

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
<b>Sydney Water</b>			
1	<p><b>Stormwater</b> Sydney Water owns the stormwater channel located within the development area. Sydney Water is currently working with the developer to address the impacts that the proposed development will have on the stormwater channel.</p> <p>The developer is required to install a temporary channel deviation, and will need to carry out a permanent deviation of the channel as the development progresses. The developer is required to continuously liaise with Sydney Water's Stormwater group until the permanent deviation of the channel is completed to Sydney Water's requirements</p>	Noted and agreed.	Noted.
2	<p><b>Waste and wastewater servicing</b> The developer has recently submitted its proposed water related servicing strategy for the Barangaroo South development to Sydney Water for review. Once finalised, the servicing strategy will identify the water, waste water and non drinking water infrastructure required to service the site.</p> <p>All developments impacting on Sydney Water's assets are required to obtain a Section 73 Certificate.</p> <p>The Developer must fund any adjustments needed to Sydney Water infrastructure as a result of the development.</p>	Noted and agreed.	Noted.
<b>NSW EPA</b>			
1	<p><b>Air</b> Based on the air assessment results, as well as the type and scale of the proposed project, it is likely that the project can be managed to prevent adverse air quality impacts.</p> <p>To minimise the risk of adverse air quality impacts the proponent must develop and implement an air quality management plan for the project prior to construction activities commencing. As a minimum, the air quality management plan must include all mitigation measures included in the AQIA: Air Quality Impact Assessment Barangaroo C5 Commercial Building (AECOM, 9 November 2010). Specifically the mitigation measures must include the air pollution control measures assumed in the original air assessment under Section 3.2 Potential Emission Sources and consider the control measures outlined under Section 8.0.</p>	<p>An Air Quality and Odour Management Plan has been developed for the construction of the Basement Car Park and Commercial Building C4. The management plan will be further revised to include Commercial Building C5 prior to construction commencing.</p> <p>The Air Quality Impact Statement Management Plan Revision C incorporates all of the issues raised by EPA and in particular Section 8.0 Mitigation Measures. The Air Quality Impact Statement</p>	Noted.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
		Management Plan Revision C was issued to the EPA (for review and comment) and DP&I and subsequently approved by DP&I on 19 December 2011.	
2	<p><b>Noise &amp; Vibration</b> Operational noise levels from mechanical plant are predicted to not exceed the criterion at any receiver, noting that "some acoustic treatment, such as acoustic louvres or silencer, will be required in the external openings in plant rooms", however EPA notes that a cumulative assessment of operational noise from other mechanical plant on Barangaroo (including from buildings C3, C4 and C5) does not appear to have been undertaken.</p> <p>EPA will assume that the "Day" criteria contained within the NIA will apply to the Interim Construction Noise Guideline's standard hours and that the "Saturday (extended)" criteria will apply to the outside standard hours construction works occurring on Saturday afternoons.</p> <p>EPA notes that there is predicted to be up to a 6 dB exceedance of the criterion, which is at the Hickson Road residences outside standard construction hours (Saturday afternoon) under Scenario B. Most other predicted levels are within 2-3 dB above the criterion or are not predicted to exceed the criterion.</p> <p>The cumulative impact assessment (construction of Basement, C3, C4 and C5) indicated potential for up to 15dB exceedance of the criteria at the Hickson Road residences.</p> <p>The EPA recommends specific management measures to address these exceedances, such as community notification, installation of hoardings, using low noise equipment etc, (as described in the NIA) are to be included in the revised Construction Framework Environmental Management Plan.</p>	<p>The operational noise assessment for Commercial Building C5 was conducted for the individual building and the whole of site "cumulative" noise including Commercial Buildings C3, C4, and C5. See Section 4.2 "Cumulative Noise Produced by Mechanical Plant from the Whole Barangaroo South Development" of the report.</p> <p>The assumption is correct.</p> <p>Noted.</p> <p>Noted.</p> <p>This recommendation has been implemented as part of the site Environmental Management Plan (EMP). Where relevant findings and mitigation / management measures that have been determined as a result of specific</p>	<p>Noted and supported.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		assessments are incorporated into the EMP.	
3	<b>Water</b> EPA considers that providing the works are done in accordance with the Water and Stormwater Management Sub-Plan and in compliance with the conditions attached to Environmental Protection License number 13336, impacts on receiving waters can be adequately managed.	Noted and agreed.	Noted.
4	<b>Waste</b> EPA considers that the providing the works are done in accordance with the Revised Waste Management Plan and in compliance with the conditions attached to the Environmental Protection License number 13336, waste management impacts can be adequately managed.	Noted and agreed.	Noted.
<b>NSW Finance &amp; Services, Housing &amp; Property Group (Housing NSW Assets Division)</b>			
1	<p>Construction generated noise may exceed noise standards in the residential areas of High Street during some phases of construction, which would have an impact on local residents including social housing tenants located there....It is important that the Noise Mitigation Strategies identified in the Environmental, Construction and Site Management Plan (ECSMP) prepared for each project, if approved, are included in the conditions of project approval to ensure that all Environmental Impact Mitigation Measures are adhered to. It is noted that other approvals for works on the Barangaroo site have been conditioned to require specific noise mitigation treatments to be implemented and / or additional measures such as provision of respite from noisy, vibration intensive activities. Previous approvals have also been conditioned to include the implementation of a Construction Complaints Management System prior to the commencement of construction and the maintenance of the System for the duration of construction. It is requested that similar conditions of approval are applied to the Application for Building C5.</p>	<p>It is anticipated that the same approach that was adopted for Commercial Building C4 is adopted for Commercial Building C5 which includes a condition which requires the preparation of a Construction Noise and Vibration Management Plan (Condition B20) prepared in accordance with the Statement of Commitments in Schedule 3 (specifically Statement of Commitment 37) to be submitted to the EPA for review and comment prior to the issue of a relevant Construction Certificate.</p> <p>An updated Construction Noise and Vibration Management Sub-Plan has been prepared (as part of the overall Environmental Construction &amp; Site Management Plan for the Basement Car Park and Commercial Building C4 projects) and has been signed off by both the Department of Planning and Infrastructure and the EPA in December 2011.</p>	A condition is supported.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		<p>Each of the particular matters of concern raised by NSW Finance &amp; Services in relation to potential noise and vibration impacts is required to be addressed in the Construction Noise &amp; Vibration Management Plan through the Statement of Commitments.</p> <p>It is considered that any future potential condition and the Statement of Commitments in its current form are sufficient to ensure that the noise mitigation strategies identified in the ECSMP are appropriately adhered to.</p>	
2	<p>It is very important that a dilapidation survey, identified in each ECSMP to be carried out prior to the commencement of works, be included in the conditions of approval and carried out accordingly. A post construction dilapidation report to determine whether construction works have caused any damage to surrounding LHC properties should also be included as a condition of approval. LHC properties surrounding the Barangaroo site have heritage significance and the long term preservation of these properties is of great importance.</p>	<p>Lend Lease recognises that all future project approvals at Barangaroo will require the submission of post-construction dilapidation reports at the completion of the relevant construction works at Barangaroo South.</p> <p>Given the staging, duration and timing of commencement and completion of various components of construction works, which will overlap and extend over a relatively long timeframe, it is considered appropriate that rather than preparing a series of individual dilapidation reports at the completion of each component of construction works (which would be very inconvenient for owners, tenants / residents who would be required to provide access to their properties) a site wide strategy be undertaken with respect to the preparation of dilapidation reports.</p> <p>It is proposed that the preparation of dilapidation reports relating to the works</p>	Noted.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>proposed as part of the Commercial Building C5 project be coordinated with the dilapidation reports relating to the works proposed as part of the basement, and Commercial Building C3 and Commercial Building C4 in the following manner:</p> <ul style="list-style-type: none"> <li>▪ a single dilapidation report at the completion of all excavation and piling works associated with the combined Bulk Excavation and Basement Car Parking Project Approval, Commercial Building C3, C4 and C5 Project Approvals; and</li> <li>▪ a single dilapidation report at the completion of all construction works associated with the combined Bulk Excavation and Basement Car Parking Project, and Commercial Building C3, C4 and C5 Projects that may give rise to vibration impacts to adjoining properties, infrastructure or roads are complete.</li> </ul> <p>In order to effect a site wide strategy with respect to the preparation of dilapidation reports, it is proposed that rather than imposing requirements through Conditions of approval imposed on individual project applications, the requirements be set up through the ESCMP, which is a site wide document.</p> <p>It is therefore proposed that Statement of Commitment 33 relating to the ESCMP be modified to require Lend Lease to prepare dilapidation reports in accordance with the above.</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
3	<p>A review of the Reflectivity Study submitted by the Proponent indicates that reflections off the surface of Building C5 (afternoon sun) in certain months would impact LHC properties located along High Street, Millers Point. The extent of the impact of the reflection from Building C5 would have on LHC properties, especially living areas, is not clearly shown by the Reflectivity Study. It is requested that further detail regarding this issue be provided. It is further requested that an assurance by the proponent be provided that reflections from Building C5 would have minimal impact.</p>	<p>A Reflectivity Study prepared by ARUP was submitted with the EAR for Commercial Building C5.</p> <p>The Annual Reflections Image Sequence included at Appendix A of the Reflectivity Study shows some intermittent reflections for short periods of time in the vicinity of the properties located along High Street. The report included no specific discussion of these reflections except for general comments on impact on surrounding buildings.</p> <p>These reflections are produced by the top of the faceted corner glazing to the North East corner of Commercial Building C5. They occur depending on facet orientation – most northerly facet Oct – Feb 7.30 – 8.30am, most easterly reflecting facet Jun-Jul 5.30 – 7am, each for up to 2min at a time only. Other facets can reflect at other times of the year in between these, but durations are equally short.</p> <p>Reflections off the facets are diminished at the distance to first houses in High St (approx 490m to height of tower where reflections occur) such that their intensity when looking level is likewise below this threshold.</p> <p>Glare subjectively deemed uncomfortable may still occur when looking from balconies up towards the top of the Commercial Building C5 tower and focusing straight at the sun reflection, but residents are not considered likely to look</p>	<p>Noted. A condition is supported.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>in this direction at the intermittent times when reflections occur as this is not considered the focus of their view. This glare is easily avoided when not looking straight in this directions.</p> <p>It is noted that in addition to the low intensity of reflections, the angle of these intermittent reflections against facades facing High St would be very shallow (&lt;10°) such that they would likely not reach most windows which are set back behind balconies, and as such would not protrude into living areas to any significant depth. Exceptions are houses on the southern end of High St facing South, but intensity considerations apply here, and these houses also feature large roof awnings which may limit exposure to the reflections.</p> <p>We further note that the study was conducted assuming an external reflectivity value of the building's glazing of 20%, while currently considered glazing products are of significantly lower reflectivity.</p> <p>It is anticipated that a similar condition to that placed on the Commercial Building C4 Project Approval (Condition B11) will be placed on Commercial Building C5 which requires the visible light reflectivity from building materials used on the facades of the buildings to not exceed 20% and to be designed to minimise glare. A report demonstrating compliance with these requirements would also be required to be submitted to the satisfaction of the PCA</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>prior to issue of a relevant Construction Certificate.</p> <p>Compliance with such a condition will mean that solar reflections from facades are unlikely to cause discomfort to occupants of these buildings, and are generally considered to have little or no solar reflection impact on the occupants of surrounding buildings.</p> <p>It is thus considered that the Reflectivity Study submitted with the project application is sufficient to demonstrate that any potential reflectivity impact to the existing residences on High Street will be minor if present at all, and also that any future condition will provided sufficient assurance that the selection of materials and finishes for Commercial Building C5 will meet the performance criteria modelled in the reflectivity study.</p>	
4	<p>Although the subject application does not relate to residential development, the lack of a Housing Strategy for the Barangaroo Site is of ongoing concern. Previous submissions have consistently requested that the Barangaroo Housing Strategy be prepared prior to the submission of project applications to ensure an appropriate mix of housing types and affordable housing options are incorporated in the Barangaroo development. Considering that a number of buildings proposed for the site are to be residential, and the DP&amp;I has already accepted a number of preliminary applications for residential buildings at Barangaroo South, the importance of finalising a Housing Strategy is reiterated.</p>	<p>A Housing Strategy for Barangaroo is to be submitted to the Barangaroo Planning Reference Group prior to the lodgement of any relevant project application within the B4 Mixed Use Zone.</p> <p>As the Commercial Building C5 is not a residential development, submission of the Housing Strategy is not required at this stage. The Housing Strategy is being developed and will be submitted at the appropriate time.</p>



# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
<b>City of Sydney</b>			
1	<p>Previous (February 2011) Recommendation 1 - The proponent must provide drawings that document the location of the building. For example, a dimensioned plan showing the Blocks relative to the site boundaries and a dimensioned plan showing C4 within Block 2. This is to include the location of Hickson Road, its kerbline and its existing fig trees.</p> <p><b>Generally satisfied although Hickson Road details remain sketchy.</b></p>	<p>Noted. It is not agreed that details at Hickson Road remain sketchy. Drawing RHSP-A-C5-2200-P-00 is a scale drawing that shows the location of Hickson Road, its kerb line and its existing fig trees in the context of this proposed building and its site.</p>	<p>This item has been reasonably addressed and no further comment is required.</p>
2	<p>Previous (February 2011) Recommendation 2 - The proponent must provide sections which show how the forecourt successfully changes level from RL 3.6 to (average) RL 2.2, and document why this level change is required.</p> <p><b>DP&amp;I should ensure that all alignment levels for new areas of public domain are designed to integrate with the existing public domain on all edges so that proposed finishes marry into existing surfaces along Hickson Rd and Globe Street/ Lime Street. This may require setbacks. Car parks should be recessed so that they do not present blank surfaces or generate access problems. New roads should follow the ground plane to assist with overland flow paths.</b></p>	<p>The subject Project Application does not seek to amend the approved ground levels of the building (RL 3.5). This comment is therefore not relevant to the current application.</p> <p>Consistent with the approach applied to Commercial Building C4 it is assumed that conditions will be placed on the approval that requires detailed design documentation of how the road pavement and footways match into the existing public domain.</p>	<p>Lend Lease (LL) and the Barangaroo Delivery Authority (BDA) met with the City (CoS) on 6 March 2011 in order to present this PPR. They have advised that the public domain is the subject of a future application and that they will consult with the Council during its development. Consultation should be a condition of any approval.</p> <p>It is requested that the final Public Domain Plan and Temporary Public Realm Plan be referred to the City of Sydney prior to approval by the Director General.</p>
3	<p>Previous (February 2011) Recommendation 3 - The proponent must provide an overlay plan that demonstrates how the building fits into the Concept Plan (as approved) and Concept Plan as proposed to be amended.</p> <p><b>The Department is to ensure consistency with the Concept Plan in relation to GFA/FSR, height and built form, ensuring that there is sufficient allocation of floor space area for low rise buildings (ie along Hickson Road).</b></p> <p><b>It is essential that the Department double check all GFA calculations presented by the Proponent in light of the previous contentions raised regarding GFA and ability for this precinct to support the increased capacity and include the table in any approval. This should be</b></p>	<p>The Commercial Building C5 proposal is consistent with the approved Concept Plan (Mod 4) GFA and height as is detailed in the PPR. There is no FSR provision or requirement relating to Block 2. A table showing the cumulative approved and proposed GFAs across Block 2 was provided in the Commercial Building C5 EAR.</p>	<p>This issue has been satisfactorily resolved by the provision of a GFA table maintained by the DoPI located on their web site under MP 06_0162 MOD 4.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
4	<p><b>consistent with the concept plan approval.</b></p> <p>Previous (February 2011) Recommendation 4 - Plans should be submitted as part of the Preferred Project Report process the final designs of the temporary wind mitigation measures associated with this project.</p> <p><b>The predicted wind effects identified in the proponents wind report are generated by very large buildings which are essentially two big and too close together for both their road layout and their exposure to winds across Darling Harbour and from the south. This result is that the building designs cannot ensure that the ground level conditions will be fit for passive comfort without likely substantial overhead glazing, the details of which have not been provided.</b></p> <p><b>It is considered that the adverse wind impacts would be improved by an increase to the height of the tower's podiums. The City also recommends that the height of C5 be reduced to improve wind and shade impacts as it is likely to have the most detrimental impacts on Margaret Street extension and the high pedestrian flows to the ferry wharves.</b></p>	<p>There is no amendment proposed to the height of the podium element, nor to the Statements of Commitments relating to temporary wind structures. A detailed response to this issue is located at Section 2.2 of the PPR.</p> <p>The exhibited Wind Tunnel Study concluded that without appropriate ameliorative measures wind conditions at certain locations around the building would not be acceptable for general pedestrian access. However, the wind conditions around the building were likely to improve to a satisfactory level with the future construction of the other buildings on the Barangaroo site.</p> <p>The Wind Tunnel Study recommended that in the short term temporary structures be provided to ameliorate the wind conditions and that remedies to solve these issues be investigated in the wind tunnel to ensure a suitable pedestrian environment around the development.</p> <p>Consistent with the approach applied to Commercial Building C4 it is assumed that conditions will be placed on the approval that requires submission to and approval by the Director General of the detailed design of the temporary wind structures and temporary structures prior to the issue of the relevant Construction Certificate. Such a condition is considered to appropriately ensure that the detailed design of the recommended temporary wind structures is considered prior to</p>	<p>The podium heights are still too low in order to mitigate the downward wind effects of the tower wind shear on the streets and footpaths given the exposure to the westerly winds over the water. The City of Sydney still insists that the height of the podiums are ineffective and need to have a minimum height of RL 24 (not 14.5 - 19.5m as proposed). Major projecting glass skirts are proposed (6 - 8m in projection on building C5) to deal with wind downdrafts. The City was advised that the wind shields would be temporary and removed when the development was completed. The City regards this as being unlikely.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
5	<p>Previous (February 2011) Recommendation 5 - The bulk and scale of the tower should be reduced, including:</p> <ul style="list-style-type: none"> <li>▪ The width and length of the tower being reduced;</li> <li>▪ The floor area being reduced to at least align with the indicative drawings in previous applications; and</li> <li>▪ The tower floors being reduced in area as the building increases in height</li> </ul> <p><b>Changes to floor plate floor areas appear to be negligible. The Department needs to ensure compliance with the Concept Plan.</b></p> <p><b>It is considered that C5 should have a maximum height of RL 140 (5 floors) to improve ground plane conditions.</b></p> <p><b>The City has noted that most of the photomontages view the buildings from above street level. The City rejects much of the photomontage methodology using wide angle lens (to replicate field of vision instead of human eye perspective) and recommends that new photomontages of all 3 towers together be requested, particularly as viewed through Union Walk.</b></p>	<p>construction commencing.</p> <p>The consistency of the Commercial Building C5 tower proposal with the approved Concept Plan (Mod 4) is documented in detail in the EAR at Section 5.2. As identified, the proposal complies with all relevant requirements of the approved Concept Plan.</p> <p>The height of Commercial C5 is consistent with the approved Concept Plan (Mod 4) and architectural / urban design vision for the Barangaroo South site. The EAR and associated technical reports demonstrate that the ground plane conditions around the building are appropriate.</p> <p>As requested by the Council, new additional photomontages that show Commercial Building C5 in the context of the Commercial Buildings C3 and C4 have been prepared and are included at <b>Attachment B</b>.</p> <p>The issue raised by the Council that it <i>'rejects much of the photomontage methodology using wide angle lens (to replication field of vision instead of human eye perspective)'</i> is a matter that was dealt with in detail at the time of the PPR for the Concept Plan (Mod 4).</p> <p>The photomontage methodology used by Virtual Ideas (i.e. use of a 50mm lens and an angle of view of 46 degrees) has previously considered and assessed as an appropriate methodology by DP&amp;I.</p>	<p>The City contends that despite the modified tower proposal complying with the approved Concept Plan, the proposal is for one that is too great in bulk and scale as detailed in Recommendation 5 and 5A.</p> <p>CoS believes that the southern most tower (C5) should be reduced 5 floors to RL 140 due to the negative wind effects and overshadowing of the Darling Harbour promenade at lunchtime in winter months. This was rejected by LL on the basis that MP06_0162 Mod 4 concept plan already approves (against our advice) RL 160.</p> <p>Council rejects the proponent's ongoing argument that a wide angle lens of 17-24mm is the most appropriate representation for photomontages. The lens of the human eye most closely matches 50mm in terms of the scale and how near or far objects appear from the viewer. In this regard, the City has used the applicant's plans to do photomontage modelling using the following methodology:</p> <ul style="list-style-type: none"> <li>• photographs were taken with Nikon D700 camera with Nikon 50mm lens, each position noted as well as a central target point.</li> <li>• 3D CAD models of proposed buildings were created in Microstation using plans/ elevations/ sections PDF</li> </ul>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
		<p>The intention of a photomontage rendering is to visually communicate how proposed built form sits in respect to its surroundings. To achieve this, a digitally rendered image from a digital 3D model is superimposed into a digital photograph to provide an accurate representation in terms of light, material, scale, and form.</p> <p>Camera lens selection also plays an important part in creating a photomontage that communicates visual impact. There are several things to consider with respect to lens selection.</p> <p><b>Field of View of the Human Eye</b></p> <p>This is a topic that varies depending on the source of information. In many cases the field of view of the eye is stated to be 17mm. Other sources of information on the web say that it is more like 22-24mm. Whichever the case it is clear that the human eye has quite a wide field of view and when we stand close to a subject (say a building) we have quite a lot of vision towards the top, sides and bottom. In addition to this the human eye can change focus and target direction extremely quickly allowing us to view a large structure in a very short period of time, effectively making our perceived field of view even larger.</p> <p><b>The Perspective of the Human Eye</b></p> <p>It is difficult to accurately reproduce what the human eye sees by the means of a printed image. As the back of the human eye is curved and the sensors on cameras</p> <p>files.</p> <ul style="list-style-type: none"> <li>Proposed models are positioned in relation to survey with MGA coordinates supplied by applicant &amp; the City's 3D CAD model.</li> <li>views are replicated in Microstation based on 50mm lens, target &amp; position of photographs. Images of each modelled view are saved with &amp; without the City's model buildings.</li> <li>modelled images are superimposed over photographs in Photoshop C4 Extend. Final images are saved as .JPG's</li> </ul>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>are flat the perspective of a photograph can look quite different to how we see things in the real world, especially with a larger field of view, or wider lens.</p> <p>In digital photography circles it is commonly stated that using a longer lens (approx 50mm) reduces the amount of perspective in an image and therefore looks more like the human eye would see reality, but this is talking about perspective only, and does not consider the field of view of the eye. If you take a photo using a 50mm lens, print the photo, and hold the print out against the actual view in the same location the photo was taken from, it becomes very clear that the human eye can see much more of the surrounding information than what is shown on the print out.</p> <p><b>Changing the FOV on a digital camera</b></p> <p>The main difference in using a longer lens vs. a wider lens is the amount of information that is displayed at the edges of the subject. Changing the lens to a smaller FOV produces the same result as cropping in on the wide angle image, providing that the position and the angle of the camera remains constant while taking the photographs. In short, a lens with a wider FOV does not create an image that has incorrect perspective it simply means that the perspective is extended at the edges of the image showing more of the surrounds in the images.</p> <p>What all of this means for visual assessment is that there is no "one fits all"</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
		<p>solution for lens selection. If we follow the opinion that a longer lens produces images that are closer to the perspective of the human eye, we will inevitably be in the situation where we cannot show the entirety of our subject and enough of the surrounds that it resides in. Also if we strictly stick to a 17mm lens we will have situations where the subject is far away and looks very small in the image, again making it difficult to assess visual impact. For these reasons we have taken the view that we can never totally represent what the human eye will see on a piece of paper, and for visual impact photomontages we should select lenses that strike a balance between the two and can accurately display the built for in its surroundings.</p>	
6	<p>Previous (February 2011) Recommendation 6 - The length of the building should be reduced to:</p> <ul style="list-style-type: none"> <li>Minimise the view disruption from Pymont Bridge which severs the historic visual connections across Darling Harbour from Pymont Bridge to Millers Point; and</li> <li>Minimise the visual impact upon the foreshore, to improve the visual appreciation of Darling Harbour from foreshore areas of Pymont</li> </ul> <p>Previous (February 2011) Recommendation 7 - The extent to which the footprint is reduced should be informed by an aim to minimise the adverse impact upon views and vistas to and from public places, landmarks and heritage items around the foreshores of Darling Harbour and from the Miller Point Heritage Conservation Area, particularly Observatory Hill.</p> <p><b>The City notes that the current designs have refined the tower footprint to marginally address the issue of view disruption and visual impact. The changes made are acknowledged by the City as an incremental design improvement to the designs.</b></p>	<p>The comments of the Council relating to the refinement of the tower footprint and design improvement in terms of view disruption and visual impact are noted.</p> <p>The approved Urban Design Controls applying to Block 2 under the approved Concept Plan (Mod 4) establish a maximum horizontal floor plate length for Commercial Building C5 of 85.5 metres. The Commercial Building C5 proposal complies with this Urban Design Control.</p> <p>It is not proposed to modify Commercial Building C5 to reduce the length of the floor plate above RL 60 and again above RL 120. The environmental impact of floor plates with a length of 85.5 metres</p>	<p>Despite the approved Urban Design Controls applying to Block 2 under the approved Concept Plan (Mod 4), the City of Sydney will continue to argue that bulk and scale is too great as previously stated and objects to the proposal.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>Despite the Department's previous assessment, the City reiterates the points identified in recommendations 6 and 7 that the proposal does not go far enough in addressing the bulk and scale of the three towers in their context. The buildings should ideally be modified so that they have a maximum length of 60 metres above RL 60 and a maximum length of 50 metres above RL 120.</p>	<p>has been considered in the EAR.</p>	
7	<p>Previous (February 2011) Recommendation 8 - The awnings should be amended to comply with City of Sydney provisions for awnings to provide weather protection.</p> <p>The Proponent details that awnings proposed at a higher height that those allowed under the City's controls permit greater activation of the ground plane by allowing double height windows to the ground floor tenancies. They also claim that these higher awnings will ensure wind amelioration.</p> <p>Despite the Department's assessment, the City does not support this argument. The higher awnings simply allow for more advertising and branding at the expense of wind and rain protection during weather events and should be revised as evident in the recent Westfield development in the city.</p>	<p>Lend Lease maintains the accepted position for Commercial Building C4 that the awnings allow for greater activation of the ground plane by allowing double height windows to the ground floor tenancies without compromising pedestrian comfort.</p>	<p>The City remains unconvinced that this provides for a good outcome. For a recent built example one can observe the Westfield Sydney redevelopment in central Sydney.</p>
8	<p>Previous (February 2011) Recommendation 9 - The Public Domain Plan should be completed prior to the approval of this Project Application so that the paving works are done once only and built to a suitably high standard. If this does not occur, a deferred commencement condition should be considered that the consent does not operate until the finalisation of the public domain plan. Alternatively, permanent surfaces to City standards are to be in place around areas where access must be maintained and is unlikely to suffer damage due to restrictions on construction access.</p> <p>City of Sydney comment on Mod 1 application: The City acknowledges that the Draft Public Domain Plan has been lodged with, and is being considered by the Public Domain Technical Working Group, of which the City is represented.</p> <p>Concerns raised by the City in regard to public domain details and the timing of works are reiterated. Recommendation 9 above still stands</p>	<p>The Council's acknowledgement that it is represented on the Public Domain Technical Working Group that is considering the draft Public Domain Plan that has been submitted to it, and thus its role in resolving this document, are noted.</p> <p>As Commercial Building C5 is one of the first buildings constructed on the site, the surrounding curtilage of the building will need to strike a balance between providing good amenity and access for tenants and recognising the construction program whilst successive stages are constructed. To that end, a "temporary" public domain solution is proposed for areas external to</p>	<p>This issue has been satisfied by LL's advice that they will consult with CoS throughout this process.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
	as a recommendation.	<p>the building within Blocks 2 and in part Block 3.</p> <p>Consistent with the approach applied to Commercial Building C4, the establishment of temporary public domain an appropriate solution to the staged construction program at Barangaroo South.</p>	
9	<p>Previous (February 2011) Recommendation 10 - Increase the activity and permeability of the western podium facade.</p> <p><b>City of Sydney comment: Generally satisfied.</b></p>	Noted.	<p>There is no further comment regarding the western podium façade for Level 1.</p> <p>The PPR plans indicate a slight increase in the south to north permeability through the foyer. It is considered that at least one lift lobby have direct access to Union Walk. Transport for NSW made the same comment at their point 3. The corresponding PPR response does not address the issue of permeability.</p>
10	<p>Previous (February 2011) Recommendation 11 - The plan should be amended to show the base of the pedestrian bridge and include details of surfaces, transitions and circulation that links City Walk with the pedestrian bridge, and the bridge shown to extend to Hickson Road despite the proposed boundaries.</p> <p><b>City of Sydney comment: The City reiterates its concern highlighted in recommendation 11 above and requests that the Department ensure that this issue is adequately addressed at a later stage when the Project Applications for the bridge and the City Walk connections are lodged.</b></p> <p><b>Concern is also raised at the relocation of the pedestrian bridge to Margaret Street West. The pedestrian bridge should link with City Walk as this is a central area and focal point for works and visitors to Barangaroo.</b></p>	<p>The pedestrian bridge does not form part of the Commercial Building C5 development. The area of City Walk immediately adjoining the future pedestrian bridge will be the subject of a future Project Application. This comment is not therefore considered relevant to the current application.</p> <p>The Council's request that the DP&amp;I ensure the identified matters are adequately addressed at such time as Project Applications for the bridge and City Walk connections are lodged is noted.</p>	The City requests to be consulted during the development of all future Project Applications.



# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
11	<p>Previous (February 2011) Recommendation 12 - Information is to be submitted as to the pedestrian access along Hickson Road or how access is proposed to be maintained to the surrounding area. Connections to Hickson Road including Napoleon Street and nearby destinations need to be considered.</p> <p><b>City of Sydney comment: Generally satisfied.</b></p>	Noted.	The proponent's responses to Transport for NSW are noted.
12	<p>Previous (February 2011) Recommendation 13 - That one architect is responsible for the design of the entire building, or if two architects are to be retained, then either the architectural language should be consistent or a more apparent separation between tower and podium needs to occur.</p> <p>Previous (February 2011) Recommendation 14 - In light of known tenant expectations for buildings to be without corporate colours, the proponent should provide montages of the building with the yellow elements shown in alternate colours in order to assess the architectural/urban design outcome.</p> <p><b>City of Sydney Comment: Recommendation 14 has been generally satisfied.</b></p> <p><b>Additional recommendation 13A: The City's control standard of a minimum street frontage height of 22-24 metres should be applied as a minimum to this significant development.</b></p>	<p>The Council's comment that Recommendation 14 has been satisfied is noted.</p> <p>It is not proposed to increase the street frontage height of the podium.</p> <p>A three storey podium wraps around the building beyond the extent of the tower form. The podium reaches a height of RL 18, or approximately 14.5 metres above street level. The podium also features a pop-up section on the north western corner which reaches a height of RL 23.3. The podium accommodates retail uses on the lower levels that will activate the building's street and land frontages and provide an appropriate human scale.</p>	<p>Recommendation 14 has been satisfied.</p> <p>The City of Sydney's Recommendation 13A remains. Other modifications by the proponent to the approval are possible and it is considered that further amendments should be incorporated.</p>
13	<p>Previous (February 2011) Recommendation 15 - The testing report 'Archaeological Testing Barangaroo South' should be submitted as part of the PPR so that the extent of the testing and whether this was satisfactory can be assessed.</p> <p><b>City of Sydney comment: Potentially satisfied by Conditions D17 and D18 applied to C4.</b></p>	This comment refers to Commercial Building C4 (Mod 1) Application and does not relate to the subject application.	Satisfied. It is assumed that similar conditions would also be imposed on C5.
14	Previous (February 2011) Recommendation 16 - The proponent should commit to, and be required by conditions of consent to, provide further modelling to assess the impacts of potential changes on local air quality should there be any substantial changes to pollutant emitting activities proposed	<p>This comment refers to Commercial Building C4 (Mod 1) Application.</p> <p>Consistent with the Commercial Building</p>	Agreed and supported.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>during construction.</p> <p>Previous (February 2011) Recommendation 17 - The Construction Environmental Management Plan (CEMP) should be adjusted to include the potential impacts of traffic movements once the site is operational and all associated plant and equipment within and around the building, and should be continually updated to reflect the cumulative impacts as further Project Applications are progressed.</p> <p><b>City of Sydney comment: Potentially satisfied by Condition D14 and B18 applied to C4.</b></p>	<p>C4 Project Approval, it is assumed that conditions similar to D14 and B18 applied to C4 will be placed on the Commercial Building C5 approval.</p>	
15	<p>Previous (February 2011) Recommendation 18 - A condition of consent should be imposed that ensures upon finalisation of the project a separate Site Audit Statement from a NSW DECCW accredited Site Auditor is submitted to Council.</p> <p><b>City of Sydney comment: Whilst this recommendation has been satisfied by Conditions A7 and C6 applied to C4, the City wishes to reiterate this recommendation by Replacement Recommendation 18:</b></p> <ul style="list-style-type: none"> <li><b>A condition of consent should be imposed that states that the final site validation reports should be reviewed by the Site Auditor; and a Site Audit Statement, Site Audit and validation report be issued following completion of the site remediation works and prior to commencement of the built form of the development confirming that the land is suitable for the proposed land uses as required under condition A7 of the approval for Building C4. Conditions of consent should also include other recommendations in the Barangaroo Independent Remediation Review Panel Report dated 8 December 2011.</b></li> </ul>	<p>This comment refers to Commercial Building C4 (Mod 1) Application.</p> <p>Consistent with the Commercial Building C4 Project Approval, it is assumed that similar conditions will be placed on the Commercial Building C5 approval. Council has acknowledged that its previous request / recommendation has been satisfied by Conditions A7 and C6. It is not considered that the Council's further Replacement Recommendation 18 is necessary.</p>	<p>Agreed.</p> <p>Replacement Recommendation 18 is provided for the DoPI 's consideration to ensure that correct remediation procedures and reporting is fully conducted. Consistent with the Commercial Building C4 Project Approval, it is assumed that a similar condition (Condition A7) will be placed on any approval for the Commercial Building C5.</p>
16	<p>Previous (February 2011) Recommendation 19 - Further details of the blackwater treatment plant should be submitted including source water, method of catchment, storage and treatment, and the proposed end use.</p> <p><b>City of Sydney comment on Mod 1 application: This recommendation has largely been satisfied by Condition B32 however the City requests to be involved in any future considerations of such building services.</b></p>	<p>Noted. This comment refers to Commercial Building C4 (Mod 1) Application. Consistent with the Commercial Building C4 Project Approval, it is assumed that a similar condition (Condition B32) will be placed on the Commercial Building C5 approval.</p>	<p>Noted and agreed. The City requests to be involved in any future considerations of such building services.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
17	<p>Previous (February 2011) Recommendation 20 - The plans should be amended to include tri-generation or further justification is required as to why it will not be incorporated into this development. The application should demonstrate that plant areas are adequately sized, located and serviced (eg ventilation etc) to allow for future adaptation to tri-gen, even if not proposed under this application.</p> <p><b>City of Sydney comment: The Proponent has adequately addressed this recommendation by restating their commitments in regards to ESD.</b></p>	Noted.	No further comment is necessary, however these commitments should commit to tri-generation and not simply only carbon offsets. LL has indicated that offsets will not form 100%.
18	<p>Previous (February 2011) Recommendation 21 - Details should be submitted of how the construction noise criteria will be achieved at the Billabond Childcare Centre given that they rely on natural ventilation and will be unable to close windows as is recommended in the Wilkinson Murray Construction Management Report.</p> <p>Previous (February 2011) Recommendation 22 - The Noise and Vibration Management Plan that has been prepared for the Bulk Excavation and Basement Car Park should be incorporated into the Environmental Management Plan for this project.</p> <p>Previous (February 2011) Recommendation 23 - As highly intrusive appliances will be used the proponent should strongly consider restricting the hours of use of such equipment, following discussion with stakeholders, and implementing respite periods.</p> <p>Previous (February 2011) Recommendation 24 - The proponent should give consideration to adequate provision of mechanical ventilation to the proposed retail area to ensure any future retail tenancies can satisfy the requirements of AS1668.1-1998 and AS1668.2-1991, with these details submitted as part of the PPR.</p> <p>Previous (February 2011) Recommendation 26 - Any condition of consent for constructions hours should be in accordance with the standard construction hours for the City of Sydney.</p> <p>Previous (February 2011) Recommendation 27 - The recommendations outlined in Section 10 of the Wilkinson Murray report should be implemented</p>		

