

Network Management Signing & Delineation Programme

15th January 2021

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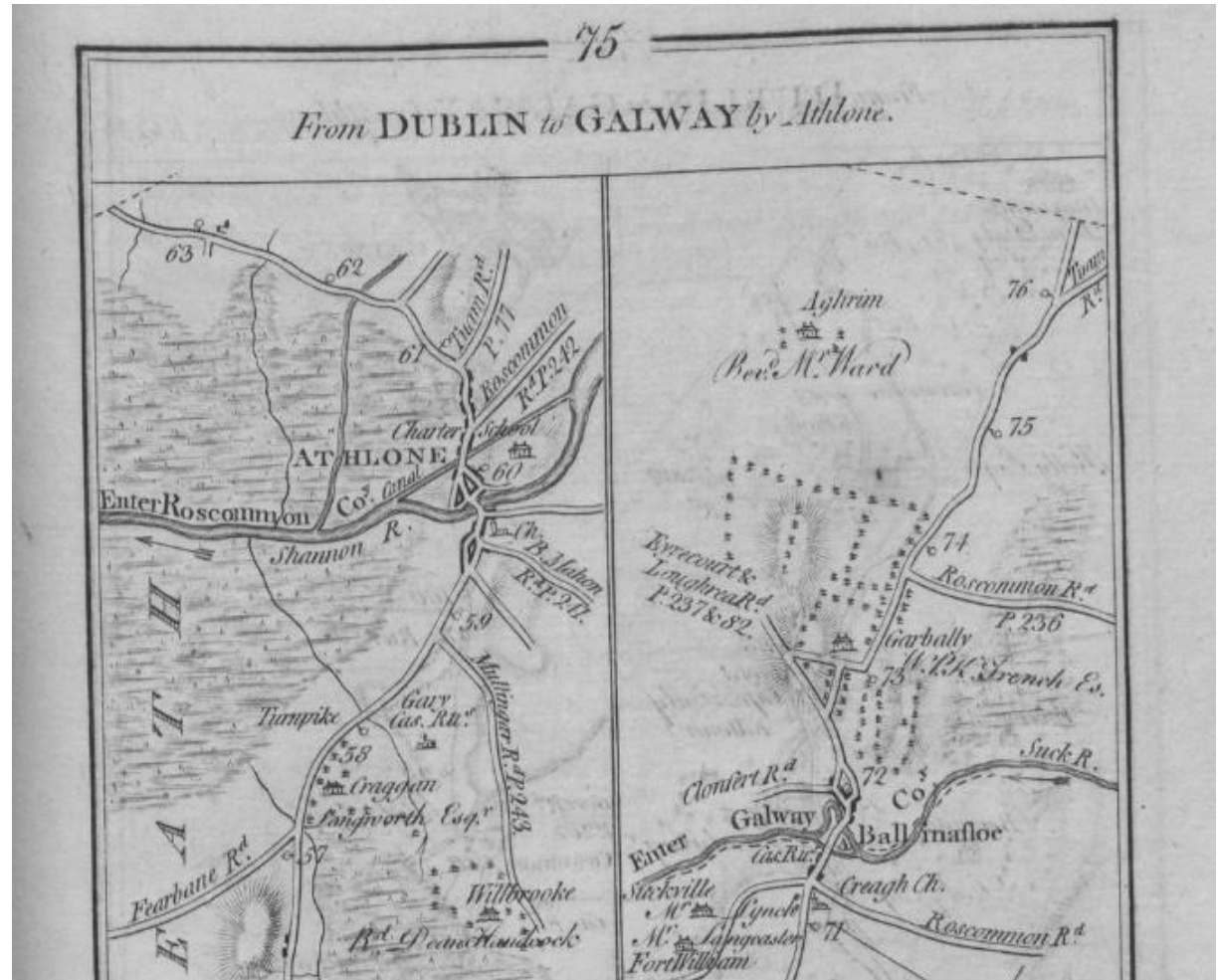
Importance of Delineation and Signs



M50 Junction

- 140,000 vehicles
- intersecting 70,000
- Imagine it without lines and signs
- Centre lines reduce fatalities by 60% on busy roads

