

Memorandum

ARUP

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Subject **3 Bank St Pyrmont - Review of Traffic Impact Assessments**

Arup has undertaken a review of studies relating to traffic impacts for the proposed relocation of public activities associated with the Sydney Heritage Fleet (SHF) from their existing facility at Rozelle Bay to a site at 3 Bank Street, Pyrmont. This review addresses the findings and recommendations for transport access for the proposal in consideration of anticipated visitation levels and public transport accessibility of the site, in particular addressing the following issues:

- Parking impacts: whether the local road network has sufficient on-street parking availability to cater for additional parked vehicles that would be generated by the proposal;
- Public transport: can the existing public transport network cope with the increase of users during the operating hours of the Sydney Heritage Fleet;
- Public transport: are the diversions in the bus routes suggested in the traffic study for the proposal feasible or even required.

The review assessed the following documents:

- Sydney Heritage Fleet *Traffic Management and Accessibility Plan (Incorporating Traffic and Parking Study)* prepared by McLaren Traffic Engineering dated January 2012;
- Correspondence titled *Traffic Management and Accessibility Plan, Sydney Heritage Fleet Base, Pyrmont* by McLaren Traffic Engineering dated 26 October 2012;
- Environmental Assessment Report for Sydney Heritage Fleet, Bank Street Pyrmont, MP11_00001 prepared by Hamptons Property Services dated November 2012;
- *Bank Street, Pyrmont Master Plan* prepared by Maunsell AECOM consultants dates December 2006, including Appendix B: Traffic and Transport Study

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Subject Site

The subject site is on Bank Street, Pyrmont beneath the Anzac Bridge, and is shown in Figure 1.



Figure 1. Subject site, view from North to South

At the time of Arup's inspection on Tuesday 26 March the site was partially occupied by the Anzac Bridge Maintenance Project site compound, seen in the right of Figure 1. Dragon boats currently stored on the site can also be seen in the figure.

Key Issues

The Environmental Assessment (EA) Report notes at p.48 that “there is no car parking proposed on the site, as part of this proposal for visitor access” and that “limited staff parking and ample bicycle spaces for staff and visitors will be provided within the building's delivery access area”.

The Traffic Management and Accessibility Plan (TMAP) study by McLaren provides the rationale for this that “a restrictive approach to car parking provision is adopted in order to encourage public transport usage”. The TMAP requests that “Council waive the on-site visitor parking requirements” and notes that Sydney Heritage Fleet “will investigate the provision of 1 on-site staff car parking space and 7 bicycle spaces”.

The plans that comprise appendices to the EA report do not show any formal parking spaces provided on the site. It appears that there may be scope for a limited number of vehicles to park

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off-street within the development's service vehicle and delivery lane, however this is not in marked, dedicated parking spaces.

The TMAP suggests that off-street parking for up to 65 vehicles could be provided on the eastern abutment of the old Glebe Island swing bridge. The EA report describes that discussions with RMS are occurring concerning bridge abutment parking, however notes at p.49 that "For the purposes of this application the potential use of this area to provide for car parking cannot be relied upon".

It should be noted that the site is currently utilised by a dragon boat club. Maunsell AECOM's work of 2006 reports that the provision of 40 parking spaces is likely to be sufficient for their uses of the site, allowing for four dragon boats, with 20 rowers to a boat, and assuming 50% drive and 50% use public transport or walk/cycle. The eastern part of the proposed SHF facility provides for the storage of dragon boats, and the intended use of this space will be the subject of a separate application to the consent authority for the use of and associated fitout works to this area. This review is therefore concerned with the Sydney Heritage Fleet uses of the subject site only and does not consider the uses or the parking requirements for the existing dragon boat users of the site.

The TMAP also suggests several possible alterations to existing bus routes and services currently operating in Pyrmont that could provide direct bus access to the proposal site. The TMAP notes however that the "various options of bus transport initiatives have yet to be discussed with the NSW Department of Transport".

These issues are addressed below.

Car Parking

The development proposal does not include the provision of off-street parking. As discussed in the EA report, this was contemplated however it was judged that parking would not be provided as a result of:

- the limited physical size of the site;
- the cost and likely environmental impediments to the provision of basement car parking; and,
- the location of the bridge pylon and potential interference with vehicular access arrangements to this.

