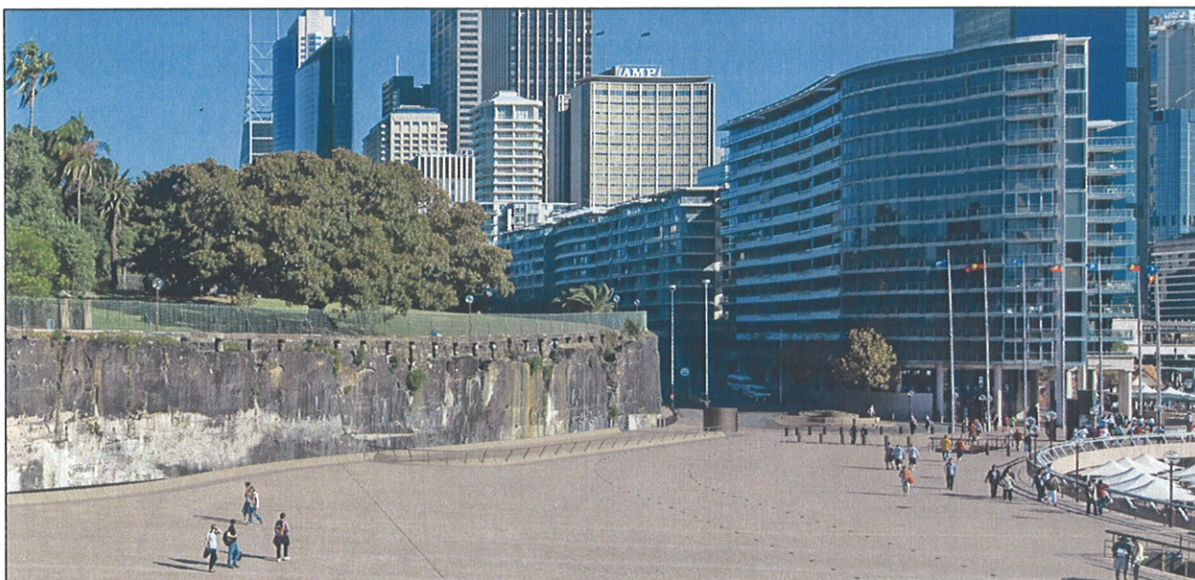


**MAJOR PROJECT ASSESSMENT:
VEHICLE AND PEDESTRIAN SAFETY
PROJECT
THE SYDNEY OPERA HOUSE
(MP09_0200)**



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

December 2010

ABBREVIATIONS

CIV	Capital Investment Value
CMP	Conservation Management Plan 2003
Department	Department of Planning
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning
EA	Environmental Assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning
PAC	Planning Assessment Commission
Part 3A	Part 3A of the <i>Environmental Planning and Assessment Act 1979</i>
PEA	Preliminary Environmental Assessment
PFM	Planning Focus Meeting
PPR	Preferred Project Report
Proponent	Sydney Opera House Trust
RtS	Response to Submissions
VAPS	Vehicle and Pedestrian Safety

Cover Photograph: The Forecourt on completion of the project.

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EXECUTIVE SUMMARY

The proposal for the 'Vehicle and Pedestrian Safety Project' (VAPS) submitted by the Sydney Opera House Trust (the proponent) relates to construction of an underground loading dock to be located below the Sydney Opera House building and Forecourt. A ramped access tunnel to the dock will be located near the existing Macquarie Street entrance and adjacent to the cliff face identified as the Tarpeian Wall at the southern side of the Forecourt. The existing sunken kerbed roadway across the Forecourt will be made level with the surrounding Forecourt paving. The majority of the development will be located underground with only limited minor changes visible above ground or within the interior of the Opera House itself.

The Sydney Opera House Trust is seeking to rationalise the back-of-house servicing by commercial vehicles of all kinds. As a result, access to the loading area has been relocated to the extreme south of the forecourt and diverted underground. This will result in a measurable improvement to pedestrian amenity within the balance of the Forecourt and an opportunity to better co-ordinate related ancillary aspects, such as the location and design of the entry gatehouse.

On 17 December 2009, the Director General, as delegate of the Minister, formed an opinion that the project is a major project pursuant to Schedule 3 of MD SEPP, and therefore is development to which Part 3A applies. The Minister is the approval authority. The Capital Investment Value (CIV) of the proposal is **\$117,678,554**, creating approximately **300** full-time equivalent construction jobs.

The site is zoned Parks and Community Places under the *Sydney Local Environment Plan 2005* (LEP 2005). The proposal is permissible and consistent with the objectives of the zone.

The Sydney Opera House is of State, National and World heritage significance. It is listed on the UNESCO (United Nations Educational Scientific and Cultural Organisation) World Heritage Register, the National Heritage list under the *Environmental Protection and Biodiversity Conservation Act* (Cth) 1999 (EPBC), the NSW State Heritage Register under the *NSW Heritage Act 1977* and in the Major Development SEPP as a State Significant Site. It should also be noted that the Sydney Opera House is subject to a Bilateral Agreement between the Commonwealth and the NSW Government which accredits the NSW planning process for the consideration of relevant applications including those for the Sydney Opera House.

The proposal was exhibited from 18 August 2010 to 17 September 2010. The Department received one (1) submission from the general public and ten (10) submissions from government agencies. Key agency issues included:

- Impact on the amenity and setting to the Sydney Opera House Forecourt during events/activities;
- Potential structural impacts upon the Sydney Opera House and Forecourt;
- Impact upon the Tarpeian Wall;
- Impact on the Bennelong Stormwater Drain;
- Impact upon Aboriginal Cultural Values and Potential Archaeological Resources;
- Traffic Management; and
- Noise and Vibration.

On 28 October 2010, the proponent submitted a Response to Submissions and Preferred Project Report (PPR) to address issues raised by government agencies during the exhibition period, particularly in relation to potential heritage and archaeological impacts. The Department is satisfied that the PPR satisfactorily addressed the issues raised.

The Department has assessed the merits of the project and is satisfied that the impacts of the proposed development have been adequately addressed by the proponent's EA and PPR, including the final Statement of Commitments. The Department's recommended conditions will further ensure a satisfactory level of environmental performance.

On these grounds, the Department considers the proposal acceptable in the public interest and should be approved, subject to conditions.

1. BACKGROUND

The site of The Sydney Opera House has the real property reference of Lot 5 in Deposited Plan 775888 and Lot 4 in Deposited Plan 787933. The location of the building is usually referred to as Bennelong Point. Refer to **Figure 1**.

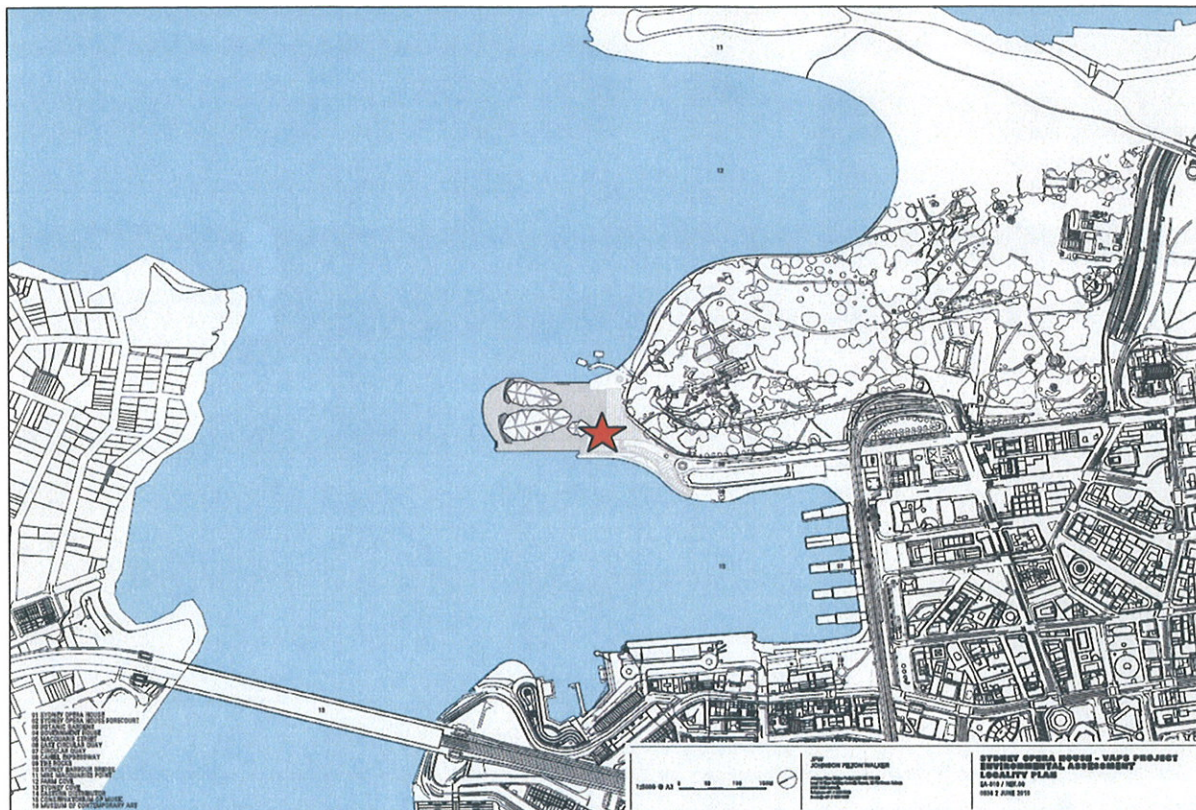


Figure 1: Project Location

The Sydney Opera House sits raised above a large forecourt area (the 'Forecourt') paved mainly with cobblestones or precast and etched pink reconstituted granite. The Monumental Steps provide a grand entrance and access to the building from the Forecourt. The Forecourt is divided into the main area in front of the steps and the Western Forecourt area by a sunken roadway, which runs from the roundabout at the end of Macquarie Street to the vehicle concourse under the Monumental Steps. A Guardhouse is located adjacent to the roadway at the Macquarie Street Entrance. Adjacent to the Tarpeian Wall below the level of the Botanical Gardens are a number of constructed landscape planters as well as the air intake shaft for the Opera House Carpark (refer to **Figure 2, 6 & 7**).

