

SUBMISSION ON STATE SIGNIFICANT DEVELOPMENT POWERHOUSE PARRAMATTA



1. DECISION TO RETAIN EXISTING POWERHOUSE MUSEUM IN ULTIMO

The NSW Government is to be congratulated in its decision to retain the Powerhouse Museum on its current site in Ultimo and to proceed at the same time with the construction of a new facility in Parramatta. The logical conclusion of this decision is that the unique historical collection of transport items would be retained in their current location in the old turbine halls of the old Pyrmont Power Station. It is of concern that at the time of this discussion on the 5th of July, the Sydney Morning Herald reported that the Ultimo site would be a “Fashion and Design Precinct”.

Since the opening of the museum in 1988, recent developments have made the site even more accessible. Construction of the “Goodline” walkway to Railway Square, the opening of the Exhibition Centre light rail station and the increased permeability of the redevelopment of Darling Harbour have all improved access to the site. With the completion of the Sydney Metro interchange at Central Railway, the Ultimo site will be in easy reach by public transport for the whole of Sydney’s metropolitan area.

In the thirty-two years since the opening of the museum some poor management decisions have reduced the visual appeal of the presentation of the institution while over this time public expectations have risen. A dynamic city like Sydney offers many competing attractions. Therefore, it is appropriate that the museum should be the beneficiary of substantial upgrading and refurbishment. However, the cost of this would be far less than relocating the museums historical transport collections, especially taking into account the massive reduction in the cost of the Parramatta building if it no longer needs to accommodate them.

The recent international design competition for the new building in Parramatta has led to an exciting and distinctive design by the architects Moreau Kusunoki + Genton. This firm achieved international acclaim for that prize-winning design for the Helsinki Guggenheim project, which is not proceeding for political reasons. Sydney now has the opportunity to acquire a comparable landmark at its geographical centre.

The robust and highly flexible design concept can easily be adapted to serve a wide variety of displays or events as may be identified in a revised brief.



Helsinki Guggenheim project

2. REVISED BRIEF

With the Ultimo site being retained it is timely that a revised brief be produced for the Parramatta site. The new structure could relate to that of the “Smithsonian” in Washington DC where a wide diversity of institutions are integrated within an umbrella organisation.

The current scheme and stated aspirations bear a strong similarity to “The Shed” at Hudson Yards in New York. This heavily subsidised project has a range of “presentation spaces”, which in its first year of operations has hosted a number of exhibitions, theatrical and musical events by high profile international artists. As each event is set up from scratch, the costs of these events must be extremely high. Recurrent operating costs are not available but the facility receives considerable support from billionaire ex-mayor of New York, Michael Bloomberg.

While “The Shed” may be an exciting model, it is doubtful if this operation can be successfully replicated in Sydney in total, although a smaller number of “presentation spaces” may be feasible. It would make sense to incorporate a number of other more permanent displays and facilities. These could include:

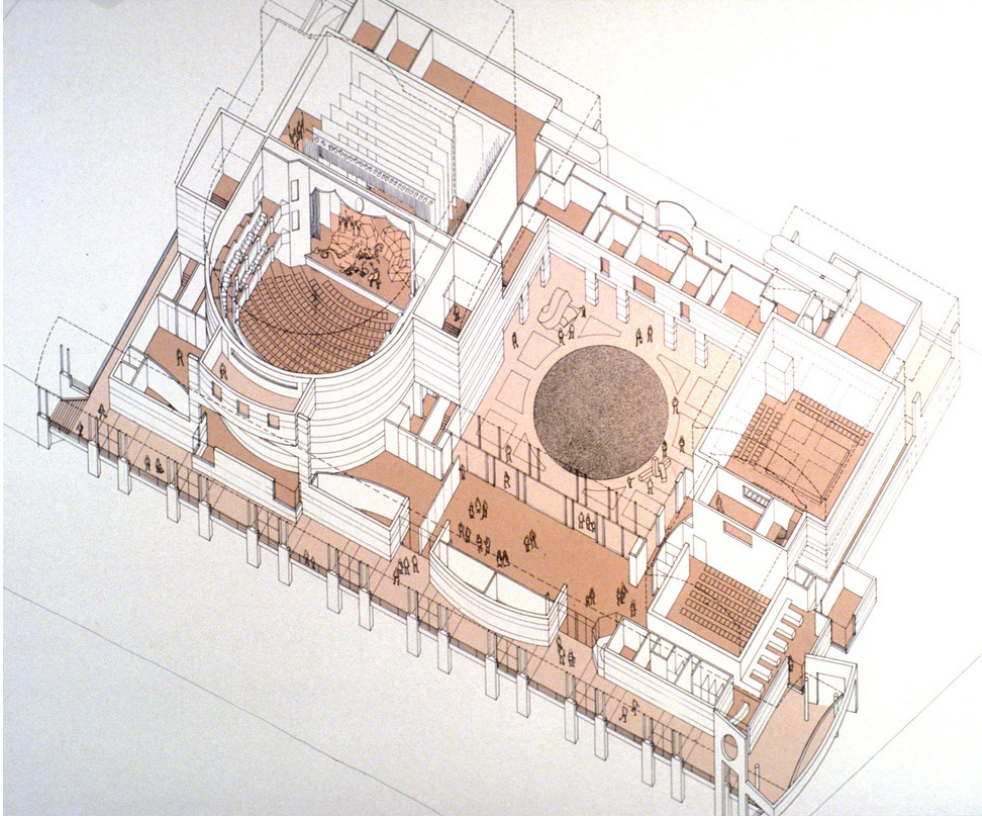
- A SCIENCE CENTRE, comparable to “QUESTACON” in Canberra, which provides a large range of interactive educational exhibits and has no counterpart in Sydney.
- A MUSEUM OF SOCIAL HISTORY focusing on the evolution and ethnic diversity of Western Sydney.
- A SERIES OF RECURRENT DISPLAYS of material from the Powerhouse Collection and other State Cultural institutions.
- DISPLAY OF BORROWED INTERNATIONAL EXHIBITIONS such as the “Tutankhamen” exhibition, which was proposed for the Australian Museum.
- SPECIALLY CURATED exhibitions and events as proposed in the current brief. Part of the building could function as a “Kunsthalle”, a place for temporary art exhibitions on the German and Swiss model.



