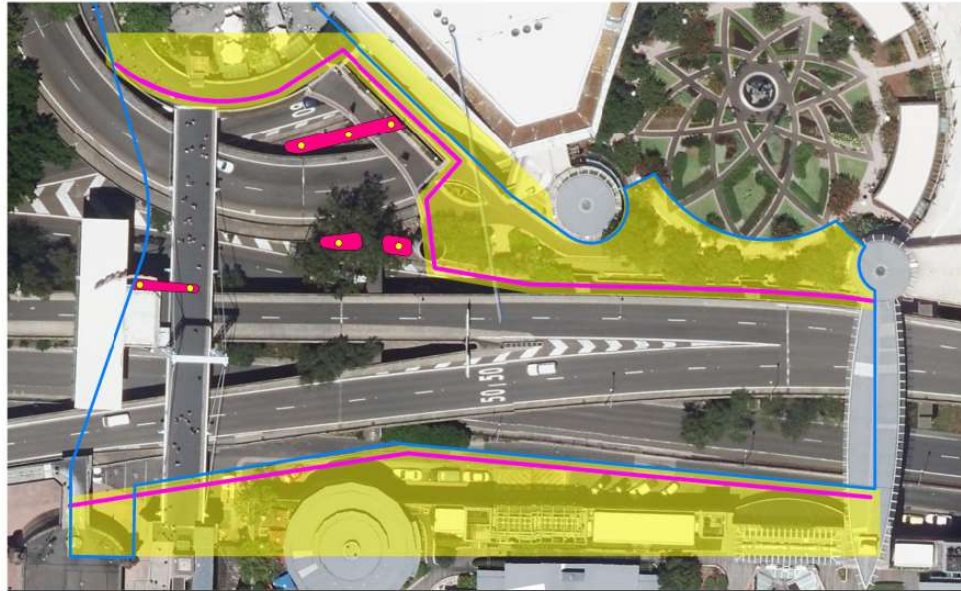
Noting the status of the Western Distributor as critical transport infrastructure, the project team is committed to the progress of the development whilst minimising the impact on the operation of the road network during construction and maintenance activities. The nature of the landbridge arrangement over the Western Distributor and RMS' preference to minimise the number of piers located adjacent to the road corridor width will likely require a limited number of full closure periods at night for the purpose of safe erection of the structure.

These periods, along with any partial closures, will be coordinated and agreed to the satisfaction of Transport for NSW Sydney Coordination Office, Transport Management Centre and RMS.

Initial discussions regarding this planning process have been undertaken with RMS and TfNSW and received in a receptive manner. A CTMP outlining the intended construction procedures will be coordinated with, and submitted to, RMS as part of the Stage 2 DA submission. Similarly, a MTMP will be developed to address the anticipated approach to maintenance activities for the landbridge and associated infrastructure.

9. Pier Options

The design option previously presented to and agreed with RMS (refer to Figures 1 and 2 below) located all piers outside of the road corridor width. This includes piers located within zones G and H.

PROS

- NO PIERS WITHIN ADVISED RMS EXPANSION ZONE
- PROVIDES FUTURE FLEXIBILITY FOR RMS NETWORK
- SIGNIFICANT NUMBER OF PIER WITHIN CBW LAND
- REDUCED NUMBER OF LIFTS & CONSTRUCTION WITHIN WD CORRIDOR
- REDUCED RISK STRIKING IN GROUND SERVICES
- REDUCED TOTAL ROAD CLOSURES

CONS

- DEEPER STRUCTURAL BEAMS (Min. CLEARANCES MAINTAINED)
- LARGER HEAVIER ELEMENTS TO INSTALL
- REDUCED FLEXIBILITY FOR LAND BRIDGE PUBLIC DOMAIN OPTIMIZATION (LOADS / LEVELS)

