



# Health & Safety



There is no fire alarm test due today.



Safety is first and foremost here on site and Close Call reporting in operation.



RIDC Melton operates under a Safety Management System.

# Content

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  - what
  - where
  
2. RIDC Team
  
3. RIDC facilities overview:
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  - capacity
  - capability
  - customers
  
4. Infrastructure –Current / Future



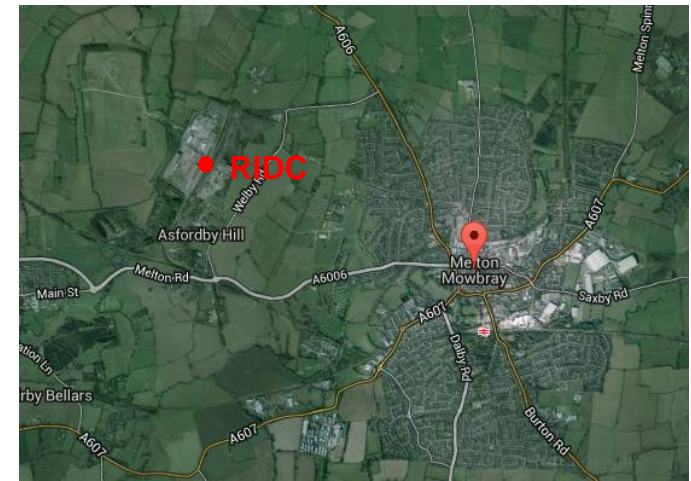
## What is an RIDC?

### Rail Innovation and Development Centre (RIDC):

*“owned and operated by Safety, Technical & Engineering directorate on behalf of Network Rail to provide a safe operating environment for the testing and validation of new and modified rolling stock, plant, on track machines, infrastructure, equipment and technology.”*



# Where are RIDC Melton & Tuxford?



# Site history



## RIDC Melton:

- Originally part of the Midland Railway Nottingham to London route
- 1966 - British Rail Research Division
- Test track for APT
- Reopened in 1970
- BRB took ownership post privatisation leasing the track to Serco, Alstom and later Metronet and LUL
- Network Rail – Sept 2013 (test track)
- Network Rail – December 2014 (full facility)



## RIDC Tuxford:

- Lancashire, Derbyshire and East Coast Railway – 1890
- Arkwright colliery - 1957
- Thoresby Colliery Junction at the western end, and High Marnham Power Station at the eastern end - 2003
- 975025 Caroline – February 2009

## RIDC Programme Manager & Team



**Amanda Mackie**  
RIDC Programme Manager

*"Leads the Rail Innovation & Development Centre team"*



**Peter Ellis**  
RIDC Principal Engineer

*"provide engineering support to projects and enhancement work at the RIDC's"*



**Andrew Treharne**  
RIDC Senior Commercial Manager

*"managing the commercial relationships with suppliers and customers for the RIDC facilities including pricing"*



**Scheme Project Manager**  
Vacant

# RIDC Principal Engineer & Team



**Peter Ellis**  
Principal Engineer

*"provide engineering support to projects and enhancement work at the RIDC's"*



**Ian Vinton**  
Senior Project Engineer

*"manage and deliver projects and enhancement works at RIDC Melton and RIDC Tuxford"*



**Archie Wright**  
Engineer

*"interface for RIDC Tuxford providing liaison and support for internal and external customers, and contractors"*



**Phil Walker**  
Site Manager

*"manage the day to day operations at RIDC Tuxford"*



**Justin Monk**  
Senior Engineer (H&S)

*"provide operational and safety support at RIDC Melton, including innovations and enhancements"*

