

## Case Study

### A4226 Wales

### Active Road Studs

## Lane delineation on the A4226 in Wales

### Background

The A4226 road, locally known as The Five Mile Lane is a busy rural narrow and bendy commuter route between Barry, Cardiff International Airport, the A48 and the M4 Motorway. Against a background of an unacceptably high accident record the Vale of Glamorgan Council has undertaken a number of measures to improve road safety. Road safety measures have included the introduction of a 40mph speed limit, deployment of a mobile speed camera and more recently a permanent speed camera, additional road markings, increased signage and resurfacing with high skid resistance material.

It was also clear from comprehensive analysis of all accidents occurring along the A4226 carried out by Vale of Glamorgan Council that an increasing number of the accidents were taking place during hours of darkness, suggesting that drivers were failing to take account of the limited view ahead provided by conventional vehicle headlight beams.

### Solution

200 Clearview Intelligence SolarLite Active Road Studs were installed, providing delineation for the centre line with white studs. On the most hazardous of bends the carriageway edges were enhanced with warning red studs. The positioning of the studs was carefully designed to provide drivers with advanced indication of the nature of the road layout ahead.

Active Road Studs provide 10x greater visibility to drivers. When travelling at a speed of 100km/h (62mph) a driver will see 90m of delineation from traditional retro-reflective studs. This provides around 3.2 seconds to react to changes in the road ahead. Active Road Studs provide up to 900m visibility, so reaction time available to the motorist is over 30 seconds. This additional time to respond to changes ahead allows motorists to navigate the road more safely.

### Key Benefits

- 72% reduction in accidents on this stretch of road when compared with the previous three years
- 10x times greater visibility for drivers than with traditional reflective road studs
- Highlights sharp bends and other road hazards

*"We are continually striving to reduce the number of accidents on our roads. We are therefore highly pleased that the installation of the Active Road Studs along with the other safety measures that we have put in place have significantly reduced the number of accidents on this busy stretch of road."*

**Ian Johnson**

Senior Traffic Officer for Vale of Glamorgan Council