Hazelton, Laura

Subject: FW: Greville Street/ sustainability comments

From: Jennifer Ross
Sent: 02 July 2018 12:13
To: Hazelton, Laura
Cc: Adam Price; Edward Sneddon
Subject: Greville Street/ sustainability comments

Dear Laura

In relation to the additional information requirements from the energy and sustainability officer we would respond as follows:

1. Approach to thermal bridging.

Issue: Not provided (for new build).

Further Action: Applicant should confirm if proposing to apply Accredited Details within new build specification or some alternative approach.

The team has confirmed that for the new build elements that the scheme will design and build to Accredited Construction Details (ACD).

2. Cooling Hierarchy

Issue – No information provided in the Energy or Sustainability statements about the application of the cooling hierarchy and any passive design measures selected for the new build parts.

Further action Please provide further details as above. Use of cooling and size of systems should be minimised in order to reduce carbon emissions. The seasonal efficiency of the proposed systems should be stated.

The cooling hierarchy notes developments should reduce potential overheating and reliance on air conditioning systems via the following:

1. Minimising internal heat generation through energy efficient design
2. Reducing the amount of heat entering the building in summer
3. Use of thermal mass and high ceilings to manage the heat within the building:
4. Passive ventilation:
5. Mechanical ventilation

With regards to point 2 the building is proposing a G-factor of 0.35 for the windows which is lower than the default 0.63. This reduced factor will assist in reducing the amount of daylight entering the building, which in return will reduce overheating and the need for excessive cooling.

The existing building comprises a double skin brick and block construction with a high thermal mass. The new build uses external shading in the form of a perforated mesh facade to reduce

heat entering the building through glazed and solid portions of the envelope. It should be noted that the entire building, excluding windows is veiled in a perforated mesh facade to reduce solar gain.

In addition the internal dropped ceilings are removed in order to benefit from increased floor to ceiling height.

With regards to points 4/5 the energy report states under section 4.4 that 'Natural ventilation is proposed as the main source of ventilation'. Therefore the site is utilising passive ventilation and no mechanical ventilation is proposed.

I hope the above provides the info you need to cover these outstanding information points.

Thanks--

Regards

Jennifer Ross
Director

for Tibbalds Planning and Urban Design Ltd