## Govia Thameslink Railway

## Remedial Plan

12 February 2016


## OVERVIEW

This Remedial Plan has been prepared in response to the notice issued by the Department for Transport under Section 55 of the Railways Act on 7th July 2015. The purpose of this Plan is to address GTR's contractual breach of the Schedule 7.1 benchmark for cancellations.

Since Govia submitted its bid for the TSGN franchise there has been a significant degradation in the capability of the network on routes except the Great Northern. The combined impact of the infrastructure restrictions at London Bridge, the diversion of Thameslink services and the increased use of London Victoria as a terminus has had a far greater impact on punctuality and reliability than industry modelling indicated would be the case. Analysis clearly shows that there has been a structural change in the operating characteristics of the rail network. This has affected the level of delay across the entire network and the way that reactionary delay accrues to TOC-on-Self incidents. This has had and continues to have a strong exacerbating influence on the issues that are driving cancellations.

As a consequence of this degradation in network capability urgent timetable changes were introduced during 2015 to stabilise the situation and reduce the impact on passengers.

The overall number of cancellations have increased and GTR have exceeded its threshold for TOC cancellations.

GTR's increased levels of cancellations have been caused by a combination of factors;

- lower than anticipated qualified drivers inherited from the previous franchisees
- insufficient drivers in training to meet future resource requirements at the start of the franchise
- higher than anticipated driver turnover
- inherited backlog in driver training for engineering projects and route knowledge
- unsustainable levels of rest day working also leading to significantly higher than anticipated " banked days"
- Clerkenwell tunnel flooding and the resulting hidden damage to units not immediately obvious but ultimately attributable to water ingress
- Inherited door system and traction motor failures on the class 319
- Incremental impact of unexpected levels of failures on a small number of train systems in the class 387/1 introduction

This plan addresses both driver and rolling stock issues as they have the greatest impact on reducing cancellations. The actions set out in this plan are additional to those already committed to in other performance improvement plans, e.g. the joint Performance Planning Reform Programme, to improve punctuality and reliability.

## STRUCTURE OF THIS PLAN

This plan is structured as follows;

## Section One - Analysis of the causes of cancellations

1.1 Causes to which cancellations are attributed
1.2 Factors affecting traincrew cancellations
1.3 Factors affecting fleet cancellations

Section Two - Actions to address the causes of cancellations
2.1 Brighton Mainline Performance Improvement Plan
2.2 Timetable changes
2.3 Other performance improvement actions
2.4 Reducing driver related cancellations
2.5 Reducing fleet cancellations

Section Three - Governance
3.1 Internal Governance
3.2 External Governance

Section Four - GTR's contractual commitments

Appendix A - revised Schedule 7.1 cancellations benchmark table

## Section One - Analysis of the causes of cancellations

### 1.1 Causes to which cancellations are attributed

GTR TOC On Self cancellations are mainly attributed to Traincrew and Fleet.

### 1.2 Factors affecting traincrew cancellations

1.2.1 The main factors that affect traincrew cancellations which we are able to affect:
a. $\quad 1$
b. Higher turnover and lower productivity than was anticipated
c. Training requirements that are significantly greater than forecast

Outside our control is:
d. The reduction in network capability resulting in higher levels of cancellations in reaction to any incident impacting the Southern, Thameslink and Gatwick Express services
e. Insufficient drivers in training at the start of the franchise

These factors are explained in more detail below.

### 1.2.2 Inherited Driver Establishment

${ }^{2}$ Using December 2013 diagrams this was calculated in the bid as 679 drivers for Great Northern and Thameslink. This was revised to 684 in October 2014, reflecting a slight worsening in productivity, which was identified at the commencement of the franchise.

Using information in the data room the bid anticipated a day one driver headcount of $636{ }^{3}$

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### 1.2.3 Higher turnover and lower productivity of drivers than anticipated

Achieving the required headcount expediently has been hampered by higher than expected levels of driver turnover. Using information in the data room and detailed market research the bid assumed varying levels of turnover in each year based on age profile and competitor activity. The assumption for 2015 was $3.3 \%$ and turnover is currently $5.3 \%$. This high churn has impacted on the training plan, with additional training courses implemented to maintain, rather than grow driver establishment.

