



TRAFNIDIAETH  
CYMRU  
TRANSPORT  
FOR WALES

---

## Wales and Borders Rail Service and South Wales Metro

Invitation to Submit Final Tender

Volume 3: Train Services Requirements

Issue Date 30 November 2017

---

|                 |                  |
|-----------------|------------------|
| Audience        | Bidders          |
| Confidentiality | CONFIDENTIAL     |
| Version         | Conformed        |
| Date            | 30 November 2017 |

## Contents

|     |  |    |
|-----|--|----|
| 1.  | INTRODUCTION   | 1  |
| 2.  | TIMETABLES   | 2  |
| 3.  | DIAGRAMS   | 7  |
| 4.  | MANAGEMENT OF CROWDING   | 9  |
| 5.  | SPECIAL EVENTS   | 11 |
| 6.  | APPENDIX 3.A - PRIORITY SERVICE IMPROVEMENTS                         | 13 |
| 7.  | APPENDIX 3.B - DFT PLANNING GUIDANCE                                 | 18 |
| 8.  | APPENDIX 3.C - ROLLING STOCK   | 23 |
| 9.  | APPENDIX 3.D - TRAIN SERVICE REQUIREMENTS (TSR1)                     | 25 |
| 10. | APPENDIX 3.E - TRAIN SERVICE REQUIREMENTS (TSR2)                     | 26 |
| 11. | APPENDIX 3.F - THIRD PARTY-FUNDED INFRASTRUCTURE ENHANCEMENT SCHEMES | 27 |

---

## I. Introduction

- I.1 The passenger experience is at the heart of any rail service. It is vital, therefore, that the ODP not only meets current market needs, but also responds to and stimulates passenger growth during the ODP Grant Agreement Term.
- I.2 The current Rail Service has seen significant growth in passenger numbers since it began in October 2003, rising from 19.8 million in 2004/05 to 31.5 million in 2015/16. Many services are now experiencing crowding levels that the Authority wishes to address in a manner that also provides for future growth.
- I.3 The Authority has responded to recent growth in demand for rail services by funding additional services and rolling stock. Recent enhancements include:
- a) The North South Wales Journey Frequency Enhancement Project;
  - b) Installation of a passing loop at Tir-Phil;
  - c) Additional bay platforms at Caerphilly and Pontypridd; and
  - d) Dual tracking at Gowerton.
- I.4 Similarly, the Cardiff Area Signalling Renewal Project and the Halton Curve project bring new opportunities for improvements.
- I.5 Details of relevant third party-funded infrastructure enhancement schemes are set out in Appendix 3.F of this Volume 3.
- I.6 As a minimum, the Authority requires robust and deliverable Rail Services that meet the Authority's minimum requirements, as set out in the following appendices of this Volume 3:
- a) **Appendix 3.D:** Train Service Requirement 1<sup>1</sup>, to be met from December 2018<sup>2</sup>; and
  - b) **Appendix 3.E:** Train Service Requirement 2, to be met by December 2023.
- I.7 Your proposed Rail Service must take due account of the travel needs of passengers and communities across all of the Routes, including towns, cities and counties in England. It should also take the needs of tourists into account by accommodating seasonal demand at tourist destinations (the current Rail Service does not always achieve this, especially on Sundays and Bank Holidays).
- I.8 In addition to meeting the Authority's minimum requirements, the Authority expects you to deliver significant improvements to the current Rail Service. The Authority encourages you to consider ways of using the infrastructure

---

<sup>1</sup> TSR 1 has been specified to largely reflect the May 2017 timetable. However, there are some minor variances, including re-instatement of some reductions to off-peak Cardiff Valleys services that were instigated by Welsh Government to facilitate peak capacity strengthening and restoration of a 7<sup>th</sup> daily service to/from Fishguard Harbour. Also, a new hourly service between Chester and Liverpool Lime Street via Halton Curve has been added.

<sup>2</sup> Requirements for a Newport-Ebbw Vale service are to be met from May 2021.

improvements outlined in paragraph 1.3 of this Volume 3 to deliver improvements. The Authority is looking for innovation in your Responses that demonstrate how you plan to make best use of recent investments. The Authority expects your improvements will be largely funded by efficiency and revenue enhancements.

---

## 2. Timetables

### Timetable Proposals

- 2.1 The Authority wishes to see improvements across all of the Routes, including, where possible, timetable proposals that meet the Authority's specific requirements as described in Appendix 3.A of this Volume 3.
- 2.2 The Department for Transport (DfT) has confirmed that it will support the Rail Service proposals on cross-border (England-Wales) routes or wholly within England listed in Appendix 3.B of this Volume 3. Proposals that include additions to the geographic scope of the Rail Services that have not been approved by the Authority will be treated as non-compliant.
- 2.3 In preparing your proposals, you should also observe the DfT's guidelines for assumptions with regard to cross-border train services of other Train Operators as set out in Appendix 3.B of this Volume 3. The Authority acknowledges that you may wish to assume adjustments to the timing of other Train Operators' services in developing their timetable proposals. You may adjust the timing of other Train Operators' passenger services by a maximum of +/- 5 minutes. You may adjust Train Operators' freight service paths by a greater amount but you must indicate where you have done this and provide a rationale for doing so. Any such adjustments should not result in other Train Operators incurring additional cost and/or adversely affect the feasibility of operating their timetables (e.g. turnarounds should remain compliant with the Timetable Planning Rules as set out in the Network Statement published by Network Rail (TPRs) and additional resources should not be required).
- 2.4 The Authority seeks assurance that your timetable proposals are robust and will be deliverable within the planned timescales. Whilst the Authority recognises that the degree of certainty around operating conditions and timetable planning constraints will diminish for successive years of the ODP Grant Agreement, the Authority expects you to ensure that your proposals are as robust as possible, given the information currently available. Unless you can provide reasonable justification otherwise, the Authority expects you to prepare your timetable proposals based on the prevailing TPRs and assume other Train Operators' services based on the May 2017 timetable (and in accordance with the DfT Planning Guidance set out in Appendix 3.B of this Volume 3). Your Response to Question R3.3 should include evidence that:
  - a) Any required additional paths can be secured and your timetable proposals can be implemented by the planned date, taking account of capacity allocation processes and timescales and the TPRs;
  - b) You have determined that the working of your planned Rail Services can be accommodated together with other Train Operators' services within

Stations, including the hub Stations of Cardiff Central, Cardiff Queen Street and Newport; and