The publicity image from New York's "The Shed" bears a remarkable similarity to this view of the Powerhouse, viewed across the river showing what appears to be a pop concert. One questions the acoustic impact of such gatherings on a site surrounded by hundreds of residential apartments.

3. AN INTEGRATED PRECINCT FOR THE PERFORMING ARTS

Numerous studies have promoted the idea of an integrated arts precinct along the banks of the Parramatta River. In the past it has been announced that \$100m has been allocated for upgrading the Riverside Theatres complex, which I designed in the mid 1980s as a project for the Bicentennial of European Settlement.



The Riverside Theatres were completed in 1988 and have achieved a high degree of utilisation. It is understood that \$100m has been allocated to upgrade and expand this complex. The extent to which the Powerhouse should provide for the performing arts should be coordinated with the upgrading of the Riverside Theatres.



In recent years there has also been debate about the historic Roxy Cinema being utilised for performing arts purposes. This building is on the “Civic Axis” to the centre of Parramatta.

Given the paucity of funding available for the performing arts, it would seem appropriate to co-ordinate the most cost-effective investment in such facilities between these sites.

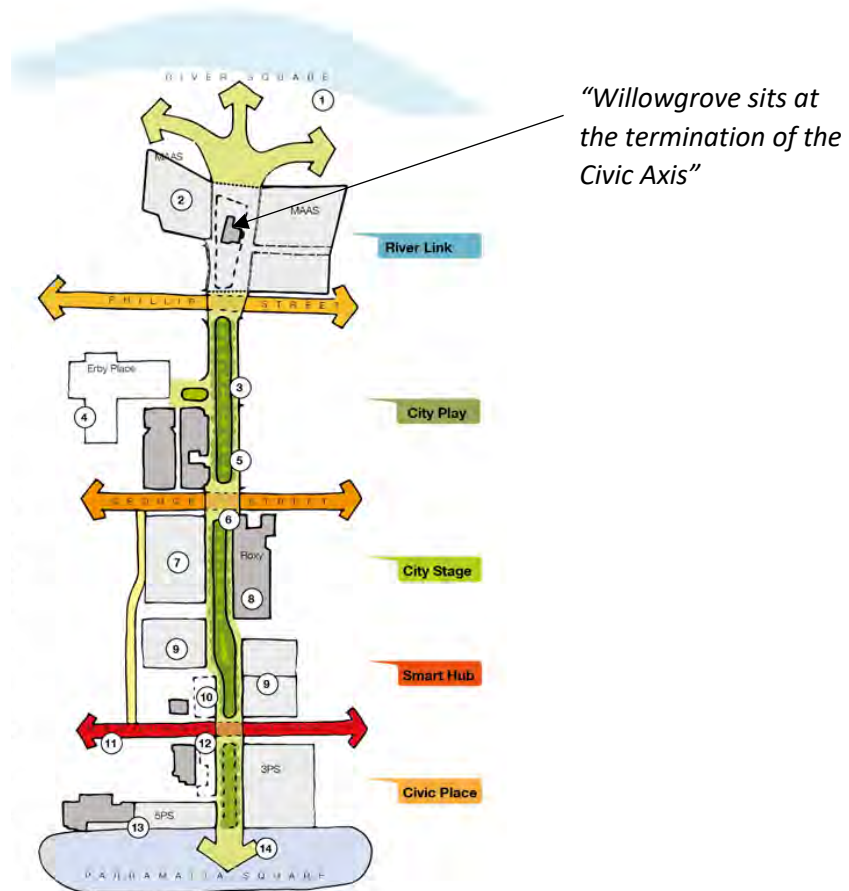


Disused Roxy cinema located on future Civic Axis

4. HERITAGE ISSUES AND CIVIC AXIS

Much commentary has been made upon demolition of heritage items “Willowgrove” and “St. Georges Terrace” necessitated by the current proposal. These items are deemed to be of “local significance”.

