Railway Bridge Collapse Prompts Monitoring Calls

Could the recent collapse of Barrow upon Soar's railway bridge have been avoided by employing regular bridge monitoring? According to Dr Chris Cox, senior engineer at geospatial technology specialist 3D Laser Mapping, the incident in Leicestershire, UK, highlights the need for a greater focus on mobile monitoring in the rail industry.

Not long after the last train had passed beneath, half the railway bridge wall and a large section of brickwork had collapsed onto the tracks, commented Dr Cox. Network Rail teams worked constantly to restore normal service but the Midland Main Line, connecting Sheffield, the East Midlands and beyond to London St. Pancras, was out of action for 48 hours at great cost and inconvenience to businesses and people across the region.

With many of today's bridge designs dating back to the Victorian era, there has never been a greater need to survey and monitor these decaying structures and to schedule regular, necessary maintenance to prevent such costly and disruptive events, Cox continued.

Lidar

Many local residents spoke of assessments being carried out on the bridge in Barrow upon Soar but, as Dr Cox pointed out, basic visual inspections are often not enough. They can be unreliable and do not reveal the true extent of the deterioration. Visible cracks often occur in structures and are usually the first sign of a greater problem. Regular monitoring, incorporating the use of an accurate Lidar system, ensures that any potential issues can be detected early enough to avoid the safety and cost implications involved in a collapse.

It's terrible that an incident like this has occurred but it does open up discussion and acts as a reality check that changes need to be made, Chris Cox concluded.

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