

Technology and Innovation to Enhance Road Safety

Safer and Smarter Roadways:
Automated Lane Closures in Action

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Agenda

1. Introduction
2. Automated Traffic Control
3. 2 X Case Studies
4. Projects Results





2. Introduction



Increasing Road Safety

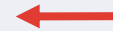
Workzone intrusions can be fatal.



Increasing Road Safety



Taper strikes happen regularly.



Increasing Road Safety

Protecting our roadway workers is key.



Increasing Road Safety

Protecting our roadway workers is key.





2. Automated Traffic Control

Automated Signage and Gates



Automated Signage Alert travellers of upcoming closures, work zones or changing road condition



Automated Gates Channelize traffic into adjacent lane

Complete System

An automated lane closure system typically includes:

- Automated Gates
- Automated Signage
- Control System



Client Central Software

Control, monitor, and gather feedback from a **Traffic Management Center (TMC)** client central software



Digital Alerts



Through a technology partnership with HAAS Alert, Versilis gates send digital lane closure alerts via Waze and vehicle infotainment systems.





3. Case Studies

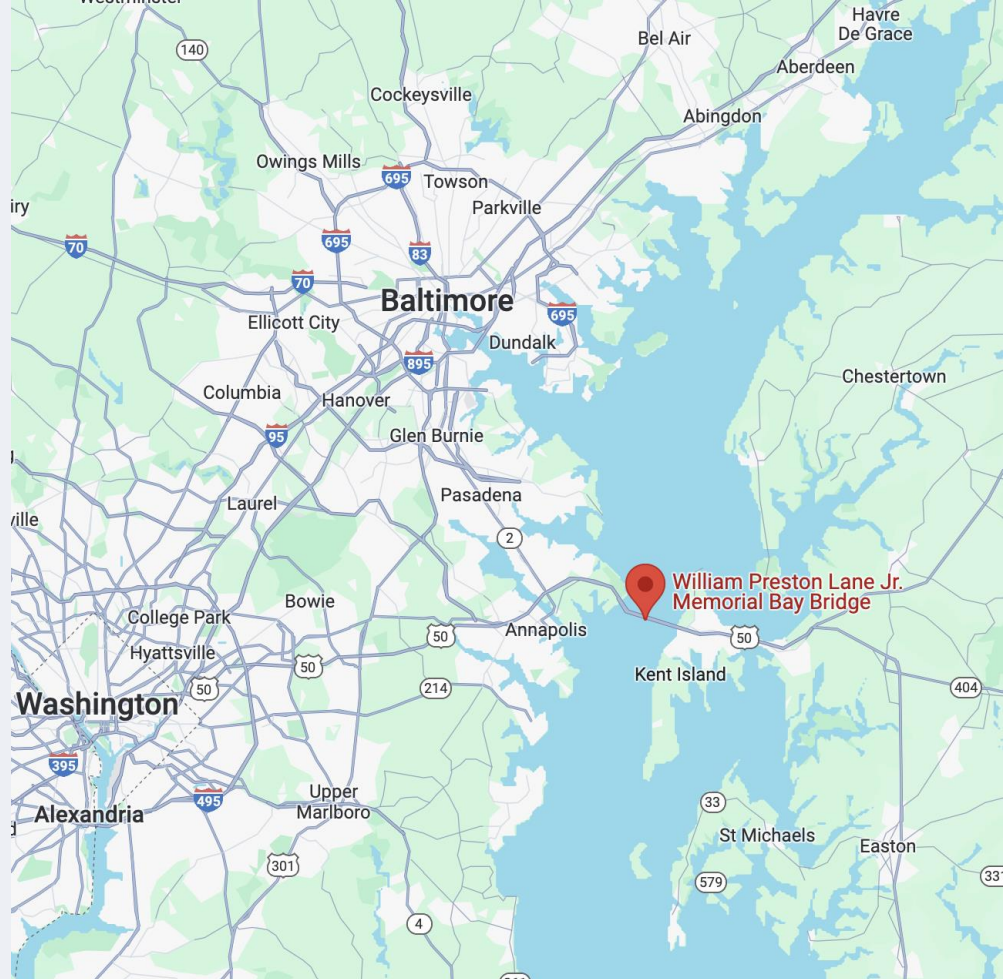


Chesapeake Bay Bridge, MD USA

- Vital link between the Western and Eastern shore of Maryland
- Dual Span Bridge
- Reversible Lane on WB Bridge
- Complex traffic control at bridge approaches



