Enhancements Delivery Plan

Scotland

Entry into Service (EIS) Schedule

September 2020

Executive Summary

Network Rail's obligation is to publish Entry into Service (EIS) milestones to allow the industry to plan against these and deliver outputs which provide benefits to passengers and freight customers. This is in accordance with the Rail Enhancements & Capital Investment Strategy (RECIS), which sets out the Scottish Ministers' commitment to investment in the rail network from Control Period 6 onwards. EIS milestones will only be published once a project has received its Final Business Case decision as part of the RECIS. At this point, there is sufficient certainty of outputs that Network Rail can reasonably be held to account for the delivery of these programmes and projects.

Transport Scotland will publish a separate document to provide an overview of "pipeline" schemes which have not yet reached a Final Business Case decision.

East Kilbride Corridor Enhancement

Details
Project OP code: 1157709
Output driver: Increasing the capacity and capability and decarbonisation of the Scottish network
Operating route: Scotland
Date: September 202019 Sponsor: K Vollbracht

Output driver

The Transport Planning Objective set out in the Strategic Business Case for this project is:

"Under normal operating conditions* enough seats are provided for passengers to sit down within 10 minutes of boarding† in 2023 and across the subsequent 20 years."

** A typical weekday, with no significant perturbation or other events impacting on passenger demand for services*

† As defined in the ScotRail franchise, across the morning and evening peak two-hours

The Transport Planning Objective should be met through enabling the following project outputs:

- The ultimate output is a four trains-per-hour 8-car zero emissions service during the morning peak (07.00-10.00) between East Kilbride and Glasgow Central to continue to make rail travel an attractive choice for passengers. This will help to contribute towards the Scottish Government aspiration target to decarbonise the railway by 2035 and also encourage greater modal shift from car journeys in/out of Glasgow city centre reducing overall transport emissions help to support measures to tackle the climate emergency. This enhancement output can only be achieved beyond Muirhouse South Junction into Glasgow Central if timetable alterations are made to other service groups – any alterations to services between Muirhouse South Junction and Glasgow Central are outside the scope of this project and are being taken forward by Transport Scotland, forming a dependency to delivery of the full output and benefits of this project.
    - This would be replicated between Glasgow Central and East Kilbride in the evening peak (16.00-19.00), with opportunities also explored to increase off-peak frequency if on-going costs funding can be identified
- Without alterations to the Glasgow Central timetable, the output of this project is restricted to an additional two services between 07.30 and 09.30 from East Kilbride, with services at 8-car length wherever platform availability at Glasgow Central allows.

Scope of works

The Strategic Business Case set out a range of options which provide various incremental ways of delivering the outputs and meeting the Transport Planning Objective to meet future passenger demand. Investment Decision Maker's approval was granted for development to Outline Business Case including GRIP 4 and Approval in Principle design of options C and E in the Strategic Business Case. Further development since April 2019 has enabled the infrastructure enhancement scope to be refined, with the following elements now being progressed:

- Platform extensions to accommodate the longest 8-car trains (up to 8 stations, 14 platforms)
- Double tracking of the single-line section between East Kilbride and Busby station including the following:
    - Hairmyres station: second platform and relocated to a new location approximately 600m to the west of the existing station towards Glasgow. New two-platform station to be fully accessible and include a station building to integrate with a transport interchange facility.
    - East Kilbride station: fully accessible two-platform station with enhanced passenger facilities including a new station building, cycle access, new station entrance and improved passenger circulation space
    - Thorntonhall station: two-platform station with step-free access onto and between platforms
- Electrification between East Kilbride and Glasgow Central including the Larkfield Curve to reduce diesel emissions
- New accessible footbridge solutions at Giffnock and Clarkston stations

East Kilbride Corridor Enhancement

- Further collaboration with local authorities on development of active travel and enhanced P&R options along the rail corridor plus work to ease planning issues

Interfaces and assumptions

For this stage the following project assumptions are included;

