



Assurance for major programmes delivering complex timetable changes: Part 1

Independent Reporter (Part C) Mandate CN/031
Office of Rail Regulation and Network Rail

Final Report
27th November 2014



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1. Introduction

The ORR is seeking confidence that Network Rail's major programmes are appropriately organised, governed and resourced to successfully enable the significant timetable changes planned in CP5, principally in 2018 and 2019.

The Independent Reporter (IR) Nichols has been appointed by the ORR and Network Rail to develop a set of assurance checks, and apply these against the key CP5 programmes, through constructive challenge of Network Rail's proposed approach. The objective of the review is to give the ORR confidence that in each case, the programme's overall approach is likely to affect successful timetable change, and is appropriately geared to the complexity and lifecycle stage.

Mandate CN031 required us to undertake the review in 2 parts. Part 1 looks at the processes in place across Network Rail to enable significant timetable changes and sets out an assessment framework for Part 2. Part 2 will apply this assessment framework to a number of major programmes across Network Rail.

This report covers Part 1 of the mandate and includes:

- Our approach to undertaking the review;
- Views of the Independent Reporter, observed during the review; and
- The scope, approach and assessment framework for Part 2.

Reporter Team

Our Reporter team for this mandate were:

- Louise Pengelly, Review Team Leader for Part 1
- Stephen Jones, Review Team Director
- Paul Wiseman, named Independent Reporter (Part C)

Acknowledgements

We would like to thank to all the participants in this review from Network Rail who were flexible and accommodating in meeting our requests for information, including those representatives from the Department for Transport and Train Operating Companies.



2. Background

There are some significant timetable changes planned for CP5, many of which involve new or cascaded train fleets, combined with route-wide infrastructure upgrades. Network Rail has a critical role to play in delivering the infrastructure and operational capability to enable the new timetables to be introduced on time and to the right reliability.

Major cross industry rail programmes like WCRM, Thameslink and Great Western Electrification (GWEP) have all needed mid-programme review, re-configuration and re-baselining because the complexity of these upgrades was underestimated. In the past this has sometimes led to significant cost escalation, programme delay and reputational damage to the industry.

Subsequent to the GWEP review in late 2013 ORR has discussed with Network Rail how to gain assurance in this area, and Network Rail agreed to develop an assurance approach/proposal that would provide a starting point for an Independent Reporter review.

The ORR feel it is important that they subject Network Rail's proposals to independent expert scrutiny because the impact of any further 'GWEP-type' problems in CP5 would be significant; and the ORR need a high level of confidence that this risk is being managed.

Initial discussions between ORR and Network Rail led to Network Rail proposing a list of relevant existing assurance processes to include in the scope of the review. These were:

- Delivering work within possessions (DWWP) / engineering readiness reviews;
- Operational readiness reviews (Thameslink);
- Event Steering Groups for Timetable introduction;
- Major Project Peer reviews; and
- P3M3 capability plans.

The scope of the review was further discussed between the ORR, Network Rail and the Reporter at the Review Planning Meeting on the 2nd September 2014 where it was established that there was no overarching assurance process and hence the above list of processes could not be confirmed as being sufficient. As a way forward, it was agreed to revise the scope of Part 1 to map out Network Rail's key processes that are relevant to the delivery of major programmes resulting in complex timetable changes.



Also as the review spanned across different areas of accountability within Network Rail, it was agreed to establish a Review Steering Group to provide clarification and on-going direction.

The Steering Group have met four times during Part 1. They have provided input to the Assessment Framework and the choice of major programmes to be reviewed in Part 2.

Definitions

The Steering Group agreed to use the same definitions for programme terminology as those recently agreed between Network Rail and the ORR.

Benefits - Benefits are underpinned by outcomes in the business case owned by the Department.

Deliverables - Deliverables are what Network Rail delivers to satisfy the client requirements in terms of scope, cost and programme; e.g. infrastructure through the Thameslink core to enable 24 trains per hour by 2018.

Outcomes - Outcomes are ultimately what the rail system is contributing to but does not of itself physically deliver. It is the impact of the changes in outputs on wider measures of benefit and cost. Examples include economic growth, sustainability, and customer satisfaction.

Outputs - These are changes in the attributes of the rail system that are measurable and experienced by the rail user. Examples include train service reliability, carrying capacity (seats and standing space), journey time, the timetable, CO2 emissions.

Requirements - Requirements are the conversion of outcomes to a set of client requirements e.g. 24 trains per hour through the central core for Thameslink

Scope - These are the interventions required to change the rail system capability. There are the solution to meet the required outputs. Examples include rolling stock and infrastructure enhancements e.g. longer /more trains, four tracking, longer platforms etc.