The loss of heritage items is always regrettable however these items should not preclude the creation of a museum of “national significance”. These buildings have been “institutionalised” for years, are not known to have intact interiors and are no longer in a meaningful context from the point of view of urban design, being totally surrounded by high-rise buildings.



“Willowgrove” sits at the termination of important “Civic Axis”, which promises to be the heart of the major city centre of Parramatta. It would be an inappropriate termination of this axis which is best served as the principal entry point for the museum.

The retention of St. Georges Terrace precludes one of the most important design aspects of the scheme, the magnificent “Presentation Space I” being visible from Phillip St. Considerations should be given to the reconstruction of “Willowgrove” on a site of appropriate urban design context.



If St. Georges is retained, a key feature of the competition design, the view of the magnificent 'Presentation Space 1' is precluded. The terraces have been heavily altered and there are tens of thousands of similar terraces in Sydney.

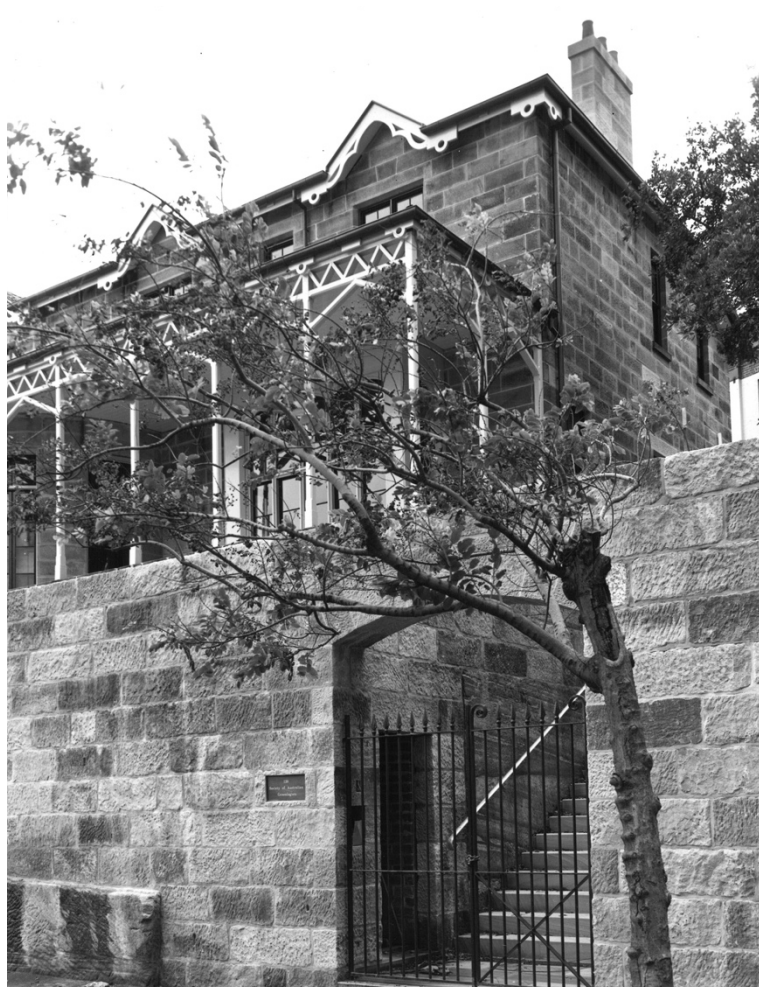
It is interesting to note that when I was working on the development plan for the reconstruction of the NSW Parliament House in 1973, the future of Richmond Villa, located in the carpark at the rear of the building was an important consideration as its retention precluded the best design outcome for the site.

These discussions took place before NSW had heritage legislation but the building was classified by the National Trust of NSW. Designed by Colonial Architect, Mortimer Lewis, the building was of obvious cultural significance. In the event the building was dismantled and re-erected on a site in Kent St. Sydney as the headquarters for the society Genealogists where it makes a significant contribution to the heritage streetscape.

While the costs of this were considerable they are a minor in the overall context of a project of the scale of the Powerhouse.



Richmond Villa at the rear of NSW Parliament House



Richmond Villa relocated to Kent St. in Sydney



Montage of “Willowvale” on to entrance to Powerhouse complex. The scale of the mansion is totally dwarfed by the new context of high-rise buildings.



5. SCALE AND APPEARANCE

The proposed design presents a distinctive image with its trussed “exoskeleton” and massive floor to floor heights. The layered façade makes a significant contribution to the appeal of the building.

It is believed that the floor to floor heights of the building are excessive and can be reduced without any detriment to their functionality or appearance.

Of the seven “Presentation Spaces” five have a floor to floor height of 13.7-14.1 metres, leaving some 11 metres to the underside of the trusses. It is interesting to note that the exhibition spaces in Sydney Modern and “The Shed” in New York are six metres in height. The largest space in GOMA in Brisbane is some eight metres in height.

It is strongly advised at least three of these spaces could be reduced to six metres of clear ceiling height, considered an optimum height for the vast majority of exhibitions.

