Application Ref: **2015/1672/P – Condition 21 – Energy**

23rd June 2016 – DB

1) ICondition Wording

Condition 21

ENERGY
The development shall be built in accordance with the approved energy and sustainability statement and addendums. Prior to occupation evidence demonstrating that the development has been constructed in accordance with the measures stated in the approved energy and sustainability statement and addendums to achieve a total 30% reduction in CO2 emissions (and 11.5% at the 'be lean' stage through energy efficiency measures) below the Part L 2013 baseline in the new build elements of the scheme and to achieve an 11 tonne CO2 reduction in building 3 unless otherwise agreed in writing by the Local Planning Authority.

Reason: To ensure a sustainable and resource efficient development in accordance with the requirements of policies CS13 and CS16 of the London Borough of Camden Local Development Framework Core Strategy and policies DP22, DP23 and DP32 of the London Borough of Camden Local Development Framework Development Policies.

2) Associated Documents

a) Hampstead Secondary School_brukl AD4-1 Green
b) Hampstead Secondary School_brukl AD4-1 Lean
c) Lean Clean Green AD4-1

3) Proposal – New Building

Be Lean:

The building has been detailed to give improved U values to those used in the "target building".

Element	$U_{a\text{-}Limit}$ (W/(m²k))	$U_{a\text{-}Calc}$ (W/(m²k))
Wall	0.35	0.19
Floor	0.25	0.16
Roof	0.25	0.13
Windows	2.2	1.48

The attached calculation sheet (Hampstead Secondary School_brukl AD4-1 Lean) uses these values and shows a 14.17% CO_2 saving over the target building. This exceeds the Planning requirement of 11.5% CO_2 saving.

Be Green:

Planning condition 10 (now discharged) requires the scheme to include photovoltaic cells to a minimum of 400m_2 and with a minimum output of 56.25kWpeak. Including this information within the BRUKL calculations (Hampstead Secondary School_brukl AD4-1 Green) shows a 36.84% CO_2 saving over the target building. This exceeds the Planning requirement of 30% CO_2 saving.

4) Proposal – Building 3

Initially it was intended that the existing Science Block was substantially refurbished with works to exterior and internal fabric including new windows and services installation. However – due to budget constraints – the scope has been reduced significantly to a "light refresh". This makes the target 11 tones CO_2 saving unachievable.

However we will provide CO_2 savings by the following:

- All new light fittings will be energy efficient.
- Where new rooms are formed the lighting controls will include absence detection.

- Where extract fans are installed these will have PIR controls to limit use to occupied periods only.
- All radiators will be fitted with thermostatic controls.
- All new sanitary fittings will be water efficient.
- The building is currently used for science. When refurbished it will be used for general teaching. As such all gas supplies will be removed and water demand greatly reduced (The Science Laboratories are now located in the new Teaching Block and the gas and water usage included in the BRUKL calculations provided for that building).

We are confident that these measures will have a positive effect on the energy performance of the building.