STAFFORDSHIRE ALLIANCE

Stafford Area Improvements Programme

Suzanne Mathieson (Sponsor)

7th April 2014

GNSAIP-SAI-PRS-MPM-000006

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Agenda

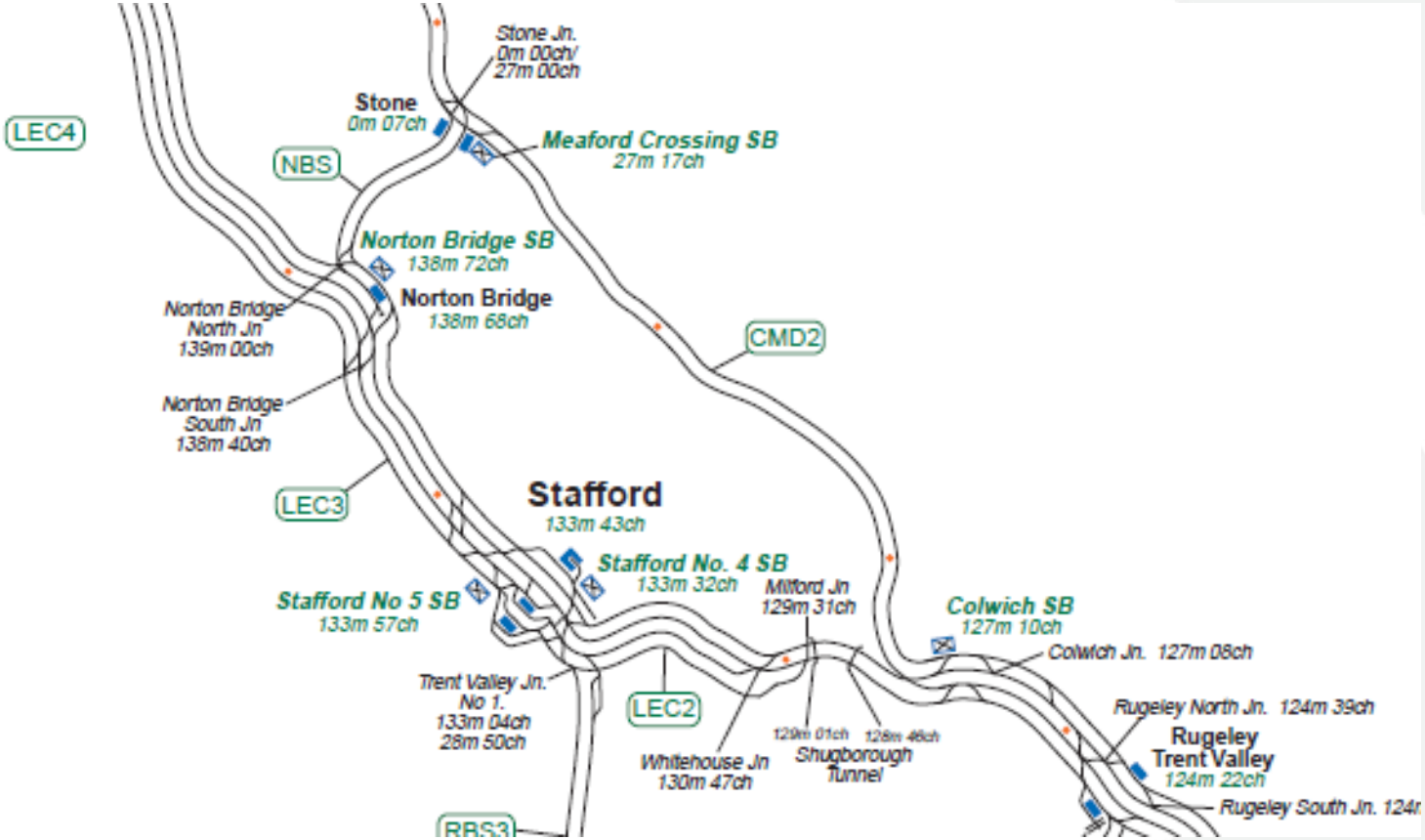
1. What the Customer Wants
2. Scheme Overview and Challenges
3. Development of the Alliance
4. Communication / Access Strategy
5. Achievements to Date

What does the Customer want?

- Faster, more frequent services for passengers with improved reliability
  - Two extra trains per hour between London Euston and the North West
  - One extra train per hour between Manchester and Birmingham
  - One extra freight train per hour through Stafford
- Reduced congestion so trains are more punctual
- Enables the railway to remain open when maintenance work is required
- Removes life expired Signalling & track infrastructure
- Enables DfT to implement the new WCML timetables

Existing Infrastructure

Crewe Stoke/Manchester



Birmingham London

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The Constraints

- Stafford and Norton Bridge - Recognised as key bottlenecks and blockers to capacity
  - *"…traffic lights in the middle of the M6"*
- Stafford (Shugborough – Norton Bridge)
  - Life expired signalling system
  - Prone to failure
  - No long term solution (until now)
  - Capacity constraints through Stafford itself
  - Linespeed limitations

The Constraints (cont)

Norton Bridge – current constraints

- Busy intersection
- Slow services using same junction as fast services
- Not equipped for modern demands
- Impacting upon performance and capacity

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Scheme Overview and Challenges