The TMAP by McLaren reports that observations of existing on-street parking utilisation on Bank Street outside the site on a Saturday morning from 7:00-8:00am (which is possibly before the peak demand time for the museum, although perhaps coinciding with dragon boat use) showed 90% occupancy with 38 of the 43 available parking spaces being occupied, ie five spaces remaining available.

Arup made inspections of parking on Bank Street on a Tuesday afternoon and observed a similar outcome, with the on-street parking on Bank Street being heavily utilised, as shown in Figure 2 and Figure 3.

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Figure 2. On-street parking utilisation on Bank Street adjacent subject site



Figure 3. On-street parking utilisation on Bank Street adjacent subject site

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McLaren makes an assessment of the requirement for off-street parking provision based on expected visitation and public transport mode share for the development, resulting in an estimated requirement for parking generation of seven (7) vehicles. McLaren also makes an alternative assessment based on the provision of “1 space per 232.2 m² that Sydney City Council has previously applied to similar uses”. This alternative assessment results in an estimated requirement for parking generation of five (5) vehicles.

On the basis of five spaces being observed to be available on Bank Street on Saturday morning ostensibly coinciding with the museum peak, the EA report concludes that the proposed shortfall of on-site car parking spaces is not anticipated to have an unreasonable or adverse impact upon the surrounding road network and the McLaren report concludes that the proposal is suitable in this respect, despite the lack of on-site provision.

The following points arise from this assessment:

- Arup is not familiar with uses for which Sydney City Council has previously applied a parking provision rate of one space per 232.2 m². McLaren does not provide details of any use or site for which this rate has previously been applied, nor a comparison of the estimated staff and visitor numbers and times for the proposed facility to those that already occur at the existing SHF facility at Rozelle. It is recommended that the Department seeks further clarification from the proponent to list those specific developments for which McLaren identifies that this rate has been previously applied and justification as to the relevance of this rate for application to the SHF.
- The TMAP and the EA report do not address parking for disabled users. Parking will be required for these users, and with no off-street parking to be provided, and no dedicated disabled spaces currently provided on Bank Street, it is not clear how these users will access the development. It is recommended that the Department seeks further clarification from the proponent as to the amount of and/or arrangements for parking for disabled users and visitors.
- Of some relevance is that the existing SHF facility at Rozelle Bay also has a high level of public transport accessibility, being close to both the Pyrmont Bay light rail stop and Pyrmont Bay ferry wharf. The EA report points out on p.48 that “Volunteers and staff currently based at Wharf 7 at Pyrmont are well used to using public transport to access the site”. The report also notes that on p.23 that “The maximum number of volunteers ever likely to be crewing vessels on a single day might total 30-40 volunteers. The majority of these volunteers will travel to and from the site by public transport.” Arup would expect that an assessment would have been made of the travel patterns of staff and volunteers of the existing Wharf 7 facility at Rozelle in order to substantiate what are otherwise vague claims that all staff and volunteers will use public transport to access the Bank Street site. It is recommended that the Department seeks clarification from the proponent as to the current travel patterns and mode share of staff and volunteers at the existing Rozelle facility to further demonstrate that parking generation for the proposed development will not impact on the limited existing availability on Bank Street.

Old Glebe Island Bridge Eastern Abutment

At the time of writing the eastern abutment of the Old Glebe Island swing bridge was being utilised as a car park for the Anzac Bridge Maintenance Project, as shown in Figure 4.

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Figure 4. Parking on Old Glebe Island Bridge eastern abutment for Anzac Bridge maintenance project

The abutment is already set out as a formal car park. As noted in the EA report however, no commitment has been made by RMS that this area will be turned over at some time in the future either as a dedicated car park for the SHF development or as a public parking area.

Public Transport

The McLaren TMAP identifies a number of options for modification of bus services “to be discussed with the NSW Department of Transport” as follows:

- Divert existing bus 443 route via Sydney Heritage Fleet site;
- Divert existing bus 448 route via Sydney Heritage Fleet site;
- Divert existing bus 501 route via Sydney Heritage Fleet site;
- Create new bus route to serve Sydney Heritage Fleet site.

The TMAP provides indicative route diversions for these services that direct buses to stops adjacent the subject site.

There is no assessment in the TMAP of:

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- the travel patterns of existing users of these services;
- the existing patronage at stops that would no longer be served as a result of route diversions;
- additional running times for exiting passengers resulting from the diversions and likely resulting patronage impacts;
- times when the diversions would/should be in operation; or,
- impacts of additional bus operations on critical intersections, particularly the Bank Street / Miller Street intersection.

