West of England Area Updates December 2014

Project Director Andrew Haynes

NetworkRail



Content

Bristol East Re-Modelling Filton Bank Four Track Bristol Templemeads Bristol Templemeads Conveyor Electrification And Bristol Parkway



Bristol East Junction remodelling

Scope of works:

- Remodel and rationalise within the existing geographical constraints
- Recovery 57 point ends and replacing with 47 including Kingsland Road sidings
- Replace the Bristol East Gantry for electrical clearances
- Junction lighting
- Waterproof Avon Street bridge and replace decking
- Install all OLE structures conventionally across the junction

Funding: Through track renewals. Authority due February 2015 GRIP 4-8

Provides operational flexibility (all lines can reach all platforms), increased line speed on the East side of the Gantry, capacity requirements for the 2018 IEP timetable and all capacity requirements up to 2043

Remodelling of the junction also provides the capacity and flexibility to incorporate the Metro West timetable

Time line: GRIP 3 completion May '15

►GRIP 4 completion: December '15

► GRIP 5 completion: (AFC): August '16

Site mobilisation: October '16 (start OLE bases)





Dr Days J



Bristol Temple Meads - Renewal

Scope of works:

- Refurbishment of main train shed roof and gable ends.
- Grit blast, paint, steel/timber repairs and replacement of entire glazing system
- Refurbishment of all platform canopies
- Electrical renewals including new LED lighting on all platforms
- Refurbishment of station façade, flat roofs and masonry repairs

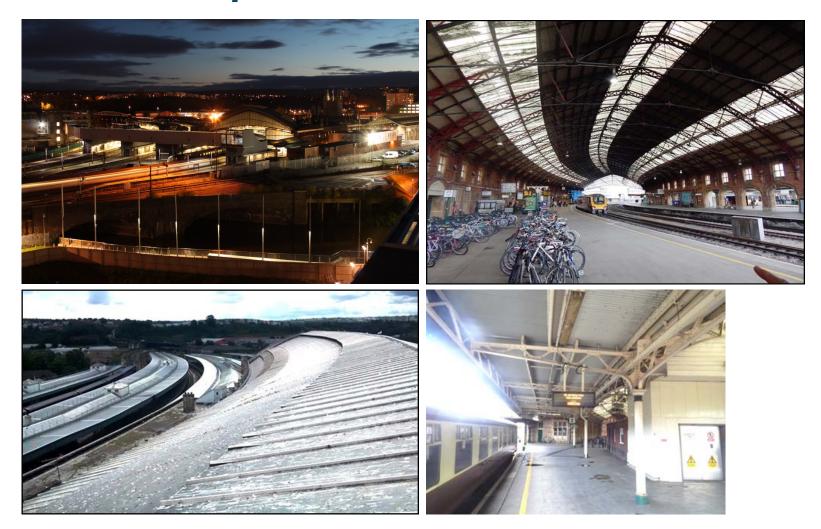
Funding, Early Contractor Involvement to commence in January 2015

Designers, Arup commenced GRIP 4 in August 2014, due to complete in February 2015

High level works to main shed roof due to complete December 2016, overall programme complete July 2017



Bristol Temple Meads - Renewal





Bristol Temple Meads – Conveyor

Scope of works:

- Removal of conveyor bridge and 4 buildings structures
- Capping of lift shafts
- Construction of maintenance access points to subway
- Replacement lighting and PA systems
- Remedial works to platforms and existing canopy ends

Funding, fully funded to close out GRIP 8

Contract awarded to Dyer and Butler, July 2014, works commenced September 2014

Removal of bridge spans to be completed during Christmas 2014

Permanent works to be completed May 2015



Bristol Temple Meads - Conveyor







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Electrification

Quantities 14500 foundations – GWML 5730 foundations – WEA

Timeline

HOPs foundations commence east of Swindon July 2015 Badminton line September 2015 HOPS, Network Rail owned and operated, self propelled factory train installing: Open route foundations and steelwork, Wiring, Final registration Conventional installation circa 35% of works Foundations & steelwork within stations Attachments & steelwork to viaducts & retaining walls Bridge attachments ATF within stations and over bridges









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Dr Days to Filton Abbeywood Capacity Improvements

Scope of works:

- Additional two tracks and high speed junction at Horfield
- New platform at Filton Abbeywood
- Electrification road and foot bridge clearances
- New viaduct and enhanced ground level at Stapleton Road
- Install all OLE structures

Funding: Full GRIP 4-8 awarded

Provides additional capacity and support predicts growth of both Cross Country and local services including the capacity requirements for the 2018 IEP timetable.

