

Edinburgh's 'Royal Mile'

water mains renewals - a challenge in historic centre

Edinburgh's historical 'Royal Mile' is regarded as the most important thoroughfare in Scotland. It is home to the city's historic castle, the Scottish Law Courts, St Giles Cathedral, John Knox's House, the City Council Chambers, Holyrood Palace and the Scottish Parliament Building. The area was also connected to a dedicated water supply by pipes laid some 150 years ago. The £10 million task of renewing some 82 kms of ancient city water mains with modern polyurethane pipes - and specifically, laying 1.022km under Scotland's pre-eminent cultural, economic and political thoroughfare the 'Royal Mile' - posed many major challenges for the water engineers, not so much in laying new polyurethane mains, but in maintaining the equilibrium of the day to day life for this diverse and highly important community in Scotland's historic centre, as they worked. Any closure of a major city highway would have caused serious disruption to circa 450 businesses on the 'Royal Mile'. Tourism is worth £2.3 billion to Edinburgh's economy and the water main's improvement scheme had the potential to affect the many tourist attractions.

Construction challenge

The £10 million challenging task for Scottish Water Solutions was to replace 82 kilometres of the old iron water mains in Edinburgh, including this highly important and historic area, with new polyurethane piping and, specifically, 1.022km directly on the 'Mile' itself. The risks of causing damage to historic buildings had to be rigidly guarded against by Scottish Water Solutions working on behalf of Scottish Water.

- * drilling and excavation must be monitored closely and any significant entry holes must be seamlessly repaired, cobbled and historic paving meticulously replaced;
- * risks of dilapidation to the many historic buildings, such as Holyrood Palace, John Knox's house and St Giles Cathedral had to be avoided.

The financial and archaeological costs that could be incurred as a result of damaging local buildings and infrastructure would have been great. The reputational risk to Scottish Water (on whose behalf Solutions are working) has to be minimised. Excessive delays, disruption and damage would reflect very poorly on Solution's parent organisation.

Community challenges

The impact on local residents includes noise, atmospheric pollution, excavation entry holes and possible disruption of other utilities. Since a large part of the Royal Mile is pedestrianised, the risk of disruption was great, especially during the busy International Festival season. Economic implications included reduced custom for local businesses, with a particular impact on one of Edinburgh's main industries - tourism. Planned road closures leading to delays, particularly during peak hours were managed by the council's Highway Department to keep road restrictions to a minimum.

With such a historically significant and busy tourist area under intense scrutiny, the prospect of the Canongate Mains Renewal programme presented a large challenge. For the project to run smoothly, Scottish Water Solutions worked in conjunction with Transco and Scottish Power who assisted in locating and marking up their services to help any interruption to services. Every measure to reassure and inform key community stake holders was taken to make this essential process as non-intrusive as possible.

The challenge was met by:

- * information wallets issued to local residents to encourage acceptance of the project and its eventual benefits, detailing why the work was being done, and outlining timescale and

potential reduction in service stoppages;

- * local MSPs and political contacts were informed by letter in advance of the proposed work;
- * traffic management meetings with Edinburgh Council Highways Department & local emergency services kept road restrictions to a minimum.

The superintendents of Holyrood Palace and the Scottish Parliament Building were consulted to ensure that any reductions in service were scheduled for suitable times. They were also kept fully up to date about the progress of work, time scales and security issues.

A Customer Help Information Point, CHIP, was set up in Canongate to provide up to date information to local residents and tourists. As this is an historical site an archaeologist was on hand during excavation to ensure that best practice was applied in the event of an archaeological find.

When completed, the water mains improvement project on Edinburgh's Royal Mile was virtually seamless.

That this programme was completed so successfully was in part due to the excellent planning, preparation, design and construction skills for which **Solutions** and its partners have become known. The construction phase of the project was aided greatly by extensive preliminary work between - Solutions, Scottish Water and GMJV and also as a result of working in partnership with organisations such as Scottish Power, National Grid Transco and the many and varied stake-holders affected by the work.

Ultimately, the Water Mains Improvement on Edinburgh's Royal Mile has provided and enhanced a secure water supply for the city's Royal Mile Community. In consultation and partnership with organisations and the local community, the project has been completed **within only eight weeks** by avoiding busy periods such as the Edinburgh International Festival, the Military Tattoo and the reconvention of the Scottish Parliament. The local community has benefited from early project completion and correspondingly low levels of inconvenience by continuing to thrive as one of the most important communities in Scotland's capital city.

In conclusion

This remarkable balancing act of engineering, construction, archaeological sensitivity, reputation management, and customer care was completed two months early.

It is now business as usual on the Royal Mile.



SCOTTISH WATER

Royal Mile Water Main Replacement
£10m investment in water quality
and service issues

Construction: £150,000
12.5-13.5 February 2025 | Contract duration: 3 months

Contractor: Balfour Beatty Construction

Customer helpline: 0845 601 8855