

# Holt Drive (Loughborough) Flood Alleviation

£1.65m project in Loughborough to remove properties from FLOODS register, reduce highway flooding, and improve the amenity value/diversity

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**H**ydraulic incapacity of the foul water and surface water sewers serving Beacon Road and Holt Drive in Loughborough has resulted in the frequent flooding of homes, gardens and highways during heavy rainfall. In August 2014, Severn Trent Water (STW) commenced a £1.65m project to remove 13 properties from the STW FLOODS register, reduce highway flooding, improve the amenity value (diversity) of existing green space, and maximize the existing sewer and SUDS asset performance. The project team was committed to achieving a cost beneficial, long term solution, and adopted an approach involving the appraisal of the wider environment and evaluating and exploiting innate opportunities within the catchment.



Project team celebrating the 'bottoming' of the shaft tank - Courtesy of NMCNomenca

## Planning the works

Leicestershire County Council's Street Works Coordination Team held discussions with the team regarding the flood alleviation project. This was primarily to schedule our works and to find out how many work sites could run at any time. During discussions it was noted that the Loughborough Inner Relief Road Scheme was going to run concurrently with our project. In addition, a clean water mains replacement scheme in Beacon Road and sewer rehabilitation works were planned to be delivered by the end of March 2015.

On discovering four schemes planned to run concurrently within a small proximity of each other, a collaborative planning meeting was arranged. This meeting bought all parties to the table to discuss in detail what each individual scheme entailed and where dual working could be achieved. By changing the sequence of a number of work activities within the separate programmes a solution was obtained that allowed all schemes to work concurrently, without having an adverse effect on either the travelling public, neighbouring residents, and local amenity and service providers.

## Teamwork at its best

Working with strategic partners it became apparent that the flooding issue was known to the Lead Local Flood Authority (LLFA) Leicestershire County Council. An initiative was developed to work

with the local authorities and key stakeholders with the aim of optimising the use and performance of the existing SUDS assets for the benefit of all.

Understanding the LLFA's own flooding problems enabled the project team to propose the utilisation of the existing SUDS asset in a mutually beneficial and more sustainable manner. Essentially the proposals address the concerns of STW, the LLFA and the Highways Authority with a single enlarged detention basin.

## Sustainability benefits

The scheme is a great example of developing a retrofit SUDS solution to address catchment flooding by working with strategic flood partners in the spirit of the Flood & Water Management Act. The success of this initiative has enhanced the relationship with Leicestershire County Council, who will look to take advantage of similar opportunities in the future. It has also been used to showcase what can be achieved where a partnership approach is adopted and will hopefully help establish and pave the way for sustainable surface water management across the STW region.

The wider sustainability benefits of this initiative are:

- Reduced carbon footprint when compared to a *traditional* solution, estimated savings in excess of 200 tonnes CO<sub>2</sub>



- Improved amenity value of maintained grassland due to ecosystem diversification.
- Water quality improvements in receiving watercourse through SUDS treatment of storm flows.
- Reuse of excavated materials to reduce waste to landfill and traffic movements.
- Demonstrates adaptability of SUDS features for future scenarios.
- Demonstrates collaborative working in the spirit of the Flood and Water Management Act.
- Paves the way for sustainable surface water management across the STW region and wider UK Water Industry.

### Collaborative working

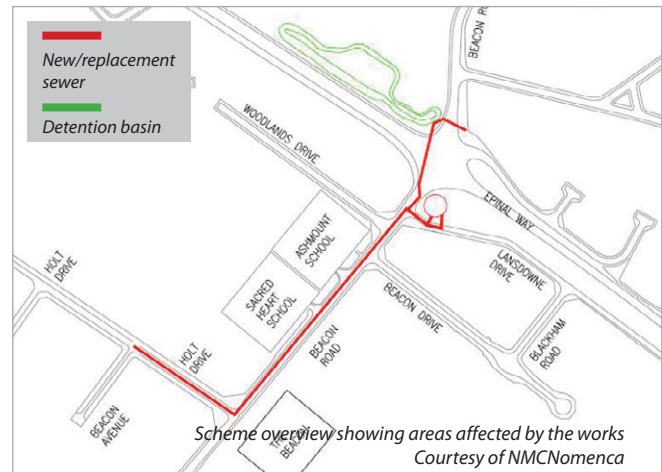
The scheme involved laying new sewers and repairing existing sewers in the area surrounding Holt Drive. As the nature of this work can be disruptive it was necessary that the potential impact of the work on schools and residents in close proximity was minimised. Due to the size of the excavations, a number of road closures were required in which works could be carried out ensuring the safety of the workforce and customers alike.

It was noted that the roads affected by the planned work are busy at times, so the following steps were taken to ensure disruption was kept to a minimum:

- Working closely with Leicestershire County Council Highways Department to develop the most effective diversion routes.
- Diversion routes were clearly signed to help traffic movements through the area.
- When a section of road was closed off to traffic vehicular access to properties was provided wherever possible.
- Consulting with local bus companies to make sure that service is maintained wherever possible.

### Customer communications

Customer care has been essential to keep the community and town users informed. Prior to works starting a letter drop was carried



out to neighbouring properties, and a public exhibition was held at the Sacred Heart Catholic Voluntary Primary School providing essential information to concerned residents, advising where and when works are taking place. Press releases were issued and the Leicester Mercury carried articles covering the works. During the works regular letter drops were carried out to each affected street.

The construction of the shaft tank was the most intrusive part of the works owing to its visual impact on the immediately adjacent properties. Once the shaft had been sunk, and immediately prior to the cover slab being installed, an invitation was sent to all neighbouring properties asking them to attend a public open day allowing them to walk the site and look at the works that had taken place. Over 60 residents, from 36 properties, took the opportunity to visit the site and be shown around by the site manager.

The overall the experience was proven to be informative, well explained and a positive engagement with the local community.

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