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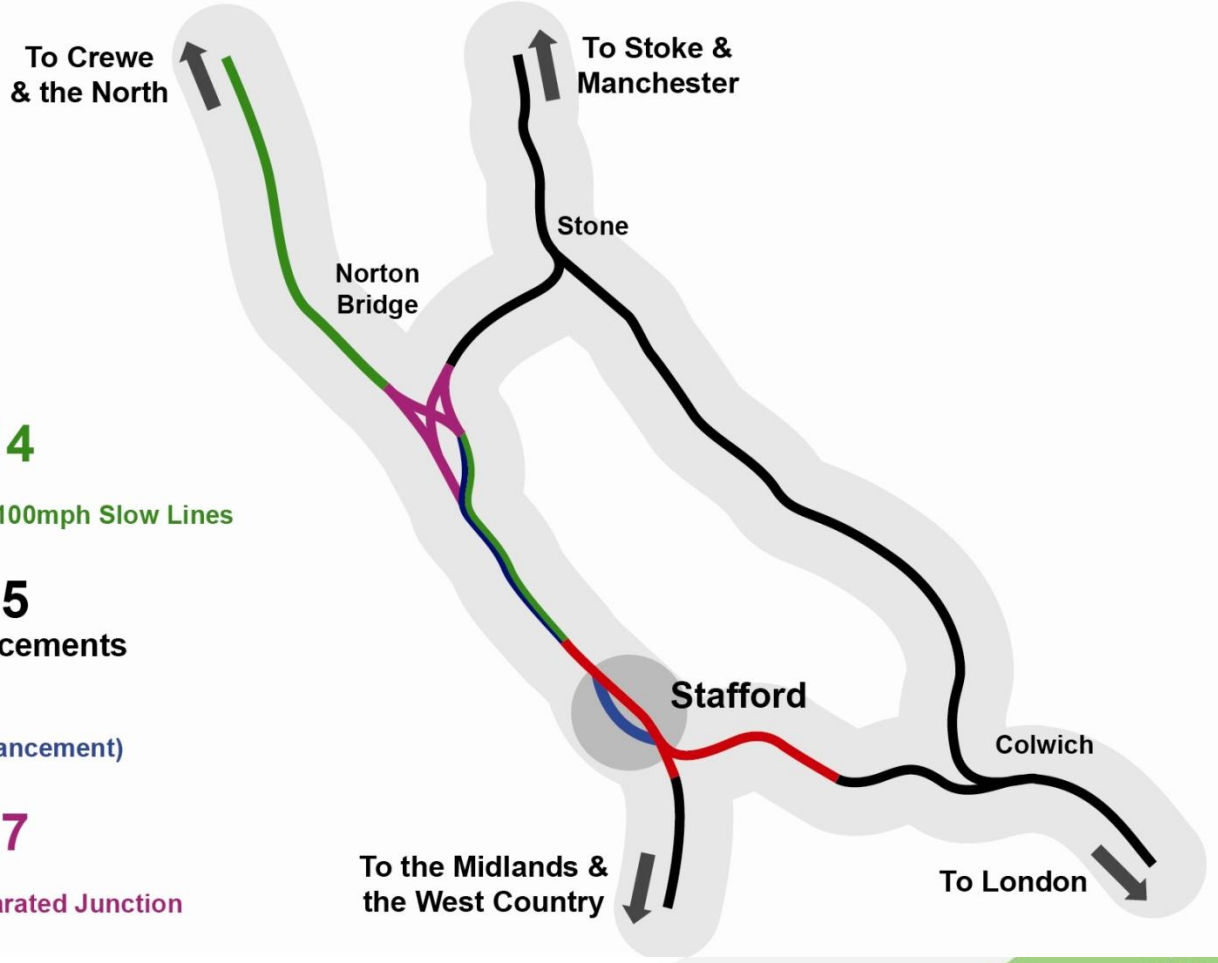
The Solution



Package 1: May 2014

18 miles of linespeed improvements – 100mph Slow Lines

Package 2: Dec 2015

Stafford Re-signalling & Enhancements

- Stafford Re-signalling (Renewal)
- Freight Regulation Loop (SGL) (Enhancement)