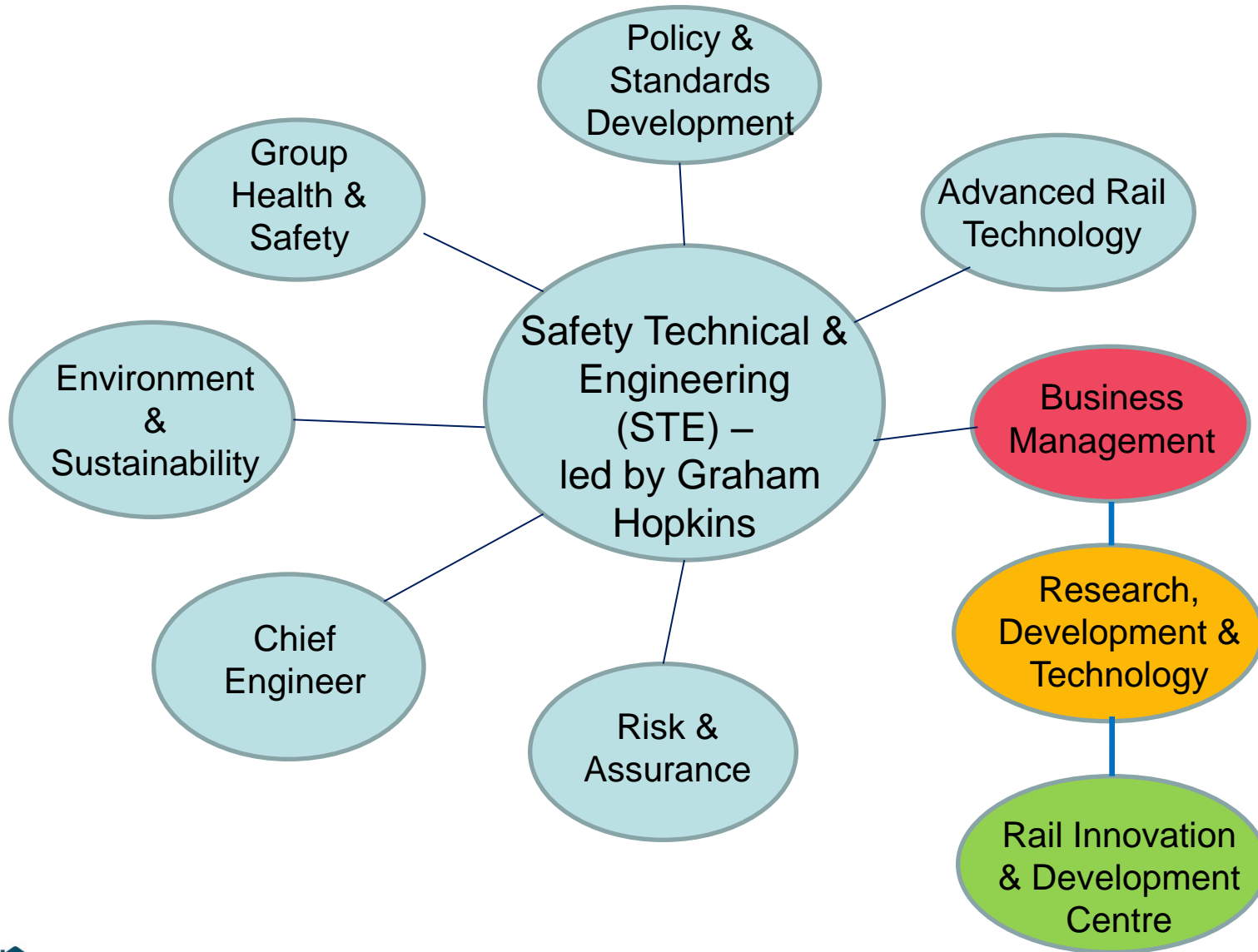


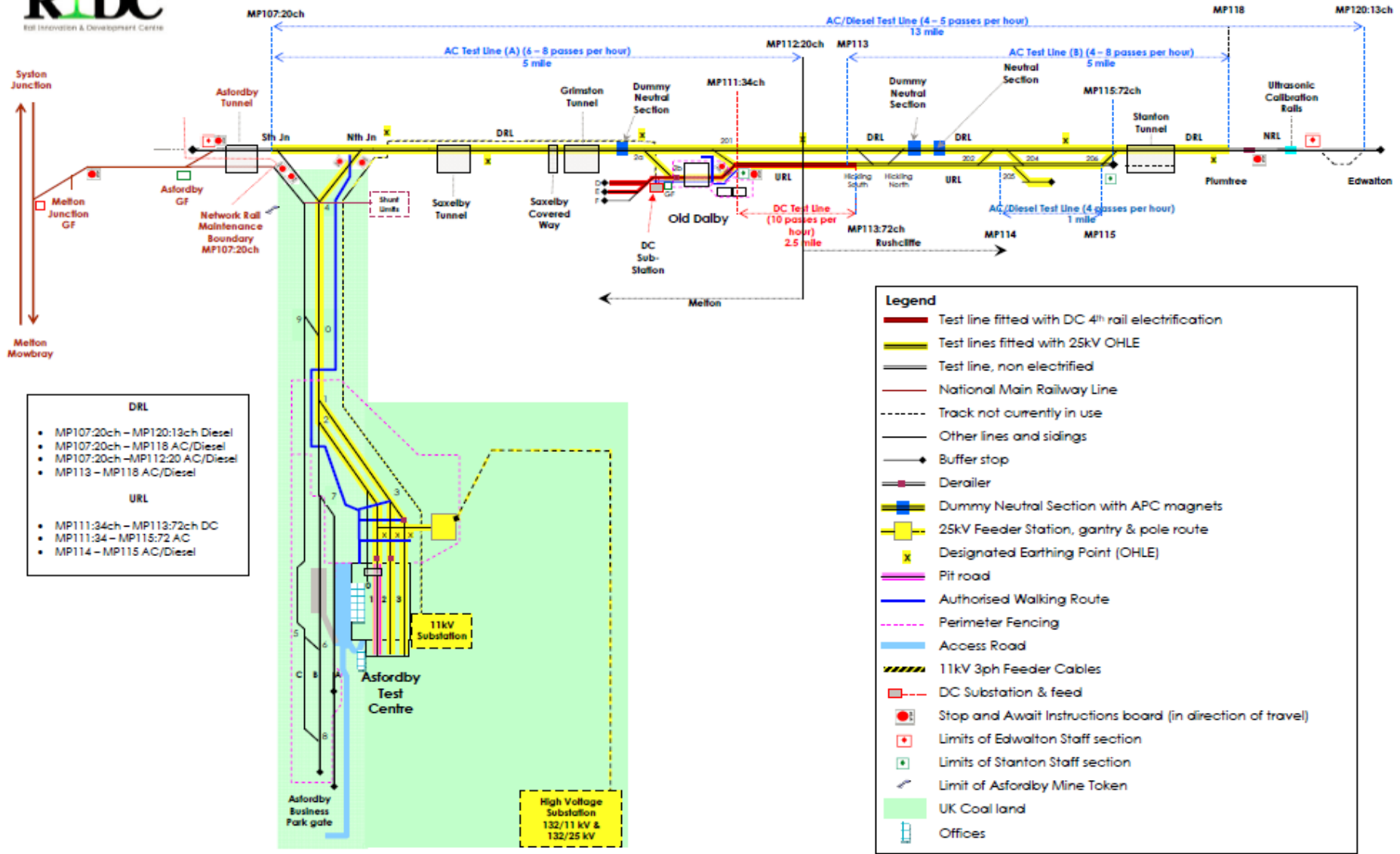
**Chris Browne**  
Senior Engineer (Front of House)

*"Provide engineering assurance support infrastructure developments, customer and contractor relations; and enhance service offerings at RIDC Melton"*



Where RIDC Team sits within Network Rail





# RIDC Melton Capacity

## Current

- 13 mile test track (DRL) of which 11 miles is 25kv
- 2.5 mile DC test track (URL)
- 1 mile section at Widmerpool available for training
- 1 mile section for ultrasonic calibration
- Unit F office, additional portacabin and Old Dalby accommodation – for team on site, Customers, Suppliers, hosting industry visits & meetings.

## Future – within CP5

- Splitting of the 11 mile DRL set up to make x2 five mile 25kv test track sections

# RIDC Melton Capability

## Current

- x3 209m workshop roads (x1 full pit road)
- Road 0 with lifting & jacking facility
- Rolling stock type testing, TSI compliance and fault free running
- Plant testing
- On Track Machine testing
- Drone trials (data capture & 3D modelling)
- Earthwork trials – remote condition monitoring (Geotechnic)
- TSI noise compliance testing
- Over cant and over speed testing
- Adhesions testing
- Tunnel aerodynamic testing
- Electromagnetic compatibility testing
- Training – team, machine & equipment.

## Future – within CP5

- ETCS L2 on DRL
- 5G trial site
- x3 new sidings – Old Dalby planning approval granted and progress is subject to funding
- New technology trials.

