



Flower Market

At New Covent Garden Market, Nine Elms, London, for The Covent Garden Market Authority

Architects

GOLLINS, MELVIN, WARD AND PARTNERS

Structural Engineers

CLARKE, NICHOLLS AND MARCEL

Steelwork Contractor

DAWNAYS LIMITED

Judges Comments

This is a delightful building. Square on plan, a steel space frame roof floats above 36 tree-like support stanchions. A repetitive pattern of translucent rooflights and the diagonally set space frame create an internal effect as of trees and intertwining over-head branches. It is entirely appropriate and in sympathy with the delicate nature of

the trade it encloses. It represents all the elegance and lightness of construction that steel can provide.

In view of the function of this building it was decided that the structure should have a light appearance in sympathy with the delicate nature of the flowers. Of the several proposals that were assessed, that nearest to the concept was a steel space frame with square and circular hollow sections as structural members. The tracery of the fully exposed steel frame was considered to echo botanical structure admirably. The building is square in plan with an external canopy on all four sides. The principal dimensions are: plan 109m x 109m plus overhang; grid 3.35m; steelwork depth 3.0m; clear internal height to underside of steelwork 7.5m.

There is a mezzanine floor around the perimeter for offices for the traders. It was designed as a composite steel frame with in-situ concrete floors and acts as a horizontal ring girder capable of transmitting all wind forces into the steel framework and thence into the foundations. Internally there are thirty-six columns and it was a condition laid down by the Greater London Council Fire Officers that it should be possible to remove any group of four without causing total collapse of the roof. Great attention has been paid to painting the steelwork and a specification was chosen that should ensure an initial life of 15 years before further maintenance is required. To achieve this the steel was shot blasted to second quality followed by a primer coat .025m thick before fabrication with a further coat of primer .025mm thick after fabrication. After erection further painting was carried out so that the final dry film thickness was .125mm or .200mm depending on the location of the steelwork; the last coat was also the decorative finish.