Package 3: Dec 2017

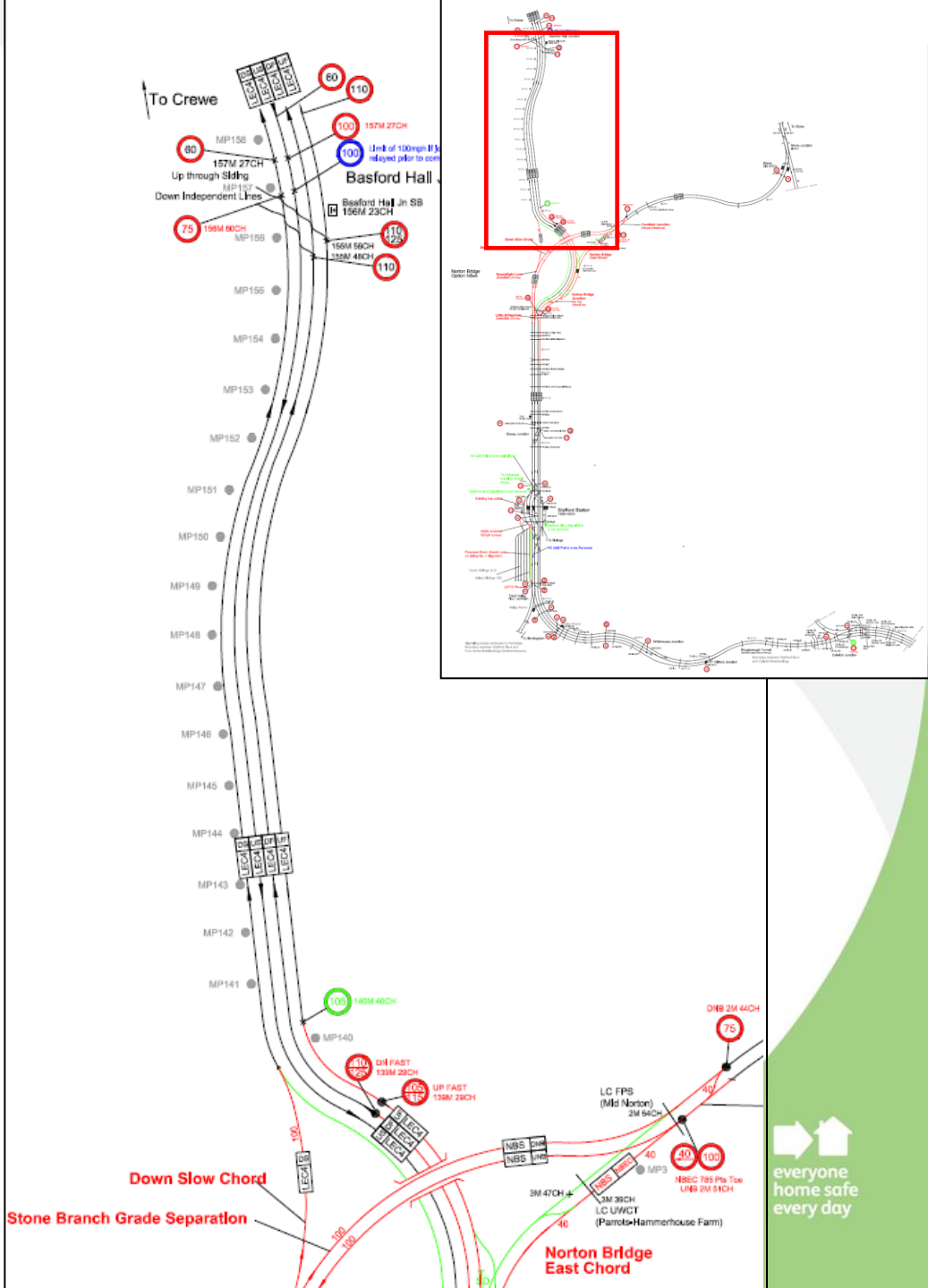
- Norton Bridge – 100mph Grade Separated Junction

Package 1

Commissioned Mar 2014

Line Speed Improvements
- Norton Bridge to Basford Hall

- Slow Lines increased from 75 to 100mph
- Minor OLE realignment
- Track slues
- 4 x Banner Repeater Signals Commence
- Works undertaken via RoR and LSI Commissioning March 2014



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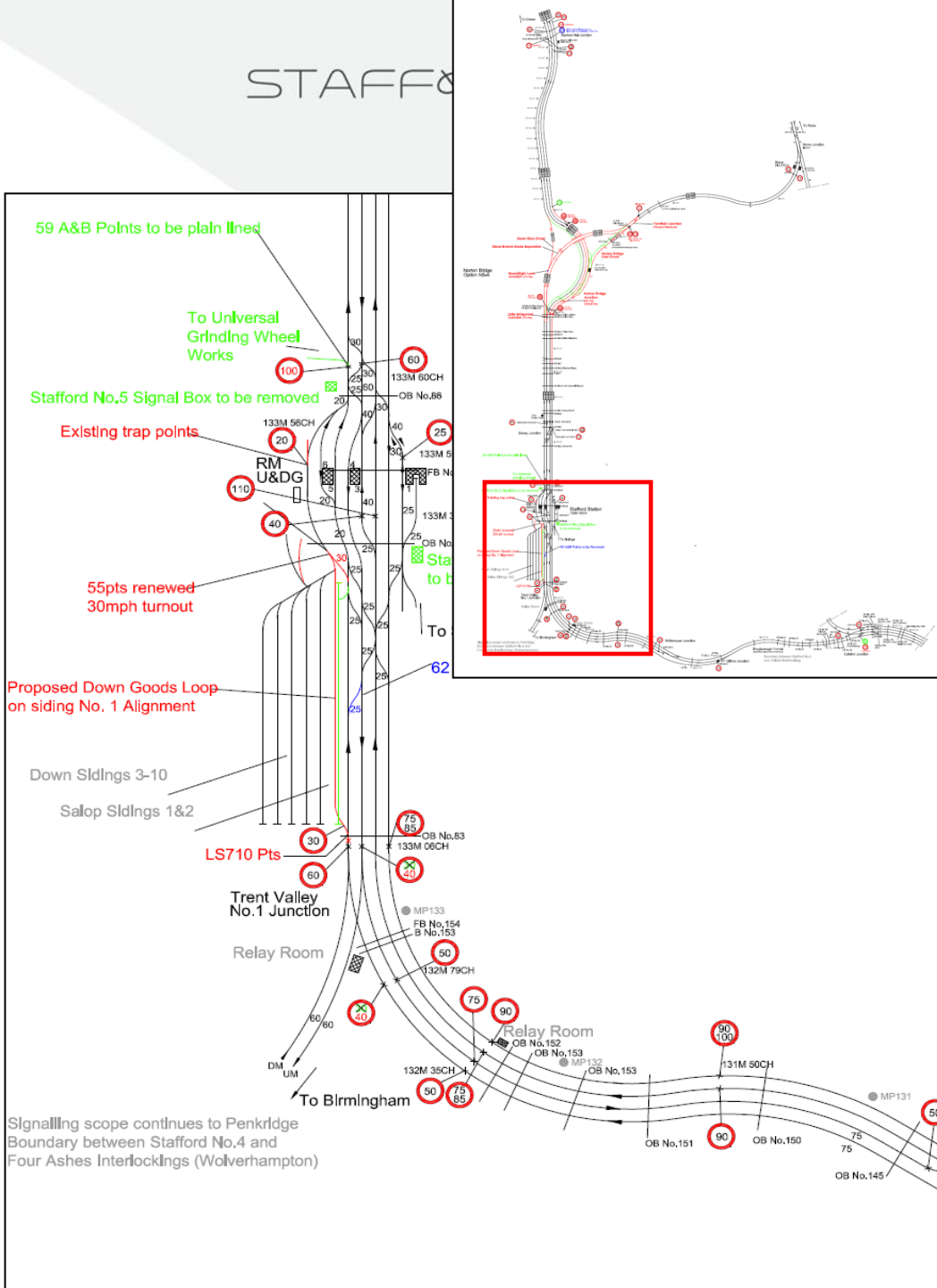
Package 2