Vehicles accessing the Forecourt currently do so via a roundabout at the bottom of Macquarie Street and through the controlled gatehouse. General traffic is not allowed to access the site. Vehicles that do have permission to access the site are able to drop off at the vehicle concourse bollard point adjacent to the Monumental Stairs. Only pre-booked special deliveries and emergency vehicles are permitted entry onto the vehicle concourse under the Monumental Stairs. Heavy vehicles for stage setup and production equipment/materials use the one way loop by driving around the Western Forecourt to enter the central passage between the Opera Theatre and Concert Hall buildings at the northern end of the site. Vehicles then exit the central passage by driving out to the vehicle concourse near the stage door and then back across the Forecourt to the Macquarie Street access (refer to **Figure 8**).

The project relates primarily to the southern section of the site. Specifically, this includes half of the area occupied by the vehicle concourse and to parts of the forecourt and the unexcavated area below, from the Monumental stairs to the site's southern boundary at the Botanic Gardens Gate, along the

Tarpeian Wall to Macquarie Street and East Circular Quay. It also extends to limited areas within and below the Opera House interior (refer to **Figure 2**).

Existing arrangements will continue during construction in terms of vehicle and pedestrian access. However, signage and barricades will be in place to ensure safety and controlled access to the site.

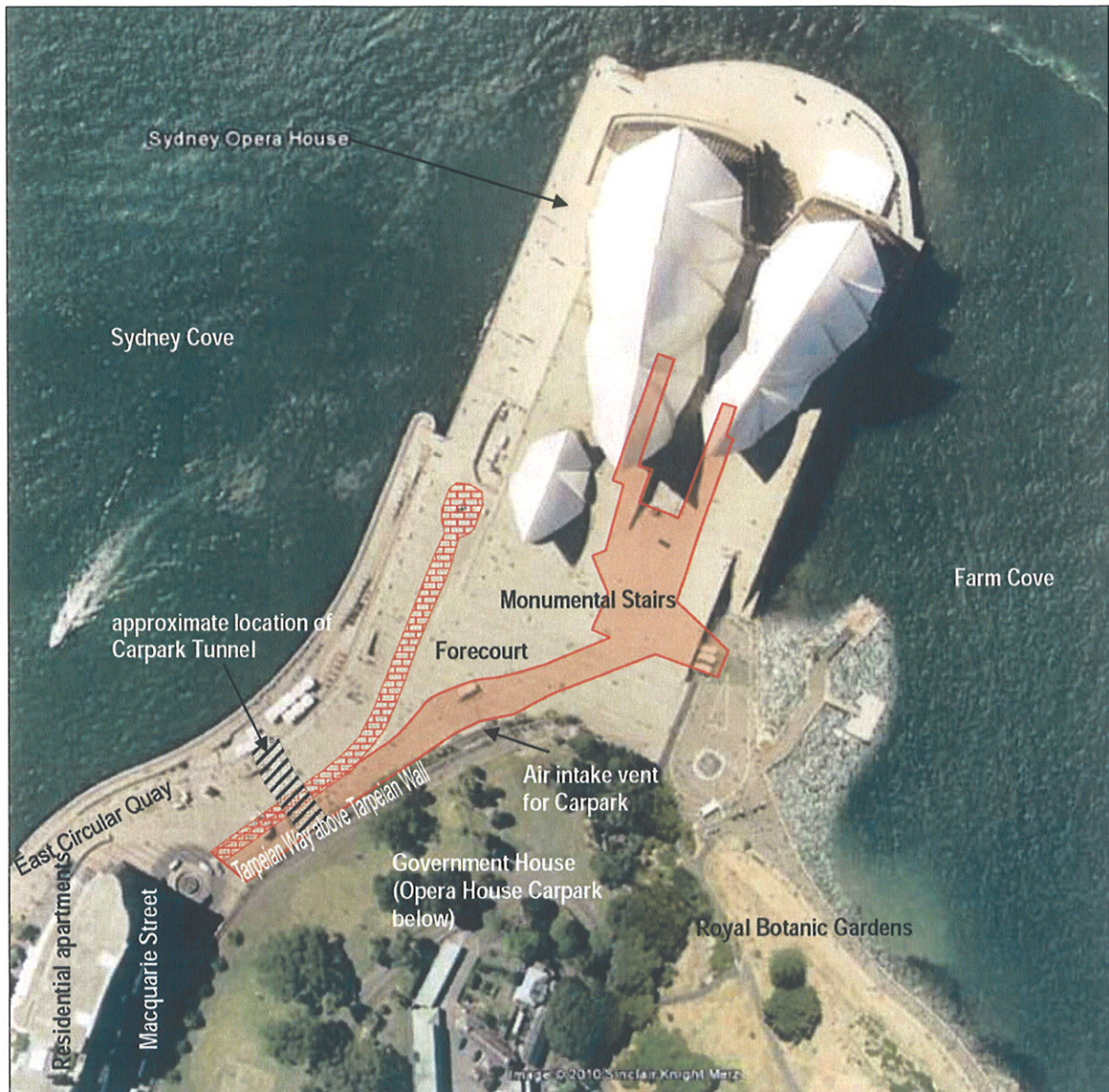


Figure 5: Location of Works within site and adjoining properties

Below Ground Works
Above Ground Works

Figure 2: The existing site, adjoining land and location of the proposed works.

Figure 2 depicts the proposed underground ramp and loading/unloading area with corridors to link the existing back-of-house facilities of the Sydney Opera House. The above ground works include the removal of the recessed vehicle access path and its replacement with a surface that is level with the surrounding paving.

2. PROPOSED PROJECT

2.1 Project Description

The Vehicle and Pedestrian Safety Project (VAPS) comprises the construction of an underground loading dock to be located below the Sydney Opera House building and Forecourt, and associated works. These include the following elements:

- Construction of an underground loading dock to be located below the Sydney Opera House building and Forecourt (refer to **Figures 3, 4 & 5**);
- Alteration of existing lifts and stairs, and construction of new lift services and underground corridors, to link the new underground loading dock with the performance areas and back-of-house facilities of the Sydney Opera House;
- Construction of a new opening on the southern side of the Forecourt to create a new vehicle access ramp, providing service vehicle access from the existing Macquarie Street roundabout down to the new underground loading dock;
- Removal of the recessed vehicle access path flanked by kerbs across the Forecourt, and replacement with a surface that is level with the surrounding paving using the same material as existing;
- Removal of the existing guardhouse and construction of a new smaller guardhouse re-located in line with the new loading dock entry (refer to **Figures 6 & 7**);
- Improvements to Forecourt lighting;
- Removal of existing planter boxes on the southern side of the Forecourt;
- Reconfiguration of the grille to the existing car park air intake shaft against the Tarpeian Wall;
- Modifications to the roof of the pedestrian tunnel to the existing adjoining car park where it opens onto the lower concourse level;
- Relocation of various below ground site services; and
- Relocation of existing at-grade Forecourt loading facilities to the new underground loading dock facility.

2.1.1 Details of Works

A detailed description of specific works is outlined below in **Table 1**.

Item	Description
Vehicle access ramp	<p>The new vehicle access ramp will be constructed connecting the Macquarie Street vehicle access with the new underground loading dock, as detailed below:</p> <ul style="list-style-type: none"> • The ramp alignment will maximise the width of the forecourt area available to pedestrians approaching the Sydney Opera House from Circular Quay by locating the ramp as close as possible to the Tarpeian Wall; • The ramp will minimise visual impact on the Forecourt; • Ramp excavation will avoid the Sydney Harbour Tunnel; the Sydney Opera House underground car park and infrastructure; Bennelong Drain (to be diverted) and other services located within the area; • The ramp will accommodate two way vehicle flow for articulated vehicles; and • The ramp design will comply with AS2890.2 with regard to ramp gradients, headroom clearances etc. <p>The ramp is approximately 140m long, of which 40m is open drive structure. The ramp commences approximately 20m east of the Macquarie Street roundabout directly adjacent the Tarpeian Wall rock face and ends essentially at the foot of the main forecourt stairs at a depth of approximately 16m.</p>

