CANTILEVERED STONE STAIR- METHOD STATEMENT

1.0 Introduction

Cantilevered stone stairs were constructed widely between the sixteenth and early twentieth century. The term cantilevered stone stairs is a misnomer: such stairs are constructed using monolithic stone treads but they usually do not carry their loads as cantilevers. Instead, each tread supports the tread above and rests on the tread below, with any torsional force resisted by the wall and the connections between the treads.

2.0 Method of installation

1- Careful removal of limited portion of balustrade to half-landing and first floor landings where the stair is to be reinstated

2- A scaffold and lifting equipment will be installed to allow the stone treads to be lifted into position, with protection to the existing fabric where the scaffold comes into contact with it

3- The positions of the treads will be marked onto the existing wall, showing where sections will need to be carefully removed to accommodate the treads.

4- So that the walls overall stability is maintained throughout the entire process of installation, rebates of 100mm into the 250mm thick wall are made for only two treads at a time. All rebating will be located by and accommodated within the location of the non-original brick infill in place of the original rebates accommodating the original stone staircase

5- The treads will be hoisted into position one by one and carefully fitted into the wall before the next (above) rebates into the wall are made
6- Any gaps between the treads and the existing, original brick will be packed using slate to ensure continuity of compressive transfer throughout masonry wall. Only Hydraulic lime to match the existing fabric rather than cement will be used in the installation of the new staircase so that the new staircase can move with the building, thereby reducing the risk of cracking.

7- The plaster around each tread will be made good and finished to match the existing fabric, with roughly 2-3 treads installed per day.

8- Following the installation of the stair, the balustrade will be installed, cast to match the existing balustrade from lower ground floor to the half landing exactly.
9- All junctions with existing fabric (in ceilings/walls/between balustrades and handrails) will then be made good to match exactly the retained existing fabric.