“Presentation Space I” as proposed is 24.7 metres floor to floor height or some 22 metres to the underside of the trusses. It is interesting to note that the lofty auditorium of the “City Recital Hall, Angel Place” would fit easily within this space. While this may have been appropriate to display the historical transportation exhibits (as shown in the competition drawings) with the retention of the Ultimo site, this should no longer be the case. Reducing the ceiling height by a third to, say, 15 metres would still make this Australia’s most monumental display space.

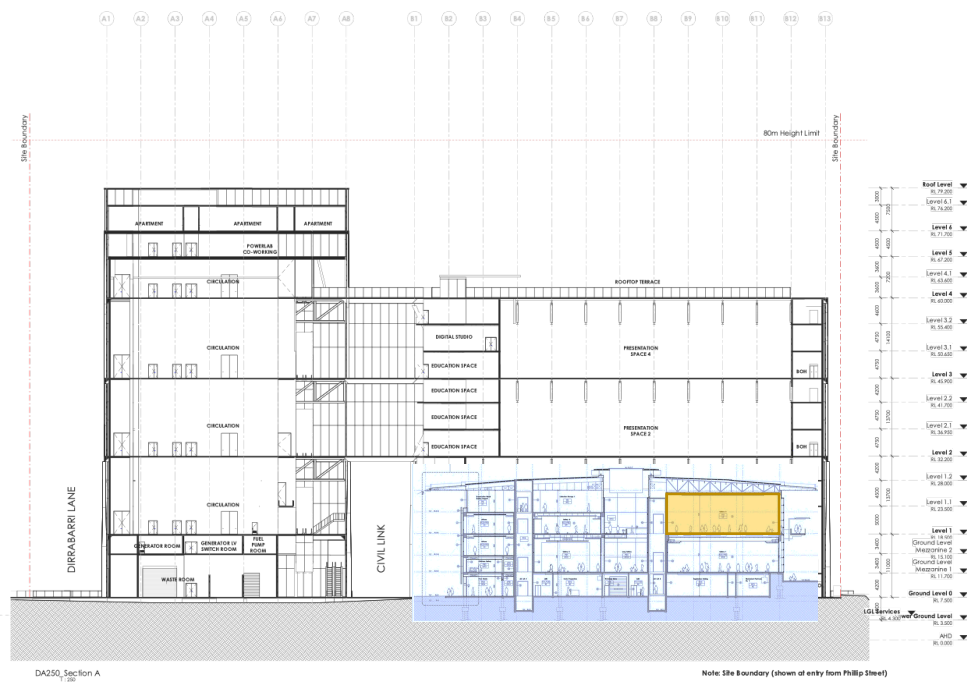
It should be noted that the attendant costs of mounting exhibitions in extremely tall spaces for such items as sub-division partitions & mounting of displays and lighting are significantly increased. The floor spans of almost 48 metres is part of the mantra of “maximum flexibility”. As with the ceiling heights, it is difficult to see why such large spans, which come at considerable cost are necessary.

For comparison, the largest of the display spaces at GOMA in Brisbane has a span of 20 metres. In Sydney Modern only space has a span of thirty metres, the rest have internal columns reducing the spans to 10 metres. Even at “The Shed” in New York, the galleries have spans of 28 metres.

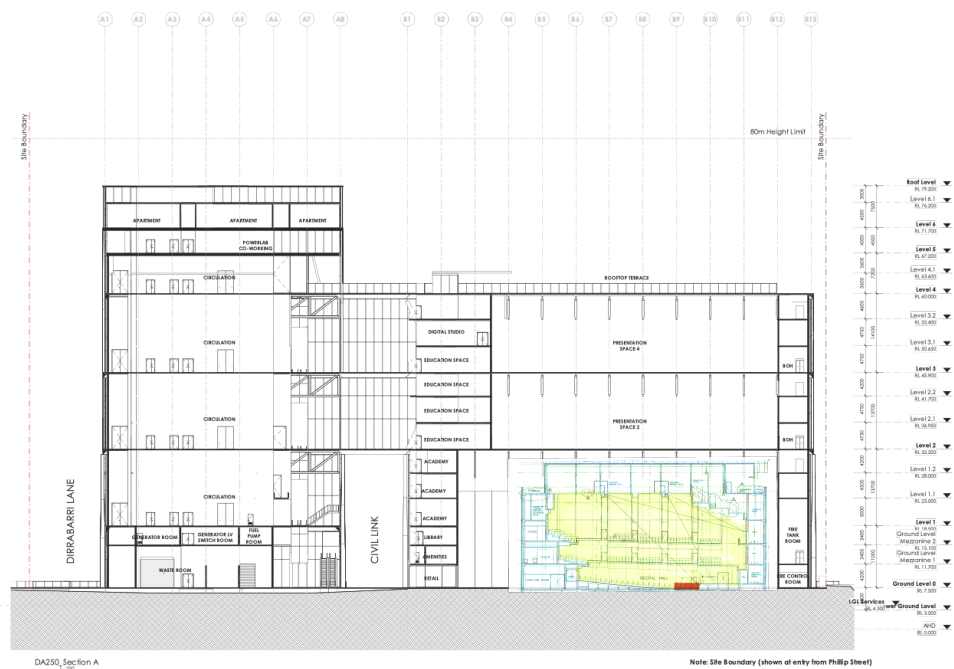
In the vast majority of exhibitions, there are subdivisions and display screens, which are easily compatible with a small number of internal columns. In the proposed design, the western pod has an escalator hall along its east side, effectively reducing the span necessary for the trusses by 20% (“The Shed” has a row of columns between the escalator hall and the galleries reducing the span by a similar amount).

