



**OVERVIEW:** The Wyvern MSCP was constructed in 1971 and provided 283 car parking spaces across five floors, the structure was approximately 90m long and 20m wide.

**CHALLENGE:** The car park to be demolished by Lawson Group was predominantly made out of concrete and brickwork with a cavity wall. Foundations in the Wyvern Multi-Storey car park were situated above a BT tunnel with cabling running through. This concrete would need to be retained in order not to disturb the cabling and concrete of the tunnel. Prior to the works commencing, due to the location of the project demolition. Deconstruction of the slabs above would need to be sequenced to avoid the potentiality of falling demolition debris impacting the ground floor slab above the duct. The underground route of the duct would need marking on the ground floor slab to ensure all operatives would be aware of its location. Specific scaffolding with fire retardant Monoflex would need to be erected to the north, east, south and west elevations.



**SOLUTION:** An initial soft strip was required as part of the preparation of the multi-storey car park, however this was minimal due to the nature of an open plan multi-storey car park which consisted mainly of open floor space. The main areas which required a more thorough soft strip were the stairwells and shop mobility areas.

Lawson Group's operatives utilised their Working at Heights training to gain access to the above ceiling using a MEWP. The waste was removed in a controlled manner and placed into the designated 40-yard waste bins for removal from site. The waste gathered from the soft strip was measured in the Site Waste Management Plan, which was created prior to the works commencing, to calculate the amount of waste generated from site.



Once the soft strip of the multi-storey car park was complete, Lawson Group utilised their experienced plant operators to demolish the Wyvern car park in accordance with the NFDC High Reach Guidance. Lawson Group's high reach demolition excavator took to the building commencing at the east elevation of the car park and avoided the area above the BT tunnel, allowing the deconstruction to continue progressively on a westerly direction towards the BT Exchange. The

plant operative utilised the high reach 360 degree, tracked excavator with the hydraulic pulveriser attachment in order to reduce noise and dust emissions when demolishing the building from the top down.

The high reach excavator utilised its famous reach to munch away at the individual floor slabs between retained support beams and columns. Once a bay of floor slab had been removed, cross beams were removed followed by the pillars. The block and brick walls were broken out and allowed to carefully drop onto the lower levels whilst ensuring that the support to the adjacent sections was maintained until such times as the demolition process dictated.



Throughout this process the demolition excavator operator ensured that the structural support elements remained in situ until all other structures that took such supports, like the shear walls,



had been reduced. The arisings generated from the demolition were utilised to form a ramp for the high reach excavator to use as a platform to work on in order to reach the remaining high-level lift motor rooms and stairwells. Steel elements of the building were mechanically cut with a hydraulic shear attachment and were lowered to ground level.

**RESULT:** Following the demolition of the car park, the ground floor slabs and foundations were excavated and processed through onsite mobile crushing plant. The crushed concrete was laid at the footprint of the building and all other crushed arisings were removed from site to leave a firm level platform for the client.



To find out more on how Lawson Group can help with your next demolition or asbestos removal project, call 01793 782000, email [enquiries@lawsongroup.co.uk](mailto:enquiries@lawsongroup.co.uk) or visit [www.lawsongroup.co.uk](http://www.lawsongroup.co.uk)