Having a high proportion of newly qualified drivers and a heavy recruitment and training programme

[^0]creates an increased workload on driver instructors (themselves part of the productive driver pool) to train new recruits and on competence assessment resources.

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### 1.2.4 Training requirements that are significantly greater than forecast

There are a range of variances and additional essential training workloads that are reducing traincrew operational availability and causing cancellations.

In preparation for the Thameslink Programme LL09 stage works GTR had to put the majority of drivers through 2 days of 'virtual reality' route learning in order to continue operating the service between periods 1508 and 1510. The Trade Union (TU) insisted route learning would not be conducted by drivers working overtime, in return for accepting an unconventional method of training. ${ }^{6}$. Therefore, in the interest of minimising disruption to passengers GTR conducted the training in line with the TU conditions. ${ }^{7}$

## 8

Delays and changes to Network Rail industry programmes are also a factor, resulting in the phasing of training being outside of plan. This includes training for Balcombe bi-directional signalling, which was originally planned to be delivered late summer 2014, but was actually delivered through spring and summer 2015.

### 1.2.5 The network operating characteristics have changed, creating higher levels of cancellations in reaction to any incident on the route used by Southern, Thameslink and Gatwick Express services

- Service recovery (cancelling or part cancelling services) is necessarily more aggressive in response to a higher level of disruption to prevent disruption spreading. In general terms, service recovery is not claimable contractually for traincrew caused cancellations or delay, so on a disrupted network with other crew related issues affecting core traincrew performance, this will significantly affect contractual metrics
- Regular disruption has had a debilitating effect on frontline staff, including traincrew, which has further affected the propensity to work rest days at a time when reliance on rest day working is at very high levels

[^1]
### 1.3 Factors affecting fleet cancellations

The bid assumption was that a stable underlying fleet performance would be inherited at franchise change which we would then improve by introducing our proven maintenance and reliability practices and methods. Whereas this was the position on the Great Northern route - and we have since bid made a $6 \%$ improvement in fleet incidents, this was clearly not the position on the Thameslink route as the graph below demonstrates:


On the Thameslink network the continued rise in fleet cancellations is primarily a consequence of continued poor performance of the Class 319 units and the effects of the newly introduced Class 387 units.

Underlying fleet performance has also been improving on Great Northern but worsening on Thameslink. Excluding the Class 387/1 units the Thameslink fleet incident MAA has increased by $6 \%$ since the start of the franchise, with the worse performance exacerbated by the Class $387 / 1$. Between period 1511 to 1604 the Class 387/1 fleet was being introduced. As this new train fleet went through its introductory 'bathtub curve' period the number of fleet technical incidents increased by $25 \%$.

### 1.3.1 Class 319 Fleet Performance

In periods 1504, 1505 and 1506, immediately before the franchise handover, the Class 319 fleet performance was notably poor. This created a significant incoming workload and particularly poor underlying fleet condition.

The Pareto of Class 319 performance is as below:


The two highest failure factors are doors and traction motors and this plan focuses on these two issues.

A door system intervention was undertaken by the previous franchisee between May 2014 and September 2014. This was intended to improve the performance of the door system across the fleet. However the work resulted in a much higher failure rate and the underlying door performance worsened.


Traction motors and motor alternator sets on Class 319 units require a very high level of maintenance attention to their commutators to remain reliable. The small number of maintenance roads in Bedford coupled with the very high fleet mileages and the time consuming and intrusive
nature of the work, provided insufficient depot pitted road access for it to have been delivered effectively. Consequently the condition of the commutators on the Class 319 traction motors and motor alternators has deteriorated over recent years. This has led to electrical flashovers as a result of poor commutation resulting in significant delays and cancellations.

Due to the core gradients through London being exceptionally high, the class 319 units have severe operational restrictions imposed on them as defined in the Sectional Appendix rules issued by Network Rail and therefore recovery disruption from a traction failure is greater than on other routes where the line can be more easily cleared on reduced power.

### 1.3.2 Class 387 Fleet Performance

Although the Class 387 introduction was relatively smooth the underlying performance is worse than expected, this is the consequence of high failure rates in a very small number of train systems.