## RIDC Melton Customers

### Existing Customers:

- London Underground: *type testing 'S' stock & ATC train testing*
- Hitachi IEP: *type testing CI 800 train*
- Bombardier Transportation: *type testing CI 345 for Crossrail Ltd*

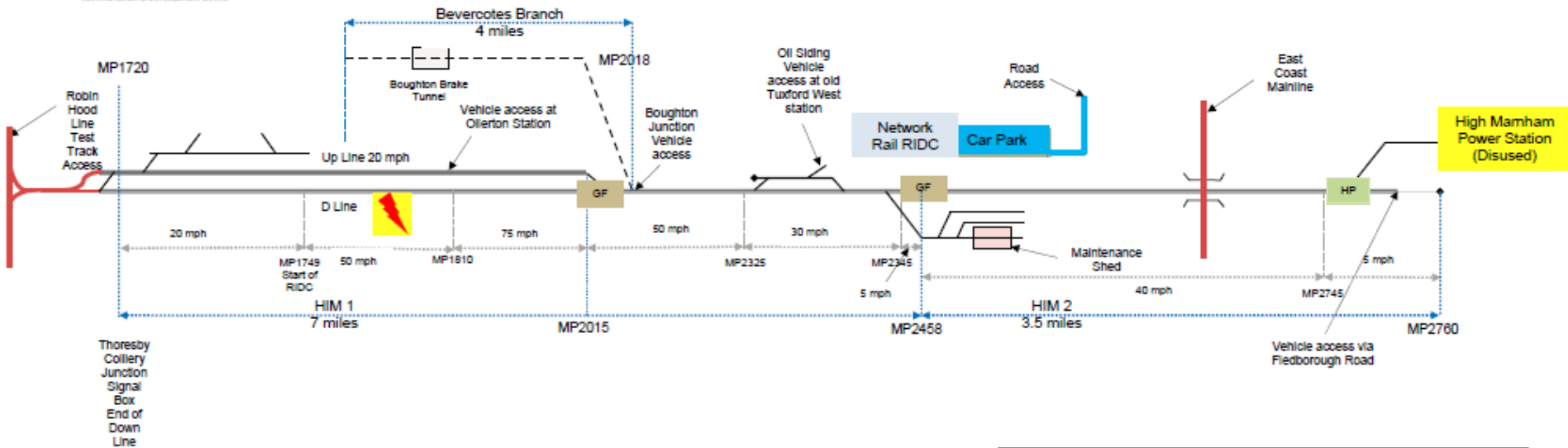


### Future Customers:

- ETCS Passenger: *First in Class testing*
- ETCS Freight: *First in Class testing*
- ETCS On Track Machines: *First in Class testing*



### Tuxford Test Track



**Legend**

- Test line, non-electrified
- National Main Railway Line
- Track not currently in use
- Other lines and sidings
- Buffer stop
- Hand Points
- Access Road
- Over Bridge
- Stop and Operate Ground Frame
- 33KV Sub-Station



## RIDC Tuxford

### Existing Customer:

- Network Rail Route Services: *Tamper, Regulator & High Output Ballast Cleaner (HOBC) Machine No.5 for storage and testing*