3. Review Approach

Part 1: Review of existing processes

Part 1 of the review was undertaken from September to November 2014 and comprised a review of Network Rail's documentation of the existing key processes relevant to delivering major timetable change, in order to scope and develop an assessment framework for Part 2. We sought information and undertook interviews with representatives from across a number of Network Rail functions: Group Strategy, Infrastructure Projects and Route Operations. Thameslink and Great Western Programmes were used as the primary sources of key processes from major programmes. The objective of our inquiries was to seek to understand:

- what processes are used on Network Rail programmes and by partner organisations to deliver a major programme of work resulting in a complex timetable change;
- how the major programmes are governed and organised; and
- how Network Rail gains assurance for readiness for major timetable changes in CP5.

A high level summary of the processes that were discovered and subsequently used to populate the Assessment Framework is set out in section 4. A full list of the interviewees is included as Appendix B.

We have made a number of observations on the likely effectiveness of the process and structures which we have seen. As agreed with the Review Steering Group, we have included these preliminary observations in this report in section five. Some of the observations are issues that are known and acknowledged by Network Rail and we have not sought to validate these and assess their impact. If appropriate we will include a full review of these areas in the second part of the review and then make associated recommendations.

Part 2 – Programme Reviews

The Steering Group agreed to deliver the second part of the mandate in two further parts (albeit managed under one mandate). The list of CP5 enhancement programmes that would benefit from application of these assurance checks, (prioritised according to risks and taking account of current visibility to ORR) is as follows:



Part 2A:

- North of England (incorporating NW Electrification and TPE)
- Midland Mainline Programme
- East Coast Programme

Part 2B:

- South Western Programme
- East West Rail
- Great Western
- Southern (tbc)

The scope for Part 2 is as set out in the assessment framework (attached in Annex A). A proposal will be issued for Part 2 containing: an outline methodology, the review team, the process of audit, review, feedback, conclusions; review costs and timescales.

The methodology will include:

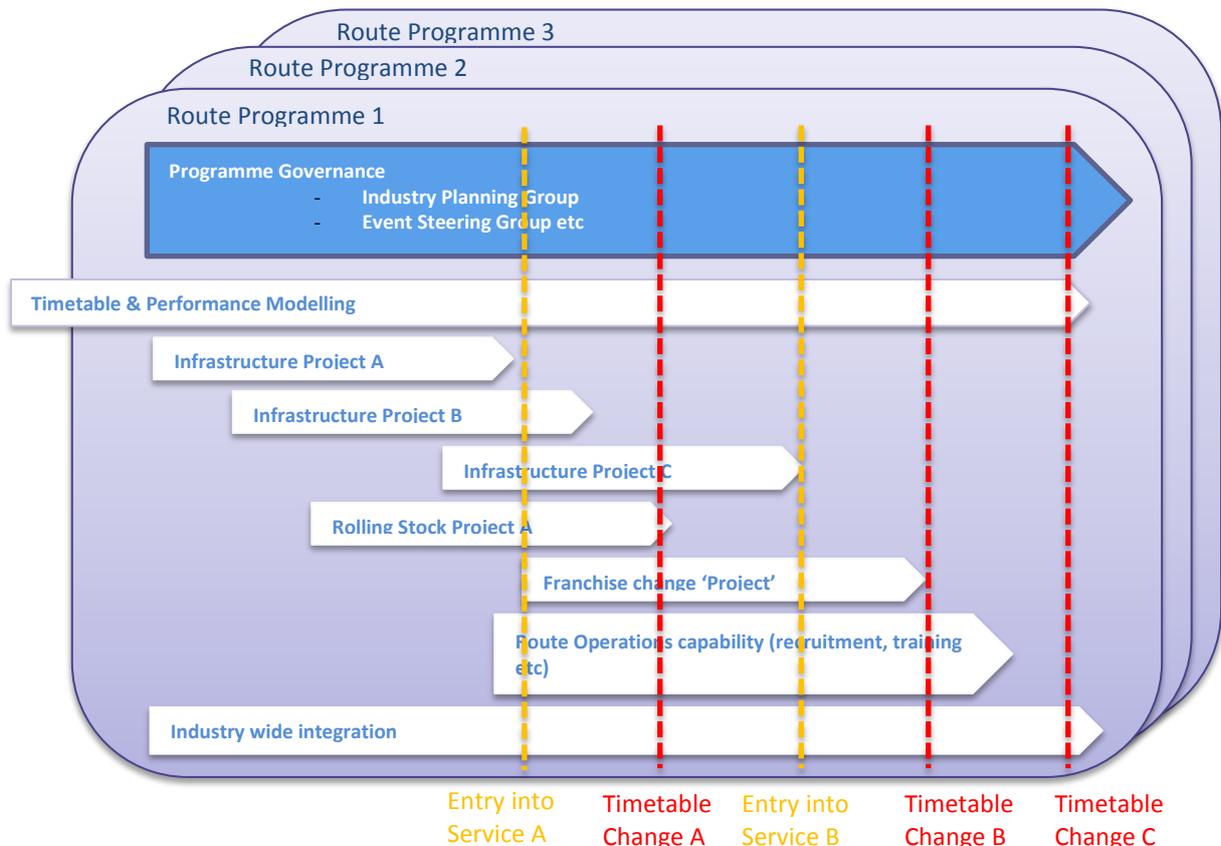
- Conducting the review of an agreed CP5 enhancement programme in accordance with the agreed assessment framework;
- Detailed review and feedback of draft findings with each programme team to ensure findings are accurate.
- Issue of a draft report for ORR/NR comment; and
- Final report issued with a summary report suitable for publication on ORR website.