- c) You have validated your timetable proposals against the prevailing TPRs such as the use of timetable planning tools calibrated with the TPRs, or have provided sufficient evidence to justify your assumptions of future changes that would require revisions to the TPRs.
- 2.5 The Authority has issued to you a "New Routes and Services Summary Report" which is based on the final report of Network Rail's Capability and Capacity Analysis (CACA) team on your new route and material new service proposals and the subsequent feedback provided by you to the Authority on this report. You may include, within your ITSFT submission, any timetable proposals for new routes and train services that have been assigned a green, yellow or orange colour-code rating in the New Routes and Services summary report as issued by the Authority. You are not permitted to include within your Final Tender any timetable proposals that have been assigned a red rating.
- 2.6 Proposals that have been assigned a yellow rating are considered to be workable subject to only minor amendments or clarifications. The Authority wishes to emphasise that you should not expect the deliverability score of your timetables to be adversely affected by virtue of a yellow rating. However, the Authority requires you to set out in your submission how you will address any comments raised by Network Rail's CACA team in your plans for implementation.
- 2.7 Proposals that have been assigned an orange rating are considered to be potentially workable subject to specified concerns being addressed. In order to provide the Authority with confidence of deliverability, you should demonstrate in your submission how you will address the specific concerns as identified by the CACA team.
- 2.8 The "New Routes and Services Summary Report" has been prepared in respect of your proposals for new routes (i.e. not specified within the applicable TSR) or material service changes involving significant increases above the level of service specified in the applicable TSR. You may also propose other service changes where these do not relate to new routes or material service changes as defined above. However, all of your proposals for service changes will be evaluated in accordance with this section 2 of Volume 3.
- 2.9 The Authority will expect (if you are successful) to contractualise your timetable proposals as a Train Service Requirement (TSR) for the duration of the ODP Grant Agreement Term. This will be set out in Appendix I of Schedule I.1 to the ODP Grant Agreement. You should include with your submission, mark-ups of the relevant TSRs (TSR 1 and TSR 2 as appended to this document) to show the level of service you are proposing for each Timetable Planning Year (i.e. the period between the timetable change dates in December of each calendar year) within the ODP Grant Agreement Term. This should include completion of the maximum journey time details within the tables provided. You should include specification of maximum journey time

details for any new routes that you propose to operate. Where your timetable proposals apply for more than one Timetable Planning Year, you may submit one file but you should make it clear which Timetable Planning Years it will apply to in your Response to R3.1 (part H. marked up TSR files applying to more than one Timetable Planning Year).

**R3.1** Summarise your major proposed timetable changes, in particular the proposed train service patterns for the December 2019 timetable, the December 2023 timetable, and any other significant timetable changes proposed. This should include:

- a. A description of proposed train service frequency and calling patterns in respect of major changes, including the date of introduction;
- b. A list of any priority service improvements that will be delivered and their effective dates for implementation (as defined in Appendix 3.A of this Volume 3);
- c. Any new Stations to be introduced;
- d. A summary of the resource requirements in terms of rolling stock and train crew to support your enhanced timetable proposals;
- e. A summary description of any changes of rolling stock type on any train services insofar as they affect your timetable proposals (noting that the substantive rolling stock submission is described in Volume 6; and
- f. Completion of the [redacted]<sup>3</sup>.
- g. Marked up copies of the relevant TSRs (TSR 1 and TSR 2 as appended to this document) to show the level of service you are proposing for each Timetable Planning Year within the ODP Grant Agreement Term, including the maximum journey times for each train service using the tables provided.

**R3.2** Confirm that:

- a. Your proposed improved timetables meet the relevant TSRs as described in paragraph 1.6 of this Volume 3, for the relevant Timetable Planning Years;
- b. Your proposals for new routes and material train service changes have been dialogued with the Authority and assessed by Network Rail and DfT and have been approved for submission by the Authority;
- c. Your train service proposals include provision for meeting the catering requirements specified in TSR1 and TSR2 respectively; and
- d. Your rolling stock proposed is sufficient to deliver your timetables to the required performance levels by reference to your Responses to Questions R3.7 and R3.8.

2.10 In evaluating R3.3 below, the Authority will consider any assumptions regarding external dependencies: Network Rail, ORR, other Train Operators and DfT. If you assume you can overcome objections for new routes, the Authority will assess how reasonable your assumptions are. Any assumptions about external dependencies which are unreasonable may reduce your score. You may provide a supporting Excel spread sheet to accompany your Response to R3.3 containing detail on flexing to other operators by each timetable change.

**R3.3** Provide evidence to demonstrate the deliverability of your timetable proposals, including:

- a. Where you have applied new or revised sectional running times and/or minimum station dwell times in your timetable proposals, a description of how you have ensured that:
  - the relevant rolling stock can meet the sectional running times and/or station dwell times used; and
  - any changes to the method of door control or train dispatch have been taken into account.

Your Response should include evidence of any methods used to validate the revised sectional running /station dwell times.

- b. A description of how you have ensured that either timetable proposals are compliant with the latest TPRs in terms of headway, junction margins, timing allowances, and station rules including dwell times, platform reoccupation and minimum turnrounds, or have provided sufficient evidence to justify your assumptions of future changes.
- c. A description of any flexing of other Train Operators' passenger or freight services and confirmation that this complies with the requirements set out in paragraph 2.3 above;
- d. A description of any infrastructure changes you have assumed to support your timetable proposals, including evidence that these proposals are deliverable and affordable within the Authority's overall budget constraints. For infrastructure changes that are dependent on third party funding, only the schemes listed in Appendix 3.F of this Volume 3 will be considered by the Authority as deliverable with high confidence. You may cross-refer to your CVL Concept Design for CVL infrastructure improvements as appropriate;
- e. For any new routes or train services which have been assessed as "yellow" or "orange" by the Authority, demonstrate how you have assured the deliverability of these services or routes including providing details of changes or mitigations that you have made to ensure that the concerns raised have been addressed.

**R3.4** Provide evidence that your timetable proposals can be accommodated at the major hub Stations of Cardiff Central, Cardiff Queen Street and Newport by providing a platform occupancy chart, including the train services of other

Train Operators, for each of these Stations for the December 2023 Weekdays (SX) timetable.

Describe the mode of dispatch you have assumed for CVL and WCB rail services throughout the term of the ODP Grant Agreement. Where applicable, set out the expected high level costs, benefits and risks of moving to different modes of dispatch in CVL and WCB, and a proposed approach to achieve any changes.

### Generalised Journey Time

- 2.11 The Authority has adopted a quantified approach to timetable evaluation. A good submission will seek to maximise the Generalised Journey Time (“GJT”) benefit by providing faster and more frequent train services with better connections, as well as implementing as many of the Authority’s service priorities as possible to receive a GJT bonus. The Authority has produced a [redacted] which scores your proposed timetable using GJT outputs from the AW03 version of MOIRA. You should use the settings set out in the accompanying user instructions within the [redacted].
- 2.12 The GJT evaluation is for both the CVL Rail Services and the WCB Services – there is no differentiation between GJT benefits in either.
- 2.13 You should indicate which of the Authority priorities for service improvements (as described in Appendix 3.A of this Volume 3) are included in your proposed train services, both in the summary description in accordance with R3.1 above and in the [redacted] in accordance with R3.6 below. The Authority will verify whether the eligibility criteria have been met before awarding a bonus to your final score for the priority being met. Note, that it is possible for a single train service to qualify for more than one bonus if it satisfies all the required criteria.
- R3.5** Provide timetables in \*.spg format for the following and summarise each in the table provided in the response template for every Timetable Planning Year within the ODP Grant Agreement Term:
- a. Weekdays (SX) timetable;
  - b. Saturdays (SO) timetable;
  - c. Sundays (SuO) timetable; and
  - d. Additional timetables (SX, SO, SuO) for seasonal or other timetables if you are proposing these.
- 2.14 Use the filename convention: Dec20xxSX.spg, Dec20xxSO.spg, Dec20xxSuO.spg for December in year 20xx and appropriate variations for other months and years.
- 2.15 You must submit a December timetable for every Timetable Planning Year. If there is no change in your timetable between the Timetable Planning Years you should submit duplicate files for subsequent Timetable Planning Years using unique filenames in the required format. You should make it clear which Timetable Planning Years are duplicates in your Response to R3.5 (in column headed ‘Duplicate timetable files’).



