

PWI

Project Heineken



Improving Passenger Journeys

Head of innovation : Ameet Masania

Agenda

Background

What is Project “Heineken”

How the mapping tool works

Trial completed at North Wembley

Stakeholder Feedback

The logo for the Central Rail Systems Alliance is a white, stylized, rounded rectangular shape with a horizontal line through the middle, resembling a train track or a stylized 'C'. It is positioned over a dark, blue-tinted background image of railway tracks.

**Central
Rail Systems
Alliance**

Improving Passenger Journeys

Background

Track renewals devolved into the routes
Capital delivery working along side:

Signalling
Maintainer
Civils
Enhancement projects
Works delivery

Challenge to gain track access

Putting passengers first

Network Rails Route Structure

Managing directors



Eastern
Rob McIntosh



North West & Central
Tim Shorvall



Scotland's Railway
Alex Hynes



Southern
John Halsall



Wales & Western
Mark Longman

Route directors



North West
Phil James



Central
Dave Penney



West Coast Mainline South
James Dean



Wales & Borders
Bill Kelly



Western
Mike Gallop



Scotland
Liam Sumpter



East Coast
Paul Rutter



North & East
Matthew Rice



East Midlands
Gary Walsh



Anglia
Ellie Burrows



Network Rail High Speed
Katie Frost



Wessex
Mark Killick



Sussex
Shaun King

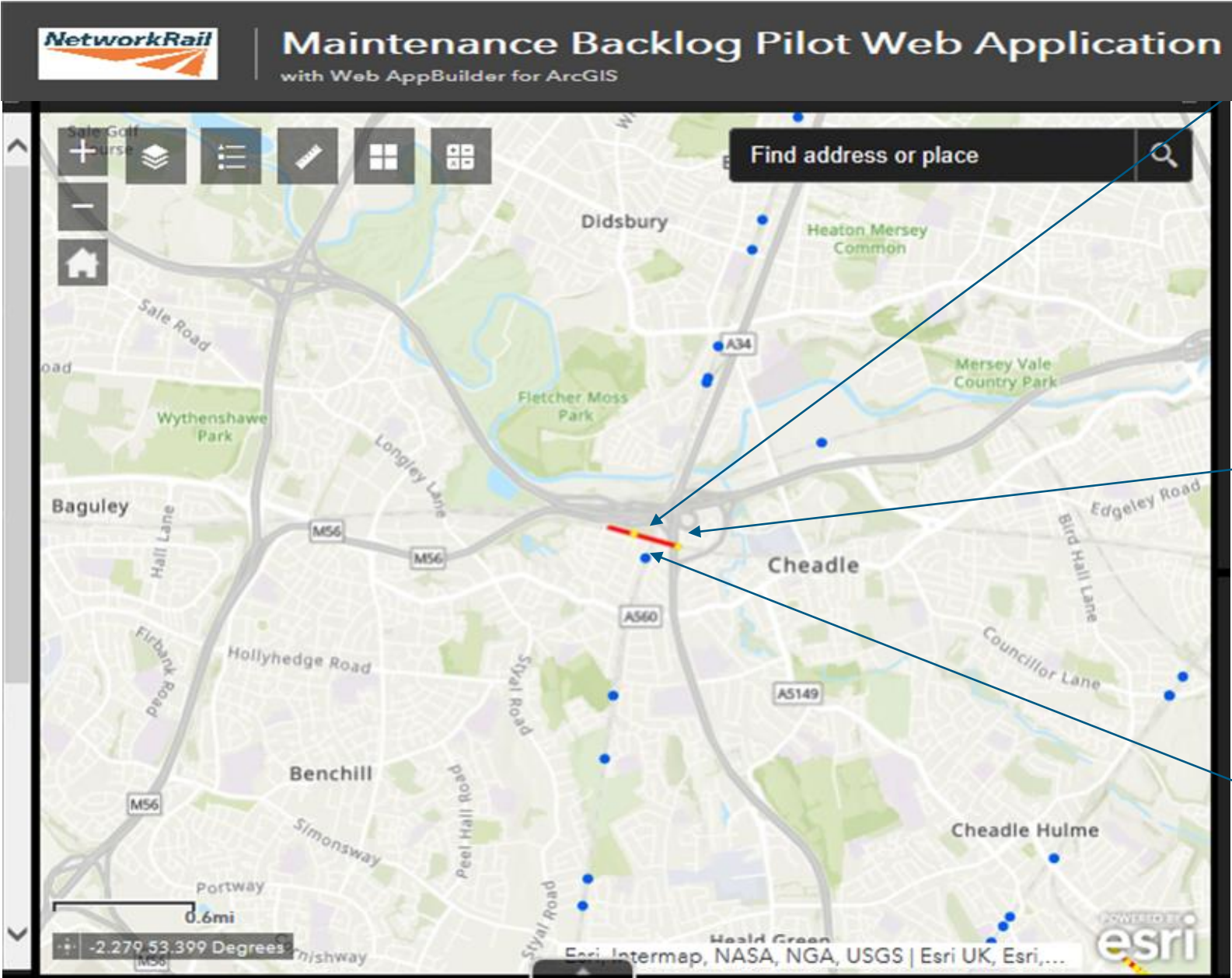


Kent
Fiona Taylor



Project Heineken Mapping tool

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Possession Duration	52:10
Works Description	CORE: 1 of 1: Cat 14 - Formation, Reballast, Resleeper, Rerail - Trax (all non steel sleeper types) - 529yds
Work Type	CORE
ELR	EJN
Track ID	3,400.00
IP Start Mileage	2.1560
IP End Mileage	3.0329
Unit Conversion	SUCCESSFUL
Comments	
Linear	TRACK LEVEL - MATCHED