Underground loading dock, truck turning area and access tunnels	<p>A new underground loading dock will be constructed to house the relocated Western Boardwalk loading dock and the existing Central Passage. This is the major component of the project and will include:</p> <ul style="list-style-type: none"> • Capacity to unload / load 2 semi trailers and 2 medium rigid vehicles simultaneously (4 truck bays); • Raised loading platform with rear and side loading capacity; • Overhead gantry system; • Temporary parking for outside broadcast vehicles for major events; • Separate waste handling facilities; and • Vehicle manoeuvring area. <p>Two tunnels will provide access from the loading dock to two existing lifts, which will be extended down to the level of the loading dock, as well as to a new scenery lift and stairs.</p>
Guardhouse	<p>The existing guardhouse will be demolished and a new guardhouse will be located adjacent to the new access ramp, slightly closer to the Macquarie Street boundary. It will be a cylindrical shape of reduced volume and dimensions, as compared to the existing structure. The new guardhouse will be constructed in bronze or similar material and matching glass (refer to Figures 6 and 7).</p>
Roadway	<p>The proposal includes removal of the existing roadway which is differentiated by a level-changing kerb and raising the road to the surrounding paving level using similar materials to those existing in the surrounding areas. Associated existing elements including cats eye reflectors and yellow speed humps will also be removed and a more sympathetic treatment to mark the pedestrian/vehicle zone will be provided during and after construction (refer to Figures 6 & 7). Removal of the existing surface access road will improve the pedestrian experience and will unify the western area of the Forecourt with the rest of the Forecourt.</p>
Forecourt lighting	<p>It is proposed to incorporate improved Forecourt lighting as part of the proposal for the sake of both efficiency and ambience, in particular to that area of the Forecourt adjacent to the dock entry ramp. The final form of the lighting has not yet been determined and further investigation is required during the design development phase to confirm the final outcome. Lighting has been detailed within the Statement of Commitments, which form part of the conditional approval.</p>
Other forecourt elements	<p>Some elements including the granite edged planter beds, garden and dwarf granite walls will be removed as they are identified as intrusive items by the Conservation Management Plan 2003. The air intake grille at the base of the Tarpeian cliff will be replaced with a new shaped grille in bronze or similar material complimentary to the surroundings.</p>
Internal backstage and service areas	<p>Backstage staff areas will be accessed via modified passenger lifts. Only minor works are proposed in these areas, mainly associated with the modification of existing lifts and stairs. Any areas that are affected will include simple finishes to match the existing.</p>
Lower concourse – pedestrian tunnel	<p>The proposal will impact on the existing pedestrian tunnel entry to the helical carpark. By locating the proposed loading dock entry as close as possible to the Macquarie Street entry to the site, it begins its descent above the pedestrian tunnel access to the carpark. Modification to the roof of this pedestrian tunnel will be required, but there will be no other changes to its configuration.</p>

Alterations to underground site services	The proposal will require significant changes to most existing below ground site services. Most services will need to be diverted as part of the initial stage of the development. Electricity, gas, waste, sewerage and telecommunications lines will all be affected.
Forecourt & vehicular concourse services diversions	In order to commence the works to the entry tunnel and loading dock, it is essential to relocate a significant amount of existing services in the Forecourt, and some minor diversions in the vehicular concourse. The Diversion of the Bennelong Stormwater Drain is also required prior to the commencement of the works.
Entry ramp/tunnel	The entry ramp/tunnel will be constructed using a cut and cover construction method for the majority of its length. A small portion (approximately 25m) at its junction with the loading dock will be constructed using tunneling methods, so as not to compromise the structural stability of the foundations to the Monumental Stairs which are directly above the tunnel/dock junction. The construction of the entry ramp/tunnel will commence at the Macquarie Street roundabout end, along the Tarpeian Wall and progress toward the Monumental Stairs. The staging and associated placement of hoardings will ensure that access to and from the Royal Botanical Gardens is maintained throughout the construction period. Cobblestones within the Forecourt will be removed prior to excavation and reinstated at the completion of construction works.
Loading dock	<p>The majority of the loading dock is located underneath the vehicle concourse. The vehicle concourse is underlain by stressed concrete tie beams which tie the southern extent of the Monumental Stairs beams to the southern structure of the main Opera House building. It is proposed to excavate underneath the tie beams and existing basement areas. During excavation, the rock will be pre-cut vertically using large rock saw blades prior to ripping, in order to minimise the transfer of horizontal noise and vibration through the rest of the site. A process known as Penetrating Cone Fracture will also be considered during excavation. This is a less intrusive rock-breaking technique using high pressure gas to expand existing small fractures in the rock causing the rock to fail with less vibration and noise than other methods.</p> <p>The structure of the loading dock consists of a roof slab (also acting as the concourse ground level slab), base slab, walls and a plant room slab above the truck turning bay. The structure will be primarily constructed using a conventional formwork and in-situ concrete approach, with the roof slab utilising precast concrete construction to assist in working around the limited space between existing tie beams.</p>
Access corridors and lifts	Two access corridors are proposed to extend from the loading dock and travel below the existing Opera House building structure to provide lift access. These are proposed to be constructed as tunnels using a road header and temporary fibreglass rock anchors and shotcrete to stabilize the roof and walls before placement of the permanent concrete lining.

Table 1: Detailed Description of Proposed Works

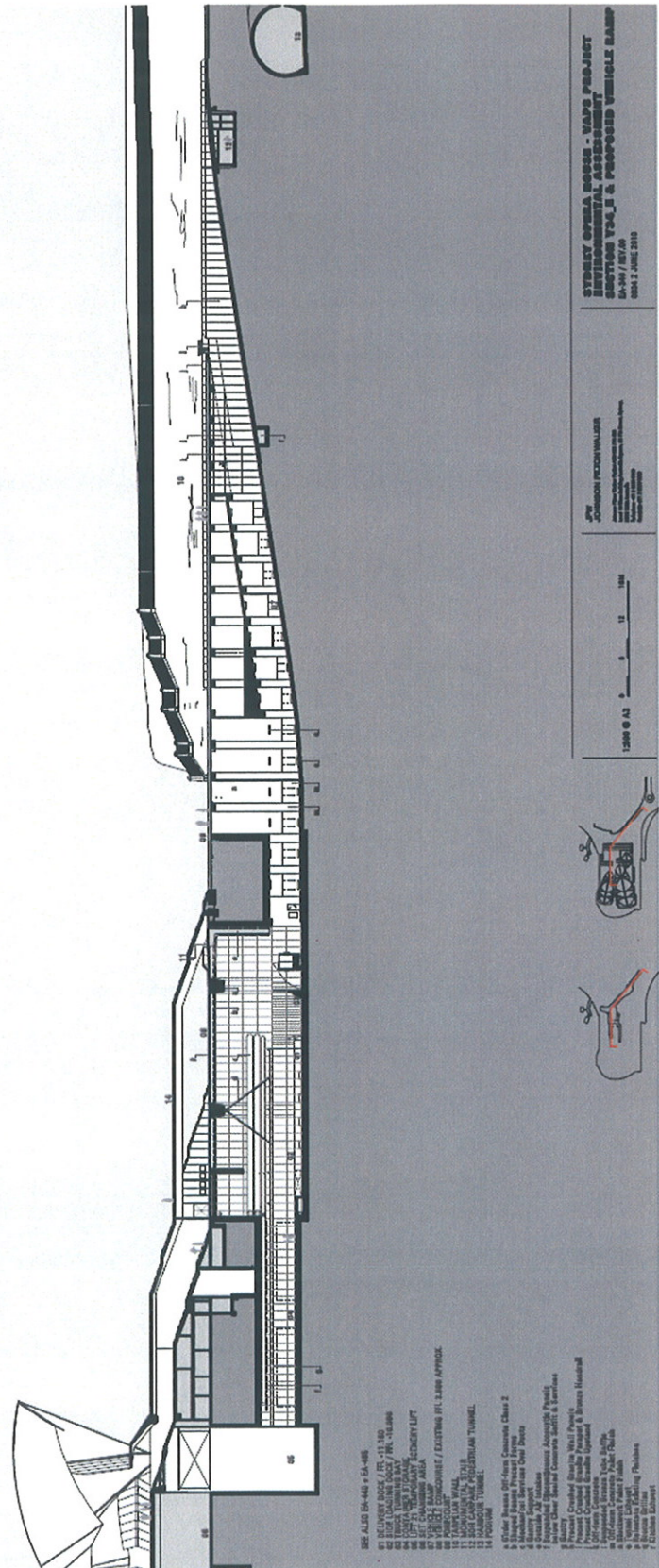


Figure 3: The Vehicle and Pedestrian Safety Project – Longitudinal Section: Vehicle Ramp.

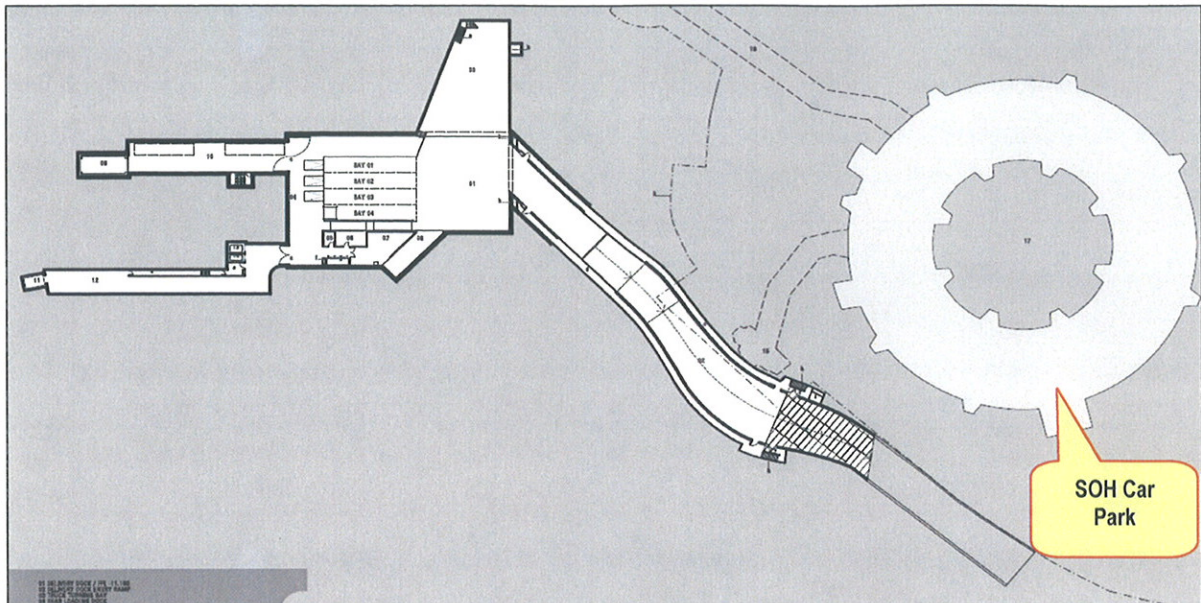


Figure 4: Proposed basement level 4 – indicative layout.

