

# Capital Works Case Studies

## Notting Hill Genesis: Grange Walk

Grange Walk, commonly known as The Exchange, is an iconic Notting Hill Genesis (NHG) development in Bermondsey, London, comprising 205 dwellings spread across 6 blocks. Despite the development's vibrant location, the two-pipe heat network serving the community reduced its appeal. The system's twin-plate Heat Interface Units (HIUs) serving domestic hot water and space heating suffered from persistent setbacks, manifesting as riser bellows failures and consequent boiler corrosion. The situation was further exacerbated by the hindrances of top-of-riser bypasses and underperforming HIUs. NHG recognised the critical need for intervention and collaborated with FairHeat to not only address the issues but to achieve transformation under the Heat Network Efficiency Scheme (HNES) Demonstrator.

### Challenges and Background

Grange Walk's heat network faced multiple challenges—continuous riser bellows failures causing boiler corrosion, deteriorating HIU performance, and compromised network efficiency due to bypasses. The communal spaces, particularly on the higher floors, grappled with uncomfortable heat temperatures, impacting resident satisfaction and adding to energy consumption.

### FairHeat's Optimisation Study and HNES Demonstrator

With a vision of comprehensive improvement, NHG collaborated with FairHeat—a leader in heat network optimisation. Leveraging the HNES Demonstrator, the project's ambitious goal was to both rectify and elevate, and a comprehensive plan was put in place to overhaul the existing heat network and reinvigorate its performance and reliability.

### Capital Works

NHG engaged FairHeat to support with the HNES Demonstrator funding application and to carry out Capital Works. These included:

- **Strategic Boiler Replacement:** A phased replacement of boilers was conducted to minimise system downtime while augmenting overall performance.
- **Plant Room Upgrades:** The plant room underwent upgrades aimed at enhancing control and water quality resilience.
- **Bypass Removal:** The eradication of top-of-riser bypasses, an important step to optimise flow rates and network efficiency.
- **HIU Retrofit:** The 18 most underperforming HIUs, identified through data analysis to pinpoint areas of improvement, were replaced.

### Outcomes

The outcome of these concerted efforts was significant. Grange Walk witnessed an upsurge in heat supply reliability. Remote visibility of water quality facilitated proactive maintenance, preventing issues before they escalated. HIU performance improvements led to the

resolution of long-standing resident complaints and issues. The removal of bypasses resulted in reduced network flow rates and subsequent electricity consumption, marking a sustainability triumph.

## Conclusion

Grange Walk demonstrates the positive impact data-driven intervention can have in transforming heat networks. The results - improved reliability, energy efficiency and resident satisfaction – have been transformative.

*“One of the concerns our residents had at Grange Walk was about uncomfortable heat temperatures within the communal areas, particularly on the higher floors. Our consultants Fairheat identified that a major contributor to this problem was heat loss from top of riser bypasses. It is a common feature in risers within residential blocks. Removing these bypasses was a straightforward process financially supported by HNES funding. We would recommend that other heat owners/operators consider surveying their risers and applying for funding to remove bypassing riser pipework as a relatively quick means of reducing overheating and bringing down energy costs.” – Dan Perager, Head of Heat, Energy and Water, Notting Hill Genesis.*