History



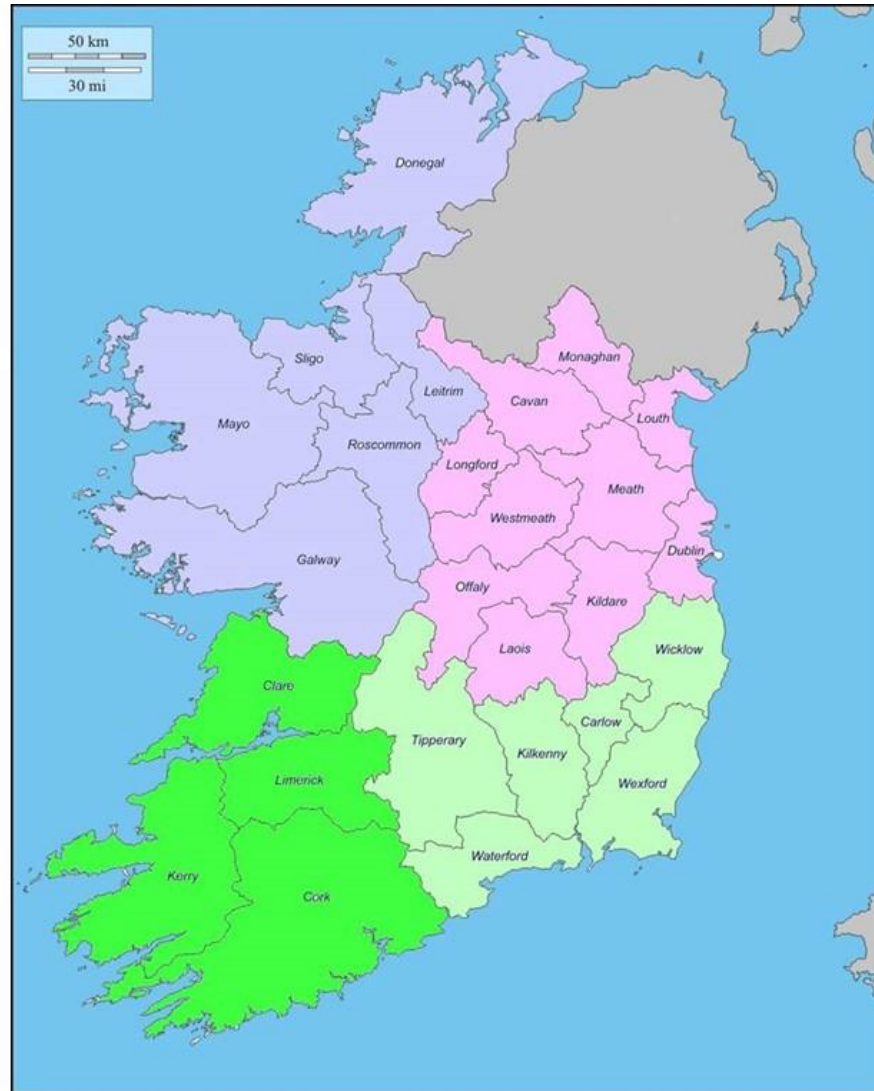
TII National Signage & Delineation Programmes

- Manage the Signing and Roadmarkings on the national road network
 - Provide clear and consistent information to road users
 - Approximately 100,000 Road Traffic Signs on the non MMaRC and PPP network
 - Over 10 million metres of road lines
 - Delineation incorporates road lines, road studs and other markings which are a subset of Road Traffic Signs and are legally considered to be horizontal signs
 - Country divided into 4 Regions: SE, SW, NE and NW
 - Teams in 4 NROs: Tramore, Kerry, Kildare and Donegal
 - Collaboration with other bodies with signs requirements such as Fáilte Ireland (e.g. WAW, Hidden Heartlands), An Garda Síochána (e.g. speed camera signs), DoT and Local Authorities
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Signs/Delineation Maintenance Regions and Managing Design Offices