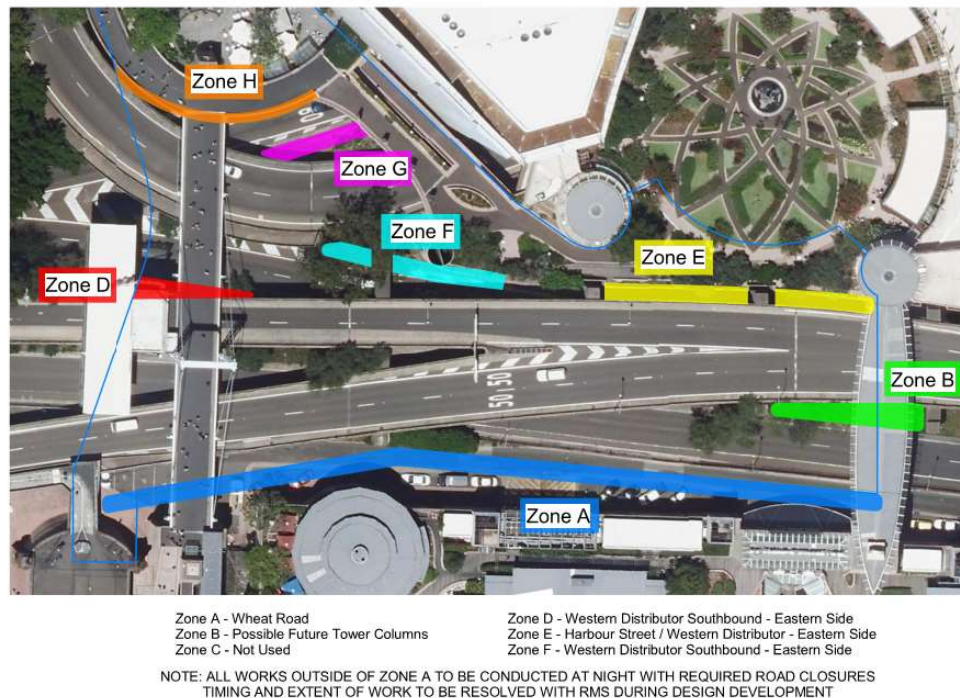
COCKLE BAY WHARF REDEVELOPMENT

Western Distributor Corridor -
No Central Piers Option

SK-07

Figure 1: No central piers option

Indicative Foundation Key Plan



COCKLE BAY WHARF REDEVELOPMENT

1 : 500

SK-09

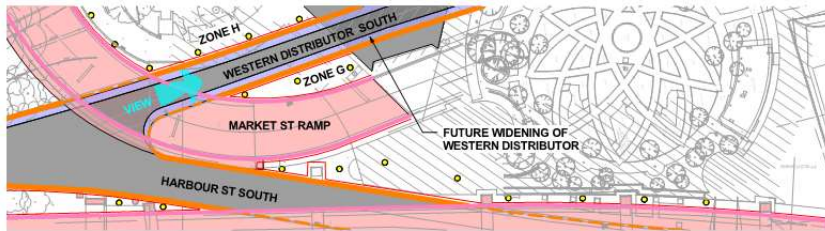
Figure 2: Indicative foundation key plan

As requested by RMS, the pier locations in these regions also cater for a potential future widening of the Western Distributor to 2 lanes as shown in Figure 3 below extracted from Aurecon drawing 253427-002-SK-RD-0002-D which was included within Aurecon's Landbridge Design Principles report (dated 21 September 2017, Rev 2) under 'Appendix D Future RMS Projects and Structural Zones'. The available structural zones (indicated in blue) were coordinated with RMS to accommodate the existing road network as well as potential RMS projects for future road corridors.



Figure 3: Allowance for future widening of Western Distributor between pier foundation zones G and H

Figure 4 below is provided for further clarity of the intent for piers within these regions – noting that this concept allows for the future additional lane described above.



Plan



Within Zones G & H structural support in the form of concrete columns carrying headstocks have been proposed based on available space within the overall Western Distributor corridor. These locations have been developed in consultation with RMS and consider:

- Working widths behind barriers for rollover of high vehicles to road design standards.
- Preservation of current road corridors within existing barriers and kerbs.
- Preservation of current carriageway and barriers of the Western Distributor.
- Preservation of access for maintenance and repair of the Western Distributor.
- Allowance for future widening of Western Distributor

The proposed Land bridge structure will be supported on piled foundations or pad footings that will be placed to not adversely affect the structural integrity of the existing Western Distributor.

(Columns locations shown indicatively. Land bridge deck structure over omitted)

Perspective View

enstruct

Western Distributor - Zones G & H Proposed Structure

SK-2066

Figure 4: Intent of piers within zones G and H

We trust that with the above clarifications, locating piers within zones G and H is conceptually acceptable for the purposes of design development in accordance with the previous coordination and conceptual agreement with RMS.

Consideration has been given to the allowance for vehicle roll at proposed pier locations and it is acknowledged that all existing signage that is impacted by the proposed works will need to be maintained or reinstated. Further, it is anticipated that coordination of ITS requirements associated with the Smart Motorways project will need to occur to confirm the appropriate allowances for minimum clearances.

14. Constructability

We acknowledge the considerations raised by RMS with regards to the construction methodology. Further details in relation to the landbridge and podium construction including plans and cross sections will be developed in consultation with RMS and submitted as part of the Stage 2 DA.