4. Development of the Assessment Framework for Part 2

4.1 Programme Approach

The emerging practice at Network Rail is to deal with major timetable change as a complex system change (or series of) which requires a programme management approach. An indicative diagram of the various programme components is shown below. There can be a number of interim timetable changes throughout the programme lifecycle as new infrastructure, rolling stock and franchise changes are delivered as a series of system changes; an ‘Entry into Service’ milestone for the system change will occur in advance of a major timetable change which utilises the additional capability of the preceding system change.





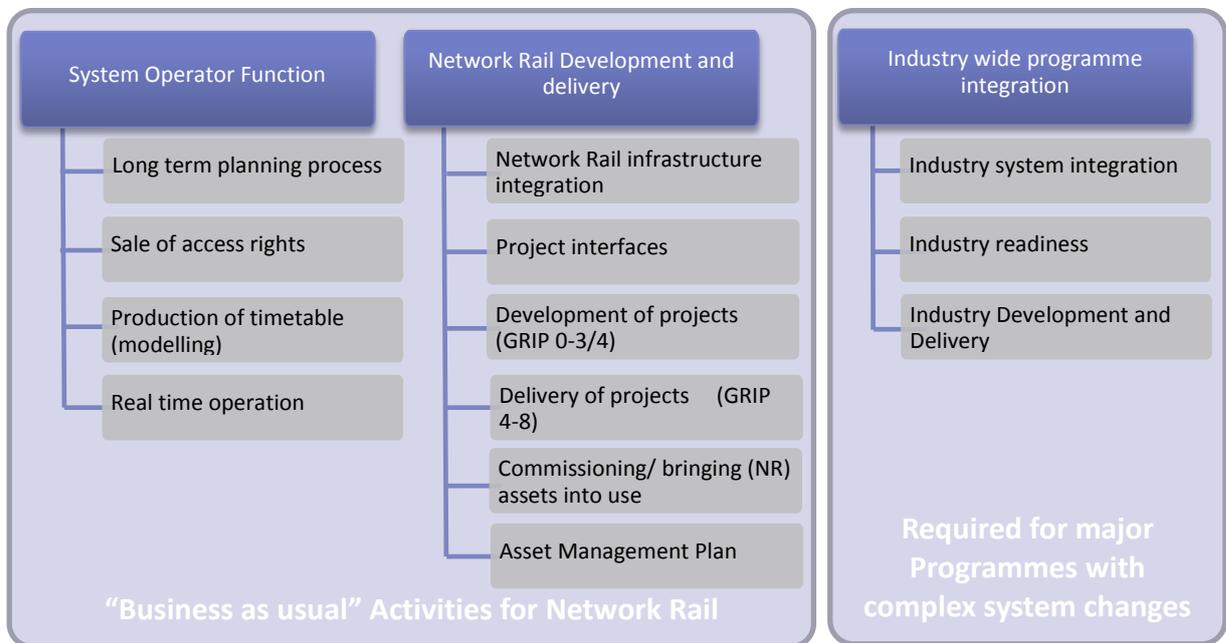
4.2 Process mapping

The key objective of the review is to provide ORR with confidence that major programmes are appropriately organised, governed and resourced to successfully enable the significant timetable changes planned in CP5. To meet this objective, we sought to understand:

- a) what processes the different parts of the organisation and partner organisations undertake to deliver a major programme of work resulting in a complex timetable change;
- b) how the major programmes are governed and organised; and
- c) how Network Rail gains assurance in readiness for major timetable changes in CP5.