North West
Donegal NRDO

South West
Kerry NRDO



North East
Kildare NRDO

South East
Tramore NRDO

Ongoing Work Activities

- Strategic planning and development of **multi-annual programmes** for Road Traffic Signs & Delineation
 - **Design** of directional signs and roadmarkings to bring consistency and continuity across all national routes
 - Preparation, **procurement and execution of capital contracts** for the provision of new and replacement signs (incl support structures) and roadmarkings
 - Preparation, procurement and execution of **bespoke maintenance contracts** for routine maintenance of signs, roadmarkings and studs including replacement, repair, washing (of signs) and vegetation control
 - Design and implementation of **asset management systems** which record, assess, maintain and report on the assets
 - Operation of the TII Directional ***Signs Approvals Process*** for new Directional signs on national roads
 - Development of **standards** and of design documents
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Signs Maintenance Contracts

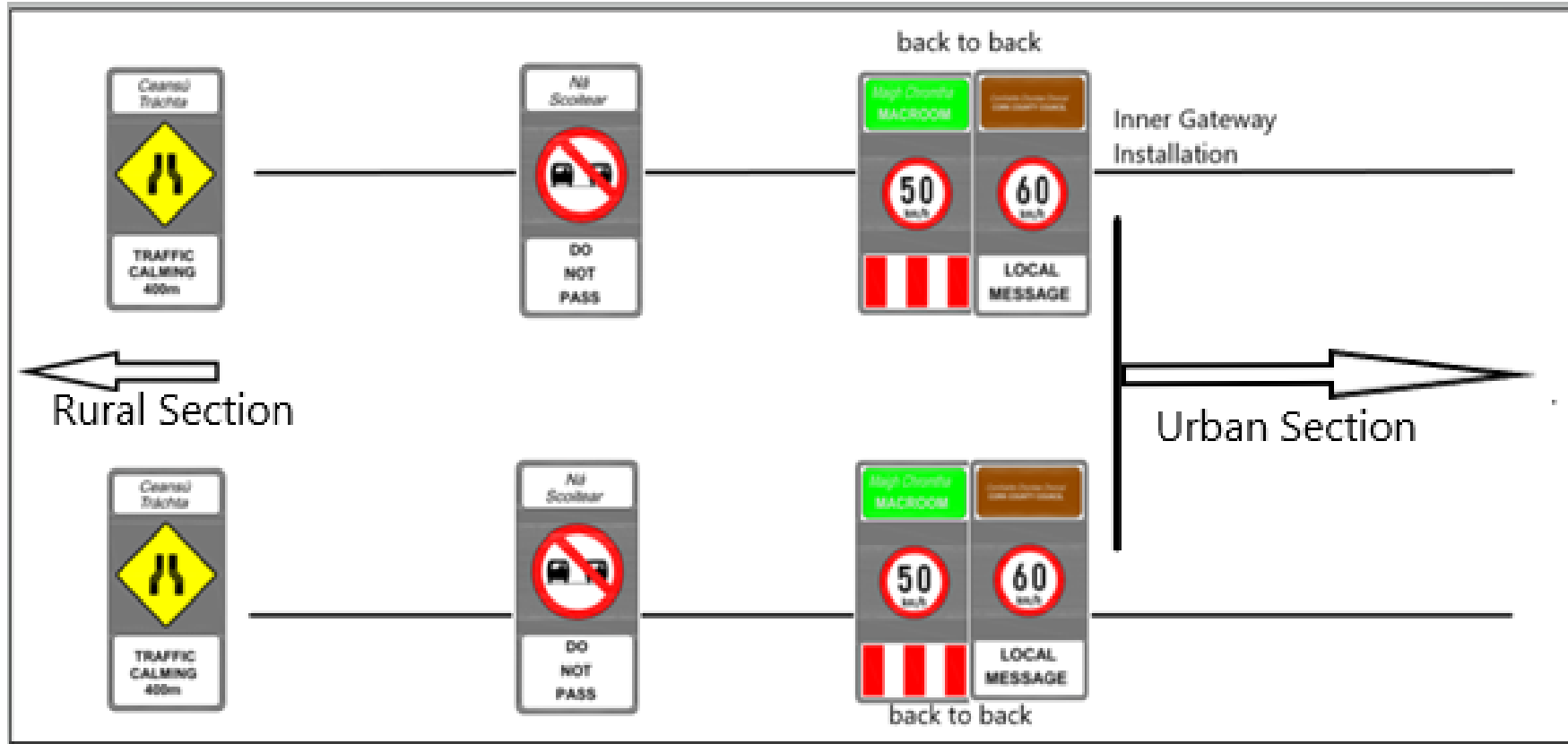
- Routine maintenance of road traffic signs on the national road network
 - Performance contracts based on KPI's
 - Lump sum; washing, cutting back of vegetation & minor repairs;
 - Management of Automated Fault Management System (AFMS), including a database of the assets;
 - Replacements / renewals as tasked;
 - Defects can be notified via the **TII Portal**
 - Now include maintenance of Traffic Calming gateways
- Civil Works Framework also in place
 - Rationalisation of Traffic Calming installations (follow on from National Speed Limit Review)
 - Remove / Relocate / or Modernise (Passive Safety)