Current:

Track and Civils contract awarded on programme to Vinci-Taylor Woodrow;

Detailed design works have commenced

Ground investigation works on site

Core works to commence mid 2015





Conventional

<image>



Bristol Parkway Capacity Enhancements

Scope of works:

- Additional passenger line and improved flexibility
- Additional fourth platform
- Improved signalling and headway capacity
- Install all OLE structures

Funding: At GRIP 4, Project to go forward for funding review in late January 2015

Provides additional capacity and support predicts growth of both Cross Country and local services including the capacity requirements for the 2018 IEP timetable.

Current:

Approval in principle design works have been completed

Detailed signalling design works due for completion in early 2015







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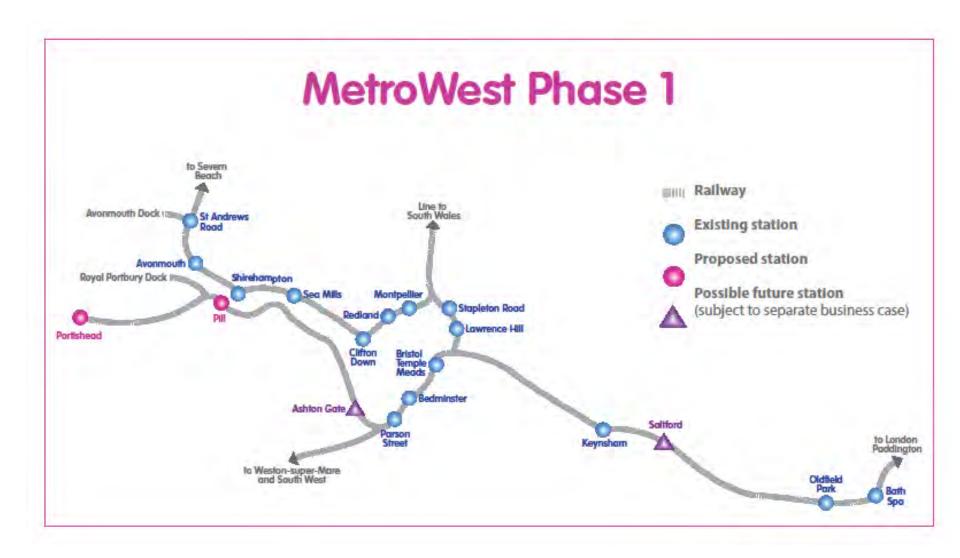
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MetroWest Phase 1 Overview

James Willcock

17 December 2014





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Bath & North East Somerset Council North Somerset 2

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GRIP 1-2 Findings

Summary of Engineering Works Needed

Rebuild the Portishead to Pill Line Closure of historic crossings New station at Portishead Reopen former station at Pill Double track works at Pill and Ashton Gate Investigate improvement of highway access to Pill tunnel Environmental mitigation measures Enhancement to Parson Street Junction Re-signalling the entire line between Temple Meads and Portishead Bathampton Turnback Additional signalling at Avonmouth station Partial reinstatement of Down Relief Line to assist recessing / regulation of freight trains

GRIP 1-2 includes **substantial deliverables** which highlight the complexity of the project





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Preliminary Business Case

- Strong case for intervention, good value for money, sound commercial footing, financially affordable and deliverable by 2019.
- Two train service options both having the same infrastructure requirements.
- Half hourly service pattern (St.Andrews Road and Severn Beach hourly to fit with MW Phase 2).
 Symmetrical timetable feasible, giving close to a 'clock face' pattern.
- BCR 2.28 to 5.99 and total capital cost including development costs = £58.2m. Train service subsidy during first 3 years £1.141m to £1.765m pa.