Reducing the size of the spans has a significant impact upon the depth of floor beams or trusses necessary and can lead to considerable reductions in floor to floor height.

It is recommended that 48 metre span is kept in three of the “Presentation Spaces” and that the span in the others could be halved with no real reduction in the usefulness of the display spaces. Such reductions in ceiling heights and floor spans could lead to a 30% reduction in the volume of the building with a commensurate saving in the capital cost and significant savings in operational costs.



Brisbane's GOMA building fits within "Presentation Space I". It's largest gallery is 8 metres high and is dwarfed by six of the proposed "Presentation Spaces"



Sydney's City Recital Hall fits within "Presentation Space I"



Although the spaces in “The Shed” are column free they usually have partitions for display purposes

6. ARRIVAL AND WIND EFFECTS

The arrival to the principal entrance is marked by a portal, 25 metres high spanning between the two blocks of the building. This will prove an effective termination at the northern end of the civic axis.

Unfortunately, the geometry and orientation of this “portal” will almost certainly lead to severe wind effects in the Sydney climate, especially in winter with strong prevailing southerly winds. This would be particularly unfortunate as the brief rightly stresses the importance of a benign micro-climate at the entrance to the museum.

It is strongly advocated that wind tunnel testing be carried out to test the anticipated comfort conditions in this key location and to investigate design options for ameliorating this situation. Consideration should be given to retaining the existing trees in this location.



Wind tunnel tests should be carried out to check the microclimate of this all-important arrival space.



7. SERVICING OF BUILDING

Fundamental to the efficient operation of a flexible 'multi-functional' complex, as is anticipated in the design, is its service infrastructure. Loading docks, goods lifts, packing and unpacking areas, crate and equipment stores, furniture stores, services for food and beverages as well as seating rostra and props are just some of the many items to service the "Presentation Spaces" without the need for temporary facilities, which clutter and debase the aesthetic qualities of the museum and its public areas, as is so often the case for, say, events at the Sydney Opera House forecourt.

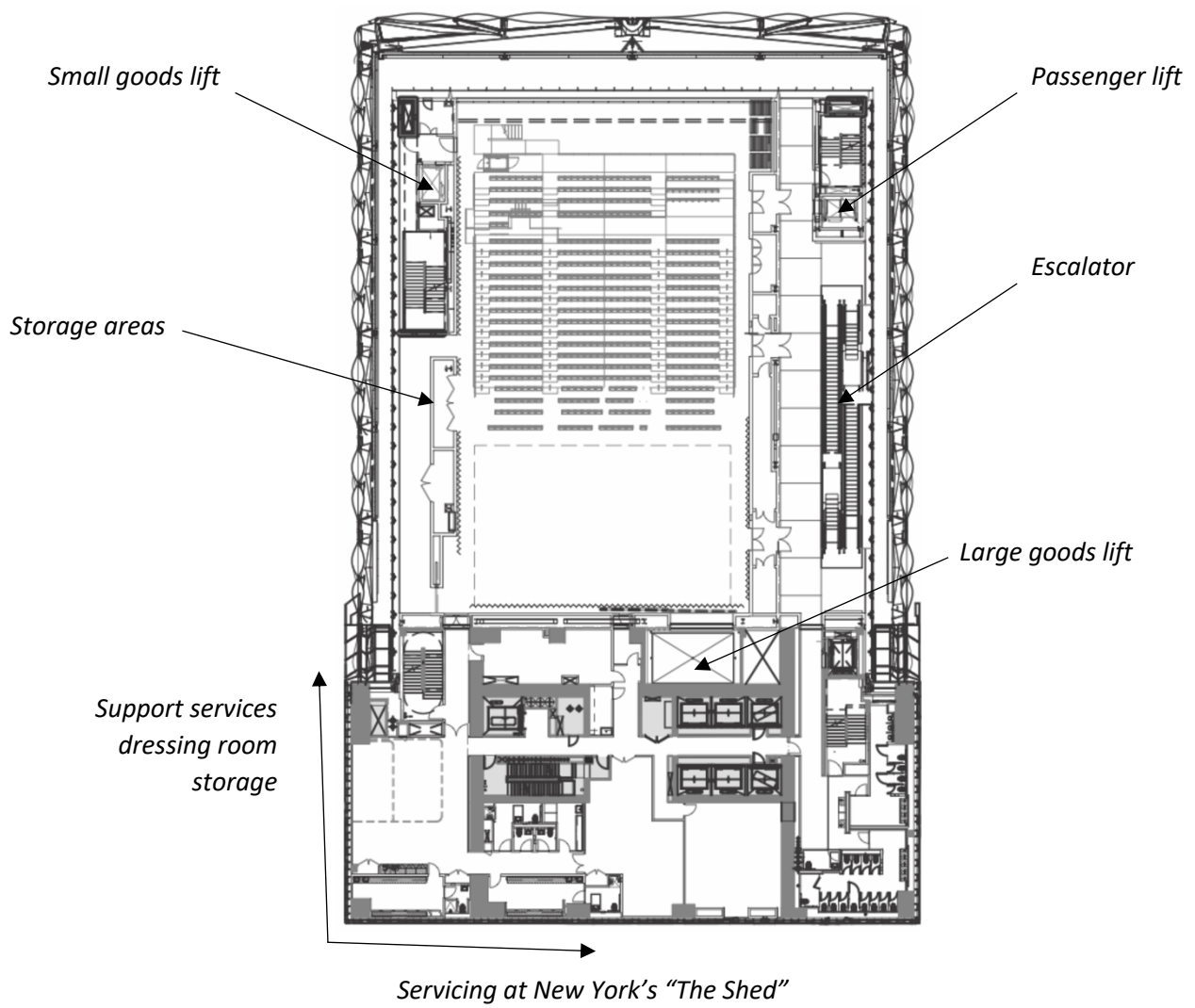
The proposed scheme has an absolute paucity of facilities for these purposes.