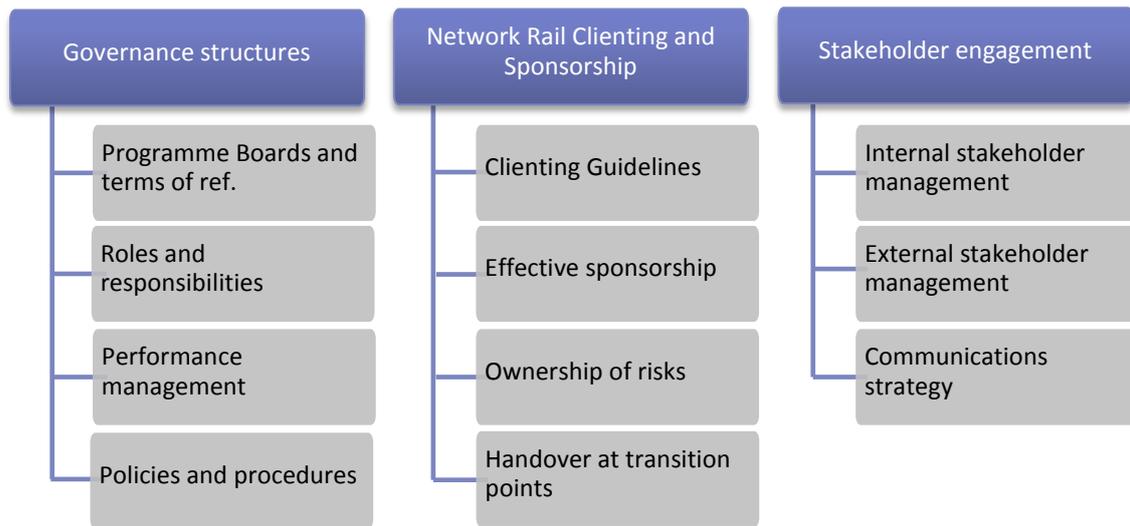
We have structured the information we received (from interviews and documentation received) under these three areas, as shown in the figures A to C below.

A. Processes undertaken to deliver a major programme of work (with complex timetable changes)

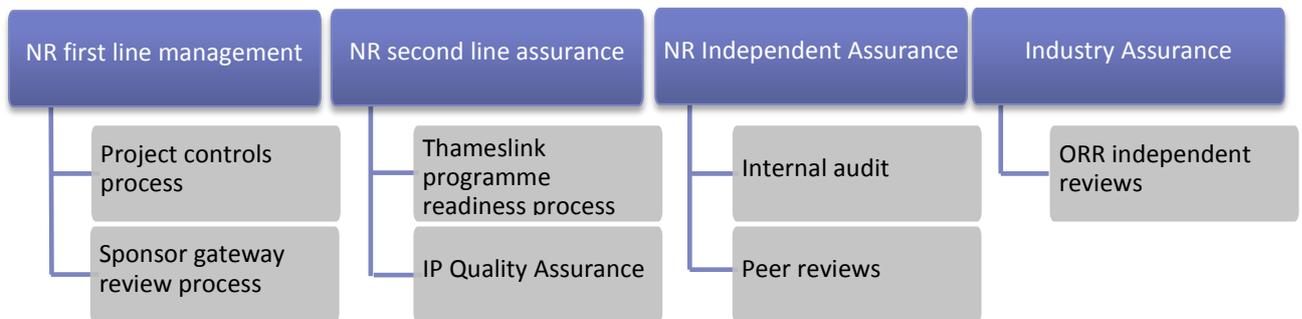




B. Major programme governance and organisation



C. Layered assurance approach



4.3 Consolidation into assessment framework for Part 2

The processes summarised above span all parts of the organisation and in some respects, could be interpreted to encompass almost everything Network Rail does. It was not the ORR’s intention to undertake a full audit of Network Rail’s organisation. Furthermore a review covering all of these aspects would be lengthy and at risk of becoming unwieldy and ineffective. Therefore, we have highlighted below,



the key areas that, from a risk based perspective the Reporter considered should be the focus for additional assurance and a comment on their applicability to Part 2 of this review.

- **Industry wide programme integration** is a key process in ensuring that all elements of the programme will come together at the right time, to successfully enable complex system and timetable changes. Without this function, the programme will have limited visibility of the status of the full programme, including rolling stock, franchise agreements, as well as the required infrastructure.
- **Network Rail programme integration.** That is, ensuring interfaces between projects are known and aligned and also identifies interfaces between Infrastructure Projects and other functions within Network Rail. This is an acknowledged gap in some areas (for example, the interfaces between the GRIP process and timetable modelling process is currently being defined by the Great Western Programme Planning and Integration team for promulgation to other programmes). This process should also include checking that timetable modelling is up to date with the latest project assumptions and that there has been an assessment of the impact on outputs (either via modelling or other means) for each configuration state.
- **Bringing assets into use.** From the examples that we have been able to identify, the process of operational readiness (that is, all the operational changes that are required to operate the changed railway system) do not appear to be very mature, with a lack of standard operating practices and assignment of responsibilities. Activities would typically include implementing any new maintenance regime, understanding any requirements of new rolling stock, training people on new ways of working, changing shift patterns to meet revised first/last train times, for example.
- **The early stages in the programme lifecycle** are key, as decisions made early on will affect the benefits realised from any investment and the efficiency of infrastructure delivery. At Network Rail this is undertaken as part of the long term planning process, incorporating the regulatory control period review process. The scope of this mandate is focused on major programmes that will be delivered in CP5. These programmes have already passed through these early stages so there would be little value in assessing the early stages for those programmes.
- Clear **governance structures**, particularly with regard to roles and responsibilities at strategic management level, and performance reporting to stakeholders. Following the 'Affordability Review' in Summer 2014, there is an ongoing discussion between the DfT, ORR and Network Rail on governance



structures and how programmes are managed. This is a known issue that is attempting to be resolved and as a consequence will not be included in the second part of this review.

