

M&E Construction

Quartzelec delivers on this significant re-generation scheme undertaking the full BNO and M&E elements to all landlord areas servicing residential apartments as well as key communal areas

SIR ROBERT MCALPINE | RESIDENTIAL | NORTH WEST, UK

Our Customer's Challenge

Charged with creating new communities through the redevelopment of a 4.4-acre prime location brownfield site adjacent to the five-star Lowry Hotel, Salford - our client was focused on applying technological and engineering innovation to reduce costs and accelerate delivery on this large-scale apartment scheme which would provide 995 apartments across four blocks. Their focus on offsite manufacturing and lean processes enabled fit-out to begin early in a safe and almost weathertight environment with Quartzelec required to deliver all the Building Network Operator (BNO) and M&E elements to all landlord areas servicing the residential apartments as well as key communal areas.

The Quartzelec Solution

On-site since 2017, Quartzelec were delighted to be on-board to provide one of the largest single new M&E installation contracts worked on to date. The project elements for this prestigious development included; installation of sitewide BNO network back to the four dedicated sub-stations, the mains boosted cold water systems to each apartment, sprinkler systems, smoke extract systems, wet & dry risers, panel boards, metering, general and ancillary lighting and power, full communication systems with cabling and public area lighting. During project delivery we were awarded 'Sub Contractor of the Month' from Sir Robert McAlpine a record four times, reflecting positively on our robust SHEQ culture.

Key Project Details

BNO NETWORK DELIVERY

We have extensive experience and knowledge of BNO network requirements and for this project Quartzelec's scope was substantial, involving the installation of 68 multi-distribution units across the site and over 1000 domestic cut-out units. A challenging element the team faced was working within the restrictive headroom of the carpark areas, but nothing that stopped successful completion.



Key Project Details (continued)

ELECTRICAL LIGHTNING PROTECTION

The originally specified lightning protection scheme was an external tape system down the side of the building at 10m intervals, yet the end-client was concerned about the physical appearance of this approach. Quartzelec proposed an alternative solution; to utilise an existing building expansion seam which happily was at the correct spacing required, with no effect on the building structure. The down tapes were installed from 'top down', with a team of abseilers employed to assist in the highest parts of the building - at some points being over 60m high.

FROM A MECHANICAL PERSPECTIVE

All cold-water services from the site boundary to the main domestic cold-water plant room were installed, along with an extensive boosted, cold-water network designed to service each of the domestic apartments. The landlord sprinkler control system also formed part of this cold-water install element.

In terms of building protection, full domestic sprinkler protection was installed within all apartments and escape routes along with Dry and Wet risers to the four blocks, providing enhanced levels of fire safety protection. The corridors have further protection by way of a comprehensive smoke clearance system within each block, controlled by local activation of a smoke detection system.



Project Installation Highlights

A detailed M&E scheme for a re-generation project which focussed on energy savings throughout, whilst ensuring the highest level of safety and security systems;

- Sitewide building network systems (BNO)
- Substation fit-out for power to development
- 5000 low energy LED lighting units fitted
- Advanced security & access systems installed
- Mechanical & Electrical fitout to 68 floors
- Sitewide boosted cold water systems
- Mechanical smoke clearance systems
- Residential Sprinkler systems



Throughout project delivery, Quartzelec have demonstrated real flexibility to work alongside other contractors, ensuring smooth project flow in line with our SHEQ demands. A large and complex construction project, Quartzelec has been equal to the task at all stages - Building Services Manager, Sir Robert McAlpine

Project Value
£6m +

Circa 1000
homes
developed

4 times
Sub-Contractor
of month

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