1.3.2a TPWS

The TPWS is of the latest Mk4 design as required by GE/RT8075 Issue 1 and it is the first time this has been fitted on an Electrostar unit, therefore the system has limited service experience. Hardware and software issues materialised during the fleet introduction. These problems have now been resolved

### 1.3.2b DOO

The DOO system ${ }^{9}$ configuration problems have occurred causing trains to be delayed and in some cases restricted to call at staffed stations only or cancelled. Software updates and hardware changes have improved the performance of this system.
1.3.2c AWS

[^2]A new failure mode linked to the AWS reset was identified requiring a hardware modification to the fleet.

Beyond these failure modes the underlying build quality is good with few reliability issues emerging.

### 1.4 Other factors affecting fleet performance

The heavy maintenance programme for the Thameslink fleet was inherited with no contingency remaining on the safety heavy maintenance mileages. This was in part a consequence of a critical heavy maintenance supplier at Wolverton going into receivership and causing an interruption to the delivery programme. This meant three Class 319 units going into works at once, and this, combined with quality issues resulted in a much greater impact on fleet performance than would have been the case with a smoothed programme.

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In period 1511 there was sustained and severe flooding at Clerkenwell tunnel which caused damage that was immediately obvious and could be rectified, however, there was also hidden damage that has resulted in sporadic failures that can be directly attributed to the flooding but that have occurred a period of time after the event.

Since the introduction of Electrostar operation through the Thameslink core there have been operational issues with Class 377 units using the PIBS (Platform Identification Beacon System) at St Pancras (where the beacon is set too low) and City Thameslink/Blackfriars (where the beacons are too close to each other). These issues result in delays as drivers often have to undertake an emergency door release due to the inconsistent operation of the equipment. GTR engineers have been engaging directly with the OEM, Hima-Sella and with Network Rail (both on the Thameslink programme and South East Route) to understand the problem. Data has been consistently monitored on PIBS system operation and a review of the train system functionality has being undertaken. Following several months of work we have commissioned a new software patch to be developed between Hima-Sella and Bombardier to address the problem.

[^3]
## Section Two - Actions to address the causes of cancellations

Recognising that one of the key factors that has influenced the deterioration in cancellations is the altered operating characteristic of the GTR rail network, excluding Great Northern, we have nonetheless already taken action to improve performance and have a range of further actions that we propose to take.

The relationship with Network Rail as infrastructure provider is vital and GTR led the formation of the joint Alliance with Network Rail. This has been delivered 12 months early and the Alliance Board has been developing and leading various improvement strategies since November 2014. The Board is chaired by GTR's Chief Operating Officer and Network Rail's Route Managing Director on an alternating basis.

The Board has focussed on the following areas to aid performance recovery. These are:

### 2.1 Brighton Mainline Performance Improvement Plan

The industry has recognised that Route performance must improve and that the first stage of that improvement is to stabilise performance at London Bridge station and its approach track and signalling. This was set out in an industry plan (The Brighton Mainline Improvement Plan) which was published in March 2015. This included significant work on developing performance led timetables to provide greater resilience, leading to a reduction in the number of cancellations needed to recover the services in times of disruption. As part of this plan;

- Iterative changes were made to Southern's timetable to improve its resilience, extra dispatch staff and customer service staff were deployed at London Bridge
- Network Rail renewed points at Sydenham and Keymer Junction
- Additional Remote Condition Monitoring equipment was installed on points in the London Bridge area
- Speed restrictions were removed from the Midland Mainline to improve performance of Thameslink trains
- Revised Maintenance Plan to Assist Introduction of Mobile Maintenance Unit and High Output Operation on South East Route
- A significant restriction on Network Rail's ability to maintain a reliable infrastructure was inefficient and insufficient maintenance access on the Route. GTR has engaged collaboratively with Network Rail South East Route to deliver a vastly improved access plan for 2016.
- This has involved 4,200 hours of additional planners' time at a time when the teams were already under significant pressure as a consequence of the infrastructure issues at London Bridge.
- December 2015 Timetable development for performance resilience and recoverability
- Network Rail has acknowledged that significantly more work is needed to reverse the trend of declining performance (which has accelerated since the London Bridge works) in the South East Route area and have commissioned a task force to supplement the Route management team. This task force is developing a Performance Improvement Plan that will supplement the existing Performance Planning Reform Programme and Brighton Main Line Improvement Plans, taking a fundamental view of the underpinning issues that are preventing performance improvement. GTR is actively engaged in this activity

In order to better understand that relationship between changing network characteristics and the rapid rise in delay minutes in certain attribution categories, GTR agreed a remit with Network Rail for a study into the performance trends, to isolate and identify systemic causes for this deterioration. This study enabled further action planning on delay minute reduction as well as facilitated a discussion on the level of delay that may now be endemic in this network.

