Kodak House - App refs: 2019/6088/P & 2019/6270/L).

REVISED Note (18Th March 2020): Plant Equipment Justification

➢ Introduction and Context – Summary Comments

The purpose of this note is to address Camden Officer-level concerns in respect of the proposed roof top plant at Kodak House. In addition, the following drawing **The latest roof plan proposed layout drawing is hereby submitted with this note:**

- 1914-BG-01-R1-DR-A-20.210 Rev T1 – Proposed Roof Plan (annotated plan)

Previously, we submitted amended plans showing the reduction of the plant screen on 6 March 2020, indicating that: (a) the height of the proposed plant screen has been reduced by 300mm; and (b), the design of the screen is amended, above 2m on the Keeley Street and terrace facing sides, so that the upper part of the screen is angled away from the perimeter edge and is 'raked back' in its design.

The requirement to upgrade the plant and equipment across all floors of this building is entirely understandable. Currently, the building is poorly equipped and falls well below prevailing standards, let alone looking to the longer term and the objectives of improving energy use and consumption, air quality and building sustainability and so on. For example, at present, Kodak House effectively has 'mini plant rooms' on each office floor local to the area they serve, with intake/exhaust ventilation louvres serving the plant in the building façade on Keeley Street and Wild Court. This pattern is historic and increasingly unsatisfactory and obsolete. The applications scheme now before Camden seeks to upgrade and improve the building, to bring it in line with a modern office development and to satisfy the demands and expectations of a prospective office tenant.

The plant and equipment now proposed at roof level is no more, no less than that one would typically find at roof level for an office building of this type and configuration. To comply with current-day standards and regulations, the reality of the matter is that the office air handling unit (AHU) and office variable refrigerant flow (VRF) AC condenser units are invariably located on roofs or in other external locations such as car-parking compounds. Here, they necessarily have to be located on the roof.

Under certain circumstances, VRF equipment can sometimes be located internally, subject to manufacturer agreement/acceptance (as these units are designed to be outdoors) - albeit with Kodak House there is simply not the space to do so due to the 2no. basement UKPN substations and cycle storage etc. Moreover, if the VRF equipment were to be located in the basement, individual ducts would be required to atmosphere from each unit which would present a number of buildability issues. It will also be difficult to gain manufacturer acceptance, therefore voiding any warranties offered. The size of the office AHU reflects the size of the building and locating this unit at basement level will present a number of issues including buildability, replacement/maintenance issues as well as not physically having the available plant space to fit the unit. Another significant reason for not locating the office AHU at basement level is that this unit needs to provide fresh air to the office areas which it achieves by routing large sections of ductwork (in excess of $1m^2$ each) to/from atmosphere. At basement level, the route to atmosphere would be on the ground floor, this presents significant air quality issues and is therefore not a viable solution. It should be noted that due to the need for both of these items of plant (AHU & VRF) to connect to atmosphere, it is uncommon for both/either sets of plant to be located internally if external plant space is available. In this instance we have no choice but to locate the plant externally at roof level due to insufficient space in the basement.

In the event that a practicable solution could be found for re-siting some of the current roof-level plant and equipment to an internal building location (note: we are advised that in this case, for a myriad reasons no such solution can be found), the benefit, visually, would be almost inconsequential – with a potential reduction in perhaps 10 – 20% of the current quantum of roof-level apparatus.

Kodak House - App refs: 2019/6088/P & 2019/6270/L).

REVISED Note (18Th March 2020): Plant Equipment Justification

➢ Plant Equipment Justification

Watkins Payne, the Applicant's consultant services engineer has reviewed the points raised by Camden (Elaine Quigley's email note of 13th March 2020), in consultation with the project design team, and consequently, this note seeks to provide a succinct response to each numbered item. The response below should be read in conjunction with the annotated Proposed Roof Plan accompanying this note.

We address each of the Council's concerns in the table below.

In the event that Camden Planning has continuing concerns, or if queries arise, we would suggest that the Council's EHO Officer dealing with this aspect of the applications scheme might wish to speak directly with Watkins Payne (Mike Cousins – mcousins@wppgroup.co.uk / 07715 377116 or Jon Bottrell – jbottrell@wppgroup.co.uk / 07507 789804)

Officer Concerns raised on 13.03.2020	Response
Why does the plant area have to be the size that it does (it is over a significant area of the roof and the plant screen is a significant height within certain sections).	See drawing: 1914-BG-01-R1-DR-A-20.210 Rev T1 - The plant size is to meet the Applicant's requirements for the building refurbishment and upgrade; to deal with significant constraints presented by the listed building; to minimise impact on building fabric; and to ensure that standards and targets for matters such as energy use and consumption can be met. The plant has been sensibly sized with energy consumption and regulations considered.
What are each of the bits of equipment that are within the roof plant area - the plan has not been annotated to identified what each of the pieces of equipment are or who they relate to	Drawing: 1914-BG-01-R1-DR-A-20.210 Rev T1 provides a detailed annotated roof plan identifying the equipment and what it relates to.
Why do each of the pieces of equipment need to be on the roof?	Refer to opening comments above. The plant needs clear access to atmosphere for heat rejection and fresh air reasons, therefore locating this plant elsewhere will present a number of issues. The AHU provides fresh air to the office areas, therefore locating this at a lower level (i.e. basement/ground) will present air quality issues. There is also insufficient space at basement level.
Can they be relocated elsewhere within the building? If they can't, why can't they?	The plant needs clear access to atmosphere for heat rejection and fresh air reasons, therefore locating this plant elsewhere will present a number of issues. The AHU provides fresh air to the office areas, therefore locating this at a lower level (i.e. basement/ground) will present air quality issues.

	There is no space in the basement, due to, primarily: UKPN's substations (two), the requirement and Applicant preference for much-improved cycle provision, plant risers and services items, and a need for much-improved commuter facilities (i.e. WCs and showers) where none exists at present.
There appears to be a significant amount of space around the equipment. Can some of the equipment be moved closer together so that the footprint of the plant area can be reduced in size? If it can't what are the reasons for this?	See drawing: 1914-BG-01-R1-DR-A-20.210 Rev T1. The ductwork routes and plant access requirements mean that the plant cannot be grouped any closer together than it already is. As can be seen from the plan drawing, it is an extremely congested area. The location of the principal equipment is governed by the pattern of structural beams through the building and the requirement for adequate weight-bearing distribution.
The plant screen on Keeley Street is positioned on the edge of the new mansard roof. Can the plant screen be pushed back on the Kelley Street elevation of the building, if it can't what is the reason for this?	See drawing: 1914-BG-01-R1-DR-A-20.210 Rev T1 – which identifies the adjusted Keeley Street Plant Screen.
Is the screen for acoustic purposes or is it to reduce the visibility of the equipment on the roof	The plant screen is for acoustic purposes and also reduces the visibility of the roof plant.
Can the screen be reduced further? If it can't what is the reason for this?	The screen cannot be reduced further, without departing from the Applicant's design brief and prevailing Building Regulations 'fresh air' requirements. We have reduced the size of the generator as much as possible and have sunk the AHU into the plant support deck to help reduce the plant height.

➢ Concluding Remarks

We trust the above note provides a clear response and justification for the scheme as now presented.

Crucially, it is the lack of available space in the basement of Kodak House and the nature of the plant which requires access to the open atmosphere that forces the plant and equipment to be sited at roof level, as now proposed.

The project team has worked collaboratively and with the aim of seeking to reduce the quantum and size of external plant, wherever possible.

The Applicant's technical team is available to assist Officers in the event of any further query; and we would greatly appreciate that any communication is undertaken as expeditiously as possible.