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NSW Department of Planning
23-33 Bridget Street
Sydney NSW 2000

Attention: Jane Flanagan
Email: jane.flanagan@planning.nsw.gov.au

Dear Jane

SSD 5824 MOD 3 and MOD 4 – One Carrington Street Redevelopment

Following on from the meeting Council undertook with the applicant, we maintain our strong objection unless the following matters are agreed to; and make the following comments regarding the modifications:

Modification 3

1. The following further documentation is required:
 - Arup is to clearly identify the limitations of their report.
 - The Arup report is an inspection report only. It is not an external façade conservation action plan. At present, the works suggested within the inspection report are recommendations only.
 - The inspection report must be translated into a proposal for façade conservation works. This will need to comprise structural specifications, methodologies and a comprehensive set of 1:100 architectural drawings (elevations and plans, also sections as required) that locate and clarify the full scope of all proposed external works, and from which larger scale detail drawings can be keyed.
2. Further testing is required, including destructive testing and further visual inspection:
 - Further the report (p 8) notes that *'inspections were visual in nature and was supplemented by hammer-tap surveys of selected glazed terracotta blocks and rendered areas'*. Section 1 of the report entitled 'Executive Summary', recommends further testing to understand the underlying causes of faience block failure and identify potential problems with the support structure of the terracotta façade. This entails destructive testing, for the reasons outlined by Arup: the façades are likely to have periodic mild steel shelf angles cramps and dowels supporting the terracotta blocks. The hollow blocks are filled with concrete which forms around the mild steel support components. In time, corrosion of these mild steel components has two implications: The mild steel fixing system corrodes to the extent of being structurally unsound, and secondly, the

lack of space between the concrete and the mild steel fixing components eventually results in cracking of the blocks.

- Also of concern, is that three facades of the building are above the public domain, public safety is a key issue. It is therefore paramount that all issues are identified and rectified; and in a manner that enhance the heritage significance of the building.
3. Underlying issues with the glazed terracotta façade need further identification:
- The City has had recent experience with the glazed terracotta facades of the former Sydney Water building at 339 Pitt Street which was completed in 1939. Destructive testing by Arup revealed a varying degree of corrosion of the underlying mild steel support system, as well as issues with structural components. Destructive testing revealed areas of corrosion that had not been evident in the visual and hammering testing.
 - Therefore, of particular concern are the issues identified by Arup in Section 4.1, including the relatively large number of cracked and drummy blocks, and the large cracks spanning several blocks, as these indicate underlying problems with the steel fixings and possible with steel structural components. Cracking to the lintel blocks and the soffit of cornice blocks may indicate corrosion of the steel structure beneath.
 - Destructive testing is required to understand the underlying causes of the façade failure.
4. The replacement terracotta blocks will need to far exceed the number 96 proposed:
- The number of units identified for replacement of 96, is considered very low. Only parts of the façade have been inspected. The issues outlined by Arup in sections 4.1 and 4.2 and their photographs, suggest the number of replacement blocks required will far exceed the number indicated. The reasons are:
 - The issues with the underlying steel support components appear to be substantive in the areas identified by Arup. The support components can only be treated by destructive removal of faience blocks.
 - Further comprehensive inspection will almost certainly reveal that the number of cracked blocks requiring replacement will far exceed 96. In addition, for every unit replaced, you may need to allow for replacement of surrounding units.
 - All drummy sill blocks are likely to require replacement.
 - Previous poorly executed mortar repairs such as to the sills of windows should be rectified by inserting replacement blocks.
 - Where faience failure exceeds 10% of the area of the face of the block (cracking or spalling of the glazed face), the whole block should be replaced rather than repaired. The areas of cracking or spalling of the glazed face appear to be significant. In Section 4.2 Arup states that the faience is typically de-bonding at joint locations, and that many cracks are visible in the face of the faience. Section 4.8 states that cracking and spalling of the glazed finish is of greater magnitude around the parapet walls. Refer our comments in the following section on block repair below.
5. The terracotta block repair needs re-appraisal:
- The proposed Edison Coatings System for faience block repair is not supported. The main reason is that this system is dependent upon the moisture content in the block being below 7%. This is not possible to

achieve on a building in the humid climate of Sydney or where salt content in facades is high such as is generally the case in Sydney. Salt attracts moisture and can only be removed by desalination such as application of a poultice.