The biggest deficiency is the provision of only one large goods lift, in the west wing of the building, which would require passage through the public circulation areas to move exhibits to the east wing. The east wing has only one small goods lift. An entrance door to Wild Ave, without a loading dock and lay by space is of limited value.

A far better solution would be to incorporate a large goods lift in the east wing, connected by a subterranean service passage to the loading dock and goods lift in the west wing. This new service passage could also accommodate such items as packing and unpacking, crate and chair stores and other items essential to the servicing of exhibitions.

Although this service level would be below the 100 year flood level, the technology and design precedents exist to guarantee the "floodproofness" of such a space. This would allow for the efficient "bumping in and out" of displays in all parts of the building. In any case, no museum objects would need to be stored in this space. This would be far more efficient and cost effective than through the use of upper level access gates to "Presentation Areas", requiring street closures and mobile cranes as currently proposed.

The clear separation of public and exhibit movement systems is an aspect of the brief that is not fully realised in the design.



8. PRESENTATION SPACE I

This massive space close to the Phillip St. alignment promises to be the most prominent aspect of the proposed design. It is clearly emblematic of the desired permeability of the site and makes a monumental gesture of invitation. However, it is not the entrance to the building.

A monumental series of 11-metre-high doors connect this space to Phillip St., while a massive 18-metre-high glazed operable wall connects this space with the riverside terrace. What appears to be a bus shelter sits between the kerb and half of the monumental doors to Phillip St. On the north face, the 18-metre-high, 60-metre-long operable wall frames a mediocre apartment building across the river. Because of the terrace to the north of the space and the seven modest dimensions and seven metre drop, the water body itself will be invisible from inside the hall.

These operable elements are handsome, even grandiloquent gestures, but completely over-blown relative to the banality of the views north across the river and south across the street to an ordinary office building at 61 Phillip St.

While it is easy to see how this permeable space may operate as a partly enclosed public plaza, it is difficult to see how it would operate as part of the museum as it is not served by cloaking, security, information and the like. Concerns with such contemporary considerations such as terrorist ram raids are a further issue.

Earlier drawings showed the Powerhouse historic transportation items housed in this space. The exhibited drawings show what appears to be a public plaza, with the operable wall two-thirds open in the “birds-eye-view”. A night-time view shows the operable, fully-retracted with what appears to be a brightly lit event viewed by a large crowd on the narrow north bank of the river.

Quite apart from the security aspects, “Presentation Space I” lacks any services infrastructure. There is no servery for refreshments or food services, there are no cloakroom or toilet facilities for the public, nor dressing rooms for performers. What facilities there are need to be accessed through the retail area in the west wing beyond the “concierge” area or on upper levels of the building.

Despite the stated aspirations of the brief, the external spaces and their topography are too constrained for large public events of 10,000 people as stated in the brief.

In any case, the site is surrounded by a large number of recently constructed apartment buildings and it is difficult to see how mass entertainments at night would be acoustically compatible with the residential amenity of the surrounding precinct.

One solution would be to reduce the scale of the openings and integrate this space with the concierge services in the west wing to enable “Presentation Space I” to function as part of the museum although this would be at the expense of the apparent permeability of the north/south link between the Civic axis and the river.



The 75 metre wide and 15 metre high operable wall comes at an enormous cost. It frames the view of a mediocre apartment building across the river.



9. CHARACTER OF DISPLAY SPACES

The drawings show all the Presentation Spaces dominated by massive exposed trusses and services as the ceiling plane. The large-scale and industrial character of this effects a sense of aesthetic continuity between the building's exteriors and interiors. However, this is unlikely to be a satisfactory backdrop for the vast majority of exhibits.