Core Track
Renewal
possession for the
weekend

Maintenance
backlog – signage
maintenance

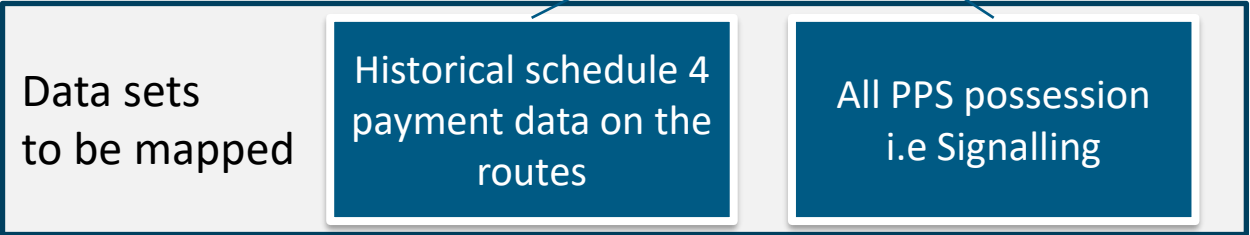
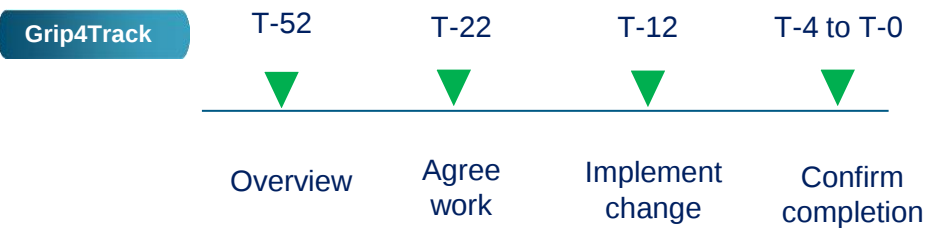
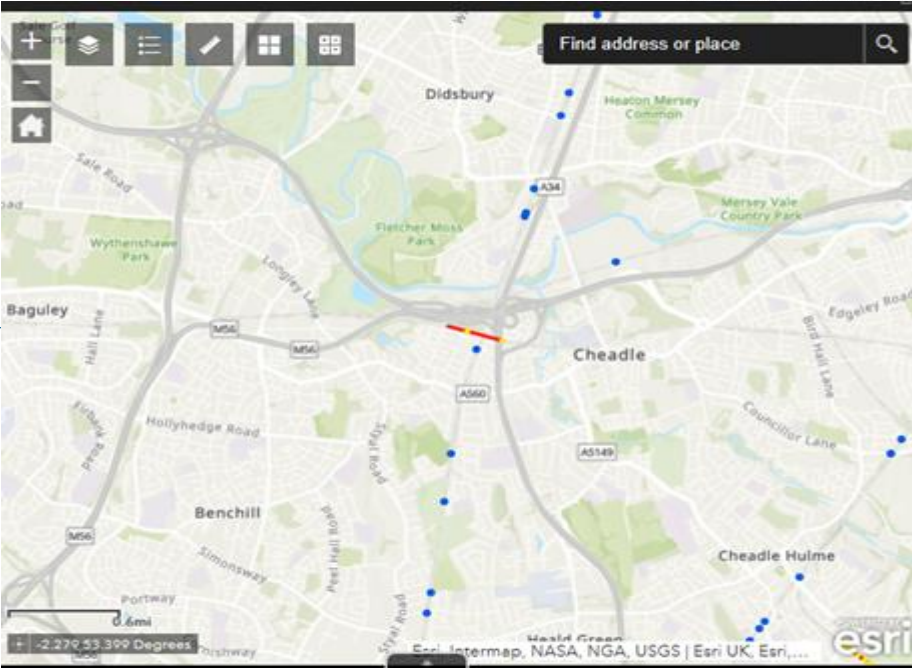
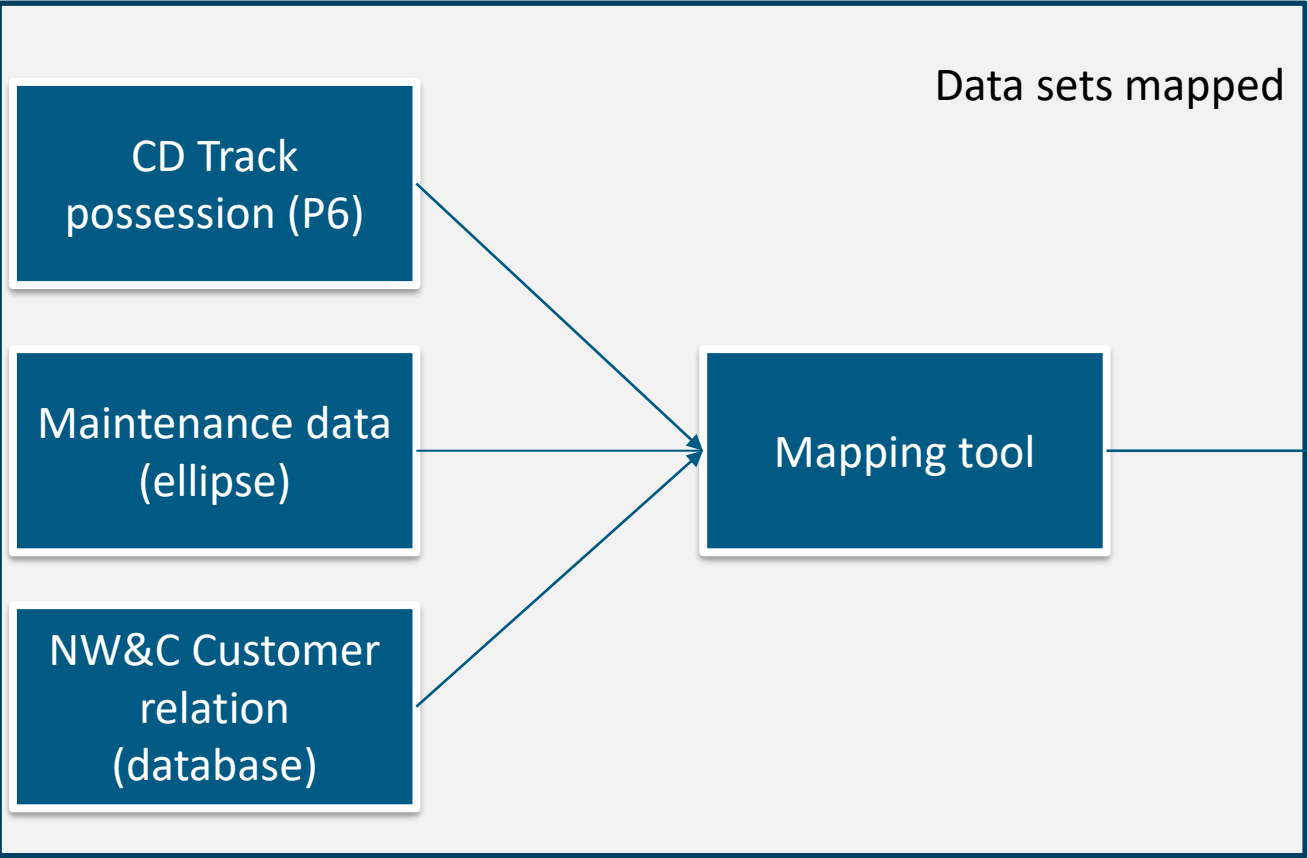
Track ID	3400
Work Order Number	44712395
WAIF Start Mileage	2.1560
WAIF End Mileage	2.1560
WAIF Start Mileage Extension	2.1560
WAIF End Mileage Extension	2.1560
Work Order Description	LINESIDE SIGN - MAINTAIN
Asset Number	000000048730
Std Job	009184