- 2.16 Each timetable submitted should retain the train services of other Train Operators as specified in the May 2017 timetable. The timing of these train services should not be altered other than as permitted under the terms set out in paragraph 2.3 of this Volume 3.
- 2.17 Any new Stations (with the exception of Bow Street, for which train service requirements are included in TSR 1 and TSR 2) proposed should not be included in the timetables submitted in response to Question R3.5. Scores derived from the [redacted] should exclude the impacts of new Stations on journey time. However, for the avoidance of doubt, any assumptions and additional resources required to accommodate the new Stations should be identified in your Response to Question R3.1 and included in the resources identified in the ITSFT Volume 12 Financial Model Templates.
- 2.18 The Authority recognises that the specification of the December 2017, May 2018 and December 2018 timetables fall beyond the control of bidders. Therefore, these timetables should be excluded from the benefit calculation undertaken in the [redacted]. This should be achieved by uploading the May 2017 base timetable as one of the TT inputs (for Weekday, Saturday and Sunday) in the 'I; TT Inputs' sheet and using these timetables as the selected timetables in the 'I; Control' sheet for Winter 2018, Summer 2018 and Winter 2019. As a result, the GJT benefits attributed to these timetables should be zero.
- R3.6** Submit a completed version of the [redacted] setting out how you propose to run your train services for each Timetable Planning Year within the ODP Grant Agreement Term, where timetable inputs are consistent with those submitted in your Response to Question R3.5.

---

### 3. Diagrams

- 3.1 In addition to the details of the timetables to be run, the Authority requires assurance that the rolling stock described in Volume 6 will be adequate to:
- a) Enable your proposed timetables to be operated reliably; and
  - b) Provide sufficient capacity to meet the expected level of demand.
- 3.2 In assessing how well your rolling stock proposals meet these requirements, the Authority will take into account your evidence presented, including, but not limited to, information on:
- a) the availability of each rolling stock type (ratio of planned diagrams to number of units in the Train Fleet);
  - b) the expected reliability of each rolling stock type;
  - c) the flexibility of the Train Fleet in terms of the interchangeability of rolling stock between diagrams;
  - d) the interoperability of the Train Fleet in terms of the ability of each rolling stock type to couple to other rolling stock types within the Train Fleet and the range of Routes for which each rolling stock type will be operationally compatible; and

- e) the capacity and configuration of rolling stock deployed on each Route.
- 3.3 The Authority expects the ODP to commit to a Train Plan in accordance with paragraph 10 of Schedule 1.1. to the ODP Grant Agreement that will warrant:
- a) A defined level of capacity for each train service; and
  - b) That rolling stock will meet the minimum requirements defined for the Service Code on which it is deployed in accordance with Appendix 3.C of this Volume 3.
- R3.7** Describe how you will ensure sufficient availability and flexibility of your rolling stock to deliver a reliable timetable. Support your Response with details of how you propose to allocate rolling stock to the train services set out in your timetables, including:
- a. Key assumptions you have made, including the planned level of availability of each train type within your Train Fleet;
  - b. Any proposals for splitting and joining units in service; and
  - c. Flexibility within your Train Fleet for interchangeability of rolling stock types between diagrams.
- You may cross reference your Response to R3.7 to your Response to question R6.10.
- R3.8** Provide the rolling stock diagrams for your December 2019 and December 2023 Weekday timetables and any other major timetable revisions. As a minimum, these should contain the following details for each diagram:
- a. Unique reference code descriptor;
  - b. Rolling stock unit type;
  - c. For each train service operated:
  - d. Headcode or descriptor;
  - e. First Station served and time of departure; and
  - f. Last Station served and time of arrival.
  - g. Total mileage (loaded);
  - h. Total mileage (empty);
- 3.4 Your rolling stock diagrams should be provided in Microsoft Excel format.
- 3.5 Information relating to the December 2018 timetable is not a requirement in your Responses to questions R3.1, R3.2, R3.3, R3.5 or R3.6. However, if you propose your own timetable changes for December 2018, these should be included in your Responses to these questions.

---

## 4. Management of Crowding

- 4.1 You are required to demonstrate that the level of Passenger Carrying Capacity included within your Final Tender will be sufficient to ensure that, based on your Forecast Level of Demand, the Authority's requirements for crowding will be met with confidence.
- 4.2 Under normal day-to-day operating conditions, Train Plans should be designed to meet the following requirements of the Authority in relation to crowding:
- a) Outside of Peak Periods, passengers should expect to be able to board any scheduled train service and to get a seat.
  - b) During Peak Periods, passengers should expect to be able to board any scheduled train service and not to have to stand for more than 20 minutes.
  - c) The Passenger Carrying Capacity of each train should be sufficient to carry the number of passengers expected to be on board the train throughout the duration of its scheduled journey.
- (collectively "the Authority Crowding Requirements")
- 4.3 For the purpose of paragraph 4.2 above, Peak Periods should be assumed to apply to passenger journeys from Stations at which the corresponding Rail Service is scheduled to depart between 07:00 and 09:30 and between 16:30 and 19:00 on Mondays-Fridays (except Public Holidays).
- 4.4 The Authority encourages you to seek to increase demand during Off-Peak periods. The Authority is, however, concerned that you are realistic in assessing your ability to increase Off-Peak demand, and mindful that if you are projecting a significant overall increase in demand but have an unrealistic view of the spread of demand, it could lead to significant overcrowding during Peak Periods. This could lead to an increase in the required Train Fleet and a corresponding increase in costs to the Authority.
- 4.5 The Authority seeks assurance that your proposals will provide sufficient capacity to accommodate demand throughout the ODP Grant Agreement Term and that you have a strategy to mitigate crowding particularly on routes with significant commuter flows. As supporting evidence, you are required to complete the [redacted].
- 4.6 The [redacted] deliberately deals in terms of average loadings across Peak Periods, however, the Authority is conscious that individual train loadings may be significantly higher on the very busiest train services. While you do not have to model individual train loadings, you are expected to provide details of how this variation has been accounted for in your proposals, as part of your Response to Question R3.9.
- 4.7 In your Response to Question R3.11, you should also include mitigation of potential crowding that may arise due to variability in demand, including seasonal fluctuations outside of Peak Periods.