For the reasons outlined above, we therefore recommend that the assessment framework for part 2 focuses on the first three of the above areas above, that is:

- industry wide programme integration
- Network Rail Programme integration (with consideration of the project interfaces back up to the programme and the modelling of different configuration states)
- Bringing new assets into use (Operational Readiness).

We would also recommend that in each case the “status” of the programme structure and governance documentation is reviewed at a very high level to give visibility as to how effectively the various programmes are organised.

An assessment framework incorporating these areas is attached in Annex A.



5. Qualitative observations from Part 1

As agreed with the Review Steering Group, detailed recommendations are not appropriate for Part 1 of the review. However, we agreed with the Steering Group to share any qualitative observations from an Independent Reporter 'fresh pair of eyes' perspective that arose during the interviews and review of documentation. Some of the observations are issues that are known and acknowledged by Network Rail. We have not sought to validate these and assess their impact. We envisage that where in scope for stage 2, we will seek to confirm our preliminary views and to assess the significance of these, before making any appropriate recommendations.

5.1 Sponsorship / Clienting

Network Rail introduced a new Clienting Framework, accompanied by Sponsorship Guidelines in December 2013. Since then, there have been a number of organisation changes that may impact on accountabilities as set out in the current guidelines. An internal audit of the Sponsorship process was carried out in January 2014 to establish whether it was fully embedded. This led to a number of actions which are currently being closed out, including some revisions to the clienting model.

It was reported to us that the Clienting Guidelines were not accompanied by a successful behavioural change programme. Our view is that a change programme is required to encourage and achieve the required behaviours and relationships for a successful sponsorship approach.

5.2 Sharing of good practice

There is no apparent 'centre of excellence/central point' to collect and share good practice. We found that within the two major programmes involved in Part 1 (Thameslink and Great Western) there are plenty of examples of emerging good practice being developed, with no apparent process, ownership or infrastructure to encapsulate, codify and make available good practice for others to adopt.



5.3 Independent readiness reviews

As reported, the Thameslink Blockade / independent readiness review process appears to be an effective method for providing assurance on the delivery of major infrastructure changes. However it is much wider than the Delivering Work Within Possessions process and only has a limited application. It is only instigated approximately four months before the event, and only at the request of individuals within either the TOC or Network Rail Programme (i.e. there is no mandated process to undertake a readiness review).

Our observation is that this process could be considered for a wider application as part of an operational readiness process to include commissioning, testing, introduction of new procedures, familiarisation, induction and training of new employees.



Annex A – Assessment framework for part 2

Part 2 of this review will use the assessment criteria below to ascertain whether a programme has adopted the good practice established on the Great Western and Thameslink programmes.

| Reference | Assessment Criteria |
|--|--|
| 1. Programme structure | |
| 1.1 | There is a defined structure of programme and project boards with clear reporting lines and delegated authority |
| 1.2 | There is an output level statement that has been agreed by both NR and DfT |
| 1.3 | A robust cost loaded schedule baseline has been agreed and is being used to manage performance |
| 1.4 | The funding baseline has been agreed by the SRO at the DfT |
| 1.5 | There is a clearly defined change control process that is being adhered to |
| 1.6 | There is a plan to implement the new DfT/NR structure that has been agreed for major programmes |
| 1.7 | Management level information is cohesive, reported on a regular basis and provides transparency of the status of the programme. |
| 2. Industry Programme Integration | |
| 2.1 | Strong Programme Level Requirements Management and design verification showing all required remits in progress: <ul style="list-style-type: none"> a) Route Programme Requirements Document completed b) Configuration States Matrix defined c) Configuration States Migration plan defined showing key deliverables leading up to each configuration state |
| 2.1 | Key integration products identified and being produced in timely manner |
| 2.3 | System Integration Management Plan (SIMP) has been defined <ul style="list-style-type: none"> a) SIMP has been verified by all appropriate stakeholders |