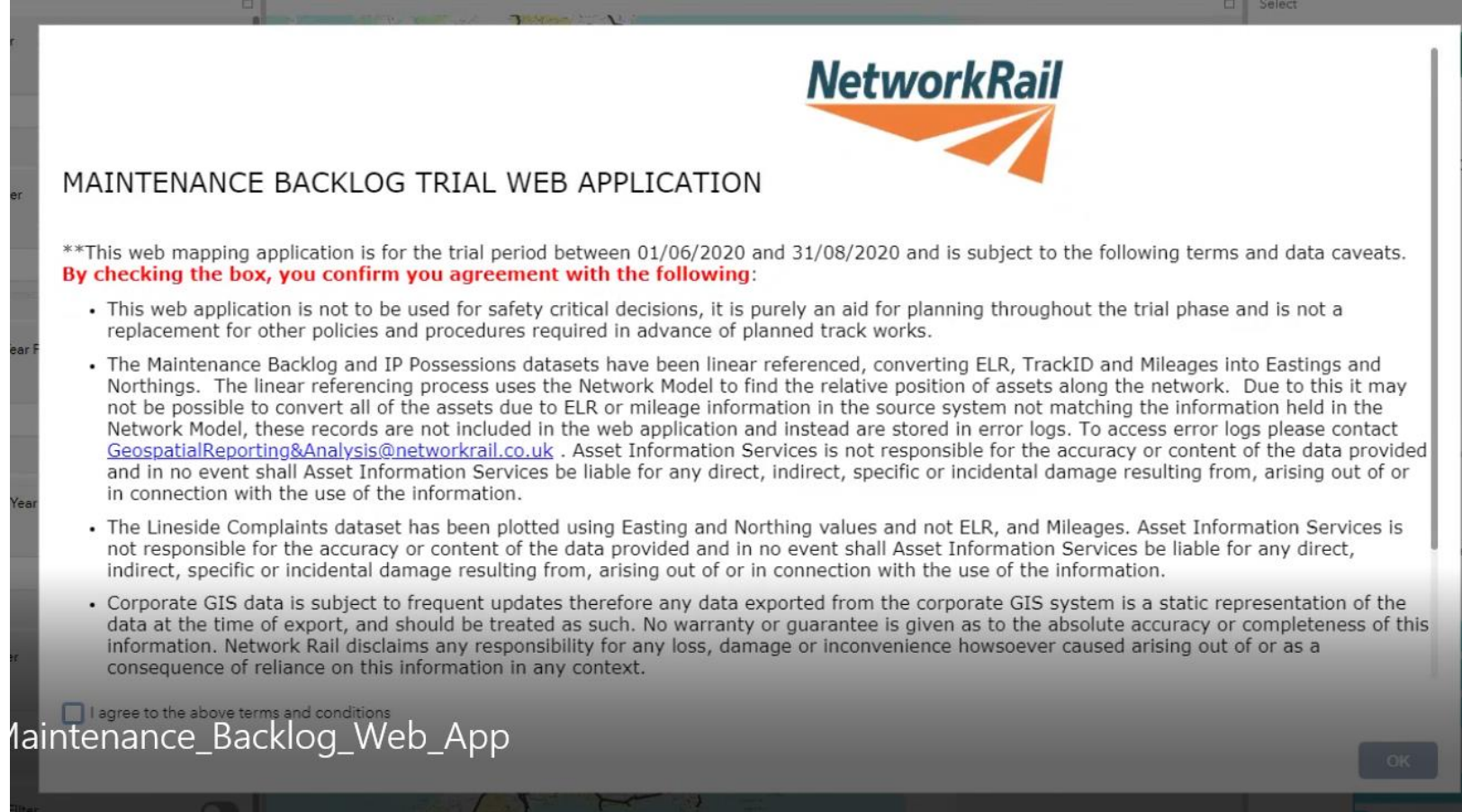
Level 2	
Product Level 3	General Vegetation
Product Level 4	Overgrowing into Property
IMDM	Manchester
ELR	STY
Mileage	4.1203
Postcode	SK8 4QF
Subject	Overgrowing vegetation is pushing up against fence - request for it to be cut back - rear of 26 Borrowdale Avenue - Gatley - Cheadle - SK8 4QF
Customer Complaint	Customer Complaint

Customer
relations –
overgrown
vegetation

Project Heineken Data

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NetworkRail

MAINTENANCE BACKLOG TRIAL WEB APPLICATION

**This web mapping application is for the trial period between 01/06/2020 and 31/08/2020 and is subject to the following terms and data caveats.
By checking the box, you confirm you agreement with the following:

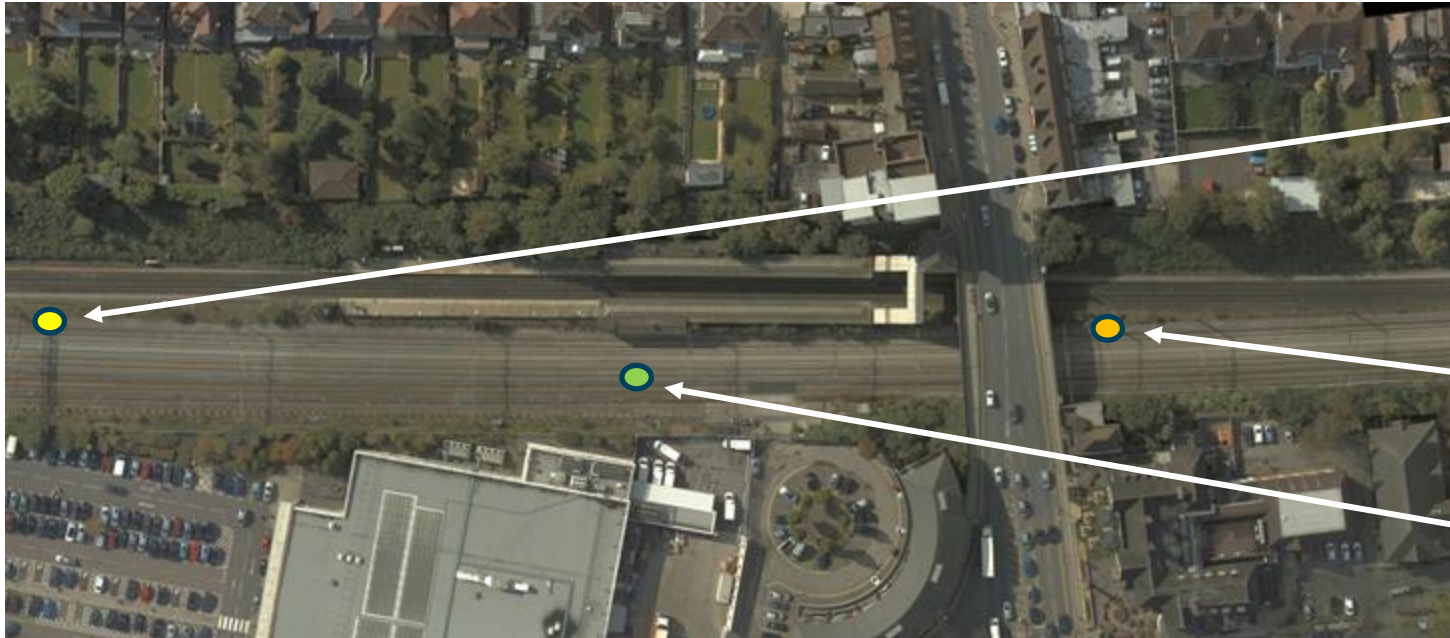
- This web application is not to be used for safety critical decisions, it is purely an aid for planning throughout the trial phase and is not a replacement for other policies and procedures required in advance of planned track works.
- The Maintenance Backlog and IP Possessions datasets have been linear referenced, converting ELR, TrackID and Mileages into Eastings and Northings. The linear referencing process uses the Network Model to find the relative position of assets along the network. Due to this it may not be possible to convert all of the assets due to ELR or mileage information in the source system not matching the information held in the Network Model, these records are not included in the web application and instead are stored in error logs. To access error logs please contact GeospatialReporting&Analysis@networkrail.co.uk . Asset Information Services is not responsible for the accuracy or content of the data provided and in no event shall Asset Information Services be liable for any direct, indirect, specific or incidental damage resulting from, arising out of or in connection with the use of the information.
- The Lineside Complaints dataset has been plotted using Easting and Northing values and not ELR, and Mileages. Asset Information Services is not responsible for the accuracy or content of the data provided and in no event shall Asset Information Services be liable for any direct, indirect, specific or incidental damage resulting from, arising out of or in connection with the use of the information.
- Corporate GIS data is subject to frequent updates therefore any data exported from the corporate GIS system is a static representation of the data at the time of export, and should be treated as such. No warranty or guarantee is given as to the absolute accuracy or completeness of this information. Network Rail disclaims any responsibility for any loss, damage or inconvenience howsoever caused arising out of or as a consequence of reliance on this information in any context.