- 4.8 The following definitions apply to the corresponding terms used within this section.
- a) **Crowded Period:** The periods defined in column C of the [redacted].
  - b) **Crowded Service:** The Passenger Services listed as C1.1 to C2.15 in column B of the [redacted].
  - c) **Rolling Stock Specification:** The specification of key characteristics of a specific train type as set out in the Rolling Stock Information Sheet (Volume 6), including the number of seats and the area of available standing space specified in square metres.
  - d) **Seating Capacity:** The number of seats fitted to a train as defined in the Rolling Stock Specification for that specific train type.
  - e) **Standing Capacity:** The maximum number of standing passengers that can be accommodated on a train at the average density as defined in the Rolling Stock Specification for that specific train type.
- R3.9** Provide details of your assumptions for demand growth and the profile of demand between:
- a. Peak Periods and Off-Peak for each Service Code;
  - b. Crowded Periods and non-Crowded Periods for each Crowded Service, and any changes you forecast to these assumptions during the ODP Grant Agreement Term. If you are forecasting a change in the profile of demand from historic averages involving the relativity of peak to off-peak demand, you should provide details of the change, any underpinning assumptions and, if relevant, any measures you propose to spread demand (e.g. fares changes). The latter should be supported by evidence of how this has been achieved successfully elsewhere. In addition, you should provide details of how you have accounted for the requirement to provide capacity that meets the variation of demand within Peak Periods.
- R3.10** Describe your methodologies, including details of any models that you have used to determine the values of A, B and C (as shown in the [redacted]) and in planning to achieve the Authority Crowding Requirements. In your Response, you should demonstrate how your methodologies are suitable to meet the requirement of populating the template in accordance with Question R3.12, making reference to your Responses to Questions R3.9 and R3.11 as appropriate
- R3.11** Describe how you will ensure your Train Plan will meet the Authority Crowding Requirements. Your Response should include:
- a. An explanation of how you have taken account of the variability of individual train loadings, including seasonal effects;
  - b. An explanation of instances where the number of passengers exceeds Passenger Carrying Capacity, why this is the case and how you might mitigate against this in life;

- c. Identification of where, and to what extent, you anticipate crowding occurring at the Start Date and the date by which you plan to meet the Authority Crowding Requirements; and
  - d. A description of the measures you will take to mitigate crowding and meet the requirements of the Authority throughout the ODP Grant Agreement Term, including:
    - i) Proposals to apply demand management measures (i.e. measures to incentivise redistribution of demand);
    - ii) Proposals to increase capacity where appropriate, including more frequent train services and/or higher capacity rolling stock; and
    - iii) As appropriate, references to the development of your Train Plan and deployment of associated rolling stock and how this will be developed during the ODP Grant Agreement Term.
- 4.9 Responses to Question R3.11 should be set out in two parts:
- a) **Part A:** Specifically addressing crowding on WCB Services excluding the CVL Rail Services; and
  - b) **Part B:** Specifically addressing crowding on the CVL Rail Services.

**R3.12** Complete the [redacted] for each Crowded Service, and specify A, B and C for each ODP Year, defined as:

A - The mean total daily projected demand in terms of passenger journeys over the Crowded Period. This is to be calculated as the average weekday load taken over Reporting Periods 7, 8 and 9 during the relevant ODP Year;

B - The mean total number of seats provided daily over the Crowded Period, for the same Reporting Periods as A, as determined by the Train Plan and the Seating Capacity for the corresponding rolling stock; and

C - The mean total standing capacity provided over the Crowded Period, for the same Reporting Periods as A, as determined by the Train Plan and the Standing Capacity for the corresponding rolling stock.

**R3.13** Describe how you will monitor in-life the actual loading on a representative sample of the train services included within your Train Plan such that the loading on each individual train service within the Train Plan is recorded at least once in every Reporting Period of the ODP Grant Agreement Term. You should describe how you will ensure that the necessary loading data will be captured and the move to real-time loading information to improve the train services including the timescale within which this will be achieved.

---

## 5. Special Events

- 5.1 Special Events occur from time to time that attract large crowds or require public access restrictions that can place additional demands on the railway. Rail services can play a significant contribution to the transportation needs of such

special events and the Authority seeks to ensure that the ODP will be well prepared and able to respond effectively.

- 5.2 The Authority requires that:
- a) The ODP ensures that it is adequately prepared for Special Events by making advance plans for the operation of its Stations and train services;
  - b) The ODP co-ordinates and co-operates with other relevant authorities (including Network Rail, other rail and public transport operators, emergency services, local authorities and highway authorities) in the planning and management of Special Events; and
  - c) The ODP uses all reasonable endeavours to make sufficient resources available, including additional rolling stock as appropriate, to accommodate the level of demand during Special Events.
- 5.3 For the purposes of preparing your Response to Question R3.14 and in determining resource requirements for your proposals in response to the ITSFT you should assume throughout the ODP Grant Agreement Term the following annual frequencies for each category of Special Event (as defined in paragraph 4.11 of Section 4 of Schedule 1.2 of the ODP Grant Agreement):
- a) Class A: 18 events
  - b) Class B: 24 events
  - c) Class C: 36 events
  - d) Class D: 1 event
  - e) Class E: 2 events

**R3.14** Describe your approach to planning for and managing the provision of train services during Special Events and meeting the Authority's Requirements as set out in paragraph 5.2 of this Volume 3 and paragraphs 4.3 to 4.14 of Schedule 1.2 of the ODP Grant Agreement. Your Response should include:

- a. Strategies to ensure effective co-ordination and co-operation with other relevant authorities in the planning and management of Special Events;
- b. How you will plan and manage the deployment of resources, including additional rolling stock, train crew and other operational staff to accommodate and manage demand arising from Special Events;
- c. Measures you will take to minimise congestion and inconvenience to passengers, including use of communications technologies; and
- d. Measures you will take to protect the safety of passengers, staff and, where relevant, the wider public.