Maryland
Transportation
Authority



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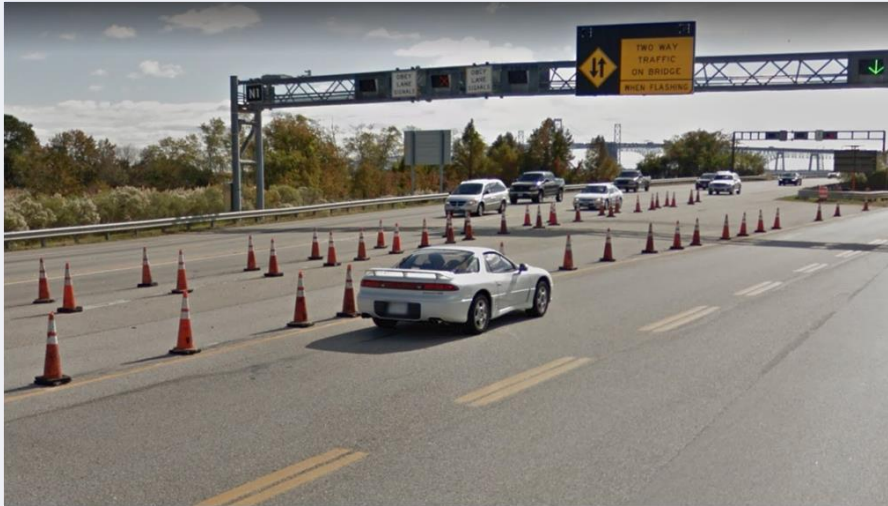
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Automating Traffic Control

Protecting our roadway workers is key. Manual traffic control since 1974.
A DAILY Operation!



Automating Traffic Control

Since Q4 2022, all traffic control at bridge approaches is automated.





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William Preston Lane, Jr. Memorial Bridge

Bay Bridge

Automated Lane Closure System



A-3 Hindhead Tunnel, UK

- Vital link between London and Portsmouth
- 6.4km dual-carriageway
- Counterflow during Maintenance
- Complex traffic control at Tunnel approaches
- Automating Traffic Control



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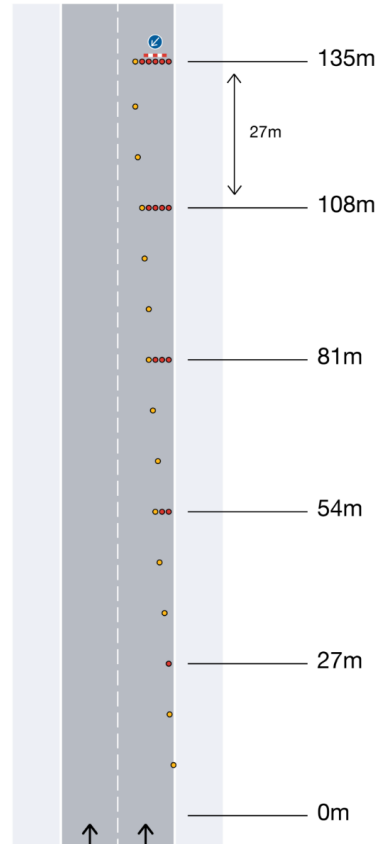
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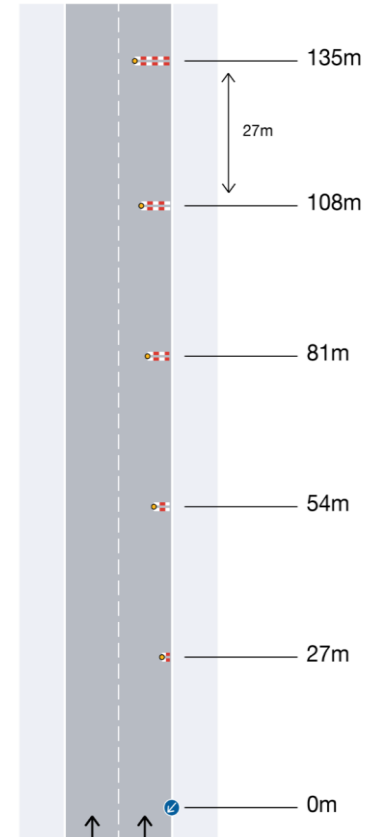
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Manual Lane Closure using Cones and Barricades



Automated Lane Closure using Versilis Gates



A-3 Hindhead Tunnel, UK





4. Benefits



Project Results

Project	Chesapeake Bay Bridge, MD USA	A3 Hindhead Tunnel, UK
Implementation	Q4 2022 (17 months in operation)	Q4 2023 (5 months in operation, 75% of trial complete)
Usage	Daily - Bridge Approach Lane Management	5 nights every 6 weeks - Tunnel Maintenance
Results	<p>Source: MDTA</p> <ul style="list-style-type: none"> ● TIME: Reduced time to implement and remove the closures from 20-30 minutes 10-15 minutes (<u>50% saving</u>) ● SAFETY: Reduced worker exposure to live traffic from 10 workers to 0 workers (<u>100% increased safety</u>) ● CONGESTION: Reduced congestion ● ENVIRONMENT: Less idle time 	<p>Source: Arcadis Trial Interim Evaluation Report</p> <ul style="list-style-type: none"> ● TIME: Reduced time to deploy the taper from 7min 30sec to 2min 34sec (<u>66% saving</u>). Reduced time to retract the taper from 4min 20sec to 40 sec (<u>85% saving</u>) ● INCIDENTS: none observed ● DRIVER BEHAVIOUR: marginal improvement ● EQUIPMENT PERFORMANCE: <u>100%</u> ● OPERATOR FEEDBACK: Positive



Thank you Grazie

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