### 2.2 Timetable changes

## The May 2015 Timetable

The effects of the changes made to the Brighton Line timetable on London peak arrivals of the May 2015 timetable are clearly illustrated in the graph below:


The decline in performance between period 1506, which was when the $7^{\text {th }}$ package of London Bridge works was done, through to 1511 , the period immediately following the $9^{\text {th }}$ package reversing from 1512 onwards as the time table adjustments have been made. The revised timetable delivers improved right-time performance.

### 2.2.1 The December 2015 Timetable

The timetable change in December 2015 represented the first phase in the timetable transition towards the expanded Thameslink network in 2018. Throughout the GTR franchise the timetable will
incrementally build towards this end position of new journey opportunities, enhanced capacity and upgraded infrastructure giving greater flexibility.

The December 2015 timetable focused on off-peak changes including;

- The Gatwick Express service extensions to and from Brighton which will be operated by new Class 387 trains from mid-2016. The operating characteristics of these trains are similar to those of the 377 fleet with better acceleration and braking performance than the class 442s, this will benefit performance across the route
- The frequency of trains on the mainline between East Croydon and Brighton has been rebalanced to reduce bunching of trains at critical locations, reducing reactionary delay arising from congestion
- The introduction of longer turnaround times at a number of locations to improve delay recovery and ensure the future Thameslink network is built around resilience and robustness
- Faster journey times for trains between Sussex Coast and London by altering calling patterns
- Some Thameslink and Southern routes merged to optimise route capacity and introduce some future Thameslink routes in advance of 2018.

The December 2015 timetable also addressed some of the issues which have led to deterioration in performance at London Victoria through extended turnaround times and platform re-occupation times.

### 2.2.2 The December 2016 Timetable

The December 2016 timetable will address performance on the suburban corridor to London Victoria, focusing on dwell times at suburban stations and revising critical junction margins at Clapham Junction, Streatham North, Streatham Common, Selhurst and Croydon. Industry planning lead times prevent these changes being made earlier.

### 2.3 Other performance improvement actions

Other performance improvement actions, specifically to improve TOC on Self delays and cancellations, already taken include:

- Early mobilisation of Alliance Board, this board has convened on 12 occasions with resulting Joint work streams that include Train Planning, Control and Performance
- Retention of existing headcounts in Control rather than realise efficiencies of 2 positions
- Customer benefit of manually recorded announcements, reducing sub-threshold delay and delivering better information to customers
- Specific delay minute reduction schemes at stations; i.e. East Croydon installation of vinyl on the ramps to improve customer experience, safety and minimise delay
- Restructuring of the performance team: increased analytical resource, allowing closer working with the Network Rail team and dedicated Route Performance Managers tackling local performance issues and also sharing best practice for the benefit of customers across GTR as a whole
- Full review of the regulation strategies imposed across the network, reducing reactionary spread of delay minutes
- Timetable improvement focus, specifically in Right Time Railway groups, Timetable Resilience

Improvement Programme (TRIP) and Timetable strategy/development meetings

- Improved relationships built both internally and externally with project and modelling teams to gain a better understanding of emerging risk and mitigate appropriately

An early output from the mobilisation of the Alliance Board has been the agreement to implement changes to possessions to deliver Network Rail's cyclic maintenance plans with effect from January 2016. These plans are expected to deliver a 33\% improvement in asset reliability by 2018.

Maintenance throughout the Sussex and Kent routes which will see all lines of route maintained at regular intervals of approximately 13 week cycles. By planning maintenance on a cyclic basis, Network Rail is able to predict with a high degree of certainty which routes will be disrupted by maintenance activities in advance enabling greater knowledge of asset life, failure rate and increased flexibility of asset replacement prior to failure. This improved planning approach enables information to be provided to customers earlier so that informed travel choices can be made.

Overall Network Rail will have both increased and regular time windows to complete this activity whilst passengers will see a reduction of weekend maintenance disruption arising from maintenance activities overall. The benefits expected from this approach arise from reduced asset failure and improved performance which is critical for the industry to deliver a robust and reliable timetable to multiple destinations from 2018.