Stafford Resignalling & Enhancements

- Complete resignalling of ‘Stafford 4’ & ‘Stafford 5’ boxes with re-control to Rugby ROC
- Bi-Di All platforms
- New Stafford Goods Loop - 775m
- Up Fast Linespeed Increase
- Motorisation of hand points
- Removal of Universal Grinding sidings
- On site Jan’13, Commissioning August 2015



Package 3

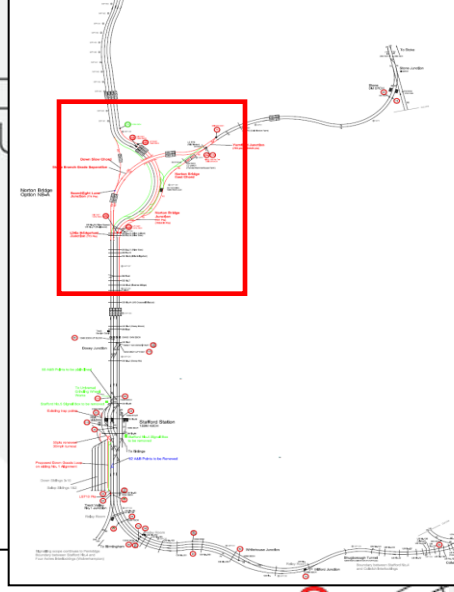
Norton Bridge Grade Separation

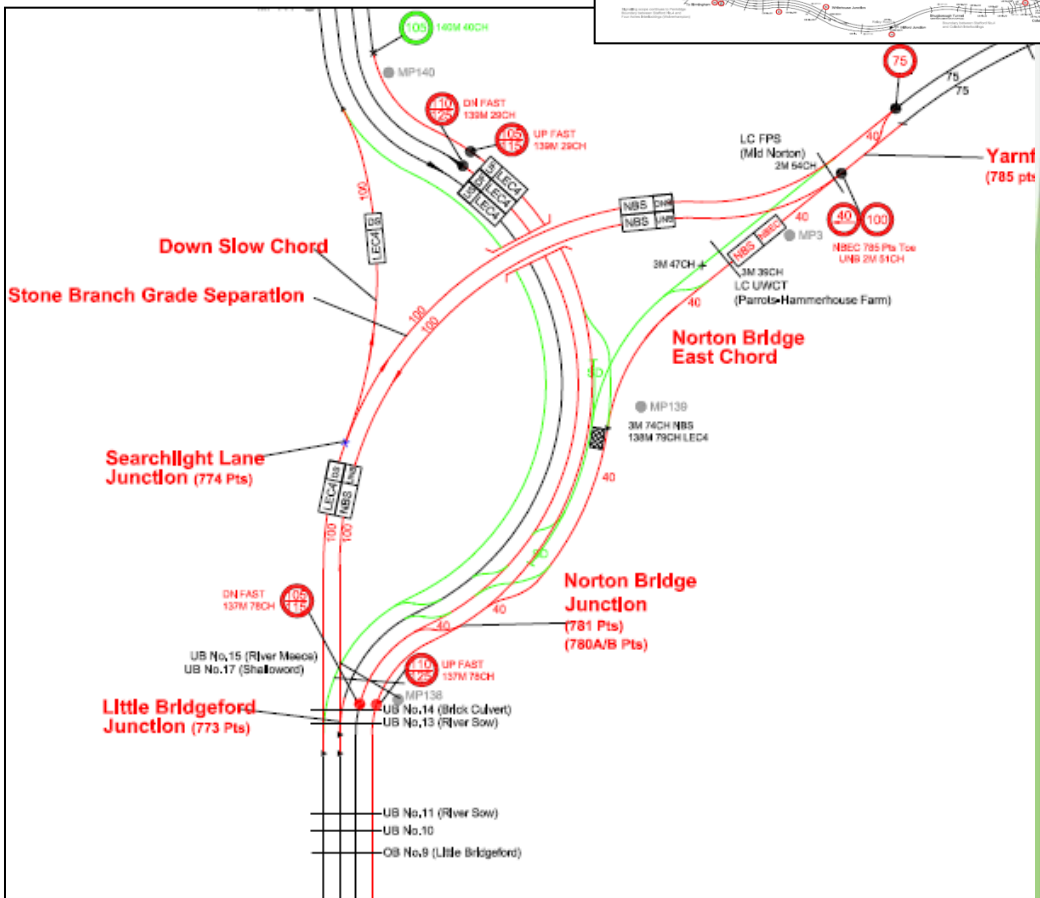
- 100mph Grade Separated junction
- Rationalisation of existing junctions *Removal of SC788pts*

