



## Motorway Maintenance and Renewals Contract (MMaRC)

Seán McDonnell, MCAAS Commission Manager, Technical Director, Atkins.

15<sup>th</sup> January 2021



# MMaRC Update

- 1<sup>st</sup> Generation contracts commenced 2013;
- Geographically split into three Networks;
- Contracts include:
  - routine maintenance;
  - incident response;
  - winter service;
  - renewal and improvement works – EIWOs - based on tendered Schedule of Rates.
- 2<sup>nd</sup> Generation contracts commenced Q3 2019;
- Principle change is the addition of ten Tasked Maintenance Areas (TMAs) across the network;
- Total route length included in MMaRC 2G contract 831 kms.

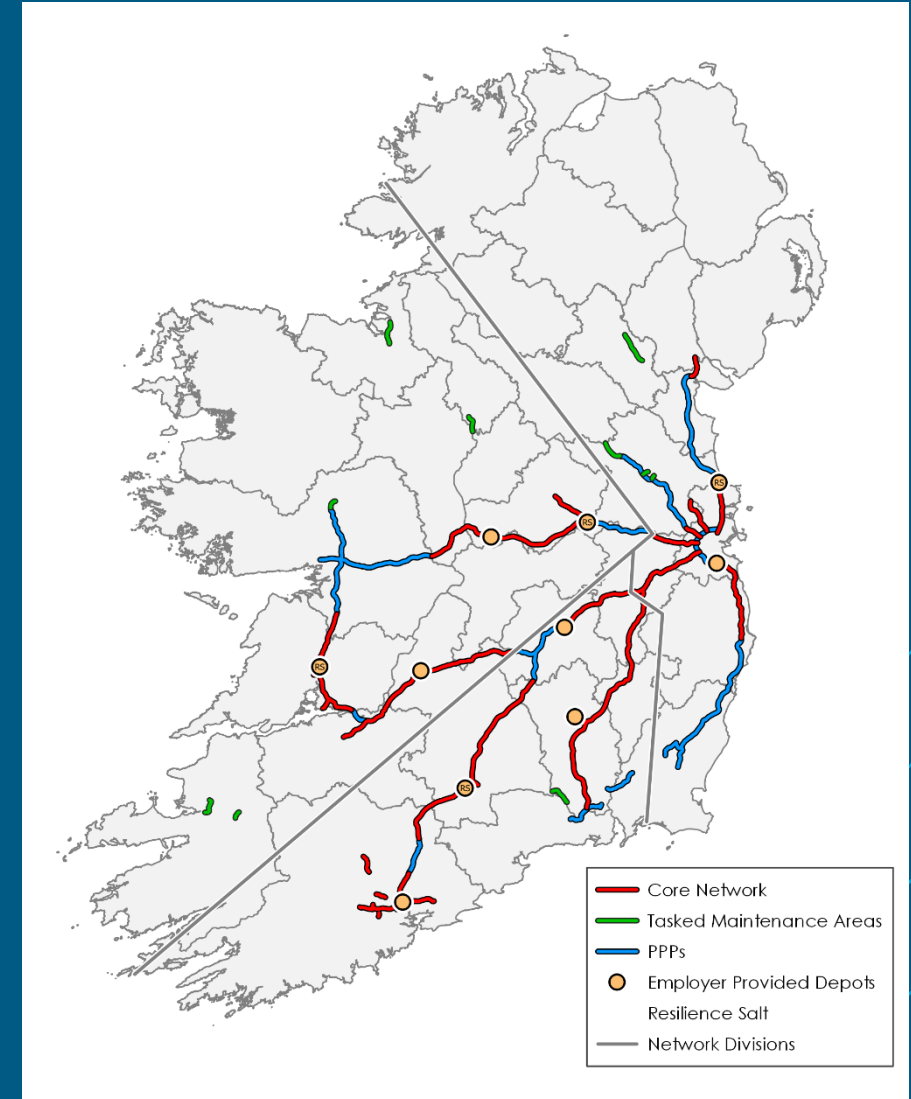


# MMaRC 2G Contract

Network A: Globalvia Jons;  
173 kms of core network  
28 kms of TMA.

Network B: Colas Roadbridge JV;  
257 kms of core network  
34 kms of TMA.

Network C: Egis Lagan Services;  
330 kms of core network;  
9 kms of TMA.



# Task Maintenance Areas

Network A:        N2 Castleblaney Bypass;  
                      N3 Kilcairn Link Road;  
                      N3 Kells Link Road;  
                      N51 Athboy Link Road.