GTR and Network Rail planning teams are working collaboratively to resolve issues to deliver the benefits outlined above. This approach will continue to ensure smooth delivery for timetable requirements for 2018 including 24TPH, with governance and tracking of key milestones monitored by the Board.

### 2.4 Reducing driver related cancellations

Having identified a series of issues at the start of the franchise with driver resourcing we implemented the following actions to address driver caused cancellations:

- A 3 stage Driver Resilience Programme (DRP) to ensure close management of driver resources ensuring that optimal plans exist to:
- Recruit additional drivers
- 11
- Return drivers back to productive duties as quickly as possible following sickness
- Intensely manage individual trainee driver progress versus criteria
- 12
- Effectively manage drivers back to driving following safety incidents
- 13

[^4]- Maintain appropriate driver levels and competence throughout the franchise to meet evolving establishment needs
- Brought forward the introduction of Passenger Services Directors for the Thameslink and Great Northern routes to provide strong local leadership on operational issues
- Employed an additional manager on a fixed term contract to focus exclusively on improvements in managing driver sickness
- Strengthened analytical and reporting capabilities. Expert external consultants have been engaged to develop and maintain detailed KPIs and manpower plans to support decision making
- Increased the number of Driver Managers and taken action to provide greater support to them and improve their focus on current issues. ${ }^{14}$
- Retained 24/7 Traincrew Depot Resource Managers in each depot, resulting in ${ }^{15}$ extra heads

Issues that are within our control that are causing driver cancellations are being addressed by a further phase of the Driver Resilience Programme (DRP). This phase of the DRP addresses driver resourcing and management over the life of the franchise. Key features of the DRP are:

- 16
- Recruitment and training of sufficient drivers to meet actual business requirements. ${ }^{17}$
- Recruitment of 9 additional driver trainers
- 18
- Outsourced classroom based driver training at an additional cost of ${ }^{19}$
- Improved management presence, processes and action plans to improve the productivity of drivers
- 20
- Introduced appropriate governance to ensure that the plan and the required outcomes

[^5]are delivered
These actions have enabled us to develop and implement a resource plan for 2015-2018.

### 2.5 Improving Fleet Performance

The primary causes of fleet cancellations are being addressed through the following focussed action plan;

### 2.5.1 Class 319 Performance Doors

- Worst offending units have been identified
- 12 units selected for baselining of door systems
- Each unit taken out of service for a week to resolve issues
- Approach was rolled out across the worst performing units on the fleet with RDS, whose original modification is believed to have caused the issue


### 2.5.2 Traction Motors and Motor Alternators

- Commutator profiling programme to understand condition of all units
- Commutators ground/machined to recondition where necessary or where beyond rectification renewed
- 40 high priority components identified so far


### 2.5.3 Class 387/1 Performance

Despite the AWS/TPWS and DOO issues identified during fleet introduction which have significantly increased the number of incidents, the underlying reliability of the Class 387/1 fleet is strong and is improving.

During the similar recent introduction of the Class 377/6 and Class 377/7 units the MTIN MAA rose from 5,000 to 16,500 over 13 periods with the fleet now regularly exceeding 20,000 miles per technical incident.

GTR will continue to use the terms within the Manufacture and Supply Agreement with Bombardier to ensure that the required reliability growth is achieved in order to support the performance of the Thameslink route. This is supported by weekly conference calls including senior managers and engineers from Bombardier (the manufacturer), GTR (the operator) and Porterbrook (the financier). This has already resulted in a number of hardware and software modifications being implemented on the DOO and AWS/TPWS systems.

### 2.5.4 Heavy Maintenance Delivery

In order to improve the quality and on time delivery of units returning from off-site heavy maintenance GTR has contracted an experienced third party to manage the interface between the various organisations and ensure that the required targets are met and improvements made.