The interiors of GOMA in Brisbane and Sydney Modern show minimal ceiling planes. In "The Shed" in New York the gallery ceilings are of battens gently masking the massive castellated beams above and allowing for a multiplicity of lighting points. The drawings indicate that the air handling machinery for the Presentation Spaces would be contained in part of the exposed ceiling truss area. It remains to be seen if this can be satisfactorily resolved in aesthetic terms.

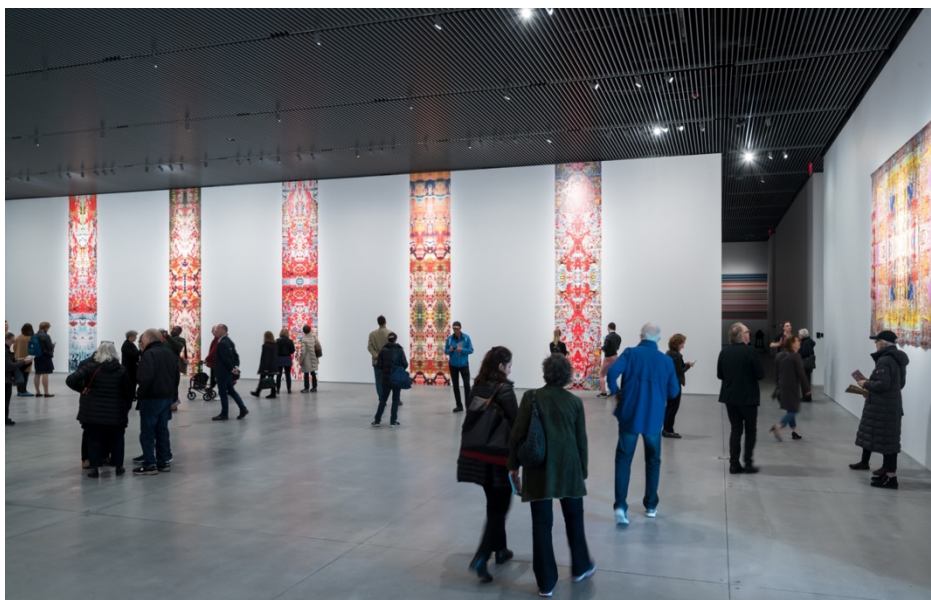
It would be prudent to consider a permeable false ceiling layer to ameliorate these issues.



Proposed “Presentation Space” interior is in a strong industrial aesthetic that would be incompatible with the majority of displays



Illuminated ceiling at GOMA



Battened ceiling at “The Shed”

