Our ref: Francis Crick Institute

Date: 22nd October 2022

Lakesbury House,
Hiltingbury Road
Hampshire SO53 5SS
T +44 2380 810 440

Dear Camden LPA,

FRANCIS CRICK INSTITUTE LEVEL 5 AND LEVEL 2 TERRACES – RPS TECHNICAL RESPONSE (APPLICATION REF: REF. 2022/2667/P)

RPS previously undertook a Preliminary Ecological Appraisal (RPS, 2022) and Biodiversity Net Gain Assessment (RPS, 2022) to support the application for the installation of a permeable deck above the existing brown roof on the eastern end level 05 terrace, together with a refreshment kiosk under the roof eves, provision of perimeter planters, glass safety screen and additional landscaping (registered in July 2022, application reference 2022/2667/P).

Comments from the Nature Conservation Officer (NCO) received in October have stated:

"The Council's Biodiversity Officer had a separate discussion with your Ecology Consultant. I have discussed the proposals with our officer since then. We have significant concerns about the covering over of the brown roof on the 5th floor. The 'baseline' point for discussions needs to be what was consented/intended, rather than current situation. You state that the brown roof is not working well due to overshadowing, yet propose to cover much of it with decking, which will further reduce its viability. For us to accept covering over part of the brown roof, there needs to be other mitigation/enhancement measures put in place to compensate. Your consultant believes the specification can be improved upon owing to its age and will be looking at this."

In response to the above comments re. the viability of the existing brown roof, it should be noted by the LPA that the baseline condition used in the assessment is that which was intended/consented (a moderate condition); which is in line with initial pre-app discussions between the project ecologist and Nature Conservation Officer. It should also be noted that the area of the roof which has failed to establish is a strip closest to the building, where the overhang of the existing building causes overshadowing for much of the day, limiting the lighting and water which is received by this strip. The assessment has been updated to include *the loss* of this strip of the roof, as it is unlikely to ever perform as was intended (due to the lack of sunlight and water).

However, the remainder of the brown roof has established to some extent and this area has been reviewed by both Ecologists and Landscape Architects to understand how the roof is operating and the implications of placing a metal grate platform above. This area is not constrained by the overhang / shadowing of the building which affects the strip of the roof referenced in the previous paragraph and still reflects the design approved under the original application. As agreed with the Council's Nature Conservation Officer this area has been assessed using current BNG Assessment methods to establish a baseline, even though when it was designed the only requirement was the provision of 'some biodiversity features' with no performance values or targets set.

The proposed design incorporates a fully permeable metal grating system that will allow the pass-through of sunlight and light generally. The original brown roof below the metal grate will be enhanced to ensure it performs as was originally intended allowing for the introduction of the metal grating. In addition, certain areas of larger mesh will be used in the areas where it is proposed to enhance the performance of the existing brown roof (as per the application assessment). In these areas the plant species proposed are more varied. The relevant detail associated with these areas is set out in the application and at Appendix A.

Having looked carefully at the proposal and the comments made by the Nature Conservation Officer, it is the professional opinion of both RPS' Ecologists and Landscape Architects that the changes proposed, and as set out later, this can be successfully retained below the metal grate system. Finally, it should be noted that the roof is not being 'decked' as has been suggested in some correspondence.

In order to offset the loss of the strip of brown roof on the level 5 Terrace, the enhancements at level 2 introduced earlier this year were identified specifically for that purpose. However, in light of the Nature Conservation Officers comments, it is now intended to include enhancement to the brown roof at level 6 as well: further details are summarised below.

Level 5 Terrace – Development Area

Baseline Position

Habitat Type	Area	Distinctiveness	Condition	Strategic Significance	Baseline habitat units
Extensive Green Roof	0.018	Low	Moderate*	Location ecologically desirable but not in local strategy	0.08
Developed land / sealed surface	0.002	Very low	N/A	Location ecologically desirable but not in local strategy	0.00

**The condition of the existing roof has been classified as moderate, which, as per the LPA comments is the baseline position of what was consented/intended, as per the original discussions.*

Based on the above, the baseline position for the Level 5 Terrace is 0.08 habitat units. A small section of the existing brown roof is to be lost (that which is overshadowed by the overhanging roof of the building); whilst the rest is to be retained in-situ and made good, so that it will eventually reflect the scheme that was intended/consented. The retention of habitat will retain 0.06 habitat units.

Post-development Position – Habitat Enhancement

A series of separate areas measuring 0.0019 ha, are to be enhanced from the extensive roof system to a more intensive roof system. This will be placed under a wide-metal grate system (see Appendix B for the specification of such), where it is considered that appropriate amounts of sunlight and water will be received to ensure the planting develops, providing a diversity of habitat types within the roofscape. Further to this, the planting palette has been carefully chosen to ensure that the species will be able to withstand such conditions, and will include:

- *Armeria maritima;*
- *Erigeron karvinskianus 'Profusion';*
- *Carex flacca;*
- *Sedum spurium 'John Creech'; and*
- *Thymus 'Bressingham'.*

Existing Habitat Type	Proposed Habitat Type	Area	Distinctiveness Change	Condition Change	Strategic Significance	Habitat Units Delivered

Extensive Green Roof	Intensive Green Roof	0.0019	Low – Medium	Moderate – Fairly Good	Location ecologically desirable but not in local strategy	0.01

Post-development Position – Habitat Creation

Areas of introduced shrubs and herbaceous plants chosen predominantly for their wildlife value are to be provided on the roof terrace, in raised planters within an area of the roof outside of the buildings projecting roofline. The planters are designed to ensure that there is sufficient soil volume to maintain the planting in the long-term including providing some protection to the rest of the roofscape. A suitable management plan, to be secured by condition, will also be created to ensure that the planting establishes and is successful through effective management to maintain the intended plant diversity. The creation of this habitat will deliver 0.01 habitat units.