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
<p>during the construction works and a condition of any consent be imposed to ensure this occurs.</p> <p>Previous (February 2011) Recommendation 28 - The proponent should detail the potential to restrict the hours of use of highly intrusive equipment and implement regular and daily respite periods during prolonged periods of continued use of these appliances. An assessment should be provided of the potential to use alternative equipment to address potential exceedance of noise levels through the use of such equipment. The Construction and Vibration Assessment should be updated to reflect how noise emissions from highly intrusive appliances will be dealt with in more detail.</p> <p><b>City of Sydney comment: These recommendations are generally satisfied by the imposition of Conditions D12, D13 and AN10 applied to C4. The City makes the following comment in regard to the amended and new EARs.</b></p> <p><b>Replacement Recommendations are provided for Recommendations 21, 22 and 23. These appear to relate specifically to proposed Commercial Building C5 and are provided as follows:</b></p> <p><b>Replacement Recommendation 21</b>  <b>Internal acoustic amenity – Residential buildings and serviced apartments</b>  The submitted operational noise assessment should take into account the internal acoustic amenity criteria for residential buildings and serviced apartments as set out in part 6.1 of the City of Sydney Central Sydney DCP.</p> <p><b>Replacement Recommendation 22</b>  <b>Acoustic verification report</b>  An acoustic verification report should be obtained from a suitably qualified acoustic consultant prior to Occupation Certificate outlining the extent of the mechanical services provided within the development and confirming that resultant maximum individual and combined operational noise levels complies with the City of Sydney "Noise Use" condition stated below when assessed at the property boundary of neighbouring noise sensitive receivers including adjoining buildings within the Barangaroo development. Should the report indicate that resultant noise levels are in exceedance of this criterion then</p>	<p>This is not applicable to a Project Application for commercial development.</p> <p>Noted.</p>	<p>Agreed.</p>

**MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION**  
**THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE**