| Reference | Assessment Criteria |
|------------------------------|---|
| | <ul style="list-style-type: none"> b) SIMP has been approved and signed off via Governance c) Roles and responsibilities are defined d) SIMP includes details on Operational Integration (timetable development, rolling stock, depots, stabling, performance strategy) e) Defines progressive assurance process f) Defines System Engineering Strategies |
| 2.4 | <p>Integrated schedule established providing countdown to configuration changes and timetable steps</p> <ul style="list-style-type: none"> a) Schedule shows all the components, is complete b) Schedule shows key deliverables from external organisations c) Dependencies are shown d) Stakeholders have been engaged e) Accuracy and completeness has been verified/approval/sign off obtained via Governance groups f) Baseline is maintained and risk assessed g) Reporting and change control process in place h) Live schedule, variations are recorded and tracked i) Flexibility (or float) allowed for in schedule |
| 2.5 | <p>Industry level Risk, Assumptions, Issues and Dependencies (RAID) are identified and being managed</p> <ul style="list-style-type: none"> a) Appropriate content of RAID log b) Assigned owners to any actions required c) Regular review, challenge, feedback |
| 2.6 | <p>An effective Systems Integration Group is governing the work</p> <ul style="list-style-type: none"> a) Stakeholders all engaged and inputting to process b) Clear purpose and terms of reference c) Active and well supported d) Minutes taken, actions followed up |
| 3. Industry Readiness | |
| 3.1 | <p>Independent peer reviews are being undertaken to assess readiness for timetable changes</p> <ul style="list-style-type: none"> a) Readiness reviews of blockades causing weekday timetable changes b) Readiness reviews for non-blockade changes |



| Reference | Assessment Criteria |
|--|--|
| 3.2 | Joint communications strategy for major timetable events is in place |
| | <p>Non-infrastructure (TOCs/FOCs) operational capability is in place</p> <ul style="list-style-type: none"> a) New traincrew and depot manning requirements established b) Vehicle acceptance testing c) Crew and traction training has been established, planned and delivered d) Depots are fitted out/commissioned |
| 3.3 | <p>Effective Operational Readiness Group is governing the work</p> <ul style="list-style-type: none"> a) Stakeholders all engaged and inputting to process b) Clear purpose and terms of reference c) Active and well supported d) Minutes taken, actions followed up |
| 4. Network Rail programme integration | |
| 4.1 | The Capability and Capacity Assessment Framework process (see evidence reference CN31-NR041) is being followed (or there is a plan to implement and follow in the near future) ensuring that the timetabling process is aligned to the programme. |
| 4.2 | <p>Timetable assessments are undertaken for interim and final configuration states to confirm deliverability and validate that the proposed workbank, maintenance and operational methods will deliver overall train performance (ensuring modelled outputs do not give false assurance at early stages of lifecycle).</p> <ul style="list-style-type: none"> a) Modelling or timetable assessments are being used in accordance with recognised standards and good practice to provide timely assurance that the timetable is robust and planned infrastructure fit for purpose b) Effective governance and control of the modelling process c) Effective use of modelling outputs to drive confidence in infrastructure and timetable design and stakeholder confidence d) An assessment of the impact on outputs (either via modelling or other means) of the interim configuration states demonstrates the viability of interim timetables e) Interim timetables will maintain (or recover) PPM targets |
| 4.3 | The limitations of modelling are understood and the risk of any potential deviations from forecasts are defined, planned for mitigating actions have been put in place. |
| 4.4 | Interfaces/interdependencies between projects in the programme are identified, |



| Reference | Assessment Criteria |
|---|---|
| | understood and any impacts are planned for. |
| 4.5 | Interfaces/interdependencies between projects and existing assets/systems/operations are identified, understood and any impacts are planned for. |
| 4.6 | There is a plan that shows how all required critical resources for systems installation and integration activities (including specialist equipment, signal testers, linesmen etc) will be acquired, used, shared and managed. |
| 4.7 | There is a process to regularly review, identify and de-conflict resource conflicts shown in the plan |
| 4.8 | Project assumptions and key success criteria are up to date, valid and aligned to the programme |
| 4.9 | Project status, issues, changes are being reported and controlled at Programme level |
| 5. Bringing infrastructure assets into use | |
| 5.1 | Maintenance regime for new infrastructure defined, planned and implemented <ul style="list-style-type: none"> a) Delivery plan for asset performance / resilience works established and in place in timely manner prior to new TT operation b) New maintenance manning requirements established c) Maintenance resource training planned and delivered |
| 5.2 | New assets/systems are commissioned and tested prior to operational go-live, with sufficient time contingency to address any issues |
| 5.3 | NR operational capability is in place <ul style="list-style-type: none"> a) NR operations staffing requirements established b) New station manning requirements established c) Resources recruited and trained in timely manner |