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Portishead Station



- 6 options identified through Options Appraisal process
- 3 feasible options identified, around Quays Avenue (no level crossing needed)
- 6 week consultation in June / July 14 over 400 responses
- High levels of support for the three Quays Avenue options
- Consultation Report published on Travelwest website
- Portishead Town Council asked us to look again at the historic town centre site with a level crossing
- ORR have provided their criteria for considering exceptional circumstances for a level crossing
- Our technical assessment addressing the ORR criteria is nearing completion and we will be submitting it to the ORR in January 15.





Business Case Stages

The Business Case is in 3 stages

Preliminary Business Case – Sept 2014 Outline Business Case – Dec 2015 Full Business Case – Oct 2017

- Preliminary Business Case is needed for allocation of resources for the development of the project
- Outline Business Case is undertaken to **support statutory processes** including the Development Consent Order
- The Full Business Case follows procurement of construction works and operational arrangements including the train service and confirmation of powers to build and operate.







Outline Business Case

- **GRIP 3 & 4 to be undertaken with Network Rail**, which essentially in engineering terms is Outline design.
- Early stages of technical evidence base and public consultation for the Development Consent Order. NB

 DCO application to be submitted approx 3 months after completion of Outline Business Case.
- More detailed **environmental assessment**, inc flood risk, ecology, noise, heritage etc for EIA.
- **More technical work** on train pathing / train sets, train formations, operational costs and demand modelling and revenue forecast. Option selection 5B or 6B?
- Further progress with FGW procurement of train service (priced option) and with DfT Rail on train service subsidy / franchise / operational considerations.

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Powers to Build and Operate

MW Phase 1 requires a **Development Consent Order** (DCO), because it's a nationally significant infrastructure project

DCO entails a major planning application and is a 6 stage process that takes up to 3 years

DCO work stream will run in parallel with other major work stream such as GRIP and the Business Case, which **also** require 3 years to complete

DCO process includes a requirement for **engagement and consultation**

DCO process requires an Environmental Impact Assessment and **Environmental Statement**

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Stage 1 Pre-application – Documents Required

Land plan Works Plan Access/Rights of way plan Site layout plans Elevation drawings Access/parking/landscaping plans Drainage/Surface water management plans Plans of statutory/non-statutory sites Plan showing statutory or non-statutory historic or scheduled monument sites Plan showing any Crown land Draft proposed order Explanatory memorandum to draft proposed order Statement of reasons Funding statement

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Stage 1 Pre-application – Documents Requiredcontinued

Book of reference (parts 1 to 5) Statement of community consultation Flood risk assessment Assessment of nature conservation effects Assessment of historic environment effects Environmental protection information European site appropriate assessment report Details of other consents and licences Details of associated development (with references to documents) **Environmental Statement** Environmental Statement technical appendices Non technical summary Scoping opinion Photographs and photomontages and index

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Stage 1 Pre-application – Documents Requiredcontinued

Model information Levels/depths/heights of proposed works Cross sections Drainage outfall details Planning statement Design and Access statement Travel plans Construction Environmental Management Plan ("CEMP") Rail operations report



Stages 2 to 6

After the production of the 37 documents and submission of the DCO application, the next stages are:

Stage 2. Acceptance Stage 3. Pre-examination Stage 4. Examination Stage 5. Recommendation and Decision Stage 6. Post Decision

The allowing for various statutory timescales for each stage, the earliest we can complete stage 6 is autumn 2017, with construction commencing Dec 2017





Other Work in Progress

Vegetation clearance – Jan / Feb 15 Topographical Survey – March / May 15 Further train path modelling Railsys – March / June 15 Train Operations Scoping – Jan / June 15



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Overall Scheme Programme

Process of building the 'Case' for Phase 1, working through technical / planning processes and rail industry requirements for earliest possible delivery

Phase 1 Programme comprises of 4 stages:

Project Stage	Stage Description	Indicative Timescales
Stage 1 Preliminary Business Case	Feasibility (inc GRIP 1-2)	Summer 2013 to Summer 2014
Stage 2	Option Development & Project	Autumn 2014 to
Outline Business Case	Case (inc GRIP 3 & 4)	Autumn 2015
Stage 3	Planning Powers and Procurement	Winter 2015/16 to
Full Business Case	(including GRIP 5)	Autumn 2017
Stage 4	Construction & Opening	Winter 2017/18 to
Delivery	(inc GRIP 6-8)	Spring 2019



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Any Questions?