☐ I agree to the above terms and conditions

OK

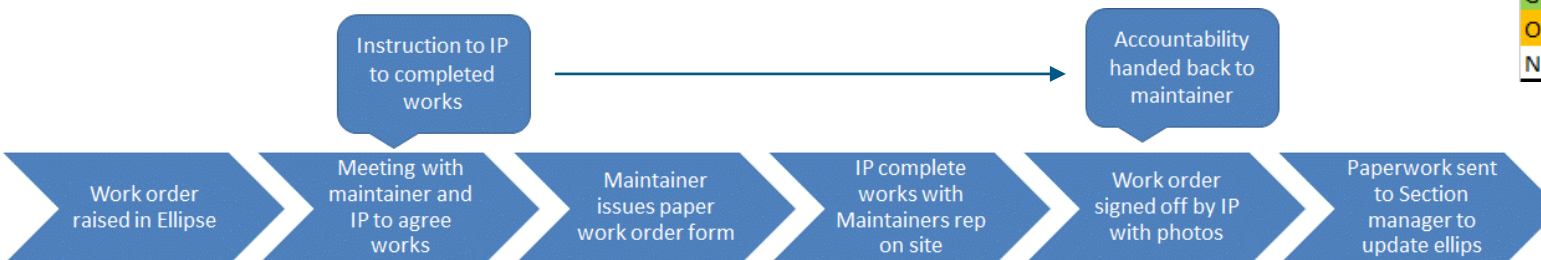
North Wembley - Trial

List of maintenance work orders



Row Labels	Count	per Journeys
<u>North Wembley</u>	127	
BALLAST - UNLOAD BY TRAIN	1	
Trickle of ballast required throughout in four-foot. Request Autoballaste	1	
BONDING-BOND REPLACEMENT	1	
(blank)	1	
BONDING-FIT NEW BONDING STUD	1	
G08/18 df structure to rail bond on gclamp (structure end)	1	
CABLE - REPAIR / REPLACE	1	
Feed end tail cables cut in several places (1 pair of 2) Dam aged in cess ar	1	
DRAIN-MAINT SYPHON MECHANICAL JETTING	2	
Drainage present in random locations and full of silt and ballast. Jetting	1	
Drainage present in random locations and full of silt and ballast. Jetting	1	
HVI TRACK CIRCUIT	1	
Unable to carry out Bread bin mtce due to bread bin being in accessible f	1	
LIFT PACK BEARER USING HANDTOOLS	1	
Voiding at WM2563B Points from toe of points to four yards beyond. (S B	1	
MAINTAIN DRAIN - RODDING / JETTING	1	
Allk Catchpit Drains are blocked with silt and water. Jetting clearance rec	1	
MODIFY LEL (BPE) TUBULAR BLADE ISOLATOR	3	
G07/35DOWN FAST34	1	
G07/41DOWN FAST34	2	
MODIFY MORRIS LINE ISOL JAW ATTACHMENT	2	
G08/30DOWN FAST36	2	

Asset Handover process with maintenance



Key	
Yellow	- can be done with current staff
Green	- would require additional cost for materials & equipment
Orange	- would require additional cost for labour, material and equipment
No colour	- to be done by the DU

Feedback from Stakeholders

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"...I'm in my twilight years of my career but I cant wait to see this finally happen..."

Signal & Telecoms Maintenance Engineer

".....we have no budget in community relations team to fund this work... we are dependant on local maintenance teams to complete the work....the are very slow to respond"

Communications Manager Community relations

"...the mapping tool will help me plan tampers and haulage driver more efficiently..."

Resource manager SCO

"...if we map the work bank & schedule 4 cost we could use it outward facing tool with the TOC/FOC....."

Resource manager SCO

"....we think we can save cost & time in the DU as we are not spending time planning & booking possession...."

Infrastructure Maintenance Engineer

"...im telling you this revolutionary and we should have been working with IP before"

Track Maintenance Engineer

"The work you've done has got huge implications for the way we work, very impressive"

Technical Head of Discipline – Track

"Excellent work....And proved the principle - lets see if we can build on this"

Route MD South

".....we need to start collecting spatial data just like assets data....."

Geospatial Analytics Manager

Kilsby Tunnel Blockade

2 - 17 May 2020

NW&C Operations Director: James Murray

Kilsby Tunnel – The Origin & Concept.....

Built as part of the London & Birmingham Railway, Kilsby Tunnel was then by far the longest tunnel for steam locomotives attempted. Serious and unexpected geotechnical problems were encountered during construction, necessitating prolonged pumping, causing delays and additional costs. The tunnel has remained in continual use by main line trains since it opened.

T – 16 days

- Regional and Route Director's visited Bletchley Mtnce DU

T – 15 days – The Genesis of the Concept

- The initial question - "Could CRSA mobilise and deliver both 6ft drainage and remove the COT TSR on Up Main"?

T – 11 days

- CRSA Aston team were confident they could complete the work given previous attempts but only if the access and design was available?

