



Intelliframe®
Intellicone® Smart Taper
National Highways

Digital traffic management reduces carbon emissions and drives efficiencies

A new digital approach to monitoring temporary traffic management which is in place to support the M60 Palatine Road Bridge Repairs is projected to reduce carbon by up to 27,000 kgs whilst delivering cost efficiencies.

The Challenge

National Highways engaged Chevron Traffic Management to install two permanent hard shoulder closures on the east and westbound carriageways to protect vital bridge repairs. With the closures scheduled to be in place for 12 months, National Highways wanted to reduce maintenance costs, while ensuring the integrity of the closures and the ultimate safety of its road workers.

Our Solution

Chevron TM brought HRS into the early stage of the planning process to explore how digital technology could be integrated into the scheme to deliver cost savings. Our proposal introduced the idea of creating a digital work-zone using two products – Intelliframe® Lite and Intellicone® Smart Taper.

Intelliframe® Lite is a digital system which attaches to existing road signs and provides remote visibility of all safety critical signs.



It alerts traffic management operatives if there is an issue such as fallen signs, which reduces the need for two-hourly maintenance checks.





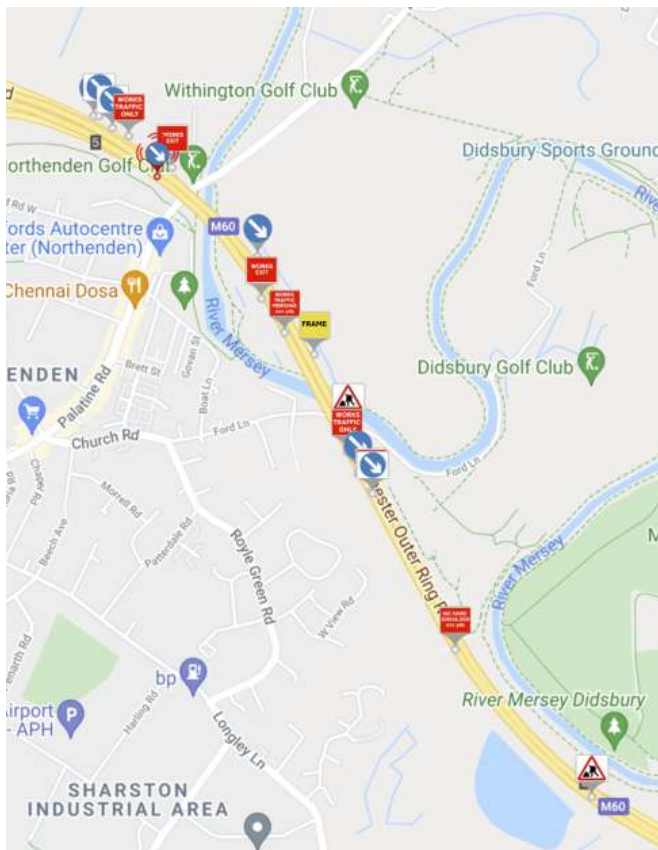
Intelliframe® Intellicone® Smart Taper National Highways

Intellicone® Smart Taper allows monitoring of cone barriers thereby enabling a rapid response to any cone strikes.

Working with Chevron TM, we installed 21 Intelliframe® Lites and two Intellicone® Smart Tapers which enabled full digital monitoring of the temporary traffic management scheme.

The Outcome

The innovative use of digital technology allowed Chevron TM to move from routine, two-hourly maintenance checks to event-based maintenance driven by alerts and data which the Intelliframe® Lite and Intellicone® Smart Taper provided.



This has released TMOs to carry out other duties and taken maintenance vehicles off the road which has significantly reduced operational costs as well as CO₂ emissions.

In the first six months of these works, the following savings have been made:

- **13,815 kg carbon saved**
- **720 live traffic / operative interfaces eliminated**

This scheme has been underway since 1 March 2021. Feedback from National Highways and other stakeholders has been extremely positive.



Client Feedback

“I have to say it’s the best innovation I have come across since Construction Works Framework started.”

Paul O’Neil, National Highways Area 10 Construction Manager

“Using Intelliframe® Lite we moved from routine maintenance checks every two hours to event-based maintenance.”

Matt West, Client Director, Chevron TM