- Glasgow Central: it is assumed that timetable changes, and any associated infrastructure changes, at Glasgow Central to facilitate the future East Kilbride service provision will be progressed by Transport Scotland (with ScotRail support) and are outside the scope of this project but will link with project delivery
- Traction power: it is assumed that if a new feeder stations at Elderslie and Newton will provide the traction power capacity required for these new electric services. These are being delivered through an interfacing power supply upgrade workstream and are outside of the scope of this project
- Rolling stock: rolling stock type to be operated on this route is not known – platform lengths and gauging to be specified to accommodate longest/largest gauge passenger rolling stock which fits with the wider Network Rail obligation for Control Period 6 (CP6)
- Stabling/depot provision: it is assumed that any change or increase to stabling or depot capacity required to accommodate rolling stock operating on the East Kilbride route will be delivered through an interfacing workstream and is outside of the scope of this project
- Car parking and active travel enhancements: it is assumed that enhancements to station car parking, improved bus interchange and provision of active travel routes and facilities will be the responsibility of the relevant Local Authority. Network Rail scope will extend to interface with Local Authorities to facilitate integrated design and delivery along the full rail corridor.
- Hairmyres station relocation: road layout changes to accommodate a relocated Hairmyres station and Park and Ride facility will be the responsibility of South Lanarkshire Council, with the support of Transport Scotland. Network Rail scope will extend to design and delivery of the new station infrastructure and interface with South Lanarkshire Council to integrate the station with the Park and Ride facility and access points. Network Rail will also negotiate and complete the purchase of land required for the new Park and Ride, bus interchange and active travel facilities. The funding for this land purchase is subject to a separate instruction and change control between Transport Scotland and Network Rail.
- Network Rail will identify interdependencies with wider CP6 (Operate, Maintain & Renew) plans to drive efficiencies and take advantage of possessions and closures.
- Network Rail will work closely with Local Authorities to understand planning processes to help accelerate project delivery including structures removals and explore opportunities for third party funding to enhance the outputs of the project.
- It is assumed that the submission of the next business case will be a combined OBC/FBC

Activities and milestones (NR)

Milestone	Description	Date	Status
Outline Business Case/Full Business Case	Submission of OBC/FBC informed by GRIP 4 development	March 2021	In progress
GRIP 4	GRIP 4 completion	August 2021	In progress

Edinburgh Waverley Western Approaches

Details
Project OP code: 160078
Output driver: Increasing performance resilience through the Haymarket Corridor
Operating route: Scotland
Date: September 2020 Sponsor: J Noble

Output driver

The Transport Planning Objectives for this project is:

TPO1: Improve Haymarket corridor performance within 2 years following EWWA entry into service, measured as a minimum of a 25% reduction in delay minutes compared to the 2019 timetable year*

TPO2: Upon running 28 trains per hour through the Haymarket corridor during peak hours, improve Haymarket corridor performance by a minimum of a 15% reduction in delay minutes compared to the 2019 timetable year*

* when 24 passenger services per hour ran via Haymarket during peak hours

The Transport Planning Objective should be met through enabling the following project outputs:

- Creation of capacity at key junctions through the corridor (Newbridge Junction, Haymarket Central Junction and Haymarket East Junction) by diverting 4 services per hour via the Almond Chord to run via the Fife lines instead of the E&G lines. The balancing of service quantum on the north and south lines will spread capacity use, spacing services further apart and therefore create a performance buffer and greater resilience.
- There are aspirations to introduce additional services through the corridor (up to 28) and the project creates the capacity for these services. The project also enables performance resilience to be increased from what the current infrastructure can support when these services are introduced.
- For the full benefits to be realised in relation to TPO2, the project is dependent on Scotland East to England Connectivity (SEtEC) delivering additional capacity at Waverley West End and removing certain known constraints in relation to the north end platforms at the West End.

Scope of works

The Strategic Business Case (SBC) set out a range of options which provide various incremental ways of delivering the outputs and meeting the Transport Planning Objective to meet future passenger demand. On 16th of September 2019, Investment Decision Maker's approval was granted for development to Outline Business Case including GRIP 3 and early GRIP4 works for Options D-F which are variants of the Almond Chord (D – no grade separated junctions; E – Almond Junction grade separation; F – grade separation of Almond and Winchburgh Junctions). These options cover the following infrastructure enhancement elements, delivery of which can be phased flexibly:

- Reconfiguration of Winchburgh Jn with the scale/scope of the configuration varying by option.
- Construction of the Almond Chord between the Dalmeny Lines and the Fife lines.
- Construction of Almond Jn with the scale/scope of the configuration varying by option.
- Signalling and track enhancements on the Dalmeny Lines to increase line speeds and network capacity.
- Electrification of the Fife Lines between Haymarket West Jn and Almond Jn, electrification of the Almond Chord and electrification of the Dalmeny Lines between Winchburgh Jn and Craigbrae Jn.