- 6 miles of new 100 mph railway
- 11 bridge structure's, 4 river diversions
- 1m Tonnes earthworks
- Major utility diversions; 3 x HP Gas; 1 x Fuel Pipeline
- 3 x road diversions, 2 x footpath diversions, (1.2km of new road)
- Foot crossing replace with footbridge

Development Consent Order – Approved 31 March 2014

A form of ministerial level consent/planning permission for a major infrastructure project of national significance – involves numerous stakeholders & interfaces





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3D Fly-Through

Stone to Stafford

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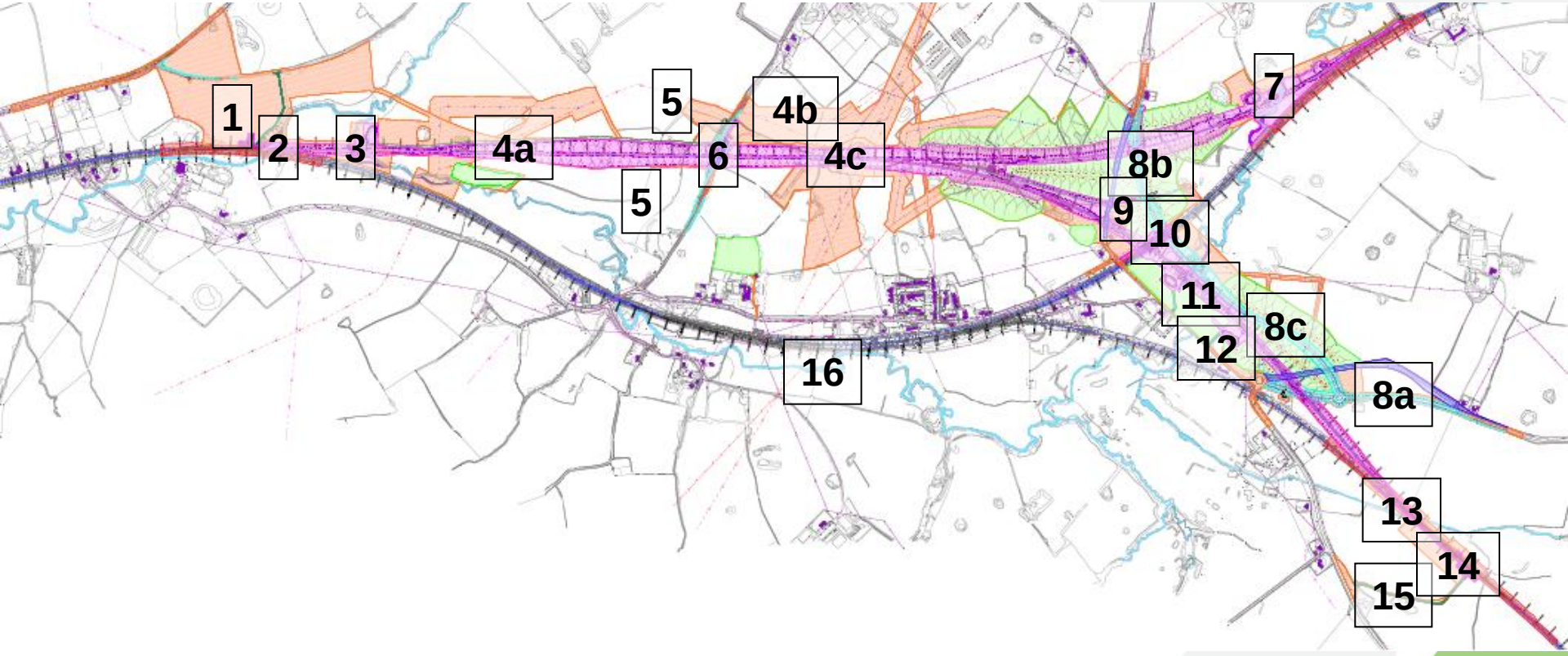
Description of Works – Norton Bridge