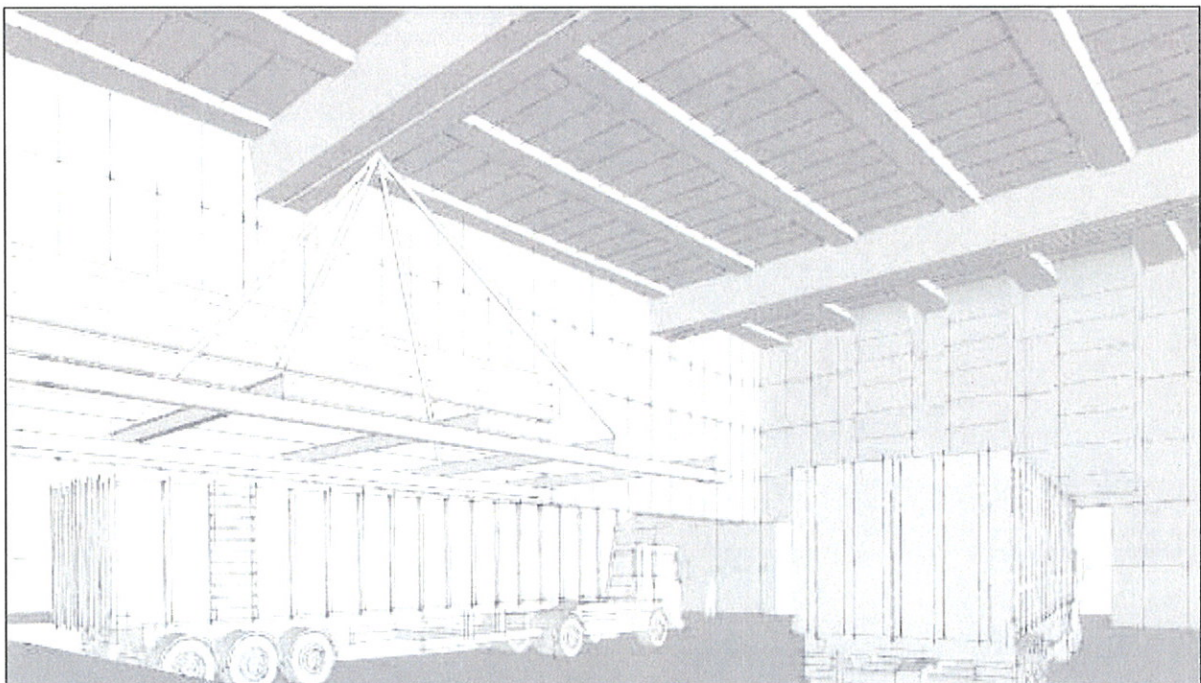


Figure 5: Architects Perspective drawing of interior of the loading dock.

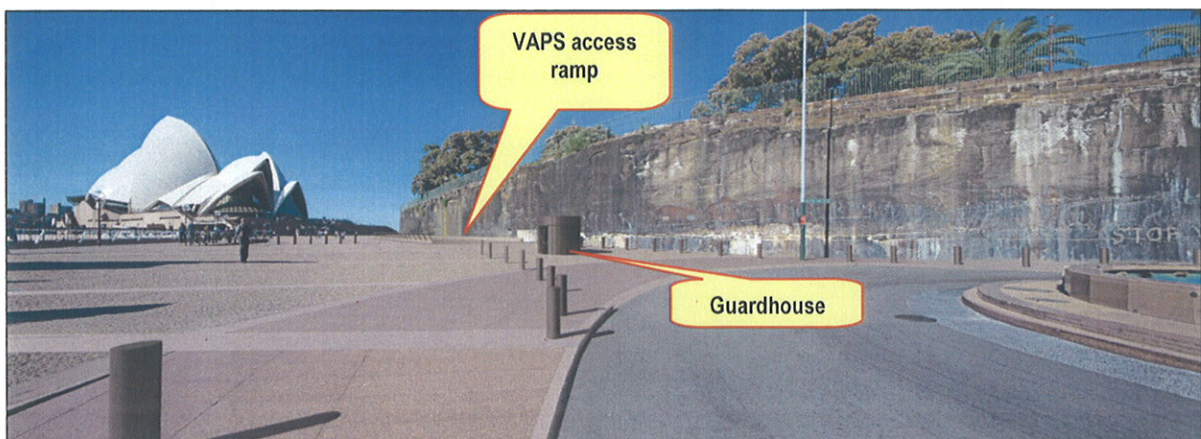


Figure 6: Photomontage of the ramp entrance from Macquarie Street Roundabout, new guard house and modified roadway.

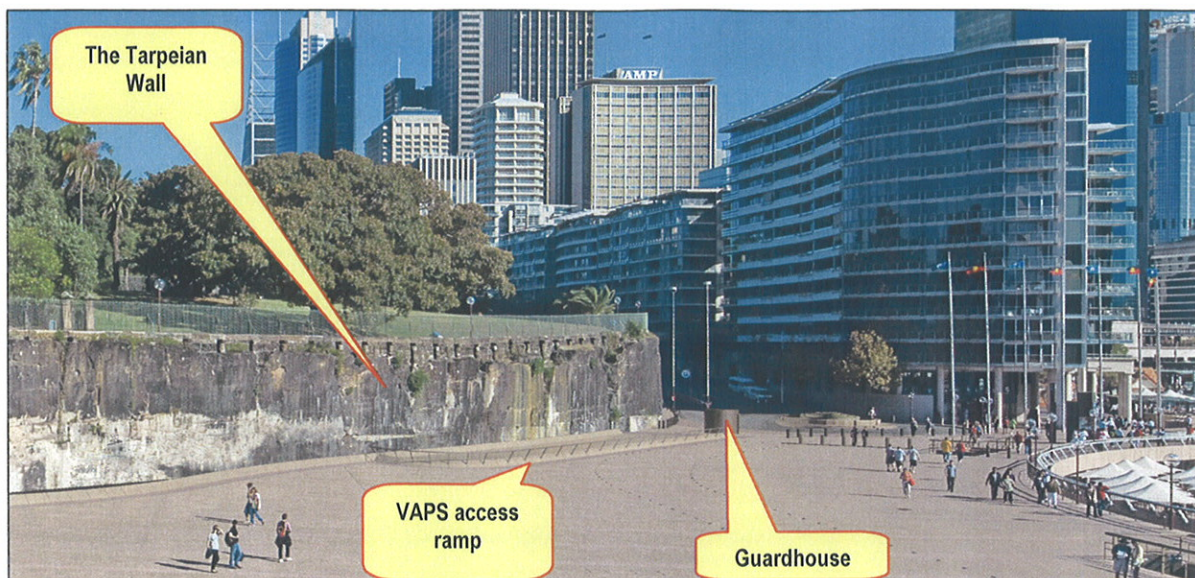


Figure 7: Photomontage of the proposed ramp entrance when viewed from the Monumental Steps of the Sydney Opera House.

2.1.2 Construction Timing and Public Access

It is expected that the project will take around two and a half years to complete. It is anticipated that excavation will commence early in 2011 and the project is targeted for completion in mid 2013.

The proposed construction hours for all external works will be generally undertaken during standard daytime construction hours of 7am to 6pm Monday to Friday and 8am to 1pm Saturdays.

However, due to the large number of pedestrians that generally utilise the Forecourt, and in order to minimise the adverse visual, heritage, amenity and safety impacts expected on the Forecourt during the construction process, it is desirable that the duration of the construction phase be kept as short as possible.

It is therefore proposed that once the development of the new loading dock is at a stage where it is enclosed, construction work within all internal areas of the proposal will be carried out throughout the day and night. It is also proposed to carry out some limited external construction works outside of standard hours (7am to 6pm Monday to Friday and 8am to 1pm Saturdays), including:

- The portion of the entry tunnel works which is over the pedestrian link. For safety reasons it is preferred to undertake these works outside the car park operating hours; and
- Works in the vehicle concourse. These works are more than 180 metres from the nearest residences and are naturally screened by the Monumental Stairs which is over the work area.

The revised Statement of Commitments ensures that out of hours construction work will comply with *The City of Sydney's 'Construction Hours/Noise within the Central Business District – Code of Practice', 1992.*

The ability to carry out internal works and some limited external works outside of usual construction hours is expected to considerably reduce the total construction timeframe, minimise the impacts in terms of heritage, safety and visual impacts on the site, while at the same time limiting unacceptable amenity impacts to surrounding sensitive receptors.

Sydney Opera House will remain fully operational throughout the construction of the project, with theatres, restaurants and guided tours open for business. Appropriate hoardings, access gates and signage will be utilised to ensure public safety and ease of access to the site.