Interfaces and assumptions

For this stage the following project assumptions are included;

- The performance benefits at this stage have been calculated using evidence from the 2011 Paisley Corridor Improvements (PCI) project, current performance data, Capability and Capacity Analysis and the Capacity Utilisation analysis. These are classed as assumed until RailSys/TRAIL modelling is undertaken at OBC stage.
- To enable an even split of services between platforms 1&2 and 3&4 at Haymarket when 28 trains are introduced per hour, it is assumed that the SEtEC project will address Waverley West End capacity/constraints.

Edinburgh Waverley Western Approaches

- The anticipated additional services tested to derive the performance benefit for TPO2 have been assumed using the 2043 ITSS from the Scotland Route Study combined with information from TS/HS2.
- TAWS is required for the selected EWWA options via the Almond Chord.

Activities and milestones (NR)

Milestone	Description	Date	Status
Outline Business Case	**Submission of Outline Business Case (informed by GRIP 3/early GRIP4 development)**	**December 2020**	**In progress**

Kintore Station

Details
Project OP code: 150006
Output driver: New station
Operating route: Scotland
Date: September 2020 Sponsor: G Stewart

Output driver

This project follows on from the Aberdeen-Inverness Phase 1 Rail Improvements project and Scottish Government's 2012 HLOS aspiration to increase the capacity and capability on the route. The principal driver for the Aberdeen-Inverness Phase 1 project was the Scottish Government's Strategic Transport Projects Review (STPR). This project is specified in the STPR (Project 19) with the stated aim of reducing journey times and increasing service frequency on the route. Specifically, in relation to the new station at Kintore, the STPR set out the following:

- The Aberdeen-Inverness project should include infrastructure to facilitate a new station at Kintore;

The Aberdeen-Inverness Phase 1 project was commissioned in August 2019 creating the capacity for the new station at Kintore. Aberdeenshire Council and the North East Transport Partnership (NESTRANS), arranged funding for the new station and Transport Scotland have remitted Network Rail to deliver it.

Transport Scotland's Required Outputs

Transport Scotland have remitted Network Rail to deliver a new station at Kintore by May 2020.

All passenger services on the Aberdeen-Inverness route will call at Kintore and platforms should have the capacity for platforming High Speed Trains in 2 locomotive, 5 coach formation.

Scope of works

The extent of the scope to be delivered by May 2020 is as follows;

- Two platforms to accommodate HST vehicles in 5+2 formation.
- Platform to platform access via a footbridge with lifts and steps providing step free means of access to the platforms for customers
- Minimum of one waiting shelter on each platform.
- Provision of LED lighting columns
- Seating on each platform, quantity to be agreed.
- CCTV coverage of the station to be linked to the ScotRail Customer Services Centre. CCTV to include one Help Point on each platform
- Provision of station signage and a Customer Information System on each platform
- Driver stop marker boards as required
- 156 ordinary car parking bays
- 12 accessible parking bays
- Electric vehicle charging provision to be agreed with Transport Scotland.
- Cycle parking
- Turning circle and taxi layby/drop-off point

Interfaces and assumptions

For this stage the following project assumptions are included;

- Rolling stock to be used on the route will be High Speed Train in a 2+5 and 2+4 formation, Class 170 and 158 diesel multiple units.
- The Aberdeen-Inverness Phase 1 project providing infrastructure capacity for the new station.
- No requirement to introduce longer trains / lengthen platforms other than specified
- It is assumed Network Change and Station Change will be agreed where required for the project.
- It is assumed necessary land transfer will be under to Network Rail in time for the station opening in May 2020.
- No further land or consents requirements emerge beyond those already acquired by Aberdeenshire Council for the project.