WORKS	LOCATION (KEY)	TIMESCALES
Installation of new Network Rail access points and haul road	1 & 15	May – July 2014
Construction of Bridge No 1 (rail over river), river diversion and compound and track/overhead line and earthworks	2	May 2014 – January 2015
Construction of Bridge No 2 (rail over river), river diversion and new railhead compound and new track and earthworks	3	June 2014 – January 2015
National Grid pipeline diversions – The diversion of two high pressure gas pipelines over three locations to clear the way for the new rail alignment, including construction of haul road access	Feeder 21a & 21b (4a & 4b) Feeder 4 (4c)	April – September 2014 2015 (Exact times to be confirmed)
Environmental works including pond drainage and vegetation management at Yelds Rough wood	5	May – September 2014
Construction of Bridge No 3 (road over rail) including new section of highway and utility diversions	6	Bridge construction - May 2014 to January 2015 Highways work - December 2014 to April 2015
Construction of Bridge No 11 (rail over river), river diversion and haul road access	7	August 2014 – August 2015
Construction of new B5026/Meece Road and built in three sections with supporting traffic management and utility diversions	8a – Stage 1 8b – Stage 2 8c – Stage 3	March – July 2015 May – September 2015 June – September 2015
Installation of new temporary works compound with provision of temporary traffic management	9	May – November 2014
Construction of Bridge No's 5 (rail over rail) and 5a (road over rail)	10	June 2014 – August 2015
Construction of Bridge No 6/6a (road and rail over river) and diversion of Meece Brook	11	July 2014 – March 2015
Installation of new access for temporary works compound including diversion of existing overhead power supply, with provision of temporary traffic management during this period	12	May/June 2014 - February 2015
Construction of Bridge No 8 (rail over river), river diversion, trackwork and haul road access	13	January – July 2015
Construction of Bridge No 9 (footbridge over rail) in the Yarnfield area	14	August – October 2014
Trackwork modifications to existing West Coast Main Line	From point 3, through 16, to points 7 and 13	March – August 2016

* Please note, these dates are indicative and may be subject to change as the project progresses

Masterplan – Norton Bridge



NEWS

TRANSPORT

Higgins: Programme management will be key to cutting rail costs

Increased capacity and efficiency to be achieved by forging earlier engagement with contractors.

By Jackie Whitelaw and Antony Oliver

Programme management expertise will be crucial to Network Rail's efforts to drive down costs on the UK railway and meet the challenge of providing w capacity, according to n executive David Higgi week.

Talking to *NCE* for the f since joining Network R the Olympic Delivery A (ODA) at the start of F Higgins also promised engagement with de and contractors and a clo tionship with the supply

He insisted that cha crucial at a time when Rail's business had to d size to cope with upcomi projects like the Londo element of Thamesli the electrification of th Western Main Line *(see b*

Comment

Antony Oliver

"Higgins doesn't want to disrupt a business for the sake of it, but he knows it is time to move on"

Network Rail has come far but this new era of change is needed

One month into his new job at Network Rail and chief executive David Higgins appears to already have a firm grasp on the challenges facing the UK rail network and its operator.

top-down management and demanding relationships with suppliers.

As a result, the rail industry has come a long way since the dark days of the October

Network Rail still has a huge way to go in terms of delivering a reliable, safe railway with the capacity to meet future demand – not least given the current pressure on the

iggins says, the cost of UK
f his biggest challenges.
ly the past centralised, one-
ich has reaped benefits,
for the future. Decision
s, remains often "tortuous
tion, efficiency and lower
rs are still too often ruled
olicy.

Higgins to decentralise
signers and contractors
er, to engage the industry
ith programme manage-
very welcome.
, for once, should have the
groaning but instead sali-
ential role in this hugely

NCE's editor

The Development of the Alliance ~ Tender Process

TRANSPORT

Private sector to get more rail work says Higgins

By Jackie Whitelaw

New Network Rail chief executive David Higgins suggested this week that more rail infrastructure could be delivered by private

devolution being encouraged by the McNulty review of the rail industry this was likely to change.

"By going national we cut a lot of costs out of the business, with activities like buying nationally," he said.

"But now the idea is to use

"If regions can buy their light bulbs from Tesco for a fraction of our price, then why not," he said. "Ditto delivery of major projects.

"If someone can deliver a depot better than us, then why not?"

If the private sector thinks it can deliver more for less for the

contractor, so if assets can be supplied cheaper by someone else, then as long as the running costs are ok, then fine," he said.

"But the private sector always knows that if things go wrong then Network Rail will bail it out," he added.

Higgins suggested that one of the key reasons that the cost of rail maintenance and renewal was more expensive in the UK was because time slots for accessing track were so limited.

"We make it very difficult for ourselves," he said pointing out

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Concerns have bee
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electricity for Gam
from renewable sou
the Games would be
There have be
concerns that the O
will miss its target
20% of its power fro
sources.
The Olympic
Authority (ODA)
wind turbine that w
to deliver over half of

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The Delivery Challenge

Seeking a solution to:

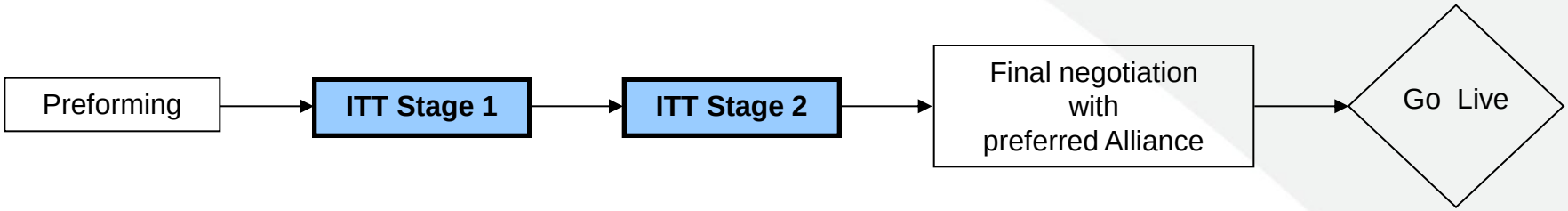
- Address the delivery challenge
- Manage the multidisciplinary nature of the programme
- Manage the key interfaces (industry, utilities, stakeholders)
- Develop a robust possession access strategy
- Manage the Development Consent Order process (Norton Bridge)
- Take account of stakeholder/third party impact

An innovative approach to Collaboration

New approach needed to meet challenges of multi-disciplinary project

- Adoption of Australian ‘Pure Alliance’ model (first for UK rail)
  - One integrated contract that Client and supplier sign
  - Based around joint delivery of works with shared benefits/risks
- Pre-Qualified suppliers requested to pre-form own Alliances
- 2 Stage procurement process
  - Developed and piloted a new robust behavioural analysis tool
  - 2nd stage only, with 30% Commercial weighting!

2 Stage ITT Process



Form 3+ Alliances

PQQ process
28 suppliers
Oct' 2011

Preforming stage

ITT Stage 1

- Issue ITT Docs
- Written submissions & workshops
- Evaluation
  - 50% Technical
  - 30% Behavioural
  - 20% HSE
- Select two Alliances for stage 2
- May to July 2012

ITT Stage 2

- Develop TC with two Alliances
- Select one Alliance based on:
  - 70% c/f stage 1 score
  - 30% commercial
- Develop PAA
- September to October

Contract

- Corporate acceptance
  - ✓ Nov 2012
- Contract signature
  - ✓ Jan 2013

(8 month duration)

None Cost Key Result Areas (KRA's)

In support of the "Gain / Pain" mechanism the Network Rail measures & incentivises performance in areas other than cost ensuring good outcomes.

Addressing concern that quality and scope may be sacrificed in order to achieve cost savings.

KRAs should be chosen based on importance and value that they add from the client's perspective, performance is required to be measurable

Examples of KRAs include:

Collaborative Culture

Operational Railway Performance

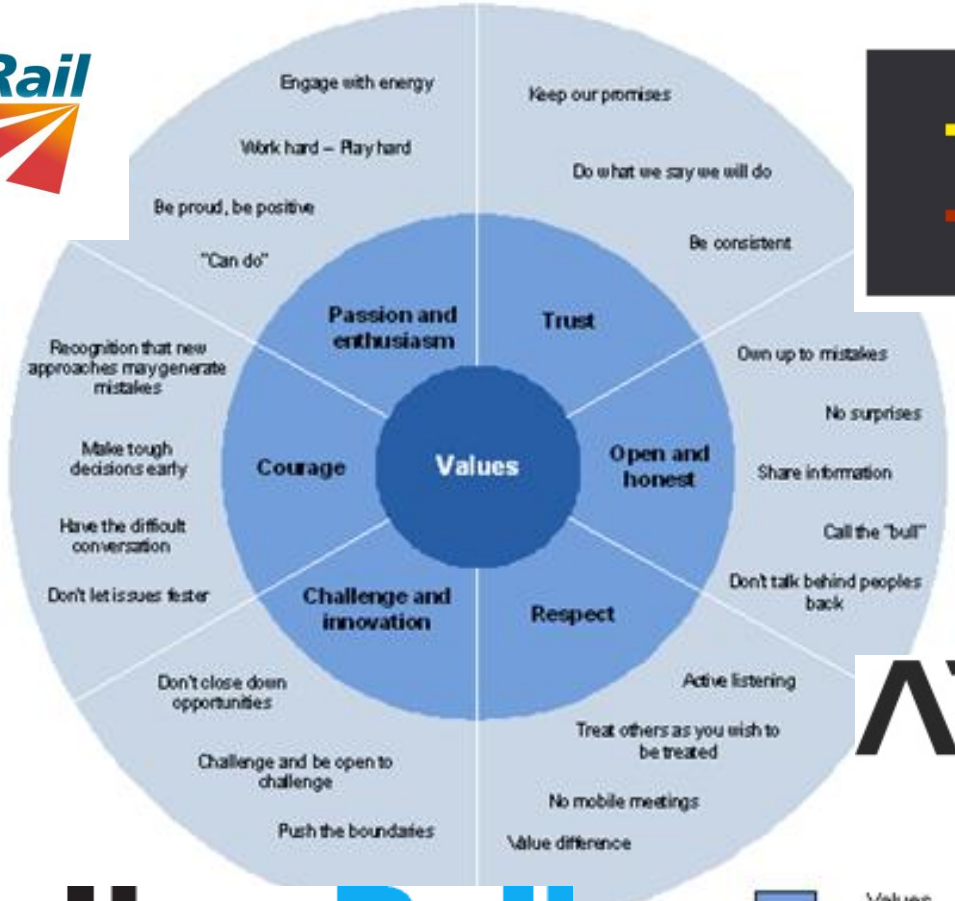
Quality/Workmanship & Governance

HSE & Sustainability

Community & Stakeholder Mang't

Milestone completion

The Result – True Collaboration



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Communication / Access Strategy