Key Issues Raised	Lend Lease Response	City of Sydney Response
<p>further acoustic controls must be implemented as recommended by the acoustic consultant to ensure ultimate compliance.</p> <p><b>Noise Use Condition</b> The emission of noise associated with the use of the premises including the operation of any mechanical plant and equipment shall comply with the following criteria:</p> <ul style="list-style-type: none"> <li>• i) The LAeq, 15minute noise level emitted from the use must not exceed the background noise level LA90, 15minute by more than 5dB when assessed at the boundary of any affected residence.</li> <li>• ii) The background noise level shall be measured in the absence of noise emitted from the use in accordance with Australian Standard AS 1055.1- 1997-Description and measurement of environmental noise.</li> <li>• iii) The LAeq,15minute noise level shall be adjusted to account for any applicable modifying factors in accordance with Part 4 of the EPA NSW Industrial Noise Policy.</li> <li>• iv) The use of the premises shall be controlled so that any emitted noise is at a level so as not to create an "offensive noise" as defined in the Protection of the Environment Operations Act 1997 to any affected residence.</li> <li>• v) In this clause, the term “noise level emitted from the use” means the contributing noise level from the use in isolation to any other ambient noise and account must therefore be taken of the LAeq, 15minute when the use is not in operation.</li> <li>• vi) In circumstances where this development application refers to a modification or addition to an existing use, the background noise level referred to in this clause pertains to the LA90, 15minute noise level measured in the absence of all noise from the site.</li> </ul> <p><b>Replacement Recommendation 23</b> The works associated with the development must be undertaken in accordance with the recommendations given in the submitted Construction Noise and Vibration Assessment Report (page 39) prepared by Wilkinson Murray (report no 10232-C5, dated November 2011) and the Environmental Construction and Noise Management Plan prepared by Lend Lease report no 10-0347, dated Nov 2011.</p>	Noted.	
<p>The replacement recommendation 23 has been replaced with the following:</p> <p><b>Replacement Recommendation 23</b> The works associated with the development must be undertaken in accordance with the recommendations given in the submitted Construction Noise and Vibration Assessment Report (page 39) prepared by Wilkinson Murray (report no 10232-C5, dated November 2011) and the Environmental Construction and Noise Management Plan prepared by Lend Lease report no 10-0347, dated Nov 2011.</p>	Noted.	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p>Approved construction hours be set in accordance with the City of Sydney standard approved construction hours for the CBD area as outlined below.</p> <p><b>Hours of Work and Noise - CBD</b>  The hours of construction and work on the development must be as follows:</p> <ul style="list-style-type: none"> <li>(a) All work, including demolition, excavation and building work, and activities in the vicinity of the site generating noise associated with preparation for the commencement of work (e.g. loading and unloading of goods, transferring of tools etc) in connection with the proposed development must only be carried out between the hours of 7.00am and 7.00pm on Mondays to Fridays, inclusive, and 7.00am and 5.00pm on Saturdays, and no work must be carried out on Sundays or public holidays.</li> </ul>	Noted.	It is unclear as to whether 'Noted' by LL means accepted or not. In any case, it is anticipated that this advice will assist the Department to form its conditions of consent.
19	<p>Previous (February 2011) Recommendation 25 - The proponent should ensure that the requirements of the City of Sydney's Childcare DCP 2005 have been addressed and can be met as part of the PPR.</p> <p><b>City of Sydney comment: The City acknowledges that the detailed fit out and use of the Childcare Centre will be considered under a separate application. The Department is to ensure that the childcare centre in this location is capable of compliance with the Childcare Centre DCP, especially in relation to vehicular access and traffic and parking. All drop off and pick up for the child care centre must be provided within the development's site basement car park. It is recommended that a rate in line with the requirements set out in the City's Childcare DCP is used. The space must be contained within the basement as a sufficient number of dedicated spaces cannot be contained at the street level, and all spaces work more satisfactorily if they are all located together.</b></p>	No Child Care Centre is proposed as part of the Commercial Building C5 Project Application, therefore this recommendation and the Council's comments are not therefore considered relevant to this application.	Agreed. The City's comments relate to the Project Application for C3 and are not relevant to this application.
20	<p>Previous (February 2011) Recommendation 29 - As per the City's previous recommendations, Globe Street is to be aligned with Lime Street and the public domain elements including the kerb alignments and heights are to be consistent.</p> <p>Previous (February 2011) Recommendation 30 - The proposed Lime Street, Shelley Street and Margaret Street road redesigns must be completed prior to any occupation of the building known as building C4. The realignment of these roads must be approved by the City, and must be referred to the</p>	This comment refers to Commercial Building C4 (Mod 1) Application and does not relate to the subject application.	Whilst these recommendations could equally be applied (generally) to C5, LL has been working with the City to address these matters. No further comment is necessary.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
	<p>Sydney Traffic Committee for their concurrence. All costs for the design and construction of these roads must be met by the developer.</p> <p><b>City of Sydney comment: Despite Conditions B5 and B6 applied to C4, the above recommendations are reiterated by the City as per previous submissions.</b></p>		
21	<p>Previous (February 2011) Recommendation 31 - The applicant should prepare a pedestrian connection study to review the expected pedestrian desire lines across Hickson Road. The study is to ensure that pedestrian facilities are provided for all desire lines and not just rely on the existing facilities and hope that all pedestrians will deviate from their path to make use of them.</p> <p>OR</p> <p>The proponent must apply to the RTA for the signalisation of Napoleon Street. All arms of the signals must have pedestrian crossings. All costs associated with the design and installation of the signals must be met by the applicant.</p> <p>If approved by the RTA the signalised intersection must be installed prior to any occupation of the C4 building. If the signalised crossing is not approved by the RTA the applicant must undertake a review of all pedestrian desire lines to the site and recommend alternative crossing arrangements as per the above recommendation.</p> <p><b>City of Sydney comment: Condition A6 applied to C4 generally satisfies the City's previous recommendation.</b></p>	<p>This comment refers to Commercial Building C4 (Mod 1) Application and does not relate to the subject application.</p>	<p>Whilst this recommendation could equally be applied (generally) to C5, these issues are being addressed and resolved. No further comment is necessary.</p>
22	<p>Previous (February 2011) Recommendation 32 - The opportunity for providing smaller groups of bicycle parking around the site in their proposed final positions is to be considered.</p> <p><b>City of Sydney comment on Mod 1 application: Condition B24 satisfies the above recommendation.</b></p>	<p>This comment refers to Commercial Building C4 (Mod 1) Application and does not relate to the subject application.</p>	<p>Satisfied.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
23	<p>Previous (February 2011) Recommendation 33 - A parking management strategy should be submitted as part of the Preferred Project Report for this application.</p> <p>Recommendation 34 - That a condition be imposed that: A separate submission must be made to the Sydney Traffic Operations Unit seeking the City's approval for any kerb side parking restrictions. The submission must include a plan showing the proposed kerb side parking restriction signs and stems with changes to all signs and stems from the kerb line of the nearest intersection. All costs associated with the changes to sign posting will be at no cost to Council.</p> <p>Recommendation 35 That a Green Travel Plan is prepared as part of the Preferred Project Report process.</p> <p>Recommendation 36 That the TMAP Supplementary Report (Appendix D of the Environmental Assessment) be amended to include further information and clarification on the traffic and transport aspects of the development as discussed above as part of the Preferred Project Report process.</p> <p>Recommendation 37 That the Environmental Assessment be amended to include further information and clarification on the traffic and transport aspects of the development as discussed above as part of the Preferred Project Report process.</p> <p>Recommendation 38 That the above comments raised in relation to the CTMP inform an amendment of the Plan to be required by the Department of Planning as part of the Preferred Project Report process.</p> <p>Recommendation 39 - That the above comments raised in relation to the Travel Demand Management Plan inform an amendment of the Plan to be required by the Department of Planning as part of the Preferred Project Report process.</p> <p>Recommendation 40 - That the Impact Assessment and Construction Traffic Management Plan for this application and all other project applications appropriately consider the cumulative impacts of the various concurrent works proposed on the site.</p>	<p>No roads are proposed as part of Commercial Building C5 therefore Recommendations 33, 34, 35, 36, 38, 39 and 40 made by the Council are considered to have been previously addressed as part of the Commercial Building C4 Project Application, and the responses considered and assessed by the DP&amp;I as satisfactory as part of that Project.</p> <p>The traffic analysis conducted as part of the Commercial Building C3 Project Application has considered the cumulative effect of all major works in the Barangaroo precinct, including the C3, C4 and C5 commercial buildings as well as the Headland Park main works project.</p>	<p>This response and the responses to Transport for NSW generally address these matters satisfactorily.</p>



# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
	<p><b>City of Sydney comment: The above recommendations still stand. The City's concerns in regards to construction traffic management and the cumulative impact of traffic remains. The Department should ensure that the above is addresses in their assessment and by conditions of consent where required.</b></p> <p><b>It should also be made clear if the proposed pedestrian links are to be open at all times or controlled via gates (or the like).</b></p>		
23.1	<p>The car park is due to be constructed as a whole but buildings will only be entitled to use their own selection of parking spaces. The applicant has previously assured that car parking spaces to be assigned to the next buildings will not be made available for use. This is important as an individual's travel to work pattern is often made early and can be hard to change. Therefore providing extra parking up front which is then removed or reassigned once further development is completed can create long term parking problems.</p>	<p>Car parking areas to be built as part of the approved basement car parking structure and not required for allocation to Commercial Building C5 will be fenced off until such time that their allocation to future development within Barangaroo South has been approved as part of separate approvals processes. The proposed car parking spaces to be allocated to Building C5 have been identified in their final location clustered on each floor around the C5 lift core access. No further management of the Building C5 parking allocation is considered necessary.</p>	<p>The temptation to utilise the fenced off city parking may result in further future amendment applications. The Department should consider how this will be controlled and enforced.</p>
23.2	<p>The basement plans show which car spaces are to become available at the time of each development but there is no similar information relating to the loading docks. All loading and unloading for each of the buildings must be provided within the basement in time for the occupation of that building.</p>	<p>The Project Application clearly identifies (refer to p.47 of the EAR submitted with the Application) that 36 loading spaces are proposed to be allocated for a range of loading facilities within the basement. Table 7 on p.47 of the EAR sets out the specific uses to which the 36 loading spaces are proposed to be allocated including:</p> <ul style="list-style-type: none"> <li>• 1 articulated truck space for the supermarket</li> </ul>	<p>This response addresses this issue.</p>

