project **Midlands Goods Shed**

issued by Frederico Silverio Marques
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Applicant's response to GLIAS comments on: "Midland Goods Shed and Handyside Canopies, Approval of Details, Planning Application No. 2014/5675/L"

Thank you for commenting on the approval of details information in relation to the Midland Goods Shed and East Handyside Canopy (ref. 2014/5675/L), located in the Kings Cross Central development.

We note that there are three primary areas of comment, and we respond to each in turn, following the same sequence as your letter.

1.0 Condition 2a) Paint colour, existing metalwork, East Handyside Canopy

"In our letter of objection of 2 April 2014, we pointed out that if the cast ironwork of the EH Canopy was painted a dark colour it would make it still more difficult than otherwise to see the all-important details through the inevitably reflective glass cladding, and for that reason we suggested a bright colour should be chosen. When originally erected, the paintwork would have been coloured, since the fashion for painting ironwork black is of 20th century origin. We are sorry the architect has not taken to that idea, but the current visualisations do suggest a grey rather than black, which might give some chance of the metalwork details being seen from within the shadows. However, it is stated that an initial coat of the proposed colour has been applied to all of the existing metalwork, as part of the preliminary work. On visiting the site I see that its actual colour appears significantly darker than the visualisations (and darker than it is made to look in the photo on page 13): IT WILL BE TOO DARK. Please can it be made lighter?"

Applicant's response:

It is indeed correct the structure in its past history would have been coated at least twice, once with a red/burgundy tone, and more recently white. Such palette would have been appropriate for an open structure with an internal dark ceiling finish.

The preferred darker colour chosen for the existing structural frame, however, is in keeping with the nature not only of the existing building but also of the surrounding vicinities. The approved scheme involves the full enclosure of the East Handyside Canopy, with a proposed up-lit, matt white ceiling backdrop, which will promote the visual significance of the existing structure. CGIs have been provided with the planning submission which clearly illustrate that a white painted frame disappears with white backdrop, whilst a darker treatment to the existing structure against a constraint white ceiling backdrop visually highlights the structure.

Furthermore, the glazing specification selected for this new façade to the East Handyside Canopy has a g-value (coefficient commonly used to measure the solar energy transmittance of glass) of less than 0.33 and a light transmittance of 60%. This glazing performs significantly better than that typically utilised on comparable buildings, in terms

of both maximising solar transmittance and minimising reflections, thereby maximising the visibility of the retained structure when viewed from outside the building.

2.0 Condition 2o) Details relating to hydraulic accumulator tower equipment

I. "The outline method for lifting the accumulator to the raised position seems to show some misconceptions about the accumulator's components and their method of working. There is no 'tank' – the sheet-metal vessel never held water and it is called a weight case. The cap plate referred to, from which the weight case was suspended when in use, is not strictly a part of the weight case but belongs to the ram (in other designs there is a crosshead beam here rather than a cap plate). Although fitted over the end of ram, the cap plate may not be positively connected to it, since the ram was intended to be supported by hydraulic pressure rather than suspended and if there are connecting bolts they are unlikely to have been designed for the weight of the solid cast-iron ram. So when the cap plate is lifted the ram is likely to stay in the lower position, a possibility the method statement anticipates, but it may drop suddenly and unexpectedly, when friction and rust cease to hold or fixings break."

Applicant's response:

The lifting method statement and strategy shall be amended to reflect the highlighted misconceptions on the historical equipment's use and operational function – refer to BA's lifting method sequence for further detail.
The annotations shall be amended to replace the reference "tank" to "weight case".

II. "There is a more serious misunderstanding revealed in item 2.6, which refers to unbolting the piston/ram at ground level. The ram is contained within a separate cast-iron cylinder (shown in the drawing), within which it was originally free-running. The bottom of the ram will be inaccessible within the cylinder. The cylinder is fixed to the ground and certainly should not lift with the rest. However, the stuffing box around the ram at the top of the cylinder may be seized up, so this should be freed as a first operation to avoid excessive restraint and load on the cap plate during lifting. GLIAS believes it is important for the cylinder to be left in place on the ground, for reasons of interpretation previously explained, but if the applicant is determined to lift it, that may be attempted as a subsequent operation. Separate support will be needed. The base flange may be wider than drawn."

Applicant's response:

In order to meet building regulations Part M requirements in relation to the free movement of wheelchair users, the cylinder and ram shall need to be lifted, since the diameter of the cylinder encroaches into the required range of movement for a wheelchair user within the newly proposed lift lobby.