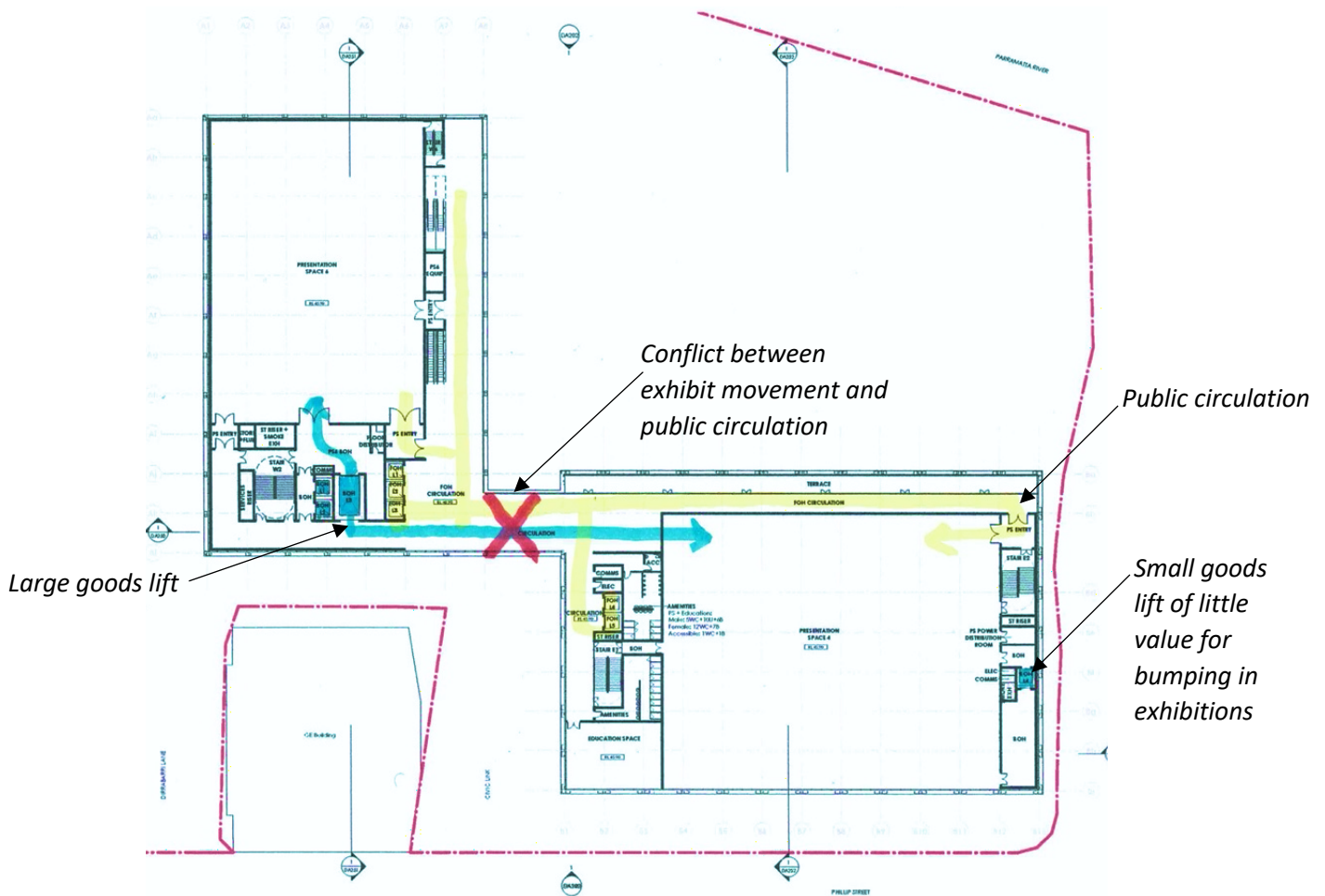
10. VERTICAL TRANSPORTATION

The design of the building makes great demands upon vertical transportation. The Presentation Spaces themselves are over five levels but the large floor to floor heights require escalators to access over 50 metres in height. The floor to floor heights are too great for staircase access.

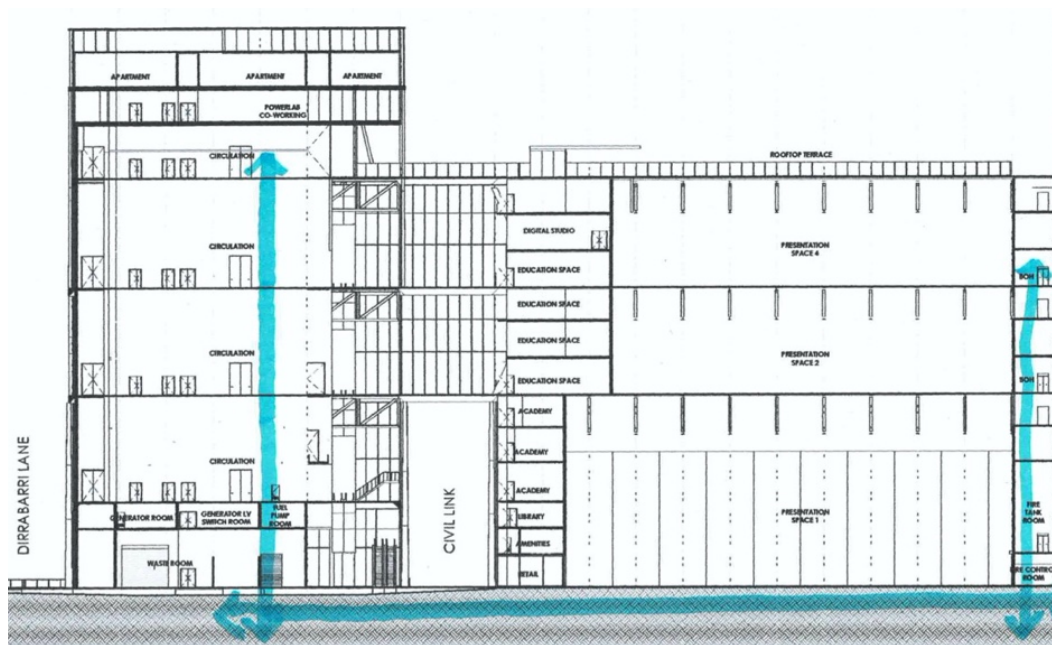
When the intermediate levels are included there are 12 levels in the East Wing and 16 in the West Wing. As the escalators are located somewhat asymmetrically in the West Wing, the servicing of the twelve levels in the East Wing may prove inadequate.

The location of education and related facilities over multiple levels in the East Wing seems overly complicated and inflexible. It would be far more desirable to provide these facilities in one level of contiguous space, similar to the "Power Lab".

This is likely to lead to a far better layout and reduce the demands on lift travel significantly. The space vacated in the intermediate levels could be reduced in footprint and used for air handling plant rather than locating this in the truss zone.



A large goods lift to serve the east wing connected by an underground service level to the loading dock would solve the servicing issues.



11. ROOF TOP STUDIOS

The layout of this space is disappointing and lacks visual and spatial appeal. It is reminiscent of a cheap hotel. A third of the space has windows 10 metres apart across a light wall. There is no private outdoor space.

It may be suitable accommodation for a short stay of a few days but it is difficult to imagine that it would be suitable for creative participants in museum programmes staying for months at a time.



The rooftop studios are an uninspiring design. It may be better to reduce the numbers for designs suitable for longer stays.