TII Maintained

LA Maintained



AFMS Lifecycle of a fixed sign fault

Log fault
Sign inspector

Mobile app interface for creating a new fault. It includes fields for Location Id (N100032), Asset (N100032), Applicable Faults (Sign + pole missing Cat_2), Classification (Severity 2), Contract, and Details (RTA).

Mobile App.

Desktop interface for the Asset & Fault Management System. It shows a navigation menu with 'Assets', 'Faults', 'Tasks', and 'Reports'. A 'New Fault' button is visible, along with search and filter options.

Desktop

Review Fault
TII Decision maker

Go into Faults tab

Create Task Order
TII Decision maker

Mobile app interface showing a list of tasks. Each task entry includes a task ID, description, status, and dates. For example, 'N110043-1' is 'SF DAMAGED' and 'N030069' is 'INCORRECT SIGN ERECTED C'.

Mobile App

Contractor
Instructions

Carry Out and
Close Task Order
Contractor Crew

Desktop interface for adding a task order. It includes fields for Task Order No. (TO050), Activity Type (Scheduled Task Order), Details (N80N81 Schedule 4), Contractor (HSD), and Contract (Sign South East). There are 'Declare' and 'Cancel' buttons at the bottom.

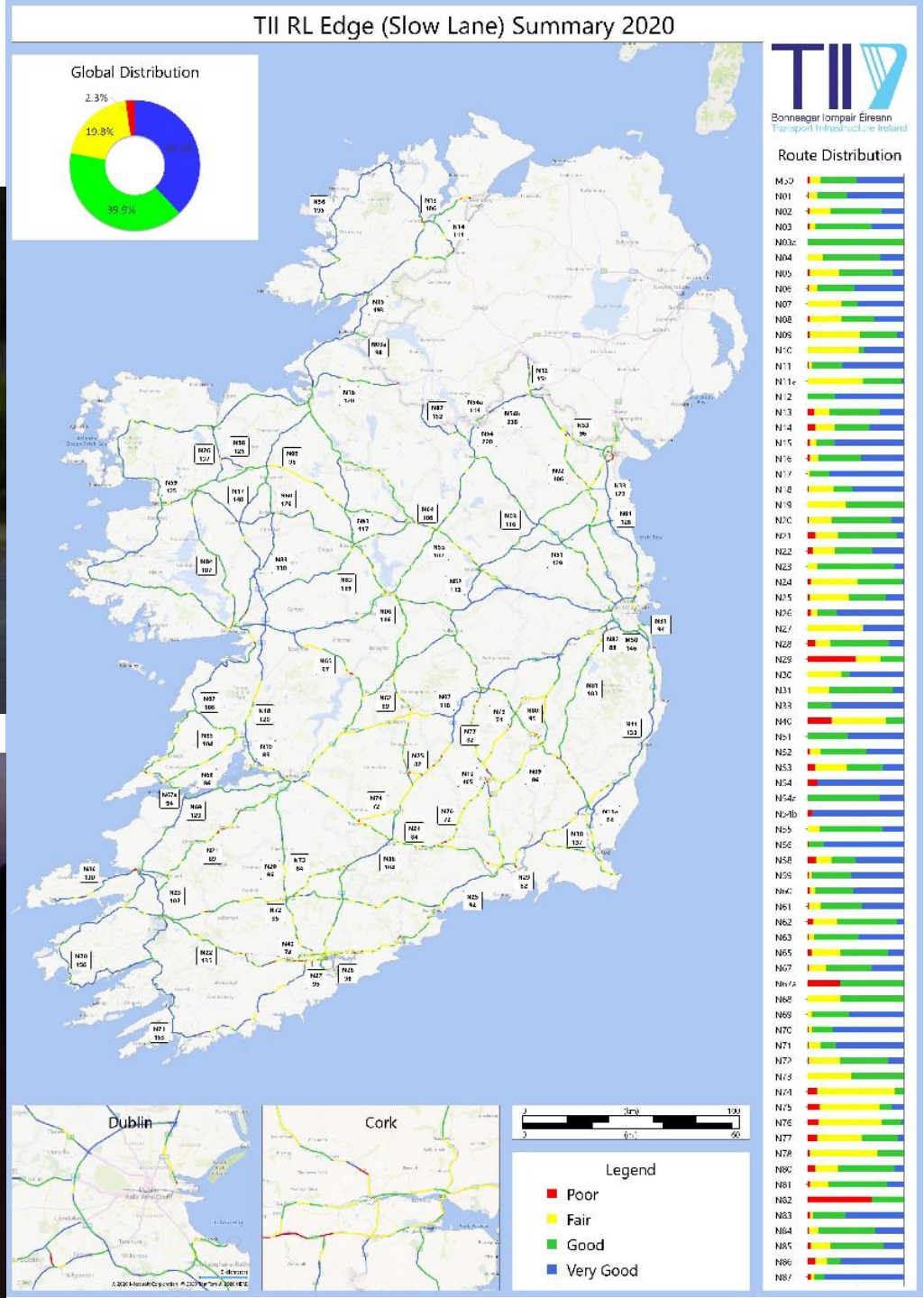
Desktop

Delineation Contracts

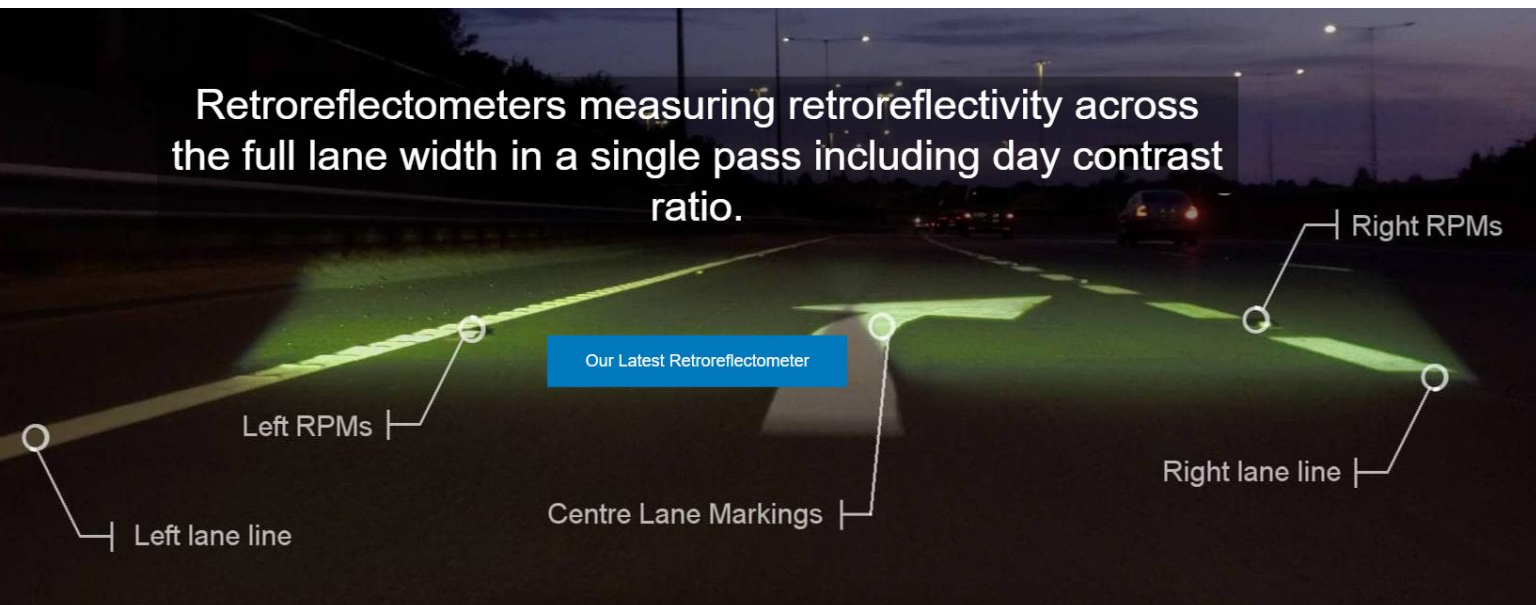
- Routes designed end-to-end by competent **Designers** per Chapter 7 of the Traffic Signs Manual
- Consistent design wrt. overtaking, consideration for vulnerable users. Warrant driven design. Risk assessment.
- Ad-hoc changes may introduce hazard and liabilities.
- Changes need detail design, **Designer, PSDP & Safety Audit**
- Exclusion zones for resurfacing and improvement works
- Designs available for future implementation. (i.e. where resurfacing in subsequent years.)
- Performance Contracts. 200 mcd on application / 100 mcd after 3 years (last for 5-7 years)
- Road studs – Embedded, 3 year Guarantee