III. "The visualisation on page 8 is based on the misconception that the weight case is a tank – instead, there will be the hydraulic cylinder coaxially inside it and the ram inside that again.
The guide rails are shown removed, which is quite wrong – they are an essential part of the protected accumulator. Representative control valves, pipework and linkages need also to be kept and you should request details of proposals."

Applicant's response:

The proposals shall retain the guide rails and associated, switches/valves as far as possible, as a key part of the installation and understanding of the accumulator. These had been omitted from the diagrammatic illustrations for reasons of clarity – annotation has been added to reiterate this.

IV. "Page 9 notes that the roof will be replaced, and retain its external appearance. As part of preserved monument and Grade II listed, ought it not to be reinstated like for like?"

Applicant's response:

The design intent envisages the replacement of the existing roof, like for like with matching materials and analogue technical framing solution, whilst fulfilling current Part L requirements with regard to thermal performance. It is also necessary to replace the existing roof members, given their lack of structural integrity due to water damage and subsequent loss of section. As such, the new structure must fulfil modern structural codes, making a 'like for like' replacement unfeasible in terms of structure.

V. "Members of this society have much knowledge of hydraulic power equipment and would be willing to explain how things should be."

Applicant's response:

Noted.

VI. "The archaeological survey team was unable to gain access to the upper part of the accumulator tower. Will they be invited to complete their job there, and also to record the internally hidden parts of the accumulator?"

Applicant's response:

The archaeological survey team have been invited to return to site now that safe access can be provided to the upper areas of the accumulator tower in order to complete their report.
English Heritage will also be notified of the opportunity to visit.

3.0 Condition 2p) Drawings of façade treatment of East Handyside Canopy at a scale of 1:10

I. "It appears that the relationship of the new façade to the cast-ironwork is dealt with only on page 31 of the second document, and the details are at 1:20 or smaller."

Applicant's response:

The relationship between the new building fabric and the existing structural frame is covered in appendix B, from pages 20-31; it comprises the Architectural design intent drawing, along with the subcontractor's technical submittals, at scale ranging between 1/20 and 1/5. For extra clarification, refer to axonometric sketch in appendix to this letter, illustrating the existing condition and the step taken to work around and preserve the frame's significance.

II. "The elevation of the column is not precisely or completely drawn. As shown in the photograph, there are cast-iron brackets on the column head that rise higher than the top of the column and are attached to gutter-shaped flanges, but they are not drawn.

Where these original column-top features would be, the one Detail Section shows a layer of insulation, while an unspecified shaded feature to its right also clashes. The attachment brackets for the intermediate rafters are also not drawn."

Applicant's response:

As part of procuring the envelope design, subcontractors were provided with full site survey in order to ensure a tailor made design, respectful of the existing context. The gutter shaped flanges form an integral part of the design approach and shall be retained.

Following structural survey, it has been confirmed the brackets referred to on the column head are neither cast-iron nor original. It is believed the brackets were added c.1979, at the time the original cast-iron columns were replaced with new carbon steel "I" beams, in order to re-enforce the cracked cast-iron column heads, along with the supporting steel packers and belt braces. The Design Team have however worked with the structural engineering team to re-use them as supports for the new façade brackets and over-head, reinforced hollow section beam.

The "layer of insulation and shaded features" reflect the internal finishes, which include containment for data/power and roller blinds. All such elements will remain above, and clear of, the existing structural frame, and as such do not obscure the view of the corbel beams or column heads.

III. "The profile of the solid cladding in front of the beam and column head is not clear. We think it important and readily accommodated that this be raised slightly so that the tops of the brackets will remain visible, not half hidden – this is where the original 1850 Temporary Passenger Station's roof was affixed."

Applicant's response:

All elements of the façade in front of the beam and column head are of glazing only. Refer to Axonometric sketch in appendix for clarification.

IV. "The "new vertical steel profile" to support external equipment will intrude into the view of the column head and it appears to be proposed to leave the cladding contractor to sort the detail despite its visibility. The historic structure requires more delicately designed details "

Applicant's response:

The light fitting and respective fixing back to the new cladding supporting bracket is currently under final review between the Architect, Client, Cladding team and specialist contractor. Any fitting shall be carefully considered in respect of the historical context, and shall sit clear of any sight lines into the original structural frame.

We trust the above responses are of assistance and hope that they explain the rationale for these elements of the scheme, which seeks to return the buildings back to a viable and beneficial use whilst conserving their heritage.