- Samples of this system were tested at the former Sydney Water at 339 Pitt Street. These samples failed due to high salt concentration, and the moisture content of the units being above 7%. Instead mortar repairs were undertaken which have been successful, and which were able to be undertaken in the humid and inclement weather conditions that prevailed at the time.
 - We disagree with Section 1.1, Point 14, which advises that if the faience failure exceeds 10% of the area of the face of the block, the whole block should be coated. Instead, the City considers if the faience failure exceeds 10% of the area of the face of the block, the block should be replaced. This is because if more than 10% of the face is spalled or cracked, then the block is too porous, allowing moisture in behind the block. Another reason is that a large patch is visually prominent and unsightly due to textural differences.
6. Aluminium windows should be replaced by steel assemblies to match the original:
- To retrieve the significance of the building, the aluminium windows facing Carrington and Margaret Streets should be replaced by steel assemblies of a similar pattern to the original.
7. Process
- A more comprehensive visual and hammer tap investigation of the façade is required, followed by destructive investigation.
 - However destructive investigation is difficult until scaffolding is erected. At the same time the period of time between the approval of samples, the order of blocks and their arrival on site is 2-3 months. This has implications for approvals, which may need to be linked to Construction Certificate stages of the tower.
 - The City of Sydney requests continued close involvement in the decision making on the conservation of the facades at Shell House, on the basis of our experience of a number of projects in Sydney with similar façade issues, the significance of this building to the City, and the issue of public safety.

In consideration of the above, we have revised the Shell House condition for Modification 3 to restructure the milestones so that the deliverables to the City are provided at the appropriate points in the process, based on the City's experience with the sequencing of investigation, and ordering of blocks and works sequences. The condition is recommended for amendment as follows:

SHELL HOUSE FAÇADE CONSERVATION

- (a) Prior to the issue of a construction certificate in relation to the demolition of the additional internal structure and floors of Shell House including the Clock Tower, approved under Section 96 (Mod 3), the following is to be submitted to the satisfaction of the Manager Heritage and Urban Design City of Sydney:
- (i) The Shell House Façade inspection report by Arup, dated 8 January 2016, is to be translated into a façade action plan that includes a schedule of conservation works to be undertaken as part of the project works,

including the glazed terracotta facades, the trachyte base, the clock tower and the steel window systems. The schedule is to be supported by architectural and structural specifications, methodologies and a comprehensive set of 1:100 key architectural drawings (elevations and plans, also sections as required) that locate and clarify the full scope of all proposed external works, and from which larger scale detail drawings can be keyed. Works to the architectural terracotta is to be presented on a block by block basis at a minimum 1:50 scale.

Further, in relation to the glazed terracotta façade conservation:

- (ii) The works scheduled are to ensure that the glazed architectural terracotta façade system is conserved to a high standard of visual and physical performance. The schedule is to identify terracotta blocks to be replaced, terracotta blocks to be repaired, and pointing to be replaced, and works required to the underlying steel support components and steel structure.
 - (iii) Where the condition of a block is identified as being cracked or having more than 10% of the glazed face of the unit to be detached or cracked, the block is to be replaced.
 - (iv) The proposed method of glaze repair is not to be reliant upon the reduction of moisture content in the blocks. This means that mortar repairs are to be used in lieu of Edison Coating systems.
 - (v) The schedule is also to nominate areas of all the facades that require further visual investigation and destructive investigation to be undertaken prior to the additional demolition to Shell House noted in (a) above. The investigation and testing is to identify underlying issues that may affect the long term visual and physical performance of the façade, that could not be identified in the preliminary visual investigations, including the underlying causes of failure of blocks, salt levels, corrosion levels of mild steel fixing components and structural steel, and jointing material that may contain contaminants. The additional investigations are to include the eastern, northern, and western façades and the clock tower facades.
- (b) Prior to the additional demolition to Shell House noted in (a) and allowing for minor demolition to occur to for the installation of the façade retention system, the following is to be submitted to the satisfaction of the Manager Heritage and Urban Design City of Sydney:
- (i) The results of further visual and destructive investigation of the glazed architectural terracotta façade system of Shell House,
 - (ii) The results of further visual and destructive investigation translated into the façade action plan in (a)(i) above. The revised façade action plan is to include the conservation of all further defective components of the façade, evident as a result of further visual and destructive investigation in accordance with (a) (ii) to (v) above.
- (c) Ordering of replacement terracotta blocks: The purpose made glazed architectural terracotta units are to be of matching unit sizes, profiles, and glaze. Prior to ordering of the terracotta blocks, samples are to be prepared for approval by the Manager Heritage and Urban Design City of Sydney.