These suggested diversions are highly preliminary and are without necessary supporting analysis. In view of this and that these have not been discussed with Transport for NSW (TfNSW) we would think that no reliance be given that these service changes will occur for the purposes of the development application.

Despite placing a high reliance on public transport for the provision of access to the proposed development, the McLaren TMAP provides no evidence of the ability of the existing public transport system to cater for travel generated by the development.

Although it may be assumed that at least some of the users of the existing SHF facility at Rozelle arrive there by light rail and would continue to access the subject site at Bank Street via light rail, no assessment has been provided of the capacity of the light rail or the bus system to serve the development at the subject site. Arup is thus not able to comment on the capacity of the public transport system to provide access for the proposed development. It is recommended that the Department seeks clarification from the proponent on the capacity of existing public transport services and the ability of existing services to provide access for the proposed development.

Traffic Operations

Maunsell AECOM assessed that the critical Bank Street / Miller Street / Fish Market access intersection was operating at Level of Service F (ie above capacity and unacceptable delays) in the morning peak hour in 2006. This intersection will provide access to the SHF site on Bank Street.

Maunsell AECOM (p.18 of Appendix B to the Bank Street Master Plan study) go on to note that “The development of the NSW Maritime site is not expected to significantly impact the operation of the intersections as the peak hour flow of 20 vehicles is expected to occur largely outside of the typical weekday peak hour traffic, though it may coincide with the weekend peak fish market traffic”.

The McLaren TMAP provides no assessment of the operation of critical intersections, particularly the Bank Street / Miller Street intersection. Arup is thus not able to review the adequacy of this intersection’s capacity to cater for traffic volumes generated by the development at peak operational times. However in the event that parking demands for the development can be substantiated to be no more than some five vehicles, impacts on the operation of this intersection will not be significant.

Service Vehicle Access

The McLaren TMAP includes an assessment of access into the site by service and delivery vehicles, showing service vehicle swept paths for an 8.8m medium rigid vehicle (MRV).

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Arup notes the following issues with the swept path diagrams provided in Annexure F of the McLaren TMAP report:

- Paths were completed for a vehicle speed of 3km/h which is slower than the 10km/h for circulation and 5km/h for manoeuvring that is outlined in AS2890.1 Appendix B;
- The 300mm circulation clearance is encroached in four locations on entry as shown in Figure 5;
- The path assumes vehicles approach from the north on Bank Street turning right into the development. Details are not provided for an approach with a left turn from the south on Bank Street, nor is it identified that this movement will be prohibited;
- No detail is provided on what appear to be speed humps on entry and exit to the servicing area and whether these are capable of being manoeuvred by MRV's;
- The exit path crosses onto the wrong side of the road on exit;
- There does not seem to be a designated loading bay.

We also note that if the truck parks in the narrow portion of the servicing area (the area marked for deliveries on SK41-A), then another vehicle cannot pass.

