11-13, Camden High Street

LONDON NW1

Discharge of Condition No 5 subsequent to Approval Number **2007/2197/P**

Sedum Roof specification and details.

Location and site characteristics.

The application site is situated on the west side of Camden High Street, and permission has been granted for alterations and extensions, including at ground and basement levels, and the provision of six self contained flats.

The proposed green roofs are at ground floor level, over the basement, first floor level, and third floor level.

The building is surrounded by other structures, and of varying heights, however the orientation means that there is not a level of overshadowing that would be detrimental to the installation and long term sustainability of a green roof.

Green roof proposal

The proposal is for an extensive green roof, rather than an intensive or bio diverse roof. This is due to the particularly low ,maintenance requirement of an extensive roof.

The installation will utilise plants of the *Sedum* genus which due to their fleshy leaves are tolerant of variable rainfall. Although such installations do not allow for access, other than occasionally for maintenance, access is not a requirement for these roofs, as the residential units have private balconies that will be treated with hard landscaping to give a robust surface for use.

The Installation

The plants will be supplied in a mat, which will be laid on a substrate of lightweight porous aggregate of a depth of approximately 40mm, on an underlayer comprising a filter fleece (Oldroyd Tp), on a perforated greenroof drainage membrane (Oldroyd Xv20 greenXtra). The green roof 'make up' sits on a single ply waterproofing membrane, laid on Rockwool 'Duorock' roofing board on a vapour control layer on the timber roof deck at all levels.

Please refer to appendices A and B for detailed cross sections.

The drainage membrane is constructed with a rubberised outer layer, top and bottom that provides increased safety of working conditions, due to its non slip nature. The core consists of largely recycled materials, and incorporates a 20mm deep stud that provides a water reservoir for the planting, thus both reducing water run off from the roof, and the need for irrigation, when used with the *Sedum* varieties of planting. Where the roof is surrounded by an upstand, allowance is made for a perimeter gutter draining into the surface water system, This gutter is lined with the roof membrane and detailed in the normal way. It is then filled with large pebbles, allowing for drainage, up to the level of the filter fleece, which extends across the

gutter, allowing either for planting up to the perimeter, or, as has been selected for this installation, for a gravel strip around the perimeter.

The Planting

The *Sedum* mats will be supplied already mature, having been grown on a hessian or porous polythene base in controlled conditions. This means that, as supplied to site the roof areas will have an even density of planting,(approximately 80% coverage), and an even mix of varieties.

Varieties will include, *Sedum acre*, *S. album* 'Coral carpet', *S. spurium* 'Dragons blood' and 'Voodoo' *S. kamchaticum* 'Weihenstephaner Gold', *S.sexangulare*, *S.lydium* and *S. reflexum*. In the most shady areas, this will also include *Sedum hybridum*, and *S spurium* 'Fludaglut'. There will be the possibility for plug planting additional plants if necessary.

Maintenance

The installation will include for an initial 3 month period of support for the planting, including irrigation if necessary (and depending on the time of year the installation is completed), and for replacement of dead and damaged planting.

After the initial support contract, maintenance will be scheduled on a twice yearly programme, in approximately March and October, allowing for removal of debris, weeding and removal of grasses, fertilising with a dilute slow release nitrogen fertiliser (as necessary, depending on water run off), and review and cleaning of any drainage outlets, and drainage pebble.

Conclusion

The use of a *Sedum* mat will give an immediate green roof, with the maximum chance of establishing itself, in the short term, and remaining viable in the long term.

Deborah Parker Deborah Parker Architects 14-22, Coleman Fields LONDON N1 7AD

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