Network B:        N17 Tuam Bypass;  
                      N4 Roosky to Dromod;  
                      N4 Sligo to Collooney;  
                      N21 Castleisland Bypass;  
                      N69 Tralee Bypass.

Network C:        N24 Piltown Fiddown Bypass.

# Task Maintenance Areas

**The Lump Sum Activities carried out by the MMaRC Contractor include:**

- Weekly Patrol/Inspection;
- Weed Control/Spraying;
- Grass Cutting – three visits annually;
- Road Sweeping and Gully/Linear Drainage cleaning - two visits annually;
- Litter Picking – February networkwide plus three further annual visits carried out with grass cutting;
- Median Hedge cutting – once annually.

# Task Maintenance Areas

## EIWO - Instructed Works

- Safety Barrier Repairs following RTCs;
- Notified by Local Authorities or logged by Contractor during Weekly Inspections
- Barrier repairs undertaken:
  - Network A - 47 barrier repairs across 4 TMAs;
  - Network B - 42 barrier repairs across 5 TMA's;
  - Network C - 6 barrier repairs on 1 TMA.

# Task Maintenance Areas

## Other Instructed works undertaken:

- Timber Post and Rail replacement with Tension Mesh Fencing (ongoing);
- Repairs to safety barrier defects logged by Baseline Inspections;
- Siding out and verge/linear drainage maintenance;
- Installation of Marker Posts;
- Trac Blasting (HD28 Works).

# Safety Improvement Works



# Drainage Improvement Works

- Identification and logging of effected areas – wet weather drive throughs;
- Renewal of filter drain materials;
- Vibro line removal to create drainage gaps;
- Jetting and CCTV of drainage networks;
- Rollovers - IAN 09/13 analysis;
- Constructed 28 rolling crowns across the Network;
- Wet weather pavement assessment, based on RSA procedures:
  - rear view cameras;
  - 6mm rainfall intensity.

# Drainage Improvement Works

Drainage Improvements - Vibro Line removal for drainage gaps.

Before



After



# Timber Post and Rail Fencing Retrofit Works

- Collisions resulting in fence rails entering the driving compartment;
- Retrofit works on the Motorway Network were used to inform revised standard;
- Retrofit scheme being carried out on 120/100km/hr high speed sections within clear-zone;
- The works commenced in Network B and has now extended to all Networks & to 10 No. PPP schemes;
- Works commenced on access tracks adjacent to motorway;
- Followed by boundary fence for individual landowners once agreement reached;
- Approximately 100,000m of Timber Post and Rail fencing replaced with Tensioned Wire Mesh;
- The cost of the new Tension Wire Mesh Fence is similar to Timber Post and Rail Fencing.

# Timber Post and Rail Fencing Retrofit Works





# Timber Post and Rail Fencing Retrofit Works

## Repairs to New Tension Wire Mesh Following Collision

- Collisions recorded to date with New Tensioned Wire Mesh.
- Fence has performed well in all instances.
- Repairs were simple to carryout;
  - Damaged and Broken Timber Posts are replaced;
  - Damaged section of mesh is cut out and replaced;
  - The mesh is re-joined with gripple joiners;
  - The mesh is re-tensioned with Straining Clamp and Mesh Pullers;
  - Damaged section of Plastic Rail is cut out and joined again using Joining Buckle Splicer;
  - Plastic Rail is re-tensioned again using existing Inline Tensioner;
  - Mesh is stapled to Intermediate posts and missing Hog Rings replaced.



