

Mitchellhill Residential Tower Blocks, Glasgow

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Glasgow Housing Association Trust



£1.4m



24 weeks

Project Overview

The Explosive demolition of five 19 storey structures in Castlemilk, Glasgow. These 1965 built blocks were constructed of Wimpey No-Fines concrete and consisted of approximately 12,500 tonnes each.



The allotted walls were drilled by hand for the 14,000 charges, taking 5 weeks to prepare. A massive 425kg of explosive detonation cord (18,000 metres) made up the thousands of charges, with 9,700 delay detonators.

After the charges were placed, the walls and columns were firstly wrapped in chain link fencing and then geotextile, which was also used to block the areas where the windows had been taken out, again, to minimise the risk of flying concrete.



A complex delay sequence was formulated to minimise the overpressure and ground vibration levels resulting from the collapsing structures.

Within 22 seconds of the first blast, the explosives reduced the five other tower blocks to 62,000 tonnes of rubble.

Following asbestos removal and strip out works, holes were hand drilled in the walls to take the 14,000 charges, taking 5 weeks to prepare. A massive 425kg of explosive demolition cord (18,000 meters) made up the thousands of charges with 9,700 delay detonators.

The structures were firstly stripped of all items to alleviate the risk of flying debris and all asbestos was removed. All non essential structural elements were removed to pre-weaken the buildings, such as non-supporting areas of wall.

Vibration consultants who performed pre-blast inspections of the neighbouring homes monitored the event with Seismographs and reported that all vibration measurements fell well within acceptable levels.

Comments

The project was completed within 6 months, on budget and with all rubble being recycled.

