



## Case Study: Beetham Tower, Manchester

### Background

Beetham Tower Manchester, also known as Hilton Manchester, is a mixed-use skyscraper in Manchester. Built in 2006, it is named after the developers, Beetham Organization, and was designed by Ian Simpson and built by West Midlands-based firm Carillion. It is the tallest building in Manchester by a considerable margin. It consists of a Hilton Hotel up to level 23 and apartments from level 24 upwards.

### Client

Austrian, International facade Contractor.

### Problem

During the installation of the glass and steel 'blade' on the roof, a strange noise problem emerged. People reported that the building "whistles" (more like an intermittent hum) in windy weather. The sound is close to standard musical C (approximately 262 Hertz); some say it is like a "UFO landing" in sci-fi films. The noise also affected the production of local soap opera, Coronation Street with producers having to create extra background noise as the tower is close to the show's set.

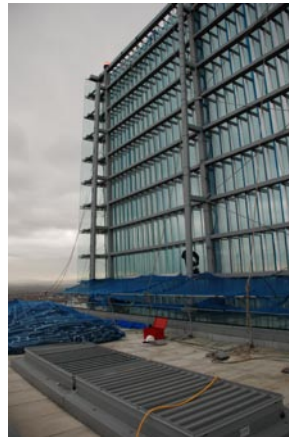
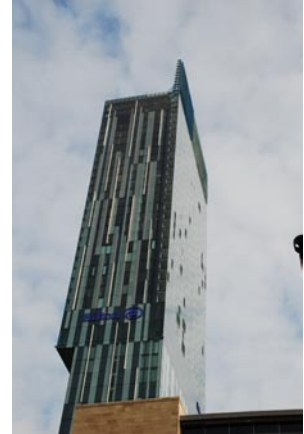
The solution to the noise problem was the installation of over 1800 aluminum profiles that would act as dampers and eliminate the noise problem.

The glass blade structure is on the 50th floor of the building, over 170m high. The safety of contractors working at height needed to be controlled and the additional problem of debris and materials falling needed to be eliminated.

### Solution

Rope Task along with the main contractor made several site visits to prepare a safe system of work for working at height and the control of any

dropped objects. Rope Task riggers, using rope access techniques, installed containment nets overlaid with heavy duty debris nets that would totally enclose the working area on the glass blade structure. Technicians then used rope access techniques to install and test over 1800 aluminum profiles.



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