The planting scheme for this area has been carefully chosen to ensure the species are suitable for the roofscape environment whilst supporting pollinators in particular. Species within this area will include:

- Ornamental grasses;
- Rosemary;
- Thyme;
- Cone Flower;
- Sage;
- Daylilies; and
- Evergreen shrubs for shelter.

Proposed Habitat Type	Area	Distinctiveness	Condition	Strategic Significance	Habitat Units Delivered
Introduced shrubs	0.0045	Low	Poor	Location ecologically desirable but not in local strategy	0.01
Developed land	0.001	Very low	N/A	Location ecologically desirable but not in local strategy	0.00

Level 5 Terrace – Conclusions

Based on the above, the current position for Level 5 is:

Baseline value (0.08 units) – lost habitats (0.02 units) + habitats created (0.01 units) + enhanced habitats (0.01 units) = 0.08 units, or a loss of 2.74%.

Level 2 Terrace (offsite enhancement)

Baseline Position

Based on the below, the baseline position for the Level 2 Terrace is 0.00 habitat units.

Habitat Type	Area	Distinctiveness	Condition	Strategic Significance	Baseline habitat units
Developed land / sealed surface	0.011	Very low	N/A	Location ecologically desirable but not in local strategy	0.00

Post-development Position – Habitat Creation

Areas of introduced shrubs and herbaceous plants are to be created on the level 2 terrace, in raised planters (of a specified depth) to ensure that there is sufficient soil volume to maintain the planting in the long-term. A suitable management plan will also be created to ensure that the planting establishes and is successful through effective management to maintain the intended plant diversity. The creation of this habitat will deliver 0.00 habitat units.

The planting scheme for this area has been carefully chosen to ensure the species are suitable for the roofscape environment including shading from the built form. Species within this area will include:

- Ornamental grasses;
- Ferns; and
- Evergreen shrubs for shelter.

Proposed Habitat Type	Area	Distinctiveness	Condition	Strategic Significance	Habitat Units Delivered
Introduced shrubs	0.0014	Low	Poor	Location ecologically desirable but not in local strategy	0.00

Level 2 Terrace – Conclusions

Based on the above, the current position for Level 2 Terrace is:

Baseline value (0.00 units) – lost habitats (0.00 units) + habitats created (0.00 units) = 0.00 units. However, the level 2 planting will deliver an enhancement of biodiversity, albeit the scale of change is too small to measure, in BNG terms.

Level 6 SW Terrace (offsite enhancement)

Baseline Position

Based on the below, the baseline position for the Level 6 SW Terrace is 0.07 habitat units.

Habitat Type	Area	Distinctiveness	Condition	Strategic Significance	Baseline habitat units
Extensive green roof	0.0152	Low	Moderate	Location ecologically desirable but not in local strategy	0.07

Post-development Position – Habitat Enhancement

Wildflower mounds will be created to improve the roof top biodiversity. This involves the placement and seeding of small mounds of substrate suitable for supporting extensive wildflower species directly onto the brown roof currently in place. This creates islands of high floral biodiversity within the roof top landscape which can in turn greatly increase the biodiversity of invertebrate species supported. The creation of this habitat (22m^2 of wildflower mounds) will deliver 0.02 habitat units.

Proposed Habitat Type	Area	Distinctiveness	Condition	Strategic Significance	Habitat Units Delivered
Extensive green roof	0.0022	Medium	Moderate	Location ecologically desirable but not in local strategy	0.02

Level 6 SW Terrace – Conclusions

Based on the above, the current position for Level 6 SW Terrace is:

Baseline value (0.07 units) – lost habitats (0.00 units) + habitats created (0.02 units) = 0.09 units.

Conclusions

These proposals will see a loss of -2.74% at level 05 over the baseline assessment of the original roof before any mitigation or enhancements are undertaken. The enhancements proposed to the existing level 5 NE terrace included within the proposals, together with the enhancements to the Level 2 SW and Level 6 SW Terraces, will result in a BNG gain of +7.87%. The additional enhancements set out above respond to the Nature Conservation Officer's comments in addition to encompassing the professional experiences of the advising Ecological and Landscape consultants.

As part of this proposal, we would recommend the following:

1. That before the end of the planting season immediately following the installation of the metal mesh platform at Level 05 NE a plan and photographs shall be submitted and approved by the Council showing the location and provision of at least 22sqm of wildflower mounds on the Level 06 SW Terrace.
2. That a Landscape and Ecological Management plan for the Terraces at Levels 05 NE and 06 SW shall be submitted to and approved by the Council prior to first use of the Amenity Terrace hereby approved at Level 05 NE.
3. That 2 years after the installation of the biodiversity measures hereby approved at Level 05 NE and 06SW that a Biodiversity Audit be carried out to ensure that these areas are performing as envisaged.

Do let me know if you require any further information,

Yours Sincerely,

For RPS

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Appendix A – Specification of metal grate system

As per the Design and Access Statement, May 2022

Image 1: Different density mesh

Images 2 and 3: Examples of intended outcome