Annex C – Log of documentation provided

| File Name | Description | Source | Date received |
|---|---|---------------|---------------|
| CN31-NR001 - Clienting Guidelines | NR Clienting Guidelines | Calvin Lloyd | 02-Sep-14 |
| CN31-NR002 - Sponsors' Handbook | NR Sponsors Handbook | Calvin Lloyd | 02-Sep-14 |
| CN31-NR003 - exec presentation v11 | Exec level review of: - Where are we in embedding Clienting? - What steps could be taken to improve the effectiveness of Clienting within Network Rail? - Is there any support / action from the Executive that could assist driving further improvement? | Calvin Lloyd | 08-Sep-14 |
| CN31-NR004 Jim Crawford's review of W&W | JC review to establish: What overall programme organisation structure should be adopted by NR to address the integration and delivery issues associated with the multiple programmes of work on the Great Western mainline? | Calvin Lloyd | 08-Sep-14 |
| CN31-NR005 Example Modelling Compliance Checklist | On the CN021 mandate, to support Network Rail and the ORR in implementing and verifying good practice on other similar schemes, Nichols developed a compliance checklist of good practice for modelling operational performance for major, complex rail programmes. | Stephen Jones | 08-Sep-14 |
| CN31-NR006 slide 1 | This slide shows diagrammatically the governance structure Simon has developed on the GW | Calvin Lloyd | 09-Sep-14 |
| CN31-NR007 Joined up processes v3 | Overview presentation of the 'donuts' line of sight picture | Fiona Dolman | 17-Sep-14 |

| File Name | Description | Source | Date received |
|---|---|----------------|---------------|
| CN31-NR008 GWRM Agenda and TOR Programme Board xx 05 14 _2_ | Draft Terms of reference for Western Programme Board | Simon Maple | 24-Sep-14 |
| CN31-NR009 Final North of England ESG Terms of Reference | Terms of Reference for North of England Event Steering Groups | Elaine Folwell | 26-Sep-14 |
| CN31-NR010 Updated Western & South Wales ESG Terms of Reference for September 16 meeting | Terms of Reference for Western Event Steering Groups | Elaine Folwell | 26-Sep-14 |
| CN31-NR011 Project Plan - September ESG meeting | High Level 'Project Plan' for North of England Event Steering Groups | Elaine Folwell | 26-Sep-14 |
| CN31-NR012 Draft Project Plan | High Level 'Project Plans' for Western Event Steering Groups | Elaine Folwell | 26-Sep-14 |
| CN31-NR013 Visio-Updated GWRM Governance arrangements proposal v3.6 | Western GWRM Governance Arrangements (produced within Simon Maple's team) – please note this is currently being developed and may change | Elaine Folwell | 26-Sep-14 |
| CN31-NR014 Capability and Capacity Planning Assessment Framework for Projects version Final | Capability and Capacity Planning Assessment Framework for Projects (page 20 shows the flow diagram) – please note this is also currently being developed by Western & Anglia Routes with IP alongside Capacity Planning, Capability Analysis & the Systems Analysis Teams and may change. | Elaine Folwell | 26-Sep-14 |
| CN31-NR015-Capability Analysis | Explains the role and responsibility of the capability analysis team with some examples of analysis they undertake | Clare Waller | 13-Oct-14 |
| CN31-NR016 - Long term planning to timetable change | Same as presentation from Fiona Dolman | Clare Waller | 13-Oct-14 |
| CN31-NR017 - GRIP | GRIP Policy Statement | Mike Wright | 16-Oct-14 |
| CN31-NR018 - GRIP Product Index | Detailed list, by discipline/function, of GRIP product deliverables | Mike Wright | 16-Oct-14 |
| CN31-NR019 - GRIP for Programmes | An initial draft of the Programme Lifecycle I drew on the board for you that could encapsulate everything we do from long-term planning into project development and delivery, and through to benefits realisation as we operate through our Routes. It is based on a piece of work developed by London Councils. | Mike Wright | 16-Oct-14 |
| CN31-NR020 - T02-P14-MW | Project 1 pager for the P3M3 Improvement Programme project that will deliver the Programme Lifecycle, this is an early stage development piece at present hence the limited information in the document. | Mike Wright | 16-Oct-14 |