2.1.3 Construction Methodology

A comprehensive detailed Construction Management Plan will be prepared prior to the commencement of works. A preliminary outline of the proposed construction methodology has been provided with the EA. The Department supports the principles contained within the Plan. This requirement has been reaffirmed by the Department as a condition of approval.

2.1.4 Operation

As with the existing loading dock arrangement at ground level, the newly constructed loading dock will be operational 24 hours a day, seven (7) days a week. However, as the existing uses at the Sydney Opera House will remain unchanged, the proposed development will not generate any additional traffic flows, nor will it change the timing of the vast majority of service delivery vehicles which currently make their deliveries during ordinary business hours.

The one significant change to loading operations is that loading and unloading will be able to be carried out during performance times. This will provide greater flexibility in the management of delivery vehicle access, and provide for a more even spread of traffic across the road network.

The loading dock area will be controlled by appropriately qualified personnel who will be responsible for communication with the guardhouse, allocation of vehicle parking and movement of vehicles generally.

The dock will have the capacity to unload/load up to four delivery vehicles at the dock platform and a waste vehicle simultaneously. In addition, the truck turning bay will allow for a number of vehicles to stand and wait to be unloaded/loaded. It is expected that this area will also be used for Outside Broadcast vehicles to park during major events on the Sydney Opera House Forecourt, removing the need for such vehicles to park on the Forecourt as per the existing situation.

2.1.5 Relationship to other Works

The proposal relies on the diversion of the Bennelong Stormwater Drain (approved 26 August 2010 MP09_0122) to be completed before the excavation and construction phase of the works can commence. The Bennelong Stormwater Drain Diversion is scheduled to commence in early 2011.

2.3 Project Need and Justification

The Project Application for the VAPS project has been prompted by a need for improvement to pedestrian safety within the Sydney Opera House Forecourt, and the need to rationalise the back-of-house servicing by commercial vehicles to and from the site. The project is designed to ensure the efficient and effective implementation of the Management Plan for the Sydney Opera House, the Conservation Management Plan 2003, and Utzon Design Principles; and further, to ensure that any future essential support activities are done so in a manner that is consistent with the design principles and heritage values of the Sydney Opera House.

Overall, the Department considers that the proposed VAPS is justifiable and crucial to improving back-of-house operations and separating such activity from ground level pedestrians. These works will also enhance the cultural significance of the Sydney Opera House.

3. STATUTORY CONTEXT

3.1 Major Project

On 22 November 2009, the Director General, as delegate of the Minister, formed an opinion that the project is a major project under Schedule 3 – Part 1 (Sydney Opera House) of *State Environmental Planning Policy (Major Development) 2005* (MD SEPP), and is development to which Part 3A applies. The Minister is the approval authority.

3.2 Permissibility

The site is zoned Parks and Community Places under *Sydney Local Environmental Plan 2005*. The works are permissible with consent.

3.3 Environmental Planning Instruments

Under Sections 75(2)(d) and 75(2)(e) of the EP&A Act, the Director-General's report for a project is required to include a copy of, or reference to, the provisions of any State Environmental Planning Policy (SEPP) that substantially governs the carrying out of the project, and the provisions of any environmental planning instruments (EPI) that would (except for the application of Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the assessment of the project.

The primary environmental planning instruments guiding the assessment of the proposal are:

- State Environmental Planning Policy (Major Development) 2005;
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- Environment Protection and Biodiversity Conservation Act 1999;
- Heritage Act 1977;
- Sydney Local Environmental Plan 2005
- State Environmental Planning Policy No. 55 – Remediation of Land; and
- Sydney Harbour Foreshores Area Development Control Plan 2006;

The assessment has also had due regard to the Management Plan for the Sydney Opera House (2005).

The Department has considered the proposal against the objectives and aims of these instruments and the Management Plan 2005, and is satisfied that the proposal, subject to the implementation of the recommended conditions of approval, is generally consistent with the provisions of these instruments.

The Department's consideration of relevant SEPPs and EPIs is provided in **Appendix D**.

3.4 Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects of the Act, as set out in Section 5 of the Act. The relevant objects are:

- (a) to encourage:
- (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
 - (ii) the promotion and co-ordination of the orderly and economic use and development of land,
 - (iii) the protection, provision and co-ordination of communication and utility services,
 - (iv) the provision of land for public purposes,
 - (v) the provision and co-ordination of community services and facilities, and
 - (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
 - (vii) ecologically sustainable development, and
 - (viii) the provision and maintenance of affordable housing, and

- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.*

The Department has considered the objects of the EP&A Act and is of the opinion that the application is consistent with the relevant objects. The assessment of the application in relation to these relevant objects is provided in Section 5 of this report.

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
 - (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
 - (ii) *an assessment of the risk-weighted consequences of various options,*
- (b) *inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
- (c) *conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
- (d) *improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
 - (i) *polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
 - (ii) *the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
 - (iii) *environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

The Department has fully considered the objects of the EP&A Act, including the encouragement of ESD in its assessment of the application. A detailed assessment of ESD issues is contained in Section 5 of this report. On the basis of this assessment, the Department is satisfied that the proposal encourages ESD, in accordance with the objects of the EP&A Act.

3.6 Environment Protection and Biodiversity Conservation Act

The *Environment Protection and Biodiversity Conservation Act* (EPBC Act) prescribes the Commonwealth's role in environmental protection, biodiversity, and conservation and including conservation of heritage items.

The Sydney Opera House is both a World Heritage Property and listed on the National Heritage list under the EPBC Act. In accordance with Sections 12 and 15B of the EPBC Act, actions that significantly affect matters of national environmental significance (including National and World Heritage Sites) require approval under the EPBC Act. However, section 29 of the EPBC Act provides that approval is not needed where the action is one of a class of 'actions' declared by a bilateral agreement between the Commonwealth and the State in which the action is taken.

The December 2005 Bilateral Agreement in relation to The Sydney Opera House between the Commonwealth and NSW Government allows the NSW environmental assessment regime to be accredited under the EPBC Act. Any approval that would have been required under the provisions of the EPBC Act would be satisfied by approval from the NSW Government in accordance with the "*Management Plan for The Sydney Opera House*".

Therefore, as the application is made in accordance with the requirements of the Management Plan for Sydney Opera House, separate commonwealth approval under the EPBC Act is not required.

4. CONSULTATION AND SUBMISSIONS

4.1 Exhibition

Under Section 75H(3) of the EP&A Act, the Director-General is required to make the environmental assessment (EA) of an application publicly available for at least 30 days. After accepting the EA, the Department publicly exhibited it from 18 August 2010 until 17 September 2010 on the Department's website, and at the offices of the Department of Planning and City of Sydney Council. The Department also advertised the public exhibition in the Sydney Morning Herald and Daily Telegraph on 18 August 2010 and notified landholders, local community groups and relevant State and local government authorities in writing.

The Department received ten (10) government agency submissions during the exhibition of the EA. One (1) public submission was received from the Australian Institute of Architects.

A summary of the issues raised in submissions is provided below.

4.2 Public Authority Submissions

Ten (10) submissions were received from public authorities, who raised no objection to the VAPS project, subject to suggested conditions of approval.

City of Sydney generally supports the development proposal, however raised the following concerns;

- Impact upon setting of the Opera House and the Forecourt;
- Impact upon the interiors of the Opera House;
- Potential structural impacts upon the Opera House;
- Impact upon the Tarpeian Wall;
- Impact upon the Bennelong Stormwater Drain;
- Impact upon Potential Archaeological resources; and
- Impact upon Aboriginal Cultural Values.

These issues have been assessed in Section 5 of this report.

Heritage Council NSW raises no objection and advises that the project can be approved, subject to recommended conditions that generally relate to policies under the Conservation Management Plan 2003 and associated archaeological safeguards.

Sydney Water has provided the Department with a number of conditions relating to waste water systems, trade waste and Sydney Water servicing.

State Property Authority has raised issues in relation to protection of their property such as the Sydney Opera House Car Park during and after construction. Concerns are also raised to the safety of contractors working in or around the car park air intake shaft.

This issue has been addressed in detail in Section 5 of this report dealing with structural/construction impacts on the Sydney Opera House.

RTA has raised no objection to the project and has provided the Department with appropriate conditions to be included within the approval.

Department of Environmental, Climate Change and Water (DECCW) DECCW has raised no objections, subject to a protocol being included in the form of a condition relating to Aboriginal middens that may be uncovered. DECCW believes that, although the recorded midden study area has now been classified as 'destroyed', there may be some remains in the area. The Department has acknowledged this matter and will include the suggested protocol as part of the conditional approval.

Botanic Gardens Trust (DECCW) supports the project and has raised a number of points in regards to the timing of the work and its association with emergency services, New Year Eve celebrations and the use of the Royal Botanic Gardens. These matters will be a matter for consultation between the Sydney Opera House Trust and the Royal Botanic Gardens.

NSW Maritime raised no objection.

Department of the Environment, Water, Heritage and the Arts (DEWHA) supports the proposal as the works are consistent with the principles within the Conservation Management Plan 2003 (CMP).

The Department has fully considered the issues raised in submissions by government agencies in its assessment of the project.

4.3 Public Submissions

A submission was received from Australian Institute of Architects. The Institute raised no objection and support the benefits the VAPS project will provide for the efficient working of the performing arts centre, and improvements for pedestrian safety and amenity.