T – 10 days

- Conference call held with Route Director, CRSA, Mtnce DU and SCO teams to agree the go ahead to plan and deliver

T – 8 days

- Daily conference calls established with Route Op's & Planning, SCO, CRSA, Bletchley DU teams to formulate the plans and logistics to start delivery on Saturday 2nd

T – 5 days

- First of many "Team" conference calls held daily to outline plans and to conduct "Go – No Go" reviews the plan.

T – 1 day

- Final confirmation from all parties involved that we are 'good to go' starting Saturday 2nd May for the 16 day blockade with CRSA managing the delivery

T – 8hrs

- Saturday 2nd May – All staff and resources confirmed, trains loaded and ready to roll from LDC at Crewe, no expected late runners and all systems go...



Kilsby Tunnel Blockade. The What....

2nd - 19th May but Planned in just 10 days!

A CRSA. KILSBY TUNNEL.
72m40ch to 80m50ch

WEEK
5 - 7



Built by Robert Stephenson for L&B Railway in 1838, was longest in the world at 2432 yds. Now 18th in UK.

KILSBY TUNNEL STATISTICS



Total hours worked on project: 23,870h



Total workforce: 2170 shifts



Metres of track renewed: 1390m



Continuous welded rail: 1528m



New concrete sleepers: 2548



Metres of drainage renewed: 745m



Number of engineering trains: 19



Tonnes of ballast: 5700t plus



B Stowe Hill Tunnel.
62m33ch to 72m35ch

WEEK
5 - 7



D Hanslope Jn (Sat/Sun only)
56m20ch to 57m40ch

WEEK
5 - 7



C Bletchley Delivery Unit.
57m45ch to 62m28ch

WEEK
5 - 7



Total Blockade Cost

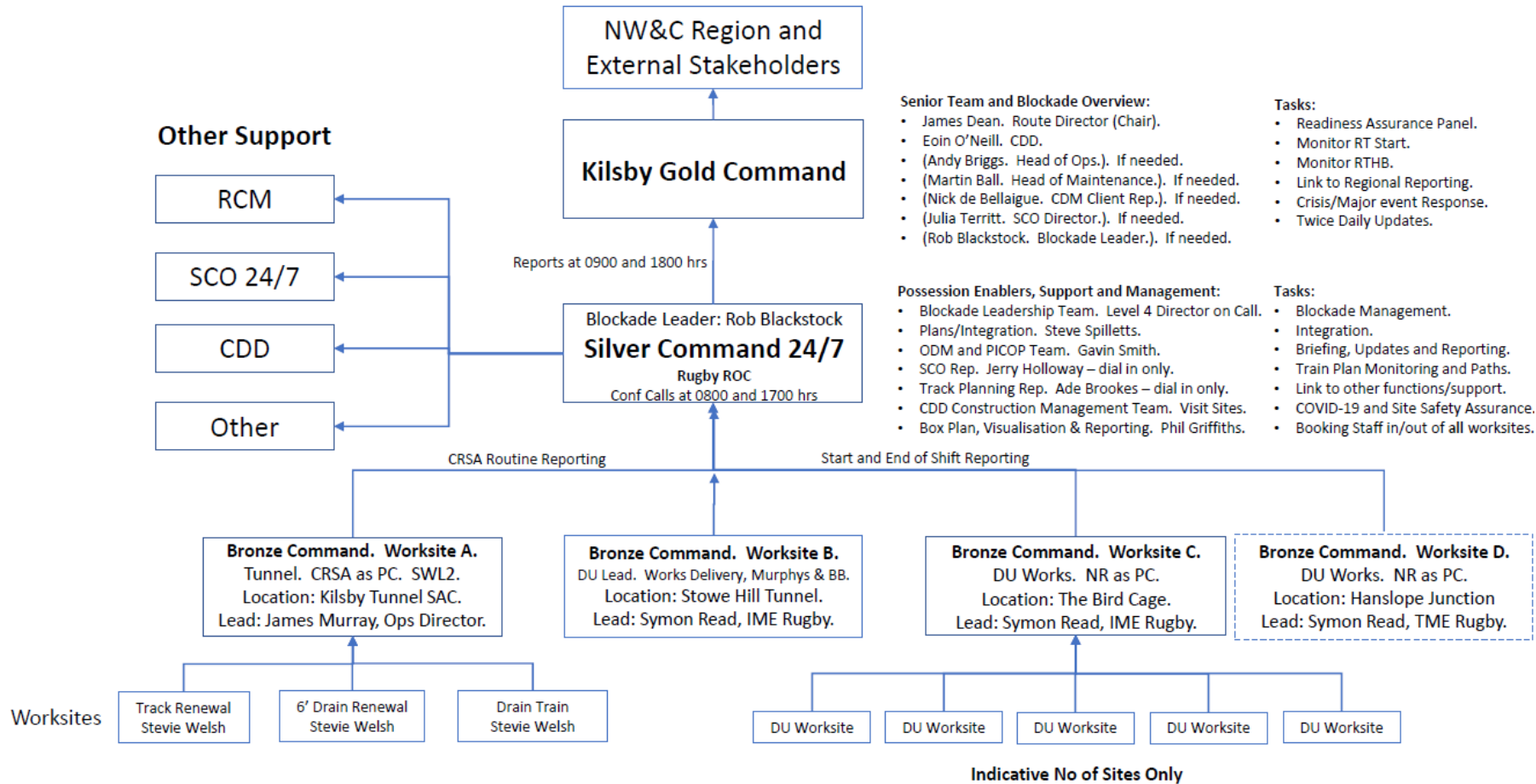
£7.5M

Schedule 4/8 Savings
removes TSR on Up Ma

£25M
£5M

Kilsby Tunnel Blockade. The How....

Kilsby Tunnel Blockade Command & Control Arrangements (2210 hrs 2 May – 0900 hrs 17 May 20)

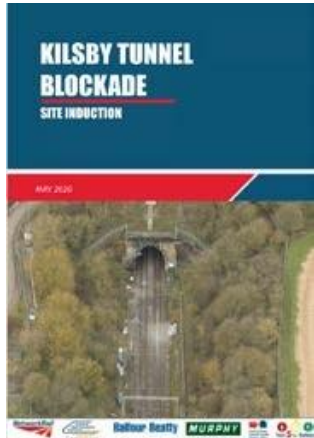


Railway Mission Command

- ✓ Intent and Endstate.
- ✓ Main Effort.
- ✓ Empowered Leadership.
- ✓ Synchronisation.
- ✓ Communication.
- ✓ Safety & COVID-19.

Extraordinary Safety Leadership

Induction Pack



CDM Audit & Protocol



Peer Review & Safety Task Force

Readiness		
QSRA:	TBC.	✓ / ✗
AFC / Final Design:	P1 received / final AFC design expected 1/5/20. Design is a re-baseline of an old scheme (2018).	✓ / ✗
Readiness Review:	Wed 29/4/20	✓ / ✗