- (d) Prototypes: Prior to commencement of works to a section of the glazed architectural terracotta façade system, prototypes of block replacement, pointing, block repair, and steel component repairs (fixings, structure and windows) are to be prepared for that section for approval by the Manager Heritage and Urban Design City of Sydney.
- (e) A Façade Maintenance Strategy for the on-going maintenance of the glazed architectural terracotta façade, including the requirement for annual façade inspection reports, is to be prepared for approval by the Manager Heritage and Urban Design City of Sydney prior to the issue of any Occupation Certificate. The building is to be managed in accordance with the approved Strategy during occupation.
- (f) All diagnostic work should be undertaken by specialist conservers and engineers.
- (g) The proposed works are to be carried out in a manner that minimises demolition, alterations and new penetrations/fixings to the significant fabric of the existing building.
- (h) All conservation and adaptation works are to be in accordance with the Articles of the Australian ICOMOS Burra Charter 2013.
- (i) Appropriately qualified tradespersons (as appropriate) are to be commissioned who are skilled in traditional building and engineering trades to carry out the proposed scope of works to Shell House.
- (j) The works in must be implemented to the satisfaction of the Manager Heritage and Urban Design City of Sydney prior to the issue of any Occupation Certificate for the building, known as Shell House.

Modification 4

In regards to Modification 4, in regards to the proposed alterations to floor levels in Shell House, it is considered that part of the character of Shell House, and many early buildings, is the generous head heights of the windows that enable daylight to penetrate deep into the interiors and provide a view of the sky from deeper within the interior; they also provide a vertical proportion to the space. We therefore make the following comments:

Ground Floor levels:

The proposed lowering of the ground floor in the southern half of Shell House to 18.300 is not supported. The proposed floor level in the southern half of Shell House should more closely match the original. If this is not feasible, the proposed floor level should more closely match the adjacent link building, thereby enabling on-grade entry into Shell House via the adjacent link building. This would obviate the need to alter the Carrington Street windows to doors.

The current proposed dual floor levels within the ground floor of Shell House of 19.680 and 18.300 will visually split the interior into two because they differ by 1.4 metres. This is a significant change that will adversely alter the character of the interior.

Levels 01 to 03:

The City acknowledges that the current proposal for Levels 01 to 03 maintains this important historic relationship between the floor levels and the window sills and window heads with only minor changes.

Levels 04 to 10:

The City maintains that the proposed new floors at Level 04 to 10 should more closely align to the original Shell House floor levels, so that the original window sill heights and the high head heights more closely match the original. The floor levels of the new building should be adjusted further. The further adjustment of floor levels on Level 04 to 10 to more closely reflect the original floor levels will assist to maintain the internal historic character of the building when all most every component of the interiors is proposed to be demolished.

A similar issue occurred at Perpetual Trustees at 33-39 Hunter Street, Sydney. The solution was to provide a ramp between the new and old floor levels that was celebrated by inserting linear lights into the floor of the ramps.

Level 11:

The proposal for the roof level change at Level 11 is not a concern

Demolition of the southern façade of Shell House and proposed escalators:

We reiterate earlier comments, that a greater amount of the southern façade of Shell House should be retained on the ground floor level. The current proposal to remove most of the façade in order to create an amorphous space with the adjacent new building results in the loss of identity, integrity and character of the ground floor interior.

The proposed amorphous large single volume lobby space has no historic precedent and is not supported as it results in a reduced legibility of the original building. There should a clear distinction between the original building and the adjacent new building that should be enhanced by differences in the interior character. The two interiors should have entirely differing characters.