Repairs to Mesh fence following collision



Straining Clamp



Mesh Pullers

# Timber Post and Rail Fencing Retrofit Works



Following Collision



Following Repairs

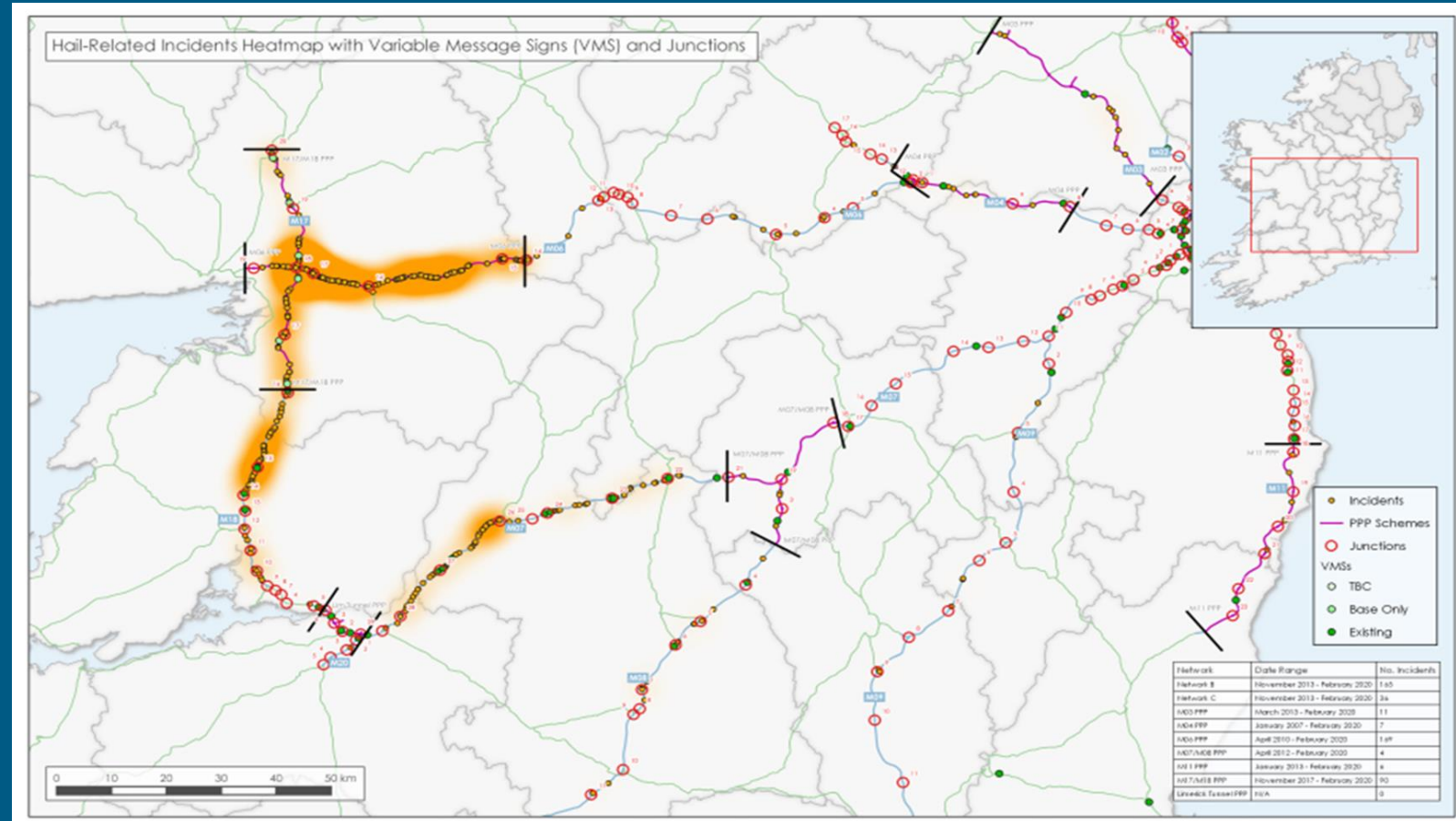


# Provision of Variable Message Signs (VMS)

- Development of incident data collection mechanisms;
- Over 500 hail incidents recorded to date - hail showers lead to difficult and dangerous driving conditions;
- Incidents tracked – heat maps - most hail incidents occur in the western region – M7, M17/M18 and M6 corridors;
- Variable Message Sign (VMS) units can be activated when the prevailing weather conditions associated with hail showers is evident and the relevant warning messages will be displayed on the VMS to warn road users;
- M7 – six VMS retro-fitted onto existing gantries + two new VMS constructed as part of a pilot scheme;
- M18 – four VMS constructed;
- M17/M18 PPP – four VMS units installed December 2020 and will be commissioned end-January 2021;
- M6 PPP – five VMS planned to be constructed in 2021;
- Road Safety Authority advice – YouTube – Teresa Mannion.

# Provision of Variable Message Signs (VMS)

## Hail Incident Heat Map



# Provision of Variable Message Signs (VMS)

Commissioned VMS



# Thank you

If you'd like to find out more visit:  
[www.atkinsglobal.com](http://www.atkinsglobal.com)

© Atkins except where stated otherwise  
Published by the Atkins Communications team, January 2021