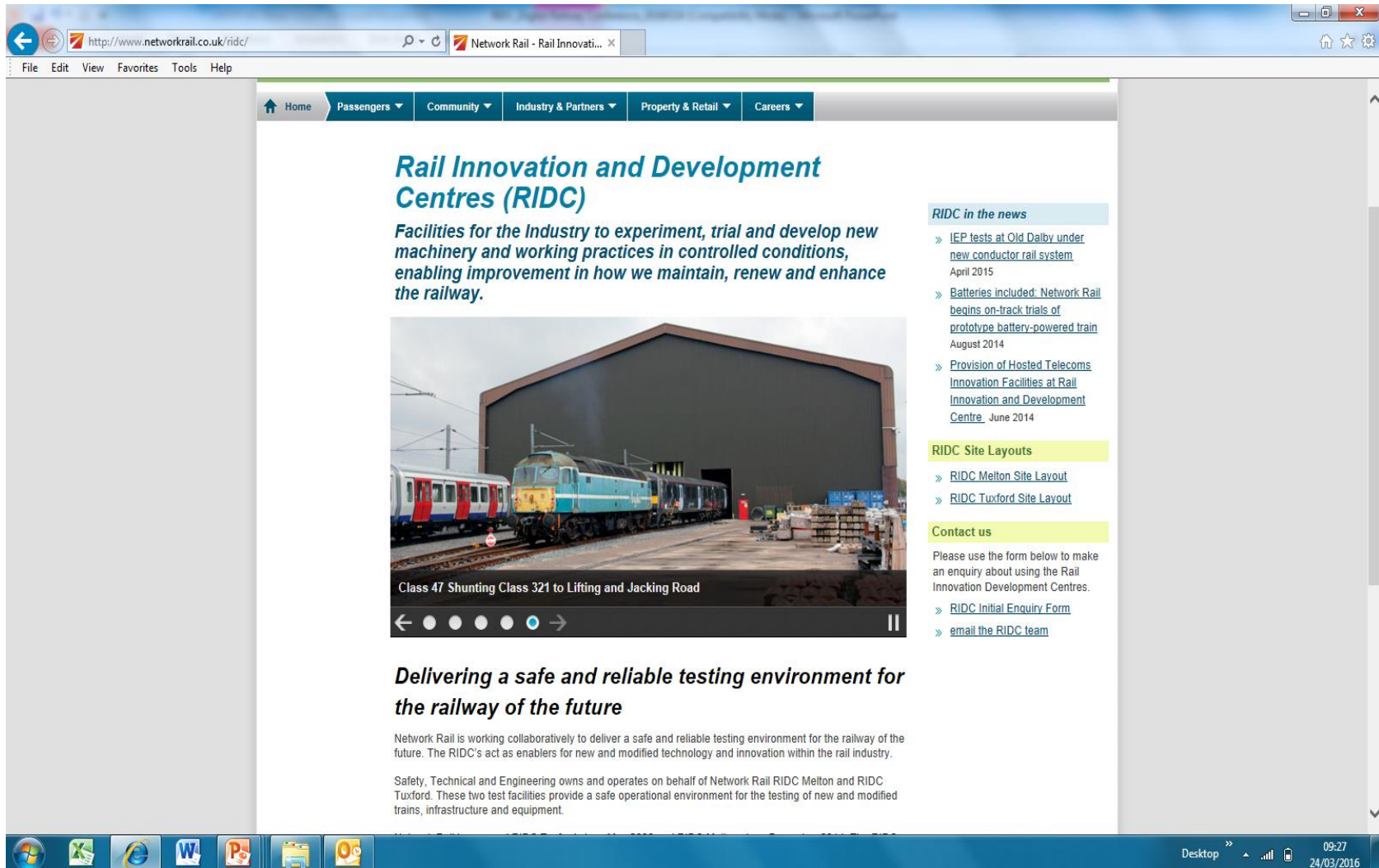


### Current

- In Network Rail ownership from May 2009
- Primary route length is 11 miles from Thoresby Junction to High Marnham
- Non electrified
- Maximum line speed 75mph
- Non pitted shed facility 30m x 10m
- Office accommodation
- Test Track operational hours 24/7
- Permitted development rights

### Future – in CP5 (subject to funding)

- New pit and lighting in the shed facility
- RIS-1530 siding enhancement



The screenshot shows a web browser window displaying the RIDC website. The browser's address bar shows the URL <http://www.networkrail.co.uk/ridc/>. The website has a navigation menu with options: Home, Passengers, Community, Industry & Partners, Property & Retail, and Careers. The main content area features a large heading: **Rail Innovation and Development Centres (RIDC)**, followed by a sub-heading: *Facilities for the Industry to experiment, trial and develop new machinery and working practices in controlled conditions, enabling improvement in how we maintain, renew and enhance the railway.* Below this is a video player showing a Class 47 locomotive shunting a Class 321 train. The video caption reads: **Class 47 Shunting Class 321 to Lifting and Jacking Road**. To the right of the main content is a sidebar with sections: **RIDC in the news** (listing articles like 'IEP tests at Old Dalby under new conductor rail system' and 'Batteries included: Network Rail begins on-track trials of prototype battery-powered train'), **RIDC Site Layouts** (listing 'RIDC Melton Site Layout' and 'RIDC Tuxford Site Layout'), and **Contact us** (with a note to use an enquiry form and links to 'RIDC Initial Enquiry Form' and 'email the RIDC team'). The Windows taskbar at the bottom shows the time as 09:27 on 24/03/2016.





# RIDC Melton Infrastructure

## Signal Command and Control

- AWS / TPWS (Class 345 testing only)
- CBTC (Class 345 testing only)
- ATC (*LUL S Stock*)
- *No conventional signalling (Aspect)*
- *Point machines - decommissioned*

## Telecom network

- GSM-R (Data Circuit Switched & Voice) – packet switching to follow
- NRT REB's (6 in total throughout length) covers 14 miles:
  - Stanton, Grimston, Willoughby, Asfordby, Normanton & Old Dalby
- *FTN (Aerial and repeaters)*

Thank you – any questions?

