

## Case Study

### A143 Norfolk

### Active Road Studs

## Accident reduction on the A143 in Norfolk with SolarLite Active Road Studs

### Background

The A143 links the Norfolk Broads towns of Beccles and Great Yarmouth. The road crosses the Haddiscoe Marshes on a 2km long, twisting and slightly raised embankment known as the Haddiscoe Dam.

Over a 3 year period there were 22 recorded accidents on this stretch of road, 2 of which involved loss of life, 6 caused serious injury and 14 others considered as minor incidents. 95% of all accidents recorded were as a result of loss of control. With this route situated across low lying marshes a high number of accidents appeared to be during adverse damp and misty conditions with 40% of accidents occurring in the dark and 60% when the road was wet.

### Key Benefits

- Accident frequency has reduced from 7.3 per year to 2.3
- Accident severity ratio has reduced from 36% to zero  
10x greater visibility for drivers than with traditional reflective road studs
- Excellent visibility clearly highlighting approaching sharp bends and other road hazards

### Solution

In view of the statistics provided Norfolk County Council took a number of initiatives which involved resurfacing the road to improve skid resistance and also the installation of Clearview Intelligence SolarLite Active Road Studs. The installation comprised of over 200 SolarLite Active Road Studs providing delineation of the centre line. The positioning of the road studs was carefully designed to provide drivers with advance indication of the nature of the road layout ahead. Following success of the initial installation further enhancement has been made by installing further SolarLite Active Road Studs.

The SolarLite Active Road Stud has a built-in solar powered Light Emitting Diode (LED) which automatically illuminates from dusk to dawn and offers visibility up to 10 times greater than that of the traditional road stud, which rely on the vehicle headlamps and only provide up to 90 metres visibility; by contrast, the SolarLite Road Stud can be seen up to a distance of 900 metres away regardless of the headlight beam. This additional visibility allows a motorist traveling at 100km/h (62mph) over 30 seconds to respond to a change in the road ahead. In contrast traditional road studs only allow a driver 3.2 seconds to respond.

*"In the first two years since the scheme was introduced we noticed an immediate improvement in road safety, there were only 5 recorded accidents all of which were slight with none occurring in the dark and only one during wet conditions. The overall accident frequency has reduced from 7.3 per year to 2.3 whilst the severity ratio has reduced from 36% to zero."*

**Nevil Calder**

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