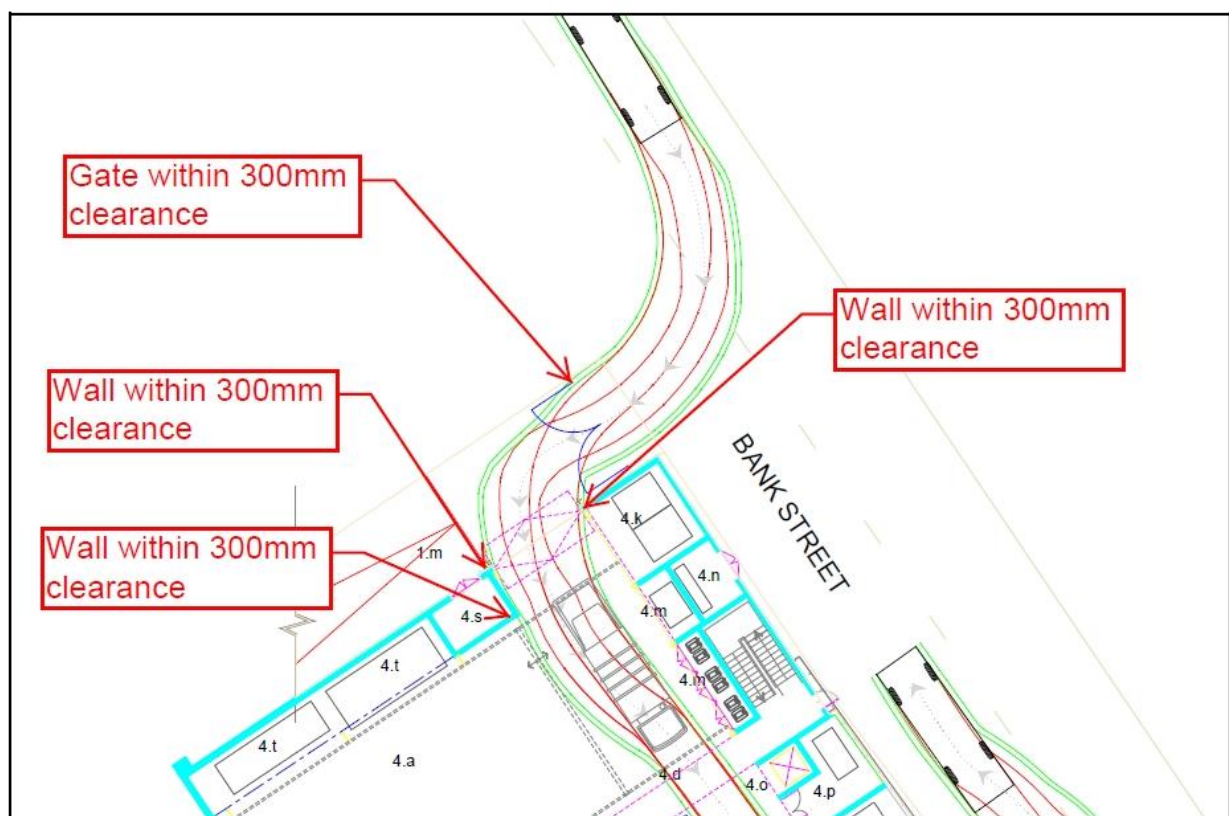


Figure 5. McLaren vehicle swept path analysis – entry to site

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Conclusion

In summary, on the basis of our review of available traffic-related documentation and analysis for the proposed relocation of the public activities associated with the Sydney Heritage Fleet to a site at 3 Bank Street Pyrmont, the traffic analysis does not support that the development can be accommodated by the existing transport system.

Arup recommends the following:

- Insufficient justification is provided in the TMAP by McLaren Traffic Engineering to support the waiving of any provision of on-site parking for staff, volunteers and visitors. To substantiate this it is recommended that the Department seeks further clarification from the proponent on the following:
 - List those developments for which McLaren identifies that a parking provision rate of one space per 232.2m² has been previously applied by City of Sydney and justify the relevance of this rate for application to the SHF in assessing parking requirements.
 - Provide comparisons of user (staff, volunteer + visitor) numbers estimated for the proposed facility to those that already occur at the Wharf 7 facility in Rozelle.
 - The TMAP and the EA report do not address parking for disabled users. The proponent should clarify the proposed amount of and/or arrangements for parking for disabled users and visitors.
 - Arup suggests that an assessment of the travel patterns of staff and volunteers of the existing Wharf 7 facility at Rozelle would assist in substantiating otherwise vague claims that staff and volunteers will use public transport to access the Bank Street site and will not impact on local parking.
- Although the eastern abutment of the Old Glebe Island Bridge is currently utilised for parking by the Anzac Bridge Maintenance Project, it could not be relied upon that RMS will turn this area over either as a dedicated car park for the SHF development or as a public parking area at some time in the future, and this should not be considered for the purposes of the development application.
- Bus route diversions suggested in the McLaren TMAP are highly preliminary and are without necessary supporting analysis on the impact on existing users and patronage. In view of this and that these have not been discussed with Transport for NSW, we would think that no reliance be given that these service changes will occur for the purposes of the development application.
- Despite placing a high reliance on public transport for the provision of access to the proposed development, the McLaren TMAP provides no evidence of the ability of the existing public transport system to cater for travel generated by the development. It is recommended that the Department seeks clarification from the proponent on the capacity of existing public transport services and the ability of existing services to provide access for the proposed development.
- The McLaren TMAP provides no assessment of the operation of critical intersections, particularly the critical Bank Street / Miller Street intersection. However in the event that parking demands for the development can be substantiated to be no more than some five vehicles, impacts on the operation of this intersection will not be significant.
- The swept path analysis for medium rigid service vehicles provided in the McLaren TMAP is not consistent with the requirements of AS2890.1 Appendix B and indicates several deficiencies. The TMAP does not demonstrate that service vehicles can adequately access the development.