## 6. Appendix 3.A - Priority Service Improvements

6.1 Timetable proposals that deliver improvements that meet the requirements of the Authority's priorities for service improvements as described below will attract a bonus in the score awarded through the Timetable Quality Evaluation Mechanism. For the avoidance of doubt:

1. Journey time requirements should be determined against the May 2017 public timetable;
2. Timetable proposals will also need to meet the requirements of the applicable Train Service Requirement;
3. It is possible for a single train service to qualify for more than one bonus if it satisfies all of the required criteria.

|  |   |
|--|---|
| <b>1. Cardiff – Liverpool</b>                            |   |
| <b>Minimum service requirements</b>                      |   |
| <b>Frequency</b>   | One train every two hours for departures from Liverpool Lime Street and Cardiff Central between 07:00 and 19:00 Mondays-Saturdays   |
| <b>Stations served</b>                                   | Cardiff Central, Newport, Cwmbran, Abergavenny, Hereford, Shrewsbury, Wrexham General, Chester, Liverpool Lime Street   |
| <b>Journey time</b>                                      | Cardiff Central – Liverpool Lime Street in no more than 3 hours 50 min  |
| <b>Bonus</b>   | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year   |
| <b>2. North Wales coast - Liverpool via Halton Curve</b> |   |
| <b>Minimum service requirements</b>                      |   |
| <b>Frequency</b>   | One train every hour (or every two hours for partial bonus) for departures from Liverpool Lime Street and Llandudno Junction between 07:00 and 19:00 Mondays-Saturdays  |
| <b>Stations served</b>                                   | Llandudno Junction, Colwyn Bay, Rhyl, Flint, Shotton, Chester, Runcorn, Liverpool South Parkway, Liverpool Lime Street  |
| <b>Journey time</b>                                      | Llandudno Junction – Liverpool Lime Street in no more than 1 hours 45 min   |
| <b>Bonus</b>   | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year (full bonus); [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year (partial bonus) |
| <b>3. Wrexham - Liverpool via Halton Curve</b>           |   |
| <b>Minimum service requirements</b>                      |   |
| <b>Frequency</b>   | One train every hour (or every two hours for partial bonus) for departures from Liverpool Lime Street and Wrexham General between 07:00 and 19:00 Mondays-Saturdays   |
| <b>Stations served</b>                                   | Wrexham General, Chester, Runcorn, Liverpool South Parkway, Liverpool Lime Street   |
| <b>Journey time</b>                                      | Wrexham General – Liverpool Lime Street in no more than 1 hour 10 min   |

|  |   |
|--|---|
| <b>Bonus</b>                             | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year (full bonus); [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years (partial bonus)  |
| <b>4. North Wales Coast – Chester</b>    |   |
| <b>Minimum service requirements</b>      |   |
| <b>Frequency</b>                         | Three trains every hour for departures from Llandudno Junction to/from Chester between 07:00 and 19:00 Mondays-Saturdays  |
| <b>Stations served</b>                   | Llandudno Junction, Colwyn Bay, Rhyl, Prestatyn, Flint, Chester   |
| <b>Journey time</b>                      | Llandudno Junction – Chester in no more than 58 mins  |
| <b>Bonus</b>                             | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years  |
| <b>5. Borderlands: Wrexham – Bidston</b> |   |
| <b>Minimum service requirements</b>      |   |
| <b>Frequency</b>                         | Two trains per hour for departures from Wrexham Central and Bidston between 07:00 and 19:00 Mondays-Saturdays   |
| <b>Stations served</b>                   | Full bonus: Wrexham Central, Wrexham General, Gwerysllt, Cefn-y-Bdd, Caergwrle, Hope, Penyffordd, Buckley, Hawarden, Shotton, Hawarden Bridge (peak only*) Neston, Heswall, Upton, Bidston.<br>Partial bonus: As for full bonus, but with allowance for maximum of eight skipped stops per hour between the two services in a standard pattern ensuring 2 tph provided at Wrexham General, Shotton, Neston and Bidston.<br>(*departures between 07:00 and 09:00 and between 16:00 and 18:00 on weekdays only) |
| <b>Journey time</b>                      | Wrexham Central – Bidston in no more than 1 hour 06 min   |
| <b>Bonus</b>                             | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years (full bonus); [redacted] (partial bonus).  |
| <b>6. Aberystwyth – Shrewsbury</b>       |   |
| <b>Minimum service requirements</b>      |   |
| <b>Frequency</b>                         | One train per hour for departures from Aberystwyth and Shrewsbury, Mondays to Saturdays. First Aberystwyth service to depart no later than 0559 and last service to depart no earlier than 1901. First Shrewsbury service to depart no later than 0659 and last service to depart no earlier than 2130.   |
| <b>Stations served</b>                   | Shrewsbury, Welshpool, Newtown, Caersws, Macynlleth, Borth, Bow Street, Aberystwyth   |
| <b>Journey time</b>                      | Aberystwyth – Shrewsbury in no more than 1 hour 57 min  |
| <b>Bonus</b>                             | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years  |
| <b>7. Heart of Wales</b>                 |   |
| <b>Minimum service requirements</b>      |   |
| <b>Frequency</b>                         | Five services per day between Shrewsbury and Swansea, Mondays-Saturdays   |
| <b>Stations served</b>                   | Shrewsbury, Church Stretton, Craven Arms, Broome, Hopton Heath, Bucknell, Knighton, Knucklas, Llangynllo, Llanbister Road, Dolau, Pen-y-bont, Llandrindod, Builth   |



|   |   |
|---|---|
|   | <p>Road, Cilmeri, Garth, Llangammarch, Llanwrtyd, Sugar Loaf, Cyngordy, Llandoverly, Llanwrda, Llangadog, Llandeilo, Ffairfach, Llandybie, Ammanford, Pantyffynnon, Pontarddulais, Llangennech, Bynea, Llanelli, Swansea</p> <p>On Mondays-Fridays: all five southbound services to depart Shrewsbury between 0530 and 1900 and all five northbound services to arrive Shrewsbury between 0900 and 2300.</p> <p>Maximum interval between services no greater than 3 hours 30 min.</p> <p>On Saturdays: all five southbound services to depart Shrewsbury between 0500 and 1900 and all five northbound services to arrive Shrewsbury between 0800 and 2300.</p> <p>Maximum interval between services no greater than 4 hours.</p> |
| <b>Journey time</b>   | Shrewsbury to Swansea in no more than 4 hours 03 min (with one journey of 4 hour 25min permitted); Swansea to Shrewsbury in no more than 3 hours 56 min   |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years  |
| <b>8. Cardiff – Gloucester</b>                                |   |
| <b>Minimum service requirements</b>                           |   |
| <b>Frequency</b>  | One train per hour for departures from Cardiff Central and Gloucester, Mondays-Saturdays. First service to depart Cardiff Central no later than 0630 and last service to depart no earlier than 2300. First service to depart Gloucester no later than 0559 and last service to depart no earlier than 2300.  |
| <b>Stations served</b>  | Cardiff Central, Newport, Severn Tunnel Junction, Caldicot, Chepstow, Lydney, Gloucester  |
| <b>Journey time</b>   | Cardiff Central – Gloucester in no more than 1 hour 20 min  |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years  |
| <b>9. Cardiff - Bridgend via Barry/Vale of Glamorgan Line</b> |   |
| <b>Minimum service requirements</b>                           |   |
| <b>Frequency</b>  | Two trains per hour for departures from Cardiff Central and from Bridgend between 0700 and 1900 Mondays-Saturdays   |
| <b>Stations served</b>  | Cardiff Central, Barry, Rhoose Cardiff International Airport, Llantwit Major, Bridgend  |
| <b>Journey time</b>   | Cardiff Central – Bridgend in no more than 59 min   |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years  |
| <b>10. Cardiff - Bridgend via South Wales Main Line</b>       |   |
| <b>Minimum service requirements</b>                           |   |
| <b>Frequency</b>  | Four trains per hour (in combination with other Train Operator services) for departures from Bridgend and from Cardiff Central between 07:00 and 19:00 Mondays-Saturdays  |
| <b>Stations served</b>  | Cardiff Central and Bridgend  |
| <b>Journey time</b>   | Cardiff Central – Bridgend in no more than 28 min   |