### 2.5.5 Bedford Depot

In order to stabilise the situation at Bedford Depot the technical and performance teams have been restructured to provide dedicated/specialist engineers to support and develop the maintenance teams, with effect from the combined effective date. Specifically:

- Fleet Engineer - a dedicated Senior Engineer responsible for specific fleets, with extensive knowledge of the fleets, their evolution and failure modes
- Performance Support Engineers - located at all maintenance locations. These staff are dedicated to fleet performance improvement and analysis of trends. They also provide coaching to depot staff in fault findings techniques and root cause analysis
- Asset Support Engineers - providing specialist class specific engineering support
- Engineering Services Support Manager - new team with specialist engineers focussed on systems, new technology, overhaul, material issues, and remote condition monitoring systems to support all fleets
- New Training Structure - to develop skill set of Bedford based employees in line with skills gained at Southern and with an increased Training Management team to deliver improved course content

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### 2.5.6 Class 377/2 and Class 377/5 Performance

Since inheriting the fleet GTR has been working to identify what is necessary to improve the performance to comparable levels and work has begun to implement a number of modifications. The works includes:

- Overhaul and modification of the DOO and CCTV system to improve reliability
- Modification of Cab Out of Service Locks to reduce spurious interlock issues
- Introduction of in-line filters on Cab Heating, Ventilation and Air Conditioning (HVAC) to reduce failures and thus cancellations
- Replacement of Cab Audio Communications Unit (CACU) handsets with a more robust model to reduce failures and thus cancellations
- Overhaul of Line Inductors which have deteriorated with age causing insulation to fail and flashovers to occur
- Implementation of improved train software to resolve PIBS issues in the core

Long term, we will improve the reliability of this fleet by bringing working practices into line with those in our Southern depots, which have significantly better MTIN results.

[^6]
## Section Three - Governance

### 3.1 Internal Governance

Over the 26 month period the Remedial Plan will be integrated as a key area of focus for the GTR operational business activity and will be embedded as part of our strategic focus to improve performance. We will ensure that the governance in respect of the delivery, review, monitoring and reporting of this plan is at the heart of the business and aligned across all the key / relevant activity areas.

### 3.1.1 GTR Board Oversight

GTR will report 4 weekly to its owners Go-Ahead and Keolis on progress in delivering the plan.

### 3.1.2 GTR Executive Reporting

At the strategic level of our organisation we will ensure that the Remedial Plan is a regular Agenda item supported by RAG status reports highlighting progress against the key planned delivery objectives and any emerging risks to the achievement of the plan. Our Chief Operating Officer will chair the Remedial Plan Delivery Group. It comprises the key work stream leads from each of the business activity areas identified with responsibility for delivering the plan. The Group will be supported by a clear and explicit Terms of Reference highlighting the aims and objectives of the Group, Attendees, Frequency of Meetings, Agenda requirements etc. The Group will have an agreed authority for decisions and recommendations and the power to eliminate obstacles to progress. The Delivery Group will be responsible for signing off each of the Project Plans produced to support the overarching delivery of the Remedial Plan in addition to signing off each key deliverables in respect of the plans. The Delivery Group will have a co-ordinator who will ensure that all updated plans and respective update reports are made available for meetings and meetings are scheduled. The Remedial Plan co-coordinator will produce the summary reports for the Remedial Plan Delivery Group. The Remedial Plan Delivery Group meeting will be attended by a member of the GTR Franchise Management Team who will be responsible for ensuring regularity and compliance with the overall Remedial Plan Requirements.

### 3.2 External Governance

Delivery of the Remedial Plan actions and performance against the Remedial Plan Benchmarks, in Appendix A of the plan, will be a standing item on the Agenda of the monthly performance meeting and progress against delivery of the plan will be included in the monthly performance report in a form to be agreed. Escalation of issues will be to the monthly franchise meeting in the first instance.

## Section Four - GTR's contractual commitments

GTR has already implemented a range of measures to mitigate and address the issues highlighted in this plan, with considerable cost already incurred and further committed.

