



## Providing planning routes for Amey

**Using Mayflower CMS, Amey have been better informed of road surface and air temperatures, optimising the decision-making process for winter gritting routes**

Winter maintenance costs for UK highway authorities are increasing yearly. In 2010 the Quarmby Review estimated the total winter maintenance budget across England to be about £160 million per year.\*

Amey undertakes planned, reactive and emergency maintenance on 9,000km of roads in Hampshire in partnership with Hampshire County Council, as part of its Hampshire TMC Winter Service project. Its winter services include gritting when road surface temperatures drop close to freezing or below. It receives weather data from the Met office, which is used to make the go/no-go decision for gritting routes.

Mayflower currently monitors and manages over 155,000 street lights in Hampshire using its Central Management System (CMS). The CMS installation provides an opportunity for city managers to utilise the communications network to bring data from additional compatible sensors.

In April 2016, Amey approached Mayflower to discuss an alternative solution to the excessive gritting of the highways in Hampshire.

# Smart Winter solution

## Through collaboration with partners, Mayflower were able to effectively deliver key information to Amey

It was Mayflower's aim to demonstrate immediate operational benefits and savings for Amey in being able to make a go/no-go decision in marginal situations by giving the winter services decision-makers up to date, accurate, localised information on surface and air temperature in order to assist in gritter area decision making.

Through a collaboration with partners Wintersense, the Met Office and SSE Enterprise Contracting, Mayflower and Amey developed a solution to utilise weather station sensors and road surface temperature sensors on a test route in Hampshire, monitoring in 'real-time' the temperature on the roads.

"Mayflower are partners in an Amey-led innovation project which is helping the winter services team to get near real time, localised weather data which enables us to make better decisions about when to deploy our services. The sensor and communication technologies provided by Mayflower and other project partners are helping us to revolutionise how Amey delivers winter services for Hampshire County Council."

**Chris Sparkes,**  
Hampshire Winter Services,  
Hampshire County Council

### Mayflower network

These weather stations and road temperature sensors use Mayflower ZigBee to collate the data via the Mayflower Sub Master and send it to a cloud-based platform.

Mayflower installed several weather stations and road surface temperature sensors into a small pilot area, and collated the information they recorded into a platform which would decipher the data and then confirm whether gritting was required in that area.

The Mayflower gateway unit provides a Wi-Fi access to point to the sensors, reporting temperature information using 3G backhaul to the Wintersense back office system. It was agreed that a route in Winchester, encompassing rural and urban streets, would be used as the test site.



### How the information will be used

The project intends to help councils save money by reducing the amount of unnecessary gritting on roads and reduce the organisations' carbon footprints by decreasing unnecessary vehicle and fuel usage. Costs will also be saved from not having gritting crews on stand-by when not required, with Amey estimating up to three days per year being lost to crews waiting on stand-by.

For more information about our Smart City solutions, get in touch today:



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