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		<ul style="list-style-type: none"> <li>• 2 heavy rigid truck spaces for office / retail</li> <li>• 4 medium rigid truck spaces for office / retail</li> <li>• 4 small rigid truck spaces for office retail</li> <li>• 20 van/car spaces for office / retail and</li> <li>• 5 motor cycle / bicycle courier spaces for office / retail</li> </ul> <p>All loading and unloading for Commercial Building C5 is provided within the basement and will be available in time for occupation of the building.</p>	
23.3	<p>Construction Traffic Management Plan (Intersections) - The City is concerned about the LINSIG modelling and the exclusion of the Sussex St / King Street intersection. This intersection is a major intersection in the area and causes other intersections in the area to fail. While the reports state that they have been done as a network without the King Street intersection, the City feels that the results are not truly reflective of the actual conditions in the area. Several recent meetings with the State Government and Lend Lease have discussed that the intersection of Sussex Street / Erskine Street is already operating beyond capacity particularly in the PM peak period but is showing as a Level of Service B.</p> <p>The City would like to understand where the assumed 120 and 60 second cycle times have come from. Transport Management Centre, who is responsible for all signalised intersections, should be able to provide exact cycle lengths including each of the phases.</p>	<p>Fixed cycle times have been used in the LinSig model based on on-site observations and timings of the existing operation of traffic signals in the peak hours. Based on the distribution of traffic flows LinSig has optimised the individual phase times for each intersection. The model was calibrated by constraining the flow of vehicles on Sussex Street in the southbound direction during the PM peak to consider the effect of downstream queuing at King Street and Market Street intersections.</p> <p>The LINSIG traffic modelling indicates the Sussex Street / Erskine Street intersection to be operating with a Degree of Saturation (DOS) of 0.88 in the PM peak hour. This is approaching to the theoretical operating capacity for a signalised intersection and reflects existing operating conditions for the intersection.</p>	This response addresses this issue.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised	Lend Lease Response	City of Sydney Response
Construction Traffic Management Plan (Closure of Shelley Street) - There are now proposals to close Shelley Street (Margaret Street West) completely as part of the Wynyard Walk connection. Modelling for this intersection is being undertaken separately but the idea of this closure needs to be considered in the project applications. The City understands from Lend Lease that there will be a single lane eastbound available out of Shelley Street while the Wynyard Walk Bridge is being constructed. Once Globe Street connects to Hickson Road (The Hungry Mile) this temporary eastbound lane will be removed.	As noted separate traffic modelling considering the impact of the closure of Shelley Street is currently being undertaken. This modelling will consider the effects of the additional traffic generated by the Barangaroo South precinct. Any changes in the road network configuration would be complemented by traffic modelling at an appropriate stage.	This response addresses this issue.
Construction Traffic Management Plan (Truck Access Routes) - While it is acknowledged that the route from the north is not accessible in the AM peak period, an alternative using Grosvenor Street is mentioned. This will not be accepted by the City of Sydney as these trucks would still need to access York Street during the AM peak period. The City has been working very closely with Transport for NSW over bus operations in the Wynyard precinct and does not want to encourage additional traffic in the area. The other proposed alternative using the western distributor is more acceptable to the City.	It is anticipated that a condition which restricts trucks using York Street between 2pm and 8pm and between 6am and 10am will be applied.  The alternate route to be used is to be via the Western Distributor and Harbour Street as indicated in Figure 6 of the report.	This response addresses this issue.
Traffic Management and Accessibility Plan (Traffic Generation) - The City wants to understand how the Traffic Generation rates have been calculated. More detail needs to be provided so that the traffic generation rates can be checked.	The trip generation rates utilised in the report are consistent with those adopted by Masson Wilson Twiney for the September 2008 TMAP.	This response addresses this issue.
Traffic Management and Accessibility Plan (Light Rail) - The State Government has recently announced that the preferred route for light rail in the City Centre will be along George Street. It is likely that the first stage will be from Central to Circular Quay and then further extended to Barangaroo. It is essential to consider the provision of light rail as part of a network, with or without the stop at Barangaroo. It is possible that people will walk from Barangaroo through to George Street in order to catch the light rail through to Central and other destinations.	The TMAP notes that the NSW Government is currently considering light rail extensions as part of a wider integrated light rail network, including an extension through the CBD and to the University of New South Wales. The report notes that Light Rail has the potential to influence the mode of choice to Barangaroo in the future.	This response addresses this issue.
Traffic Management and Accessibility Plan (Closure of Shelley Street) - As above.	As above.	
Traffic Management and Accessibility Plan (LINSIG Intersection Modelling) - A statement has been made that "queuing back from the Harbour Bridge approach does constrain traffic operations in the vicinity of the site in both commuter peaks. Southbound flow on Sussex Street is also constrained in the PM peak as a result of queuing from the Sussex Street / King Street	The LINSIG model was calibrated by constraining the flow of vehicles on Sussex Street in the southbound direction during the PM peak to consider the effect of	This response addresses this issue.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
	intersection." An explanation of how these constraints have been considered in the LINSIG modelling needs to be shown.	downstream queuing at King Street and Market Street intersections.	
	The Travel Demand Management Plan should apply to the entire site, rather than be building specific.	The travel demand management plans developed for the C3, C4 and C5 commercial buildings are similar in nature and provide recommendations that are both applicable to the individual buildings as well as the entire Barangaroo South precinct.	This response addresses this issue.
23.4	Any cycling strategy for the entire Barangaroo site should be done in consultation with the City of Sydney.	Noted.	
23.5	Light rail – see comments above.	<p>Noted. As set out in the submission made by Transport for NSW, there is no current Government commitment to Sydney Light Rail on Hickson Road. The Government is considering Light Rail within the context of the Long Term Transport Master Plan.</p> <p>The TMAP notes that the NSW Government is currently considering light rail extensions as part of a wider integrated light rail network, including an extension through the CBD and to the University of New South Wales. The report notes that Light Rail has the potential to influence the mode of choice to Barangaroo in the future.</p>	This response addresses this issue.
23.6	While the use of Travel Tens for buses is relevant, it should be noted that at present there are very limited bus services to the Barangaroo area.	Noted.	
23.7	A 131500 widget is available from the 131500 website that can be placed on any other website. This widget links directly back to the 131500 trip planner.	Noted.	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
23.8	As there is very limited parking on the site, it might be an idea to dedicate the available parking to car pool vehicles.	Noted.	
23.9	Any staff relocating to this site will also need to be aware of the Workplace Travel Plan before alternative habits are formed.	Statement of Commitment 30 requiring preparation of a Work Place Travel Plan for Commercial Building C5 includes a requirement that the Work Place Travel Plan be included in the site induction for workers. It is considered that Statement of Commitment 30 adequately addresses the issue raised by Council.	This response addresses this issue.
24	The City has made a new recommendation (40A) suggesting 20 new conditions be added relating to the layout and use of the basement car park.	Lend Lease does not support the imposition of a series of generic conditions. The standard conditions have been recommended without consideration of the practical implications of their implementation as part of a Project Application for part of the use of a common basement that is subject to multiple separate Project Approvals. Whilst not supporting Council's generic conditions, it is noted that Lend Lease will provide the basement car parking, serving and access in accordance with the relevant Australian Standards.	The conditions are provided for the Department's benefit and consideration.
25	Previous (February 2011) Recommendation 41 - The proponent should submit an Aborigicultural Implications Statement that details post construction impacts on the Hickson Road trees.  <b>City of Sydney comment: Generally satisfied.</b>	Noted.	No further comment.
26	Previous (February 2011) Recommendation 42 - The proponent is to ensure that the Landscape Design Statement considers the final environment of areas where plantings are proposed, including factors relating to the construction of surrounding buildings, to ensure they are suitable. <b>City of Sydney comment: Generally satisfied, except for the design of Hickson Road.</b>	Noted.	No further comment.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

	Key Issues Raised	Lend Lease Response	City of Sydney Response
27	<p>Previous (February 2011) Recommendation 43 The Temporary Public Domain Treatment should be amended to incorporate the City's existing line of Fig trees into this open space area.</p> <p>Previous (February 2011) Recommendation 44 - The proposed temporary street tree planting along Globe Street should be reviewed and additional information provided, such as, how long is temporary and how will the applicant address the impacts to soil quality in tree pits? The City suggests the temporary planting of trees to be reconsidered.</p> <p><b>City of Sydney comment: The City suggests additional recommendation 44A:</b></p> <ul style="list-style-type: none"> <li>• <b>With regards to future planting opportunities within the development, it is recommended where possible large trees should be considered for planting on the site. However, given the limited setbacks within the development area, it is recommended that palm trees (Livistona sp) be considered.</b></li> <li>• <b>In the case of continuous avenue street tree planting, it is preferred that individual trees pits be linked to form continuous trenches, thereby maximising the soil volume available to the trees.</b></li> <li>• <b>Provision for drainage of such systems is an important aspect of the design and needs to be carefully considered.</b></li> <li>• <b>The use of advanced tree stock in all public domain areas is recommended.</b></li> <li>• <b>New tree planting would include but not be limited to the following:</b> <ul style="list-style-type: none"> <li>- <b>Excavation of sub-grade for continuous tree trenches</b></li> <li>- <b>Installation of subsoil drainage, imported soil mixes and structural soil</b></li> <li>- <b>Supplied trees grown to NATSPEC Guidelines for Specifying Trees to ensure quality trees and more successful establishment</b></li> <li>- <b>At the time of planting, the container size is to be a minimum of 400 litres with a minimum height of four (4) metres and calliper of 100mm</b></li> <li>- <b>Establishment and maintenance of trees for 2 years from completion of planting</b></li> </ul> </li> </ul>	<p>The Hickson Road Fig Trees are not within the Commercial Building C5 Project Application site area, and are 30 metres away from the proposed C5 works. The temporary public domain treatment proposed as part of Building C5 is not required to incorporate these trees.</p> <p>All landscaping being undertaken as part of the Commercial Building C5 project is temporary. The final landscaping details will be developed and approval will be sought in due course.</p>	This response addresses this issue.