Kintore Station

Activities and milestones (NR)

Milestone	Description	Date	Status
EIS- Infrastructure authorised	**Infrastructure authorised for passenger and freight use**	**October 2020**	**In delivery**

Growing Lothian and Borders

Details
Project OP code: 140625, 148994, 154396
Output driver: Increasing the capacity and capability and decarbonisation of the Scottish network
Operating route: Scotland
Date: September 2020 Sponsor: Mhairi Mackenzie

Output driver

This project was formally known as Edinburgh Suburban Enhancement Programme (ESEP). It aspires to deliver enhanced capacity to the Lothians and Borders. The following Transport Planning Objectives were identified at Strategic Business Case Stage:

- TPO1 Increase Power Supply Resilience in the greater Edinburgh area
- TPO2 Improving service reliability into and around Edinburgh Waverley
- TPO3 Accommodating the forecast growth in passenger demand for commuting into Edinburgh up to 2043*
- TPO4 Accommodating the forecast growth in passenger demand for cross- border services serving Edinburgh up to 2043*
- TPO5 Accommodating the forecast growth in freight demand to/from Scottish terminals up to 2043*
- TPO6 Accommodating funder aspirations for additional/more frequent passenger services by meeting 2043 Indicative Train Service Specification * (as identified in the Scottish Route Study)
- TPO7 Robust engineering haulage provision to/from Millerhill Local Distribution Centre
- TPO8 Reducing the carbon footprint of the railway. Enabling (with other interventions on the East Coast Mainline)

Scope of works

The Strategic Business Case (SBC) set out a range of options for development to deliver the outputs and meet the Transport Planning Objectives. On 18 June 2018, Investment Decision Maker's approval was granted for development of some of the packages of work to Outline Business Case including GRIP 4 and Approval in Principle.

These options cover the following infrastructure enhancement elements:

- Delivery of a new feeder station in the Currie area
- Enhancement to the infrastructure between and including Portobello Junction and Newcraighall to support delivery to the specified train service. This includes the following options being developed at SBC for consideration
    - Doubling Portobello Junction
    - Delivery of an additional platform at Brunstane
    - Infill electrification on the Sub 1 line between Portobello and Niddrie South Junctions
    - Doubling Niddrie South Junction
    - Alterations to the Leith branch to support Portobello Junction modifications
- Installation of additional crossovers to support optimal train paths across the enhanced infrastructure
- Enhancement to the infrastructure through Millerhill to support delivery of the specified train service, and to provide a diesel or bi-mode diversionary route during works to Portobello Junction. This includes the following options also being developed following the SBC:
    - Signalled route through Millerhill to enable the movement of passenger and Empty Coaching Stock services.
    - Installation of crossovers to support optimal train paths across the enhanced infrastructure.

Interfaces and assumptions

For this stage the following project assumptions are included:

- It is assumed that the submission of the next business case will be a combined OBC/FBC and therefore the milestone has been revised to reflect this change

Growing Lothian and Borders

- Mining Remediation: it is assumed that there will be mining remediation works required and risk associated with this which may have a cost and timing impact on the programme
- Land: it is assumed that any necessary land will be secured to deliver the proposed enhancements. Network Rail is responsible for the identification and acquisition of any required land.
- Traction power: it is assumed that there are no additional traction power system enhancements required beyond the installation of Currie new feeder station and those works planned by the East Coast Power Supply Upgrade Programme.
- Network Rail will identify interdependencies with wider CP6 (Operate, Maintain & Renew) plans to drive efficiencies and take advantage of possessions and closures.

The following interfacing projects are identified:

- Portobello Feeder Station: East Coast Power Supply Upgrade Programme works to be delivered at Portobello Feeder station.
- Edinburgh Signalling Centre Control System Renewal: this signalling renewal will be delivered prior to the Growing Lothian and Borders works commencing.
- Portobello Junction signalling interlocking and line side renewals works: this renewals scope will be delivered ahead of or concurrently to the Growing Lothian and Borders works at Portobello Junction.
- Scotland East to England Connectivity: this programme is considering the long-term aspirations for the East Coast Mainline and assumes that the Growing Lothian and Borders scope (as it is understood today) is delivered.

Activities and milestones (NR)

Milestone	Description	Date	Status
Outline Business Case/ Full Business Case	**Submission of OBC/FBC (informed by GRIP 3/early GRIP4**	**July 2021**	**In progress**
GRIP 4	**Completion of GRIP 4 for all packages**	**March 2022**	**In development**

Forth Bridge Experience

Details
Project OP code: 154976
Output driver: Providing public access to the Forth Bridge
Operating route: Scotland
Date: September 2020 Sponsor: J Noble

Output driver

The overall aim of the project is to create a must-see international tourist attraction with enhanced visitor facilities and interpretation in recognition of the Forth Bridge World Heritage Status and historic significance.