|   |  |
|---|--|
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years |
| <b>11. Shrewsbury-Wrexham-Chester</b>   |  |
| <b>Minimum service requirements</b>   |  |
| <b>Frequency</b>  | Two trains per hour for departures from Shrewsbury and from Chester between 07:00 and 19:00 Mondays-Saturdays      |
| <b>Stations served</b>  | Shrewsbury, Wrexham General, Chester   |
| <b>Journey time</b>   | Shrewsbury - Chester in no more than 58 min  |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years |
| <b>12. Improved services on Sundays</b>   |  |
| <b>Minimum service requirements</b>   |  |
| An increase of 10% or greater to the sum of scheduled train-miles on Sundays for the train services operating under the following Service Codes in aggregate. |  |
| AW2610  | Chester-Shrewsbury-Birmingham  |
| AW2670  | Shrewsbury - Crewe   |
| AW3340  | Aberystwyth - Shrewsbury   |
| AW3350  | Machynlleth - Pwllheli   |
| AW3380  | Llandudno - Blaenau Ffestiniog   |
| AW3400  | Crewe - Holyhead/Llandudno   |
| AW3420/8  | Wrexham – Bidston  |
| AW3450  | Manchester - Chester   |
| AW4290  | Cardiff - Cheltenham   |
| AW4300  | Cardiff Queen Street - Cardiff Bay (for train services operating prior to 2023)                                    |
| AW4310  | Cardiff – Maesteg  |
| AW4320  | Swansea - Milford Haven/Pembroke Dock/Fishguard  |
| AW4340  | Cardiff - Manchester   |
| AW4350  | Swansea - Shrewsbury   |
| AW4380  | Cardiff - Swansea  |
| AW4390  | Cardiff - Rhose – Bridgend   |
| AW4400  | Cardiff - Radyr (for train services operating prior to 2023)   |
| AW4410  | Cardiff - Aberdare (for train services operating prior to 2023)  |
| AW4420  | Barry Island – Cardiff   |
| AW4430  | Penarth – Cardiff  |
| AW4440  | Cardiff - Ebbw Vale Town   |

|   |  |
|---|--|
| AW4450  | Cardiff - Coryton (for train services operating prior to 2023)   |
| AW4460  | Cardiff - Merthyr Tydfil (for train services operating prior to 2023)  |
| AW4470  | Cardiff - Treherbert (for train services operating prior to 2023)  |
| AW4480  | Cardiff - Rhymney (for train services operating prior to 2023)   |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years |
| <b>13. Faster journeys: Cardiff Central – Chester</b>   |  |
| <b>Minimum service requirements</b>   |  |
| 8 trains per day (Monday to Fridays) and 6 trains per day (Saturdays) in each direction to achieve journey time between Cardiff Central and Chester in no more than 2 hours 45 minutes. |  |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Years |
| <b>14. Faster journeys: Cardiff Central – Crewe</b>   |  |
| <b>Minimum service requirements</b>   |  |
| 12 trains per day (Monday to Saturdays) in each direction to achieve journey time between Cardiff Central and Crewe in no more than 2 hours 30 minutes.                                 |  |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year  |
| <b>15. Faster journeys: Bangor – Chester</b>  |  |
| <b>Minimum service requirements</b>   |  |
| 12 trains per day (Monday to Saturdays) in each direction to achieve journey time between Bangor and Chester in no more than 1 hours 05 minutes.  |  |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year  |
| <b>16. Faster journeys: Llandudno Junction – Manchester</b>   |  |
| <b>Minimum service requirements</b>   |  |
| 10 trains per day (Monday to Saturdays) in each direction to achieve journey time between Llandudno Junction and Manchester in no more than 1 hours 50 minutes.                         |  |
| <b>Bonus</b>  | [redacted] per Timetable Planning Year of operation or pro rata for operation for partial Timetable Planning Year  |

## 7. Appendix 3.B - DfT Planning Guidance

### Cross-border services – DfT conditions

- 7.1 The DfT has confirmed that it will not support train service proposals on any routes that are cross-border (England-Wales) or wholly within England other than those listed in the table below and subject to the conditions as indicated.

| Routes between: |  | Conditions specified by DfT   |
|-----------------|--|---|
| Newport         | Bristol Temple Meads                   | No paths for the Authority's services until all outstanding upgrade work completed in Bristol area including Bristol East Jn. This is currently projected as mid to late CP6 and so may not be completed until 2024. DfT advises that for the purposes of the procurement of the ODP no cross-border paths to Bristol may be proposed.  |
| Newport         | Cheltenham Spa                         | Up to 1tph, with up to 2 tph permissible between Newport and Gloucester   |
| Newport         | Shrewsbury                             | Up to 3tph  |
| Shrewsbury      | Birmingham Intl                        | Up to 1tph– all train services (including on Sundays) to call at Smethwick Galton Bridge  |
| Shrewsbury      | Crewe                                  | Up to 2tph*   |
| Crewe           | Manchester                             | Up to 1tph*   |
| Shrewsbury      | Chester                                | No restrictions required by DfT   |
| Chester         | Crewe                                  | Up to 2tph*   |
| Chester         | Manchester via Warrington Bank Quay    | Up to 1tph (plus one extra peak working) from Chester via Warrington Bank Quay to Manchester Piccadilly or Manchester Airport (via Manchester Piccadilly) or Wilmslow (via Manchester Piccadilly and Styal). From December 2021, Train services and stock will need to be able to achieve a maximum of one minute dwell time at Manchester Oxford Road and at Manchester Piccadilly if so routed. |
| Chester         | Liverpool Lime Street via Halton Curve | Up to 1tph  |
| Wrexham         | Bidston (For Liverpool)                | Up to 2tph  |

\* Bidders are encouraged to minimise dwell times at Crewe to assist with station platforming in the long term

## Guidance on planning assumptions for other Train Operators' cross-border services

- 7.2 The DfT has provided the following guidance to Bidders for train services planning assumptions with regards to the services of other Train Operators:
1. Wales & Borders is one of four passenger Train Operating Company franchises that currently operate over the Wales-England border. The other three are Great Western, Cross Country and InterCity West Coast.
  2. The following guidance outlines the level of service that should be assumed by Bidders with regards to these other cross-border train services, plus cross-border freight services. This is essentially the current service plus any existing contractually-committed changes.
  3. We cannot confirm what cross-border train services 'DfT-franchised' TOCs will be operating in future years, because this will depend on the specification and outcome of franchise competitions that have not yet been run.
  4. Therefore, this guidance should not be taken as an open-ended commitment to maintain any particular level of service - nor, conversely, commit that there might not be proposals to run additional cross-border trains through these franchises. In either case the Department would of course fully consult on proposals for future franchises that affect Wales.
  5. For each Train Operator shown below, it should be assumed that the service level given is needed from the ODP Start (October 2018), unless otherwise stated.