4.4 Proponent's Response to Submissions

The proponent provided a response to the issues raised in submissions on 28 October 2010. The response included a Preferred Project Report which includes amendments in relation to heritage, lighting design, traffic and Aboriginal archaeology. The revised Statement of Commitments will be included as a condition within the project approval.

5. ASSESSMENT

The Department considers the key environmental issues for the project to be:

- Amenity Impacts;
- Potential structural impacts upon the Sydney Opera House and Forecourt;
- Impact upon the Tarpeian Wall;
- Impact on the Bennelong Stormwater Drain;
- Heritage Considerations;
- Traffic Management; and
- Noise and Vibration.

5.1 Amenity Impacts

5.1.1 Visitor and Local Residents

During construction works, the proposal will impact on pedestrian flows and pedestrian amenity around the Sydney Opera House. Construction works also have the potential to result in amenity implications for local residents.

The City of Sydney raised concern with the amount of 'cut and cover' excavation proposed and submit that it should be reduced where ever feasible in order to reduce the period of disruption for both pedestrians and residents. These matters are further considered in sections 5.1.2 and 5.7.

The proponent has detailed in its PPR that the proposed amount of cut and cover excavation is unable to be reduced. This is due to the need to locate water tanks and associated equipment under the Monumental Stairs, and the proximity to the existing forecourt level above the proposed driveway. Tunnelling is required for a small 25 metre length of the basement to ensure that the structural stability of the foundations to the Monumental Stairs which are directly above the dock area is not compromised. The Department is satisfied with this construction methodology.

Although there were no submissions received by the Department from local residents, it is considered that there will be a minor and temporary loss of amenity due to the construction works and the restricted pedestrian flows around the site and East Circular Quay. While transient and acceptable, this will need to be carefully managed during the construction phase of the VAPS project

The Department has included a condition of project approval that will require the proponent to prepare a 'Stakeholder Engagement Plan' prior to the commencement of works. The purpose of the Plan is to identify and implement an integrated approach in managing communications in relation to the project prior, during and immediately following construction. The Plan will also include a range of stakeholders, including but not limited to public authorities, local residents, Sydney Opera House users and the general public.

The Department is satisfied that the implementation of such a plan will appropriately mitigate to acceptable levels relevant pedestrian and amenity impacts through the dissemination of advanced information and the communication of any potential concerns between the relevant parties.

Furthermore, the Construction Environmental Management Plan will be required to identify all relevant mitigation measures to be implemented during the construction phase of the proposal to manage construction related impacts. The Construction Environmental Management Plan will be appropriately supported by the communication approach outlined in the Stakeholder Engagement Plan.

5.1.2 Activities/Events at Sydney Opera House and Surrounds

The proposed construction works will potentially impact on future activities and events that will take place around the Sydney Opera House.

In addressing this matter, the proponent has detailed in the PPR that consultation will be carried out between the Sydney Opera House Trust and relevant stakeholders of events and land owners. To ensure that this arrangement is implemented satisfactorily, the Statement of Commitments has been

amended so that the detailed Construction Management Plan will take into account any concerns from stakeholders relating to amenity and operational impacts, and timing of any major events on adjoining sites.

While acknowledging that there will be some disruption to the public space around the Sydney Opera House during construction, the Department is satisfied that it can be minimised to acceptable levels and has recommended a condition that will require the proponent to establish a Protocol to manage future major events within the curtilage of the Sydney Opera House, The Royal Botanic Gardens and East Circular Quay during construction phase of the project. The Protocol will incorporate all stakeholders involved in the management of major events and functions at the locations to ensure that that appropriate management measures are identified and implemented during major events. The Protocol is to be submitted to the Certifying Authority and the Director General.

5.2 Potential Structural Impacts upon the Sydney Opera House

As the proposed development will result in extensive excavation below the existing Forecourt and Monumental Stairs, the City of Sydney has raised concern with the degree of excavation and subsequent lateral movement around the Sydney Opera House building and Monumental Stairs.

To support the construction methods used for the excavation, a Structural Engineer's Report was prepared to assess the acceptability of the proposed construction methods. The report indicates that the proposed new structures that will support the VAPS are capable of being designed and constructed to satisfactorily support all existing elements of the Sydney Opera House and can be built in a manner that will not result in unacceptable movements to the existing structure and fabric of the Sydney Opera House including the Monumental Stairs.

The proponent has also indicated that upon engaging the design engineer company, a peer review process will be implemented to ensure structural stability of the Sydney Opera House is maintained. To this end, the Department is satisfied with the proposed approach for the protection of existing structures on the subject site and has recommended a condition of approval to ensure that the required review is carried out.

5.3 Impact upon the Tarpeian Wall

The Tarpeian Wall is a sandstone cliff face that adjoins the lower section of the Sydney Opera House Forecourt and retains the Royal Botanic Gardens. The proposed VAPS will be located adjacent to this wall as depicted in **Figure 7**.

Public authority submissions raised concerns with the location of the entry ramp and potential structural damage to the Tarpeian Wall as a consequence of construction works.

The proponent had initially investigated locating the entry ramp closer to Macquarie Street, however this resulted in rigid trucks having inadequate at-grade standing area, potentially resulting in vehicles protruding onto the Macquarie Street roundabout. Excavating at this location would also create conflict with the Sydney Harbour Tunnel.

To overcome any potential stability impacts on the Tarpeian Wall during construction, the proponent has committed in the revised Statement of Commitments to undertaking further geotechnical investigations to inform the final detailed structural design of the project. The Department is satisfied that sufficient evidence has been submitted demonstrating that the structural integrity of the wall can be maintained during construction.

5.4 Impact on the Bennelong Stormwater Drain

The Bennelong Drain is a stormwater drain that currently extends under the Sydney Opera House and discharges in Sydney Harbour. Approval was granted on 26 August 2010 for the drain's relocation from under the Sydney Opera House to adjacent the Tarpeian Wall, discharging into Farm Cove (MP09_0122).

The VAPS project is reliant upon the construction and finalisation of the drain diversion prior to any construction works. As part of that approval, the Proponent is required to undertake further detailed environmental and heritage conservation requirements prior to construction including subsurface testing, soil sampling and geotechnical analysis before construction of the diversion can commence. It

is intended that these investigation are undertaken to provide further certainty regarding archaeological findings, structural stability and soil quality that may impact on the final design of the VAPS.

5.5 Heritage Considerations

5.5.1 World and National Heritage values of the Sydney Opera House

The Sydney Opera House was inscribed on UNESCO's World Heritage List for its Outstanding Universal Value and as a "masterpiece of human creative genius". As the VAPS project is a major work and has the potential to impact on the Sydney Opera House, the Proponent commissioned a Heritage Impact Statement (HIS) to address any conflict with World, National or State heritage issues.

The HIS submits that the VAPS Project will not have a negative impact on the World Heritage values of the Sydney Opera House. The HIS concludes that the project works will retain and potentially enhance those values by improving the functionality of the Sydney Opera House as a premier performing arts centre of international repute. The proposed works will also improve pedestrian experience on and off the Forecourt, and the security of the Sydney Opera House.

The National Heritage values of the Sydney Opera House are primarily related to Jørn Utzon's outstanding design of the building and the venue being a cherished performing arts centre. Important past uses and historical phases, such as the Fort Macquarie and tram depot, are not part of the values for which the Sydney Opera House is listed on the National Heritage List. The only value from the period prior to the construction of the Sydney Opera House, which meets the National Heritage criteria, is the site's association with the original inhabitants of the country including Bennelong.

The Department is satisfied that the detailed HIS has been prepared in accordance with the principles and processes of the *Australian ICOMOS Burra Charter 1999*, including its accompanying 1988 'Guidelines to the Burra Charter'. The HIS has produced a number of recommendations, which confirm compliance with the Conservation Management Plan 2003, forming part of the project conditions of approval.

The Heritage Council has given its support to the proposal and has provided appropriate conditions and advisory notes which have been incorporated into the project approval.

5.5.2 Aboriginal Cultural values

The Department acknowledges that there is potential for impacts to physical Aboriginal objects that may survive beneath the surface and upon intangible cultural values, which may be connected to the potential physical evidence of Aboriginal heritage. Although this issue has also been addressed within the Statement of Commitments for the Bennelong Drain Diversion (MP09_0122), the PPR has included a new commitment for the VAPS project, which provides that the Metropolitan Local Aboriginal Land Council will be advised of any Aboriginal objects located on the site and invited to apply for a Care Agreement with DECCW to enable them to keep the objects.

5.5.3 Potential Archaeological Resources

The component of the proposed works that would have the greatest potential archaeological impact on Aboriginal archaeology and other archaeological resources would be the excavation of the VAPS in the area above the proposed loading dock close to existing ground level.

The project could potentially disturb structural and other remains associated with the south-eastern extension of the Fort Macquarie battery, structural and other remains of an early nineteenth-century building in this area, and potential remains associated with the original shoreline and former seawalls. The Department shares the view of the City of Sydney that the cut and cover excavation of this area is considered to have a significant archaeological impact.