Network Rail's obligation

Network Rail's obligation is to deliver the new infrastructure to provide access to the Forth Bridge

Scope of works

The extent of scope to be developed in CP6 has been agreed as follows:

A new Bridge Walk Reception Hub located to the west of the bridge piers.

A continuous safe access route to the top of the south cantilever using existing access infrastructure on the bridge and new sections will be added. Two new viewing platforms will be provided at both ends of the top of the south cantilever

Office accommodation and car parking

A new public footpath from Dalmeny railway station providing a link to the visitor experience and South Queensferry

Interfaces and assumptions

For this stage the following project assumptions have been made:

- The visitor experience will operate an advance purchase ticket booking system
- Visitors will be encouraged to travel to the experience by public transport but there will be some car parking built adjacent to the reception centre.
- This is phase 1 of a programme of work on the Forth Bridge.

Network Rail has been developing a project to build a visitor centre and accessible lift to the top of the bridge at the North End; however, this would be a separate project and be subject to the rail enhancement capital investment process.

Activities and milestones (NR)

Milestone	Description	Date	Status
Full Business Case	Submission of Full Business Case	November 2020	In progress
GRIP 6 start	Start on site	April 2021	In development

East Linton new station

Details
Project OP code: 161777
Output driver: New station
Operating route: Scotland
Date: September 2020 Sponsor C.Bhugowandeen

Output driver

The objective of this enhancement is to improve East Coast Main Line rail connectivity by constructing a new station at East Linton. This will provide greater connectivity between East Lothian and Edinburgh, between the Borders and Edinburgh to the West, and Berwick-upon-Tweed in the south providing access to leisure and work opportunities

Network Rail's obligation

Network Rail's obligation is to deliver the new infrastructure.

Scope of works

The extent of scope to be delivered in CP6 has been agreed as follows:

- 2 platforms to accommodate 6 car length trains (2 x 162 metres)
- Platform to platform access via a footbridge with lifts and steps providing step free means of access to the platforms for customers
- Minimum of one waiting shelter on each platform.
- Provision of LED lighting columns
- Seating on each platform
- CCTV coverage of the station to be linked to the ScotRail Customer Services Centre. CCTV to include one Help Point on each platform
- Provision of station signage and a Customer Information System on each
- platform
- Driver stop marker boards as required
- 126 car parking spaces including accessible bays
- Electric vehicle charging provision
- Cycle parking
- Taxi layby/drop-off point

For this stage the following project assumptions have been made:

- It is assumed Network Change will be agreed prior to work commencing on site
- It is assumed necessary land transfer to Network Rail prior to work commencing on site
- Transport Scotland are progressing the outline business case
- Transport Scotland are working with the rail industry to agree a timetable specification for the ECML, including a rail service to serve the new East Linton station

Activities and milestones (NR)

Milestone	Description	Date	Status
GRIP 6 start	Start on site	August 2021	In development

Reston new station

Details
Project OP code: 161778
Output driver: New station
Operating route: Scotland
Date: September 2020 Sponsor C.Bhugowandeen

Output driver

The overall aim of the project is to build a new station on the East Coast Main Line at Reston serving the local and wider community in the Scottish Borders. The station will improve rail connectivity with Edinburgh, Newcastle and the South of England providing access to leisure and work opportunities.

Network Rail's obligation

Network Rail's obligation is to deliver the new infrastructure.

Scope of works

The extent of scope to be delivered in CP6 has been agreed as follows:

- New roundabout and access road to the new station
- 2 platforms to accommodate 10 car length trains (2 x 271 metres)
- Platform to platform access via a footbridge with lifts and steps providing step free means of access to the platforms for customers
- Minimum of one waiting shelter on each platform.
- Provision of LED lighting columns
- Seating on each platform
- CCTV coverage of the station to be linked to the ScotRail Customer Services Centre. CCTV to include one Help Point on each platform
- Provision of station signage and a Customer Information System on each platform
- Driver stop marker boards as required
- 70 car parking spaces including accessible bays with provision to extend the car park
- Electric vehicle charging provision
- Cycle parking
- Taxi/bus layby/drop-off point

Activities and milestones (NR)

Milestone	Description	Date	Status
GRIP 6 start	Start on site	January 2021	

Additional CP6 Projects

Network Rail is progressing and developing other Ministerial commitments and once a strategic business case is made or an entry into service date is agreed they will be included within this document. E.g. a new station at Dalcross.