We also re iterate earlier comments that the proposed escalators will also have an adverse impact upon the character of the interior of the building and will be entirely intrusive in their character

Alterations to window openings, ground floor, Carrington Street façade

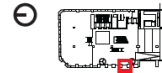
The larger scale design details drawing submitted in the Design Report by Make on 19 December 2016 do not alleviate the City's concerns and the City maintains its objection to the lowering of any windows on account of its adverse heritage impact.

The proposed removal of three original steel framed windows with arched top panes, and trachyte voussoirs between, all dating from 1938 to create the new door openings into the lobby is not supported despite the details submitted on the 20th December 2016 below. The details, included below, have further convinced the City that the lowering of the three window openings would have a highly adverse impact upon the heritage significance of the building.

Wynyard Place - Shell House

Proposed entrance improvement

Note:
Final design of doors subject to condition

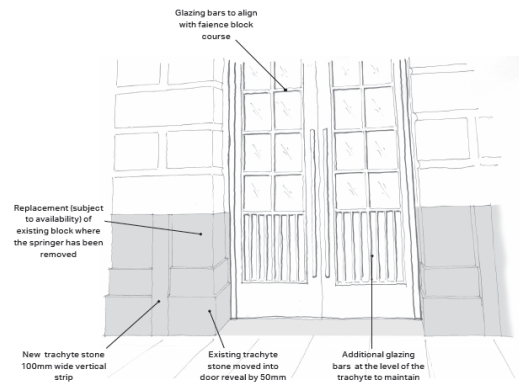


Alterations to the existing condition

The existing trachyte stone base will be realigned with the face of the entrance reveal in order to meet with the existing faience facade. To achieve the realignment and avoid significant patching, the proposal is to insert a vertical piece of trachyte approximately 100mm wide.



Typical bay with door inset



Typical bay with door inset - trachyte alteration detail

The removal of the steel windows assemblies and the demotion of the wedge shaped trachyte voussoirs that form the base of the building to form door openings will result in the loss of significant fabric and intricate architectural detailing; in addition to the loss of character and loss of character by eroding the strong base of the palazzo design of the building. These elements are key detail elements of the original Spain and Cosh design. The wedge shaped trachyte voussoirs of the base give emphasis to the voussoirs of the faience semicircular arches above and are architecturally mutually dependent. Further, the proportions of the proposed doors are overly vertical and are not representative of the proportions of the façade. The symmetry and balance of the façade is not restored as claimed by the Design Report. It is considered that the opposite results occurs, the façade at the lower levels of the building, becomes asymmetrical in its composition.

Internally, the fine window joinery including timber reveals and architraves will also be impacted upon. All joinery should be retained and conserved.

The most southern of the openings in the Carrington Street façade, pictured below, has been previously cut down as a doorway. This clearly shows the visual impact when compared with the image of an intact opening, further below.



Southern most of the openings in the Carrington Street façade.



Intact opening.

The proposal is inconsistent with the Draft CMP for Shell House, prepared by HBO+EMTB Heritage Pty Ltd for Thakral Holdings Group Pty Ltd September 2005, which states in 7.4.1 Policy 17 that *'the external masonry envelope and architectural detail should be preserved, including the existing external fenestration pattern. New openings or changes to existing openings in walls should be avoided – most particularly at the Carrington Street and Margaret Street facades.'*

Further, the City does not support the visual intrusion of the revolving doors behind the original openings. These will further erode the character of the building.

In conclusion we do not support the proposed lowering of the Carrington Street windows to form doors. The levels of the ground floor, both in Shell House and the

adjacent new link building, need to be reconsidered so that it is not necessary to extend the Carrington Street levels down to the ground. The new link building is the ideal location for accessible entry to the complex.

In addition we reiterate that the previously altered southern ground floor window needs to be redesigned in a sympathetic manner. We request that once the details and amendments requested above are received, that we are given the opportunity to write conditions of consent.

If you wish to discuss this matter further, please contact Bridget McNamara, Senior Planner, on 9246 7616 or bmcnamara@cityofsydney.nsw.gov.au.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'C. Corradi', with a stylized flourish at the end.

CHRISTOPHER CORRADI
Area Planning Manager