| File Name | Description | Source | Date received |
|---|---|------------------|---------------|
| CN31-NR021 - GWRM ISI update 30.09.14 | ISI overview slides – updated dated 30.09.14 | Tim Coffey | 16-Oct-14 |
| CN31-NR022 - GWISI-PBR-PLN-ESE-000017 GW ISI System Integration Management Plan | SIMP: Systems Integration Management Plan - endorsed | Tim Coffey | 16-Oct-14 |
| CN31-NR023 - RPRD_GWRM Version 1 16.10.14 | Route Programme Requirements Document – soon to be endorsed | Tim Coffey | 16-Oct-14 |
| CN31-NR024 - Configuration States Description | Configuration States description matrix – latest periodic update, previously endorsed | Tim Coffey | 16-Oct-14 |
| CN31-NR025 - Configuration_State_1 to 5 Migration_Plan | Configuration State migration plans (x5) – latest periodic updates, previously endorsed | Tim Coffey | 16-Oct-14 |
| CN31-NR026 - RAID_Overview_report | RADIO summary graphics – latest periodic update for Plenary | Tim Coffey | 16-Oct-14 |
| CN31-NR027 - TLP Governance Doc v6.2 N000-DFT-REP-CL-000035 | Governance arrangements for Thameslink | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR028-Event Steering Group Terms of Reference N000-NRT-REP-CL-000754 | Terms of reference for Event Steering Group | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR029 - 03 - Assurance Review Panel - Chairman Panels Remit - Ver 3 | Terms of reference for the Independent Assurance Review | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR030 - Industry Plan 4 0 Baseline | System Integration map (page 15 on the Industry Plan document) | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR031 - N000-NRT-TEM-DM-000361 | Programme Readiness tracker (list of documents required prior to go-live) | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR032 - N000-NRT-PMP-EG-000127 | Readiness Assurance process map | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR033 - N000-NRT-PRO-EG-000042 | Readiness Assurance - procedure for key output | Jayne Hemmingway | 21-Oct-14 |
| CN31-NR034 - CP Timetable Planningv1.0 | Timetable planning risk bowtie | Elaine Folwell | 17-Oct-14 |
| CN31-NR035 - P3M3 ORR Presentation | P3M3 Overview Presentation given to Andrew Wallace | Mike Wright | 20-Oct-14 |
| CN31-NR036 - GWEP lessons learnt (5) | Summary of lessons learnt from GWEP review | Andrew Wallace | 23-Oct-14 |
| CN31-NR038 - P07 Plenary Pack 2014_15 | Projects in delivery "status report" to from NR to Plenary Board | Nick Layt | 31-Oct-14 |
| CN31-NR039 - NR_GN_OPS_030 | NR_GN_OP_030 is the guidance note nationally | Chris Curtis | 03-Nov-14 |
| CN31-NR040 - TCRAg NR_L2_OCS_031[1] 1409 | TCRAg NR_L2_OC_031 is the NR risk assessment standard for timetable change for local assessment. This has been very recently revised. | Chris Curtis | 03-Nov-14 |
| CN31-NR041 - TCCAFP Implementation Plan | Provides an overview of how the Timetable Capability and Capacity Assessment Framework for Projects will be implemented on future operational states on the Western | Matthew Hawkes | 06-Nov-14 |



| File Name | Description | Source | Date received |
|---|---|---------------|---------------|
| | Route. | | |
| CN31-NR042 - Definition of outcomes v0 3 (2) | Agreed definitions for programme terms incl outputs vs outcomes vs scope | Calvin Lloyd | 10-Nov-14 |
| CN31-NR043 - Plenary Meeting Agenda | Example agenda from the Plenary Meeting | Mike Hogg | 07-Nov-14 |
| CN31-NR044 - GW key outputs and dates | Schedule of dates for GW key outputs 1-5 | Mike Hogg | 07-Nov-14 |
| CN31-NR045 - 20141103 QRR action log | Minutes from Western route quarterly risk review with action to rework the risk into a general Great Western route modernisation risk, covering the failure to deliver the modernisation to time, cost and quality objectives. | Simon Maple | 17-Nov-14 |
| CN31-NR046 - Network Rail Western route risk 180292 - Western projects bowtie | Risk assessment of the failure to deliver planned works and route performance objectives, including capacity and capability metrics within time and budget of major change programme | Simon Maple | 19-Nov-14 |
| CN31-NR047 - Network Rail Western route risk 267383 - Route modernisation workbank delivering performance requirements bowtie | Delivering a railway infrastructure that may not meet railway performance requirements for Western Route. | Simon Maple | 19-Nov-14 |
| CN31-NR048 - WW_267383 Specification Remitting a railway infrastructure which may not meet the requirements for the railway | Detailed risk review of specification does not meet the requirements of the railway | Simon Maple | 19-Nov-14 |
| CN31-049 - WW Resource Access Look Ahead for Wales PRG | Shows access, resource needs and driver training in one document. With the collective items my team produce for the Wales and West programme, we bring all items together in decision making processes as to changes/additions to the programme | Paul Stanford | 14-Nov-14 |
| CN31-NR050 - 2016TT Year | sample box plan. We produce this for each year within CP5 (the attachment is for 2016 timetable year). It plots all the works planned by work deliverers, and the key critical resources they required, against Network rail's week numbers. It is typically used for very detailed planning session and may not be very relevant to outside parties. | Adeel Azam | 14-Nov-14 |
| CN31-NR051 - 2016 - Driver Training - Plan on a page (30.10.2014) | Gantt charts for 2014-2017 | Adeel Azam | 14-Nov-14 |