To address this matter, an Archaeological Impact Assessment, Archaeological Management Plan and Heritage Impact Statement Report were commissioned to detail the impacts of the proposed works and identify management strategies to mitigate any identified adverse impact. The three reports combined have furnished appropriate mitigation measures for the protection of any archaeological

findings and protection of existing heritage items and have been incorporated within the approval. A number of these mitigation measures are summarised below:

- The Sydney Opera House Trust should advise the public of the proposed work via appropriate signage.
- Archaeological testing of cut-and-cover excavation for loading dock area prior to bulk excavation.
- Exposure and recording of sections of Bennelong stormwater channel (original section and later diversion) prior to removal of these elements.
- In the event that any archaeological remains were to be exposed during site works, they should be appropriately documented according to the procedures outlined in the Archaeology Report.
- In the event that unexpected historical archaeological evidence was to be encountered during site works, works should cease and the Heritage Branch and Department of Planning should be notified immediately.
- In the event that unexpected Aboriginal archaeological evidence was to be encountered during site works, works should cease and the Department of Environment, Climate Change and Water (DECCW) should be notified immediately.
- The Sydney Opera House Trust should develop a protocol for ongoing Aboriginal stakeholder consultation and engagement as part of the long-term management of the Sydney Opera House.
- The Sydney Opera House Trust should develop an interpretation strategy that outlines an approach to the recognition and interpretation of the Aboriginal cultural values and Aboriginality associated with the Sydney Opera House site. Aboriginal people are the rightful interpreters of Aboriginal cultural heritage. Any proposed interpretation of Aboriginal cultural heritage at the Sydney Opera House should involve identified Aboriginal Stakeholders.
- As part of the current revision of the Sydney Opera House Conservation Management Plan, further consideration and assessment of Aboriginal cultural values with regard to the aforementioned recommendations should be considered. Such revision would facilitate better consideration of Aboriginal cultural values within the day-to-day management of the Opera House.
- Any future revision of the Management Plan for the Sydney Opera House should reflect the updated Conservation Management Plan 2003, 3rd Edition, particularly any revised policies regarding Aboriginal cultural significance.

The Department is satisfied that any archaeological findings can be protected and appropriately documented through the above mitigation measures. The Archaeological Impact Assessment, Archaeological Management Plan and Heritage Impact Statement Report will form part of the recommended project approval. The Heritage Council is also satisfied with the Archaeological Impact Assessment, Archaeological Management Plan and Heritage Impact Statement Report and has recommended appropriate conditions to be included in the project approval.

In addition, the proponent is required to lodge with the Heritage Branch of the Department of Planning, prior to the commencement of any works on site, a Section 60 application under the *Heritage Act 1977*, as required under the terms of the Bilateral Agreement between the Commonwealth and NSW governments.

5.6 Traffic Management

At present, all vehicles accessing the Forecourt do so via a driveway from the Macquarie Street roundabout. The access driveway is controlled via a security gatehouse. General traffic is not allowed to access the site. Taxis and hire vehicles are allowed to drop off people at the vehicle concourse bollard point using the existing Forecourt road.

Entry onto the vehicle concourse area proper (under the Monumental Stairs) is only permitted for the fire brigade, ambulance and pre-booked special delivery vehicles. Vehicles are not permitted to enter or reverse back into the roundabout and leave via Macquarie Street (refer to **Figure 8**).

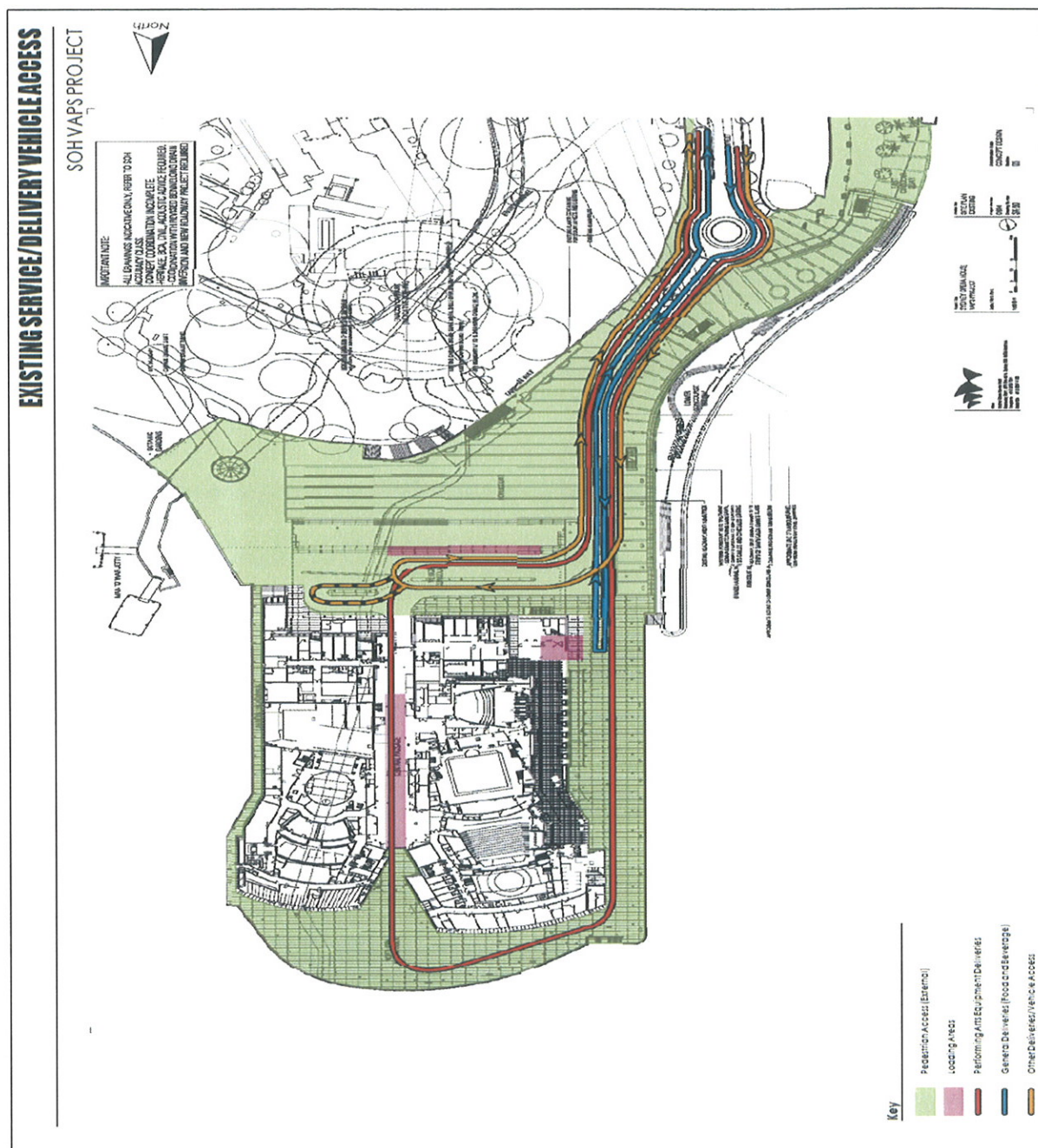


Figure 8: Existing Service/Delivery Vehicle Access

Altogether, some 150 delivery and service vehicles arrive at the Sydney Opera House on a typical day generating 300 vehicle movements per day across the Forecourt and through the pedestrian flow. A key objective of the VAPS proposal is to reduce this conflict.

A Traffic Report has been prepared and accompanied the EA. In terms of operational traffic, the findings of the report support the proposed works as the VAPS project will;

- A. Not lead to any significant change to the operational traffic generation of the Sydney Opera House site; and
- B. Remove approximately 300 delivery vehicle movements per day from the Forecourt, therefore, significantly reducing the pedestrian/vehicle conflicts at this key pedestrian location.

In terms of construction traffic, the Traffic Report has identified a number of potential impacts that require management during the 2½ year construction period. These include:

- Construction vehicle access arrangements
 - Impact on adjacent properties and land uses; and

- Access to the Sydney Opera House;
- Noise impacts resulting from construction traffic;
- Road network operation – diminished intersection capacity with additional construction vehicles;
- Safety implications for all road users as a result of additional heavy vehicle flows and new construction vehicle access arrangements; and
- Potential loss of available on street parking:
 - Additional parking demand by construction workers;
 - Loss of on street parking to accommodate construction vehicle access.

In summary, the Traffic Report considers that these impacts can be managed through the implementation of a detailed Construction Traffic Management Plan, which will be prepared and updated for each stage of construction. These management measures include:

- Vehicle access to and from the site should be restricted to the existing access routes.
- Heavy construction vehicles will be restricted from accessing the site via Macquarie Street during peak arrival and departure periods for events / performances at the Sydney Opera House.
- Hours of operation for construction vehicle movements will be managed so that the impacts of construction vehicle noise on amenity can be appropriately managed during sensitive times.
- Construction vehicle access arrangements should be designed such that all construction vehicles can enter and exit the site in a forward direction.

On balance, the Department is of the view that the significant long term traffic and safety improvements of the proposal outweigh any short term construction impacts to the surrounding residential and commercial land uses, and public domain areas. It is also considered that the short term impacts can be adequately managed to acceptable levels through the implementation of a detailed Construction Traffic Management Plan (CTMP).

The Department has recommended a condition that requires the CTMP to be submitted to Council and the RTA for review and comment, and for the final plan to be approved by the Director General.

5.7 Noise and Vibration

5.7.1 Noise

In terms of operational noise, as the proposed VAPS project is not intended to either modify the existing road network or permanently increase the number of vehicles entering the site, no significant changes to the operational noise of the site is expected. The only operational difference affecting noise emissions is that once service vehicles have entered the site, instead of driving across the Forecourt, vehicles will enter at grade for a short distance before descending to the new underground loading dock.

The Noise Assessment submitted within the EA considered the likely noise impacts at the closest residential building being 1 Macquarie Street and found that peak sound levels as vehicles pass by the residences remain unchanged. However, as trucks enter the ramp to the loading dock over a 24 hour period, sound levels at the nearest residences would experience a minor increase as compared to the existing situation. This is a minor impact and will be offset given that the duration of these noise events (audible noise) will be reduced as soon as the truck has completely entered the underground ramp. Currently vehicles traverse the Forecourt in both directions.