### Great Western

- 7.3 The current (May 2017) level of train services should be assumed for cross-border services. However, note that the following service pattern is expected to be introduced from December 2018:
1. London Paddington – Cardiff Central on Saturdays and Sundays will be a half-hourly service throughout the day, generally increased from hourly today, as follows:
    - a. Saturdays
      - i. Between 0730 and 2000 services shall depart London Paddington at half hourly intervals calling at Cardiff Central.
      - ii. Between 0500 and 1830 services shall depart Cardiff Central at half-hourly intervals calling at London Paddington.
    - b. Sundays
      - i. Between 0915 and 1900 services shall depart London Paddington at half hourly intervals calling at room Cardiff Central.
      - ii. Between 1000 and 1800 services shall depart Cardiff Central at half-hourly intervals calling at London Paddington.

2. The following should also be noted:
  - a. The Great Western Direct Award will be running two trains per hour from London Paddington via Bristol Parkway to Bristol Temple Meads from December 2018. These trains can be assumed to use up all the extra capacity that will have been created by the engineering work on Filton Bank to four-track that section.
  - b. All of these improvements, including intermediate calling point and journey time requirements, are detailed in "SLC3b Direct Award 2 Great Western Dec18" which also includes some other cross-border improvements for all days of the week. This document has been supplied for reference as an appendix to the document 'Briefing note to bidders on Timetable Quality Evaluation Mechanism 2017.pdf' (see '25 – WCB Dialogue documentation' in the ITPD ODP portal).

### Cross Country

- 7.4 The current (May 2017) level of cross-border services should be assumed. Note that train services between Bristol and Cardiff may be retained, revised or removed as part of a new Direct Award prior to or by December 2018. However, DfT advise that at this stage they should be assumed as running based on the May 2017 timetable.

### InterCity West Coast

- 7.5 The current (May 2017) level of cross-border services should be assumed.

### Northern and Transpennine Express

- 7.6 An additional hourly Northern service between Leeds and Chester via Manchester and Warrington Bank Quay, with arrival times at Chester of xx:02 (weekdays and Saturdays) and xx:56 (Sundays), and, departure times from Chester of xx:24 (weekdays and Saturdays) and xx:25 (Sundays).

The following timings should be assumed for the additional hourly Northern service between Leeds and Chester from May 2018:

- a. **Westbound**
  - i. SX and SAT:
    - Manchester Victoria, arr xx:05; dep xx:06
    - Chester, arr xx:02
  - ii. SuO:
    - Manchester Victoria, arr xx:01; dep xx:03
    - Chester, arr xx:56
- b. **Eastbound**
  - i. SX and SAT:
    - Chester, dep xx:24
    - Manchester Victoria, arr xx:18, dep xx:20
  - ii. SuO:

- Chester, dep xx:25
- Manchester Victoria, arr xx:16, dep xx:21

7.7 Station calls will include Newton-le-Willows, Earlestown and Warrington Bank Quay. For TransPennine Express, the current (May 2017) level of service should be assumed, but you should note that a complete re-cast of the timetable is proposed for May 2018 and further information will be provided if it becomes available.

## West Midlands

7.8 On commencement of the new West Midlands franchise, its geographic scope will be unchanged, but, some changes to services relevant to Wales and Borders will be introduced, as follows:

1. From December 2018, a new hourly semi-fast service will be introduced between Birmingham New Street and Shrewsbury, with an assumed calling pattern of Smethwick Galton Bridge, Wolverhampton, Codsall, Shifnal, Telford Central and Wellington. The new service should be assumed to operate, as follows:
  - a. Mondays to Fridays, during and between peak periods;
  - b. Saturdays, as Mondays to Fridays and during the evening; and
  - c. Sundays, service to be introduced from May 2021, from 1000 to 2159 hours.
2. The two-hourly stopping service between Wolverhampton and Shrewsbury on Sundays, which is currently operated by Wales and Borders, should be assumed to be replaced by a service operated by West Midlands from December 2018. The replacement West Midlands service should be assumed to run hourly between Birmingham New Street and Shrewsbury, with calls at Smethwick Galton Bridge and Sandwell & Dudley and at all stations between Shrewsbury and Wolverhampton, subject to pathing considerations, which may result in a two-hourly frequency at some smaller stations (expected to be Oakengates and one other station). The TSRs for Wales and Borders reflect the introduction of this West Midlands service.
3. The remaining calls made by Wales and Borders services on Sundays at the smaller stations (Bilbrook, Codsall, Albrighton, Cosford, Shifnal and Oakengates) between Wolverhampton and Shrewsbury should be assumed to transfer to West Midlands services from May 2021. The TSRs for Wales and Borders reflect the transfer.

7.9 Wales and Borders currently provides a limited number of services between Birmingham New Street, Stafford and Crewe. Of these, the 2255 from Birmingham New Street on weekdays and the 2048 from Crewe on Sundays will be duplicated by West Midlands services. At other times / days when Wales and Borders currently provides the first service from Crewe and Stafford to Birmingham, or the last service from Birmingham to Stafford, a requirement to provide such services has been incorporated in the Wales and Borders TSR.

## Freight

7.10 The current (May 2017) level of cross-border services should be assumed.

## Bidder assumptions for timetable changes required in December 2018

7.11 Assumptions for bidders concerning timetable changes required in December 2018 are provided in the document 'Timetable Planning – Assumptions for Bidders' issued on 8<sup>th</sup> November 2017.

7.12 For planning purposes, Bidders should assume the following proposed public timetable operating times and service patterns:

- a) Chester to Liverpool Lime Street: First Train departs 05.17 then hourly at xx.17 until 22.17 arriving Liverpool Lime St 23.06.
- b) Liverpool Lime Street to Chester: First Train departs 06.16 then hourly at xx.16 until 23.16 arriving Chester 00.07.



## 8. Appendix 3.C - Rolling Stock

8.1 Rolling stock should meet or exceed the minimum requirements of the Service Type (as set out in the Rolling Stock Information Sheet to be provided in response to Question R6.2 of Volume 6) applicable to the Service Code on which it is deployed as shown in the table below. <sup>Note 2</sup>

| Service Code (MOIRA) | Service Code description                        | Rolling Stock Minimum Requirements: equivalent Service Type |
|----------------------|---|---|
| AW4310               | Cardiff – Maesteg                               | Suburban  |
| AW4320               | Swansea - Milford Haven/Pembroke Dock/Fishguard | Sprinter/Rural  |
| AW4350               | Swansea - Shrewsbury                            | Sprinter/Rural  |
| AW4380               | Cardiff - Swansea                               | Sprinter/Rural  |
| AW4290               | Cardiff - Cheltenham                            | Suburban  |
| AW4440               | Cardiff - Ebbw Vale Town                        | Suburban  |
| AW2610               | Chester-Shrewsbury-Birmingham                   | Sprinter/Rural  |
| AW3340               | Aberystwyth-Shrewsbury                          | Sprinter/Rural  |
| AW3350               | Machynlleth-Pwllheli                            | Sprinter/Rural  |
| AW4300               | Cardiff Queen Street - Cardiff Bay              | CVL   |
| AW4390               | Cardiff - Rhoose - Bridgend                     | Suburban  |
| AW4400               | Cardiff – Radyr                                 | CVL   |
| AW4410               | Cardiff – Aberdare                              | CVL   |
| AW4420               | Barry Island – Cardiff                          | CVL   |
| AW4430               | Penarth – Cardiff                               | CVL   |
| AW4450               | Cardiff – Coryton                               | CVL   |
| AW4460               | Cardiff - Merthyr Tydfil                        | CVL   |