Notwithstanding the proposed condition of consent of a 3m exclusion zone noted in RMS' response to the revised concept, the approach discussed and verbally agreed with RMS in previous coordination was to allow construction to take place within 2m of the Western Distributor provided that it could be demonstrated that RMS are still able to effectively and safely maintain access for any repair and maintenance work that may be required. As such, the intent is for the development of the design to progress based on the proposed general clearance arrangement presented to, and discussed with, RMS during this previous coordination. The arrangement specified general clearance minimums as well as rules for isolated encroachments. The clearance arrangements were included within Aurecon's Landbridge Design Principles report (dated 21 September 2017, Rev 2) under 'Appendix E

Intent of Clearance to Elevated Western Distributor Structure' and have been reproduced below in Figure 5.

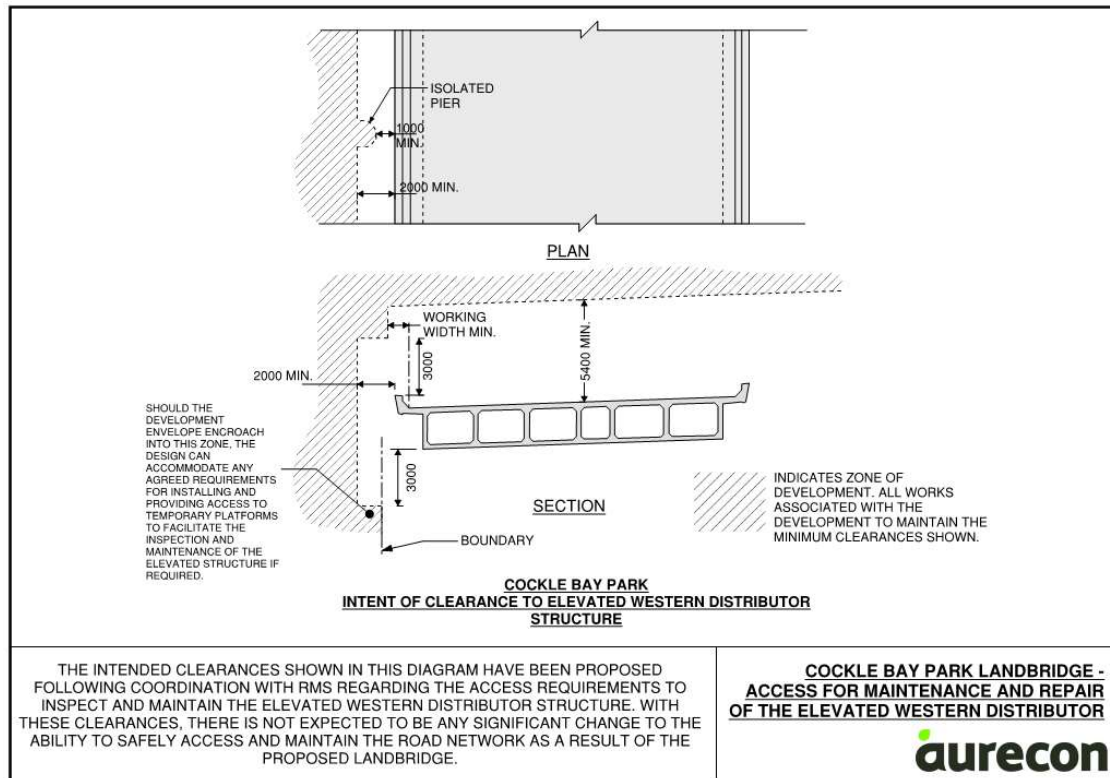


Figure 5: Intent of clearance to elevated Western Distributor structure

The development of the design through the stage 2 DA will enable the project team and RMS to coordinate and agree on the specific clearances to existing RMS infrastructure.

16. Works Authorisation Deed

Within the response to the amended concept proposal, RMS have expressed the view that no construction certificate for any part of the Project should be released until such time that the detailed design plans of the structures over the Western Distributor and construction methodology are submitted to and approved by RMS and the WAD has been entered into to the satisfaction of RMS.

Whilst the applicant acknowledges the WAD process, it is expected that the agreement of the conditions of the WAD would be connected to the construction of those components, predominantly associated with the landbridge, that have an impact on the Western Distributor only. As such, construction of other components of the development, such as elements of the podium and tower, could commence and progress independently of the WAD process.

17. Wheat Road and Vehicle Access to the development site

We acknowledge RMS' concerns regarding the signalised intersection of Harbour Street and Blackwattle Place and the associated right turn out of the development. As such we will discontinue

this design approach and focus on the priority left-turn only exit with Give Way control noting that RMS have declared they would raise no objection to such an approach.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Michael O'Brien'.

Michael O'Brien
Senior Structural Engineer
Aurecon