2020 Retroreflectivity Survey Edge Line



Retroreflectometers measuring retroreflectivity across the full lane width in a single pass including day contrast ratio.



QuickView Pro

Filter...

Road

Crosshair Legend

N18 South Slow lane (100m interval)

Display Chart

Version	1.2.0.0	RL Edge	
Date	13/05/2019	RL Centre	
Machine	Skylab Machine	RPM Edge%	
Operator	Greg	RPM Centre%	
Client	TII	Centre Markings	
Survey	TII_Survey_2019		
Road Name	N18 South Slow		
Slot Size	100		
Start Time	22:32		
End Time	23:28		
Duration	56.58 minutes		
Start/End			
Quality			
Distance	91.1km		
User Comments			

Poor 0->50
 Fair 50->80
 Good 80->120
 Very Good 120->
 Town & N/A

Gorteen
 Aughrim
 Kiltoran
 Loughrea
 Tynagh
 Abbey
 Ennis
 Shannon
 River Shannon
 Limerick

M1
 M6
 M7
 M20

RL Edge: 123 RL Centre: 153 RPM Edge%: 100 RPM Centre%: 100 Centre: 132
 RL Edge
 Distance: 0 km Time: 22:32:14 Section: 1

RetroTek

Lat: 53.33261 Long: -8.91583 Zoom: 9.32900

South Fast lane (1000m interval)
 N15
 North Slow lane (100m interval)
 North Slow lane (1000m interval)
 N16
 East Slow lane (100m interval)
 East Slow lane (1000m interval)
 N17
 Junctions
 North Fast lane (1000m interval)
 South Fast lane (1000m interval)
 South Slow lane (100m interval)
 South Slow lane (1000m interval)
 N18
 North Fast lane (1000m interval)
 South Fast lane (100m interval)
 South Fast lane (1000m interval)
 South Slow lane (100m interval)
 South Slow lane (1000m interval)
 N19
 North Fast lane (100m interval)

Powerful Software Mapping
GPS tagged video clips, live processing, process multiple surveys simultaneously.

QuickView Pro Software Details

To Finish

- Clear and consistent signs and delineation
 - Designer, PSDP and Risk Assessment for all designs
 - Performance based contracts
 - Collaboration with LA's and other stakeholders
 - User friendly roads
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