Project Lead:	Stevie Welsh	✓ / ✗
Independent Reviewer:	Brian Paynter - 27/04/20	✓ / ✗
PCP / Bar Chart -	V1 Complete 29/04/20 for review.	✓ / ✗
Interim Handbacks:	Not required for CRSA worksite, however RotR all line blocks available Sun 10 th & 17 th May	✓
Line Blockages:	N/A - All line block	✓
Decision Point Simplifier:	Curtailed of the Up main relay if behind on programme due to drainage issues.	✓
Land Access / Site Compound:	Hillmorton yard for SAC - Broad Lane yard for RRV's	✓
DWPP Float:	06:00 Fri 15/5/20 to 09:00 Sun 17/4/20 (50hrs available)	✓

SACs and Reporting

FATIGUE

2nd May - 19th May

Each company will have their own fatigue management systems in place.

The following working time limits are taken from Network Rail's Management of Fatigue standard:

- ✓ No more than 12 hours to be worked per period of duty/shift
- ✓ No more than 72 hours to be worked in any seven day period
- ✓ A minimum of 12 hours rest between booking off from a period of duty/shift to booking on for the next period of duty/shift
- ✓ No more than 13 periods of duty to be worked in any 14 day period
- ✓ Maximum 14 hour door-to-door.

MacRail will monitor the working hours of all staff to ensure compliance. MacRail will also email any exceedances so please ensure all your staff are compliant with Network Rail standards.

COVID-19 SOPs

COVID-19 SAFETY

COVID-19 Safe Working Principles



Construction Assurance Team



Strategic Force Multipliers

Senior Team



#PuttingPassengersFirst



Devolution



Alliancing



Virtual Team & Great People – Unity of Effort



COVID–19 Behavioural Journey



Kilsby Blockade Statistics:-



Total Hours Worked:- 330,870		Total Shifts Worked:- 35,177	
1,528m CWR Installed	1,390m of Renewed Track	2,548 New concrete sleepers installed.	7,700 Tons of Ballast delivered.
745m Drainage renewed		440 yards Worked delivery troughing worked	3 HW points motors renewed
19 Engineering trains		3450m S&T Cable renewal	9M Plane line grinding
20km OLE Inspected		16200m vegetation Clearance	530 Yards Ballast regulating manually
Upgrade of 260m of drainage	Inspection of 170m lineside structures.	6 sets of switches & crossings renewed.	Delivery 250 key maintenance tasks.

Thank you for listening