The table below summarises the commitments which are contractualised within the Deed of Amendment

|  | Commitment | Completion |
| :---: | :---: | :---: |
| 1. | 22 | Quarterly checkpoints to September 2017 |
| 2. | Maintain ${ }^{23}$ trainee drivers | September 2017 |
| 3. | Maintain no less than 70 driver managers | September 2017 |
| 4. | Maintain no less than 40 driver resource managers | September 2017 |
| 5. | Appoint a Business Excellence Improvement Manager | September 2017 |
| 6. | Appoint a Head of Operational Resourcing | September 2017 |
| 7. | Appoint a Resource Training and Risk Manager | September 2017 |
| 8. | ${ }^{24}$ on class 319 door and traction systems | March 2016 |
| 9. | ${ }^{25}$ on class $377 / 2$ and $377 / 5$ modifications | September 2017 |
| 10. | Appoint a customer experience management team at Three Bridges ROC | End of franchise |
| 11. | Modify the 'your journey' section of the Southern and Gatwick Express websites to improve advance notification of engineering works | March 2016 |
| 12. | Upgrade the customer information system servers on the Great Northern and Thameslink routes | March 2016 |

[^7]Appendix A - revised Appendix 1 to Schedule 7.1 cancellations benchmark table

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Franchisee Year / Reporting Period |  | Dft Year / Reporting Period |  | Breach Performance Level (\%) | Default Performance Level (\%) |
|  | Period 11 |  | Period 5 | 2.40 | 2.70 |
|  | Period 12 |  | Period 6 | 2.40 | 2.71 |
|  | Period 13 |  | Period 7 | 2.41 | 2.71 |
| Year 3 | Period 1 |  | Period 8 | 2.40 | 2.73 |
|  | Period 2 |  | Period 9 | 2.41 | 2.73 |
|  | Period 3 |  | Period 10 | 2.42 | 2.73 |
|  | Period 4 |  | Period 11 | 2.42 | 2.75 |
|  | Period 5 |  | Period 12 | 2.42 | 2.75 |
|  | Period 6 |  | Period 13 | 2.42 | 2.75 |
|  | Period 7 | Year 3 | Period 1 | 2.39 | 2.69 |
|  | Period 8 |  | Period 2 | 2.36 | 2.65 |
|  | Period 9 |  | Period 3 | 2.33 | 2.62 |
|  | Period 10 |  | Period 4 | 2.27 | 2.59 |
|  | Period 11 |  | Period 5 | 2.24 | 2.53 |
|  | Period 12 |  | Period 6 | 2.21 | 2.49 |
|  | Period 13 |  | Period 7 | 2.18 | 2.46 |
| Year 4 | Period 1 |  | Period 8 | 2.13 | 2.40 |
|  | Period 2 |  | Period 9 | 2.10 | 2.37 |
|  | Period 3 |  | Period 10 | 2.05 | 2.31 |
|  | Period 4 |  | Period 11 | 1.99 | 2.26 |
|  | Period 5 |  | Period 12 | 1.94 | 2.20 |
|  | Period 6 |  | Period 13 | 1.89 | 2.12 |
|  | Period 7 | Year 4 | Period 1 | 1.81 | 2.06 |
|  | Period 8 |  | Period 2 | 1.75 | 1.97 |
|  | Period 9 |  | Period 3 | 1.70 | 1.91 |
|  | Period 10 |  | Period 4 | 1.62 | 1.84 |
|  | Period 11 |  | Period 5 | 1.55 | 1.77 |
|  | Period 12 |  | Period 6 | 1.50 | 1.70 |
|  | Period 13 |  | Period 7 | 1.44 | 1.64 |
| Year 5 | Period 1 |  | Period 8 | 1.39 | 1.57 |
|  | Period 2 |  | Period 9 | 1.31 | 1.48 |
|  | Period 3 |  | Period 10 | 1.27 | 1.44 |
|  | Period 4 |  | Period 11 | 1.23 | 1.39 |
|  | Period 5 |  | Period 12 | 1.16 | 1.32 |
|  | Period 6 |  | Period 13 | 1.12 | 1.27 |


[^0]:    ${ }^{1}$ Where text has been omitted from the document this is because the Director General Rail or Secretary of State has decided to exclude the text in accordance with the provisions within the Freedom of Information Act 2000.
    ${ }^{2}$ Where text has been omitted from the document this is because the Director General Rail or Secretary of State has decided to exclude the text in accordance with the provisions within the Freedom of Information Act 2000.
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[^6]:    ${ }^{21}$ Where text has been omitted from the document this is because the Director General Rail or Secretary of State has decided to exclude the text in accordance with the provisions within the Freedom of Information Act 2000.

[^7]:    ${ }^{22}$ Where text has been omitted from the document this is because the Director General Rail or Secretary of State has decided to exclude the text in accordance with the provisions within the Freedom of Information Act 2000.
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