ADDRESSING FLOOD VULNERABILITY

THE PROBLEM

Norton Canes is a historic village in Staffordshire. Due to its age (has been in existence since 1086), there was very little-known asset information or condition available, leaving the village increasingly vulnerable to flooding. Many of the drainage assets that had been installed and operational for many years (and decades) were unknown or, there was no record of these in existence.

An analysis of Flooding Locations in Staffordshire because of the flooding in 20201 resulted in needing a greater understanding of the drainage network, to create a comprehensive management plan, aimed at reducing flooding and informing a risk-based maintenance programme for the future

THE APPROACH

KaarbonTech conducted a connectivity survey, looking at the underground infrastructure across the village. The survey revealed a complex 'spiders web' of pipework that had been installed and developed over the lifetime of the village. This survey provided a clear view of the network and its condition.

Live updates from the onsite crew were transmitted in real time to the office team, allowing for immediate insights and quick updates to the flood risk model for the location. One example of the complexity of the survey was at one point counted 22 linear pipe networks crossing over each other, within a 10-metre radius.

With this complete picture of the asset state, projects could be planned more effectively, to address future drainage demand.

THE RESULT

The real-time updates created a full, accurately mapped asset inventory and video history the drainage network, enabling the implementation of beneficial schemes to be mitigate flood risks.

This provided robust evidence to bid for grants and funding in Norton Canes from the Environment Agency and DEFRA to alleviate future flood risk. This resulted in the first community scheme at the local 'community hub', as part of a FAIR (Flood: Aware, Informed, Resilient) Project.

Futher reading:
https://www.fairflood.org/fair/community-flood-schemes/