With regards to construction noise, the final design stage and detailed construction program will determine the recommendations and best noise control practices to be observed during the construction phase. This forms part of the approval. In addition, the Statement of Commitments reiterates that construction work is to comply with the recommendations of *Sydney Opera House Vehicle and Pedestrian Safety Operational and Construction Noise Assessment* submitted with the EA. This document has been prepared having considered the relevant codes and standards of DECCW "Interim Construction Noise Guideline", 2009.

As with all such construction activities, related noise is transient and can be appropriately managed through the implementation of standard management techniques. Subsequently, the Department is satisfied that the mitigation measures contained in the Statement of Commitments and the

recommended conditions of approval will ensure that construction related noise will be adequately managed.

5.7.2 Vibration

It is likely that some vibration impacts will arise from the excavation and building works. The Operational and Construction Noise Assessment indicates that as exact construction methods have not yet been determined, an accurate assessment of likely impacts cannot be provided at this stage.

It is important that construction is managed so that vibration levels arising from demolition, excavation, and construction activities do not exceed the limits for human comfort or the Sydney Opera House building itself in terms of protection. The Operational and Construction Noise Assessment has recommended mitigation measures to manage construction noise impacts, noise control measures and best practice, and a Vibration Management Strategy. The Department is satisfied that the Operational and Construction Noise Assessment has adequately addressed potential vibration impacts, and the document will be required to be incorporated into the final Construction Environmental Management Plan as a condition of approval.

6. RECOMMENDATION


The Department has reviewed the environmental assessment and duly considered advice from public authorities in accordance with Section 75I(2) of the Act. All the relevant environmental issues associated with the proposal have been assessed. The key issues for the project such as the impact on the amenity and setting to the Sydney Opera House Forecourt during events/activities, potential structural impacts on structures, impact on the Tarpeian Wall, Aboriginal archaeology, traffic, noise and vibration have been addressed and where appropriate, conditions have been included within the project approval to assist in the mitigation of environmental, heritage, archaeological, amenity and traffic impacts.

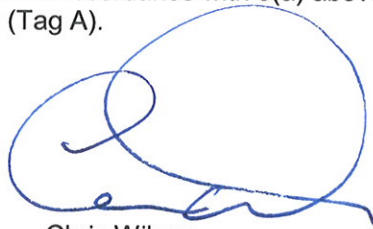
Draft conditions have been prepared in consultation with the proponent and Heritage Council, which have been accepted and form part of the project approval.


On these grounds, the Department considers the site suitable for the proposed Vehicle and Pedestrian Safety Project in the public interest and would not compromise the existing standing of the World and National Heritage values of the Sydney Opera House.

It is recommended that the Minister for Planning:

- a) Consider all relevant matters prescribed under section 75J (2) of the PEA Act, indication those relevant matters prescribed by 75I (2) as contained in the findings and recommendations of this report;
- b) Approve the project application, subject to conditions, under section 75J (1) of the EPA Act, having considered all relevant matters in accordance with 9(a) above; and
- c) Sign the attached instrument of Approval (Tag A).


9/12/10
Daniel Cavallo
A/Director
Government Land and Social Projects


9.12.10
Chris Wilson
Executive Director
Major Projects Assessment


10/12/10
Richard Pearson
Deputy Director-General
Development Assessment & Systems Performance

APPENDIX A ENVIRONMENTAL ASSESSMENT

See the Department's website at <http://majorprojects.planning.nsw.gov.au>

APPENDIX B SUBMISSIONS

See the Department's website at <http://majorprojects.planning.nsw.gov.au>

APPENDIX C PROPONENT'S RESPONSE TO SUBMISSIONS

See the Department's website at <http://majorprojects.planning.nsw.gov.au>

APPENDIX D CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

1. State Environmental Planning Policy (Major Development) 2005

On 26 June 2009, the Director General, as delegate of the Minister, formed an opinion that the project is a major project under Schedule 3 – Part 1 (Sydney Opera House) of *State Environmental Planning Policy (Major Development) 2005* (MD SEPP) and is thus identified as development to which Part 3A applies. The Minister is the approval authority.

2. Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

SREP 2005 covers the area of Sydney Harbour and its catchment, including the site of the Sydney Opera House. SREP 2005 establishes planning principles and controls for the management of the Sydney Harbour catchment as a whole. Under SREP 2005, the site of the Sydney Opera House is a heritage item within the Foreshores and Waterways Area of the Sydney Harbour Catchment, and the 'City Foreshore Area' is designated as a Strategic Foreshore Site.

Part 3, Division 2 of SREP 2005, lists a number of matters to be considered by the consent authority. Where relevant, these matters have been considered and addressed in the Department's consideration of the proposed application, and do not raise any matters of concern. The proposal is therefore considered consistent with SREP 2005.

3. Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The site of the Sydney Opera House is listed on both the World Heritage List and National Heritage List under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Actions that significantly affect world or national heritage listed sites require approval under the EPBC Act.

However, the Sydney Opera House is the subject of a Bilateral Agreement entered into between the Australian and NSW Government in August 2005, pursuant to section 45 of the EPBC Act. Under the terms of this agreement, the assessment regimes under the EP&A Act are automatically accredited under the EPBC Act. The terms of the agreement require that the proposed actions be in accordance with the *Management Plan for the Sydney Opera House* in force under the Environmental Planning and Assessment Amendment (Sydney Opera House Management Plan) Regulation 2005.

Therefore, any approval under the provisions of the EPBC Act would be satisfied by approval under Part 3A of the EP&A Act, provided that the proposal is compliant with the *Management Plan for the Sydney Opera House 2005* (Management Plan 2005). In this case, as the application is considered consistent with the Management Plan 2005, no separate assessment under the EPBC Act is required.

4. The Heritage Act 1977

Section 75U of the *Environmental Planning and Assessment Act 1979* (EP&A Act) states that an approval under Part 4 of the *Heritage Act 1977* is not required for approved projects under Part 3A. However, in the case of the Sydney Opera House site, both statutory approvals under Part 3A of the EP&A Act and Part 4 of the *Heritage Act 1977* are required.

This is a result of the Management Plan 2005, which is in force under section 288 of the Environmental Planning and Assessment Regulation 2000 (the Regulation). The Management Plan 2005, states that any proposed development on the site, assessed under Part 3A of the EP&A Act, will also require approval under Part 4 of the *Heritage Act 1977*. This approval is granted by the Heritage Office and is sought after the Minister's approval under Part 3A of the *EP&A Act*.

The Archaeological Impact Assessment, Archaeological Management Plan, Heritage Impact Statement Report, the Response to Submissions and Statement of Commitments adequately assesses the proposal in relation to its potential heritage impacts. The Department considers the reports demonstrate the proposal will have no detrimental impacts upon the heritage significance of the Sydney Opera House and is subsequently consistent with the Management Plan 2005.

In addition the proponent is required to lodge with the Heritage Branch of the Department of Planning, prior to the commencement of any works on site, a Section 60 application under the *Heritage Act 1977*, as required under the terms of the Bilateral Agreement.

5. State Environmental Planning Policy No. 55 – Remediation of Land

SEPP 55 applies to all developments in NSW. Clause 7 of the SEPP provides that a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated, and if the land is contaminated, it is otherwise satisfied that the land is suitable in its contaminated state for the purpose for which the development is proposed to be carried out. This includes land where development for a purpose referred to in Table 1 to the contaminated land planning guidelines is known to have been carried out. Table 1 is a list of activities that may cause contamination and includes "Railway Yards". The site previously operated as a tram depot.

In order to satisfy the requirements of the SEPP, a Preliminary Contamination Assessment has been carried out by the proponent. The assessment finds that the site is suitable from a contamination standpoint for the proposed development and the levels and nature of contamination detected are not likely to pose a significant risk either during the construction period or to ongoing / future users of the site.

As such, the Department is satisfied that the Vehicle and Pedestrian Safety Project satisfies the requirements of the SEPP

6. Management Plan for the Sydney Opera House (2005) (Management Plan 2005).

The Management Plan 2005, sets out the statutory framework for the assessment and approvals process and provides a brief summary of the World Heritage values and National Heritage values of the Sydney Opera House. It does not provide the policies that are to protect and conserve the National and World heritage values of the site. The terms of the Management Plan 2005, are given effect by the Regulation.

Under the provisions of the Management Plan 2005, any proposed development on the site would require statutory approvals under both the EP&A Act and the NSW *Heritage Act 1977*. The Archaeological Impact Assessment, Archaeological Management Plan and Heritage Impact Statement Report have been prepared to satisfy the requirements of the Management Plan 2005. The proposal demonstrates consistency with the Management Plan 2005.

7. City of Sydney Local Environmental Plan 2005

The site is zoned Parks and Community Places under the *Sydney Local Environment Plan 2005* (LEP 2005). The proposed development is permissible under the LEP 2005.

8. Sydney Harbour Foreshores Area Development Control Plan 2006 (DCP 2006)

Bennelong point is located within the Sydney Harbour Foreshore Area under DCP 2006. Section 4.17 of the DCP relates to seawalls located along the foreshore area. This section states that where a seawall is being upgraded, a similar material is to be used. Consistent with this, the Department is satisfied that the project's use of sandstone is consistent with the existing seawall material.

APPENDIX E RECOMMENDED CONDITIONS OF APPROVAL
