



CONNECT TO BETTER

Case Study – St Anne's Quarter, Flood & French Ltd.

**WAVIN HDPE RANGE DRIVES EFFICIENCY IN PRESTIGIOUS CITY CENTRE
REDEVELOPMENT PROJECT**



Norwich, the county town of Norfolk, was until the Industrial Ages the second largest city in the UK, after London. While it can no longer claim second city status, it remains home to over 200,000 residents and has been declared one of the UK's 'Fast Growth Cities'.¹

¹ *Fast Growth Cities: The Opportunities and Challenges Ahead*, Maire Williams, Centre for Cities, 2016.
<http://www.centreforcities.org/wp-content/uploads/2016/03/Fast-Growth-Cities.pdf>

As one of the top 10 fastest-growing places in the UK, Norwich's historic city centre is witnessing considerable development. A stand out project within this regeneration is Orbit's £70m development, St Anne's Quarter.

Featuring 437 high quality apartments and houses, built in five phases of construction, the project's developers required a durable waste water management system that would be cost-effective to install while also ensuring reliable performance for years to come. To meet the brief, drainage sub-contractors Flood & French worked with Wavin to develop a solution employing its HDPE range.

Expert solutions for multi-occupancy projects

For the first phase of the project, involving 190 apartments, a drainage solution was required for a car parking area which would be able to withstand heavy vehicle traffic and unpredictable weather. With residents living in close-proximity over multiple floors, it was also crucial that the system could withstand frequent use without risk of failure. In addition, Flood & French needed to adhere to strict budgets and timescales, working quickly and efficiently to install the system.

While a cast iron system had originally been specified for the car park, Flood & French identified that Wavin's HDPE range would offer a number of additional cost and performance benefits and enlisted the support of leading plumber's merchant, Graham. A complete soil, waste and vent system of pipes and fittings, manufactured from high-density polyethylene, Wavin HDPE is a light-weight system which offers extraordinary chemical resistance in combination with a high flexibility level and great impact resistance.

Colin French, Director at Flood & French, explains: "One of the first challenges we faced was creating a drainage system that would be suitable for use in a busy car parking area. With the heavy traffic and vibrations this area would be impacted by, the project needed a strong, durable and flexible solution.

"We worked with Wavin to develop a technical submission proposing the use of its HDPE system. The range offers several benefits that made it particularly suitable for the car park area. For example, it's ideal for assemblies subjected to vibration, as its elasticity gives the pipes a high impact strength. Temperature was also a key

consideration in the partially exposed undercroft. In the cold winter months, we knew that HDPE would be able to withstand temperatures as low as -40°C and freezing of internal water."

When it came to ensuring efficient and effective installation, the Wavin HDPE range also met the brief more effectively than cast iron. Colin French continues: "From an installation point of view, the project involved time and space limitations which meant we required a robust system that could be installed quickly. Wavin HDPE offered a range of benefits over the alternatives – from ease of transporting around site to flexibility in how we jointed the system."

A key advantage of Wavin HDPE is that it can be welded (both by butt welding and with electrofusion joints), thereby providing a perfectly sealed system. The connection seals are quick-fit coupling and the expansion joint seals remain resistant to waste water. As the seals are produced from an elastomer, it guarantees sealing and durability even in extreme conditions. The light-weight nature of the system also means it can be more easily transported to and handled around site than cast iron alternatives.



The technical and design support offered by Wavin also ensured the effectiveness of the overall project. Wavin worked with the contractor to develop AutoCAD designs and a full Bill of Materials for all eight blocks of the project, to enable highly accurate product ordering and the minimisation of wastage.

Colin French continues: "The technical design support from Wavin has meant we've been able to be ultra-efficient with time, budget and space, while also providing a solution that will be robust for many years. As work progresses on the project, we're continuing to work very closely with Wavin, which is helping us to deliver on time and within budget."

Steve Skeldon, Product Manager for Above Ground Drainage, Wavin UK, said: "When working on developments that are restricted with regards to time, cost and sometimes space, the margins for any issues, delays or misunderstandings become very tight, but the end-user is always front of mind. Our HDPE range will provide long-lasting results that ensure residents benefit from durable and effective waste water solutions for years to come."

For more information on choosing the best solutions for waste water management, visit: www.wavin.com/en-gb/Catalogue/Waste-water

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Notes to editors

Wavin UK is a member of the Wavin Group, the world leader in plastic pipe systems for residential, non-residential and civil engineering projects. Systems offered, include market leading Osma above and below ground drainage and Hep2O hot and cold plumbing and underfloor heating, as well as a wide range of Wavin drainage and stormwater management solutions for all application areas.

The Wavin Group headquarters are in Zwolle in The Netherlands. The group has a direct presence in 25 European countries with 40 manufacturing sites. Outside Europe, the Wavin group operate through a global network of agents, licensees and distributors. The group employs some 5500 people and has annual revenues of

around €1.2 billion. In 2012, Wavin became part of the Mexichem Group, the Latin American leader in pipe systems and petrochemicals.

Wavin provides effective solutions for essential needs of daily life: safe distribution of drinking water; sustainable management of rainwater and waste water; energy-efficient heating and cooling for buildings.

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