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
28	<p>Previous (February 2011) Recommendation 45 - Tree protection measures are required for the Hickson Rd Fig trees. This information should be provided within a Tree Management Plan and must be prepared by qualified Arborist with a minimum Australian Qualification Framework (AQF) of Level 5 in Arboriculture and be in accordance with AS 4970 (Protection of trees on Development Sites) and AS 4373 (Pruning of amenity trees). The Plan should be required as part of the Preferred Project Report process to allow sufficient assessment, or less favourably as a condition of consent.</p> <p><b>City of Sydney comment on Mod 1 application: Satisfied by Condition D9 Applied to C4 however please see the City's submission to the Basement Carpark and Bulk Excavation Mod 3 dated 19 December 2011 for further information in relation to the Hickson Road street trees. The City suggests that the above conditions be equally applied to the applications for C3, C4 and C5 in order that all environmental impacts are comprehensively addressed.</b></p>	<p>It is not considered necessary to impose additional conditions relating to the Hickson Road Street trees on the Commercial Building C5 Project Application.</p> <p>Lend Lease has committed as part of the Bulk Excavation and Basement Car Parking Project Application to the preparation of a Tree Management Plan prior to commencement of the basement works (MP10_0023).</p> <p>The Tree Management Plan is required to outline the proposed range of tree protection measures to minimise any impacts on the trees proposed to be retained and will be prepared to the satisfaction of the Department of Planning.</p> <p>Lend Lease has committed to engage an appropriately qualified arborist to identify any required tree protection measures required for the proposed scope of works and monitor the site establishment works under the Bulk Excavation and Basement Car Park Project Application. As work progresses adjacent to the trees an Arborist Monitoring Programme will be implemented to monitor the health and stability of the trees.</p>	<p>The City's concern regarding the eventual decline of the existing Hickson Road row of Fig trees is best considered with the PPR for MP10_0023 (MOD 3).</p>
<b>Transport for NSW</b>			
1	<p>The project seeks approval for pedestrian access and circulation arrangements but the details are not available to ascertain precisely what the proposal includes.</p> <p>Proponent needs to provide more details within the proposal.</p>	<p>Information regarding pedestrian and cycle linkages and arrangements, including proposed bicycle parking, has been provided in sections 5.1 and 5.2 of the TMAP respectively. This includes key pedestrian and cycle routes, expected</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		origin and destination patterns and on-site facilities to be provided. Detailed circulation arrangements within the Commercial Building C5 building and basement will be provided during the project design phase.	
2	A condition of approval as per MP10_0023 regarding corridor protection for future Metro to ensure consistency and that the corridor is protected.	Noted.	
3	<p>Building C5 has no access off Union Walk. A 'back door' address that enables some smaller pedestrian flows through the building and provides some relationship to building C4 is recommended.</p> <p>This issue needs to re-evaluated within the context of more detailed information on pedestrian access and flows, as well as the need to meet stated objectives on permeability and achieving best practice urban design outcomes.</p>	Commercial Building C5 will be conveniently accessed via a number of pedestrian connections. The Wynyard Walk development will provide direct access for pedestrians approaching the site from the CBD, with the pedestrian bridge over Sussex Street landing adjacent to the entrance of the building. The proposed expansion of the King Street/Barangaroo Wharf Ferry terminal will also provide pedestrians direct route between the building front door and this public transport service.	
4	<p>The placement of what are 'permanent bicycle parking facilities, temporarily on the surface, in the absence of a solution to the actual long term placement of these facilities is unclear. The basement spaces under C3, C5 and C4 is fully allocated.</p> <p>More details are required to inform the assessment of pedestrian and cycle access, circulation as well as scoping of bicycle facility requirements.</p>	An appropriate mix of secure, basement bicycle parking and short term, surface parking is to be provided as a component of the development. This mix will accommodate both commercial tenants and visitors to the precinct. These will be complemented with end of trip facilities such as lockers, showers and change rooms. Circulation arrangements within the basement will be provided at an appropriate stage during the design phase of the project.	
5	It is unclear where will the temporary bicycle parking area be accessed from, particularly with the potential conflict with the construction of the Wynyard Walk pedestrian bridge to the south of the temporary bicycle parking area.	Bicycle parking is to be provided for short term use outside Commercial Building C5. The access to the temporary bicycle parking area will be confirmed during the	



# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		design phase of the project, however, it is envisaged that the access will be provided near the corner of Hickson Road and Margaret Street West.	
6	There is a general lack of references and acknowledgement of the interfaces with Wynyard Walk and Transport Place. This is most notable around setbacks from Margaret St west and Block 1 as well as Shelley Street and the eastern edge of C5 being 1m from the road.	The final interface with Wynyard Walk and Transport Place will be subject of a future public domain and building applications in those locations.	
7	There is a need to demonstrate that there is sufficient pedestrian capacity and amenity to support the pedestrian movements to, from and around the site, with consideration of Wynyard Walk and Transport Place.	There are a number of pedestrian connections to the site which have been considered in the Supplementary TMAP. The Wynyard Walk development will provide direct access for pedestrians approaching the site from the CBD, with the pedestrian bridge over Sussex Street landing adjacent to the entrance of the building. All signalised intersections in the vicinity of the site have dedicated pedestrian crossing facilities on all approaches. The Hickson Road / Napoleon Street intersection is to be upgraded to traffic signals prior to the initial occupation of the Barangaroo South precinct which will facilitate pedestrian movement across Hickson Road adjacent to the site.	
8	<p>Although the assessment refers to one, there is no overarching Barangaroo cycle strategy. The 2008 TMAP does not contain detail sufficient to inform staff facility requirements, access, circulation, and linkages to the developments and surrounding street network.</p> <p>The staff facilities need to be adequately scoped and assessed and; a detailed cycle program of peripheral road network improvements should be submitted to the City of Sydney for approval. This would clearly depict connections to bicycle parking facilities within the basement and along Hickson Road.</p>	<p>A summary of key cycling routes to the precinct, as well as the proposed parking provision, has been included in the TMAP for the C5 Commercial Building.</p> <p>Appropriate directional and information signage will be installed at key locations, including the entrance to the on-site bicycle parking area, indicating to cyclists the location of all on-site end of trip</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		facilities and access to the key cycling routes described above. Details of the location and content of this directional/information signage, as well as any other cycling infrastructure improvements such as the installation of drop-kerbs, would be provided to Council when appropriate.	
9	Section 2.5.2 The EA notes that the majority of bus and rail commuters are expected to utilise the Sussex Street and Margaret Street West intersection. Bus and rail commuters accessing C5 are likely to use the Wynyard Walk pedestrian bridge. Provision should be to integrate with the WW pedestrian bridge.	As the Wynyard Walk arrives near the front door of Commercial Building C5, it will provide a key pedestrian connection for people travelling between the Barangaroo South precinct and bus and rail commuters utilising Wynyard/Town Hall/Martin Place transport interchanges. Section 6.3 of the TMAP describes pedestrian access to the Barangaroo precinct via the Wynyard Walk development.	
10	Section 3.1 Stakeholder engagement. It is noted that the Transport and Access Technical Working Group has not met since November 2010 and has had no role in the development of plans for this current proposal.	In consideration of Commercial Building C5 there have been no significant changes to the Barangaroo South precinct access requirements by transport modes since November 2010 when the technical working group last met. The future provision of light rail, ferry and heavy rail (North West Rail Link) has been considered in the project application.	
11	Section 4.9 Pedestrian access to the site has not included consideration of Wynyard Walk.	The Wynyard Walk will complement existing pedestrian routes to the site. Section 6.3 of the Supplementary TMAP for Commercial Building C5 describes pedestrian access to the Barangaroo precinct via the Wynyard Walk development.	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
12	<p>Section 4.9 Appx K There are no details provided on pedestrian access and circulation. Figure 12 is missing a key and provides no information. Further detailed information on pedestrian access and relationship to public domain is required.</p>	<p>Figure 12 provides a representation of the key pedestrian approach routes to Commercial Building C5, and supports the text in the preceding paragraph. Detailed circulation arrangements within Commercial Building C5 and basement will be provided during the project design phase.</p>	
13	<p>Section 4.10 Appx A plans. Allocation of staff change facilities within the building's basement appear to be inadequate. Based on the drawings provided, and comparing C3, C4 and C5 indicative basement layouts. A single common staff change facility is provided under C4. This is considered inadequate if this is to service the stated 1,000 plus spaces allocated for bicycle storage. The locality is not convenient to personnel accessing buildings C3 or C5. Detailed information on bicycle facility requirements and scoping and assessment is required to inform allocation of floor space allocations.</p>	<p>Separate staff change facilities have been provided in the basement for each commercial building in a location appropriate to service that building. The current application includes spatial provision for bicycle parking and associated end of trip facilities for 5% of all commercial employees in accordance with GreenStar requirements. Lend Lease is targeting the provision of the facilities for 10% of all commercial employees subject to spatial considerations.</p>	
14	<p>Section 5.2 Appendix K. A number of issues are raised: changes to Pedestrian linkages through C5 with the removal of pedestrian flows, particularly North South through the building. Issue of Union Walk address, for C5, and relationship to public domain and building C4. Proponents needs to re-evaluate opportunity to establish Union Walk address for building and avoid the dead back of building void that is created by blocking access.</p>	<p>Pedestrian flows through the site were addressed within the EAR at Section 5.2.</p>	
15	<p>Section 5.9 and Appendix P Assessment of the wind conditions and mitigation measures needs to consider the impacts on pedestrian access and Wynyard Walk more generally. There is a need to identify the wind impacts that would be experienced on the Wynyard Walk pedestrian bridge as a result of the Barangaroo South development.</p>	<p>The wind issues relating to Wynyard Walk pedestrian bridge across Hickson Road have been addressed in Cermak Peterka Petersen report dated 8 December 2011. The document confirms that the design of the elevated section of the bridge provides sufficient protection to pedestrians against wind events.</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
16	<p>5.11.1 and Appendix D. The modelling provided in the Supplementary TMAP for the forecast LoS needs to consider the implications of Wynyard Walk, particularly in relation to reduced road capacity on Napoleon and Margaret Streets.</p> <p>The pedestrian linkages provided should include identification of Wynyard Walk.</p>	<p>Section 6.3 of the Supplementary TMAP for Commercial Building C5 describes pedestrian access to the Barangaroo precinct via the Wynyard Walk development. The traffic modelling has considered intersections along Hickson Road and Sussex Street where the impact of the Wynyard Walk is considered to be minimal on the operation of these intersections.</p>	
17	<p>Section 5.11 and Appendix D. Reference is made to Commercial C5-childcare uses – this is an error. Childcare centre is in C3.</p> <p>Check drafting and confirm figures on vehicle movements are still valid in this context.</p>	<p>It is noted that the report incorrectly makes reference to childcare uses, however the assessment was undertaken using the correct GFA/uses allocation and the findings of the assessment remain valid.</p>	
18	<p>5.11.2 Appendix U. The Sample Travel Demand Management Plan approach should be reconsidered when it is prepared prior to occupation certificate. The Building Manager through tenancy agreements has the pivotal role in determining how a TDM plan can best be implemented, managed and revised. Ownership sits with the building management and tenants not employees.</p>	<p>Noted.</p>	
19	<p>5.27 and Appendix T</p> <p>The Construction of TMP should include consideration of Wynyard Walk, particularly in relation to the reduced road capacity on Napoleon and Margaret Streets.</p> <p>The cumulative impacts of Wynyard Walk have not been identified or considered. The statement that there are no other major construction projects within the vicinity of Barangaroo know at this point in time is incorrect.</p> <p>Wynyard Walk has project approval and will be under construction at the same time at C5. Construction of C5 should not affect the Wynyard Walk construction site at Sussex and Shelley Streets.</p> <p>There should be no closure of Shelley Street until construction of the Wynyard Walk pedestrian bridge has been completed and Globe Street is opened to the public.</p>	<p>The Wynyard Walk construction is not expected to have a major impact on the construction works for Commercial Building C5. While the number of forecast construction vehicle trips per day has not been specified by TNSW, these are expected to be low – in the order of 8-10 trucks per day. It is expected the majority of these movements would occur outside of peak hours. It is expected the two project teams would coordinate with each other to mitigate construction impacts on the local road network.</p> <p>Trucks approaching the site are not to use the York Street/ Margaret Street/</p>	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		Napoleon Street route to access the precinct between 6am – 10am and 2pm – 8pm Monday to Friday. Given that any use of Napoleon Street by Barangaroo trucks will occur outside of the commuter peak periods, and most trucks are expected to arrive from the south and west (using alternate routes), the impact of the roadworks associated with the Wynyard Walk construction is considered to be low.	
<b>Submission of Cllr Irene Doutney, City of Sydney</b>			
1	<p>Transport: Should C3 and C5 go ahead as proposed, and the intended mode share targets are realised, the cumulative effect of these, along with the already approved C4 building, would add a total of 9102 train passengers to peak hour trains into the City every day which the rail network currently doesn't have the capacity to deliver. A similar situation is evident with buses – an additional 48 non-articulated buses at full capacity would be required to convey the estimated 2809 daily passengers these buildings would bring in.</p> <p>The BDA predicts that once complete 33 000 people will visit Barangaroo every day, in addition to the precinct's 23 000 workers and residents, further increasing demand on the public transport system in a way that no planning document so far produced seems to have accounted for.</p> <p>The buildings should be reduced in size to prevent these transport impacts.</p>	<p>Visitors to the Barangaroo precinct will utilise a number of different transport modes to arrive to the area. The future provision of light rail through the CBD, as well as the proposed expansion of the King Street/Barangaroo Wharf Ferry terminal to service the western side of the city has the potential to influence the mode of choice to the site.</p> <p>The development of the Barangaroo precinct will be staged over a number of years providing an opportunity for increased transport provision.</p>	
2	Lack of architectural diversity: The three buildings are copies of a single uninspiring plan with little differentiation. The buildings should be put out to a design competition as the architect has not designed a building commensurate with their outstanding reputation.	The Lend Lease scheme was selected on the basis that the 3 proposed commercial buildings (known as C3, C4 and C5) work together as siblings, not as separate or disparate designs.	
3	Podiums: The podium does not cover all aspects of the building, meaning some elevations present sheer walls to the adjacent streets. The building designs should be changed in such a way that podiums of some form can be accommodated on all sides of the buildings.	The podia have undergone further design development to address these concerns. This is outlined in the PPR.	
4	Public Domain: Much of the public domain proposed to surround C3 and C5	Due to the scale and complexity of the	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
	<p>is only intended to be temporary. Waiting for other, as yet unplanned, developments to take place before finalising the public domain means the final plans for this aspect of the project will be highly constrained by the existing developments. In addition, this approach would potentially result in increased waste materials.</p> <p>All aspects of the project, including the public domain areas of Barangaroo South, should be planned before anything but the most basic elements of construction start.</p>	<p>Barangaroo South development it is not possible to provide a final public domain outcome prior to the development of the buildings.</p> <p>The proposed temporary public domain strikes a balance between providing good amenity and access for tenants and allowing for the construction program to proceed whilst successive stages are constructed.</p> <p>The final Public Domain Plan will be prepared by the Technical Working Group which includes representatives of the City of Sydney.</p>	
5	<p>Retail Activation: The plan for the retail premises within the buildings to only trade from 8am-7pm will mean they play little role in activating the precinct outside office hours.</p> <p>It is disappointing that retail space is being removed to provide extra space for office lobbies. Retail areas provide activation, however large voluminous lobbies detract from this and are ostentatious.</p>	<p>The hours of operation for the retail areas will be subject of future applications.</p> <p>Retail uses which activate the public domain are being provided along all frontages of the building.</p>	
6	<p>Overshadowing: The EAR suggests that properties to the west of the site will be overshadowed <i>"for a short period of time between 9am and 10am in mid winter and on March 21"</i>. In actual fact, these properties will be overshadowed from sunrise until sometime between 9am and 10am for a period of the year that begins sometime before March 21st and continues for some time after the winter solstice.</p> <p>The diagrams also fail to account for the cumulative impacts of C3 and C5 together as the diagrams for one building do not include the shadows of the other.</p>	<p>The cumulative shadow impacts of the development were considered as part of the Concept Plan (Mod 4) application.</p>	
7	<p>Cumulative impact on views: The view analyses fail to account for the cumulative effect of both C3 and C5. While the various photomontages include the location of C4 (as a transparent image) they fail to include an image of what the scene would look like with both C3 and C5 present.</p>	<p>An updated view analysis which shows the cumulative effect of Commercial Buildings C3, C4, and C5 have been attached to this PPR.</p>	

## MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

### THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
8	<p>Greenhouse gas reduction targets: Other than references to photovoltaic panels being used on the buildings there is no indication given as to how the goal of &gt;100% onsite renewable energy generation will be achieved and the plan to purchase energy from offsite implies that the proponents don't intend to reach this goal.</p> <p>A commitment should be made, to purchasing 100% of the site's energy needs from renewable sources.</p>	Lend Lease have committed to achieving a 6-Star Greenstar rating for Commercial Building C5. The environmental initiatives to achieve the target rating are listed in Section 5.13 of the EAR.	
9	<p>Excavated Material: The notes that excavated material will be used to form the headland park, but that this is subject to a separate approval. What will be done with excavated material should it be dug up prior to this approval being finalised?</p> <p>If material excavated during the construction of these buildings and other parts of Barangaroo is to be reused in the headland park approval for this should be finalised and work should be ready to begin before excavation commences.</p>	<p>Project Approval has been granted for the Headland Park and Northern Cove Main Works.</p> <p>If material excavated during the construction of Commercial Building C5 buildings and other parts of Barangaroo is to be reused in the headland park approval for this should be finalised and work should be ready to begin before excavation commences.</p>	
10	Signage: Details of what type of signage is to be permitted should be made available as part of the approval process.	The detailed design of the building identification signage and business identification signage will be submitted for the approval of the Director-General prior to the issue of the relevant Construction Certificate.	
11	Planting: The idea of external planting beds on parts of the building façade as well as plantings on top of the podia are most worthwhile, as is the proposal to capture stormwater to water these. I suggest that the external planting beds be expanded to cover all sides of the buildings – possibly balconies could also be added to all sides but not doing this shouldn't preclude an expanded planting regime.	Noted.	
<b>Leichhardt Council</b>			
	Leichhardt Council insists on confirmation the right balance between the provision of private car parking spaces without resulting in adverse traffic congestion and the availability of public car parking has been resolved.	Commercial parking is provided at rate of 1/600m <sup>2</sup> GFA which is in full accordance with the Barangaroo Concept Plan. This rate is considered appropriate in	

# MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION

## THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE

Key Issues Raised		Lend Lease Response	City of Sydney Response
		balancing the requirement for on-site parking without resulting in adverse traffic impacts on the local road network.	
	Council questions the adequacy of existing and proposed public transport facilities and their capability to support the intensity of the development proposed and subsequent increase in population and patronage.	<p>Visitors to the Barangaroo precinct will utilise a number of different transport modes to arrive to the area. The future provision of light rail through the CBD, as well as the proposed expansion of the King Street/Barangaroo Wharf Ferry terminal to service the western side of the city has the potential to influence the mode of choice to the site.</p> <p>The development of the Barangaroo precinct will be staged over a number of years providing an opportunity for increased transport provision.</p>	
	Council supports and encourages the provision of alternate transport methods including cycling and pedestrian movements and the importance of integrating the support infrastructure into the site planning and final design of the proposal.	Noted.	
	Leichhardt Council reiterates its preference for the original concept plan including the comments from the Jury and the maximisation of public open space on the headland and along the harbour foreshore.	Noted.	
	Leichhardt Council reiterates that the proposal to create a Cruise Passenger Terminal and major event venue (on "non-ship days") at White Bay has significant impacts that have not been justified and that the proposal has not been subject to significant and genuine community consultation.	Noted.	
	A comprehensive Master Plan should be prepared for the Bays Precinct and that this plan be considered as an aspect of an overall maritime strategy for the operational future of Sydney Harbour. It is recommended that the Master Plan be prepared in accordance the Guiding Principles for the Bays Precinct as endorsed by Leichhardt Council at its Ordinary meeting on 24 May 2011.	Noted.	
Submission (name withheld)			



**MP10\_0227 COMMERCIAL BUILDING C5 PROJECT APPLICATION**  
**THE CITY'S RESPONSE TO PPR RESPONSE BY LEND LEASE**

Key Issues Raised		Lend Lease Response	City of Sydney Response
1	No objection to the proposed plans and supports approval of the modification.	Noted.	