| Service Code (MOIRA) | Service Code description        | Rolling Stock Minimum Requirements: equivalent Service Type |
|----------------------|---------------------------------|---|
| AW4470               | Cardiff - Treherbert            | CVL   |
| AW4480               | Cardiff – Rhymney               | CVL   |
| AW2670               | Shrewsbury - Crewe              | Sprinter/Rural  |
| AW4340               | Cardiff - Manchester            | Long Distance/Express <sup>Note 3</sup>                     |
| AW3380               | Llandudno - Blaenau Ffestiniog  | Sprinter/Rural  |
| AW3420/8             | Wrexham – Bidston               | Suburban  |
| AW3400               | Crewe - Holyhead/Llandudno      | Long Distance/Express <sup>Note 3</sup>                     |
| AW3450               | Manchester - Chester            | Sprinter/Rural  |
| TBC                  | Chester – Liverpool Lime Street | Suburban  |

**Notes:**

1. For the avoidance of doubt, rolling stock of another Service Type may be deployed provided that it meets the minimum requirements of the Service Type corresponding to the Service Code as set out in the table of this Appendix 3.C of Volume 3.
2. Non-compliance will only be allowed on an exceptional basis and where supported by a justifiable rationale demonstrating that the loss of amenity to passengers would be minimised and there would be a material benefit (e.g. operational efficiency by use of a first or last train for stock positioning).
3. Applies to through services between Manchester Piccadilly and Cardiff Central and between North Wales and Cardiff Central as specified in TSR 1 and TSR 2 under 'Through Services'. Minimum requirements of the Sprinter/Rural Rolling Stock Service Group applies to other train services operated within Service Codes AW4340 and AW3400.

---

## 9. Appendix 3.D - Train Service Requirements (TSRI)

9.1 Refer to the following files (provided separately):

- a) [redacted]
  - b) [redacted]
  - c) [redacted]
-

---

## **10. Appendix 3.E - Train Service Requirements (TSR2)**

10.1 Refer to the following files (provided separately):

- a) [redacted]
- b) [redacted]
- c) [redacted]

---

## **11. Appendix 3.F - Third party-funded infrastructure enhancement schemes**

- 11.1 The infrastructure enhancement schemes detailed in the table below are at various stages of development. Where these are expected to be implemented during the ODP Grant Agreement Term, the dates by which you should assume these will be operational are set out accordingly.
- 11.2 Bidders should assume that the Halton Curve scheme will be complete and services scheduled to use this line from December 2018 will be able to do so.

| Scheme Name   | Scheme Details   | Funder   | Indicative Budget | Programme   |
|---|--|--|-------------------|---|
| North Wales Frequency Enhancement (formerly North South Wales Journey Time Reduction) | Two packages: <ol style="list-style-type: none"> <li>1. Re-doubling Rosset to Saltney incl. 4 level crossing upgrades to full barrier and obstacle detection.</li> <li>2. Line speed improvements between Shrewsbury and Wrexham.</li> </ol>   | Welsh Government                                 | [redacted]        | Both packages being commissioned in March and April 2017 with end of GRIP6 forecast as mid-May 2017.<br><b>Bidders should assume scheme is operational by the Start Date</b>  |
| Maesteg Frequency Enhancements  | Output is to deliver half-hourly services to Maesteg, however initial scope for passing loop north of Tondy and the considerable civil engineering works required in the Tondy area means that the original planned scheme is unaffordable. Welsh Government is reviewing options.   | Welsh Government                                 | TBC               | Pre-GRIP 3 studies currently under consideration, but no firm dates available. No enhancements in CP5.<br><b>Bidders should not assume that this scheme will be operational during the ODP Grant Agreement Term.</b>  |
| Ebbw Vale Frequency Enhancements  | Re-doubling Cross Keys to Aberbeeg (10km) with extended and additional platforms at Llanhilleth and Newbridge. Enhanced signalling for future capacity. Much of the trackwork has been installed but certain elements of the scheme are yet to achieve GRIP3. Due to growing costs associated with Cess walkways and bridge replacements at Crumlin and Newbridge, Welsh Government and Network Rail have jointly agreed a “pause and review”. Likely minimum scope will be a passing loop at Llanhilleth to achieve 2tph to Ebbw Vale. Further scope to gain full advantage of installed trackwork may include a turnback at Aberbeeg and possible extension to Abertillery to allow 3tph to Llanhilleth (of which 2tph serve Ebbw Vale). | Welsh Government with possible ERDF contribution | TBC               | GRIP6 is ongoing for track works, but now on hold. GRIP3 for the rest of the project expected in autumn 2017.<br>A pause and review outcome expected in Autumn 2017 leading to revised scheme.<br><b>Bidders should assume that a revised scheme will be operational to enable a timetabled service at a frequency of 2 tph service to be introduced from May 2021.</b> |

| Scheme Name                             | Scheme Details  | Funder                                    | Indicative Budget | Programme   |
|---|---|---|-------------------|---|
| Tir Phil                                | Provision of additional platform and passing loop to enable half-hourly services to Rhymney. Whilst loop is in use there have been major delays to completion of the platform and DDA compliant access ramp due to existing Welsh Water services.   | Welsh Government                          | [redacted]        | Completion of all works is anticipated in April 2017 subject to further agreements with Welsh Water.<br><b>Bidders should assume scheme is operational by the Start Date.</b>   |
| Cambrian Level Crossings Risk Reduction | Highways scheme including new road-over-rail bridge to enable closure of 8 level crossings in the Talerddig area, Powys. This scheme is an enabler for potential future line speed improvements.  | Welsh Government and Network Rail         | [redacted]        | Highway works being delivered via Powys CC – Dawnus on site in Spring 2017 with circa 12 month programme. NR to recover crossing assets after highway works.<br><b>Bidders should assume scheme is operational by the Start Date.</b> |
| Bow Street station                      | Construction of a new station to serve the village of Ceredigion and provide a park and ride facility. On 28 <sup>th</sup> July 2017 the DfT confirmed that a grant of £3.95 million towards a total project cost of £6.76 million had been awarded under its new stations fund. The remaining costs are to be met by the Welsh Government. | Welsh Government and DfT New Station Fund | [redacted]        | <b>Bidders should assume that the station is operational by March 2020.</b>   |