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Communications

Route
- IMDU
- Track Access
- RAM Team
- Operational Planning
- CRE input

TOCs/FOCs Access Arrangements
- Early engagement to facilitate access requirements

Industry wide consultation
- DfT/ORR liaison
- Present in tandem with LNW at group strategy meetings with customers

Stakeholder Engagement – Stafford Resignalling

- Dedicated communications plan inc:
- Introductory letter
- Customer leaflets
- Information centre/s
- Bespoke notification letters
- Dedicated community relations support

Stakeholder Engagement – Norton Bridge

- Monthly project report and regular attendance at Parish Council meetings
- Monthly feature/advert in Parish newsletter
- Information centres in support of key milestones
- Programme of targeted information leaflets
- Proposed formation of ‘legacy’ steering group

Access Strategy

LSI North

- RoR Possessions only
- Commissioned Successfully Mar 2014

Stafford Re-signalling*

- Down sidings taken out of use from Oct 2013
- Aligned with Wolverhampton Resignalling Project (wk22, 2014)
- Extended Slow Lines Possessions, except….
  - One 72hr all lines possession for commissioning – Aug 2015
- Recoveries within extended possessions post commissioning
- Universal Grinding used for rail access

**Access for Stafford Re-Signalling provisionally accepted by TOCs/FOCs; formal issue as part of EAS September 2013.*

Norton Bridge – Access Options 2016

Flyover commissioned – Route via Stone/Stoke to Manchester

Access Options	ELR	Block Limits Affected	Lines	Period 1				Period 2				Period 3				Period 4				Period 5				Period 6				Period 7				Period 8				Period 9			
				27-Mar-16	03-Apr-16	10-Apr-16	17-Apr-16	24-Apr-16	01-May-16	08-May-16	15-May-16	22-May-16	29-May-16	05-Jun-16	12-Jun-16	19-Jun-16	26-Jun-16	03-Jul-16	10-Jul-16	17-Jul-16	24-Jul-16	31-Jul-16	07-Aug-16	14-Aug-16	21-Aug-16	28-Aug-16	04-Sep-16	11-Sep-16	18-Sep-16	25-Sep-16	02-Oct-16	09-Oct-16	16-Oct-16	23-Oct-16	30-Oct-16	06-Nov-16	13-Nov-16	20-Nov-16	27-Nov-16
				53	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Option 1 - Baseline	LEC4	Flyover	Dn Slow	102	RoR																																		
	LEC4	Main Line	Fast/Up Slow	102	RoR							72	RoR							29	29	29	29	29	29	72	RoR												
	NBS	Stone Branch	Up & Dn	102	RoR																					29	ROR												
Option 2 - Blockade	LEC4	Flyover	Slows	102	RoR			12	RoR			12	RoR																										
	LEC4	Mainline	Fast/Up Slow	Block				72				72																											
	NBS	Stone Branch	Up & Dn	102				12				12																											
Option 3 - Hybrid (1&2)	LEC4	Flyover	Slows	102	RoR			12	RoR			12	RoR													12	RoR												
	LEC4	Main Line	Fast/Up Slow	102				72				72														72													
	NBS	Stone Branch	Up & Dn	102				12				12														12													
Option 4 - Final Solution*	LEC4	Flyover	Slows	102	RoR			72	RoR			54	RoR																										
	LEC4	Main Line	Up Slow	102				72				72																											
	LEC4	Main Line	Fast					72	136			72																											
	NBS	Stone Branch	Up & Dn	102				72				54																											

RoR are presumed on commissioning of Flyover

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Achievements to Date

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Achievements To Date

- LSi North Successfully Commissioned March 2014
- Sustainability – CEEQUAL (highest ever score of 97.4% for an interim award)
- Sustainability – Successful engagement with local supply chain – ongoing
- Active engagement of apprentices
- Shortlisted in the “Excellence in Environmental Sustainability” category at the European Rail Congress Awards Nov 2013
- Early Contractor Involvement
- BS11000 accreditation (British Standard for collaborative working)

Achievements To Date

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- **LSI – Crewe to Norton Bridge**

BPA, fuel pipeline

- **Nature reserve (Shallowford House)**

Apprentices

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Evidence of the Alliance Working

- Pure Alliance approach has created contracting cost efficiency, with opportunity for further savings
  - radically different Employer / Contractor relationship; behaviour focused
  - delivery responsibility including commercial risk
  - “No claims” agreement with limited exceptions
- Enabled partners to contribute to shaping/delivering solutions (reducing the duplication of resources and processes)
- Empowerment to drive out bureaucracy, inefficiency and waste
- Created common goals with no “man marking”
- Developed an environment of openness and trust

Tender Process - Lessons Learnt

- Early supply chain engagement, enabling contribution to actual process
- Early development of procurement strategy, with continual assessment ensuring consistency of Collaborative approach supported by Network Rail
- Greater cost and resource demand, with significant input required from suppliers and Network Rail during tender process
- Process allows flexibility, embracing concept for the provision of Alternative Bids
- Compensate losing bidders, with retention of intellectual property
- “Preforming” requires careful consideration
- Modify Target Outturn Cost development phase

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Questions and Answers

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